appendix A

Notice of Preparation (NOP) and Responses

WATER FORUM

5770 Freeport Boulevard
Suite 200
Sacramento, CA 95822

Phone: (916) 433-6276
FAX: (916) 433-6295

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE SACRAMENTO AREA WATER PLAN

August 8, 1995

In accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 *et seq.*, and the State CEQA Guidelines, California Code of Regulations, Title 14, §15000 *et seq.*, the City of Sacramento and County of Sacramento, through the City-County Office of Metropolitan Water Planning (CCOMWP), will be preparing an Environmental Impact Report (EIR) for the proposed adoption and implementation of the Sacramento Area Water Plan (i.e., the proposed project).

The CCOMWP needs to know the views of public agencies and the general public as to the scope and content of the environmental information that should be addressed in the EIR in connection with the proposed project. If you are a Responsible Agency or a Trustee Agency with jurisdiction by law over natural resources held in the public trust, the CCOMWP needs to know what environmental information germane to your statutory responsibilities should be included in the EIR.

A description of the proposed Sacramento Area Water Plan (Water Plan), the location of the area covered by the plan, and a listing of probable environmental effects of the adoption and implementation of the plan are contained in the attached material.

The CCOMWP has determined that an EIR is clearly required; therefore, an Initial Study has not been prepared. The EIR will address the full range of potential environmental effects of the proposed project and feasible alternatives to the proposed project. Potentially significant effects will be addressed in detail. Effects found not to be significant will be briefly explained in accordance with §15128 of the State CEQA Guidelines.

Due to time limits mandated by State law, your response must be provided within 30 days. If you wish to comment on the contents of the upcoming EIR, please send your comments (including the name of a contact person in your agency) to:

Sacramento City-County Office of Metropolitan Water Planning
ATTN: Ms. Carol Branan
5770 Freeport Boulevard, Suite 200
Sacramento, CA 95822

NOTICE OF PREPARATION
TABLE OF CONTENTS

PROJECT DESCRIPTION AND PROBABLE ENVIRONMENTAL EFFECTS TO BE ADDRESSED IN THE ENVIRONMENTAL IMPACT REPORT FOR THE SACRAMENTO AREA WATER PLAN

This Notice of Preparation (NOP) is intended to provide sufficient information to Responsible and Trustee Agencies, other affected agencies, interested parties, and the public to enable them to make a meaningful response regarding the scope of issues which should be addressed in the Draft EIR, consistent with State CEQA Guidelines §15082(a)(1). It contains background information about the process leading up to the proposed project, a project description and location description, and the identification of probable environmental effects of the project.

1.0 SACRAMENTO AREA WATER PLAN BACKGROUND

1.1 SACRAMENTO AREA WATER FORUM

The Sacramento Area Water Forum (Water Forum), a diverse group of water agencies, business groups, environmentalists, citizen groups, and local governments, has been working together since the fall of 1993 evaluating future water resource needs and supplies of the Sacramento metropolitan area. This evaluation concluded with the finding that, despite the region's location at the confluence of the Sacramento and American Rivers, the region has water supply and lower American River issues that need to be resolved now. The Water Forum is now in the early stages of formulating a plan for the effective management of the region's water resources. The CCOMWP, by agreement, is acting as staff to the Water Forum.

Background of Water Resources Planning in the Region

For the last 20 years, the City of Sacramento, County of Sacramento, and water districts and purveyors in the County have engaged in discussions to plan, allocate, and manage the region's surface and groundwater for municipal, industrial, and agricultural purposes. Several extensive studies of water resources management in Sacramento County have been conducted during that time.

During the same period conflicts arose related to the need to balance consumptive water uses with protection of instream flows of the American River, particularly for fisheries. This conflict was epitomized by the lawsuit, *Environmental Defense Fund, Inc. et al. v. East Bay Municipal Utility District (EBMUD)*, a case which required 18 years to resolve from 1972 to 1990. EBMUD entered into a 1970 contract with the U.S. Bureau of Reclamation for the delivery of 150,000 acre-feet of American River water diverted from the Folsom South Canal. Environmental groups filed the complaint, and Sacramento County later joined in the lawsuit, based on the argument that the contracted diversion would not adequately protect the fishery and recreation

values of the lower American River. The ultimate judgement in the case constituted an attempt to achieve a consumption/resource protection balance by establishing instream flow requirements for the lower American River, called "Hodge Flows" after the presiding judge, which must be met as a condition of EBMUD's diversion of the contracted water. Although the decision is specifically linked to EBMUD and the river, the protection of instream values of the lower American River has become a paramount concern for any new diversions.

The history of water management decisions in Sacramento County has proven that the task of formulating a water plan is a technically and politically complex endeavor involving many diverse and competing interests. Consequently, the City and County created the CCOMWP in 1991 to pursue a joint planning effort. Then, in 1993 to break what has been characterized as decision gridlock, business, environmental, public, local government, and water interests formed the Sacramento Area Water Forum to implement a collaborative process leading to a united approach to meeting the diverse water needs of the region.

Mission of the Water Forum

The participants in the Water Forum mutually agreed on the mission of the group. The Sacramento Area Water Forum's goal is to formulate and adopt an area-wide plan that will provide a safe, reliable, and environmentally sound water supply to meet the needs of the Sacramento area community. The mission has been translated into a set of 65 Draft Agreements-in-Principle, dated April 1995, which represent the initial framework for developing solutions. The draft agreements address surface water, groundwater, water demand projections, and demand management/conservation.

Stakeholder Participants, Other Interested Water Agencies, and CEQA Responsible Agencies

The Sacramento Area Water Forum consists of the stakeholders who have been historically discussing and debating water management issues in Sacramento County. Stakeholders represent business, environmental, public, and water interests. The stakeholders will be asked to ultimately approve the Water Plan; therefore, the public agencies among the stakeholders will need to comply with CEQA. The Lead Agencies (City of Sacramento and County of Sacramento through the CCOMWP have responsibility for preparing the EIR; the other public agencies will be Responsible Agencies, as defined in §21069 of CEQA and §§15096 and 15381 of the State CEQA Guidelines. The Responsible Agencies, defined as all agencies other than the Lead Agency that have discretionary approval over the project, comply with CEQA by considering the Lead Agency's EIR in their decision-making process. Also, the Water Forum has consulted with other interested water agencies outside of Sacramento County regarding potential recommendations in the Water Plan which may relate to their

water resources or facilities. To the extent that these other interested water agencies have approval authority related to the Water Plan, they could also potentially be Responsible Agencies.

The Water Forum stakeholders and other interested water agencies are listed below. Public agencies that are or may be Responsible Agencies under CEQA are noted with an asterisk (*).

- **Stakeholders - Business**

  AKT Development
  Associated General Contractors
  Building Industry Association of Superior California
  Labor & Business Alliance
  Sacramento Association of Realtors
  Sacramento Metropolitan Chamber of Commerce
  Sacramento-Sierra Building & Construction Trades Council

- **Stakeholders - Environmental**

  Environmental Council of Sacramento
  Friends of the River
  Save the American River Association, Inc.
  Sierra Club - Mother Lode Chapter - Sacramento Group

- **Stakeholders - Public**

  City of Sacramento (Co-Lead Agency)
  County of Sacramento (Co-Lead Agency)
  League of Women Voters of Sacramento
  Sacramento County Alliance of Neighborhoods
  Sacramento County Taxpayers League
  Sacramento Municipal Utility District *

- **Stakeholders - Water**

  Arcade Water District *
  Arden Cordova Water Service
  Carmichael Water District *
  Citizens Utilities
  Citrus Heights Water District *
  City of Folsom *
  City of Galt *
  Clay Water District *
  Del Paso Manor County Water District *
  Elk Grove Water Works
  Fair Oaks Water District *
  Florin County Water District *
  Fruitridge Vista Water Company

Galt Irrigation District *
Natomas Mutual Water Company
Northridge Water District *
Omochumne-Hartnell Water District *
Orange Vale Water Company
Rancho Murieta County Service District *
Rio Linda Water District *
Sacramento County Farm Bureau
Sacramento Metropolitan Water Authority *
San Juan Water District *
Tokay Park Water Company

- **Other Interested Water Agencies**

State Water Resources Control Board*
California Department of Water Resources *
City of Roseville *
East Bay Municipal Utility District *
El Dorado County *
El Dorado Irrigation District *
Georgetown Divide Public Utility District *
Placer County *
Placer County Water Agency *
San Joaquin County *

1.2 WATER FORUM PLANNING PROCESS

Early Stage of Planning Solutions

The first three stages of the Water Forum process have been completed. They involved (1) getting organized, (2) educating the diverse interest groups about each other's issues and concerns, and (3) developing the Draft Agreements-in-Principle. At this time the Water Forum has embarked on the fourth stage, which is the initial development of recommended solutions and formulation of the Draft Solution Agreement. The process is, therefore, in the early stage of developing recommendations for specific water allocation decisions and water facilities which would become part of the Water Plan. The Final Solution Agreement will ultimately constitute the Sacramento Area Water Plan.

Development of the Draft Agreements-in-Principle

The Draft Agreements-in-Principle are general understandings among the Water Forum stakeholders that document the progress made in negotiations to date and establish the starting point for current and future discussions about specific solutions. The agreements were developed by the representatives of the stakeholders

who are members of the Water Forum Working Group and were distributed in April 1995 to the stakeholder boards. The stakeholders then simultaneously reviewed and commented upon the principles, and authorized their Working Group representatives to proceed with the negotiations. The draft agreements and the stakeholders' comments on them form the basis for preparing the Draft Solution Agreement. The principles include general objectives of the future solutions, assumptions affecting water allocation decisions, and general directions regarding potential solutions. The issues addressed in the principles are:

- **Surface Water**

  Water Supply, Water Rights, and Surface Water Diversions
  Lower American River In-Stream Flow Policy
  Regional Surface Water Issues
  Agricultural Water Supply

- **Groundwater**

  Groundwater Management Plan
  Governing Authority for the Groundwater Management Plan
  Cost-Sharing Programs and Responsibilities
  Groundwater Availability

- **Water Demand Projections**

- **Demand Management/Conservation**

Process for the Environmental Review and Adoption of the Water Plan

The process of developing the Draft Solution Agreement will continue through the summer of 1995. It will include the proposed recommendations for the allocation of water between consumptive use and instream requirements and will identify the types of facilities necessary to accomplish water management in the plan area. When it is completed, the Water Forum will authorize use of the Draft Solution Agreement as the basis for preparing the detailed project description in the Draft EIR. The Draft EIR, which will consider the Draft Solution Agreement and a reasonable range of alternative solutions, will be prepared and released for public review late in 1995.

The environmental review process and the Water Plan process are taking place concurrently in a manner that allows the public and agency comments on the NOP and Draft EIR to be integrated into the planning process. The public review of the Draft EIR and the stakeholders' review of the Draft Solution Agreement will provide comments which will be used to finalize the water solutions. The Final Solution Agreement will be prepared concurrently with the Final EIR in early 1996. The Final EIR will be certified by the Sacramento City Council

and Sacramento County Board of Supervisors. After Final EIR certification, the stakeholders of the Water Forum will be asked to approve the Final Solution Agreement and agree to participate in the implementation of the Water Plan. Final approval is scheduled for spring or summer of 1996.

After final approval of the plan by the Water Forum stakeholders, the Water Plan and Final EIR will be submitted to other agencies for their consideration in connection with (1) their responsibilities as a State Trustee Agency, as defined by State CEQA Guidelines §15386 and/or (2) separate, subsequent actions potentially needed for the plan's implementation. State Trustee Agencies include: California Department of Water Resources, State Water Resources Control Board, State Lands Commission, and California Department of Fish and Game. Federal agencies which may have separate, subsequent actions related to the plan's implementation include the following: U. S. Bureau of Reclamation, U. S. Fish and Wildife Service, National Marine Fisheries Service, and U. S. Army Corps of Engineers.

2.0 PROJECT DESCRIPTION: SACRAMENTO AREA WATER PLAN

As required by State CEQA Guidelines §15082(a)(1)(A) and (B), this section of the NOP provides a description of the project and its location. The EIR will be a program EIR under CEQA; its project description consists of the components of the Water Plan. The description below provides a comprehensive range of features in the plan's components and the facilities necessary to implement the Water Plan. The ultimate Water Plan details will consist of the types of features presented herein. Therefore, the NOP's project description is sufficient to identify probable environmental effects to be addressed in the Draft EIR and to enable interested agencies and the public to provide meaningful comments. The Draft EIR's project description will be further refined after receipt of comments and further negotiation, with the specific plan features of the Draft Solution Agreement to be authorized by the Water Forum for environmental review.

2.1 OBJECTIVE OF THE WATER PLAN

The objective of the Water Plan is to provide a safe, reliable, and environmentally sound water supply to meet the needs of the Sacramento area community. Elements of the solution include certain water supply; protection of the Lower American River; water quality; groundwater management; demand management (conservation); costs, equity and rates; and regional cooperation.

2.2 LOCATION OF THE WATER PLAN AREA

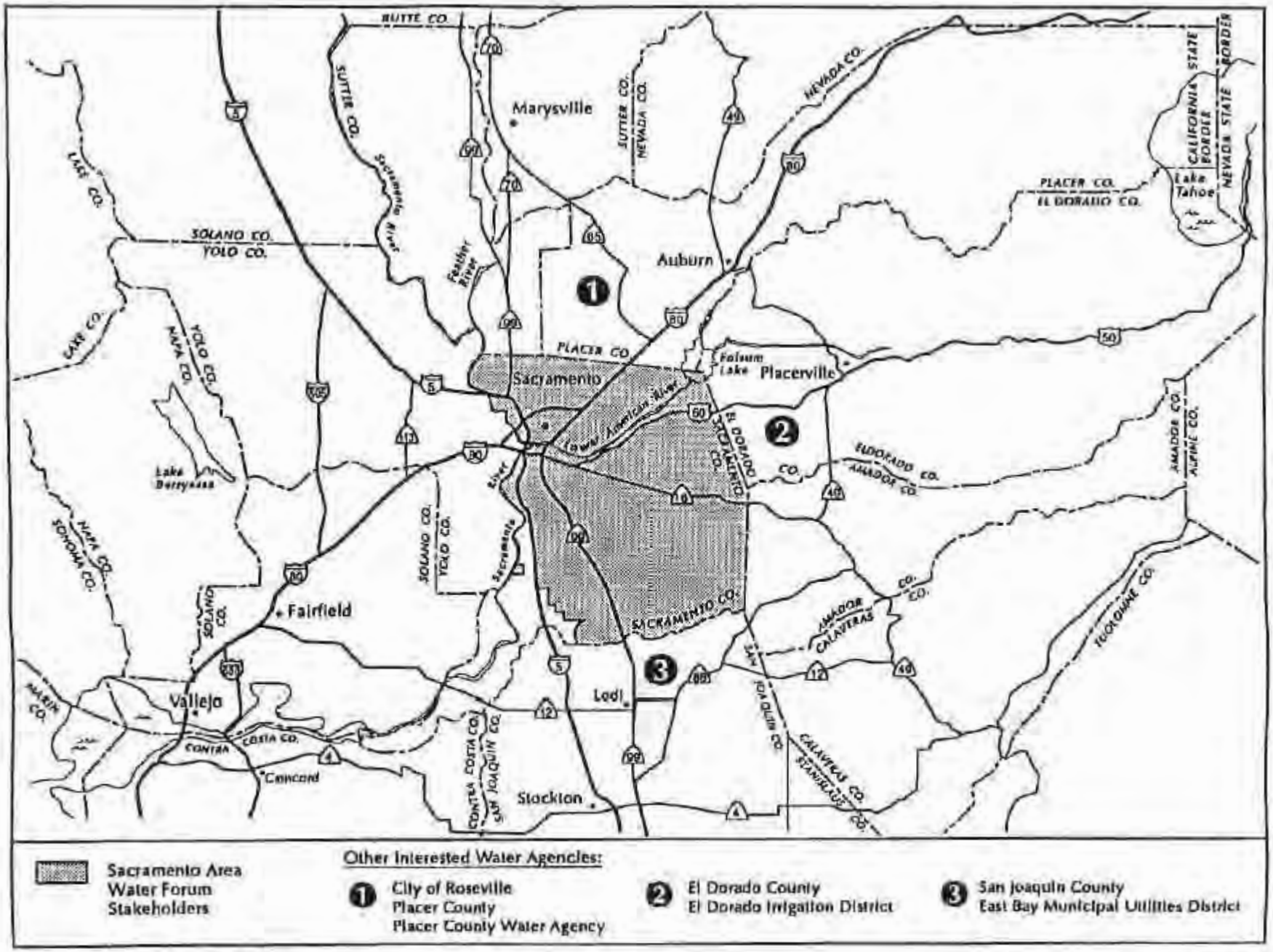
The "plan area" of the Sacramento Area Water Plan consists of the communities within which water resources addressed in the plan may be used. The stakeholders of the Water Forum represent water-related interests in

the City of Sacramento, City of Folsom, City of Galt, and County of Sacramento. The primary water supply goal of the planning effort is to ensure that a safe and reliable water supply is available to these cities and unincorporated communities in the County. In addition to the primary water supply goal of meeting the needs of the Sacramento County communities, the plan may also include cooperative arrangements with water agencies in Placer County, San Joaquin County, and El Dorado County. Joint-use facilities are being considered with the Placer County Water Agency in southern Placer County and East Bay Municipal Utility District (EBMUD) in southern Sacramento County and northern San Joaquin County. If these joint use facilities are incorporated into the plan, the places of use of water addressed in the EIR would include the areas served by these facilities. The Water Plan may also be indirectly influenced by water use and supply issues in El Dorado County. The Water Plan will assume that El Dorado County, given its growing population and access to upstream water rights in the American River, will need a portion of the river's flow to meet its water demands. Consequently, the "plan area" consists of most of Sacramento County and portions of Placer, San Joaquin, and/or El Dorado Counties (see Exhibit 1).

The "study area" of the EIR is the broader geographic area that encompasses the water resources and facilities that may be affected by the solutions recommended in the Water Plan. The primary sources of water which are necessary to address in the water allocation decisions of the plan are the American River, Sacramento River, and groundwater basin beneath Sacramento County. The EIR study area will include the American River watershed and the Sacramento River system north of the American River to the Shasta Dam and Reservoir. Diversions from the Feather River are also being considered as another potential source of water in the plan. If such a diversion is included in plan, the EIR analysis will encompass upstream and downstream impacts in the Feather River. The study area will also extend downstream of the American River along the Sacramento River to the Sacramento-San Joaquin Delta to include potential downstream flow effects. Consequently, the overall EIR "study area" will include potentially affected water resources from the northern Sacramento Valley through the Delta, with an emphasis on the lower American River (see Exhibit 2).

2.3 COMPONENTS OF THE WATER PLAN

The Water Plan will include several major components. These components form the initial definition of the project description for this NOP. As the Water Plan process proceeds, additional details elaborating the plan's components will be formulated and presented in the Draft EIR. A summary of the Water Plan components is presented below, followed by a listing of the types of facilities expected to be necessary to implement the plan. The plan anticipates the water supply requirements in the Sacramento area through 2030.



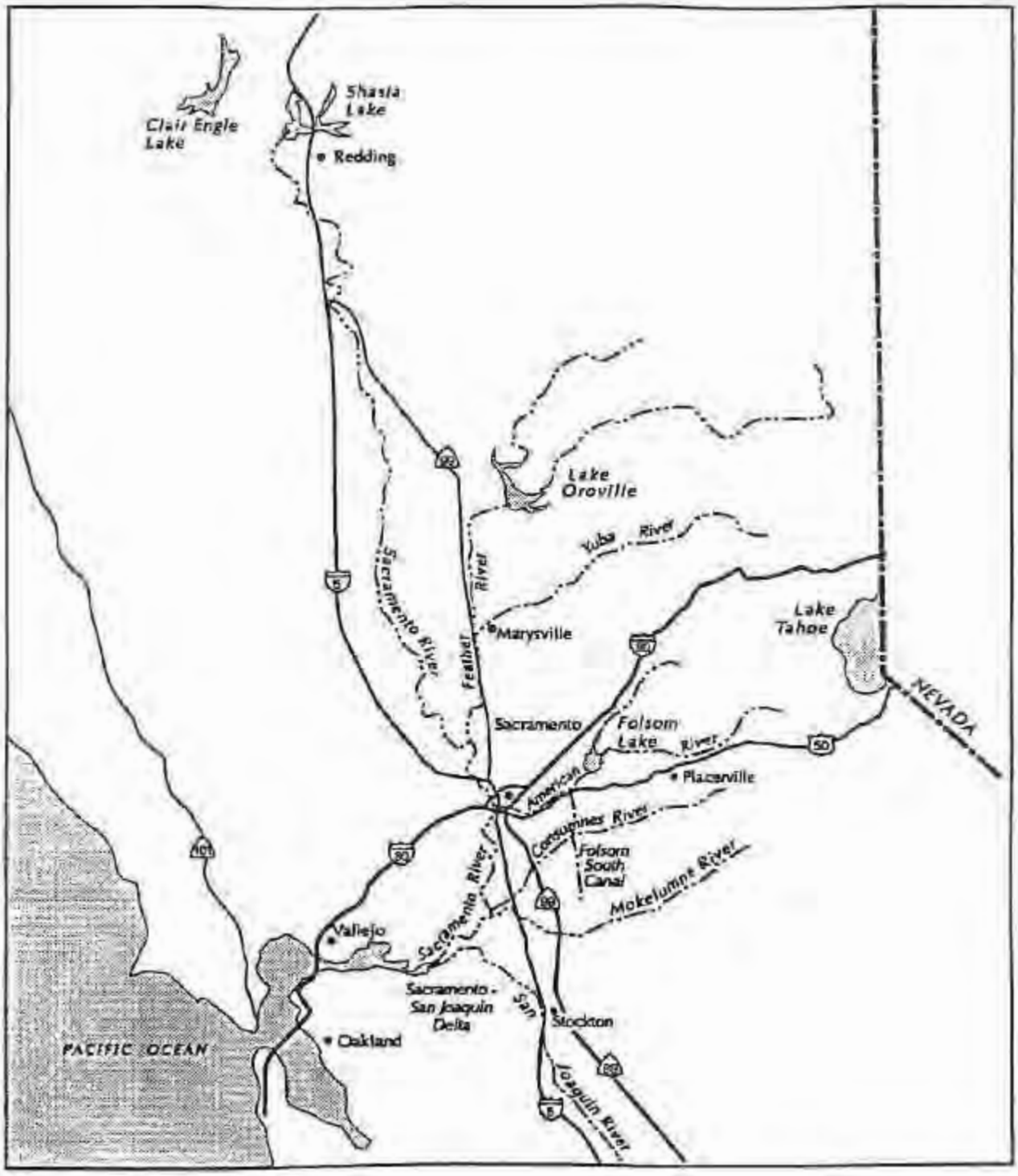
Location of Plan Area

EXHIBIT 1

SACRAMENTO AREA WATER PLAN

A-10

PCWA-069



Study Area

EXHIBIT 2

SACRAMENTO AREA WATER PLAN

NORTH

A-11

PCWA-069

Establish Water Demand Projections

Water demand projections are being developed by the Water Forum as the initial step of formulating water management recommendations. A land use-based methodology is being used. This methodology relies on applying historical water demand rates of different land uses, adjusted for reasonably anticipated conservation, to the planned land uses in approved local General Plans. The water demand methodology and projections will be documented in the Draft EIR.

Reliable Surface Water Supply and Allocation

The Water Plan will contain agreed upon recommendations for surface water diversions for Water Forum stakeholders and any regional cooperating agency throughout a range of hydrologic conditions (e.g., wet years, normal years, drought years, etc.). The recommended diversions will define the surface water supplies that are available to serve current and planned future municipal, industrial, and agricultural needs. Additional diversions from the American River and Sacramento River may be involved, along with potential diversions from the Feather River in the vicinity of its confluence with the Sacramento River. Surface water supply allocations to users will be included in the plan, so that specific communities within the area receive a reliable water supply under the Water Plan.

Protection of the Lower American River

An objective of the plan is to protect the public trust values of the lower American River, including fisheries, recreation, aesthetics, and riparian resources. To provide this protection, the plan will include recommendations for minimum instream flows in years with various hydrologic conditions. The instream flows will be based primarily on the seasonal flow needs of the key fish species inhabiting and spawning within the lower American River and will be developed in coordination between the Water Forum stakeholders and regulatory agencies. The plan's instream flow recommendations will be presented to the State Water Resources Control Board (SWRCB) for its adoption as instream flow standards for the lower American River.

In addition to instream flow recommendations, the Water Plan will include recommendations for a program of non-flow measures which would help protect the lower American River's fishery and riparian resources. Examples of non-flow measures which may be included in such a program are gravel replenishment/recruitment, predator control, riparian habitat enhancement, enhancement of river shading, wetland creation, fishing restrictions, increased hatchery production, pool and riffle habitat enhancement, and fish ladders.

Water Quality Protection

The Water Plan will include provisions to protect the water quality of surface water, groundwater, and drinking water delivered to the community. Surface water quality will be considered in the establishment of instream flow recommendations. Groundwater quality protection will be considered in recommendations on the amount of planned groundwater withdrawal and the variations of withdrawal between wet and dry years. Expansion, modification, or upgrading of drinking water treatment facilities will be included in the plan to ensure that the quality of delivered water meets current health standards and future, potentially more stringent, health standards.

Groundwater Management/Conjunctive Use

Basin-wide groundwater management planning will be a component of the Water Plan. The Water Plan will establish sustainable yield and long-term stabilization levels for the basin to define the available supply of groundwater and to help ensure protection of the aquifer. A conjunctive use program, i.e., the planned use of groundwater in conjunction with surface water to optimize total water resources, will be included with in-lieu recharge or direct recharge to replenish the basin in wet years and increased utilization of the basin's "banked" groundwater supply in dry years to relieve demands on limited surface water. In-lieu recharge involves providing surface water in wet years to communities which would otherwise draw from their wells, so the groundwater remains stored in the basin. Direct recharge involves the addition of surface water to the aquifer by natural infiltration or artificial means. The conjunctive use program is a key element of the Water Plan intended to maximize the reliability of water supply during drought years.

Water Demand Management and Conservation

Water demand is being projected for the Sacramento metropolitan area assuming that future land uses occur as designated in adopted local General Plans. The Water Plan anticipates making on-going adjustments of water demand projections as part of its implementation. Also, demand projections are being adjusted based on the expectation that reasonable water demand management and conservation features are being implemented. Best Management Practices (BMPs) for water conservation are being implemented now by many local water agencies in response to the Memorandum of Understanding Regarding Water Conservation in California. A program of BMPs will be defined as part of the Water Plan with implementation by 2030.

Cooperation With the Surrounding Region

Although the primary water supply focus of the plan is on Sacramento County communities, the broader regional nature of water resources dictates that cooperation with other surrounding communities occur in water management recommendations, whenever feasible. Joint solutions with the Placer County Water Agency in southern Placer County and EBMUD in southern Sacramento County and northern San Joaquin County are being considered and may be a part of the plan. In Placer County, joint use of diversion, conveyance, and treatment facilities associated with use of water diverted from the Feather River may be included in the plan. Diversions from the Feather River would provide additional water supply in dry years for stakeholders that do not presently have a dry-year back-up supply. With EBMUD, surface and groundwater resources in southern Sacramento County and northern San Joaquin County could be shared, involving joint use of wells and conveyance facilities. The Water Plan will also recognize that El Dorado County retains access to upstream water rights in the American River. The plan will assume that some of the river's flow is needed for consumptive use in El Dorado County.

2.4 POTENTIAL WATER SUPPLY AND CONVEYANCE FACILITIES

The specific water supply and conveyance facilities necessary to implement the Sacramento Area Water Plan have not yet been determined, because the process is in the early stage of planning facility solutions. This NOP lists and describes potential facilities which will be addressed in the Draft EIR. Comments on these items will be considered in subsequent planning. After completion of the Water Plan process, individual facility projects will receive additional environmental review prior to construction.

Surface Water Diversions

New, relocated, and/or expanded points of surface water diversion are being considered to divert additional flows from the American and Sacramento Rivers. Such diversion sites include the Fairbairn Water Treatment Plant, Freeport, and other locations on the Sacramento River. A new diversion may be developed on the Feather River in the vicinity of its confluence with the Sacramento River as a supplemental surface water source. New or relocated diversions involve intake structures in the river and nearby pump stations. Expansion of existing diversions may involve enlargement of intake structures and/or increased pumping capacity.

Municipal and Industrial Water Treatment

New, upgraded, or expanded drinking water treatment facilities are being considered for either additional surface water or groundwater supplies, or both. New treatment plant sites may be needed in the City of

Sacramento, Sacramento County, and/or Placer County. Expansion of existing facilities may involve City of Sacramento plants along the American and Sacramento Rivers. Also, if excess capacity is available in treatment plants in the area, this capacity may be shared with other purveyors to satisfy part of the increased demand for drinking water treatment.

Water Conveyance and Pump-Back Facilities

Water transmission mains (pipelines) are being considered to convey water from treatment plants to the municipal and industrial users. Pump stations at the treatment plants and/or along the mains may be required. Where conveyance of agricultural water is needed, either an open canal or pipeline may be developed.

Pump-back of water from downstream locations to offset the consumption of water by upstream users may be a part of the plan. The objective of the pump-back approach is to provide upstream communities with enhanced opportunities for a reliable water supply in drier years while also providing adequate instream flow in the lower American River to protect public trust resource values. Pump-back facilities would involve pipelines and pump stations to convey water from the downstream source.

Groundwater Withdrawal and Recharge Facilities

The use of groundwater would require withdrawal from new and existing wells. New wells would include water pumping and conveyance facilities, as well as potential treatment facilities at the wellhead. The groundwater basin may be used as a reservoir, as part of the conjunctive use concept, through in-lieu recharge or direct recharge. If direct recharge to the aquifer is included in the plan, water spreading basins and/or injection wells would be developed. Spreading basins are water storage facilities located over areas where natural recharge (infiltration) rates are high, which allows water to enter the aquifer. Injection wells are used to recharge the aquifer by pumping or gravity flow of surface water back into the ground.

Additional Surface Storage Facilities

Impoundments for storage of surface water outside of the American River, itself, may be included in the Water Plan. Increasing storage capacity can help carry water in wet years over for use in dry years or to help purveyors meet peak demands. Storage facilities are being considered in the solution planning, including the long-studied Clay Station Reservoir on Laguna Creek in Sacramento County and other potential locations.

Water Conservation Best Management Practices

The potential BMPs to conserve water include a wide variety of physical facilities, equipment, and administrative procedures. The list of BMPs being considered for inclusion in the plan include:

- interior, exterior, and large landscape area water use audits for residential and government/institutional users,
- financial incentive programs for water conservation,
- requirement for ultra-low-flush toilets in new development,
- retrofitting of ultra-low-flush toilets in existing development,
- distribution system audit and leak detection/repair,
- requirement for water meters and commodity pricing of water for new development,
- retrofitting of water meters and commodity pricing of water for existing development,
- landscape water conservation requirements for new and existing developments,
- public information and school education,
- new water use review for commercial and industrial users,
- conservation pricing (when unit price is scaled up with increased consumption), and
- water conservation coordinator for customer assistance.

2.5 RELATED WATER RESOURCE PLANNING EFFORTS IN THE AREA

A number of other water resource projects and management programs are under consideration in the Sacramento area. While each has its own discrete purpose, it is important for the Water Forum planning process to coordinate with the concurrent decision-making processes taking place for these projects, because they all may affect water resources in the American and Sacramento Rivers. The Draft EIR on the Sacramento Area Water Plan will document the nature and progress of these projects, utilize pertinent information from the studies supporting the projects, and recognize them as related projects for purposes of cumulative impact analysis. Major related water resources planning efforts in the Sacramento area are briefly summarized below. This listing is not intended to be exhaustive, but rather to represent the types of planning efforts underway.

American River Water Resources Investigation

The U.S. Bureau of Reclamation (USBR), with the Sacramento Metropolitan Water Authority and others, is conducting a study, including preparation of an EIS and EIR, to identify unmet water resource needs, formulate alternative plans to meet the needs, and recommend a preferred federal water resources management alternative. The scope of the study includes the American River and several other rivers above the Delta in Sacramento, Sutter, El Dorado, Placer, and San Joaquin Counties. The purpose of the study is to make a recommendation to Congress for the preferred federal water resource management alternative. The project alternatives being addressed are both structural, including the Auburn Dam, and nonstructural, including conjunctive use programs.

Central Valley Project Water Contracting, American River Division

The USBR, in response to §206 of Public Law 101-514, sponsored by Representative Vic Fazio, is preparing environmental documentation of three contracts for diversion of a total of up to 50,000 acre-feet per year for use by the Sacramento County Water Agency, San Juan Water District, and El Dorado County Water Agency. A portion of the Sacramento County Water Agency allotment would be used by the City of Folsom under a subcontract arrangement. Joint EIS/EIRs are being prepared by both the County of Sacramento and County of El Dorado.

City of Sacramento Water Supply Expansion Project

The City of Sacramento is proposing to expand its capacity to divert and treat 100 million gallons per day (mgd) of water from the Sacramento and/or American Rivers for municipal and industrial uses. Expansion of existing drinking water treatment plants and/or development of new water treatment plants, along with associated conveyance facilities, are being evaluated in an EIR currently in preparation.

Central Valley Project Improvement Act

The Central Valley Project (CVP) Improvement Act (Title 34 of Public Law 102-575), enacted in 1992, authorized the USBR to implement several programs to improve the operation of the CVP and achieve a reasonable balance among competing uses of CVP water. Folsom Dam is part of the CVP. Objectives of the CVP Improvement Act include protecting and restoring fisheries and wildlife in the Central Valley, including the allocation of 800,000 acre-feet per year to this purpose; addressing impacts of the CVP on fish and wildlife; enhancing the operational flexibility of the CVP; expanding the use of water transfers; improving water conservation; and addressing the requirements of fish, wildlife, agricultural, municipal, industrial, and power generation water users. The USBR is preparing a Programmatic EIS for the CVP Improvement Act programs. No new long-term CVP contracts will be executed until the Programmatic EIS is completed.

Folsom Dam Long-Term Reoperation

The USBR and Sacramento Area Flood Control Agency (SAFCA) are considering options for modifying the operation of Folsom Dam to provide enhanced flood protection for the lower American River floodplain. The reoperation would involve increasing the flood space in Folsom Lake by lowering the reservoir level at certain times of the year. An initial action, intended to be an interim measure, has been implemented pending resolution of long-term improvements to the American River flood control system or long-term dam reoperation decisions. A Final EIR has been certified and Finding of No Significant Impact has been adopted for interim

reoperation of Folsom Dam. Discussions are now underway between SAFCA and the USBR regarding potential long-term reoperation alternatives.

American River Watershed Investigation

The U.S. Army Corps of Engineers (ACOE) has been investigating options for providing long-term flood control in the American River watershed. A comprehensive feasibility report was completed in 1992. The ACOE has been reevaluating long-term flood control alternatives since 1992, including an Auburn Dam alternative, operational alternatives, and alteration of the spillway at Folsom Dam, among others.

Sacramento Municipal Utility District CVP Contract Amendment

The Sacramento Municipal Utility District (SMUD) seeks to amend its existing CVP water service contract with the USBR to change the point of diversion of 15,000 acre-feet of water per year and assign that 15,000 acre-foot portion of the contract to the County of Sacramento. The point of diversion would be changed from the Folsom South Canal to a point or points downstream on the American River or Sacramento River. After reaching the new point of diversion, the water would be withdrawn by the City of Sacramento via existing or planned facilities and conveyed to the Sacramento County Water Agency for use in the Zone 40 water service area in southern Sacramento County. An EIR is now in preparation.

3.0 PROBABLE ENVIRONMENTAL EFFECTS AND OTHER INFORMATION IN THE EIR

Pursuant to the State CEQA Guidelines §15082(a)(1)(C), this section of the NOP describes the probable environmental effects of the proposed project. For each environmental topic area, a summary of environmental conditions is presented followed by a listing of probable environmental effects which will be addressed in the Draft EIR. Also, other pertinent information to be presented in the EIR is briefly described.

3.1 PROGRAM EIR APPROACH

The EIR for the Sacramento Area Water Plan is a program EIR, as defined by State CEQA Guidelines §15168. Pursuant to the tiering process prescribed in §21094 of CEQA, later projects consistent with the Water Plan may utilize the program EIR in preparation of a project-level environmental documents. The program EIR will help guide the preparation of such project-specific environmental documents by providing an appropriate level of baseline data and a thorough cumulative impacts analysis. A program EIR is appropriate here because the implementation of the Water Plan constitutes a series of actions that can be characterized as one large project related: (1) geographically, (2) as logical parts in a chain of contemplated actions, and (3) in connection with

the issuance of a plan to govern the conduct of a continuing program. As a program EIR, it will address the broad water resource allocation policy and management issues and program-wide impacts and mitigation measures. Site-specific and facility-specific environmental impacts and mitigation measures will be deferred to the subsequent CEQA review of later implementation activities.

3.2 PROBABLE ENVIRONMENTAL EFFECTS ADDRESSED IN DETAIL IN THE EIR

Review of the Sacramento Area Water Plan preliminary project description and the environmental resources in the study area has resulted in the identification of probable environmental effects which will be addressed in detail in the Draft EIR. The probable environmental effects are summarized below.

Surface Water Hydrology

Since the construction of Folsom Dam in 1955, the stream flow dynamics in the lower American River have been substantially altered. The timing and magnitude of flows are now determined primarily by the need to protect surrounding areas from flooding, maintain water quality standards in the Sacramento-San Joaquin Delta, and provide for water diversions. Historically, annual peak flows occurred in May. Currently, annual peak flows generally occur in January or February and flow magnitudes have decreased from historic levels.

Sacramento River flows are largely determined by the operation of upstream reservoirs and the timing and rates of diversions from the Sacramento River and tributary streams. In the absence of upstream impoundments and diversions, flows in the Sacramento River were characteristically high from January through May and lower in July to September. The natural flow pattern has since been altered due to a variety of river flow control facilities. Flows have been reduced during wetter months by upstream storage and diversions, but are typically higher during the drier months because current requirements set flows at levels capable of meeting water quality objectives and water delivery obligations.

The Water Plan has the potential to affect surface water hydrology in the lower American River, the Sacramento River, and the Feather River by changes in diversion points, changes in the amount and pattern of diverted water, alteration to the timing of flows, and pump-back schemes. The surface water hydrology impacts to be addressed in the Draft EIR include:

- alterations in seasonal flow levels in the lower American River and the Sacramento River relative to flow levels under the current regulatory environment;

- ability to meet instream flow requirements in the lower American River to protect the public trust values of fisheries, recreation, riparian resources, and aesthetics, depending on the varying hydrologic conditions and water management decisions;

- effects on the seasonal reservoir levels of Folsom Lake and other CVP reservoirs relative to the levels needed for their multiple purposes;

- alterations to the seasonal inflows to the Sacramento-San Joaquin Delta and the resulting influence on the ability to achieve regulatory objectives for freshwater Delta flows;

- the effects on seasonal flows of the Feather River and the Sacramento River, if water is diverted from the Feather River as part of the plan; and

- the effects on seasonal flows in rivers influenced by CVP releases, if the Water Plan alters the broader operation of other CVP facilities.

Water Rights, Contracts, and Operational Requirements

Existing water rights, entitlements, and operational requirements may be affected by several ongoing regulatory and legislated actions. These actions include: 1) provisions of the CVP Improvement Act, 2) San Francisco Bay-Sacramento/San Joaquin Delta Estuary (Bay-Delta) water rights decisions and water quality standards, 3) listing of the winter-run salmon and delta smelt, and proposed listing of the Sacramento splittail under the federal Endangered Species Act, 4) long-term reoperation of Folsom Dam, and 5) the Congressionally directed water service contracts for Sacramento County, El Dorado County, and the San Juan Water District.

The Water Plan may result in recommendations for modifying or conditioning certain existing rights and operational requirements, one of which may be SWRCB Decision 893 (D-893) which governs the minimum instream flow in the lower American River. The environmental effects of a modification to water rights, entitlements, or operational requirements will be manifested within the impacts identified for hydrology, water quality, fisheries, and other issues.

Potential water rights and operational requirement impacts to be addressed in the Draft EIR could include:

- the change to or addition of points of diversion (POD), requiring approval of the SWRCB;

- the change or expansion of the place of use (POU) of water, requiring the approval of the SWRCB;

- the recommendations to modify instream flow standards in the lower American River, subject to the approval by the SWRCB;

- the amendment of existing water diversion contracts or water rights;
- the creation of new water diversion contracts or water rights; and
- effects on municipal and industrial water delivery based on varying reservoir levels resulting from implementation of the Water Plan.

Groundwater Hydrology

Groundwater conditions vary throughout the plan area. Much of the plan area currently relies solely on groundwater for urban and agricultural uses and does not have access to alternative surface water sources. Past studies have shown the extent to which groundwater pumping in some of these areas of Sacramento County exceeds groundwater recharge. Consequently, groundwater levels are declining significantly in several parts of the County. Groundwater levels have declined as much as 90 feet in certain locations of the County over the last 70 years. Lowered groundwater levels can cause increased pumping difficulties, land subsidence, reduction in aquifer water quality, loss of well operations, and movement of contaminated groundwater.

Key groundwater impacts which will be addressed in the Draft EIR include:

- whether the use of groundwater required by the Water Plan can be maintained within the basin's sustainable yield over the long term;
- the effect of expanded withdrawal in certain areas during dry years on the level of the groundwater basin and on groundwater movement, land subsidence, and well operation;
- effects of in-lieu recharge or direct recharge programs during wet years on the long-term stabilization of groundwater levels.

Surface Water Quality, Groundwater Quality, and Delivered Water Quality/Public Health

The Sacramento River, Feather River, and lower American River are classified as having numerous beneficial uses, including water supply, agriculture, recreation, and fisheries. Maintenance of water quality is important for maintaining these beneficial uses. Water quality is expressed in terms of salinity, temperature, dissolved oxygen, nutrients, and other pollutants, including metals and pesticides. In the Sacramento River, levels of most trace metals, total suspended solids, and organic carbon vary with flow. Dissolved oxygen levels, temperatures, pH, hardness, and conductivity, however, generally vary independently of flow. Existing water quality is diminished by contaminants, such as nutrient and trace metal loadings, resulting from upstream abandoned mines, stormwater runoff, treated sewage discharges, agricultural runoff, and other urban and agricultural land use practices.

Sacramento County groundwater quality presently meets the drinking water standards, except around areas of depressed groundwater levels where iron and manganese, naturally occurring metals, have been detected in several wells. Within the County, three areas of depressed groundwater levels have developed because of localized, intensive withdrawal. These are the Elk Grove area, Galt area, and part of northern Sacramento County near McClellan Air Force Base. Excessive groundwater pumping may be accelerating the rate at which these metals rise from the poorer quality deep aquifer. Arsenic levels above the detection limit have also been noted in several wells in the Zone 40 service area in southeastern Sacramento County. Also, groundwater in some locations has been contaminated by hazardous materials-related pollutant discharges, such as in the vicinity of the Aerojet facility in Rancho Cordova.

Water treatment plants are used in the region to help ensure consistent achievement of drinking water quality standards in water delivered to the community. Raw water from the American River has generally good water quality requiring less treatment. Raw water from other surface sources generally requires greater treatment before delivery to customers. Groundwater quality varies greatly depending on location and depth.

The Water Plan has the potential to affect surface water quality by changing seasonal instream flow, primarily of concern in the lower American River, and to affect groundwater quality by increasing the use of groundwater in certain areas. Also, maintaining the quality of water delivered to the community is important. Specific water quality impacts to be addressed in the Draft EIR include:

- the effect of changes in seasonal instream flows in the lower American River, Feather River, and Sacramento River on water quality parameters, including water temperature, pH, trace metals, nutrients, dissolved oxygen, and suspended solids;

- potential for downstream water quality effects in the Delta, including temperature and salinity, resulting from altered seasonal freshwater inflow;

- the potential to cause vertical mixing of poorer quality, deep aquifer water and the better quality, shallow groundwater because of increased groundwater withdrawal in certain areas or at certain times;

- increased migration of existing toxic contamination because of groundwater withdrawals and altered groundwater levels and movement; and

- alteration of the quality of delivered water because of a change in the source of water for certain purveyors (e.g., surface water instead of groundwater, or Sacramento River water instead of water from the American River), including risk of exposure to contaminants from different sources of supply.

Fisheries Resources

The lower American River, Sacramento River, Feather River, and Folsom Lake support a diverse assemblage of fish species which are recreationally and economically important, as well as an ecologically significant component of the aquatic ecosystems of these bodies of water. Species of management concern in the lower American River include fall-run chinook salmon, steelhead trout, American shad, striped bass, and splittail, the latter of which is proposed as a threatened species under the federal Endangered Species Act. In the study area, the Sacramento River serves as a migration corridor for many anadromous species, including four distinct runs of chinook salmon, steelhead trout, green and white sturgeon, and striped bass. Splittail and the federally-listed, endangered winter-run chinook salmon are found in the Sacramento River within the study area. Folsom Lake supports cold and warm water fish species of recreational importance.

The Water Plan has the potential to affect fishery resources in the lower American River, Sacramento River, Feather River, Folsom Lake, and other reservoirs by altering water release schedules and seasonal instream flows. Specific potential environmental effects to be addressed in the Draft EIR include:

- the effect on instream flows, water surface elevations, and consequently water temperatures, in the lower American River, Sacramento River, and Feather River, and responses of fishery resources (primarily chinook salmon and steelhead trout) to these characteristics in years with varying hydrologic conditions;

- the effect on water surface elevations in the lower American River, and consequently the extent of flooded vegetation available for splittail potentially spawning there;

- the effect on water surface elevations and fluctuations in water surface elevations in Folsom Lake and other reservoirs, and the potential impacts to spawning success of fish in the families of sunfish and catfish;

- the potential for direct impacts to fishery resources through impingement or entrainment at new diversion facilities or modification of existing facilities necessary for implementation of the plan;

- the effect of the Water Plan's non-flow restoration programs, such as gravel replenishment, riparian habitat enhancement, or predator control, on fishery resources; and

- consistency of the plan with regional fishery resources plans and regulations, including: CVP Improvement Act Anadromous Fish Doubling Program; Restoring Central Valley Streams: A Plan for Action; Steelhead Restoration Plan for the American River; Central Valley Salmon and Steelhead Restoration and Enhancement Plan; Sacramento Winter-Run Chinook Salmon Biological Opinion; and SWRCB Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary.

Flood Control

Flood control is an important concern along the American and Sacramento Rivers due to the extent of development that has occurred in the floodplains of these rivers, most notably in the Sacramento metropolitan area. The potential areas affected by flooding of the American or Sacramento Rivers include Natomas, Dry Creek, north Sacramento, south Sacramento, and Rancho Cordova. An elaborate system of dams, levees, overflow weirs, drainage pumping plants, and flood control bypass channels exists to control flood hazard in these areas.

Recently, the Sacramento Area Flood Control Agency (SAFCA) and the USBR have developed a plan to modify the current operation of Folsom Dam and Reservoir which would permit the safe containment of a 100-year or larger flood event in the watershed. An integral part of the plan is the agreement between SAFCA and USBR under which Folsom Dam's existing flood control diagram governing reservoir storage space allocations and outflows during flood control operations have been revised. The objective of the Folsom Dam Interim Reoperation project is to provide as much flood protection to the American River floodplain as possible until such time as a long-term flood control project is authorized and implemented. One such long-term project under consideration is the multi-use Auburn Dam.

Key impacts to be addressed in the Draft EIR related to flood control will include:

- consideration of the effects of different instream flow patterns on flood control programs, such as the Sacramento Urban Levee Reconstruction Project, the American River Watershed Investigation, reoperation of Folsom Dam, and several regional levee and flood protection projects;

- extent to which increased diversions and/or water transfers may affect the storage levels necessary to meet the objective release from Folsom Dam for flood control purposes;

- extent to which increased diversions and/or water transfers may affect ongoing flood control works including the relocation and alteration(s) of buildings, utilities, highways, bridges, sewer lines, and other facilities; and

- extent to which increased diversions and/or water transfers may affect ongoing flood control activities with respect to land use designations and compatibility, easements, and rights-of-way(s).

Power Generation and Consumption

The power system of the CVP consists of eight powerplants and two pump-generating plants. This system is fully integrated into the northern California power system and provides a significant portion of the hydropower available for use in northern and central California. Power generated from the CVP system is dedicated first

to meeting CVP project power requirements, deemed "project use power," primarily for pumping facilities. Power surplus is marketed by the Western Area Power Administration (WAPA) as commercial power with first preference to entities such as irrigation districts, municipalities, military installations, and other federal and state government installations in California, with any remaining power banked with PG&E.

Impacts related to hydroelectric power generation and power consumption to be addressed in the Draft EIR include:

- effects on CVP energy production and dependable capacity, because of changed reservoir operation altering the capacity of the powerplants and efficiency of releases; diminished releases resulting in reduced energy; or increased energy use by the water project, including cumulative effects on other CVP facilities; and

- requirements for additional power related to the pumping of water (e.g., groundwater conjunctive use and pump-back of surface supplies from diversion points lower in the watershed).

Terrestrial Vegetation and Wildlife

Terrestrial vegetative communities in Sacramento County consist of riparian and wetland habitats along watercourses and upland vegetative communities, including annual grasslands, vernal pools, agricultural lands, and oak woodlands in some locations. The lower American River supports the most extensive expanse of riparian and wetland vegetation in the region. Riparian habitats are ecologically important areas, providing cover, foraging habitat, and breeding habitat for a diverse assemblage of birds, mammals, reptiles, and amphibians. Persistence of riparian ecosystems is important for maintaining statewide biological diversity.

Numerous species that are state- or federally-listed as threatened or endangered or are candidates for listing under the federal Endangered Species Act occur throughout Sacramento County. Sensitive wildlife species include Swainson's hawk, valley elderberry longhorn beetle, bank swallow, and giant garter snake. Sensitive plant species potentially occurring in the study area include Hind's walnut and valley sagittaria. In addition, Sacramento County contains numerous vernal pools, some of which may be inhabited by the federally-listed vernal pool tadpole shrimp and the vernal pool fairy shrimp.

The Water Plan has the potential to affect terrestrial vegetation and wildlife resources by altering seasonal instream flow dynamics (primarily of concern in the lower American River) and by disturbing habitat during construction of facilities. Potential environmental effects to address in the Draft EIR related to terrestrial vegetation and wildlife resources include:

- the effect on seasonal instream flows in the lower American River and potential responses of wetland and riparian vegetation and associated wildlife;

- the effect on seasonal instream flows of the Sacramento and Feather Rivers and the potential response of wetland and riparian vegetation, and associated wildlife; and

- the potential to directly remove or disturb riparian and other sensitive habitats along the American, Feather, and Sacramento Rivers, and generally elsewhere in the plan area from the construction of diversion, treatment, conveyance, storage, and other water facilities necessary to implement the plan. Analysis will be at the level of specificity appropriate to the provisions of the Plan.

Land Use and Growth Inducement

The Water Plan process is intended to meet the water supply needs of growth that has already been environmentally reviewed and planned in adopted local General Plans. Future land uses and growth in the communities comprising the plan area are included in the General Plans of Sacramento County, City of Sacramento, City of Folsom, and City of Galt. The General Plans of Placer County, City of Roseville, El Dorado County, and San Joaquin County direct future land use and growth in those jurisdictions. These General Plans also include policies relevant to water supply, flood control, groundwater protection, water quality, protection of the American River, or other water resources management issues. An objective of the Water Plan is to provide a reliable, and safe water supply to accommodate the currently contemplated future land use development and population growth of the area, as reflected in adopted General Plans.

The Water Forum's intent is to provide for development that is already planned. The EIR will assess whether the proposed solutions are consistent with the direction of adopted plans, particularly related to the level of planned future growth. Also, the EIR will analyze whether secondary effects of growth inducement may be caused by the water supply recommendations in the Water Plan. The EIR will refer to the CEQA documents related to the adopted local General Plans for environmental impact analysis of growth inducement, as appropriate under CEQA.

Land use and growth-related impacts to be addressed in the Draft EIR include:

- consistency of the water demand projections and proposed water supply with the planned population growth reflected in the adopted General Plans of the affected communities;

- consistency of water supply solutions with the needs of future planned land uses, including municipal, industrial, and agricultural uses;

- whether the availability of water supply would induce growth in the region beyond that accounted for in adopted local General Plans;

- consistency of water management decisions with local General Plan policies related to water supply, flood control, groundwater protection, protection of the American River, fishery resources, recreational resources, and other relevant water resource issues; and

- the potential for growth supported by the water supply recommendations in the plan to result in significant secondary effects to the environment .

Water-Related Recreation

The lower American River, Folsom Lake, and Lake Natoma provide extensive water-related recreation opportunities to the Sacramento region. Also, the Feather River supports extensive water-related recreation activities. The water available for recreation purposes in these lakes and rivers is affected by release schedules and varying hydrologic conditions.

The primary recreation facility on the lower American River is the American River Parkway, 26 miles of public parks and recreation areas. The parkway consists of 14 interconnected parks and a continuous trail system, comprising approximately 5,000 acres. Managed by the Sacramento County Parks and Recreation Department, the parkway attracts over 6 million visitor-days of use per year and is recognized as one of the premier urban river parkways in the nation. The most common recreational activities include trail use, sightseeing/photography, rafting/boating, fishing, and swimming/wading. The lower American River is also a designated Recreational River in the federal Wild and Scenic Rivers Program. Recreational values of the river are recognized as part of its public trust values.

Lake Natoma, above Nimbus Dam just upstream of the lower American River, is a unit of the Folsom Lake State Recreation Area (SRA). As a regulating reservoir, Lake Natoma's water level fluctuations are typically limited to four to seven feet, providing a relatively stable shoreline. Although it is a small lake at 500 acres, it is a popular recreation destination, supporting approximately one-half million visitor-days per year. The most common activities are trail use, bank and boat fishing, small boat sailing, rowing (including the California State University, Sacramento crew boathouse and Aquatic Center), picnicking, and swimming/wading.

Folsom Lake is the centerpiece of the Folsom Lake SRA and the most popular, multi-use year-round unit of the state parks system. The facility supports over 3 million visitor-days per year with major activities being sailing, water skiing, personal watercraft, wind surfing, bank and boat fishing, trail use, camping, picnicking, swimming, and nature appreciation. Water levels and water level fluctuation have a substantial influence on the availability and quality of recreation opportunities at Folsom Lake.

The Water Plan may recommend altering seasonal water levels and flow rates of the lower American River and the water levels and the rate of fluctuation at Folsom Lake, causing effects on recreation opportunities. Probable environmental effects to be addressed in the Draft EIR include:

- effects of the proposed flow regimes on availability and quality of water-related recreation opportunities in the lower American River, including fishing, swimming/wading, rafting and other recreational boating, and other day use activities in the American River Parkway;
- relationship of the seasonal timing and magnitude of recommended instream flows in the American River and other affected rivers with seasonal recreational use for different types of activities;
- water surface elevation effects on the availability and quality of Folsom Lake SRA opportunities, including low water hindrance of launching ramp and marina use, length of boating season, boater safety, fishing opportunities, swimming beach use, and potential for recreation facility inundation;
- potential for effects on the recreation use of Lake Natoma related to changes in the fluctuation of water elevation, if any;
- effects on recreational opportunities on the Feather River, Sacramento River, and other CVP reservoirs besides Folsom Lake;
- effects of the changes in recreational opportunities on the levels of annual visitation to Folsom Lake SRA, Lake Natoma, and the American River Parkway; and
- relationship of the effects on recreational opportunities of the lower American River with the goal of protection of the public trust values of the resource.

Aesthetics

The aesthetic quality of the lower American River is very important as a natural feature in Sacramento's urban landscape. The quality of the river corridor is established by its natural appearance, visual variety, and interest of the flowing water, backwater pools, riparian vegetation, sand bars, islands, and steep bluffs. Public access to the views of the river is widely available within the American River Parkway. The aesthetic values of the lower American River have been recognized as part of the resource's public trust values.

The Water Plan recommendations may affect seasonal water levels and flow rates of the lower American River or other rivers and, therefore, could alter the rivers' aesthetic qualities. Probable environmental effects to be addressed in the Draft EIR include:

- effects of the proposed flow regimes on the appearance of riparian vegetation, flowing water, backwater areas, and other natural landscape features of the lower American River and American River Parkway;

- relationship of the effects on aesthetic quality of the lower American River with the goal of protection of the public trust values of the resource;

- relationship of the effects on aesthetic quality of the Sacramento River with the goals of the City's Sacramento River Parkway Plan and the State Lands Commission's Sacramento River Greenway Plan; and

- effects of proposed flow regimes on the aesthetic quality of the Feather River.

Cultural Resources

Within the plan area, cultural resources consist of prehistoric and ethnographic sites, as well as historic sites and structures. Along the lower American River, several prehistoric sites have been identified. Numerous Native American villages have been described, as well. A large number of prehistoric sites have been identified along the shoreline of Folsom Lake. Of particular concern are sites located within the shoreline area subject to degradation due to fluctuating surface water elevations and vandalism when surface water elevations are low enough to expose the sites.

The Water Plan's recommendations have the potential to affect cultural resources by seasonally changing water surface elevations in Folsom Lake and along the lower American River. Potential environmental effects to be addressed in the Draft EIR related to cultural resources include:

- the effect on water surface elevations and fluctuations in water surface elevations in Folsom Lake and the potential for degradation to some sites due to wave action or increased exposure to potential vandalism; and

- the potential to directly remove or disturb cultural resources along the lower American River and generally elsewhere in the plan area (but without site-specific details) from the construction of diversion, treatment, conveyance, storage, and other water facilities necessary to implement the plan.

Geology and Soils

Geologic formations underlying the foothills portion of the plan area consist of complex folded and faulted, metamorphosed volcanic and sedimentary rocks. The geology has been eroded to a landscape of moderate relief and generally thin soils. The valley portion of the plan area is located on vast alluvial deposits which have accumulated over the last 100 million years. The relief of the valley is generally level to gently sloping with

mostly very deep soils. Sedimentation rates in the American River are generally low, because of the limited upstream development, thin soils, and low rates of erosion.

The Water Plan recommendations regarding flow rates and water allocation may not directly affect geology and soils. Facilities necessary to implement the plan could cause site-specific effects to geology, grading, and erosion; however, these issues would be the subject of later, facility-specific CEQA review. The probable environmental effects of the plan to be addressed in the Draft EIR will include:

- general geology and soils impacts, summarized as to the types of effects which may occur from construction of facilities implementing the plan, but without site-specific evaluation.

Cumulative Impacts

Cumulative impacts may arise from potential increases in surface water diversion from the Sacramento River, the lower American River, Feather River, and Folsom Lake from the Water Plan recommendations and other related water planning efforts (described previously in Section 2.4). Alterations in the amount of water diverted from the Sacramento River, lower American River, Feather River, and Folsom Lake may also affect operations of other facilities of the CVP and the State Water Project (SWP). The CVP and SWP are operated to deliver water to users throughout central and southern California and also to meet water quality and flow objectives for aquatic resources in the Sacramento-San Joaquin Delta. The reliability of CVP and SWP water deliveries; cumulative effects to surface water hydrology, water quality, fisheries, and the aquatic environment; and water supply impacts to CVP and SWP water users in the region will be analyzed.

The Draft EIR will address cumulative effects of the Water Plan in combination with other related water planning efforts in the region.

3.3 OTHER INFORMATION TO BE PROVIDED IN THE EIR

In addition to the significant environmental effects of the Sacramento Area Water Plan and feasible mitigation measures to address those impacts, the Draft EIR will include other information required either by CEQA or relevant to the decision at hand. Other information in the Draft EIR will include:

Alternatives Analysis

As required by State CEQA Guidelines §15126(d), a range of reasonable alternatives to the proposed plan which would feasibly attain most of the basic objectives of the project will be addressed in the Draft EIR. The definition of the alternatives will be influenced by the alternative approaches for water management and the different potential solutions considered in the development of the Draft Solution Agreement by the Water

Forum. While it is premature to describe the Draft EIR alternatives, it is expected that the analysis will address alternative flow regimes, alternative combinations of water sources (e.g., surface water, groundwater) and conservation, and alternative levels and points of diversion (e.g. American, Sacramento, and Feather Rivers), in addition to the required no project alternatives of continued existing conditions and what could be reasonably expected to occur in the future based on current plans.

Effects Found Not to be Significant

Pursuant to State CEQA Guidelines §15128, the Draft EIR will identify environmental effects found not to be significant and, therefore, not addressed in detail in the document. Reasons why each possible effect is not significant will be discussed briefly in this discussion.

Financial Considerations of the Water Plan

Information regarding approaches for financing the implementation of the Sacramento Area Water Plan will be summarized in the Draft EIR. This information will not be treated as a significant effect under CEQA, pursuant to State CEQA Guidelines §15131, but will be provided to assist in understanding the financial issues related to the management of the area's water resources.

Relationship to Court Decrees, Laws, and Regulations

Many court decrees, federal and state statutes, and regulations are relevant to water allocation and instream flow decisions affecting the American River, Feather River, and Sacramento River. The Draft EIR will present a comprehensive review of the Sacramento Area Water Plan's relationship, consistency, or compliance with relevant state and federal judicial, statutory, and regulatory requirements influencing water resources management in the region.

STATE OF CALIFORNIA PETE WILSON, Governor

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814

DATE: August 17, 1995

TO: Reviewing Agencies

RE: SACRAMENTO AREA WATER PLAN
SCH# 95082041

RECEIVED
AUG 22 19[illegible]
PLANNING SE[illegible]

Attached for your comment is the Notice of Preparation for the SACRAMENTO AREA WATER PLAN draft Environmental Impact Report (EIR).

Responsible agencies must transmit their concerns and comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

CITY OFFICE OF METROPOLITAN WATER PLANNING
5770 FREEPORT BOULEVARD
SUITE 200
SACRAMENTO, CA 95822

with a copy to the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the review process, call Kristen Derscheid at (916) 445-0613.

Sincerely,

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Attachments

cc: Lead Agency

NOP Distribution List

SCH# 95082044

S = sent by lead agency
X = sent by SCH

Resources Agency

- [X] Nadell Gayou, *Resources Agency*, 1020 Ninth Street, Third Floor, Sacramento, CA 95814, 916/327-1722
- [ ] Jody Carpenter, *Dept. of Boating & Waterways*, 1629 S Street, Sacramento, CA 95814, 916/445-6281
- [ ] Cary L. Holloway, *California Coastal Commission*, 45 Fremont Street, Suite 1970, San Francisco, CA 94105-2219, 415/904-5200
- [ ] Reed Holderman, *State Coastal Conservancy*, 1330 Broadway, Suite 1100, Oakland, CA 94612, 510/286-1015
- [X] Tom Gibbs, *Dept. of Conservation*, 801 K Street, MS 24-02, Sacramento, CA 95814, 916/445-8733
- [ ] Douglas Wickizer, *Dept. of Forestry*, 1416 Ninth Street, Room 1516-2, Sacramento, CA 95814, 916/653-9451
- [X] Hans Kreutzberg, *Office of Historic Preservation*, P.O. Box 942896, Sacramento, CA 94296-0001, 916/653-9107
- [X] Ken Pierce, *Dept. of Parks and Recreation*, P.O. Box 942896, Sacramento, CA 94296-0001, 916/653-0538
- [ ] Wendy Halverson, *Reclamation Board*, 1020 Ninth Street, Room 240, Sacramento, CA 95814, 916/327-1531
- [ ] Steve McAdam, *S.F. Bay Conservation & Dev't Comm.*, 30 Van Ness Avenue, Room 2011, San Francisco, CA 94102, 415/557-3686
- [X] Nadell Gayou, *Department of Water Resources*, 1020 Ninth Street, Third Floor, Sacramento, CA 95814, 916/327-1722

Health & Welfare

- [ ] Kim Dinh, *Dept. of Health*, 601 N. 7th Street, PO Box 942732, Sacramento, CA 94234-7320, 916/323-6111

Fish and Game - Regional Offices

- [ ] Richard L. Elliott, Regional Manager, Department of Fish and Game, 601 Locust, Redding, CA 96001, 916/225-2300 (8-442)
- [X] Ryan Broddrick, Regional Manager, Department of Fish & Game, 1701 Nimbus Road, Suite A, Rancho Cordova, CA 95670, 916/355-0922 (8-438)
- [ ] B. Hunter, Regional Manager, Department of Fish and Game, P.O. Box 47, Yountville, CA 94599, 707/944-5518
- [ ] G. Nokes, Regional Manager, Department of Fish and Game, 1234 East Shaw Avenue, Fresno, CA 93710, 209/222-3761 (8-421)
- [ ] Fred A. Worthley, Jr., Reg. Manager, Department of Fish and Game, 330 Golden Shore, Suite 50, Long Beach, CA 90802, 310/590-5132

Independent Commissions/Agencies

- [ ] Lorri Gervais, *California Energy Commission*, 1516 Ninth Street, MS-15, Sacramento, CA 95814, 916/654-3944
- [ ] Native American Heritage Comm., 915 Capitol Mall, Room 364, Sacramento, CA 95814, 916/653-4082
- [ ] Douglas Long, *Public Utilities Commission*, 505 Van Ness Avenue, San Francisco, CA 94102, 415/703-2011
- [X] Betty Yokubaus, *State Lands Commission*, 1807 - 13th Street, Sacramento, CA 95814, 916/574-1890
- [ ] Gerald R. Zimmerman, *Colorado River Board*, 770 Fairmont Avenue, Suite 100, Glendale, CA 91203-1035
- [ ] Rick Angelocci, *Tahoe Regional Planning*, P.O. Box 1038, Zephyr Cove, NV 89448, 702/588-4547
- [ ] Thomas Ollaman, *Office of Emergency Services*, P.O. Box 23996, San Francisco, CA 94129, 415/666-9300

Department of Transportation District Contacts

- [ ] Dave Carstensen, *Caltrans, District 1*, 1656 Union Street, Eureka, CA 95501, 707/445-6407
- [ ] Michelle Gallagher, *Caltrans, District 2*, P.O. Box 496040, Redding, CA 96049-4040, 916/225-3259 (8-442)
- [X] Jody Lonergan, *Caltrans, District 3*, 703 B Street, Marysville, CA 95901, 916/741-4277 (8-457)
- [ ] Gary F. Adams, *Caltrans, District 4*, P.O. Box 23660, Oakland, CA 94623-0660, 510/286-6174
- [ ] Lawrence Newland, *Caltrans, District 5*, P.O. Box 8114, San Luis Obispo, CA 93403-8114, 805/549-3683 (8-629)
- [ ] Marc Birnbaum, *Caltrans, District 6*, P.O. Box 12616, Fresno, CA 93778-2616, 209/448-4020
- [ ] Willard Stellon, *Caltrans, District 7*, 120 South Spring Street, Los Angeles, CA 90012, 213/897-1338 or 897-1344
- [ ] Harvey Sawyer, *Caltrans, District 8*, P.O. Box 231, San Bernardino, CA 92402, 909/383-4618 (8-670)
- [ ] Lisa Dures, *Caltrans, District 9*, 500 South Main Street, Bishop, CA 93514, 619/872-5303
- [ ] Mitchell Bakey II, *Caltrans, District 10*, P.O. Box 2048, Stockton, CA 95201, 209/948-3603
- [ ] Mike Owen, *Caltrans, District 11*, P.O. Box 85406, 2829 Juan Street, San Diego, CA 92186-5406, 619/688-6750 (8-511)
- [ ] Aileen Kennedy, *Caltrans, District 12*, 2501 Pullman St., Santa Ana, CA 92705, 714/724-2239 (8-655)

Business, Transportation, & Housing

- [ ] Sandy Hesnard, *Caltrans - Division of Aeronautics*, P.O. Box 942874, Sacramento, CA 94274-0001, 916/374-1833
- [ ] Tom Mizone, *California Highway Patrol*, Office of Special Projects, Planning and Analysis Division, P.O. Box 924898, Sacramento, CA 94298-0001, 916/657-7322
- [ ] Ron Helgeson, *Caltrans - Planning*, P.O. Box 942874, Sacramento, CA 94274-0001, 916/445-5570

State and Consumer Services

- [ ] Robert Sleppy, *Dept. of General Services*, 400 R Street, Suite 5100, Sacramento, CA 95814, 916/324-0214
- [ ] Office of Local Assistance, 501 J Street, Suite 400, Sacramento, CA 95814, 916/445-3190

California Environmental Protection Agency

- [ ] Barbara Fry, *Air Resources Board*, 2020 L Street, Sacramento, CA 95815, 916/322-8267
- [ ] Mark deBie, *Calif. Waste Management Board*, 8800 Cal Center Drive, Sacramento, CA 95826, 916/255-2367
- [ ] Wayne Hubbard, *State Water Resources Control Board*, *Division of Clean Water Programs*, P.O. Box 944212, Sacramento, CA 94244-2120, 916/227-4398
- [X] Phil Zentner, *State Water Resources Control Board*, *Division of Water Quality*, P.O. Box 944213, Sacramento, CA 94244-2130, 916/657-0912
- [ ] Mike Falkenstein, *State Water Resources Control Board*, *Division of Water Rights*, 901 P Street, 3rd Floor, Sacramento, CA 95814, 916/657-1377 (8-457)
- [ ] Dept. of Toxic Substances Control, CEQA Tracking Center, 400 P Street, Fourth Floor, P.O. Box 806, Sacramento, CA 95812-0806, 916/324-3119

Regional Water Quality Control Board

- [ ] NORTH COAST REGION (1), 5550 Skyline Blvd., Suite A, Santa Rosa, CA 95403, 707/576-2220 (8-590)
- [ ] SAN FRANCISCO BAY REGION (2), 2101 Webster, Suite 500, Oakland, CA 94612, 510/286-1255
- [ ] CENTRAL COAST REGION (3), 81 Higuera Street, Suite 200, San Luis Obispo, CA 93401-5427, 805/549-3147 (8-629)
- [ ] LOS ANGELES REGION (4), 101 Centre Plaza Drive, Monterey Park, CA 91754-2156, 213/266-7556
- [X] CENTRAL VALLEY REGION (5), 3443 Routier Road, Suite A, Sacramento, CA 95827-3098, 916/255-3000
  - ( ) Fresno Branch Office, 3614 East Ashlan Avenue, Fresno, CA 93726, 209/445-5116 (8-421)
  - ( ) Redding Branch Office, 415 Knollcrest Drive, Redding, CA 96002, 916/224-4845 (ATSS 441)
- [ ] LAHONTAN REGION (6), 2092 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150, 916/542-5400
  - ( ) Victorville Branch Office, 15428 Civic Drive, Suite 100, Victorville, CA 92392-2359, 619/241-6583
- [ ] COLORADO RIVER BASIN REGION (7), 73720 Fred Waring Drive, #100, Palm Desert, CA 92260-2564, 619/346-7491
- [ ] SANTA ANA REGION (8), 2010 Iowa Avenue, Suite 100, Riverside, CA 92507, 714/782-4130 (8-632)
- [ ] SAN DIEGO REGION (9), 9771 Clairemont Mesa Blvd., Suite B, San Diego, CA 92124-1331, 619/265-5114 (8-638)
- [ ] OTHER: ______
- [ ] OTHER: ______

DOWNEY
BRAND
SEYMOUR
& ROHWER

ATTORNEYS AT LAW
ESTABLISHED 1926

555 CAPITOL MALL
10TH FLOOR
SACRAMENTO, CA 95814-4686
TELEPHONE (916) 441-0131
FAX (916) 441-4021

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SEP 0 8 1995
PLANNING SERVICES

Date: September 8, 1995

Time: 1:16 pm

Client No.: 00725.000

FAX COVER SHEET

Please transmit the following pages to:

Name: Carol Brenan

Firm: Sacramento City - County Office of Metropolitan Water Planning

Address: Sacramento, CA

Fax Number: ~~916/433-0295~~ 264-7185

Phone Number: 916/433-6276

From: David R. E. Aladjem

We are transmitting 4 pages, including this cover page.

If transmission is not complete, please call (916) 442-0131 and ask for the secretary/operator whose name appears below.

Operator: Jackie

COMMENTS:

Attachment:

DOWNEY
BRAND
SEYMOUR
& ROHWER

ATTORNEYS AT LAW
[illegible]

[illegible]
[illegible]
SACRAMENTO, CA [illegible]
TELEPHONE [illegible]
FAX [illegible]

DAVID R.E. ALADJEM

September 8, 1995

VIA FACSIMILE & FIRST-CLASS MAIL

Carol Brenan
Sacramento City-County Office of
Metropolitan Water Planning
5770 Freeport Boulevard, Suite 200
Sacramento, California 95822

Re: Comments on Notice of Preparation -- Draft Environmental Impact Report for the Sacramento Area Water Plan

Dear Ms. Brenan:

Our firm represents both American River Flood Control District and Reclamation District No. 1000 (collectively, the "Districts"). The Districts have reviewed the Notice of Preparation released on August 8, 1995 for the Draft Environmental Impact Report for the Sacramento Area Water Plan (the "NOP") and are pleased to present the following joint comments for your consideration:

1. On pages 3 and 4, the NOP lists the stakeholders who have been participating in the Water Forum process and identifies public agencies that "are or may be Responsible Agencies under CEQA." It is unclear from the context of these statements whether this list is meant to identify all Responsible Agencies or merely to identify participants in the Water Forum process that are also Responsible Agencies. In either case, the Districts believe that they have "discretionary approval power" over certain aspects of the project and thus are Responsible Agencies as defined in CEQA Guidelines Section 15381.

2. The Districts are concerned about a number of potential impacts on the environment identified in the NOP. Recognizing that the Sacramento Water Plan is yet to be developed, the Districts wish to underscore the potential impacts of a number of the elements identified of the Plan in the NOP. Specifically:

a. On page 13, the NOP describes the "pump-back" of water from downstream locations to offset increased water use by upstream users. Such "pump-backs" may have a significant impact on the Districts' ability to maintain levees along the American River if the "pump-backs" increase the stage of the American River. All other things being equal, increasing the stage of the American River will translate into increased erosion along the American River. This erosion may well have the effect of defeating much of the purpose of the proposed bank protection work (which provides much improved habitat for the American River fishery). In addition, increasing the stage of the American River during the wintertime would have the impact of reducing the American River channel's ability to handle flood flows, thereby making flooding more likely. The discussion of the "pump-back" in the Draft Environmental Impact Report (the "DEIR") should address these issues.

b. On page 17, the NOP notes that the DEIR will address the "alterations in seasonal flow levels in the lower American River and the Sacramento River relative to flow levels under the current regulatory environment." The Districts believe that this discussion should include a detailed discussion of the impacts of these alterations on the District's ability to provide flood protection to the Sacramento region. Any reduction in the level of flood protection identified in this analysis should be considered to be a significant impact as such a reduction could "cause substantial flooding."

c. On page 21, the NOP notes that the DEIR will address the impacts of the project on water surface elevations in the lower American River, the Sacramento River, the Feather River, Folsom Lake, and other reservoirs. In addition, the NOP states, on the same page, that the DEIR will address the extent of flooded vegetation in the American River. The Districts believe that increases in water surface elevations in these water bodies increase the risk of flooding in the Sacramento region. As the local agencies primarily responsible for protecting residents from floods, the Districts believe that the DEIR should include a detailed discussion of the potential impacts of these increases in water surface elevation. If the project increases water surface

elevations and/or reduces the level of flood protection enjoyed by the Sacramento community, the Districts believe that the DEIR should consider this impact to be significant.

- On page 22, the NOP identifies a number of key impacts in the area of flood control that will be addressed in the DEIR. The Districts support the proposed list of key impacts, on the understanding that the DEIR discussion will not be limited to these impacts. The Districts note, however, that any discussion of the flood control impacts of the proposed project should discuss those impacts in several contexts: (1) no significant improvements in the level of flood protection along the American River; (2) the reinforcement of the American River levees and the reoperation of Folsom Reservoir, as is currently under consideration by the Sacramento Area Flood Control Agency ("SAFCA"); (3) the construction of a "dry dam" at Auburn; (4) the construction of a multi-purpose dam at Auburn; and (5) any other regional approach to flood control adopted by SAFCA at the time of the release of the DEIR.

Thank you for the opportunity to present these comments. The Districts request that they receive copies of all notices distributed in connection with the Water Forum process and, specifically, that they receive copies of all environmental documents (both draft and final) distributed for public review in connection with the Water Forum process. If you have any questions concerning these comments, please call Ted Smith at the American River Flood Control District (929-4006) or Jim Clifton at Reclamation District No. 1000 (922-6775).

Very truly yours,

David R.W. Aladjem

cc: Ted Smith
Jim Clifton

[illegible]

EAST BAY MUNICIPAL UTILITY DISTRICT

August 31, 1995

RECEIVED
SEP 0 6 1995
PLANNING SERVICES

Ms. Carol Branan
Sacramento City-County Office of Metropolitan Water Planning
5770 Freeport Blvd., Suite 200
Sacramento, CA 95822

RE: Notice of Preparation (NOP) of a draft Environmental Impact Report (EIR) for the Sacramento Area Water Plan

Dear Ms. Branan:

Thank you for the opportunity to submit comments on the subject NOP.

The NOP states that it is the intent of the City of Sacramento and the County of Sacramento, acting through the City-County Office of Metropolitan Water Planning (CCOMWP), to prepare a Programmatic EIR for the proposed Sacramento Area Water Plan ("proposed project"). The proposed project would be designed to meet the Sacramento area's regional need for water through the year 2030, but may also include consideration of regional solutions involving joint facilities with other entities including Placer County Water Agency, San Joaquin County, and the East Bay Municipal Utility District (EBMUD).

EBMUD supports the decision by the CCOMWP to explore regional solutions to providing a safe and reliable water supply, solutions which balance the needs of the environment with consumptive demands.

As you are no doubt aware, EBMUD is also considering regional solutions to solving EBMUD's long-term need for additional water. There appear to be opportunities for joint projects, or at least joint-use facilities, to meet the water needs of the regional Sacramento area and EBMUD (plus potentially San Joaquin County).

EBMUD's Board of Directors will be holding a Public Workshop on September 12, 1995 from 8:00am until 11:00am on its water supply management planning efforts, which includes consideration of a joint project involving Sacramento area entities. We encourage you to attend that Board workshop.

Accordingly, EBMUD encourages CCOMWP to consider a joint project with EBMUD that would include EBMUD's CVP contract entitlements. The following is offered as an example of a

375 ELEVENTH STREET · OAKLAND · CA 94607-4240 · (510) 287-0101 · FAX (510) 287-1275
P.O. BOX 24055 · OAKLAND · CA 94623-1055

possible project configuration. In wet years, when EBMUD did not require its CVP entitlements, EBMUD would make available its CVP contract entitlements to Sacramento area interests. In dry years, EBMUD would take delivery of its CVP contract entitlements via the Folsom South Canal (FSC). In the event FSC water was not available or not available in sufficient quantity pursuant to the Hodge decision, Sacramento area interests would make available to EBMUD additional high quality water from a number of regional surface and/or groundwater-conjunctive use projects in southern Sacramento County.

Regardless of whether the draft EIR identifies a potential joint project with EBMUD, the EIR must acknowledge that EBMUD has a valid contract for CVP water, with a specified point of delivery on the FSC, and that EBMUD can take its contract entitlements when the conditions in the *EDF v EBMUD* Court settlement are met. The draft EIR should also note that the conditions imposed by the Court also apply to the County of Sacramento as well as parties of interest with Sacramento County (as confirmed by Stuart Somach in his August 25, 1995 letter to the District's Board of Directors copy attached). The EIR must identify the impacts of the project with respect to the ability of EBMUD to take delivery of its CVP contract entitlements as constrained by the *EDF v EBMUD* settlement.

The NOP is unclear on the scientific basis of the in-stream flow recommendations that will emerge from the EIR, and whether the flow recommendations can be scientifically supported in a State Water Resources Control Board water rights hearing. To be supportable, the flow recommendations must consider not only the benefits of those flows on the fishery resource of the lower American River, but the impacts of such flows on water supply, including impacts on EBMUD's ability to take delivery of its CVP entitlements at the FSC and impacts on EBMUD customers.

Thank you for the opportunity to submit these comments. Should you have any questions regarding these comments, please contact Mr. Jon A. Myers (510) 287-1121.

Sincerely,

John B. Lampe
Director of Water Planning

JBL:AJT:dc
[illegible]
Attachment

ROSEMONT COMMUNITY ASSOCIATION, INC.
P.O. BOX 277194
SACRAMENTO CA 95827
(916)486-4636

September 5, 1995

Subject: Comments on Notice of Preparation of a Draft EIR for the Sacramento Area Water Plan

Sacramento City-County Office of Metropolitan Water Planning
ATTN: Ms. Carol Branan
5770 Freeport Boulevard, Suite 200
Sacramento CA 95822

RECEIVED
SEP 07 95
PLANNING Section

Dear Ms. Branan:

Following a review of the subject notice, the Rosemont Community Association has three comments:

1. The work of the Water Forum should be more tightly coordinated with the flood control efforts covering the greater Sacramento area. In addition we believe that the "100 year" level of protection is inadequate for high value development. Population growth is closely related to both water supply and flood protection.

2. The water plan area largely follows political (i.e. county boundaries) rather than natural boundaries defined by a river's watershed. The same weakness is evident in flood control planning by SAFCA. Dealing with Sacramento County in isolation will not result in a lasting plan.

3. The issue of retrofitting water meters as a water conservation best management practice (BMP) deserves an exhaustive analysis. Water meters are not the only means to encourage conservation or introduce consumption based pricing. Good estimates of water consumption can certainly be made from lot and house size (number of bathrooms), family size, and swimming pool (if applicable). Enforcement of watering days and citations for wasteful use of water, as evidenced by water running down gutters, will conserve water effectively without meters.

RCA expects to be an active participant in the EIR process through our membership in SCAN and on an individual basis. Please make sure we are on your mailing list for future notices. Thank you for the opportunity to offer preliminary comments.

Sincerely,

Michael R. Gallagher
Rosemont Community Association
Board of Directors

Copy to:

Supervisor Don Nottoli
Sacramento County Board of Supervisors
700 H Street
Sacramento CA 95814

Southgate Recreation and Park District

Sheldon Administrative Headquarters
6000 Orange Avenue • Sacramento, CA 95823 • (916) 428-1171

September 6, 1995

Carol Branan, Project Manager
Sacramento City-County of Office of Metropolitan Water Planning
5770 Freeport Boulevard, Suite 200
Sacramento, CA 95822

Re: Notice of Preparation for the Sacramento Area Water Plan Environmental Impact Report

Dear Ms Branan:

The Board of Directors of the Southgate Recreation and Park District has reviewed the Notice of Preparation for the Sacramento Area Water Plan Environmental Impact Report.

At their regular meeting of September 5, 1995, the Board authorized comments and conditions through Resolution 95-26, a copy of which is attached.

Sincerely,

Claudia Gunter

Claudia Gunter
Government Relations Officer

95-26

RESOLUTION NO.

TITLE: RESOLUTION OF BOARD OF DIRECTORS OF THE SOUTHGATE RECREATION AND PARK DISTRICT COMMENTING ON THE SACRAMENTO AREA WATER PLAN NOTICE OF PREPARATION OF DRAFT EIR

WHEREAS, the Board of Directors of the Southgate Recreation and Park District support and encourage a logical approach to planning for the future water needs of the Sacramento Metropolitan area; and

WHEREAS, these needs involve issues which will affect the allocation and management of both surface and groundwater for municipal, industrial and agricultural purposes; and

WHEREAS, as a large governmental water user, the District is interested in seeing the Sacramento Area Water Forum formulate an area-wide plan which will provide a safe, reliable, and environmentally sound water supply to meet the needs of our District and the entire Sacramento area community.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Southgate Recreation and Park District does hereby provide comments regarding the Notice of Preparation for the Draft Environmental Impact Report for the Sacramento Area Water Plan.

1. Reliable Surface Water Supply and Ground Water Management

Adequate surface water supplies will be increasingly important to communities as growth occurs. For growth areas within the Water Plan area, the protection and storage of surface water will help ensure adequate supplies for the future. Additionally, the dropping ground water tables should stabilize with an effective conjunctive water use plan which combines surface water and ground water management.

2. Water Conservation

As a large water user, the Southgate Recreation and Park District takes an aggressive approach to water conservation. Southgate has for many years utilized a weather monitoring station and computerized irrigation program which results in more efficient watering for the District's many parks and landscape corridors. By recognizing these types of efficiencies and the savings which can be created by large water users, and by offering financial incentive programs for water conservation, more users may choose to take part in such voluntary efforts.

3. Wildlife/Wetland Habitats

As a Water Plan is created and facilities are constructed, great concern should be given to the regional creeks and seasonal streams which not only support riparian habitats and vegetation, but additionally provide potential areas for trail systems. The Southgate Recreation and Park District has plans to create a pedestrian and equestrian trail system along the Laguna Creek, which will link to a trail system in Elk Grove, and also link to the Folsom South Canal, ultimately providing access to the American River Bicycle Trail System. Ensuring the protection of this and other creek areas where trail systems may be created will be important in this Water Plan.

PASSED AND ADOPTED by the Board of Directors of the Southgate Recreation and Park District this 5th day of September 1995, by the following vote to wit:

AYES:

Cochran, Cockerham, McKibben Smith and Thompson

NOES:

None

John Cockerham, Chair

Edwin A. Smith, Clerk of the Board

STATE OF CALIFORNIA — PETE WILSON, Governor

CALIFORNIA STATE
LANDS COMMISSION

GRAY DAVIS, *Lieutenant Governor*
KATHLEEN CONNELL, *Controller*
RUSSELL S. GOULD, *Director of Finance*

EXECUTIVE OFFICE
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

ROBERT C. HIGHT, *Executive Officer*
(916) 574-1800 Fax (916) 574-1810
California Relay Service from TDD Phone 1-800-735-2922
from Voice Phone 1-800-735-2929

September 6, 1995

File Ref.. SCH95082041

Ms. Carol Branan
Sacramento City-County Office of Metropolitan
Water Planning
5770 Freeport Boulevard, Suite 200
Sacramento, CA 95822

RECEIVED
SEP 07
PLANNING SERVICES

Dear Ms. Branan:

Staff of the State Lands Commission (SLC) has reviewed the Notice Of Preparation (NOP) for the Sacramento Area Water Plan, SCH 95082041. Based on this review, we offer the following comments.

On page two of the NOP information, "Stakeholder Participants, Other Interested Water Agencies, and CEQA Responsible Agencies", the State Lands Commission should be listed as a CEQA Responsible/Trustee Agency.

By way of general background, upon admission to the Union in 1850, California acquired nearly 4 million acres of sovereign land underlying the State's navigable waterways. Such lands include, but are not limited to, the beds of more than 120 navigable rivers and sloughs, nearly 40 navigable lakes, and the 3 mile wide band of tide and submerged lands adjacent to the coast and offshore islands of the State. These lands are managed by the State Lands Commission (SLC). The SLC holds its sovereign interest in these lands subject to the Public Trust for commerce, navigation, fisheries, open space, and preservation of natural environments, among others. All tide and submerged lands, as well as navigable rivers, sloughs, etc. are impressed with the Common Law Public Trust. A lease from the Commission is required for any portion of a project extending onto State-owned lands which are under its exclusive jurisdiction.

The Public Trust is a sovereign public property right held by the State or its delegated trustee for the benefit of all the people. This right limits the uses of these lands to waterborne commerce, navigation, fisheries, open space, recreation, or other recognized Public Trust purposes.

A-41

The State's sovereign interests within the planning area consist generally of fee ownership and/or a public trust easement over any existing and/or historic tidelands and submerged lands including, but not limited to, the Sacramento River, American River, Feather River, and tide and submerged lands within the Sacramento-San Joaquin Delta.

Proposed development located within these waterways would be subject to the SLC's permitting process. Additionally, if development indirectly affects lands or resources under the jurisdiction of the SLC, the Commission would be a Trustee Agency under the CEQA.

This action does not constitute, nor shall it be construed as, a waiver of any right, title, or interest by the State of California in any lands under its jurisdiction.

The Commission should be consulted regarding any specific uses proposed for such lands. For further information regarding the SLC's jurisdiction, please contact Duncan Simmons (916) 574-1820.

Thank you for the opportunity to comment on the proposed Plan. We look forward to receiving a copy of the DEIR.

Sincerely,

MARY GRIGGS
Environmental Services
Division of Environmental
Planning and Management

cc: Dwight E. Sanders
Duncan Simmons
OPR

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Sacramento Field Office
2800 Cottage Way, Room E-1803
Sacramento, California 95825-1846

IN REPLY REFER TO:

In Reply Refer To:
PPN 1842

September 8, 1995

Sacramento City-County Office of Metropolitan Water Planning
ATTN: Ms. Carol Branan
5770 Freeport Boulevard, Suite 200
Sacramento, California 95822

Subject: Notice of Preparation of a Draft Environmental Impact Report; Sacramento Area Water Plan, Sacramento Water Basin, Sacramento, Sacramento County, California

Dear Ms. Branan:

The U.S. Fish and Wildlife Service has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Sacramento Area Water Plan. These comments are intended to assist you in your review of the proposal, and will not take the place of any formal comments that may be required under the provisions of the Fish and Wildlife Coordination Act.

Enclosure A provides a list of sensitive species that may occur in the counties that the project area covers and general survey guidelines. Enclosure B recommends general guidelines for identifying and mitigating project impacts to fish, wildlife, and their habitats. We encourage you to use these guidelines to develop a comprehensive environmental document that addresses these needs.

If you have any questions regarding these comments, please contact Jason Davis (Wetlands Branch) at (916) 979-2113.

Sincerely,

for Joel A. Medlin
Field Supervisor

Enclosures

cc: Reg. Dir., (ARD-ES), FWS, Portland, OR
FWS-ES, Section 7
Reg. Mgr., CDFG, Reg. II, Rancho Cordova
(w/o enclosures to each)

ENCLOSURE A

Endangered Species. This attachment identifies those listed, proposed, and/or candidate species that may occur in the proposed project area. Information and maps concerning candidate species in California may be obtained from the California Natural Diversity Data Base, a program administered by the California Department of Fish and Game. Requests for information should be addressed to the Marketing Manager, California Department of Fish and Game, Natural Diversity Data Base, 1416 Ninth Street, Sacramento, California 95814. The marketing manager may be contacted by calling (916) 324-0562. You may request additional information from the Chief, California Department of Fish and Game, Non-Game Heritage Program, at (916) 324-8048.

Listed species are fully protected under the mandates of the Endangered Species Act (Act), as amended. Section 9 of the Act and its implementing regulations prohibit the "take" of a federally listed fish and wildlife species by any person, as defined by the Act. Take is defined by the Act "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such species. Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltar (50 CFR § 17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures. If a Federal agency is involved with the permitting, funding, or carrying out of this project, initiation of formal consultation is required between that agency and the Service pursuant to section 7 of the Act if it is determined that the proposed project may affect a federally listed species. Federal agencies must confer if they determine that the continued existence of a proposed species may be jeopardized by the project. Such consultation or conference could result in a biological opinion that addresses anticipated effects of the project to listed and proposed species. The biological opinion may authorize a limited level of incidental take for federally listed species.

If a Federal agency is not involved with the project, and federally listed species may be taken as part of the project, then an "incidental take" permit pursuant to section 10(a) of the Act should be obtained. The Service may issue such a permit upon completion by the permit applicant of a satisfactory conservation plan for the listed species that may be affected by the project.

We recommend that appropriately designed surveys for listed, proposed, or candidate species be undertaken by qualified biologists. Surveys for plants should not be restricted to the identified species; instead, a complete botanical inventory of the project site should be conducted. Botanical surveys should be conducted at intervals throughout the spring and summer, in order to maximize the likelihood of encountering each species during the season most appropriate for accurate identification. Surveys should be based on field inspection, and not on prediction of occurrence based on habitat or physical features of the site. Guidelines for conducting adequate botanical surveys are available from the Natural Heritage Division of the California Department of Fish and Game at (916) 322-2493.

The results of all biological surveys should be published in the environmental impact report. The report should include a brief discussion of survey methods (including sampling methods and timing of surveys), results (including a list of all species encountered as well as maps of vegetation types, populations of plant species, and breeding, nesting or burrowing sites or other habitat components important to animal species), and conclusions. If it is concluded that a given sensitive species is not present, the justification for this conclusion should be fully explained.

Should these surveys determine that listed, proposed, or candidate species may be affected by the proposed project, the Service recommends that the project proponent, in consultation with this office and the California Department of

Fish and Game, develop a plan that mitigates for the project's direct and indirect impacts to these species and compensates for project-related loss of habitat. The mitigation plan also should be included in the environmental impact report.

One of the benefits of considering candidate species as well as listed and proposed species early in the planning process is that by exploring alternatives, it may be possible to avoid conflicts that could develop, should a candidate species become listed before the project is complete. In addition, in instances where the Service addresses proposed projects under its Fish and Wildlife Coordination Act authority, we must also analyze the impacts on candidate species and make recommendations to mitigate any adverse effects.

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES AND CANDIDATE SPECIES THAT MAY OCCUR IN OR BE AFFECTED BY PROJECTS IN THE AREA OF PLACER COUNTY, CALIFORNIA
August 23, 1995

Listed Species

Birds

Aleutian Canada goose, *Branta canadensis leucopareia* (T)

American peregrine falcon, *Falco peregrinus anatum* (E)

bald eagle, *Haliaeetus leucocephalus* (T)

Reptiles

giant garter snake, *Thamnophis gigas* (T)

Fish

Delta smelt, *Hypomesus transpacificus* (T)

Lahontan cutthroat trout, *Oncorhynchus (=Salmo) clarki henshawi* (T)

winter-run chinook salmon, *Oncorhynchus tshawytscha* (E)

Invertebrates

vernal pool fairy shrimp, *Branchinecta lynchi* (T)

valley elderberry longhorn beetle, *Desmocerus californicus dimorphus* (T)

vernal pool tadpole shrimp, *Lepidurus packardi* (E)

Plants

Truckee barberry, *Berberis sonnei* (E)

Proposed Species

Amphibians

California red-legged frog, *Rana aurora draytoni* (PT)

Fish

Sacramento splittail, *Pogonichthys macrolepidotus* (PT)

Candidate Species

Mammals

spotted bat, *Euderma maculatum* (2)

greater western mastiff-bat, *Eumops perotis californicus* (2)

California wolverine, *Gulo gulo luteus* (2)

Sierra Nevada snowshoe hare, *Lepus americanus tahoensis* (2)

Pacific fisher, *Martes pennanti pacifica* (2)

small-footed myotis bat, *Myotis ciliolabrum* (2)

Candidate Species

Mammals

- long-eared myotis bat, ***Myotis evotis*** (2)
- fringed myotis bat, ***Myotis thysanodes*** (2)
- long-legged myotis bat, ***Myotis volans*** (2)
- Yuma myotis bat, ***Myotis yumanensis*** (2)
- San Joaquin pocket mouse, ***Perognathus inornatus*** (2)
- Pale Townsend's big-eared bat, ***Plecotus townsendii pallescens*** (2)
- Pacific western big-eared bat, ***Plecotus townsendii townsendii*** (2)
- Sierra Nevada red fox, ***Vulpes vulpes necator*** (2)

Birds

- northern goshawk, ***Accipiter gentilis*** (2)
- western burrowing owl, ***Athene cunicularia hypugea*** (2)
- ferruginous hawk, ***Buteo regalis*** (2)
- mountain plover, ***Charadrius montanus*** (2)
- little willow flycatcher, ***Empidonax traillii brewsteri*** (2)
- white-faced ibis, ***Plegadis chihi*** (2)
- California spotted owl, ***Strix occidentalis occidentalis*** (2)

Reptiles

- northwestern pond turtle, ***Clemmys marmorata marmorata*** (2)
- southwestern pond turtle, ***Clemmys marmorata pallida*** (2)
- California horned lizard, ***Phrynosoma coronatum frontale*** (2)

Amphibians

- California tiger salamander, ***Ambystoma californiense*** (1)
- Mount Lyell salamander, ***Hydromantes platycephalus*** (2)
- foothill yellow-legged frog, ***Rana boylii*** (2)
- mountain yellow-legged frog, ***Rana mucosa*** (2)
- western spadefoot toad, ***Scaphiopus hammondi*** (2)

Fish

- green sturgeon, ***Acipenser medirostris*** (2)
- river lamprey, ***Lampetra ayresi*** (2)
- Pacific lamprey, ***Lampetra tridentata*** (2)
- longfin smelt, ***Spirinchus thaleichthys*** (2)

Invertebrates

- Lake Tahoe benthic stonefly, ***Capnia lacustra*** (1)
- Sagehen Creek goeracean caddisfly, ***Goeracea oregona*** (2)

Candidate Species

Invertebrates

- Sagehen Creek stonefly, ***Megaleuctra sierra*** (2)
- spiny rhyacophilan caddisfly, ***Rhyacophila spinata*** (2)
- South Forks ground beetle, ***South Forks ground beetle*** (2)

Plants

- Carson Range rockcress, ***Arabis rigidissima var. demota*** (1)
- Red Hills soaproot, ***Chlorogalum grandiflorum*** (2)
- hispid bird's-beak, ***Cordylanthus mollis ssp. hispidus*** (2)
- Donner Pass buckwheat, ***Eriogonum umbellatum var. torreyanum*** (2)
- Plumas ivesia, ***Ivesia sericoleuca*** (2)
- Ahart's rush, ***Juncus leiospermus var. ahartii*** (1)
- legenere, ***Legenere limosa*** (2)
- long-petaled lewisia, ***Lewisia longipetala*** (2)
- saw-toothed lewisia, ***Lewisia serrata*** (2)
- Stebbins' phacelia, ***Phacelia stebbinsii*** (2)
- Tahoe yellow-cress, ***Rorippa subumbellata*** (1)

Notes:

(E)--Endangered (T)--Threatened (P)--Proposed (CH)--Critical Habitat

(1)--Category 1: Taxa for which the Fish and Wildlife Service has sufficient biological information to support a proposal to list as endangered or threatened.

(2)--Category 2: Taxa for which existing information indicated may warrant listing, but for which substantial biological information to support a proposed rule is lacking.

(1R)-Recommended for Category 1 status.

(2R)-Recommended for Category 2 status.

( )--Listing petitioned.

(*)--Possibly extinct.

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES AND CANDIDATE SPECIES THAT MAY OCCUR IN OR BE AFFECTED BY PROJECTS IN THE AREA OF SACRAMENTO COUNTY, CALIFORNIA
August 23, 1995

Listed Species

Birds

Aleutian Canada goose, *Branta canadensis leucopareia* (T)

American peregrine falcon, *Falco peregrinus anatum* (E)

bald eagle, *Haliaeetus leucocephalus* (T)

Reptiles

giant garter snake, *Thamnophis gigas* (T)

Fish

Delta smelt, *Hypomesus transpacificus* (T)

Delta smelt critical habitat, *Hypomesus transpacificus critical habitat* (T)

winter-run chinook salmon, *Oncorhynchus tshawytscha* (E)

winter-run chinook salmon crit. habitat, *Oncorhynchus tshawytscha* (E)

Invertebrates

Conservancy fairy shrimp, *Branchinecta conservatio* (E)

vernal pool fairy shrimp, *Branchinecta lynchi* (T)

valley elderberry longhorn beetle, *Desmocerus californicus dimorphus* (T)

delta green ground beetle, *Elaphrus viridis* (T)

vernal pool tadpole shrimp, *Lepidurus packardi* (E)

Plants

Antioch Dunes evening-primrose, *Oenothera deltoides ssp. howellii* (E)

Proposed Species

Amphibians

California red-legged frog, *Rana aurora draytoni* (PE)

Fish

Sacramento splittail, *Pogonichthys macrolepidotus* (PT)

Plants

slender Orcutt grass, *Orcuttia tenuis* (PT)

Sacramento Orcutt grass, *Orcuttia viscida* (PE)

Candidate Species

Mammals

greater western mastiff-bat, *Eumops perotis californicus* (?)

small-footed myotis bat, *Myotis ciliolabrum* (?)

long-eared myotis bat, *Myotis evotis* (?)

fringed myotis bat, *Myotis thysanodes* (?)

long-legged myotis bat, *Myotis volans* (?)

Yuma myotis bat, *Myotis yumanensis* (?)

San Francisco dusky-footed woodrat, *Neotoma fuscipes annectens* (?)

San Joaquin Valley woodrat, *Neotoma fuscipes riparia* (?)

San Joaquin pocket mouse, *Perognathus inornatus* (?)

Pale Townsend's big-eared bat, *Plecotus townsendii pallescens* (?)

Pacific western big-eared bat, *Plecotus townsendii townsendii* (?)

Birds

tricolored blackbird, *Agelaius tricolor* (?)

western burrowing owl, *Athene cunicularia hypugea* (?)

ferruginous hawk, *Buteo regalis* (?)

mountain plover, *Charadrius montanus* (?)

little willow flycatcher, *Empidonax traillii brewsteri* (?)

black rail, *Laterallus jamaicensis* (?)

white-faced ibis, *Plegadis chihi* (?)

Reptiles

silvery legless lizard, *Anniella pulchra pulchra* (?)

northwestern pond turtle, *Clemmys marmorata marmorata* (?)

southwestern pond turtle, *Clemmys marmorata pallida* (?)

California horned lizard, *Phrynosoma coronatum frontale* (?)

Amphibians

California tiger salamander, *Ambystoma californiense* (?)

foothill yellow-legged frog, *Rana boylii* (?)

western spadefoot toad, *Scaphiopus hammondi* (?)

Fish

green sturgeon, *Acipenser medirostris* (?)

river lampray, *Lampetra ayresi* (?)

Kern Brook lamprey, *Lampetra hubbsi* (?)

Pacific lamprey, *Lampetra tridentata* (?)

longfin smelt, *Spirinchus thaleichthys* (?)

Candidate Species

Invertebrates

Antioch Dunes anthicid beetle, *Anthicus antiochensis* (2)

Sacramento anthicid beetle, *Anthicus sacramento* (2)

San Joaquin dune beetle, *Coelus gracilis* (1)

curved-foot hygrotus diving beetle, *Hygrotus curvipes* (2)

Plants

Suisun Marsh aster, *Aster lentus* (2)

valley spearscale, *Atriplex joaquiniana* (2)

Tuolumne coyote-thistle, *Eryngium pinnatisectum* (2)

Northern California black walnut, *Juglans californica var. hindsii* (2*)

Ahart's rush, *Juncus leiospermus var. ahartii* (1)

delta tule-pea, *Lathyrus jepsonii var. jepsonii* (1)

legenere, *Legenere limosa* (2)

Mason's lilaeopsis, *Lilaeopsis masonii* (2)

valley sagittaria, *Sagittaria sanfordii* (2)

Notes:

(E)–Endangered (T)–Threatened (P)–Proposed (CH)–Critical Habitat

(1)–Category 1: Taxa for which the Fish and Wildlife Service has sufficient biological information to support a proposal to list as endangered or threatened.

(2)–Category 2: Taxa for which existing information indicated may warrant listing, but for which substantial biological information to support a proposed rule is lacking.

(1R)-Recommended for Category 1 status.

(2R)-Recommended for Category 2 status.

( )–Listing petitioned.

(*)–Possibly extinct.

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES AND CANDIDATE SPECIES THAT MAY OCCUR IN OR BE AFFECTED BY PROJECTS IN THE AREA OF SAN JOAQUIN COUNTY, CALIFORNIA
August 33, 1995

Listed Species

Mammals

San Joaquin kit fox, *Vulpes macrotis mutica* (E)

Birds

Aleutian Canada goose, *Branta canadensis leucopareia* (T)

American peregrine falcon, *Falco peregrinus anatum* (E)

bald eagle, *Haliaeetus leucocephalus* (T)

Reptiles

giant garter snake, *Thamnophis gigas* (T)

Fish

Delta smelt, *Hypomesus transpacificus* (T)

Delta smelt critical habitat, *Hypomesus transpacificus critical habitat* (T)

winter-run chinook salmon, *Oncorhynchus tshawytscha* (E)

winter-run chinook salmon crit. habitat, *Oncorhynchus tshawytscha* (E)

Invertebrates

Conservancy fairy shrimp, *Branchinecta conservatio* (E)

longhorn fairy shrimp, *Branchinecta longiantenna* (E)

vernal pool fairy shrimp, *Branchinecta lynchi* (T)

valley elderberry longhorn beetle, *Desmocerus californicus dimorphus* (T)

vernal pool tadpole shrimp, *Lepidurus packardi* (E)

Plants

large-flowered fiddleneck, *Amsinckia grandiflora* (E)

palmate-bracted bird's-beak, *Cordylanthus palmatus* (E)

Proposed Species

Amphibians

California red-legged frog, *Rana aurora draytoni* (PE)

Fish

Sacramento splittail, *Pogonichthys macrolepidotus* (PT)

Plants

Proposed Species

Plants

Greene's tuctoria *Tuctoria greenei* (PE)

Candidate Species

Mammals

Merced kangaroo rat, *Dipodomys heermanni dixoni* (2)

greater western mastiff-bat, *Eumops perotis californicus* (2)

small-footed myotis bat, *Myotis ciliolabrum* (2)

long-eared myotis bat, *Myotis evotis* (2)

fringed myotis bat, *Myotis thysanodes* (2)

long-legged myotis bat, *Myotis volans* (2)

Yuma myotis bat, *Myotis yumanensis* (2)

San Joaquin Valley woodrat, *Neotoma fuscipes riparia* (1)

San Joaquin pocket mouse, *Perognathus inoratus* (2)

Pacific western big-eared bat, *Plecotus townsendii townsendii* (2)

riparian brush rabbit, *Sylvilagus bachmani riparius* (1)

Birds

tricolored blackbird, *Agelaius tricolor* (2)

Bell's sage sparrow, *Amphispiza belli belli* (2)

western burrowing owl, *Athene cunicularia hypugea* (2)

ferruginous hawk, *Buteo regalis* (2)

mountain plover, *Charadrius montanus* (2)

little willow flycatcher, *Empidonax traillii brewsteri* (2)

black rail, *Laterallus jamaicensis* (2)

white-faced ibis, *Plegadis chihi* (2)

Reptiles

silvery legless lizard, *Anniella pulchra pulchra* (2)

northwestern pond turtle, *Clemmys marmorata marmorata* (2)

southwestern pond turtle, *Clemmys marmorata pallida* (2)

San Joaquin whipsnake, *Masticophis flagellum ruddocki* (2)

California horned lizard, *Phrynosoma coronatum frontale* (2)

Amphibians

California tiger salamander, *Ambystoma californiense* (1)

foothill yellow-legged frog, *Rana boylii* (2)

western spadefoot toad, *Scaphiopus hammondi* (2)

Candidate Species

Fish

green sturgeon, *Acipenser medirostris* (2)

river lamprey *Lampetra ayresi* (2)

Kern Brook lamprey, *Lampetra hubbsi* (2)

Pacific lamprey, *Lampetra tridentata* (2)

longfin smelt, *Spirinchus thaleichthys* (2)

Invertebrates

Antioch Dunes anthicid beetle, *Anthicus antiochensis* (2)

Sacramento anthicid beetle, *Anthicus sacramento* (2)

curved-foot hygrotus diving beetle, *Hygrotus curvipes* (2)

moestan blister beetle, *Lytta moesta* (2)

molestan blister beetle, *Lytta molesta* (2)

Plants

Suisun Marsh aster, *Aster lentus* (2)

Layne's milk-vetch, *Astragalus tener* var. *tener* (2*)

heartscale, *Atriplex cordulata* (2*)

valley spearscale, *Atriplex joaquiniana* (2*)

slough thistle, *Cirsium crassicaule* (2)

interior California larkspur, *Delphinium californicum* ssp. *interius* (2)

delta coyote-thistle, *Eryngium racemosum* (2)

delta tule-pea, *Lathyrus jepsonii* var. *jepsonii* (2)

Mason's lilaeopsis, *Lilaeopsis masonii* (2)

valley sagittaria, *Sagittaria sanfordii* (2)

caper-fruited tropidocarpum, *Tropidocarpum capparideum* (2*)

Notes

(E)–Endangered (T)–Threatened (P)–Proposed (CH)–Critical Habitat
(1)–Category 1: Taxa for which the Fish and Wildlife Service has sufficient biological information to support a proposal to list as endangered or threatened.
(2)–Category 2: Taxa for which existing information indicates may warrant listing, but for which substantial biological information to support a proposed rule is lacking.
(1R)-Recommended for Category 1 status.
(2R)-Recommended for Category 2 status.
( )–Listing petitioned.
(*)–Possibly extinct.

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES AND CANDIDATE SPECIES THAT MAY OCCUR IN OR BE AFFECTED BY PROJECTS IN THE AREA OF YOLO COUNTY, CALIFORNIA
August 23, 1995

Listed Species

Birds

Aleutian Canada goose, *Branta canadensis leucopareia* (T)

American peregrine falcon, *Falco peregrinus anatum* (E)

bald eagle, *Haliaeetus leucocephalus* (T)

northern spotted owl, *Strix occidentalis caurina* (T)

Reptiles

giant garter snake, *Thamnophis gigas* (T)

Fish

Delta smelt, *Hypomesus transpacificus* (T)

Delta smelt critical habitat, *Hypomesus transpacificus critical habitat* (T)

winter-run chinook salmon, *Oncorhynchus tshawytscha* (E)

winter-run chinook salmon crit. habitat, *Oncorhynchus tshawytscha* (E)

Invertebrates

vernal pool fairy shrimp, *Branchinecta lynchi* ( )

valley elderberry longhorn beetle, *Desmocerus californicus dimorphus* (T)

vernal pool tadpole shrimp, *Lepidurus packardi* (E)

Plants

palmate-bracted bird's-beak, *Cordylanthus palmatus* (E)

Solano grass, *Tuctoria mucronata* (E)

Proposed Species

Amphibians

California red-legged frog, *Rana aurora draytoni* (PE)

Fish

Sacramento splittail, *Pogonichthys macrolepidotus* (PT)

Plants

Colusa grass, *Neostapfia colusana* (PT)

Candidate Species

Mammals

greater western mastiff-bat, *Eumops perotis californicus* (2)

Candidate Species

Mammals

small-footed myotis bat, *Myotis ciliolabrum* (2)

long-eared myotis bat, *Myotis evotis* (2)

fringed myotis bat, *Myotis thysanodes* (2)

long-legged myotis bat, *Myotis volans* (2)

Yuma myotis bat, *Myotis yumanensis* (2)

San Joaquin pocket mouse, *Perognathus inornatus* (2)

Pacific western big-eared bat, *Plecotus townsendii townsendii* (2)

Birds

western burrowing owl, *Athene cunicularia hypugea* (2)

ferruginous hawk, *Buteo regalis* (2)

mountain plover, *Charadrius montanus* (2)

little willow flycatcher, *Empidonax traillii brewsteri* (2)

white-faced ibis, *Plegadis chihi* (2)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (2)

southwestern pond turtle, *Clemmys marmorata pallida* (2)

San Joaquin whipsnake, *Masticophis flagellum ruddocki* (2)

California horned lizard, *Phrynosoma coronatum frontale* (2)

Amphibians

California tiger salamander, *Ambystoma californiense* (1)

foothill yellow-legged frog, *Rana boylii* (2)

western spadefoot toad, *Scaphiopus hammondi* (2)

Fish

green sturgeon, *Acipenser medirostris* (2)

river lamprey, *Lampetra ayresi* (2)

Pacific lamprey, *Lampetra tridentata* (2)

longfin smelt, *Spirinchus thaleichthys* (2)

Invertebrates

Antioch Dunes anthicid beetle, *Anthicus antiochensis* (2)

Sacramento anthicid beetle, *Anthicus sacramento* (2)

brownish dubiraphian riffle beetle, *Dubiraphia brunnescens* (2)

Plants

Ferris's milk-vetch, *Astragalus tener var. ferrisiae* (2)

Candidate Species

Plants

alkali milk-vetch, ***Astragalus tener* var. *tener*** (2R)

brittlescale, ***Atriplex depressa*** (2R)

valley spearscale, ***Atriplex joaquiniana*** (2)

Snow Mountain buckwheat, ***Eriogonum nervulosum*** (2)

adobe lily, ***Fritillaria pluriflora*** (2)

drymaria dwarf-flax, ***Hesperolinon drymarioides*** (2)

Northern California black walnut, ***Juglans californica* var. *hindsii*** (2R)

Hall's madia, ***Madia hallii*** (2)

Notes:

(E)--Endangered (T)--Threatened (P)--Proposed (CH)--Critical Habitat

(1)--Category 1: Taxa for which the Fish and Wildlife Servic has sufficient biological information to support a proposal to list as endangered or threatened.

(2)--Category 2: Taxa for which existing information indicated may warrent listing, but for which substantial biological information to support a proposed rule is la king.

(1R)-Recommended for Category 1 status.

(2R)-Recommended for Category 2 status.

( )--Listing petitioned.

(*)--Possibly extinct.

ENCLOSURE B

The goal of the U.S. Fish and Wildlife Service is to conserve, protect and enhance fish, wildlife, and their habitats by timely and effective provision of fish and wildlife information and recommendations. To assist us in accomplishing this goal, we would like to see the items described below discussed in your environmental documents for the proposed project.

Project Description. The document should very clearly state the purposes of, and document the needs for, the proposed project so that the capabilities of the various alternatives to meet the purposes and needs can be readily determined.

A thorough description of all permanent and temporary facilities to be constructed and work to be done as a part of the project should be included. The document should identify any new access roads, equipment staging areas, and gravel processing facilities which are needed. Figures accurately depicting proposed project features in relation to natural features (such as streams, wetlands, riparian areas, and other habitat types) in the project area should be included.

Affected Environment. The document should show the location of, and describe, all vegetative cover types in the areas potentially affected by all project alternatives and associated activities. Tables with acreages of each cover type with and without the project for each alternative would also be appropriate. We recommend that all wetlands in the project area be delineated and described according to the classification system found in the Service's Classification of Wetlands and Deepwater Habitats of the United States (Cowardin 1979). The Service's National Wetland Inventory maps would be one starting point for this effort.

The document should present and analyze a full range of alternatives to the proposed project. At least one alternative should be designed to avoid all impacts to wetlands, including riparian areas. Similarly, within each alternative, measures to minimize or avoid impacts to wetlands should be included.

Lists of fish and wildlife species expected to occur in the project area should be in the document. The lists should also indicate for each species whether or not it is a resident or migrant, and the period(s) of the year it would be expected in the project area.

Environmental Consequences. The sections on impacts to fish and wildlife should discuss impacts from vegetation removal (both permanent and temporary), filling or degradation of wetlands, interruption of wildlife migration corridors, and disturbance from trucks and other machinery during construction and/or operation. These sections should also analyze possible impacts to streams from construction of outfall structures, pipeline crossings, and filling. Impacts on water quality, including nutrient loading, sedimentation, toxics, biological oxygen demand, and temperature in receiving waters should also be discussed in detail along with the resultant effects on fish and aquatic invertebrates. Discussion of indirect impacts to fish, wildlife, and their habitats, including impacts from growth induced by the proposed project, should also be addressed in the document. The impacts of each alternative should be discussed in sufficient detail to allow comparison between the alternatives.

The cumulative impacts of the project, when viewed in conjunction with other past, existing, and foreseeable projects, need to be addressed. Cumulative impacts to fish, wildlife, wetlands and other habitats, and water quality should be included.

A-61

Mitigation Planning. Under provisions of the Fish and Wildlife Coordination Act, the Service advises the U.S. Army Corps of Engineers on projects involving dredge and fill activities in "waters of the United States", of which wetlands and some riparian habitats are subcategories. Since portions of this proposal may ultimately require a Corps permit, the Service will subsequently be involved under the Coordination Act. Therefore, if you have not done so already, we suggest that you or your representative consult the Corps regarding onsite wetlands and related habitats that may fall under their jurisdiction, and include this information in the draft document. When reviewing Corps public notices, the Service generally does not object to projects meeting the following criteria:

1. They are ecologically sound;

2. The least environmentally damaging reasonable alternative is selected;

3. Every reasonable effort is made to avoid or minimize damage or loss of fish and wildlife resources and uses;

4. All important recommended means and measures have been adopted, with guaranteed implementation to satisfactorily compensate for unavoidable damage or loss consistent with the appropriate mitigation goal; and

5. For wetlands and shallow water habitats, the proposed activity is clearly water dependent and there is a demonstrated public need.

The Service may recommend the "no project" alternative for those projects which do not meet all of the above criteria, and where there is likely to be a significant fish and wildlife resource loss.

When projects impacting waterways or wetlands are deemed acceptable to the Service, we recommend full mitigation for any impacts to fish and wildlife. The Council on Environmental Quality regulations for implementing the National Environmental Policy Act define mitigation to include: 1) Avoiding the impact; 2) minimizing the impact; 3) rectifying the impact; 4) reducing or eliminating the impact over time; and 5) compensating for impacts. The Service supports and adopts this definition of mitigation and considers the specific elements to represent the desirable sequence of steps in the mitigation planning process. Accordingly, we maintain that the best way to mitigate for adverse biological impacts is to avoid them altogether.

The document should describe all measures proposed to avoid, minimize, or compensate for impacts to fish and wildlife and their habitats. The measures should be presented in as much detail as possible to allow us to evaluate their probable effectiveness.

Because of their very high value to migratory birds, and their ever-increasing scarcity in California, our mitigation goal for wetlands (including riparian and riverine wetlands) is no net loss of in-kind habitat value or acreage (whichever is greater).

For unavoidable impacts, to determine the mitigation credits available for a given mitigation project, we evaluate what conditions would exist on the mitigation site in the future in the absence of the mitigation actions, and compare those conditions to the conditions we would expect to develop on the site with implementation of the mitigation plan.

Mitigation habitat should be equal to or exceed the quality of the habitat to be affected by the project. Baseline information would need to be gathered at the impact site to be able to quantify this goal in terms of plant species

A-61

Mitigation Planning. Under provisions of the Fish and Wildlife Coordination Act, the Service advises the U.S. Army Corps of Engineers on projects involving dredge and fill activities in "waters of the United States", of which wetlands and some riparian habitats are subcategories. Since portions of this proposal may ultimately require a Corps permit, the Service will subsequently be involved under the Coordination Act. Therefore, if you have not done so already, we suggest that you or your representative consult the Corps regarding onsite wetlands and related habitats that may fall under their jurisdiction, and include this information in the draft document. When reviewing Corps public notices, the Service generally does not object to projects meeting the following criteria:

1. They are ecologically sound;

2. The least environmentally damaging reasonable alternative is selected;

3. Every reasonable effort is made to avoid or minimize damage or loss of fish and wildlife resources and uses;

4. All important recommended means and measures have been adopted, with guaranteed implementation to satisfactorily compensate for unavoidable damage or loss consistent with the appropriate mitigation goal; and

5. For wetlands and shallow water habitats, the proposed activity is clearly water dependent and there is a demonstrated public need.

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The document should describe all measures proposed to avoid, minimize, or compensate for impacts to fish and wildlife and their habitats. The measures should be presented in as much detail as possible to allow us to evaluate their probable effectiveness.

Because of their very high value to migratory birds, and their ever-increasing scarcity in California, our mitigation goal for wetlands (including riparian and riverine wetlands) is no net loss of in-kind habitat value or acreage (whichever is greater).

For unavoidable impacts, to determine the mitigation credits available for a given mitigation project, we evaluate what conditions would exist on the mitigation site in the future in the absence of the mitigation actions, and compare those conditions to the conditions we would expect to develop on the site with implementation of the mitigation plan.

Mitigation habitat should be equal to or exceed the quality of the habitat to be affected by the project. Baseline information would need to be gathered at the impact site to be able to quantify this goal in terms of plant species

A-61

Reference

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. FWS/OBS-79/31. U.S. Fish and Wildlife Service, Washington, D.C. 103 pp.

appendix B

Habitat Management Element

Appendix B

The Habitat Management Element, part IV of the Water Forum Proposal, as it exists at the time of the release of the Draft EIR, is presented in this appendix to summarize the habitat management program actions for the Lower American River.

IV. LOWER AMERICAN RIVER HABITAT MANAGEMENT ELEMENT

A. Intent

The Habitat Management Element (HME) for the Lower American River, combined with other elements of the *Water Forum Agreement*, is intended to fulfill one of the Water Forum's two coequal objectives:

> ***Preserve the fishery, wildlife, recreational, and aesthetic values of the Lower American River.***

The HME is necessary to comply with the California Environmental Quality Act's (CEQA) requirement to avoid or lessen, to the extent reasonable and feasible, all significant impacts to the Lower American River resulting from future increased surface water diversions identified in the *Water Forum Agreement*. The HME will be incorporated into the Water Forum Environmental Impact Report.

The HME is also an important issue for another reason. In 1998, steelhead on many rivers, including the American, were listed as threatened under the federal Endangered Species Act and fall-run salmon were proposed for listing. As purveyors proceed with their diversion projects, they will have to consult with resource agencies. Under the Endangered Species Act, projects can move forward only if the resources agencies find that they will not jeopardize the continued existence of the species.

The Habitat Management Element will be implemented for the term of the *Water Forum Agreement* - to the year 2030.

B. Lower American River Habitat Management Element Program Components

The Lower American River HME will contain five programmatic components that together will address flow, temperature, physical habitat, and recreation issues for the Lower American River: Habitat Management Plan; Habitat Projects that Benefit the Lower American River Ecosystem; Monitoring and Evaluation Program; Project-specific Mitigation; and Lower American River Recreation.

1. The Lower American River Habitat Management Plan will include detailed descriptions of all reasonable and feasible projects that could be implemented to avoid and/or offset potential impacts to Lower American River fishery and riparian resources due to the increased surface water diversions defined under the *Water Forum Agreement*.

The Plan will also identify and define:

a. Performance standards to be used as indicators of the health of the Lower American River (e.g. flows, temperatures, etc.)

b. The conceptual (e.g., mitigation banking or other) and technical framework for the Habitat Management Element;

c. Schedule and technical assistance required for development, implementation, and monitoring of the Habitat Management Element;

d. How the Habitat Management Element will be coordinated with other programs, plans, initiatives, and/or mandates that affect the Lower American River ecosystem;

e. Logistics and responsibilities associated with administering the Habitat Management Element;

f. Implementation priorities, strategies, and schedules for the proposed projects;

g. Lead organizations for implementation of each project;

h. How the Habitat Management Element could serve as the framework for addressing any Endangered Species Act requirements; and

I. Cost-sharing obligations and specific funding commitments.

Moreover, the Habitat Management Plan will outline protocols for Plan updating, and will clearly identify the type, amount, and costs for all technical assistance that will be required to develop/update, administer, implement, and monitor the Habitat Management Element.

Consultant services and other technical assistance will be acquired to: 1) effectively develop, implement, administer, and monitor the success of the HME; and 2) provide input to federal and state agencies for actions that will contribute to the preservation of the values of the Lower American River. This will ensure that there is effective advocacy to achieve a "fair share" of CVPIA Restoration Funds allocated to Lower American River improvements, real-time implementation of the Improved Fishery Flow Pattern Releases (focusing on the volume, temperature, and timing of flows), and preservation of riparian habitat.

In developing and updating the Habitat Management Plan, the Water Forum will not only benefit from direct technical assistance from various agencies (e.g., Bureau, California Department of Fish and Game [CDFG], Sacramento Area Flood Control Agency [SAFCA]), but also will receive technical assistance from and be able to participate in existing technical forums, including:

C SAFCA's Lower American River Task Force;

C Lower American River Operations Working Group;

C Lower American River Technical Team convened by CALFED, the Water Forum, and SAFCA; and

C Sacramento County Parks and Recreation Department.

This Habitat Management Element will be incorporated into the Water Forum EIR. Then, within the first 18 months after the *Water Forum Agreement* is signed, the Habitat Management Plan will be completed and adopted.

2. Projects that Benefit the Lower American River Ecosystem have been identified by the CALFED American River Technical Team. Currently, 22 potential projects/studies have been identified for the Lower American River. Those that could be appropriately supported through the Water Forum Successor Effort are identified in Table 1. Additional projects that could be supported by other agencies are identified in Table 2. The projects/studies identified in Table 1 are strictly potential candidates for inclusion, and should not be considered as a final array of management elements to be adopted by the Water Forum.

3. The Monitoring and Evaluation Program will: 1) establish baseline conditions for future reference and assess the health of the Lower American River as diversions increase; and 2) assess the response of fish, wildlife, and riparian communities to the management/restoration projects implemented under the Habitat Management Plan as well as the increased diversions. The Monitoring and Evaluation Program will also meet the CEQA requirement to have a mitigation monitoring plan.

Real time monitoring and regular evaluation are also necessary components of the adaptive management approach for the ongoing implementation of the *Water Forum Agreement*. Real time monitoring will be particularly useful to the Lower American River Operations Group as it makes monthly flow and temperature decisions.

Regular evaluations conducted every five years will allow the Water Forum Successor Effort to comprehensively review the overall impacts of the agreement on the health of Lower American River.

Specifics on the monitoring and evaluation program will be included in the Water Forum EIR.

4. Project-Specific Mitigation will be required of each purveyor to mitigate any site-specific impacts associated with their diversion. An example of such site-specific mitigation would be installing fish screens for new diversions or, potentially, improving existing diversion screens following increased rates of diversion.

5. Lower American River Recreation

This component is intended to address effects on recreation along the Lower American River. Two components of the *Water Forum Agreement* have an effect on the recreational flows for the Lower American River. First, the Improved Pattern of Fishery Flow Releases results in lower summer time releases so that cold water can be conserved in Folsom Reservoir to benefit the fall-run chinook salmon. Second, the increased surface water diversions result in less water being available to flow down the entire length of the Lower American River.

In order to reduce the impacts of reduced recreational flows on the Lower American River an initial list of projects has been developed. These are summarized in the table below.

This list of projects will be refined over time.

TABLE 1. Water Forum Cost-Sharing for Lower American River Habitat Projects. Proposed projects and studies for which the Water Forum could be a cost-share partner. Table 1 contains preliminary, rough cost estimates for years 1-2 and annual costs thereafter for the life of the *Water Forum Agreement*. Estimated costs can be expected to change and are provided here for discussion purposes only.

PROJECT/STUDY	AGENCY	ANNUAL COST	
		Years 1-2	**Ongoing**
Wetland/Slough Complex	SAFCA	Unknown	To be determined
	CALFED	Unknown	
	Water Forum	$25,000	
Shaded Riverine Aquatic Habitat	SAFCA	Unknown	To be determined
	CALFED	Unknown	
	Water Forum	$25,000	
Tailrace Habitat Utilization Study	CALFED	$15,000	Study complete
	Water Forum	$15,000	
Thermal Refugia Utilization Study	CALFED	$25,000	Study complete
	Water Forum	$25,000	
Off-site Mitigation (if required)	Water Forum	Unknown	Unknown
Monitoring and Evaluation	SAFCA	$100,000	$100,000
	Water Forum	$100,000	$100,000
	CVPIA	$100,000	$100,000
Plan Development, Updating & Technical Assistance	SAFCA	$150,000	$70,000
	Water Forum	$150,000	$70,000
	CVPIA	$150,000	$70,000

TABLE 2. Additional Lower American River Habitat Projects. These are additional projects and studies that would be carried out by other organizations.

Habitat Projects that Benefit the Lower American River Ecosystem				
Priority	**Actions**	**Study or Project**	**Possible Funding Source(s)**	**Lead Organization**
High	New Flow Standards	Project	CVPIA	USBR
High	Flow Fluctuation Criteria	Project	CVPIA	USBR
High	Dry Year Flow Augmentation	Project	CVPIA	PCWA USBR/USFWS
High	Folsom Temperature Control Device (TCD)	Project	USBR	USBR
High	Folsom Reservoir Cold Water Pool Management	Project	SCWA Folsom SJWD USBR	USBR
High	Instream Cover (Woody Debris)	Project	ACOE SAFCA	ACOE SAFCA
High	Flood Control Channel Improvement	Project	SAFCA ACOE	SAFCA
High	Spawning Habitat Management/ Maintenance	Study, Project	CVPIA CALFED	CDFG USFWS
High	Hatchery Temperature Control	Project	USBR	USBR
High	Hatchery Management Practices	Project	USBR CDFG	CDFG
Moderate	Fire Management	Project	SAFCA Sacramento County	Sacramento County SAFCA
Low	Increase Artificial Production of Salmonids	Project	USBR CDFG	CDFG
Low	Angling Regulations	Project	CDFG	CDFG

Table 2. - continued

Project-specific Mitigation				
Priority	**Actions**	**Study or Project**	**Possible Funding Source(s)**	**Lead Organization**
	Fish Screen Improvement	Project	Water Forum purveyors with fish screens CVPIA	Water Forum purveyors

It is also recognized that the State Steelhead Restoration Plan includes a study of the feasibility of reintroduction of steelhead above Folsom Dam. Water Forum water purveyors are concerned that reintroduction not impose Endangered Species Act requirements on diversions upstream of Folsom Dam.

After the technical team prepared this list, an additional potential project was identified by the Department of Fish and Game. It would be beneficial to tag steelhead to determine the extent of natural spawning in the Lower American River.

LEGEND:

ACOE - Army Corps of Engineers
CVPIA - Central Valley Project Improvement Act
Folsom - City of Folsom
PCWA - Placer County Water Agency
SAFCA - Sacramento Area Flood Control Agency
SCWA - Sacramento County Water Agency
SJWD - San Juan Water District
USBR - United States Bureau of Reclamation
USFWS - United States Fish and Wildlife Service

TABLE 3. Potential Projects to Address Effects on Lower American River Recreation

Project	Potential Funding Source(s)	Lead Organization(s)
Update Recreation Element of the Lower American River Parkway Plan	Water Forum HME and Sacramento County	Water Forum Successor Effort, Sacramento County
Increase access to American River	Water Forum HME, Sacramento County, City of Sacramento	Water Forum Successor Effort, Sacramento County
Trails adjacent to waterways	Water Forum HME, Sacramento County, City of Sacramento	Water Forum Successor Effort, Sacramento County
Purchase and develop Uruttia property for recreational and environmental values	Sacramento County, Sacramento City, and Water Forum HME	Sacramento County and Sacramento City

Consideration will be given to locating projects in the service areas of purveyors contributing to the Lower American River Habitat Management Element. Preference will be given to those projects having the greatest nexus to the recreational impacts on the Lower American River resulting from implementation of the *Water Forum Agreement*.

Funding for recreation projects is included in the Habitat Management Element Cost Allocation Principles. Contributions to the HME would be for both Habitat and Recreational projects, with the Water Forum Successor Effort deciding on annual expenditures.

C. Relationship to a Coordinated Multi-Agency Lower American River Ecosystem Partnership

The Lower American River ecosystem is also affected by agencies outside the Water Forum. Many agencies have some type of jurisdiction over decisions that affect the ecosystem. Several outside agencies have responsibility and financial resources to benefit the Lower American River.

It is also recognized that the Water Forum Successor Effort will not by itself have sufficient funding to implement all the actions necessary to fully preserve the Lower American River ecosystem. Therefore it is intended that the Water Forum Habitat Management Element (HME) be part of a coordinated Multi-Agency Lower American River Ecosystem Partnership. It is proposed that this Partnership be established by a Memorandum of Understanding among:

- The Water Forum Successor Effort (legally administered by the Sacramento City-County Office of Metropolitan Water Planning);
- Sacramento Area Flood Control Agency (SAFCA);
- CALFED (or its successor);

- U.S. Bureau of Reclamation (CVP and CVPIA);
- U.S. Fish and Wildlife Service;
- National Marine Fisheries Service
- California Department of Fish and Game;
- Sacramento County Parks Department.

The Multi-Agency Lower American River Habitat Ecosystem Partnership will incorporate key objectives from other ongoing or planned state and federal initiatives involving the agencies identified above, including:

- the American River component of CALFED's Ecological Restoration Program Plan (ERPP);
- SAFCA's emerging floodway management plan (FMP);
- Sacramento County's American River Parkway Plan (ARPP); and
- The federal Anadromous Fish Restoration Program (AFRP) of the Central Valley Project Improvement Act (CVPIA).

The Partnership will also draw upon the expertise of groups such as SAFCA's Lower American River Task Force, the Water Forum's Lower American River Technical Team, and the Bureau's Lower American River Operations Group.

Each member of the Multi-Agency Partnership will be represented on a Partnership Steering Committee. The Steering Committee will oversee development of the detailed Habitat Management Plan which will identify priorities for environmental restoration and enhancement. Although each agency will retain autonomy over its own budget, the Steering Committee will coordinate opportunities for costs sharing. Through the integration of ongoing and planned management/restoration efforts, the most effective program for the Lower American River will be developed, thereby providing maximum benefits to the river ecosystem. Moreover, through cooperation and cost-sharing, the costs to each organization for developing, implementing, and monitoring the Program will be minimized.

D. Water Forum Cost Allocation Principles

1. Proposed Lower American River habitat projects and studies that could be supported by the Water Forum Habitat Management Element are shown in Table 1 (on page 72). Potential projects to address effects on Lower American River recreation that could be supported by the Water Forum Habitat Management Element are shown in Table 3 (on page 75).

2. Cost-Sharing among Water Forum Purveyors

a. The City of Sacramento and the Sacramento County Water Agency (through Zone 13) will commit to a combined total of $375,000 annually to the Habitat Management Element (including an estimated, but not earmarked, $35,000 for recreational projects.).

The City of Sacramento and Sacramento County Water Agency (SCWA) will commit to funding their share of the Habitat Element starting when they sign the *Water Forum Agreement*. Their contributions will fund the majority of the Water Forum's share of the core program, especially real time monitoring, evaluation, and

planning. The City of Sacramento will contribute $125,000 annually and SCWA will contribute $250,000 annually using Zone 13 funds.[1]

b. Sacramento County Water Agency Zone 13 funds will be use to meet the HME obligations for the purveyors serving the unincorporated areas of Sacramento County and in the City of Citrus Heights.

Property owners in the unincorporated areas of Sacramento county and in the City of Citrus Heights are assessed in their property taxes for county-wide water management expenses that could include many of the real time monitoring, evaluation and planning activities in the Habitat Management Program.

Therefore SCWA's Zone 13 contribution to the Habitat Management Element will cover the financial obligations of these water users serving the unincorporated area of Sacramento County and the City of Citrus Heights: Carmichael Water District, Citrus Heights Water District, Citizens Utilities in Sacramento county, Clay Water District, Del Paso Manor County Water District, Fair Oaks Water District, Florin County Water District, Galt Irrigation District, Natomas Mutual Water District, Northridge Water District, Omuchumne-Hartnell Water District, Orange Vale Water Company, Sacramento Municipal Utility District, and San Juan Water District in Sacramento County.

c. Contributions from Other Purveyors.

Other purveyors that divert from the American River are the City of Folsom, Placer County Water Agency, City of Roseville, San Juan Water District in Placer County, El Dorado Irrigation District, and Georgetown Divide Public Utility.

(1) Central Valley Project water. A portion of their increased diversions will be Central Valley Project water for which these purveyors contribute into the Central Valley Project Restoration Fund. The Water Forum Successor Effort will work to ensure that a fair share of those Restoration Funds will be spent on improvements to the Lower American River.

Therefore, these purveyors will not be contributing to the Water Forum Habitat Element for increased diversions of CVP water. If for any reason, the purveyors do not contribute to the CVP Restoration fund for increased diversions of CVP water over their baseline amounts (i.e. historic maximum amount of water diverted in any one year through the year 1995 or, in certain appropriate instances, other amounts specified in the agreement), they would contribute to the Habitat Management Element as set forth below.

(2) Non-Central Valley Project water. Some purveyors will also be increasing their diversions of non-CVP water. For increased diversions of

[1] If in the future, a joint City of Sacramento, Sacramento County Water Agency (SCWA), and East Bay Municipal Utility District (EBMUD) project is implemented, EBMUD will be asked to pay a portion of SCWA's $250,000 annual contribution.

non-CVP water from the American River, purveyors would pay $3 per acre foot when they divert the water. Increases are defined as amounts above their baseline (i.e. historic maximum amount of water diverted in any one year through the year 1995 or, in certain appropriate instances, other amounts specified in the agreement). If a purveyor exchanges current CVP water deliveries with non-CVP water they will pay $3 per acre foot for the water they exchange.

It is specifically recognized that Placer County Water Agency would only contribute to the HME for increased American River diversions of non-CVP water used by PCWA. Contributions to the HME for PCWA water used by San Juan Water District, City of Roseville, Northridge Water District and any other purveyors are not the responsibility of PCWA.

3. Cost Cap

The City of Sacramento, SCWA and other Water Forum signatories' commitments to financially contribute to the HME are capped at the dollar amounts shown in sections a, b, and c above, adjusted only for inflation as set by the January issue of the "*Engineering New Record*" published Construction Cost Indexes for U.S. - 20 Cities Average and for the San Francisco Area. The annual adjustment index would be calculated using the average of the cost indexes for these two areas.

If the Water Forum balance in the Habitat Management Element fund exceeds $1 million of unearmarked funds, annual contributions would be reduced or deferred until the unearmarked balance went below $1 million.

Every five years the Water Forum Successor Effort will review the evaluation of the health of the Lower American River ecosystem. At those times any signatory to the *Water Forum Agreement* can request that the Water Forum Successor Effort renegotiate the Cost Cap to increase or decrease the amount based on the needs at that time. Any increase or decrease would have to be approved by the signatories to the *Water Forum Agreement*.

4. Through the Multi-Agency Partnership, agencies in addition to the Water Forum Successor Effort and its signatory agencies will be requested to contribute to the budget. Total costs shared by all partners, (including Water Forum and requested cost-sharing from SAFCA, U.S. Bureau of Reclamation and CALFED) for each of the first two years are estimated to be approximately $915,000. Annual costs thereafter for monitoring, evaluation, plan updating and technical assistance are estimated to be approximately $510,000. Additional funding will be needed for projects identified in the Habitat Management Plan and recreational projects.

This program assumes significant financial contributions from other members of the Multi-Agency Lower American River Ecosystem Partnership. If that does not occur, it would be considered a changed circumstance requiring renegotiation.

5. Project Specific Mitigation.

Any project-specific habitat mitigation, (e.g. fish screens at diversion facilities) or

recreation mitigation is the responsibility of individual purveyors. Costs for project specific mitigation are not eligible for funding under the Habitat Management Element.

E. Adaptive Management

The Habitat Management Element is based on the principal of "adaptive management," which allows for flexibility in making future resource-management decisions as additional data become available. Information collected under the on-going Monitoring and Evaluation Program will be fed back into the management decision making process on a real-time basis.

It is recognized that monitoring and evaluation may identify adverse impacts not currently anticipated. If the unanticipated impacts are significant, this would be considered a changed condition. The Water Forum Successor Effort would meet and confer on options for mitigating these unanticipated impacts.

Options include additional habitat measures to reduce or eliminate the adverse impacts. Funding could come from the Water Forum participants or other partners in the Multi-Agency Lower American River Ecosystem Partnership. If unanticipated significant adverse impacts cannot be mitigated, this would be considered a changed circumstance requiring renegotiation of the relevant portions of the *Water Forum Agreement*.

If the Lower American River is designated as critical habitat for an endangered or threatened species, the Endangered Species Act may require a higher level of mitigation than that anticipated to be paid from the Habitat Management Element. Thus, if the Lower American River is designated as critical habitat, it may be considered a changed condition to be addressed by the Water Forum Successor Effort.

F. Specific Agreement for the Lower American River Habitat Management Element.

All signatories will support and where appropriate, participate in the Lower American River Habitat Management Element as set forth above.

appendix C

The Hodge Decision

APPENDIX C

WHAT IS THE HODGE DECISION?

Existing flow requirements, for the Lower American River, known as Decision D – 893, were set 40 years ago when much less was known about the life cycles and needs of the fish, particularly fall-run chinook salmon. Since then we have learned more about them and watched as their population further declined under the outdated standard.

In 1970 the East Bay Municipal Utility District (EBMUD) contracted with the U. S. Bureau of Reclamation for water that would be diverted from the Lower American River into the Folsom South Canal at Nimbus which is upstream of the Lower American River. Parties including Sacramento County, the Environmental Defense Fund, and Save the American River Association sued EBMUD over concern about how these increased diversions would further impact the Lower American River fishery. Millions of dollars were spent on legal costs and fishery studies.

At the end of the 17-year lawsuit, Judge Hodge evaluated all of the evidence and issued his decision which balanced the needs of the fishery with EBMUD's contractual entitlement to American River water. Judge Hodge reasoned that because EBMUD had reasonable and feasible alternatives for meeting its needs, it could use the Folsom-South Canal diversion only when specified flows would remain in the river. These flows have come to be known as the Hodge Flows.

While Judge Hodge's decision applies only to parties to that lawsuit, the Water Forum is considering the same standards for any water district that was found to have reasonable and feasible alternatives.

The Water Forum also recognizes that some agencies, such as those at higher elevations, have no reasonable and feasible alternatives to increased American River diversions in most years and therefore probably would not be held to the Hodge standard.

D – 893

September 15 – December 31	500 cubic feet per second
January 1 – September 14	250 cubic feet per second

Hodge Decision

October 15 – February	2,000 cubic feet per second
March – June	3,000 cubic feet per second
July – October 14	1,750 cubic feet per second

appendix D

Water Conservation Best Management Practices and Implementation Methods

APPENDIX D

WATER FORUM BEST MANAGEMENT PRACTICES (BMP) IMPLEMENTATION CRITERIA

The Best Management Practices (BMP) Implementation Criteria on the following pages were adopted on July 28, 1997 by the negotiators participating in the Water Forum BMP Criteria Negotiations. They were adapted from the Statewide Memorandum of Understanding (MOU) Regarding Urban Water Conservation Best Management Practices and have been customized for use by the Water Forum.

The signatories to this Agreement agree that the BMPs be implemented consistent with the Water Forum Negotiated BMP Implementation Criteria, or Functional Equivalent, as described below.

The following language, adopted on July 28, 1997 by the negotiators participating in the BMP Criteria Negotiations, applied to the development of the Water Conservation Plans that will be a part of the Water Forum Agreement.

A. Purveyors may choose to implement BMPs using the negotiated criteria described on the following pages.

B. Purveyors also had the option of customizing ways to implement BMPs that will be at least as effective as the negotiated criteria. The Demand/Conservation Team reviewed each of the proposed customized implementation method(s) to determine if the BMP were be at least as effective as the negotiated criteria.

C. Alternately, a functional equivalency determination could have been made based on an integrated review of the entire package of a purveyor's proposed schedule and budget for implementing the BMPs. The Demand/Conservation Team determined if the purveyor's proposal would provide functional equivalency to the full implementation of BMPs using the negotiated criteria.

BMP 1: INTERIOR AND EXTERIOR WATER AUDITS AND INCENTIVE PROGRAMS FOR SINGLE FAMILY RESIDENTIAL, MULTI-FAMILY RESIDENTIAL, AND INSTITUTIONAL CUSTOMERS

BMP Implementation Criteria

The on-going program will include, at a minimum:

A. Within three years of agreement signing, signatories will have:

1. Trained water auditors on staff or available through cooperative agreements with other purveyors.
2. Prepared and made available, as needed, multi-lingual interior and exterior water audit materials for customers
3. Prepared and made available to customers seasonal climate-appropriate irrigation information.
4. Investigated opportunities for community based organizations (CBOs) to receive the training and financial incentives necessary for them to implement this BMP for their constituents.

B. Signatories will annually:

1. Identify the top 20% of water-users, not previously audited, in each customer type and offer them water-use reviews (audits)

    a. (Metered accounts) annually determine the top 20% of water users in each customer type based on water use, and when appropriate, lot size and/or landscape area
    b. (Unmetered accounts) annually determine the top 20% of water users in each customer type based on lot size and/or landscape area or other water-use indicators

2. Offer, through bill inserts or other means, water-use reviews to all customers
3. Survey past program participants to determine if audit recommendations were implemented

C. The water-use review program will:

1. Provide audits conducted by trained auditors
2. Provide audits that may include device installation by purveyor or customer (showerheads, faucet aerators, etc.), identification of water-use problems, recommend repairs, instruction in landscape principles (hydrozones, ET, etc.), irrigation timer use and, when appropriate, meter reading.
3. Provide program participants with seasonal irrigation schedules by hydrozone and/or station

4. Provide incentives, such as the following, to achieve 12% annual participation of the targeted 20% of customers:

    a. Billing adjustments or bill rebates targeted to plumbing system repair or improvement;
    b. Incentive programs to encourage plumbing system repair or improvement

D. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 2: PLUMBING RETROFIT OF EXISTING RESIDENTIAL ACCOUNTS

BMP Implementation Criteria

A. The on-going program will include, at a minimum:

1. Offer to all customers, through bill inserts or other means, retrofit kits which include, but are not limited to, high quality low-flow showerheads, faucet aerators and toilet leak detection tablets
2. Offer toilet leak test kits to all change of account customers who visit the purveyor office
3. Work with the local "Welcome Wagon" or equivalent organization to provide water conservation materials to new residents.
4. Work with local hardware/home stores to offer free water conservation information and toilet leak test kits at the check-out counters
5. Investigate partnership programs with local energy utilities to provide water conservation audits, materials and devices

B. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 3: DISTRIBUTION SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

BMP Implementation Criteria

The on-going program will include the following minimum programs (as recommended in AWWA "Manual of Water Supply Practices, Water Audits and Leak Detection"):

A. Unmetered signatories will complete and be maintaining:

1. An annually updated 'system map' of type, size and age of pipes; pressures; leak history; and historic data
2. Installation of devices (such as pressure recorders) or use of other methods designed to identify area with greater than 10% losses.
3. An ongoing meter calibration and replacement program for all production and distribution meters.
4. An ongoing leak detection & repair program (as defined in the manual) focused on high probability leak areas identified by the system map.
5. A complete system-wide leak detection program, repeated no less often than every ten years; unless there are special circumstances, such as age of system or planned main replacement.

B. Metered signatories will complete and be maintaining:

1. An annual system water audit, determining the difference between production and sales.
2. An annually updated 'system map' of: type, size and age of pipes; pressures; record of leaks; etc.; with historic data
3. An ongoing meter calibration and replacement program.
4. An ongoing leak detection and repair program focused on high probability leak areas identified by the system map.
5. A complete system wide leak detection program, repeated: when the system water audit determines losses to be greater than 10%; when the losses are less than 10% if the program is determined to be cost-effective.

C. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 4: NON-RESIDENTIAL METER RETROFIT

BMP description (customized by the Water Forum):

Purveyors will retrofit at least 85-90% of non-residential customers within ten years. Complete non-residential retrofit is not a requirement. This is in recognition of the fact that there could be some smaller non-residential customers whose service locations could be very difficult and expensive to retrofit.

BMP Implementation Criteria

A. The on-going program will include, at a minimum:

1. Identify all non-residential unmetered customers
2. Provisionally identify any non-residential unmetered customers which may be very difficult and expensive to retrofit
3. Adopt a plan to meter at least 10% of unmetered non-residential accounts yearly so that within ten years of becoming a signatory 85-90% of non-residential customers are metered
4. Begin installation of meters at non-residential unmetered customer locations, with consideration of separate landscape meters

B. Within 60 days of meter installation, signatories will provide newly metered non-residential customers with:

1. Information on how to read their meter and a consumption-based water bill information on purveyor-provided water conservation programs and services

C. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

For the purposes of this BMP, “non-residential” is defined as all accounts except single family and duplex residential dwellings.

BMP 4: RESIDENTIAL METER RETROFIT

BMP description (customized by the Water Forum):

See Water Conservation Element, Section Three, V., pages 81-82, for a description of this customized BMP.

BMP 5: LARGE LANDSCAPE WATER AUDITS AND INCENTIVES FOR COMMERCIAL, INDUSTRIAL, INSTITUTIONAL (CII), AND IRRIGATION ACCOUNTS

BMP Implementation Criteria

The on-going program will include, at a minimum:

A. Within three years of agreement signing, signatories will:

1. Identify all Irrigation accounts and CII accounts with landscapes of one acre and larger and record that information in the customer database
2. Have certified and/or trained landscape water auditors on staff or available through cooperative agreements
3. Prepare and distribute multi-lingual (as appropriate) irrigation system materials, seasonal climate-appropriate information on irrigation scheduling and offer training for customers and landscape workers
4. Develop seasonal climate-appropriate information to determine irrigation schedules, for the three basic hydrozones identified in the DWR Landscape Water Management Handbook, and provided that information to the customers with one acre or larger landscapes
5. Begin installation of climate appropriate water efficient landscaping at landscaped purveyor facilities, phased in over the five years following agreement signing.

B. Signatories will annually:

1. Directly contact all Irrigation accounts and CII accounts with one acre and larger landscapes, not previously audited, and offer them landscape water-use reviews (audits)
2. Offer, through bill inserts or other means, landscape water-use reviews to all customers
3. Survey past program participants to determine if audit recommendations were implemented
4. Offer program participants with separate irrigation meters information showing the relationship between actual consumption and their ET-based water demand

C. The landscape water-use review program will:

1. Provide audits conducted by certified landscape water auditors
2. Provide audits that consist of a system review, to identify necessary irrigation system repairs, and, once repairs have been completed, a water-use review including measurement of landscaped area
3. Provide program participants with seasonal irrigation schedules by hydrozone and/or station

4. Provide program participants with regular reminders to adjust irrigation timer settings

5. Provide incentives, such as the following, to achieve at least 12% annual participation of targeted customers:

    a. Billing adjustments or bill rebates targeted to irrigation system repair or improvement
    b. Grants, etc. to encourage landscape design and irrigation system improvements
    c. ET (evapotranspiration) based tiered rate structure

D. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 6: LANDSCAPE WATER CONSERVATION REQUIREMENTS FOR NEW AND EXISTING COMMERCIAL, INDUSTRIAL, INSTITUTIONAL AND MULTI-FAMILY DEVELOPMENTS

BMP Implementation Criteria

Cities and counties have either already adopted their own landscape water conservation ordinance for new and existing commercial, industrial, institutional, governmental, and multi-family customers, or are covered by the State landscape water conservation ordinance, pursuant to the "Water Conservation in Landscaping Act" (California Code of Regulations, Chapter 2.7, Title 23.).

A. Cities and counties, will:

1. Enact and implement a landscape water efficiency ordinance pursuant to the "Water Conservation in Landscaping Act" (California Code of Regulations, Chapter 2.7), that is at least as effective as the Model Water Efficient Landscape Ordinance described in Chapter 2.7, Sections 490 through 495.

B. Cities and counties, in cooperation with purveyors within their jurisdiction, will:

1. Establish a landscape task force with other local governments, water purveyors, the building and green industries and environmental / public interest groups to review the existing ordinance to determine if it is at least as effective as the Model Water Efficient Landscape Ordinance, and to monitor, and revise, when applicable, the ordinance.
2. Review, in cooperation with the landscape task force, the implementation of the ordinance, including the landscape plan review and final inspection/certification process, to ensure its effectiveness.
3. Determine, in cooperation with the landscape task force, if program effectiveness is diminished by city/county staff time constraints, budget or lack of landscape knowledge/expertise, and, if so, recommend and support corrective action - for example, the use of consultants.

C. Signatories will publicly support the county or city's actions to enact and/or revise and then fully implement a landscape water efficiency ordinance.

D. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 7: PUBLIC INFORMATION

BMP Implementation Criteria

Within three years of agreement signing, a signatory's on-going program will include, at a minimum, one of the three choices listed below:

A. A combination of a purveyor specific program in conjunction with full participation by the purveyor in the Sacramento Area Water Works Association (SAWWA) Conservation Committee's Public Outreach Program or other equivalent regional program. At this time full financial participation in this program is based upon an annual per connection contribution by purveyors to the SAWWA Conservation Committee for the combined Public Information and School Education program. This program includes programs such as: school outreach, media advertising campaigns, commercial consumer outreach, promotional materials, community events and fairs, evapotranspiration data availability, a Web site, and allied organizations outreach.

Elements implemented directly by the purveyor include, at a minimum:

1. Using utility bill inserts or messages on payment notices;
2. Providing information on residential metered customers' bills showing use in gallons per day for the last billing period compared to the same period the year before;

OR

B. A combination of a purveyor specific program in conjunction with limited participation by the purveyor in the Sacramento Area Water Works Association (SAWWA) Conservation Committee's Public Outreach Program or other equivalent regional program. At this time limited participation in this program is based upon an annual contribution by a purveyor to the SAWWA Conservation Committee for the combined Public Information and School Education program. This program includes programs such as: school outreach, media advertising campaigns, commercial consumer outreach, promotional materials, community events and fairs, evapotranspiration data availability, a Web site, and allied organizations outreach.

The purveyor agrees to spend the difference between the annual per connection SAWWA contribution and the flat annual contribution to SAWWA on an enhanced within-service-area implementation of elements 3-6 listed below and elements 3-4 listed in BMP 8, School Education.

1. Using utility bill inserts or messages on payment notices;
2. Providing information on residential metered customers' bills showing use in gallons per day for the last billing period compared to the same period the year before;
3. Providing public speakers to community groups and the media;
4. Using paid and public service advertising for a water conservation campaign;

5. Providing public information to promote other water efficient practices; and
6. Coordinating with other governmental agencies, industry groups and public interest groups.

OR

C. An entirely purveyor specific Public Information program, funded at a level equivalent to one-half the full SAWWA per-connection contribution. The program will include activities such as: media advertising campaigns, commercial consumer outreach, promotional materials, community events and fairs, evapotranspiration data availability, a Web site, and allied organizations outreach. The program will also include, as a minimum:

1. Using utility bill inserts or messages on payment notices;
2. Providing information on metered customers' bills showing use in gallons per day for the last billing period compared to the same period the year before;
3. Providing public speakers to community groups and the media;
4. Using paid and public service advertising for a water conservation campaign;
5. Providing public information to promote other water efficient practices; and
6. Coordinating with other governmental agencies, industry groups and public interest groups.

BMP 8: SCHOOL EDUCATION

BMP Implementation Criteria

Within three years of agreement signing, a signatory's program will include, at a minimum, one of the three choices listed below:

A. A combination of a purveyor specific program in conjunction with full participation by the purveyor in the Sacramento Area Water Works Association (SAWWA) Conservation Committee's Public Outreach Program or other equivalent regional program. At this time full financial participation in this program is based upon an annual per connection contribution by purveyors to the SAWWA Conservation Committee for the combined Public Information and School Education program. This program includes programs such as: school outreach, media advertising campaigns, commercial consumer outreach, promotional materials, community events and fairs, evapotranspiration data availability, a Web site, and allied organizations outreach.

Elements implemented directly by the purveyor include, at a minimum:

1. Offering tours of purveyor facilities to elementary schools in the purveyor's service area;
2. Working with schools served by the purveyor to promote school audits, reduced water bills, and innovative funding for equipment upgrades;

OR

B. A combination of a purveyor specific program in conjunction with limited participation by the purveyor in the Sacramento Area Water Works Association (SAWWA) Conservation Committee's Public Outreach Program or other equivalent regional program. At this time limited participation in this program is based upon an annual contribution by a purveyor to the SAWWA Conservation Committee for the combined Public Information and School Education program. This program includes programs such as: school outreach, media advertising campaigns, commercial consumer outreach, promotional materials, community events and fairs, evapotranspiration data availability, a Web site, and allied organizations outreach.

The purveyor agrees to spend the difference between the annual per connection SAWWA contribution and the flat annual contribution to SAWWA on an enhanced within-service-area implementation of elements 3-4 listed below and elements 3-6 listed in BMP 7, Public Information.

1. Offering tours of purveyor facilities to elementary schools in the purveyor's service area;
2. Working with schools served by the purveyor to promote school audits, reduced water bills, and innovative funding for equipment upgrades;

3. Working with the school districts in the water purveyor's service area to provide educational materials promoting efficient water use to one or more grade levels on an annual basis; and
4. Working with school districts in the water purveyor's service area to offer instructional materials and assistance to all teachers of the targeted grade level in order to promote efficient water use. This program is considered successful if a high percent of the teachers of the targeted grade level(s) participate in the training and use the materials in the classroom.

OR

C. An entirely purveyor-specific School Education program, funded at a level equivalent to one-half the full SAWWA per-connection contribution. The program will include activities such as: school outreach, advertising campaigns, educational materials for schools, participation at school events and fairs, a Web site, and parent/teacher outreach. The program will also include, as a minimum:

1. Offering tours of purveyor facilities to elementary schools in the purveyor's service area;
2. Working with schools served by the purveyor to promote school audits, reduced water bills, and innovative funding for equipment upgrades;
3. Working with the school districts in the water purveyor's service area to provide educational materials promoting efficient water use to one or more grade levels on an annual basis; and
4. Working with school districts in the water purveyor's service area to offer instructional materials and assistance to all teachers of the targeted grade level in order to promote efficient water use. This program is considered successful if a high percent of the teachers of the targeted grade level(s) participate in the training and use the materials in the classroom.

BMP 9: COMMERCIAL AND INDUSTRIAL (CI) WATER CONSERVATION

BMP Implementation Criteria

A. Within three years of agreement signing, signatories will have:

1. Trained commercial/industrial water auditors on staff or available through cooperative agreements
2. The DWR Commercial / Industrial (CI) water-use materials available for CI customers
3. Established, if possible, cooperative CI audit programs with other utilities
4. A list of available CI water-use consultants

B. Signatories or their representatives will annually:

1. Identify the top 10% of commercial water users and top 10% or industrial water users, not previously audited, and directly contact them or the appropriate customer's representative and offer them water-use reviews (audits). Provide these customers with data on their current water-related costs (supply, waste water, energy, on-site treatment, etc.)

    a. (For metered customers) annually determine the top 10% of commercial customers and of industrial customers based on water use, and when appropriate, special water-use factors (high water use, high wastewater flows, poor quality wastewater, high-energy use, etc.)
    b. (For unmetered customers) annually determine the top 10% of commercial customers and of industrial customers based on special water-use factors such as wastewater flows, poor quality wastewater , and high-energy use. etc.

2. Offer, through bill inserts or other means, CI water-use reviews to all CI customers
3. Survey past program participants to determine if audit recommendations were implemented

C. The signatory's, or cooperative, water-use review program will:

1. Provide audits conducted by trained commercial/industrial water auditors
2. Provide incentives, such as the following, to achieve at least 20% annual participation of the targeted 10% of existing customers:

    a. Billing adjustments or bill rebates targeted to water-use system repair or improvement
    b. Grants, etc. to partially fund climate-appropriate water-efficient landscaping water-use systems repair or improvement

3. Contact past program participants for a follow-up audit at least every fifth year

D. Counties and cities will establish policies requiring water intensive commercial and industrial building permit applicants (new, modified or change-of-water-use) to conduct a water-use efficiency review and submit the findings in any required environmental documentation for the commercial or industrial project.

E. Purveyors will:

1. Promote the use of efficient water-use technologies by commercial and industrial customers by offering incentives related to the benefits gained by the water and sewer service providers.
2. Coordinate with the city or county during the permitting of new, modified or change-of-water-use CI projects within the purveyor's service area to ensure that the submitted findings are reviewed by the purveyor to identify incentive program opportunities.
3. Consider separate landscape water meter(s) when the combined service would require a 1½" or larger meter.
4. Require efficient cooling systems, recirculating pumps for fountains and ponds, and water recycling systems for vehicle washing as a condition of service.

F. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 11: CONSERVATION PRICING FOR METERED ACCOUNTS

BMP description (customized by the Water Forum):

As soon as practical, purveyors signatory to the Water Forum Agreement will begin reading all meters and including the usage on the customer's bills. This includes meters required in new construction since 1992 and meters retrofit onto existing connections. The schedule for each purveyor to implement this provision will be negotiated as part of its Water Conservation Plan. It is recognized that circumstances vary purveyor by purveyor, however as a general guideline for the Water Conservation Plan negotiations, a time period of three years from signing of the Water Forum Agreement to implement this provision has been discussed.

As soon as practical, purveyors will base customer charges on the quantity of water used. The schedule for each purveyor to implement this provision will be negotiated as part of its Water Conservation Plan. It is recognized that circumstances vary, purveyor by purveyor, however as a general guideline for the Water Conservation Plan negotiations, a time period of six years from signing of the Water Forum Agreement to implement this provision has been discussed.

BMP Implementation Criteria

A. Within three years of agreement signing, signatories will:

1. Identify all metered customers by account type (single family, multi-residential, commercial, industrial, institutional, landscape irrigation, reclaimed, wholesale)
2. Establish quantity-based rates for each account type
3. Begin educating all customers about the quantity-based rate structure
4. Provide metered customers with monthly or bi-monthly information which shows current flat-rate charges, actual water use in gallons, and what charges would have been if based on actual use.

B. Signatories will, within six years of agreement signing, bill all metered customers utilizing rates designed to recover the cost of providing service as well as on quantity of water used.

C. If the signatory provides water service and sewer service (collection and/or treatment), within three years of agreement signing, signatories are encouraged to:

1. Identify all metered customers which are also provided sewer service by the signatory
2. Establish quantity-based sewer rates for each customer type
3. Begin educating all customers about the quantity-based sewer rate structure
4. Provide metered customers with sewer bills which show current charges, actual water use, and future charges based on actual use.

D. Signatories are encouraged to implement quantity-based sewer charges no later than the implementation of quantity-based water charges.

BMP 12: LANDSCAPE WATER CONSERVATION FOR NEW/EXISTING SINGLE FAMILY HOMES

BMP Implementation Criteria

A. Signatories will implement a program which includes, at a minimum:

1. Information on climate-appropriate landscape design, plants and efficient irrigation equipment/management provided to change-of-customer accounts and, in cooperation with the Building Industry Association of Superior California, to new customers. The availability of this information will be publicized to all existing Single Family Homes in the purveyor's service area on an annual basis.
2. Landscape audit/water-use survey program actively marketed to all new homes and change-of-customer accounts.

    a. Unmetered service areas will actively market landscape audits/surveys to each existing Single Family Home at least every fifth year.
    b. Metered service areas will actively market landscape audits/surveys to the top 20% of existing Single Family customer water-users.

3. Annual pre-irrigation season notification to Single Family Homes served by the purveyor of purveyor-provided landscape assistance (audits/surveys, materials, special offers, etc.).

B. A signatory's on-going program, in cooperation with the California Landscape Contractors Association, Sacramento Area Water Works Association, other purveyors, etc., will include:

1. Participation in the development/maintenance of a local demonstration garden within five years following agreement signing (does not have to be located within a purveyor's service area but should be convenient to the purveyor's customers).
2. Annual participation at local and regional landscape fairs and garden shows.
3. Annual cooperative education and marketing campaigns with local nurseries.
4. Annual irrigation season landscape media campaign.
5. Annual post-irrigation season notification, to all customers, of the importance of timer resets/sprinkler shut-offs.

C. Counties and cities, in cooperation with purveyors within their jurisdiction, will:

1. Establish a landscape task force with other local governments, water purveyors, the building and green industries and environmental / public interest groups to review the existing ordinance to determine if it is at least as effective as the Model Water Efficient Landscape Ordinance as pertains to single family homes, and to monitor, and revise, when applicable, the ordinance.
2. Review, in cooperation with the landscape task force, the implementation of the ordinance, including builder compliance, landscape plan review, and final inspection/certification process, to ensure its effectiveness.

3. Determine, in cooperation with the landscape task force, if program effectiveness is diminished by city/county staff time constraints, budget or lack of landscape knowledge/expertise, and, if so, recommend and support corrective action - for example, the use of consultants.

D. Signatories will publicly support the county or city's actions to enact and/or revise and fully implement a landscape water efficiency ordinance.

E. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 13: WATER WASTE PROHIBITION

BMP Implementation Criteria

Within three years of agreement signing, signatories will enact a water waste prohibition ordinance which includes measures and enforcement mechanisms.

A. The water waste prohibition measures will include, at a minimum:

1. Irrigation water shall not be allowed to run off to adjoining property or to a roadside ditch or gutter
2. Leaking pipes, fixtures, or sprinklers shall be repaired promptly.
3. Open hoses not permitted - automatic shut-off nozzles are required.
4. Swimming pools, ponds and fountains shall be equipped with recirculating pumps. Pool draining and refilling only for health, maintenance or structural reasons - requires agency approval.

B. Other suggested measures, such as the following, may be permanent, seasonal or related to water shortage:

1. Restricting irrigation hours or days
2. Use of a hose to clean sidewalks, driveways, patios, streets and commercial parking lots is not permitted, except for health and safety.
3. Restaurants serving water only on request
4. Restricting the use of potable water for compaction, dust control or other construction purposes when non-potable water is available.
5. Limiting the flushing of sewers or fire hydrants, except for health and safety (may be permanent, seasonal or related to water shortage).

C. The waste prohibitions will include as enforcement mechanisms a graduated series of responses to water wasting customers. Enforcement typically includes: personal notification and an offer of a water-use review / repair service, monetary fees, service termination and, in some unmetered service areas, and mandatory water meter installation / reading.

D. Within three years of agreement signing all purveyors will:

1. Notify all customers at least annually of the waste prohibitions (by newspaper, public notice, mailings, utility billings or a combination of such) prior to the irrigation season.
2. Have staff respond to reports of water waste in a timely manner.
3. Will have water waste patrols at least during water shortages.
4. Will cooperate with the city or county in their program enforcement efforts.

E. Within three years of agreement signing unmetered purveyors will:

1. Have water waste patrols (including some pre-dawn and post-sunset) during the irrigation season.

BMP 14: WATER CONSERVATION COORDINATOR

BMP Implementation Criteria

The Water Conservation Plan shall contain the name of the purveyor's water conservation coordinator, who will be responsible for preparing, implementing and monitoring the Plan.

Within three years of agreement signing, at least one staff member at a purveyor will be an AWWA Certified Water Conservation Practitioner (Level II) or pass equivalent training.

BMP 16: ULTRA-LOW FLUSH TOILET REPLACEMENT PROGRAM FOR NON-RESIDENTIAL CUSTOMERS

BMP Implementation Criteria

A. Within three years of agreement signing, signatories will:

1. Identify all non-residential customers, estimate the approximate number of non-ULF toilets at each account, and rank them by high, medium or low use (e.g., restaurant toilets are high use, warehouse toilets are low use)
2. If possible, established a cooperative district / sanitation district ULF rebate program

B. Signatories will annually:

1. Offer, through direct mail or other direct communication, ULF rebates to all non-residential accounts which do not yet have ULF toilets, with special focus on those with the highest number of high-use non ULF-toilets.

C. The retrofit program will:

1. Offer the necessary incentive (which may include rebates, no interest loans, vouchers, billing surcharges/rebates, etc.) to insure that at least 10**%** of non-residential non-ULF toilets are replaced with ULF toilets each year, with a final installation target of 90**%** of all non-residential toilets being ULFs within ten years
2. Consider larger rebates for the more expensive high-use flushometer-type ULF installations
3. Investigate opportunities for community based organizations (CBOs) to receive the training and financial incentives necessary for them to implement this BMP for their constituents.
4. Consider monitoring the change in water use at metered-accounts which install ULF toilets

D. Signatories will be fully implementing the program described above no later than the beginning of the fourth year after agreement signing.

BMP 16: ULTRA-LOW FLUSH TOILET REPLACEMENT PROGRAM FOR RESIDENTIAL CUSTOMERS

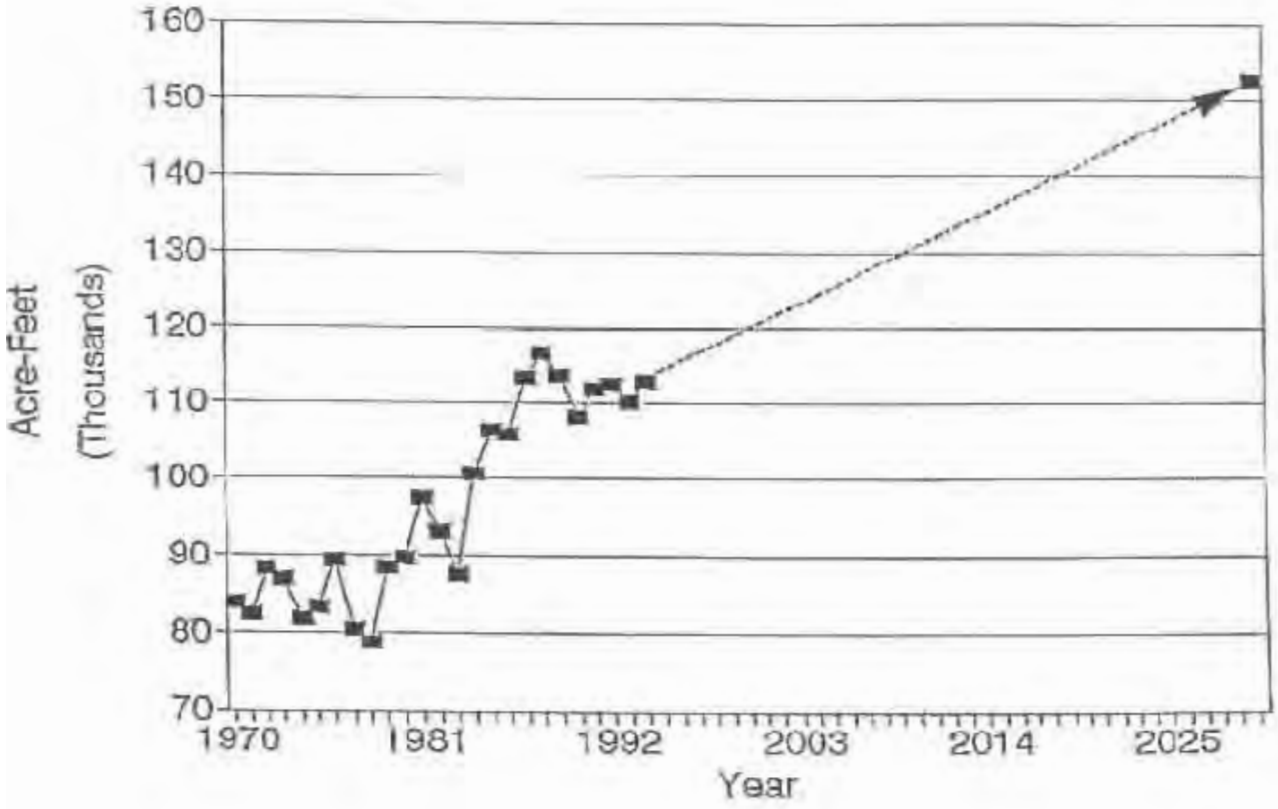
BMP Implementation Criteria

Under the Water Forum Agreement this is a voluntary program. However, it is recommended that purveyors make an effort to replace high water-using residential toilets with ULF toilets, using incentives. This could include any or all of the following program elements: rebates, distribution of toilets at no cost to the customer using programs such as CBOs, co-payment programs in which the customers pay a reduced rate for the toilets, and direct installations.

Water Conservation Plan - **Sample Format**

This sample format has been provided to assist Water Purveyors develop their Water Conservation Plans in accordance with Section 7.d of the Water Conservation Element.

PAST AND PROJECTED WATER USE 1970 - 1994 & 2030



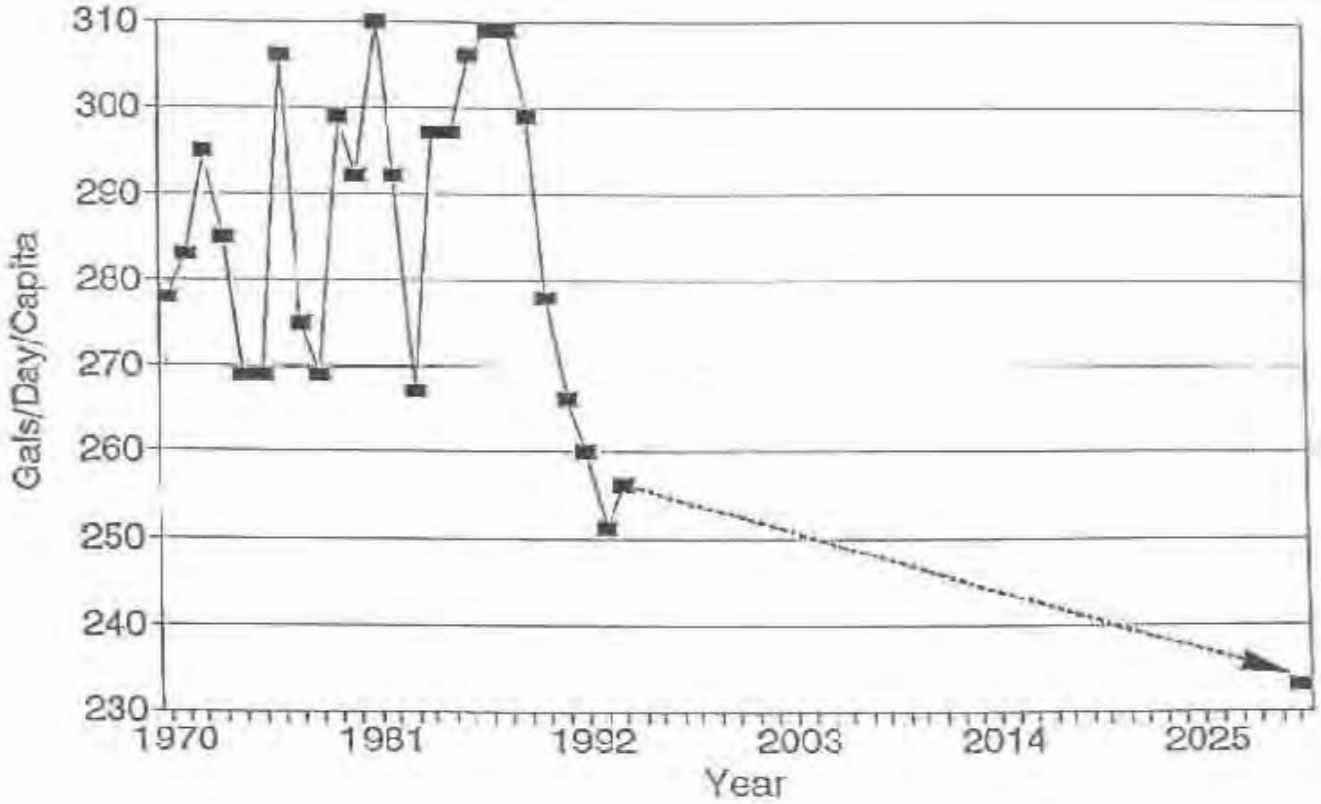
EXAMPLE OF GRAPH

(For illustrative purposes only)

Water Conservation Plan - **Sample Format**

This sample format has been provided to assist Water Purveyors develop their Water Conservation Plans in accordance with Section 7.e of the Water Conservation Element.

Past and Projected per Capita Water Use 1970 - 1994 & 2030



EXAMPLE OF GRAPH

(For illustrative purposes only)

appendix E

Baseline Conditions for Groundwater Yeild Analysis, Final Report, May, 1997

SECTION 1 - INTRODUCTION

SECTION 2 - DEVELOPMENT OF BASELINE CONDITIONS

SECTION 3 - BASELINE MODEL RESULTS

LIST OF TABLES

LIST OF FIGURES

1.1 Study Background

Over the past seventy years water purveyors in Sacramento County have relied on groundwater for much of their agricultural and urban water needs. This reliance on groundwater has caused groundwater levels to decline by over 90 feet in some areas of the county over the past seventy years. Figure 1 shows three primary areas of the county where groundwater "cones of depression" have occurred as a result of groundwater pumping: (1) in the North Sacramento area adjacent to McClellan Air Force Base; (2) in the South Sacramento area between the Cosumnes, Sacramento, and American Rivers; and (3) in the area adjacent to the City of Galt.

There has been substantial urban growth in the county over the past twenty years and it is anticipated that this trend will continue over the next forty years. In order to meet the growing water needs in Sacramento County, local water purveyors, business interest groups, environmental groups, and community and public interest representatives are coordinating their water planning efforts through the Sacramento Water Forums Process facilitated by the City/County Office of Metropolitan Water Planning (CCOMWP). As part of this overall water planning effort it is necessary to determine how much of the total projected water demand can be safely met through groundwater supplies.

In order to evaluate the groundwater resource availability in the Sacramento County area, an Integrated Groundwater - Surface water Model (IGSM) was developed by Montgomery Watson for the CCOMWP and the Sacramento County Water Agency (Agency) as Phase I of a comprehensive groundwater study. IGSM is a planning tool which incorporates all of the major components of surface and groundwater hydrology in the county area. IGSM has the capability of simulating the effects that different amounts of groundwater pumping may have on groundwater levels within the county. The development and structure of the Sacramento County IGSM is documented in the reports entitled "Sacramento County Model Development and Basin Groundwater Yield" (Montgomery Watson, June 1993) and "Documentation and User's Manual for the Integrated Groundwater-Surface Water Model" (Montgomery Watson, December 1993).

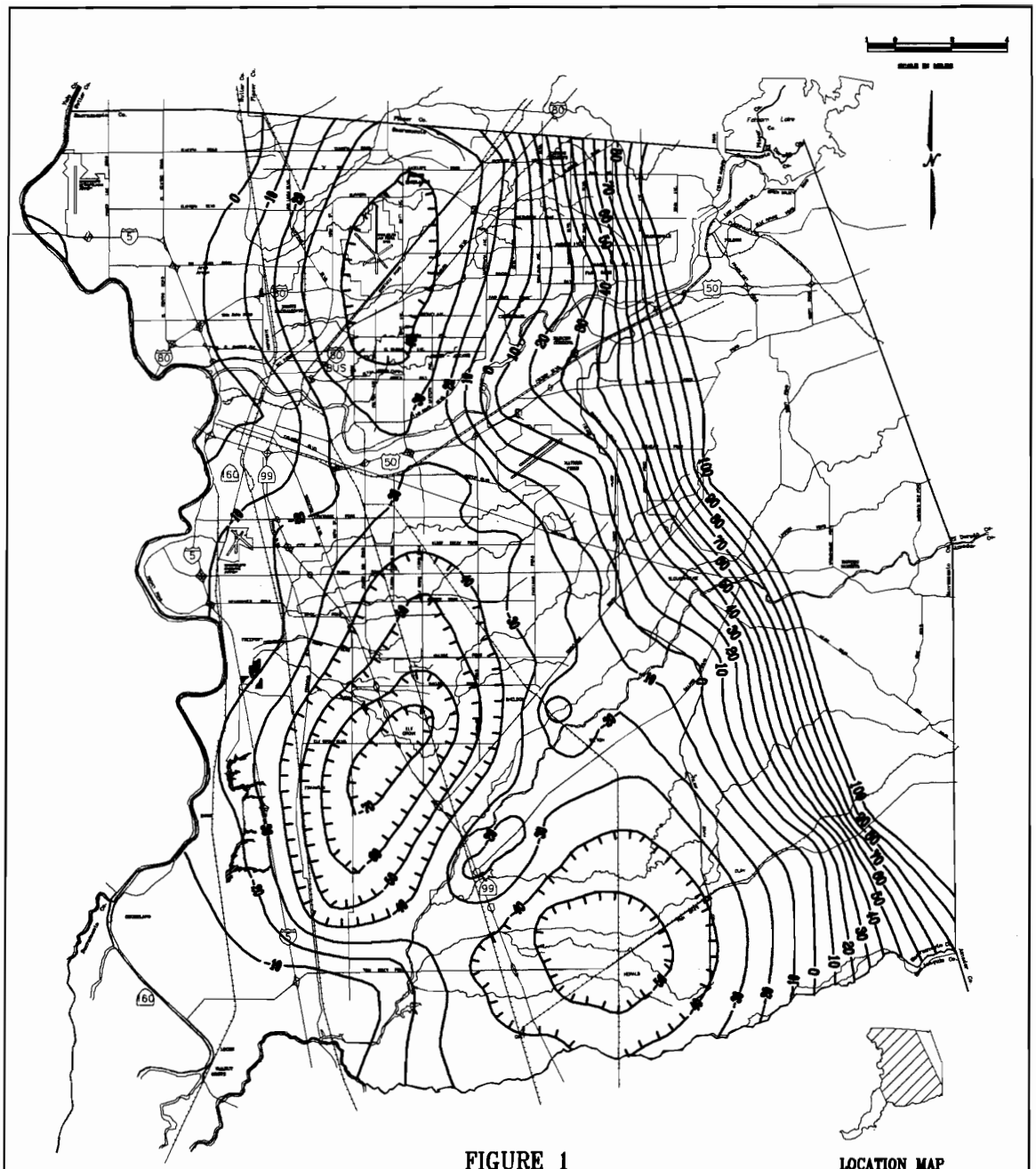


FIGURE 1

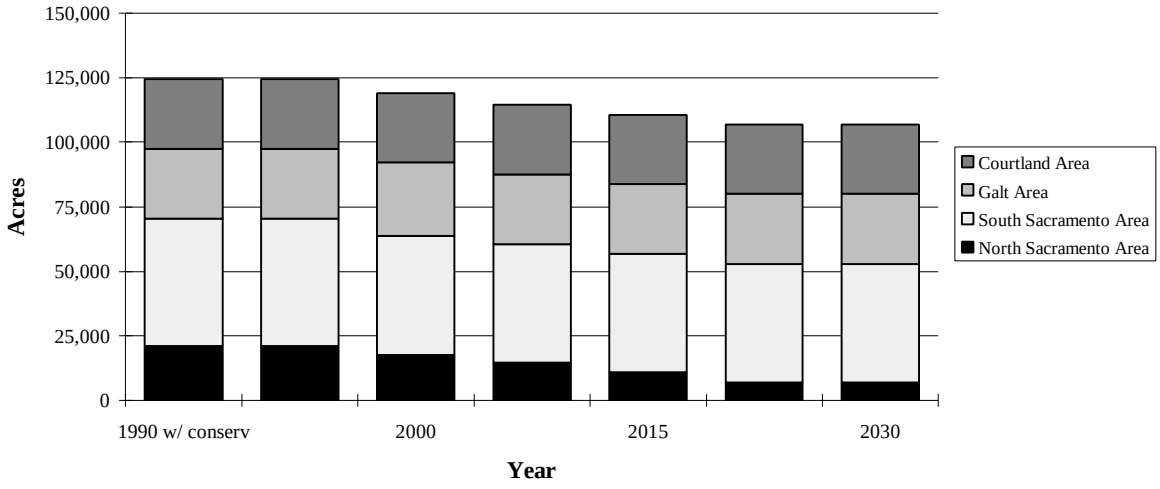
SACRAMENTO COUNTY GROUNDWATER ELEVATIONS
FALL 1996

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

DWR crop acreage data was further subdivided from DAUs into model subregions based on: (1) the areas designated as agriculture under the county General Plan and (2) the current (1990) distribution of agriculture within the county as developed for the Phase I - Groundwater Model Development. In the Courtland subregion it was assumed that the irrigated crop acreage will remain at present levels (approximately 26,851 acres) through the year 2030. This assumption is consistent with the 1993 Sacramento County General Plan land use designations for this area.

A summary of the agricultural acreage data for the North Sacramento, South Sacramento and Galt areas is presented in Figure 5. Based on the DWR's projections, there will be a net reduction of 17,500 acres of irrigated cropland in Sacramento County (excluding the Delta leg) between the years 1990 and 2030. Much of this decrease is expected to occur in the North and South Sacramento areas as a result of urbanization of existing agricultural land.

Figure 5
Baseline Conditions: Agricultural Land Use



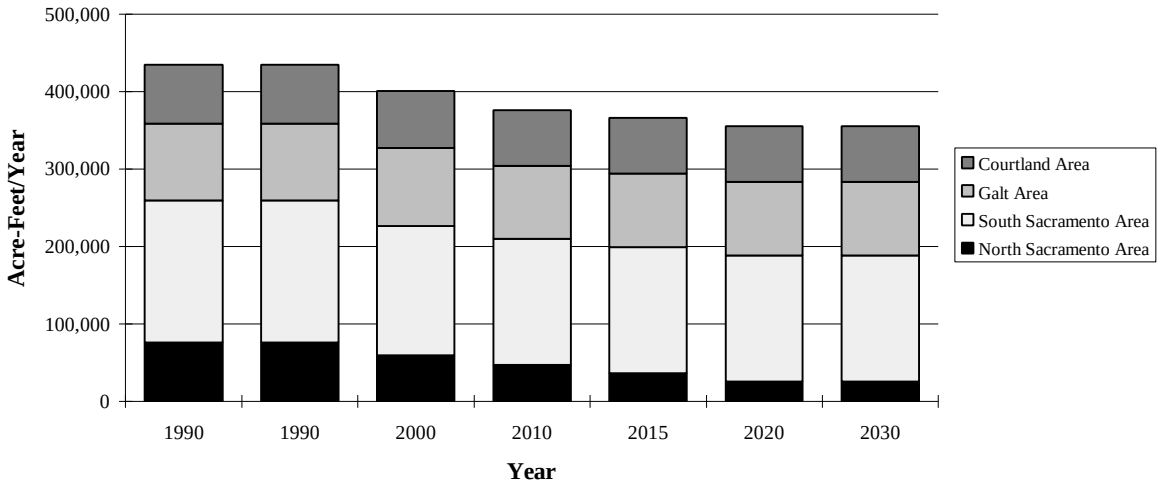
Agricultural Water Use

The DWR also estimated the agricultural demands based on the projected crop acreage and an applied unit water factor for each crop type. However, these demand estimates represent average annual conditions. The actual agricultural demands will vary from year

to year depending on the hydrologic conditions. Therefore, the IGSM was used to estimate the agricultural demands utilizing a consumptive use methodology. This method takes into account hydrologic conditions (i.e. rainfall), soil types, crop potential evapotranspiration and irrigation efficiencies to simulate agricultural demands on a monthly basis. The model results for the long-term average annual demands for Sacramento County (excluding the Courtland subregion) closely correspond to the DWR projections for the same area.

Based on the IGSM results and DWR projections, there will be a net decrease in agricultural demands of approximately 80,000 AF/Yr in the study area between the years 1990 and 2030. As presented in Figure 6, most of the projected decrease in agricultural water use is anticipated to occur in the North and South Sacramento areas. The model subregions with the largest projected decrease in agricultural acreage include Natomas Mutual and Metro Airport in the North Sacramento area and Zone 40 in the South Sacramento area. The decrease in agricultural demands corresponds to the decrease in irrigated agricultural acreage discussed above.

Figure 6
Baseline Conditions: Agricultural Water Use



2.4 Water Supply

In Sacramento County, water for municipal use is primarily supplied by local purveyors/water districts who rely on either groundwater, surface water, or a combination

of both. Agricultural water is largely supplied through groundwater pumping, except in the northwest Sacramento area where Natomas Central Mutual Water Company diverts and supplies surface water from the Sacramento River. The Courtland area in the southwest part of the county also utilizes surface water from the Sacramento River to meet a portion of its agricultural demands.

The water demand projections described in the previous section indicate a significant increase in the overall water demands in Sacramento County over the next 40 years. In order to assess the impacts of utilizing additional groundwater in the county, the Baseline Conditions developed for this study assume that much of the additional projected water demands in the county will be met through local groundwater supplies. In addition, the Baseline Conditions assume that the existing levels of surface water supply will remain at present levels with the following exceptions:

- The City of Folsom, Rancho Murieta and SMUD (Rancho Seco) are presently served solely by surface water and are located in areas with limited groundwater availability. The Baseline Conditions assume that all demands in these areas will continue to be met through surface water supplies.

- The City of Sacramento has water rights from the Sacramento River (for the city area) and the American River (for the City of Sacramento Place of Use). The American River Place of Use (POU) encompasses the City of Sacramento as well as adjacent areas outside the City limits. Part of this area is served by purveyors and the rest is undeveloped. The Baseline Conditions assume that all additional demands within the City limits and new demands in areas presently outside existing water purveyor boundaries within the POU will be met through surface water. However additional demands within the POU that are within existing water purveyor boundaries (i.e. Citizens Utilities, Florin County Water District, and Fruitridge Vista Water Company) are assumed to be met by additional groundwater pumping.

  The City is presently evaluating alternatives to expand their present treatment capacity. This includes the evaluation of expanding one of the existing treatment facilities (Sacramento River WTP and Fairbairn WTP) or the construction of a new facility. However, these evaluations are on-going and no decision has been made regarding which alternative will be selected. For the purposes of this study, it is

assumed that the additional POU surface water diversions will be evenly allocated between the two existing treatment plants.

In addition, the Baseline Conditions assume that no groundwater transfers will take place between county areas. All additional water demands in a county subregion will be met through groundwater pumping within that subregion.

Table 1 presents the existing and future water supply distribution for each of the County areas within the study area. The groundwater and surface water supplies for the North Sacramento, South Sacramento and Galt areas are presented in Figures 7 and 8, respectively. Based on the assumptions incorporated in the Baseline Conditions, groundwater supply is projected to increase from approximately 530,000 AF/Yr to 649,000 AF/Yr. Most of the increases in groundwater usage is projected to occur in the South Sacramento area (i.e. the Sunrise and Zone 40 subregions), where significant increases in urban demand are anticipated to occur.

Figure 7
Baseline Conditions: Groundwater Supply

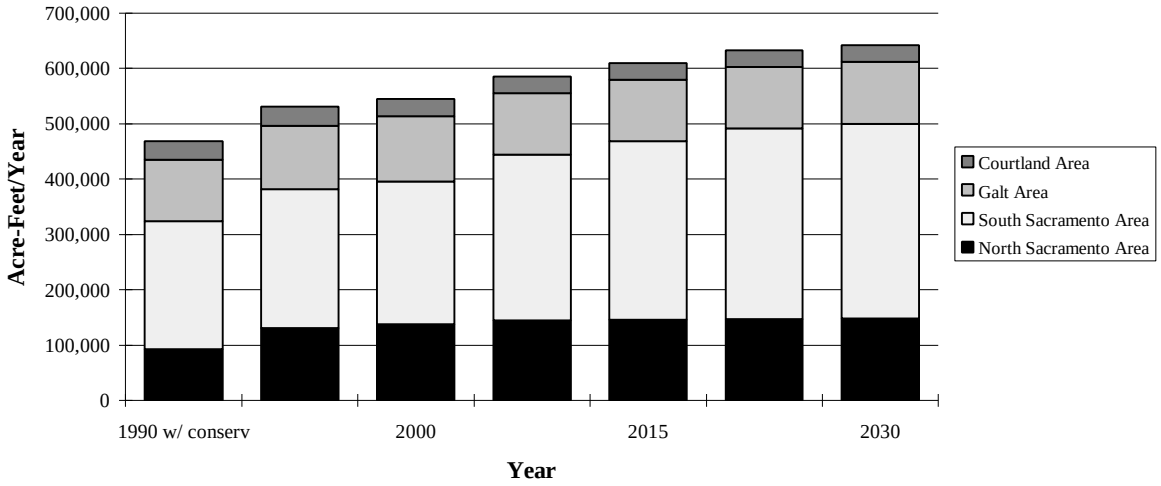
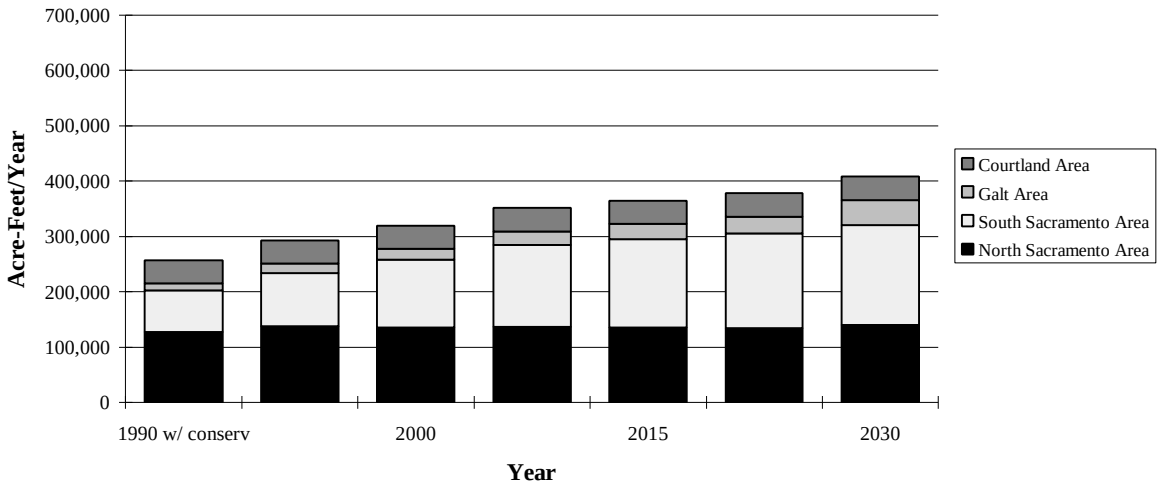


Figure 8
Baseline Conditions: Surface Water Supply



2.5 Groundwater Pumping Distribution (location and depth)

Groundwater recharge and levels are dependent on the location and depth of pumping. The Baseline Conditions assume that the existing municipal wells will be utilized to provide the existing level of groundwater pumping. All additional groundwater pumping within a model subregion is assumed to occur uniformly over the developed area within that subregion. This assumption has been incorporated to take into account the likely placement of wells within the urban areas that they provide water for.

Due to the water quality differences in the aquifers underlying Sacramento County, the depth at which additional groundwater pumping is to occur is also an important consideration for the Baseline Conditions. The following provides an overview of the differences in water quality in the different aquifer systems and the methodology utilized to determine an appropriate distribution of pumping between the aquifer layers.

Groundwater in the Sacramento area occurs both in a shallow aquifer zone and in an underlying deeper aquifer zone. The shallow aquifer zone extends approximately 50-300 feet below ground surface and is comprised primarily of Quaternary alluvium deposits. The deep aquifer is composed primarily of the Mehrten Formation and is separated from the shallow aquifer by a discontinuous clay layer. The thickness of the deep aquifer averages ranges from approximately 200 feet thick in the eastern county to over 2,000

feet in the west county area. The water quality in the deep aquifer is generally not as good as that of the shallow aquifer and has higher concentrations of total dissolved solids (TDS), iron and manganese. In general, the water quality of the deeper aquifer decreases with depth. At depths ranging from approximately 800 to 1,200 feet the TDS exceeds 2,000 mg/l and the water is no longer considered to be potable.

As mentioned above, the shallow and deep aquifer systems underlying most of the Sacramento County are separated by a clay layer. However, this clay layer is not continuous and is not completely impermeable. Therefore, the potential exists for the vertical movement of groundwater between aquifer systems. In general, movement between aquifer systems will occur when a head differential exists between the aquifer systems (Figure 9). For instance, if heavy pumping in the deep aquifer reduces the pressure head in this system, then groundwater from the shallow aquifer will be induced to recharge the deeper aquifer system. Conversely, if groundwater levels are decreased (through increased pumping) in the shallow aquifer system, then the potential exists for groundwater uprising to occur from the deep aquifer to the shallow aquifer.

For modeling purposes, the Sacramento County IGSM incorporates three aquifer layers. The first layer (IGSM Layer 1) represents the shallow aquifer system. The second layer (IGSM Layer 2) represents the freshwater bearing zone of the deeper aquifer system and the third layer (IGSM Layer 3) represents the non-potable (TDS greater than 2000 mg/l) water bearing deposits of the deeper aquifer system.

A series of initial model runs were performed in order to determine a viable pumping strategy to minimize the potential for upward movement of groundwater between aquifer layers. The model runs were performed utilizing the static 2010 Baseline Conditions over the 1922 - 1991 hydrologic period. The first two model runs were performed such that all additional pumping occurs in either the shallow aquifer (IGSM Layer 1) or the deeper aquifer system (IGSM Layer 2). Model results evaluated from these two runs include the head differential between aquifers and the flow between aquifer layers. Based on the results from these two model runs, a series of additional model runs were performed with various combinations of

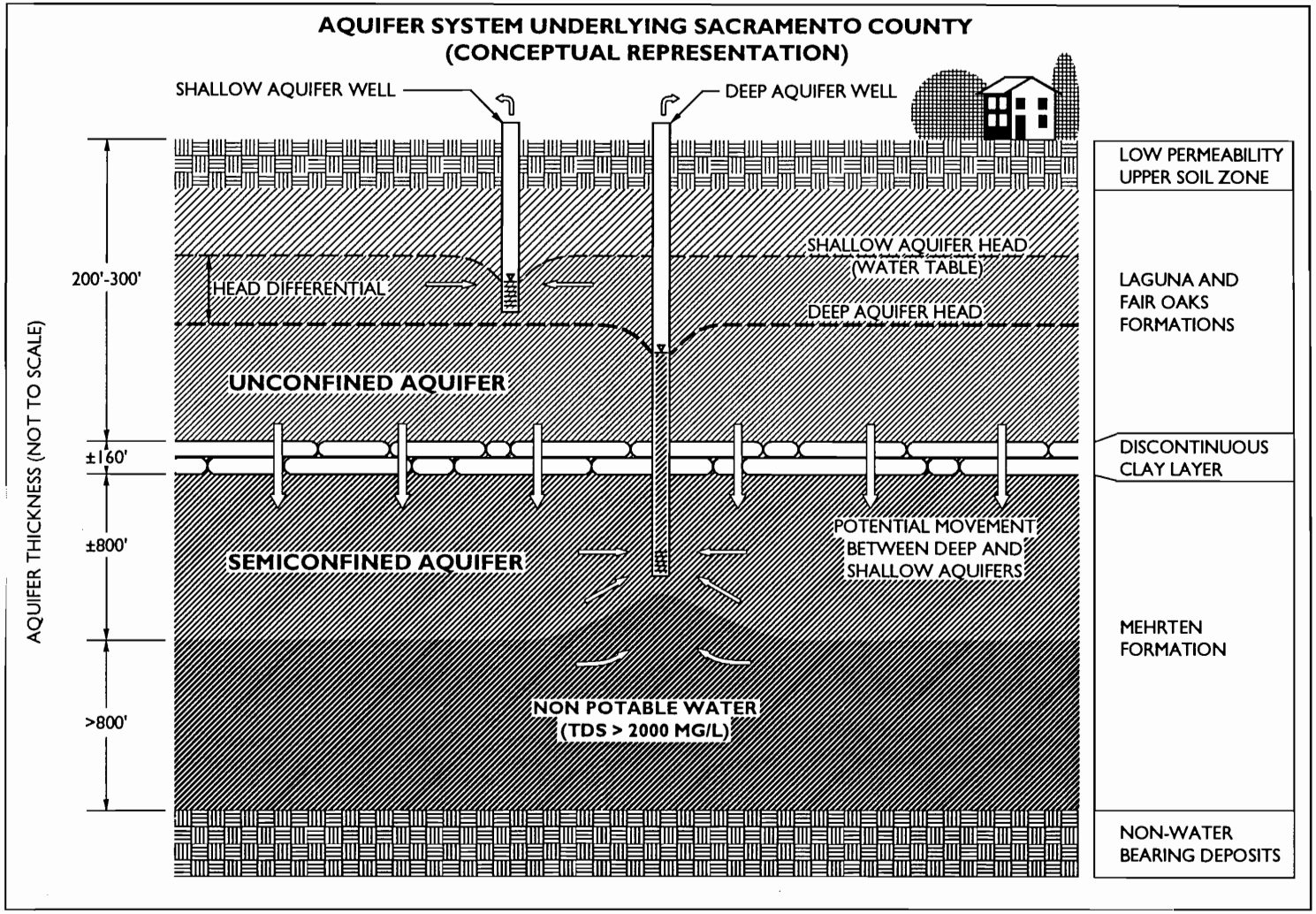


FIGURE 9. CONCEPTUAL REPRESENTATION OF AQUIFER SYSTEM UNDERLYING SACRAMENTO COUNTY

pumping strategies for the depths of the additional pumping within the individual model subregions. It should be noted that no adjustments were made to the existing wells which are assumed to continue pumping at 1990 levels. The vertical distribution of pumping was only adjusted for the additional municipal pumping (beyond 1990 levels).

Based on this modeling analyses, a distribution of pumping between layers has been developed for each model subregion (as presented in Table 2). The model results indicate that in subregions where there are existing cones of depression (i.e. Zone 40, Northridge, Arcade), the additional municipal pumping should occur in the deeper aquifer system (IGSM Layer 2). This is primarily due to the existing level of pumping in these areas which is largely from the shallow aquifer zone and has created a head differential between aquifer layers. In addition, model results indicate that additional pumping in the eastern portions of the county (including the Sunrise and Foothills subregions) should also occur in the deeper aquifer system. This is due to the fact that the shallow aquifer becomes thinner towards the east side of the county and has limited production capacity. For instance, if all additional pumping in the Sunrise areas was from the shallow aquifer system (under 2010 levels of development), model results indicate that the aquifer may dry up during certain years.

In subregions adjacent to the Sacramento or American Rivers, model results indicate that additional pumping from the shallow aquifer system (IGSM Layer 1) is acceptable. In general the groundwater levels in the shallow aquifer are high in these areas (due to recharge from the rivers) and increased pumping will not induce upwards migration of deep aquifer water.

TABLE 2

PHASE II - GROUNDWATER YIELD ANALYSIS
VERTICAL DISTRIBUTION OF PUMPING FOR BASELINE CONDITIONS

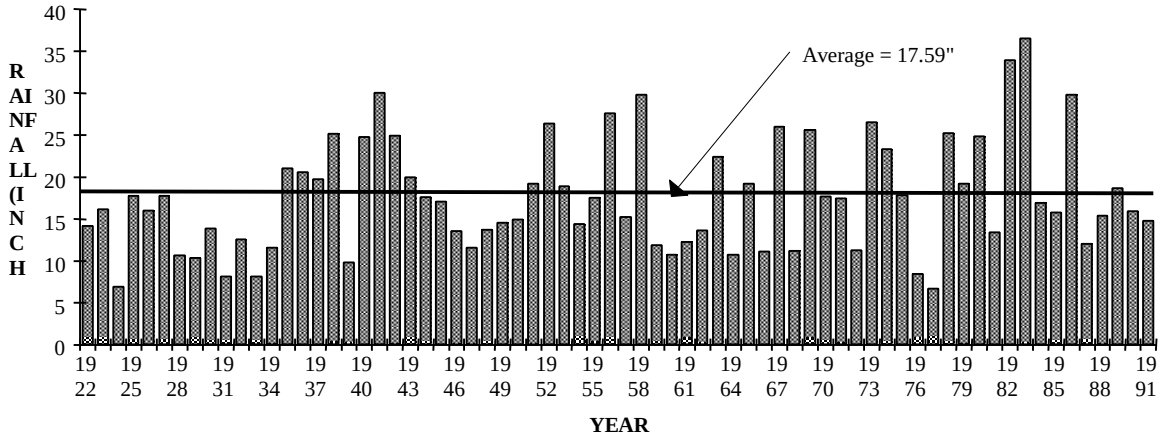
County Area	Subregion	IGSM Layer 1 (%)	IGSM Layer 2 (%)
North Sacramento	1 North POU	25	75
	14 CUCC	0	100
	16 Arden Cordova	50	50
	17 Fair Oaks	0	100
	18 Orangevale	0	100
	19 San Juan	0	100
	20 Carmichael	50	50
	21 Citrus Heights	0	100
	22 Northridge	0	100
	24 McClellan	0	100
	25 Arcade	0	100
	26 Rio Linda	50	50
	27 Natomas	100	0
	28 Metro Airport	100	0
South Sacramento	2 South POU	25	75
	3 Zone 40	0	100
	4 Southwest	50	50
	10 O-H	50	50
	11 Rancho Murieta	0	100
	12 Sunrise "A"	0	100
	13 Sunrise "B"	0	100
	15 City of Folsom	0	100
	23 SCWMD	0	100
	29 Courtland	50	50
	30 Foothills North	0	100
Galt	5 Galt ID	50	50
	6 City of Galt	50	50
	7 OFSCU	50	50
	8 Rancho Seco	0	100
	9 Clay WD	50	50
	31 Foothills South	0	100

2.6 Hydrologic Conditions

Hydrologic conditions (i.e. rainfall, river inflows) are an important consideration in the modeling analysis of the Baseline Conditions in that the amount of rainfall and river inflow has a direct impact on groundwater recharge, which in turn may impact groundwater levels. Therefore, it is important to provide a long-term hydrologic record that incorporates both wet years and dry years. For the purpose of the static model runs, the 70 year historical hydrologic period of 1922-91 was used as the long-term period. As presented in Figure 10, this period covers the critical droughts of the late 1920's and the early 1930's; the 1976-77 short-duration drought; and most of the recent 1987-92 drought. In addition, wet years such as 1982-83 and 1985-86 are also incorporated in this period of record.

The rainfall and streamflow data for unregulated streams (i.e. Deer Creek, Cosumnes River) incorporated in the baseline conditions are also from historical hydrologic records. However, river inflows from the Sacramento and American Rivers are largely regulated by upstream storage and diversions many of which did not exist prior to the 1940's. Hence, the historical streamflows do not adequately represent the current or projected level of development in these watersheds. In light of this, streamflow projections were developed from USBR operations models utilizing the 2020 level of development over the historical 1922-91 hydrologic period. These streamflow projections are based on the projected levels of demands and river diversions in the Sacramento and American Rivers. The use of different levels of demands and/or different operations of upstream reservoirs will result in different streamflows in the Sacramento and American Rivers. However, both the American and Sacramento Rivers carry relatively large quantities of water at all times and the change in stream water surface elevation in response to changes in flows is small. Consequently, impacts on groundwater caused by different river flows are assumed to be relatively small. In order to validate this assumption, a sensitivity analysis was performed by utilizing the USBR operations model results for the 1995 level of development (as opposed to the 2020 level of development). The model results indicate that there is no significant difference in recharge from rivers utilizing the different streamflow projections for the American and Sacramento Rivers.

FIGURE 10
CITY OF SACRAMENTO
HISTORICAL RAINFALL (1922-1991)



2.7 Boundary Conditions

The groundwater basin underlying Sacramento County is part of a regional groundwater basin which extends throughout California's Central Valley. Therefore, the potential exists for groundwater movement to occur between Sacramento County and adjacent areas which are also part of the regional groundwater basin. As such, groundwater pumping in these adjacent areas may directly impact groundwater levels in the county as well as induce groundwater movement from the county to the adjacent area. Conversely, groundwater pumping within the county may impact groundwater levels in adjacent areas and may induce groundwater movement from the adjacent areas into Sacramento County. The areas adjacent to Sacramento County which are of primary concern are Placer/Sutter Counties to the north and San Joaquin County to the south. Under pre-development conditions (before groundwater pumping started to occur in the early 1900's), the natural groundwater gradient was predominantly southwest, from the Sierra foothills to the Sacramento River and the Sacramento-San Joaquin Delta. Based on groundwater contour maps prepared by DWR, under these conditions subsurface boundary inflows occurred from areas north of Sacramento County into the county area.

Because of the potential impacts that groundwater pumping in the areas adjacent to the County may have both on groundwater levels and groundwater recharge (through subsurface inflows), the specification of the groundwater conditions at the model boundaries is an important consideration in the baseline conditions development. As part of the ARWRI groundwater models of the San Joaquin and Sutter/Placer Counties were developed and linked to the Sacramento County IGSM. This linkage provides for the simulation of groundwater movement between the model areas.

The boundary condition of the northern model boundary at the Sacramento County boundary with Sutter and Placer Counties are simulated interactively via linkage of the Sacramento County model to the North American River model. The boundary condition of the southern boundary however, is developed as time variable groundwater levels using the linked models for Sacramento and San Joaquin Counties. Key assumptions incorporated in these model runs are urban and agriculture land use and water demands will remain at the existing level of development and that the existing combination of surface water and groundwater supplies will be utilized to meet these demands. An exception to this is in the western area of Placer County which is presently pumping groundwater at a rate greater than can be naturally replenished. Although this area

presently relies on groundwater for its water supplies, it is within the service area of Placer County Water Agency (PCWA) which has sufficient surface water entitlements to supply a significant portion of the area with surface water. However, at present the facilities are not in place to provide surface water in this area. For this study it is assumed that facilities will be constructed to supply the western Placer County area with 25,000 AF/Yr of surface water to reduce the groundwater overdraft currently occurring in this area. It should be noted that this assumption was utilized to avoid excessive declines in the groundwater table in this area. No planning studies or efforts were made to determine an optimum water supply option in this area.

Although the model runs used for developing the baseline boundary conditions utilize land use and water use conditions fixed at the present levels of development, it is likely that the actual land use and water use conditions in the adjacent county areas will change over the next forty years. The DWR has projected that municipal and industrial water demands in Sutter, Placer, and San Joaquin Counties will increase through the year 2030 in response to increased urbanization. Over the same period it is projected that agricultural demands in all three of these counties will decrease. Within the ARWRI study area, there is a projected net increase of water demands (municipal and agricultural combined) of 48,100 AF/Yr in Placer County and 28,600 AF/Yr in San Joaquin County. There is a projected net decrease in demands of approximately 35,000 AF/Yr in Sutter County.

As discussed above, the boundary conditions developed for this study are based on groundwater pumping in adjacent counties remaining at the existing levels (with the exception of the Rocklin area in Placer County). Therefore, a key assumption in the use of these boundary conditions is that surface water in the adjacent counties will be made available to supply additional water demands (beyond the 1990 levels) in these areas. The model results for groundwater levels utilizing these assumptions of land use, water use and water supply in the areas adjacent to Sacramento County only represent one of many potential water use scenarios. If groundwater pumping in the adjacent areas significantly increases over existing levels, it will likely result in lower groundwater levels in the adjacent Sacramento County areas than those estimated as part of this Baseline Conditions analysis. However, if groundwater pumping is reduced in these adjacent counties (as a result of increased surface water supplies or a reduction in demands), it will likely result in groundwater levels higher than those estimated as part of this study.

2.8 Initial Groundwater Levels

For all Baseline model runs the present (1990) groundwater levels were utilized as the starting groundwater elevations. These initial conditions were developed from the IGSM during calibration of the model for the 1970-1990 period.

SECTION 3 – BASELINE MODEL RESULTS

This section presents the model results for the Static Baseline model runs described in Section 2 of this report. The key results from the modeling analyses includes groundwater levels and groundwater level decline, and groundwater recharge (stream recharge and subsurface inflows). Following is a discussion of the results of static baseline conditions. The results of dynamic baseline conditions are discussed in Appendix D.

3.1 Static Baseline Results

As discussed in Section 2, static model runs utilize the projected land use and water use conditions fixed at a specified level of development. The land and water use budgets summarizing the land use, water use, and water supply scenarios for each model run are presented in Appendix A.

Groundwater Levels

Groundwater contour maps representing the simulated groundwater levels and groundwater level declines (from 1990 levels) for each baseline condition are presented in Appendix B. The groundwater elevation contour maps represent the groundwater levels in the upper aquifer system under stabilized conditions.

With the exception of the groundwater contour maps presented in Appendix B, all model results of the groundwater levels and groundwater level changes presented in this memorandum are based on the average levels over all model layers. The groundwater levels in the three aquifer layers are different in some locations depending on the vertical distribution of pumping and the degree of hydraulic connection between layers. However, the difference in groundwater levels between aquifer layers are relatively small (less than 10 - 20 feet). In addition, the patterns of groundwater level change over time are the same. Therefore, for presentation purposes, average values of groundwater levels are used in this report.

Hydrographs of the minimum groundwater levels in the North Sacramento, South Sacramento and Galt primary groundwater zones are presented in Figures 11 - 13.

These figures present the model results for the groundwater levels at the cone of depression within the specified County area for each of the Baseline Conditions. As discussed above, the groundwater levels presented in Figures 11 - 13 represent the average groundwater levels over all of the aquifer layers.

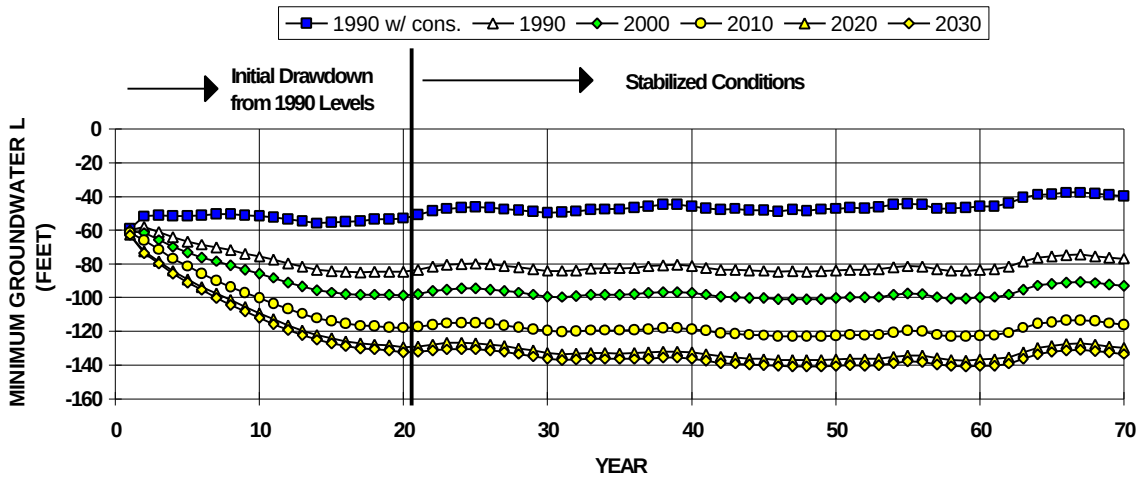
For all the projected levels of land and water use conditions analyzed, the groundwater levels tend to decline for approximately 20 years due to groundwater pumping in excess of groundwater recharge. However, groundwater recharge (mainly stream recharge and subsurface boundary inflows) slowly increases in response to the lowered groundwater levels, eventually reaching a quasi-equilibrium position whereby groundwater levels become stabilized. Under a quasi-equilibrium condition, groundwater levels fluctuate in response to wet and dry hydrologic cycles, however the long-term average levels remain the same. It should be noted that in general, excess groundwater pumping beyond a certain limit results in a continuous groundwater level decline causing a permanent mining condition of a groundwater basin. However, the results from the static Baseline Conditions demonstrate that this would not occur, even under the projected level of pumping under 2030 conditions.

The average groundwater yield and the differences in average and minimum groundwater levels (from 1990 levels) are summarized for each model subregion in Table 3. The groundwater levels presented in Table 3 represent the average groundwater levels over all of the aquifer layers. The difference in average groundwater levels is taken to be the subregion area-wide average values of the Baseline Condition water levels minus those of the 1990 levels. The difference in minimum groundwater levels is the minimum groundwater level under the Baseline Condition minus the minimum levels under the historical 1990 conditions.

As indicated in Figures 11-13 and in Table 3, the South Sacramento area has the greatest projected groundwater level decline under the Baseline Conditions. Model results indicate that under 1990 groundwater pumping rates, the minimum groundwater levels stabilize at approximately 85 feet below mean-sea-level (msl), representing a maximum 10 foot decline from 1990 groundwater levels. Under reduced pumping conditions, (1990 conditions with additional conservation) the minimum groundwater levels stabilize at approximately 13 feet higher (72 feet below msl). Under increased pumping levels (baseline years 2000, 2010,2020,2030)

Figure 11

FIGURE 11
STATIC BASELINE MODEL RESULTS:
NORTH SACRAMENTO AREA MINIMUM GROUNDWATER LEVELS



Note: (1) Groundwater levels represent the average over all of the aquifer layers

The main focus of the Phase II investigation is to provide the engineering analysis needed to recommend a long-term "safe yield" of the Sacramento area groundwater basin. The term safe yield is defined as the amount of water which can be withdrawn from the groundwater basin without producing an undesired result. In many instances the safe yield is assumed to be the same as the average annual recharge to prevent groundwater overdraft (or "mining") conditions. However, the definition of safe yield being equal to the average annual recharge rate can not be applied to the Sacramento groundwater basin. Initial model runs developed during Phase I - Groundwater Model Development have indicated that the groundwater recharge (and associated groundwater yield) of the Sacramento area groundwater basin is not a fixed amount, but rather is a function of the groundwater levels. As groundwater levels are lowered (due to increased pumping), the recharge from rivers and subsurface inflows from surrounding areas increase. Therefore, the determination of a safe yield of the Sacramento area groundwater system is dependent on the desired groundwater levels to be maintained at different areas in the county. Maintaining groundwater levels at lower levels may increase the yield of the aquifer system (through increased recharge from rivers and adjacent areas), however, there may be adverse impacts associated with lower groundwater levels.

These impacts may include:

- land subsidence,
- increased pumping costs due to lower groundwater levels,
- in-migration of poorer-quality of water from the deep aquifer system or adjacent areas,
- inoperation of public and private wells due to lower groundwater levels, and
- increased rate of movement of groundwater contamination.

The above impacts will have associated costs (i.e. water treatment costs, increased pumping costs and well remediation costs) that need to be considered as part of the total cost of supplying additional groundwater. It is anticipated that these costs will increase as groundwater pumping increases (and groundwater levels decline) and at some point, the costs of supplying additional groundwater may no longer be economical.

The purpose of this second phase of the comprehensive groundwater study will be to: (1) provide the engineering studies, on which to make a recommendation of the safe yield of the aquifer system to the Sacramento County Board of Supervisors and (2) identify and evaluate engineered groundwater recharge and transfer strategies to achieve a sustainable safe yield.

1.2 Study Purpose

The purpose of this report is to present the methodologies, assumptions and results of the Baseline Conditions analyses. The preliminary results of the Base line Conditions were reported in a technial memorandum in December 1994. Since then, the Draft Solution by the Water Forum Process has been developed and the Baseline Conditions is updated in this report. The report serves as a document for evaluating the projected demands. In addition, the assumptions used in development of the Water Forum's Draft Solution and the corresponding model results are presented in Appendix E. Baseline groundwater model runs have been developed to determine the short and long term effects on the groundwater system as increments of new growth increases demands on the aquifer system. As part of this task, the Sacramento County Integrated Groundwater - Surface Water Model (IGSM) has been utilized to analyze the effects that additional groundwater pumping has on groundwater level declines within the county. The Baseline Conditions analyzed by the model represent the projected growth in the county (as indicated in the 1993 Sacramento County General Plan) and the associated increases in water demands. A key assumption in the development and modeling of the Baseline Conditions is that local groundwater will be utilized to support much of the increases in the projected water demands. Although this assumption is contrary to current General Plan policies, it represents a worst case scenario based on the existing water supply conditions. In the future, changes in conditions such as obtaining surface water entitlements in the Zone 40 area, will necessitate modifying the study to reflect the reduction in groundwater pumping.

The information developed from the first draft of this study was directly utilized to evaluate water quality, land subsidence, and engineering and impact costs associated with declines in groundwater levels. The results of this evaluation were presented in Draft Technical Memorandum No. 2 (provided in Appendix F of this report). The water quality evaluation used model results such as rate and direction of groundwater movement to assess the potential movement of existing groundwater contamination plumes. In addition, model results for groundwater level decline and vertical flow between aquifer layers were utilized to analyze the potential for upward migration of

poor quality water from lower aquifer layers. The land subsidence evaluation utilized model results of groundwater level declines to determine the potential for land subsidence at various locations within the county. The Engineering and Impact Costs task utilized information on groundwater level decline to determine the potential impacts of lowered groundwater levels on existing groundwater wells (i.e. increases in pumping costs, decrease of well efficiencies, and remediation of wells).

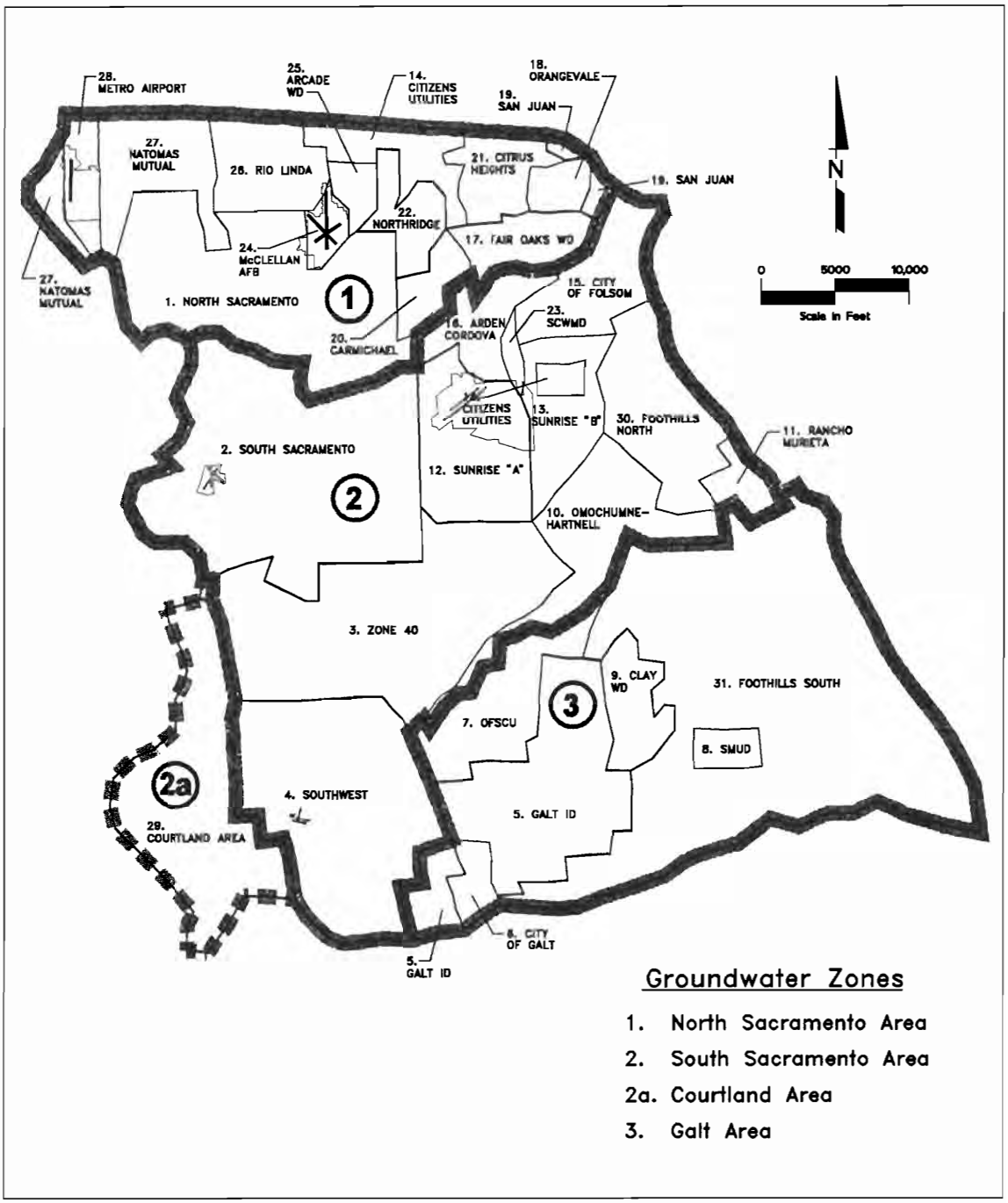
In order to analyze potential groundwater conditions under increased demands, a number of computer model runs of Baseline Conditions have been performed. The Baseline Conditions represent the existing and projected levels of land use in the county (as indicated by the 1993 Sacramento County General Plan) and the associated water demands. This section documents the assumptions and input data incorporated in the Baseline Conditions. The results of the modeling analyses of the Baseline Conditions are presented in Section 3.

2.1 Groundwater Zones

Much of the model input data (land use, water use, water supply) is incorporated in the model on a subregion basis. There are a total of 31 model subregions which generally correspond with the service areas of the municipal and agricultural water districts/purveyors in the county. However, for the purpose of summarizing model results for this study, these model subregions have been aggregated into areas covering the primary groundwater zones in the county. These zones consist of the North Sacramento area, South Sacramento area, and the Galt area. The boundaries of the zones generally correspond with the hydrologic boundaries of the three primary groundwater cones of depression in the county. The Courtland subregion belongs to the South Sacramento area but is identified separately because it is not considered to be within the study area of the Water Forum process. The hydrologic boundaries separating the groundwater zones include the American river (which serves as a boundary between the North Sacramento area and South Sacramento area) and the Cosumnes River (which serves as a boundary between the South Sacramento and Galt areas. The location of the model subregions and the North Sacramento, South Sacramento and Galt areas are presented in Figure 2.

2.2 Description of Baseline Model Runs

The IGSM developed for the Sacramento area groundwater basin is a water planning tool which can be used to predict the groundwater conditions under "what if" scenarios. There are many ways or approaches that can be taken in applying the model to analyze various scenarios. For this study, two different approaches were taken for the analysis of Baseline Conditions: Static and Dynamic model runs.



Sacramento County Groundwater Zones
and Model Subregions

Figure 2

The main interest of the static model runs is to determine how groundwater conditions would respond to a given land and water use condition on a long term basis. For static model runs the land and water use conditions are fixed over time. With fixed land and water use conditions, the model is applied over a 70-year period for which rainfall is assumed to be the same as the historical rainfall from 1922 to 1991. Static model runs have been developed for land and water use conditions for the years 1990 through 2030 in 10-year increments (i.e. 1990, 2000, 2010, 2020 and 2030). In addition, a model run has been developed for 1990 conditions with 25 percent additional urban water conservation to determine the impacts of a reduction in groundwater pumping on the aquifer system.

Dynamic model runs are developed to analyze the near-term response of the groundwater basin to annual incremental increases in groundwater pumping that may occur as additional urban growth occurs in the County. Additional details of the dynamic analyses are presented in Appendix D.

In performing the modeling analyses, several assumptions are made in preparing the following data:

1. Land use and water requirements
2. Water supply (quantities of surface and groundwater supplies)
3. Location and depth of groundwater pumping
4. Hydrologic conditions
5. Boundary conditions
6. Initial conditions

The detailed description on assumptions involved in preparation of the above data are presented in the following sections.

2.3 Land Use and Water Requirements

The following documents the land and water use data incorporated in the Baseline Conditions model runs. As mentioned above, the Baseline Conditions include the 1990 with conservation, 1990, 2000, 2010, 2020 and 2030 levels of development in Sacramento County. The 2030 level of development is assumed to correspond with the 1993 Sacramento County General Plan buildout condition of the Urban Policy Area (UPA). The use of the year 2030 for General Plan buildout conditions is an estimate based on anticipated growth, regional demographics, and economic considerations. The

Draft Water Forum Solution, on the other hand, assumes that the 2030 water use conditions are based on the 1995 Sacramento Area Water Demand Study (Boyle Engineering Corp., 1995), and includes a 25.6 percent level of conservation (Appendix E). The land and water use data for the Baseline Conditions are summarized for the entire study area in Table 1. Detailed land and water use data by model subregion are presented in Appendix A.

Urban Land Use

For modeling purposes, urban land use includes all residential, commercial, industrial, and agricultural-residential (rural) land uses. The 31 subregions used in the Sacramento County IGSM were placed into three categories based on how growth is assumed to take place over the 40 year study period: (1) subregions of predominant urban infill, such as Northridge, Arcade, and Fair Oaks, (2) subregions of predominant utilized and unutilized agricultural and agricultural-residential, such as Southwest, Courtland, and Galt ID, and (3) subregions representing the major new growth areas where there is a mixture of urban, and utilized and unutilized agriculture and agricultural-residential, such as Rio Linda, Zone 40, and Sunrise "A" and "B".

To determine urban acreage for the three categories for the years 2000, 2010, 2020 and 2030, curves were developed for eleven county areas, representing one or more model subregions, based on population data from the Sacramento Area Council of Governments (SACOG). These curves were used to interpolate urban acreage based on the population growth rate trends between 1990 and 2030.

TABLE 1
BASELINE CONDITIONS SUMMARY

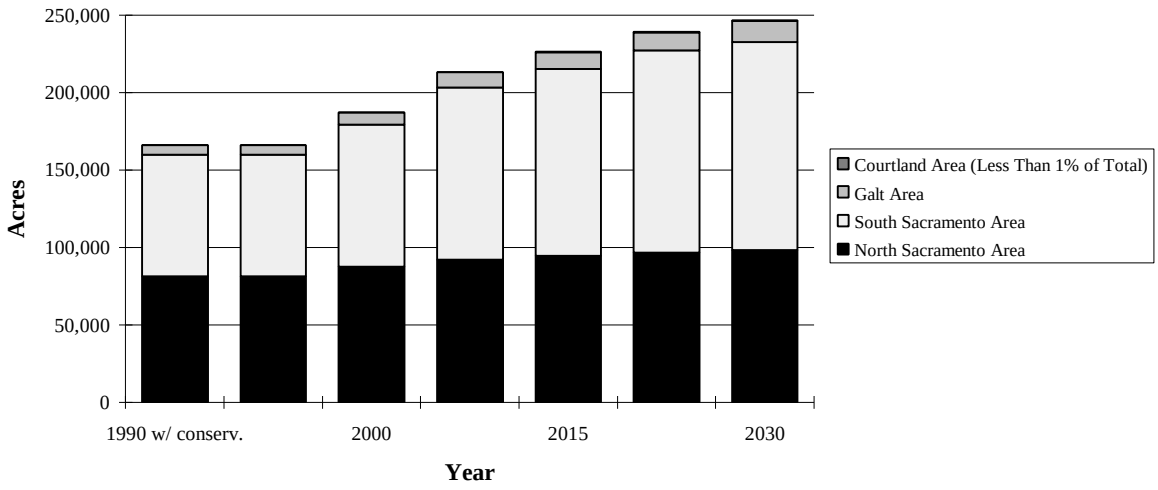
	Baseline Condition					
	1990 w/ Additional Conservation	**1990**	**2000**	**2010**	**2020**	**2030**
Land Use (Acres)						
Agriculture						
North Sacramento Area	21,188	21,188	17,551	14,612	7,104	7,104
South Sacramento Area	49,253	49,253	46,137	45,899	45,815	45,815
Galt Area	27,041	27,041	28,509	27,085	27,085	27,085
Courtland Area	26,851	26,851	26,851	26,851	26,851	26,851
Total	124,333	124,333	119,048	114,447	106,855	106,855
Urban						
North Sacramento Area	81,199	81,199	87,579	92,313	96,736	98,336
South Sacramento Area	78,896	78,896	91,701	111,065	130,416	133,989
Galt Area	5,950	5,950	7,785	9,720	11,600	13,807
Courtland Area	277	277	277	277	277	277
Total	166,322	166,322	187,342	213,375	239,029	246,409
Water Use (Acre-Feet)						
Agriculture						
North Sacramento Area	76,499	76,499	59,873	47,166	26,144	26,124
South Sacramento Area	183,344	183,344	166,440	162,737	162,543	162,533
Galt Area	98,988	98,988	101,162	94,511	94,516	94,562
Courtland Area	75,437	75,437	72,939	71,754	71,756	71,758
Total	434,268	434,268	400,414	376,168	354,959	354,977
Urban						
North Sacramento Area	144,131	192,174	213,294	235,167	254,887	262,970
South Sacramento Area	122,445	163,259	213,955	284,304	353,275	369,033
Galt Area	25,145	33,528	37,155	41,500	47,002	62,797
Courtland Area	101	135	135	135	135	135
Total	291,822	389,096	464,539	561,106	655,299	694,935
Total Water Use	**726,091**	**823,364**	**864,953**	**937,274**	**1,010,258**	**1,049,912**
Water Supply						
Groundwater						
North Sacramento Area	93,030	131,085	137,260	145,208	146,956	148,838
South Sacramento Area	231,016	250,336	258,533	299,435	344,556	351,273
Galt Area	111,217	115,292	117,910	111,079	110,864	112,034
Courtland Area	33,661	33,693	31,200	30,017	30,019	30,020
Total	468,922	530,404	544,904	585,739	632,394	642,165
Surface Water						
North Sacramento Area	127,600	137,589	135,905	137,124	134,076	140,257
South Sacramento Area	74,775	96,270	121,861	147,605	171,263	180,292
Galt Area	12,918	17,224	20,408	24,934	30,654	45,325
Courtland Area	41,878	41,879	41,874	41,872	41,873	41,873
Total	257,169	292,960	320,049	351,535	377,865	407,747
Total Water Supply	**726,091**	**823,364**	**864,953**	**937,274**	**1,010,258**	**1,049,912**

Information on 1990 land use was previously obtained during Phase I - Groundwater Model Development and incorporated into the IGSM. The Sacramento Area Water Demand Study (Boyle Engineering Corporation, 1993) and aerial photographs were used to determine the urban acreage for 1990. For categories 1 and 2, the 2030 urban acreage was determined by using the water demand study which used the August 1992 draft Sacramento County General Plan. Category 1 and 2 subregions were not affected significantly by changes between the draft and adopted General Plan. Category 3 subregions, however, were affected because of significant differences between the draft and adopted General Plan in the new growth areas. In addition, since the larger new growth areas contained a significant amount of unutilized property, assumptions had to be made of when and where growth was going to take place for the intervening years.

The IGSM input of urban growth was done by uniformly spreading urban acreage over larger pre-defined boundaries such as subregions. Category 1 and category 2 subregions had urban and agricultural-residential growth distributed uniformly over the entire subregion. In the case of category 3 subregions, minor regions were used to achieve a representative density and location in time of urban growth in the model. Since the boundaries of the subregions or minor regions did not coincide with the UPA boundaries, the uniform spreading of urban acreage unavoidably included some areas outside of the UPA. However, the total urban acreage input into the model for year 2030 equaled the urban acreage associated with buildout of the UPA.

Figure 3 presents the urban acreage for the North Sacramento, South Sacramento and Galt areas for each of the Baseline years. As presented in Figure 3, the total county-wide urban acreage is projected to increase by approximately 50 percent (80,000 acres) between the years 1990 and 2030. Most of the increase in urban acreage is anticipated to occur in the South Sacramento area, primarily in the Sunrise, Zone 40, and South Sacramento POU subregions.

Figure 3
Baseline Conditions: Urban Land Use



Urban Water Use

As with the urban acreage data, urban water use is incorporated in the model on a subregion basis and includes water supplied from both surface water and groundwater sources. For modeling purposes, urban water use is defined to include municipal, rural and industrial water use. The 1990 level of urban water use was previously incorporated in the IGSM as part of the Phase I - Groundwater Model Development. This data was developed primarily from water production records from the individual purveyors in the county. Water use in rural areas was estimated in the Sacramento Area Water Demand Study based on land use surveys, and this information was also included as urban water use in the IGSM.

The 2030 projected urban water use was obtained primarily from the Sacramento Area Water Demand Study which developed urban water demand estimates based on future land uses as designated by the August 1992 Draft Sacramento County General Plan. These water demand estimates were developed by applying unit water demands (as developed from 1990 land and water use data for each county water district/purveyor) to the General Plan land use conditions. In general, the water district/purveyor boundaries closely matched the model subregion boundaries and the demand estimates were directly incorporated in the model. Where subregions did not match between the Water Demand

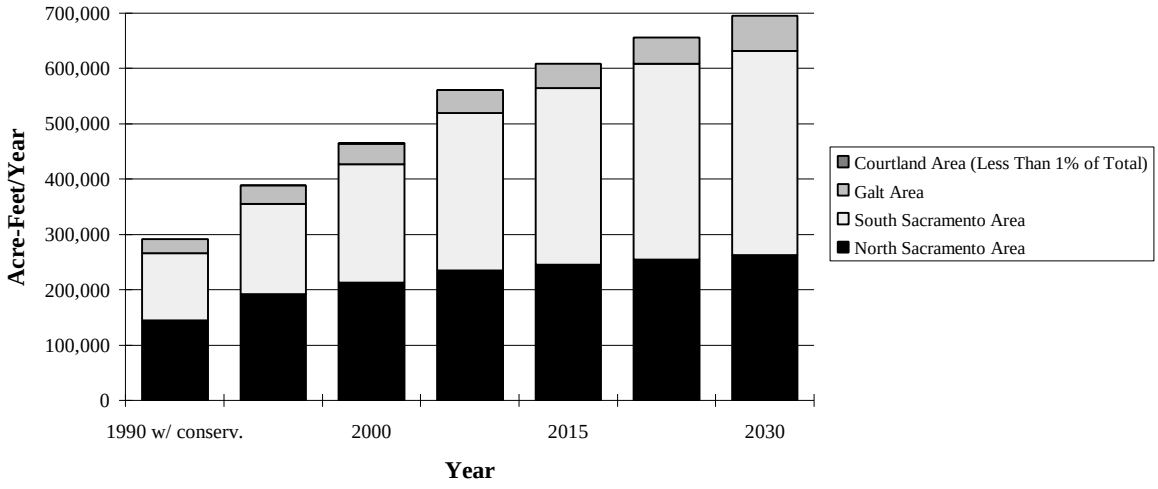
Study and the Sacramento County IGSM, the demand estimates for the particular subregions were adjusted to take into account the difference in areas.

The 2030 water use estimates incorporated in the model have been "normalized" to take into account average hydrologic conditions. In addition, a base level of water conservation has been included in the water use estimates to take into account potential savings from future water conservation efforts. Both the normalization and water conservation adjustments to the demand estimates are documented in the Draft Sacramento Area Water Demand Study.

Urban water use for intervening years (2000, 2010, 2020) was developed by interpolating the 1990 and 2030 data on a subregion basis. The interpolation takes into account the growth trends in the eleven county areas as developed by SACOG in their population projections. The urban water use for the 1990 conditions with additional conservation is based on a county-wide 25 percent reduction in urban water use (from 1990 levels). Additional agricultural conservation is not included.

Figure 4 presents the projected urban water use for the North Sacramento, South Sacramento and Galt areas for each of the baseline years. The total urban water use in the county is projected to increase significantly between the years 1990 and 2030 from approximately 389,000 AF/Yr to 695,000 AF/Yr. As is the case with urban land use (discussed above), most of the increase in urban water use is projected to occur in the South Sacramento area (primarily in the South Sacramento POU, Sunrise and Zone 40 subregions).

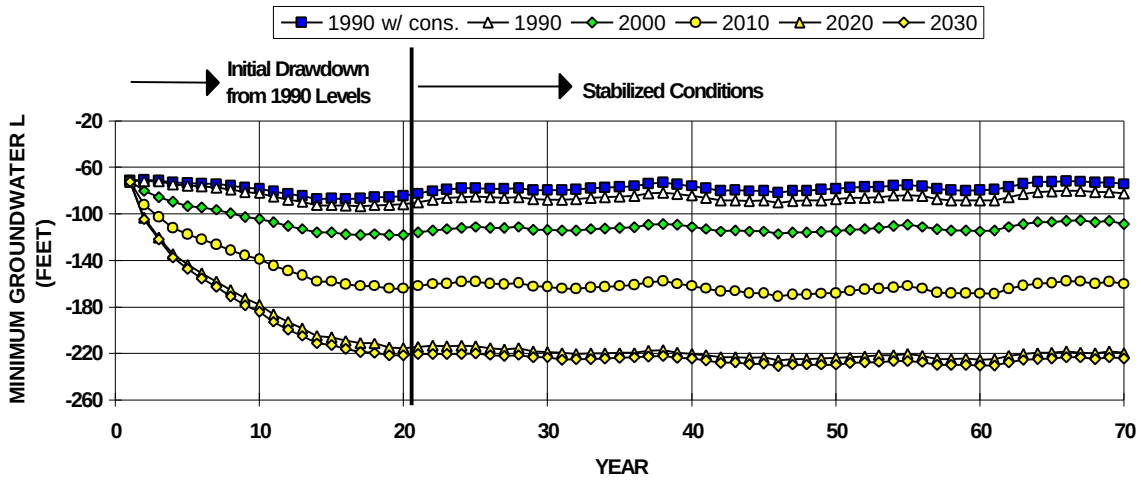
Figure 4
Baseline Conditions: Urban Water Use



Agricultural Land Use

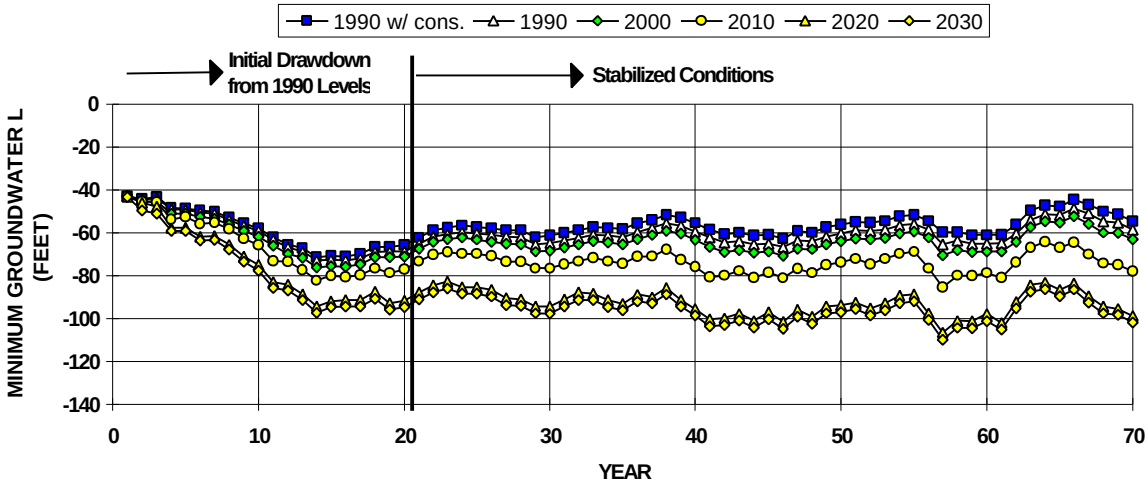
The agricultural acreage and crop distribution incorporated in the Baseline Conditions was developed from the California Department of Water Resources (DWR) projections for Sacramento County. The DWR projections were developed for the American River Water Resources Investigation (ARWRI) conducted by the U.S. Bureau of Reclamation (USBR) in conjunction with local agencies. The DWR crop acreage data includes ten crop types for each Baseline year (1990, 2000, 2010, 2020 and 2030) for the county by Detailed Analysis Units (DAUs). The four DAUs which cover the Sacramento County portion of the ARWRI study area are DAU 172, 173, 176, and 180. DAU 172 primarily covers the North Sacramento area and DAUs 173, 176 and 180 cover most of the South Sacramento and Galt areas. The Courtland subregion of the Sacramento County groundwater model is outside of the ARWRI study area and is part of DAU 186 (which primarily covers the northern area of the Sacramento-San Joaquin Delta).

FIGURE 12
STATIC BASELINE MODEL RESULTS:
SOUTH SACRAMENTO AREA MINIMUM GROUNDWATER LEVELS



Note: (1) Groundwater levels represent the average over all of the aquifer layers

FIGURE 13
STATIC BASELINE MODEL RESULTS:
GALT AREA MINIMUM GROUNDWATER LEVELS



Note: (1) Groundwater levels represent the average over all of the aquifer layers

TABLE 3
STATIC BASELINE CONDITIONS: GROUNDWATER YIELD AND WATER LEVEL DECLINE

County Area/ Subregion	1990 Average GW Elevation (msl)	1990 Minimum GW Elevation (msl)	Static Baseline Condition at Stabilization																	
			1990 w/ Add'l Conserv.			1990			2000			2010			2020			2030		
			Pumping (AF/Yr)	Elev. Difference Ave. Elev.	Elev. Difference Min. Elev.	Pumping (AF/Yr)	Elev. Difference Ave. Elev.	Elev. Difference Min. Elev.	Pumping (AF/Yr)	Elev. Difference Ave. Elev.	Elev. Difference Min. Elev.	Pumping (AF/Yr)	Elev. Difference Ave. Elev.	Elev. Difference Min. Elev.	Pumping (AF/Yr)	Elev. Difference Ave. Elev.	Elev. Difference Min. Elev.	Pumping (AF/Yr)	Elev. Difference Ave. Elev.	Elev. Difference Min. Elev.
North Sacramento Area																				
1 North Sacramento POU	-21.2	-45.8	37,100	8.1	12.3	58,149	-11.1	-20.2	55,650	-14.7	-27.4	53,691	-19.4	-34.8	52,105	-24.1	-41.5	52,021	-24.4	-42.6
14 Citizens Utilities	-13.4	-50.1	11,538	1.0	4.3	15,184	-24.5	-29.4	20,234	-38.6	-46.5	25,620	-56.2	-68.7	30,242	-69.7	-81.8	30,242	-71.5	-85.6
17 Fair Oaks WD	91.8	28.3	0	1.5	8.1	0	-2.8	-8.3	792	-6.0	-16.3	1,632	-10.1	-26.0	2,363	-14.6	-35.7	2,363	-14.6	-36.2
18 Orangevale WD	146.7	103.2	199	-15.4	2.3	199	-18.0	-1.7	227	-22.4	-6.6	266	-26.8	-12.0	270	-30.8	-16.9	270	-30.9	-17.0
19 San Juan	214.0	137.9	0	-42.9	-2.3	0	-43.4	-4.6	742	-48.0	-14.1	1,530	-51.6	-22.1	2,216	-53.7	-27.4	2,216	-53.7	-27.3
20 Carmichael	17.7	-10.2	2,349	8.8	16.0	5,411	-6.3	-6.2	5,673	-11.4	-11.3	5,952	-18.7	-18.5	6,194	-26.8	-26.3	6,194	-27.1	-26.7
21 Citrus Heights	68.2	-14.7	0	0.0	6.3	0	-10.9	-22.0	967	-20.2	-40.1	1,994	-30.1	-57.1	2,887	-38.8	-71.7	2,887	-39.4	-73.8
22 Northridge	-32.6	-56.1	10,473	15.1	15.5	13,964	-18.1	-22.1	14,542	-30.8	-40.5	15,155	-46.0	-62.8	15,688	-58.7	-76.7	15,688	-60.5	-80.3
24 McClellan AFB	-39.9	-63.3	2,520	0.4	20.3	3,360	-34.6	-16.2	2,859	-43.9	-26.0	2,328	-54.0	-36.9	1,866	-61.7	-44.8	1,866	-63.5	-46.7
25 Arcade WD	-61.0	-61.1	4,018	18.0	15.7	5,346	-19.0	-20.5	5,689	-32.3	-36.3	6,053	-47.5	-55.4	6,373	-58.9	-70.0	6,373	-61.5	-73.3
26 Rio Linda	-28.3	-45.4	13,979	-9.8	0.8	17,932	-33.5	-28.5	19,011	-41.2	-39.3	20,302	-50.0	-51.4	21,345	-55.4	-58.9	22,935	-56.9	-61.3
27 Natomas Mutual	2.3	-12.5	9,341	-10.0	-18.7	9,891	-18.5	-31.3	9,338	-22.8	-36.4	9,182	-27.0	-42.9	4,823	-29.0	-45.9	5,180	-29.6	-46.7
28 Metro Airport	7.5	5.8	1,513	-5.2	-7.1	1,649	-9.6	-11.8	1,537	-12.0	-14.3	1,503	-14.3	-17.0	584	-15.2	-18.0	603	-15.7	-18.4
Subtotal			**93,030**			**131,085**			**137,260**			**145,208**			**146,956**			**148,838**		
South Sacramento Area																				
2 South Sacramento POU	-19.9	-58.5	28,180	4.7	4.0	36,347	-5.5	-9.0	35,789	-10.9	-31.4	34,095	-22.3	-71.2	34,798	-35.1	-112.4	35,240	-37.4	-120.5
3 Zone 40	-42.7	-69.9	75,794	-6.8	-7.4	79,926	-15.8	-15.8	76,962	-24.7	-42.2	87,510	-49.3	-93.4	108,362	-83.1	-150.5	111,193	-86.9	-155.7
4 Southwest	-42.7	-65.2	85,983	-5.5	-9.2	86,810	-8.6	-14.8	89,053	-13.5	-24.9	99,619	-25.5	-47.0	98,920	-38.8	-77.7	98,920	-40.4	-77.9
10 Omochumne-Hartnell	23.9	-45.0	17,582	-9.2	-6.7	17,744	-14.7	-12.4	17,343	-13.2	-15.9	17,550	-24.8	-28.7	17,810	-45.4	-48.9	17,857	-44.4	-52.2
11 Rancho Murieta	96.7	76.1	0	-7.1	-8.0	0	-9.5	-11.8	0	-5.7	-7.9	0	-12.2	-17.8	0	-24.6	-36.2	0	-18.9	-29.5
12 Sunrise "A"	9.2	-17.8	11,311	-2.0	-5.9	13,230	-13.0	-18.1	19,932	-19.2	-21.9	28,935	-40.7	-41.9	41,564	-74.9	-76.5	42,022	-76.3	-79.5
13 Sunrise "B"	49.8	15.8	3,498	-5.6	-8.6	3,810	-12.3	-16.8	5,139	-16.0	-16.8	15,231	-34.8	-36.6	24,445	-61.0	-72.3	24,876	-59.5	-73.1
15 City of Folsom	134.7	59.5	9	-0.5	2.2	9	-2.2	-3.8	7	-3.3	-7.9	7	-7.1	-19.3	0	-13.2	-35.9	0	-11.9	-33.8
16 Arden Cordova	43.8	0.5	6,729	5.0	13.1	9,959	-2.5	0.0	11,021	-7.4	-4.8	12,173	-17.0	-13.7	13,160	-30.5	-32.1	13,160	-30.0	-31.9
23 SCWMD	66.0	43.9	462	-16.1	-0.6	544	-23.7	-8.9	785	-29.2	-15.3	1,040	-43.9	-34.6	1,244	-65.3	-61.7	1,244	-63.5	-59.8
30 Foothills North	108.7	61.4	1,468	-3.1	-7.7	1,957	-6.5	-12.3	2,502	-6.5	-11.1	3,275	-17.0	-25.2	4,253	-34.1	-48.9	6,761	-31.0	-44.7
Subtotal			**231,016**			**250,336**			**258,533**			**299,435**			**344,556**			**351,273**		
Galt Area																				
5 Galt ID	-36.1	-45.3	62,114	-14.4	-11.2	64,368	-18.1	-15.0	64,012	-20.5	-18.6	61,594	-27.5	-27.4	60,085	-40.4	-43.0	60,096	-43.9	-46.7
6 Cityof Galt	-45.6	-50.8	5,856	4.1	1.6	6,698	1.2	-1.7	7,350	-1.6	-5.1	6,523	-7.4	-12.3	7,600	-16.7	-23.7	8,724	-20.6	-27.4
7 OFSCU	-35.8	-45.1	19,672	-10.7	-10.0	20,044	-15.9	-14.4	23,093	-17.4	-18.3	19,568	-26.5	-28.9	19,744	-44.2	-47.6	19,738	-46.1	-50.8
8 SMUD	62.7	13.2	26	-29.7	-20.8	26	-31.0	-22.3	13	-31.0	-22.3	0	-32.9	-24.6	0	-36.6	-29.1	0	-33.8	-26.9
9 Clay WD	-16.4	-24.7	5,375	-23.0	-27.0	5,493	-26.6	-30.6	5,354	-26.8	-32.3	5,364	-32.5	-38.3	5,395	-44.2	-50.7	5,395	-43.6	-53.6
31 Foothills South	65.6	-40.6	18,174	-17.7	-11.4	18,664	-19.4	-13.7	18,087	-18.9	-15.8	18,030	-21.6	-20.4	18,039	-27.0	-29.9	18,081	-23.2	-38.0
Subtotal			**111,217**			**115,292**			**117,910**			**111,079**			**110,864**			**112,034**		
Courtland Area																				
29 Courtland Area	-21.3	-40.5	33,660	-7.6	-15.3	33,693	-9.1	-19.1	31,200	-11.9	-24.6	30,017	-17.8	-37.1	30,019	-24.0	-53.5	30,020	-24.9	-56.6
Total			**468,922**			**530,404**			**544,904**			**585,739**			**632,394**			**642,165**		

Notes: (1) Groundwater elevations and elevation differences represent groundwater levels averaged over all aquifer levels.

(2) Negative and positive groundwater elevation differences indicate declines and rises, respectively, in groundwater levels from 1990 conditions.

the minimum groundwater levels are projected to stabilize at correspondingly lower levels, with the greatest decline in groundwater levels exceeding 100 feet under 2030 Baseline Conditions. As indicated by the groundwater contour maps the location of the minimum groundwater levels (i.e. cone of depression) will remain in the Zone 40 subregion where much of the additional groundwater pumping is projected to occur.

Model results for the North Sacramento area and the Galt area are similar to the results of the South Sacramento area, however, the amount of groundwater level decline is projected to be less. In both the North Sacramento and Galt areas the location of the groundwater cones of depression will remain in the same areas. In addition, model results for both the North Sacramento and Galt areas indicate that the groundwater levels in these areas are impacted by the boundary conditions. As described in Section 2, the boundary conditions at Placer/Sutter County lines are developed interactively, while those at the San Joaquin County line were developed by running the Placer/Sutter, Sacramento and San Joaquin IGSM with 1990 land and water use conditions. These model results indicate a groundwater level decline at the north boundary of up to 40 feet (beyond 1990 levels) and at the south boundary of up to 20 feet. As previously discussed, the boundary conditions at the north and south county boundaries may impact the groundwater levels in the adjacent Sacramento County areas.

As with the South Sacramento area, under 1990 conditions with additional conservation the minimum groundwater levels in the North Sacramento area are projected to increase by approximately 20 feet (over 1990 Baseline Conditions). However, under 2030 Baseline Conditions, the minimum groundwater levels in the North Sacramento area stabilize at approximately 135 feet below msl, representing a maximum groundwater level decline of approximately 85 feet from the 1990 levels. For the Galt area the minimum groundwater levels under 2030 Baseline Conditions is approximately 95 feet below msl. This represents a maximum decline in groundwater levels of approximately 50 feet from the 1990 levels.

Groundwater Budget

The model results for the groundwater budget includes all of the components of recharge and groundwater outflow in the basin. The recharge components include deep percolation (from rainfall and applied water), stream recharge, and subsurface boundary inflows. The outflow components for the Sacramento area groundwater system primarily

consists of groundwater pumping. The model groundwater budget results for each Baseline Condition is presented in Table 4. These model results are presented for the stabilized conditions which represent the last fifty years (1942-1991) of the seventy year simulation period. In addition, detailed groundwater budgets for each static baseline model run are also presented in Appendix C.

As indicated in Table 4, under stabilized conditions the total recharge increases as groundwater pumping increases. The increase in recharge primarily occurs as a result of lowered groundwater levels which induce more stream recharge and boundary inflows. The stream recharge values reported in Table 4 include recharge from the primary rivers in the county (Sacramento River, American River, Cosumnes River) as well as the smaller streams (i.e. Morrison Creek, Deer Creek, etc.). The recharge values reported for the Sacramento River include both river recharge as well as subsurface boundary inflows along the Sacramento River. The boundary conditions for this section of the model were developed from the regional Central Valley Groundwater Surface Water Model (CVGSM) and do not provide the level of detail for the Sacramento IGSM to distinguish between river recharge and boundary inflows.

Boundary inflows are reported for the northern, southern, and eastern boundaries of the groundwater model in Table 4. As discussed above, subsurface inflows along the Sacramento River are included as Sacramento River recharge. Boundary inflows from the east are associated with base flows of small ungaged streams that flow into the model area from the Sierra foothills. The amount of inflow from these watersheds is dependent on the rainfall and does not vary for the different baseline conditions. The negative values for the northern boundary inflows under 1990 Baseline Conditions indicate a net groundwater outflow from Sacramento County to the north. This outflow is largely due to the boundary conditions which assume that Placer/ Sutter Counties will continue to pump at their present rates (with the exception of 25,000 AF/ Yr of surface water assumed to be supplied to the Rocklin area). However, as pumping increases in the North Sacramento area the model indicates that this trend will reverse and a net inflow of groundwater from the north into Sacramento County will occur. The model results do not distinguish

TABLE 4
STATIC BASELINE CONDITIONS: GROUNDWATER BUDGET

Groundwater Budget Component	Baseline Condition					
	1990 w/ Add't'l Conserv.	1990	2000	2010	2020	2030
INFLOW (AF/YR)						
Deep Percolation	**173,292**	**180,744**	**169,412**	**163,585**	**159,819**	**163,108**
Stream Recharge						
American River	65,418	89,083	93,915	102,653	113,357	114,023
Cosumnes River	104,720	106,054	106,742	109,419	111,991	112,393
Sacramento River	31,910	42,140	48,963	58,410	67,377	69,068
Other streams	33,505	34,869	34,886	35,413	36,426	36,481
Sub-Total	**235,553**	**272,146**	**284,506**	**305,895**	**329,152**	**331,965**
Boundary Inflows						
North	-4,915	-188	1,532	3,959	4,762	5,067
South	39,956	43,058	46,401	53,940	64,712	66,572
East	15,103	15,159	15,038	15,253	15,758	16,367
Sub-Total	**50,144**	**58,028**	**62,972**	**73,151**	**85,232**	**88,006**
TOTAL RECHARGE	**458,989**	**510,918**	**516,890**	**542,631**	**574,204**	**583,078**
PUMPING (AF/YR)	**467,111**	**528,585**	**543,203**	**584,130**	**630,484**	**639,992**

Notes: (1) All values based on stabilized conditions.

(2) Boundary inflow and stream recharge along the Sacramento River is listed as Sacramento River recharge.

(3) Negative boundary inflow values indicate a net groundwater outflow from the model area. Positive boundary inflows indicate a net groundwater inflow to the model area.

between the amount of inflow that occurs as a result of groundwater pumping and inflow due to the natural regional groundwater gradient.

Model results also indicate a decrease in recharge from deep percolation between 1990 and 2030 conditions. This decrease is attributed to the decrease in irrigated agriculture and an increase in impervious areas (associated with increased urbanization) in the 2030 conditions.

In Table 4 there are small differences between the total recharge and the pumping. This is due to a limited analysis period under stabilized conditions (1942-1991) and the dynamic condition of groundwater recharge and pumping that occurs over time in response to the variable hydrologic conditions. Nevertheless, the budget results indicate that groundwater conditions have reached a quasi-equilibrium condition.

APPENDIX A

BASELINE MODEL RESULTS:
LAND AND WATER USE BUDGETS

- 1990 Baseline Conditions with Additional Conservation
- 1990 Baseline Conditions
- 2000 Baseline Conditions
- 2010 Baseline Conditions
- 2020 Baseline Conditions
- 2030 Baseline Conditions

1990 BASELINE CONDITIONS WITH 25% CONSERVATIOI
AVERAGE LAND AND WATER USE IN AC-FT FROM 1922 THROUGH 199:

		AG ACRES	URBAN ACRES	CUAW DEMAND	AG SUP. REQ. (+)	URBAN SUP. REQ. (+)	GW PUMPING (-)	SW DIVERSION (-)	RECOV. LOSS (+)	NON-REC. LOSS (+)	IMPORT (-)	EXPORT (+)	SHORTAGE (=)
1	NORTH POU	3,030	37,996	5,643	10,668	60,194	37,100	0	0	0	33,762	0	0
2	SOUTH POU	993	51,998	2,044	3,680	76,611	28,180	80,733	0	0	0	28,622	0
3	ZONE 40	18,374	5,586	38,251	68,875	12,532	75,794	0	0	0	5,722	0	-108
4	SOUTHWEST	22,569	953	46,374	83,503	2,480	85,983	0	0	0	0	0	0
5	GALT ID	15,158	2,640	30,740	55,352	6,761	62,114	0	0	0	0	0	0
6	CITY OF GALT	912	1,752	1,848	3,327	2,528	5,856	0	0	0	0	0	0
7	OFSCU	5,014	415	10,306	18,558	1,114	19,672	0	0	0	0	0	0
8	SMUD	7	149	15	26	12,918	26	0	0	0	12,918	0	0
9	CLAY WD	1,368	342	2,787	5,018	356	5,375	0	0	0	0	0	0
10	OMOCHUMNE-HARTNELL	4,931	2,240	10,242	18,442	498	17,582	7,152	0	0	0	5,722	-72
11	RANCHO MURIETA	0	1,000	0	0	2,217	0	0	0	0	2,217	0	0
12	SUNRISE A	1,489	2,452	3,085	5,554	5,756	11,311	0	0	0	0	0	0
13	SUNRISE B	694	662	1,422	2,561	937	3,498	0	0	0	0	0	0
14	CUCC	170	6,000	318	601	10,937	11,538	0	0	0	0	0	0
15	FOLSOM	3	6,000	5	9	9,507	9	0	0	0	9,507	0	0
16	ARDEN CORDOVA	139	6,500	267	504	10,193	6,729	0	0	0	3,968	0	0
17	FAIR OAKS WD	0	6,200	0	0	11,097	0	0	0	0	11,097	0	0
18	ORANGEVALE WD	56	2,000	105	199	5,339	199	0	0	0	5,339	0	0
19	SAN JUAN	0	840	0	0	2,888	0	0	0	0	2,888	0	0
20	CARMICHAEL	0	4,200	0	0	9,445	2,349	0	0	0	7,096	0	0
21	CITRUS HEIGHTS	0	6,900	0	0	13,004	0	0	0	0	13,004	0	0
22	NORTHRIDGE	0	5,400	0	0	10,473	10,473	0	0	0	0	0	0
23	SCWMD	61	853	114	216	246	462	0	0	0	0	0	0
24	McCLELLAN AFB	0	1,700	0	0	2,520	2,520	0	0	0	0	0	0
25	ARCADE WD	10	2,200	19	36	3,982	4,018	0	0	0	0	0	0
26	RIO LINDA	596	5,263	1,121	2,120	11,859	13,979	0	0	0	0	0	0
27	NATOMAS MUTUAL	14,162	700	27,104	51,248	1,759	9,341	61,328	0	0	0	16,842	-820
28	METRO AIRPORT	3,164	1,800	6,149	11,627	634	1,513	0	0	0	11,701	0	-953
29	COURTLAND AREA	26,851	277	42,069	75,437	102	33,661	42,379	0	0	0	0	-501
30	FOOTHILL NORTH	0	652	0	0	1,468	1,468	0	0	0	0	0	0
31	FOOTHILL SOUTH	4,582	652	9,278	16,707	1,468	18,174	0	0	0	0	0	0
	TOTAL	124,333	166,322	239,303	434,271	291,823	468,923	191,592	0	0	113,497	45,464	-2,455

1990 BASELINE CONDITIONS
AVERAGE LAND AND WATER USE IN AC-FT FROM 1922 THROUGH 199

		AG ACRES	URBAN ACRES	CUAW DEMAND	AG SUP. REQ. (+)	URBAN SUP. REQ. (+)	GW PUMPING (-)	SW DIVERSION (-)	RECOV. LOSS (+)	NON-REC. LOSS (+)	IMPORT (-)	EXPORT (+)	SHORTAGE (=)
1	NORTH POU	3,030	37,996	5,643	10,668	80,259	58,149	0	0	0	32,779	0	0
2	SOUTH POU	993	51,998	2,044	3,680	102,148	36,347	97,120	0	0	0	27,638	0
3	ZONE 40	18,374	5,586	38,251	68,875	16,709	79,926	0	0	0	5,717	0	-58
4	SOUTHWEST	22,569	953	46,374	83,503	3,307	86,810	0	0	0	0	0	0
5	GALT ID	15,158	2,640	30,740	55,352	9,015	64,367	0	0	0	0	0	0
6	CITY OF GALT	912	1,752	1,848	3,327	3,371	6,698	0	0	0	0	0	0
7	OFSCU	5,014	415	10,306	18,558	1,486	20,044	0	0	0	0	0	0
8	SMUD	7	149	15	26	17,224	26	0	0	0	17,224	0	0
9	CLAY WD	1,368	342	2,787	5,018	475	5,493	0	0	0	0	0	0
10	OMOCHUMNE-HARTNELL	4,931	2,240	10,242	18,442	664	17,744	7,146	0	0	0	5,717	-67
11	RANCHO MURIETA	0	1,000	0	0	2,956	0	0	0	0	2,956	0	0
12	SUNRISE A	1,489	2,452	3,085	5,554	7,675	13,230	0	0	0	0	0	0
13	SUNRISE B	694	662	1,422	2,561	1,249	3,810	0	0	0	0	0	0
14	CUCC	170	6,000	318	601	14,583	15,184	0	0	0	0	0	0
15	FOLSOM	3	6,000	5	9	12,676	9	0	0	0	12,676	0	0
16	ARDEN CORDOVA	139	6,500	267	504	13,590	9,959	0	0	0	4,284	0	-149
17	FAIR OAKS WD	0	6,200	0	0	14,796	0	0	0	0	14,796	0	0
18	ORANGEVALE WD	56	2,000	105	199	7,119	199	0	0	0	7,119	0	0
19	SAN JUAN	0	840	0	0	3,850	0	0	0	0	3,850	0	0
20	CARMICHAEL	0	4,200	0	0	12,593	5,411	0	0	0	7,182	0	0
21	CITRUS HEIGHTS	0	6,900	0	0	17,338	0	0	0	0	17,338	0	0
22	NORTHRIDGE	0	5,400	0	0	13,964	13,964	0	0	0	0	0	0
23	SCWMD	61	853	114	216	328	544	0	0	0	0	0	0
24	McCLELLAN AFB	0	1,700	0	0	3,360	3,360	0	0	0	0	0	0
25	ARCADE WD	10	2,200	19	36	5,310	5,346	0	0	0	0	0	0
26	RIO LINDA	596	5,263	1,121	2,120	15,812	17,932	0	0	0	0	0	0
27	NATOMAS MUTUAL	14,162	700	27,104	51,248	2,345	9,891	61,328	0	0	0	16,842	-784
28	METRO AIRPORT	3,164	1,800	6,149	11,627	845	1,649	0	0	0	11,701	0	-878
29	COURTLAND AREA	26,851	277	42,069	75,437	135	33,693	42,379	0	0	0	0	-500
30	FOOTHILL NORTH	0	652	0	0	1,957	1,957	0	0	0	0	0	0
31	FOOTHILL SOUTH	4,582	652	9,278	16,707	1,957	18,664	0	0	0	0	0	0
	TOTAL	124,333	166,322	239,303	434,271	389,096	530,405	207,973	0	0	131,905	44,480	-2,436

2000 BASELINE CONDITIONS
AVERAGE LAND AND WATER USE IN AC-FT FROM 1922 THROUGH 199:

		AG ACRES	URBAN ACRES	CUAW DEMAND	AG SUP. REQ. (+)	URBAN SUP. REQ. (+)	GW PUMPING (-)	SW DIVERSION (-)	RECOV. LOSS (+)	NON-REC. LOSS (+)	IMPORT (-)	EXPORT (+)	SHORTAGE (=)
1	NORTH POU	2,498	39,554	4,471	8,304	90,769	55,649	0	0	0	43,411	0	13
2	SOUTH POU	659	53,275	1,357	2,364	116,775	35,789	121,620	0	0	0	38,270	0
3	ZONE 40	14,154	10,385	29,573	51,534	31,156	76,962	0	0	0	5,728	0	0
4	SOUTHWEST	24,125	1,217	49,636	86,497	2,557	89,053	0	0	0	0	0	0
5	GALT ID	16,001	3,032	32,495	56,628	7,384	64,012	0	0	0	0	0	0
6	CITY OF GALT	605	2,281	1,226	2,137	5,213	7,350	0	0	0	0	0	0
7	OFSCU	5,972	728	12,285	21,408	1,685	23,093	0	0	0	0	0	0
8	SMUD	4	359	7	13	20,408	13	0	0	0	20,408	0	0
9	CLAY WD	1,363	461	2,781	4,846	508	5,355	0	0	0	0	0	0
10	OMOCHUMNE-HARTNELL	4,910	2,219	10,229	17,826	888	17,343	7,160	0	0	0	5,728	-61
11	RANCHO MURIETA	0	1,739	0	0	4,583	0	0	0	0	4,583	0	0
12	SUNRISE A	1,452	4,894	3,013	5,250	14,682	19,932	0	0	0	0	0	0
13	SUNRISE B	692	970	1,420	2,475	2,664	5,139	0	0	0	0	0	0
14	CUCC	121	7,173	217	404	19,830	20,234	0	0	0	0	0	0
15	FOLSOM	2	8,517	4	7	22,631	7	0	0	0	22,631	0	0
16	ARDEN CORDOVA	99	6,694	182	337	14,882	11,021	0	0	0	4,284	0	-86
17	FAIR OAKS WD	0	6,234	0	0	15,588	792	0	0	0	14,796	0	0
18	ORANGEVALE WD	40	2,126	73	137	7,209	227	0	0	0	7,119	0	0
19	SAN JUAN	0	1,200	0	0	4,593	742	0	0	0	3,850	0	0
20	CARMICHAEL	0	4,364	0	0	12,855	5,673	0	0	0	7,182	0	0
21	CITRUS HEIGHTS	0	6,988	0	0	18,305	967	0	0	0	17,338	0	0
22	NORTHRIDGE	0	5,434	0	0	14,542	14,542	0	0	0	0	0	0
23	SCWMD	44	867	81	150	635	785	0	0	0	0	0	0
24	McCLELLAN AFB	0	1,760	0	0	2,859	2,859	0	0	0	0	0	0
25	ARCADE WD	7	2,283	12	23	5,666	5,689	0	0	0	0	0	0
26	RIO LINDA	492	5,553	892	1,657	17,355	19,011	0	0	0	0	0	0
27	NATOMAS MUTUAL	11,782	2,648	21,696	40,290	2,832	9,338	48,529	0	0	0	14,190	-555
28	METRO AIRPORT	2,611	2,262	4,878	9,058	891	1,537	0	0	0	9,049	0	-637
29	COURTLAND AREA	26,851	277	42,070	72,939	135	31,200	42,379	0	0	0	0	-505
30	FOOTHILL NORTH	0	924	0	0	2,502	2,502	0	0	0	0	0	0
31	FOOTHILL SOUTH	4,564	924	9,256	16,130	1,957	18,087	0	0	0	0	0	0
	TOTAL	119,048	187,342	227,855	400,413	464,538	544,902	219,688	0	0	154,651	52,460	-1,831

2010 BASELINE CONDITIONS
AVERAGE LAND AND WATER USE IN AC-FT FROM 1922 THROUGH 199:

		AG ACRES	URBAN ACRES	CUAW DEMAND	AG SUP. REQ. (+)	URBAN SUP. REQ. (+)	GW PUMPING (-)	SW DIVERSION (-)	RECOV. LOSS (+)	NON-REC. LOSS (+)	IMPORT (-)	EXPORT (+)	SHORTAGE (=)
1	NORTH POU	2,065	41,128	3,513	6,490	101,401	53,691	0	0	0	54,168	0	32
2	SOUTH POU	0	54,567	0	0	131,573	34,095	146,405	0	0	0	49,027	100
3	ZONE 40	10,975	17,994	22,942	39,304	53,928	87,510	0	0	0	5,721	0	0
4	SOUTHWEST	27,750	1,498	57,056	97,861	1,757	99,619	0	0	0	0	0	0
5	GALT ID	16,070	3,448	32,599	55,947	5,646	61,594	0	0	0	0	0	0
6	CITY OF GALT	0	2,657	0	0	6,523	6,523	0	0	0	0	0	0
7	OFSCU	5,014	1,060	10,296	17,670	1,897	19,568	0	0	0	0	0	0
8	SMUD	0	657	0	0	24,934	0	0	0	0	24,934	0	0
9	CLAY WD	1,378	587	2,810	4,821	543	5,364	0	0	0	0	0	0
10	OMOCHUMNE-HARTNELL	4,974	2,197	10,377	17,798	1,127	17,550	7,152	0	0	0	5,721	-56
11	RANCHO MURIETA	0	2,476	0	0	6,206	0	0	0	0	6,206	0	0
12	SUNRISE A	1,417	7,964	2,940	5,043	23,893	28,935	0	0	0	0	0	0
13	SUNRISE B	699	4,248	1,434	2,459	12,772	15,231	0	0	0	0	0	0
14	CUCC	70	8,417	120	222	25,398	25,620	0	0	0	0	0	0
15	FOLSOM	2	11,027	4	7	32,560	7	0	0	0	32,560	0	0
16	ARDEN CORDOVA	57	6,901	101	186	16,252	12,173	0	0	0	4,284	0	-19
17	FAIR OAKS WD	0	6,269	0	0	16,428	1,632	0	0	0	14,796	0	0
18	ORANGEVALE WD	24	2,260	43	79	7,306	266	0	0	0	7,119	0	0
19	SAN JUAN	0	1,200	0	0	5,380	1,530	0	0	0	3,850	0	0
20	CARMICHAEL	0	4,538	0	0	13,134	5,952	0	0	0	7,182	0	0
21	CITRUS HEIGHTS	0	7,082	0	0	19,332	1,994	0	0	0	17,338	0	0
22	NORTHRIDGE	0	5,469	0	0	15,155	15,155	0	0	0	0	0	0
23	SCWMD	25	882	43	79	961	1,040	0	0	0	0	0	0
24	McCLELLAN AFB	0	1,824	0	0	2,328	2,328	0	0	0	0	0	0
25	ARCADE WD	3	2,371	5	9	6,044	6,053	0	0	0	0	0	0
26	RIO LINDA	402	5,868	690	1,276	19,027	20,302	0	0	0	0	0	0
27	NATOMAS MUTUAL	9,888	3,181	17,327	32,009	3,299	9,182	38,697	0	0	0	12,162	-409
28	METRO AIRPORT	2,160	2,706	3,834	7,081	935	1,503	0	0	0	7,021	0	-508
29	COURTLAND AREA	26,851	277	42,072	71,754	135	30,017	42,379	0	0	0	0	-507
30	FOOTHILL NORTH	0	1,311	0	0	3,275	3,275	0	0	0	0	0	0
31	FOOTHILL SOUTH	4,623	1,311	9,371	16,073	1,957	18,030	0	0	0	0	0	0
	TOTAL	114,447	213,375	217,575	376,168	561,105	585,739	234,631	0	0	179,458	61,188	-1,367

2020 BASELINE CONDITIONS
AVERAGE LAND AND WATER USE IN AC-FT FROM 1922 THROUGH 199

		AG ACRES	URBAN ACRES	CUAW DEMAND	AG SUP. REQ. (+)	URBAN SUP. REQ. (+)	GW PUMPING (-)	SW DIVERSION (-)	RECOV. LOSS (+)	NON-REC. LOSS (+)	IMPORT (-)	EXPORT (+)	SHORTAGE (=)
1	NORTH POU	988	42,568	1,920	3,549	111,116	52,105	0	0	0	62,505	0	55
2	SOUTH POU	0	55,747	0	0	145,093	34,798	169,050	0	0	0	58,855	100
3	ZONE 40	10,975	25,236	22,961	39,336	75,708	108,362	0	0	0	5,713	0	969
4	SOUTHWEST	27,750	1,724	57,054	97,858	1,062	98,920	0	0	0	0	0	0
5	GALT ID	16,070	3,765	32,601	55,950	4,135	60,085	0	0	0	0	0	0
6	CITY OF GALT	0	2,959	0	0	7,600	7,600	0	0	0	0	0	0
7	OFSCU	5,014	1,350	10,292	17,662	2,082	19,744	0	0	0	0	0	0
8	SMUD	0	1,034	0	0	30,654	0	0	0	0	30,654	0	0
9	CLAY WD	1,378	693	2,810	4,821	574	5,395	0	0	0	0	0	0
10	OMOCHUMNE-HARTNELL	4,974	2,178	10,408	17,851	1,335	17,810	7,141	0	0	0	5,713	-52
11	RANCHO MURIETA	0	3,106	0	0	7,593	0	0	0	0	7,593	0	0
12	SUNRISE A	1,417	12,176	2,934	5,031	36,533	41,564	0	0	0	0	0	0
13	SUNRISE B	699	7,306	1,438	2,467	21,977	24,445	0	0	0	0	0	0
14	CUCC	0	9,500	0	0	30,242	30,242	0	0	0	0	0	0
15	FOLSOM	0	13,169	0	0	41,033	0	0	0	0	41,033	0	0
16	ARDEN CORDOVA	0	7,080	0	0	17,444	13,160	0	0	0	4,284	0	0
17	FAIR OAKS WD	0	6,300	0	0	17,159	2,363	0	0	0	14,796	0	0
18	ORANGEVALE WD	0	2,376	0	0	7,389	270	0	0	0	7,119	0	0
19	SAN JUAN	0	1,200	0	0	6,066	2,216	0	0	0	3,850	0	0
20	CARMICHAEL	0	4,690	0	0	13,376	6,194	0	0	0	7,182	0	0
21	CITRUS HEIGHTS	0	7,164	0	0	20,225	2,887	0	0	0	17,338	0	0
22	NORTHRIDGE	0	5,500	0	0	15,688	15,688	0	0	0	0	0	0
23	SCWMD	0	895	0	0	1,244	1,244	0	0	0	0	0	0
24	McCLELLAN AFB	0	1,880	0	0	1,866	1,866	0	0	0	0	0	0
25	ARCADE WD	0	2,447	0	0	6,373	6,373	0	0	0	0	0	0
26	RIO LINDA	192	6,174	377	697	20,648	21,345	0	0	0	0	0	0
27	NATOMAS MUTUAL	4,892	3,793	9,766	18,056	3,760	4,823	25,499	0	0	0	8,330	-176
28	METRO AIRPORT	1,032	3,144	2,078	3,842	979	584	0	0	0	4,681	0	-443
29	COURTLAND AREA	26,851	277	42,073	71,756	135	30,019	42,379	0	0	0	0	-506
30	FOOTHILL NORTH	0	1,799	0	0	4,253	4,253	0	0	0	0	0	0
31	FOOTHILL SOUTH	4,623	1,799	9,376	16,083	1,957	18,040	0	0	0	0	0	0
	TOTAL	106,855	239,029	206,089	354,960	655,300	632,395	244,069	0	0	201,035	67,185	-54

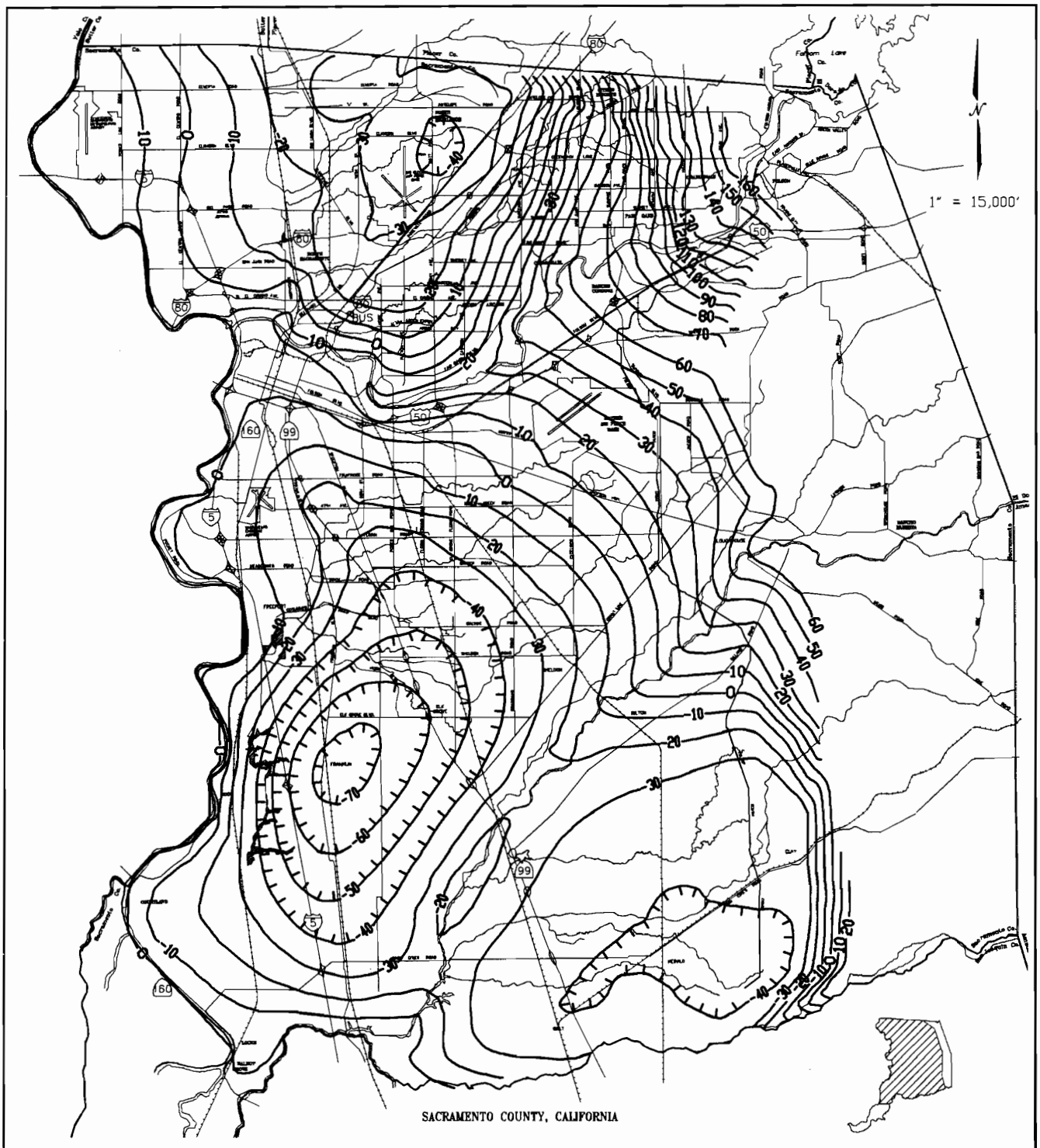
2030 BASELINE CONDITIONS
AVERAGE LAND AND WATER USE IN AC-FT FROM 1922 THROUGH 199

		AG ACRES	URBAN ACRES	CUAW DEMAND	AG SUP. REQ. (+)	URBAN SUP. REQ. (+)	GW PUMPING (-)	SW DIVERSION (-)	RECOV. LOSS (+)	NON-REC. LOSS (+)	IMPORT (-)	EXPORT (+)	SHORTAGE (=)
1	NORTH POU	988	43,466	1,918	3,546	117,199	52,021	0	0	0	68,658	0	66
2	SOUTH POU	0	56,486	0	0	153,560	35,240	183,228	0	0	0	65,008	100
3	ZONE 40	10,975	26,499	22,930	39,283	79,504	111,193	0	0	0	5,703	0	1,891
4	SOUTHWEST	27,750	1,726	57,054	97,858	1,062	98,920	0	0	0	0	0	0
5	GALT ID	16,070	3,668	32,607	55,961	4,135	60,096	0	0	0	0	0	0
6	CITY OF GALT	0	3,044	0	0	8,724	8,724	0	0	0	0	0	0
7	OFSCU	5,014	1,350	10,288	17,656	2,082	19,738	0	0	0	0	0	0
8	SMUD	0	2,000	0	0	45,325	0	0	0	0	45,325	0	0
9	CLAY WD	1,378	693	2,811	4,821	574	5,395	0	0	0	0	0	0
10	OMOCHUMNE-HARTNELL	4,974	2,146	10,434	17,896	1,335	17,857	7,128	0	0	0	5,703	-52
11	RANCHO MURIETA	0	3,120	0	0	7,624	0	0	0	0	7,624	0	0
12	SUNRISE A	1,417	12,330	2,933	5,031	36,991	42,022	0	0	0	0	0	0
13	SUNRISE B	699	7,470	1,437	2,465	22,411	24,876	0	0	0	0	0	0
14	CUCC	0	9,497	0	0	30,242	30,242	0	0	0	0	0	0
15	FOLSOM	0	13,185	0	0	41,097	0	0	0	0	41,097	0	0
16	ARDEN CORDOVA	0	7,080	0	0	17,444	13,160	0	0	0	4,284	0	0
17	FAIR OAKS WD	0	6,300	0	0	17,159	2,363	0	0	0	14,796	0	0
18	ORANGEVALE WD	0	2,376	0	0	7,389	270	0	0	0	7,119	0	0
19	SAN JUAN	0	1,200	0	0	6,066	2,216	0	0	0	3,850	0	0
20	CARMICHAEL	0	4,690	0	0	13,376	6,194	0	0	0	7,182	0	0
21	CITRUS HEIGHTS	0	7,164	0	0	20,225	2,887	0	0	0	17,338	0	0
22	NORTHRIDGE	0	5,500	0	0	15,688	15,688	0	0	0	0	0	0
23	SCWMD	0	895	0	0	1,244	1,244	0	0	0	0	0	0
24	McCLELLAN AFB	0	1,880	0	0	1,866	1,866	0	0	0	0	0	0
25	ARCADE WD	0	2,447	0	0	6,373	6,373	0	0	0	0	0	0
26	RIO LINDA	192	6,473	377	697	22,238	22,935	0	0	0	0	0	0
27	NATOMAS MUTUAL	4,892	4,044	9,766	18,055	4,135	5,180	25,499	0	0	0	8,330	-159
28	METRO AIRPORT	1,032	3,299	2,070	3,826	1,014	603	0	0	0	4,681	0	-443
29	COURTLAND AREA	26,851	277	42,074	71,758	135	30,020	42,379	0	0	0	0	-506
30	FOOTHILL NORTH	0	3,052	0	0	6,761	6,761	0	0	0	0	0	0
31	FOOTHILL SOUTH	4,623	3,052	9,401	16,124	1,957	18,081	0	0	0	0	0	0
	TOTAL	106,855	246,408	206,100	354,978	694,936	642,166	258,235	0	0	221,954	73,339	897

APPENDIX B

BASELINE MODEL RESULTS:
GROUNDWATER LEVEL CONTOURS &
GROUNDWATER LEVEL DECLINE FROM 1990 CONDITIONS

- 1990 Baseline Conditions with Additional Conservation
- 1990 Baseline Conditions
- 2000 Baseline Conditions
- 2010 Baseline Conditions
- 2020 Baseline Conditions
- 2030 Baseline Conditions

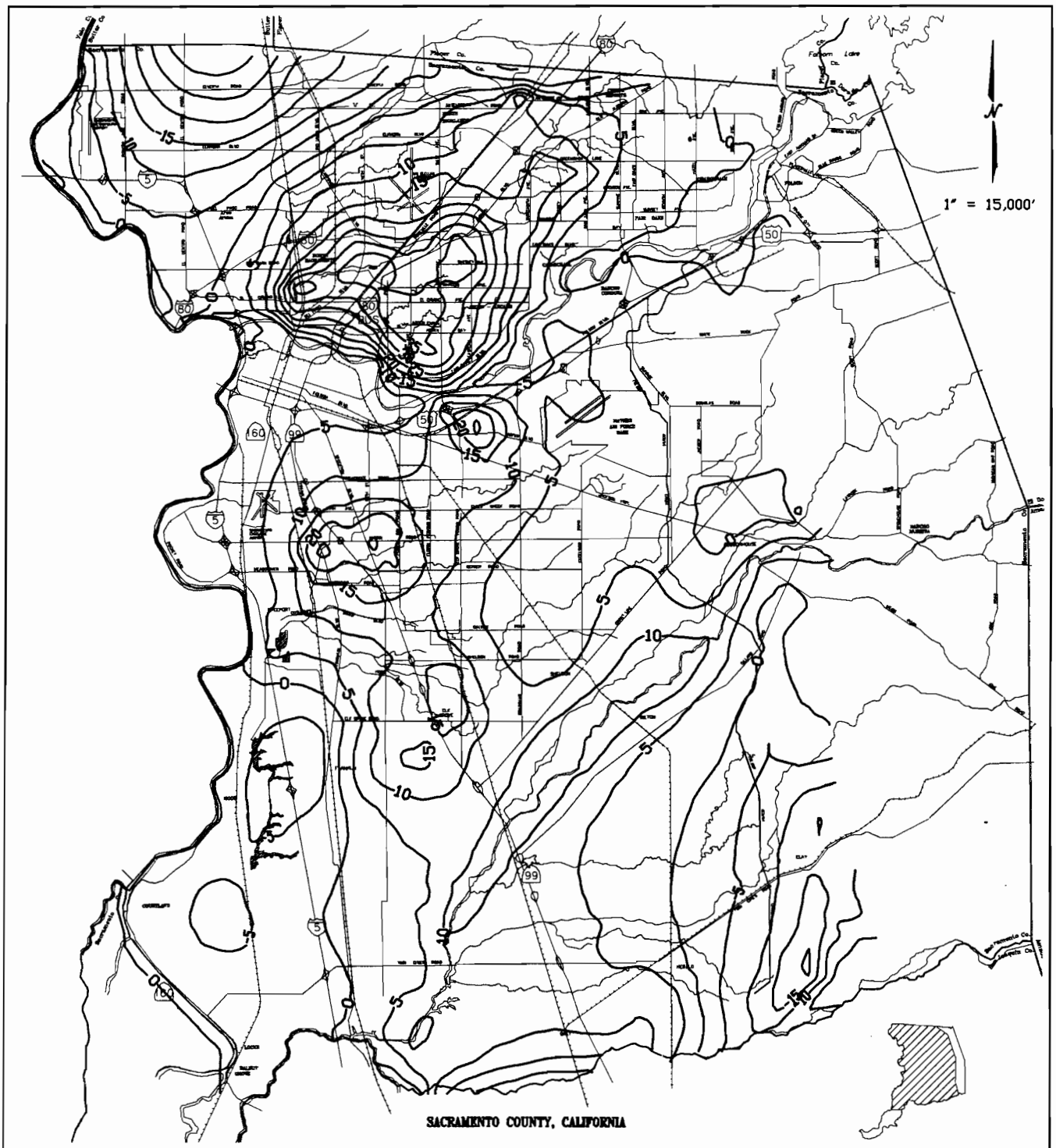


SIMULATED GROUNDWATER LEVEL CONTOURS
IGSM STATIC BASELINE MODEL 1990 W/ ADDITIONAL WATER CONSERVATION
MEAN SEA LEVEL

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

DRAWN: March 13, 1997
BY: Y. Oushakoff

Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)



LOCATION MAP

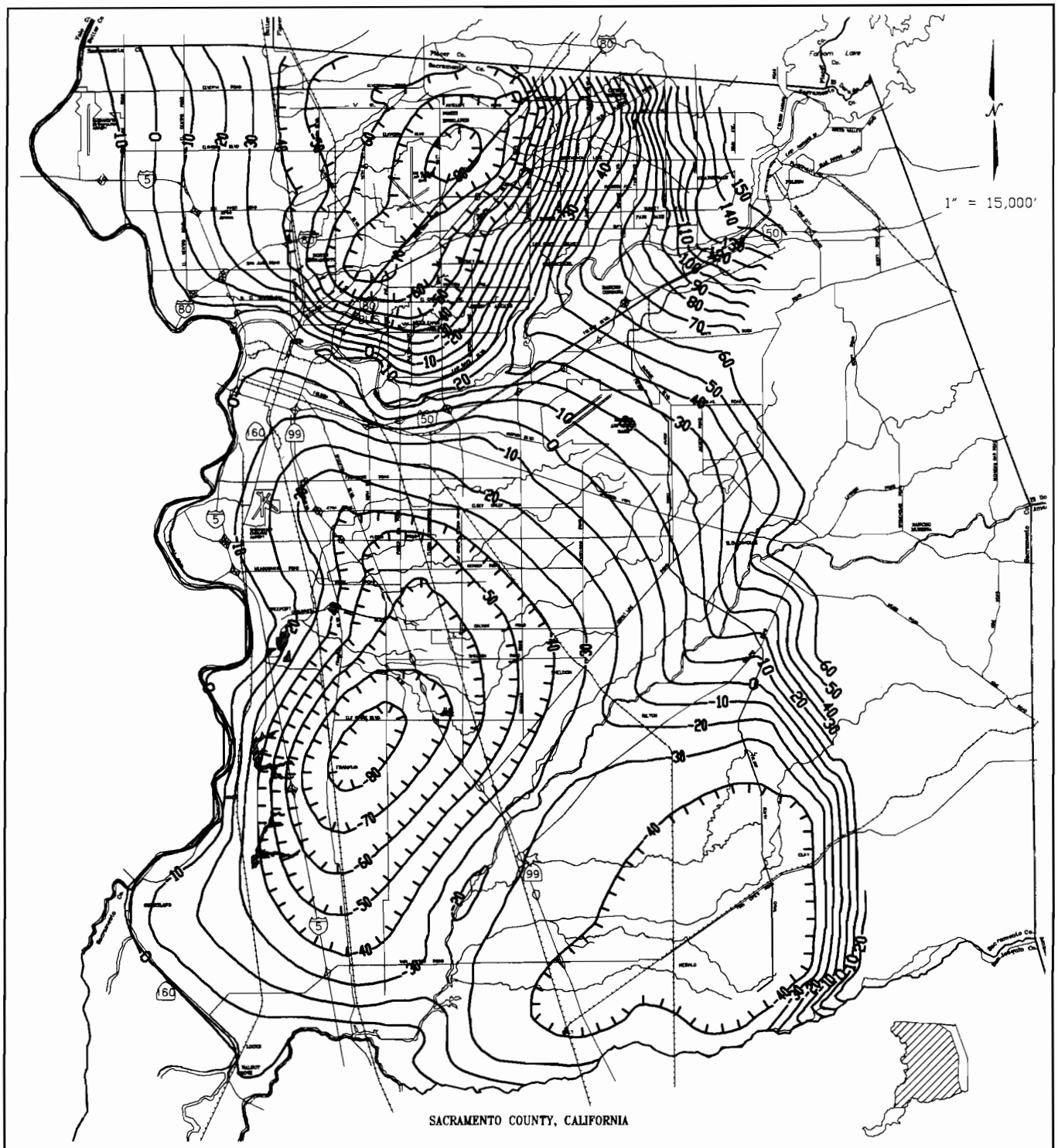
DIFFERENCE CONTOURS BETWEEN 1990 WATER LEVELS AND STATIC 1990 BASELINE CONDITIONS W/ ADDITIONAL WATER CONSERVATION MEAN SEA LEVEL

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

Notes: - Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)

- A negative contour denotes a decline in water levels from 1990 initial water levels.

DRAWN: March 13, 1997
BY: Y. Oushakoff



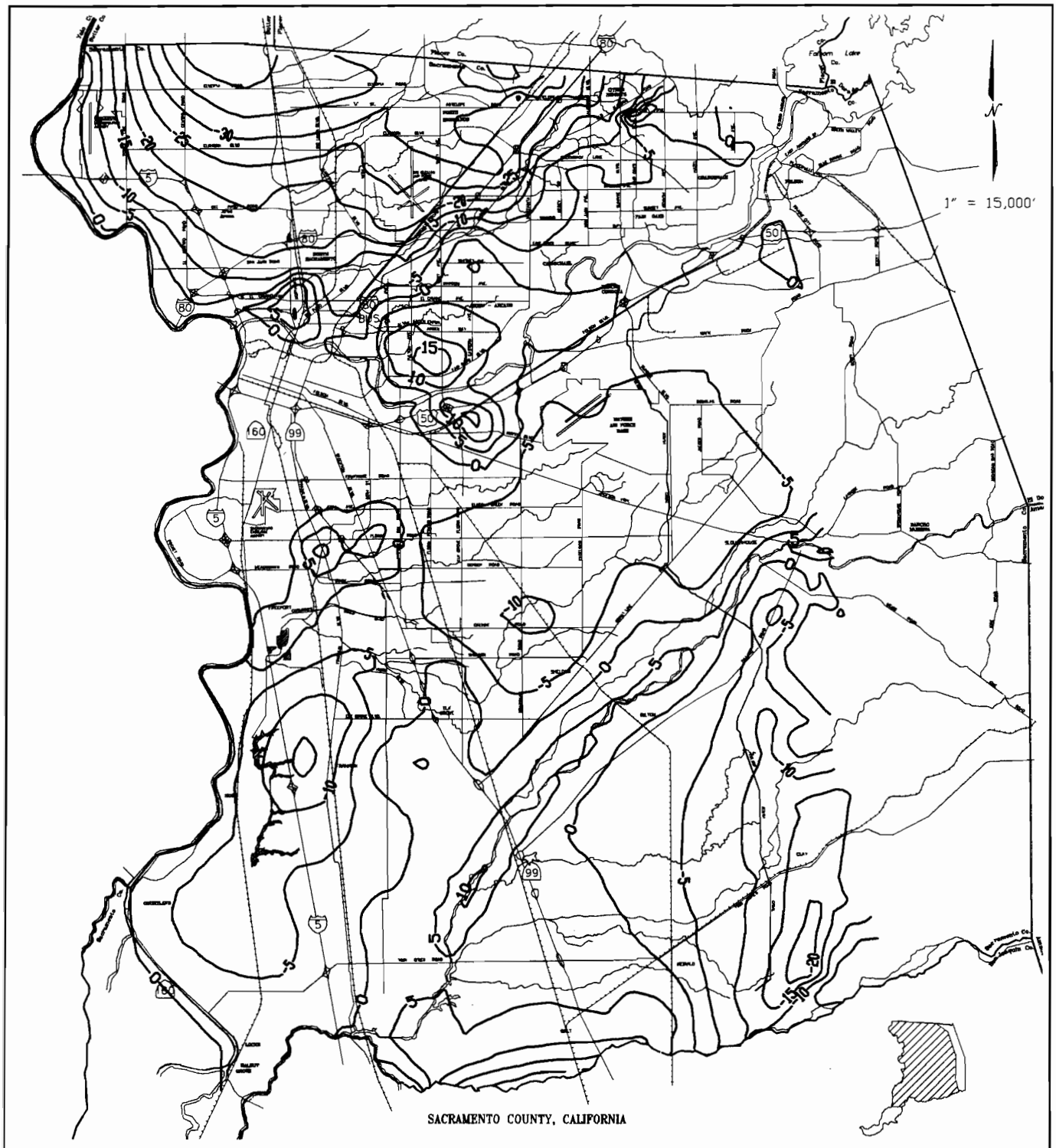
SIMULATED GROUNDWATER LEVEL CONTOURS
IGSM STATIC BASELINE MODEL 1990

MEAN SEA LEVEL

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

DRAWN: March 13, 1997
BY: Y. Oushakoff

Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)



DIFFERENCE CONTOURS BETWEEN
1990 WATER LEVELS AND STATIC 1990 BASELINE CONDITIONS

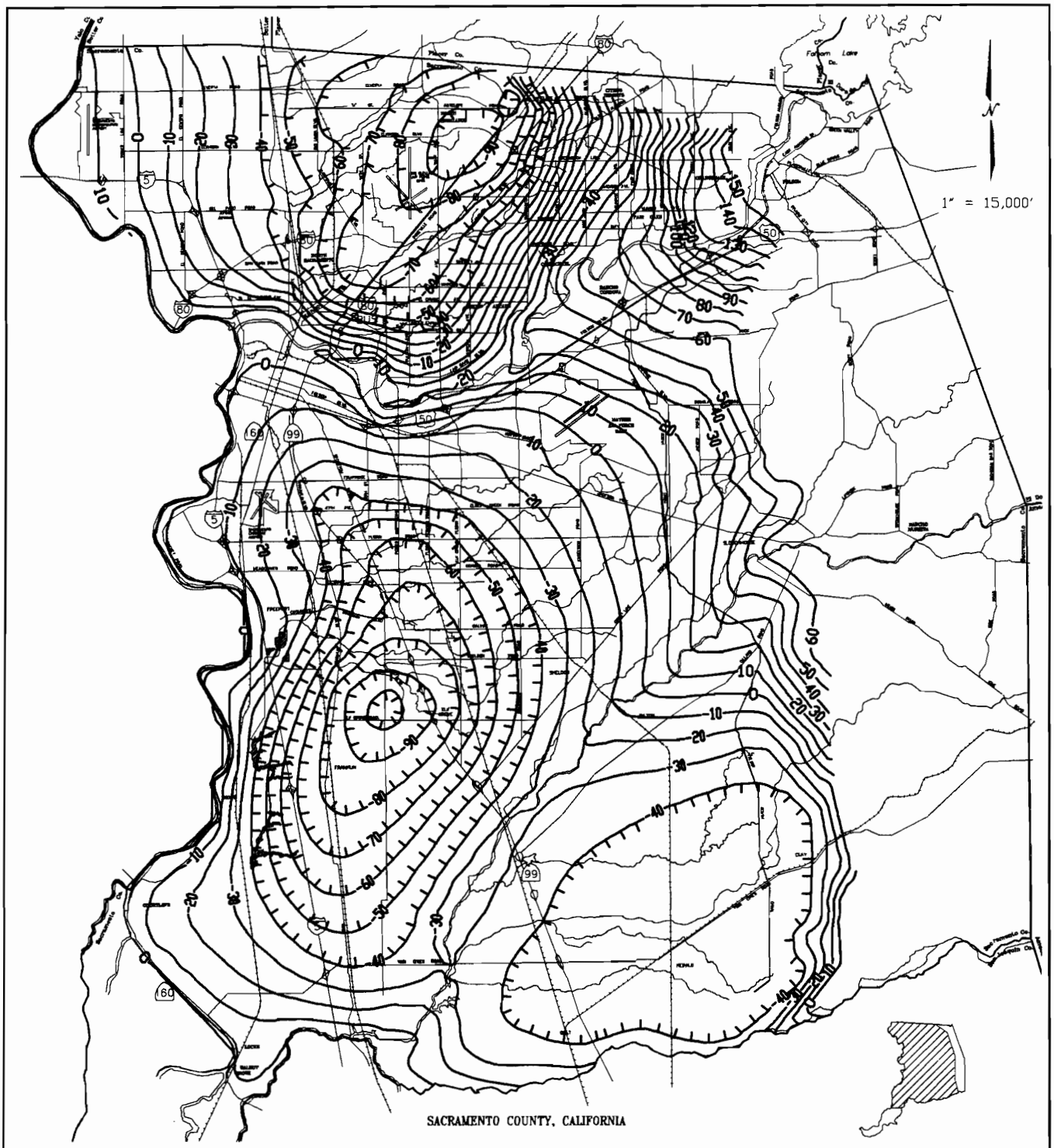
MEAN SEA LEVEL

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

Notes: – Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)

– A negative contour denotes a decline in water levels from 1990 initial water levels.

DRAWN: March 13, 1997
BY: Y. Oushakoff

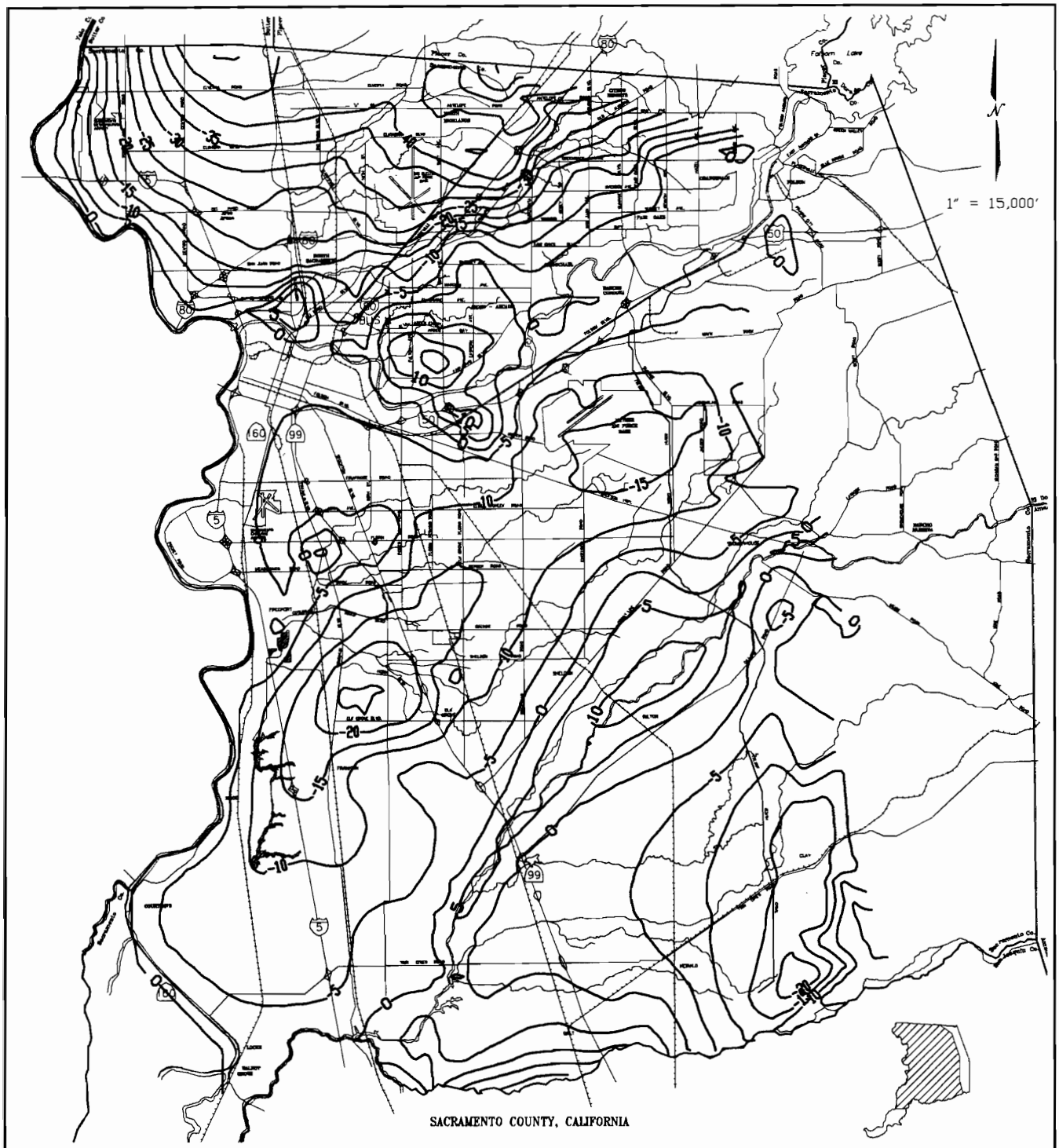


SIMULATED GROUNDWATER LEVEL CONTOURS
IGSM STATIC BASELINE MODEL 2000
MEAN SEA LEVEL

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

DRAWN: March 13, 1997
BY: Y. Oushakoff

Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)



DIFFERENCE CONTOURS BETWEEN 1990 WATER LEVELS AND STATIC 2000 BASELINE CONDITIONS

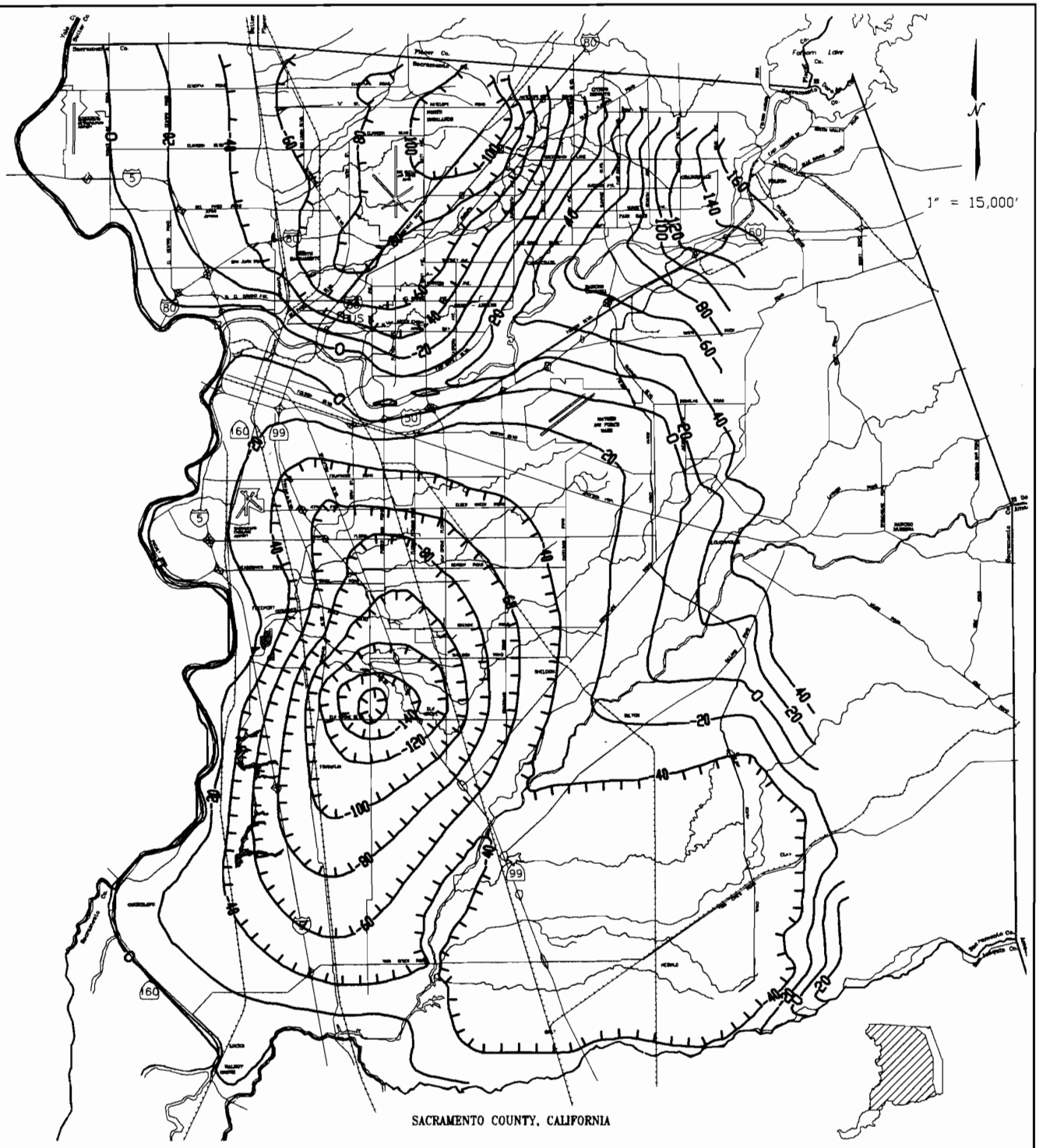
MEAN SEA LEVEL

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

Notes: – Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)

– A negative contour denotes a decline in water levels from 1990 initial water levels.

DRAWN: March 13, 1997
BY: Y. Oushakoff



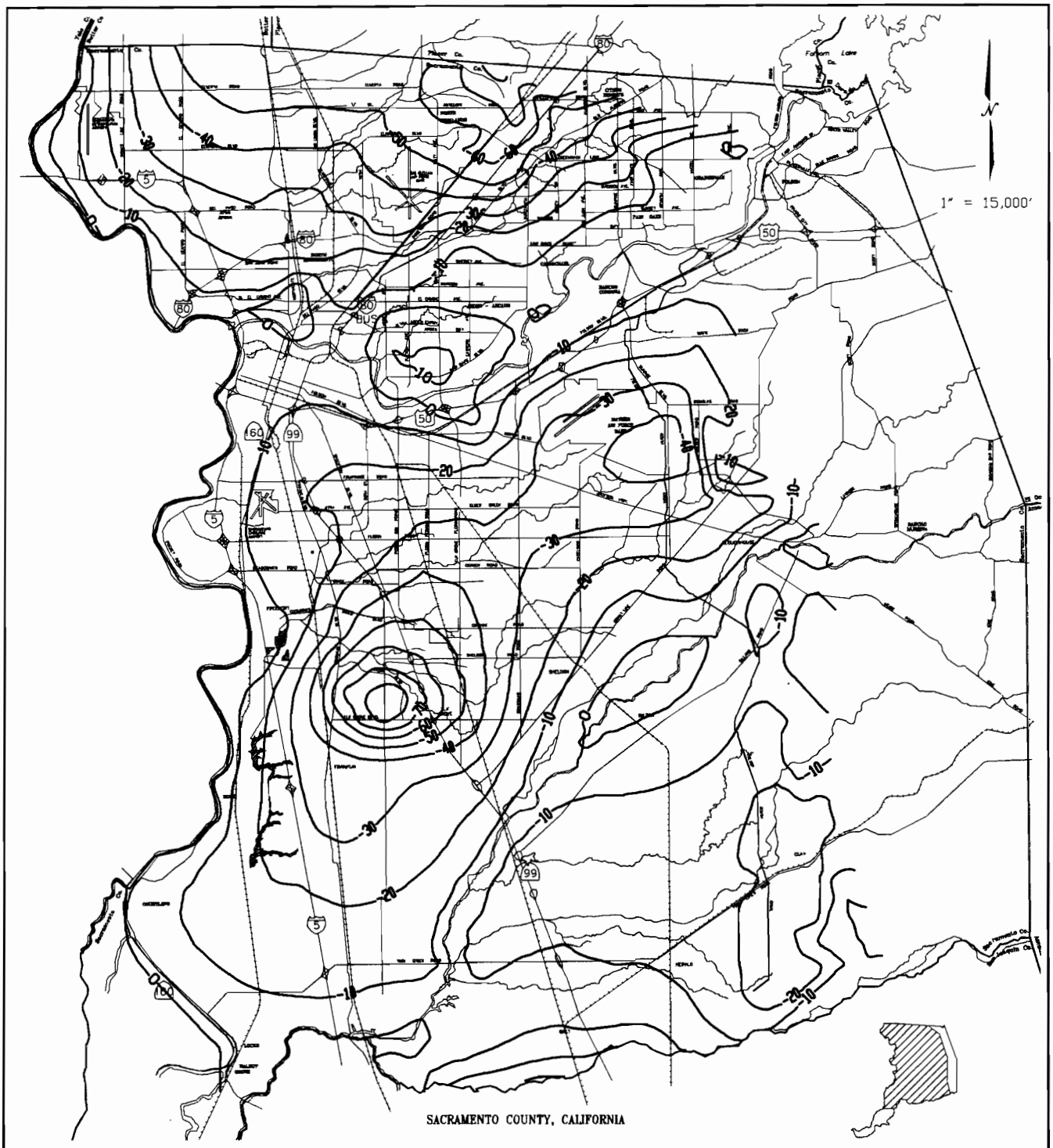
SIMULATED GROUNDWATER LEVEL CONTOURS
IGSM STATIC BASELINE MODEL 2010

MEAN SEA LEVEL

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

DRAWN: March 13, 1997
BY: Y. Oushakoff

Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)



DIFFERENCE CONTOURS BETWEEN
1990 WATER LEVELS AND STATIC 2010 BASELINE CONDITIONS

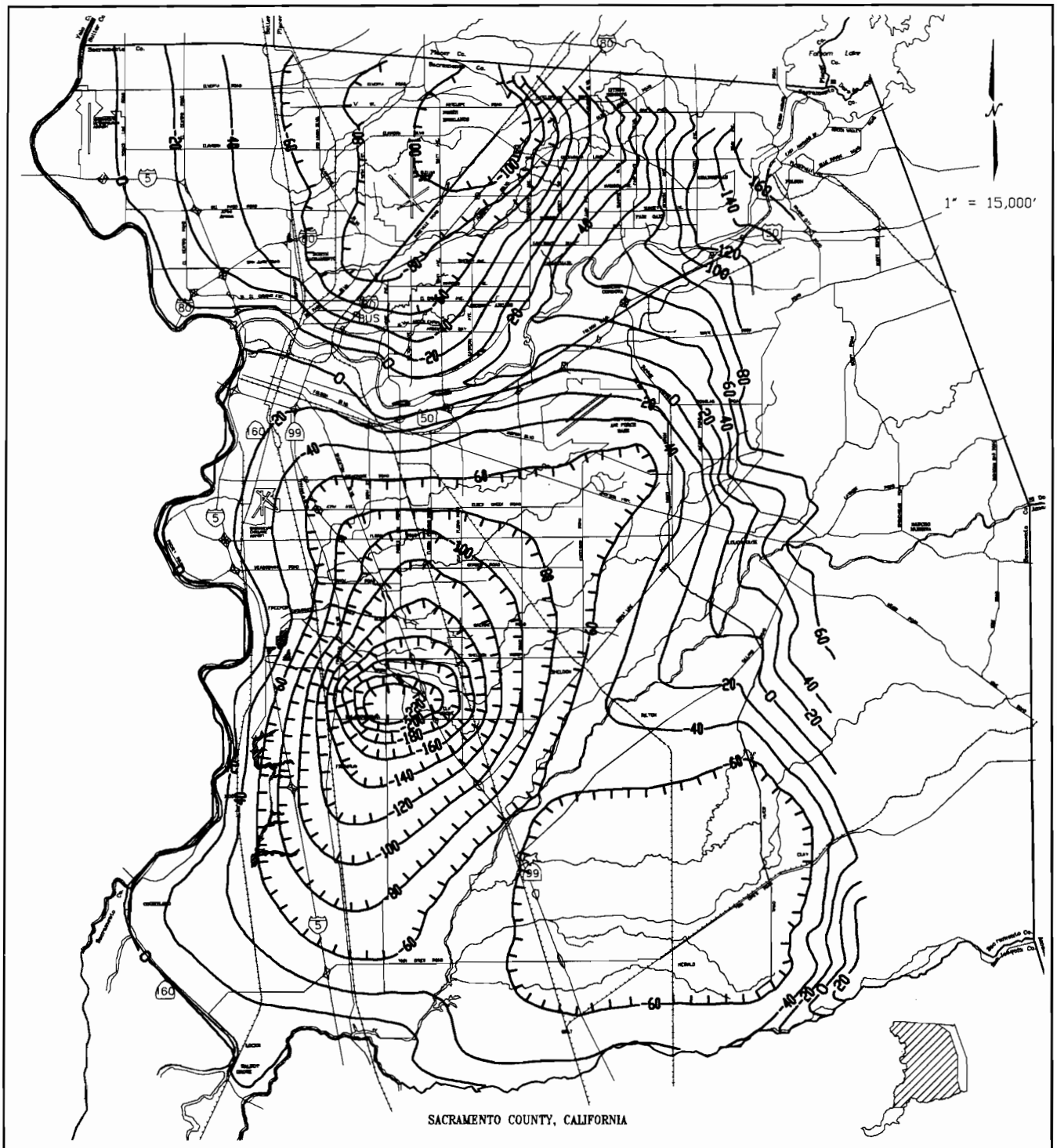
MEAN SEA LEVEL

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

Notes: - Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)

- A negative contour denotes a decline in water levels from 1990 initial water levels.

DRAWN: March 13, 1997
BY: Y. Oushakoff



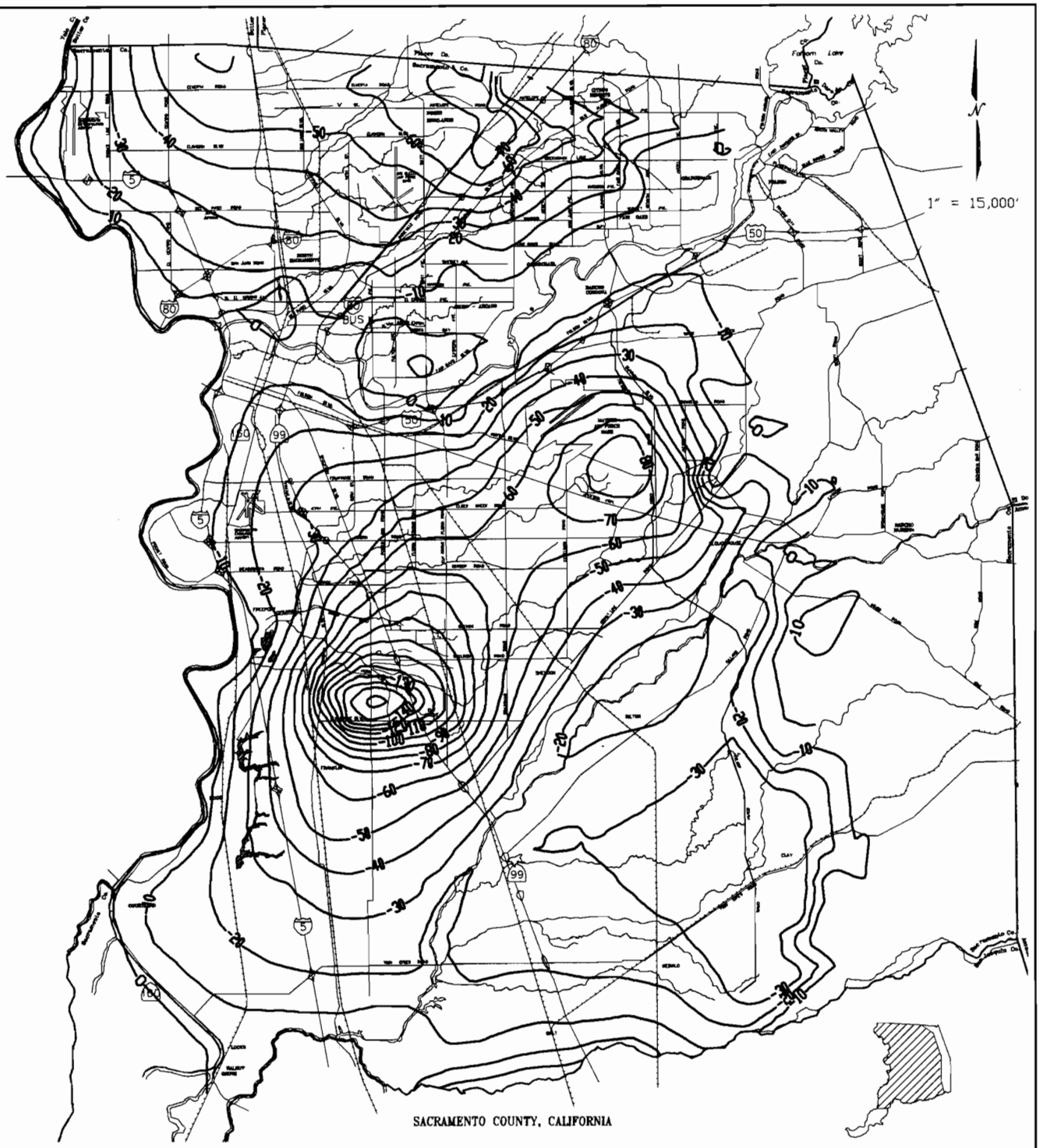
SIMULATED GROUNDWATER LEVEL CONTOURS
IGSM STATIC BASELINE MODEL 2020

MEAN SEA LEVEL

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

DRAWN: March 13, 1997
BY: Y. Oushakoff

Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)



DIFFERENCE CONTOURS BETWEEN
1990 WATER LEVELS AND STATIC 2020 BASELINE CONDITIONS

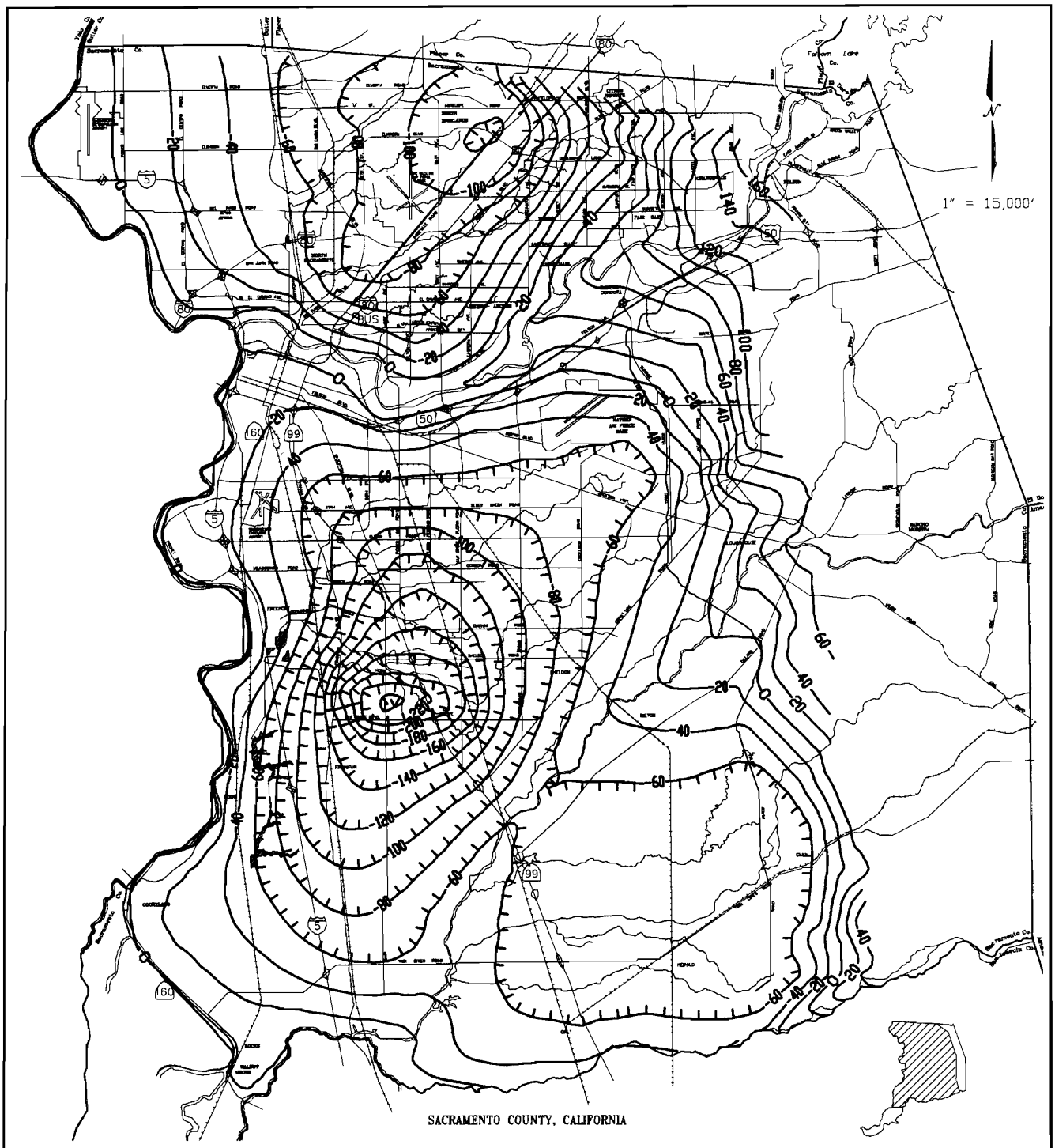
MEAN SEA LEVEL

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

Notes: – Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)

– A negative contour denotes a decline in water levels from 1990 initial water levels.

DRAWN: March 13, 1997
BY: Y. Oushakoff



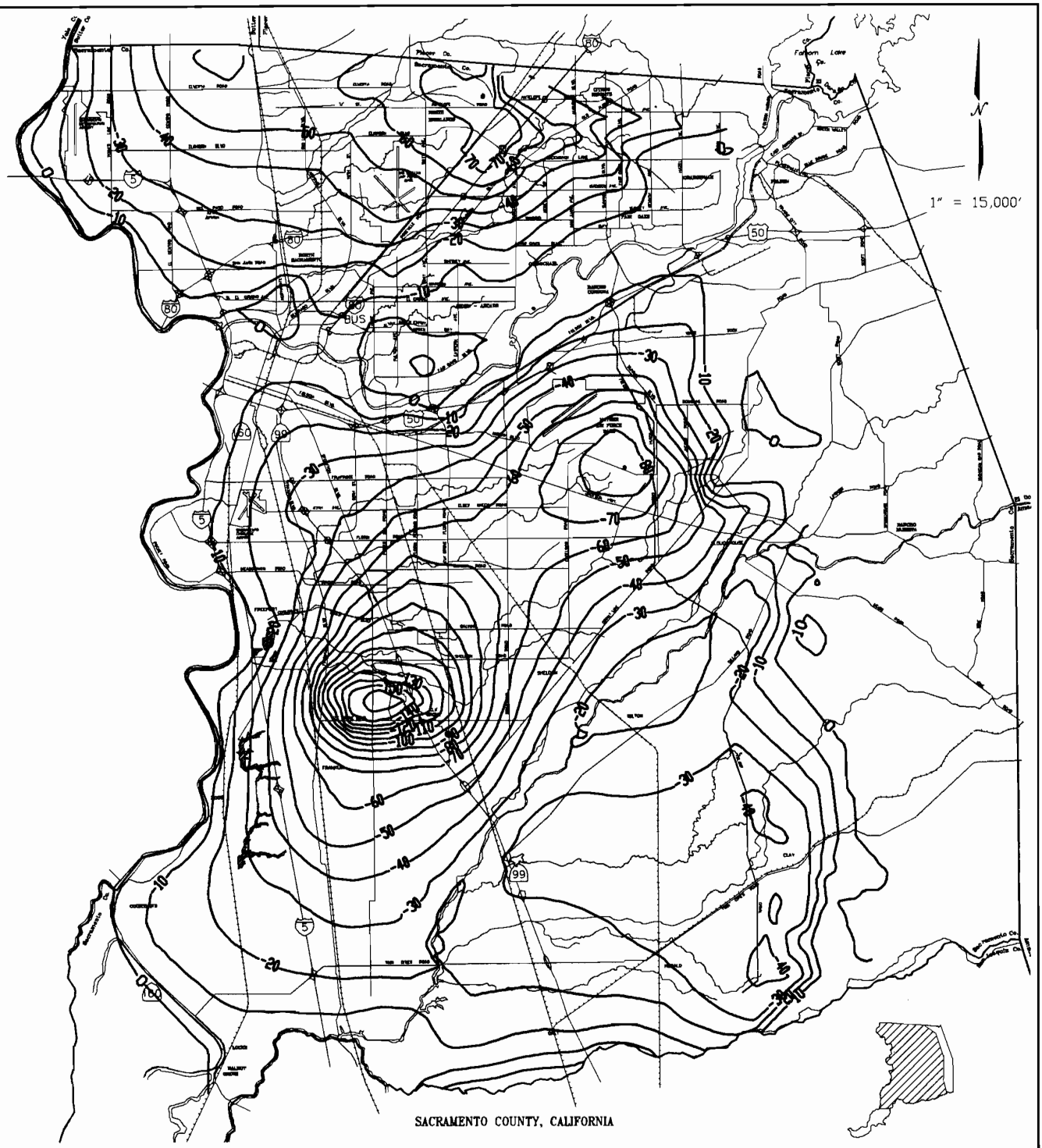
SIMULATED GROUNDWATER LEVEL CONTOURS
IGSM STATIC BASELINE MODEL 2030

MEAN SEA LEVEL

COUNTY OF SACRAMENTO · PUBLIC WORKS AGENCY · WATER RESOURCES DIVISION

DRAWN: March 13, 1997
BY: Y. Oushakoff

Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)



DIFFERENCE CONTOURS BETWEEN
1990 WATER LEVELS AND STATIC 2030 BASELINE CONDITIONS
MEAN SEA LEVEL

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY WATER RESOURCES DIVISION

Notes: – Baseline Condition water levels are for Layer 1 at the end of the model simulation period (hydrologic year 1990)

– A negative contour denotes a decline in water levels from 1990 initial water levels.

DRAWN: March 13, 1997
BY: Y. Oushakoff

APPENDIX C

BASELINE MODEL RESULTS: GROUNDWATER BUDGETS

- 1990 Baseline Conditions with Additional Conservation
- 1990 Baseline Conditions
- 2000 Baseline Conditions
- 2010 Baseline Conditions
- 2020 Baseline Conditions
- 2030 Baseline Conditions

1990 BASELINE CONDITIONS WITH ADDITIONAL CONSERVATION
GROUND WATER BUDGET IN AC.-FT FOR ENTIRE MODEL AREA
AREA: 562744 ACRES

TIME	DEEP PERC.	NET DEEP PERC. (+)	GAIN FROM STREAM (+)	RECHARGE (+)	OTHER INFLOW (+)	BOUNDARY INFLOW (+)	SUBSURF. INFLOW (+)	PUMPING (-)	CHANGE IN STORAGE (=)	END STORAGE 1000 AF	LAND SUBSIDENCE 1000 AF
1922	160,132	155,628	233,586	0	0	40,666	0	489,044	-59,163	48,250	0
1923	163,821	164,318	228,075	0	0	67,141	0	453,044	6,490	48,257	0
1924	131,647	129,422	144,718	0	0	70,127	0	511,538	-167,271	48,093	0
1925	141,658	144,938	234,271	0	0	71,089	0	423,713	26,584	48,119	0
1926	143,712	140,916	185,229	0	0	72,736	0	459,070	-60,189	48,061	0
1927	162,037	158,925	235,169	0	0	75,459	0	454,012	15,540	48,075	0
1928	131,782	134,827	206,014	0	0	76,261	0	471,067	-53,964	48,023	0
1929	144,357	138,697	183,918	0	0	75,937	0	499,580	-101,027	47,924	0
1930	152,570	149,230	194,494	0	0	73,933	0	477,718	-60,062	47,865	0
1931	136,729	133,140	156,765	0	0	70,839	0	501,484	-140,741	47,727	0
1932	172,395	164,674	221,705	0	0	73,529	0	503,906	-43,998	47,683	0
1933	136,407	138,775	179,529	0	0	79,474	0	499,146	-101,369	47,583	0
1934	167,743	158,331	186,168	0	0	76,635	0	514,642	-93,508	47,491	0
1935	153,277	160,798	248,387	0	0	80,907	0	448,668	41,424	47,532	0
1936	180,548	170,252	241,839	0	0	84,830	0	460,053	36,867	47,567	0
1937	176,802	179,625	234,181	0	0	91,183	0	479,980	25,009	47,592	0
1938	220,755	211,729	264,670	0	0	97,513	0	465,799	108,113	47,697	0
1939	121,387	139,204	170,546	0	0	90,294	0	460,373	-60,329	47,639	0
1940	224,501	202,996	227,003	0	0	89,335	0	473,573	45,761	47,683	0
1941	231,428	231,667	237,584	0	0	98,136	0	422,622	144,765	47,824	0
1942	174,873	192,771	241,444	0	0	95,512	0	417,014	112,713	47,935	0
1943	173,020	179,451	242,238	0	0	91,668	0	466,014	47,342	47,981	0
1944	158,818	160,327	192,063	0	0	90,088	0	474,128	-31,651	47,951	0
1945	161,921	165,140	221,198	0	0	84,932	0	479,701	-8,432	47,943	0
1946	148,164	151,344	218,365	0	0	90,019	0	475,270	-15,543	47,929	0
1947	139,220	138,765	186,423	0	0	86,118	0	490,228	-78,922	47,852	0
1948	105,757	115,659	205,878	0	0	84,638	0	411,950	-5,774	47,847	0
1949	156,488	144,699	203,502	0	0	80,903	0	484,070	-54,965	47,793	0
1950	146,934	148,972	215,606	0	0	82,983	0	465,185	-17,624	47,776	0
1951	210,788	193,381	263,206	0	0	83,208	0	465,073	74,722	47,848	0
1952	218,975	217,707	264,850	0	0	89,253	0	461,119	110,691	47,956	0
1953	164,731	176,080	207,737	0	0	97,401	0	458,737	22,481	47,978	0
1954	135,574	142,993	197,201	0	0	88,792	0	464,858	-35,872	47,943	0
1955	166,096	161,882	197,394	0	0	84,958	0	465,903	-21,670	47,922	0
1956	282,230	256,228	236,529	0	0	88,112	0	465,969	114,900	48,033	0
1957	116,789	148,423	190,878	0	0	92,606	0	409,914	21,993	48,055	0
1958	197,082	187,911	243,674	0	0	86,778	0	418,212	100,151	48,154	0
1959	152,944	159,718	166,901	0	0	88,997	0	500,347	-84,731	48,070	0
1960	135,802	137,797	169,836	0	0	86,041	0	485,612	-91,938	47,980	0
1961	149,397	146,002	166,330	0	0	83,199	0	491,789	-96,258	47,886	0
1962	166,616	159,223	191,917	0	0	79,538	0	500,057	-69,379	47,818	0
1963	145,981	155,723	250,508	0	0	86,854	0	433,143	59,943	47,877	0
1964	145,827	143,398	190,749	0	0	89,888	0	484,965	-60,929	47,817	0
1965	173,905	170,308	251,198	0	0	88,690	0	439,507	70,689	47,886	0
1966	164,676	161,115	197,352	0	0	92,920	0	524,029	-72,641	47,814	0
1967	207,469	202,963	262,025	0	0	88,865	0	447,479	106,374	47,919	0
1968	144,895	153,370	190,064	0	0	90,965	0	484,202	-49,803	47,870	0
1969	277,583	247,381	252,976	0	0	89,072	0	477,871	111,558	47,979	0
1970	187,193	206,108	220,777	0	0	96,330	0	487,459	35,756	48,014	0
1971	170,851	183,186	218,232	0	0	96,528	0	460,142	37,804	48,051	0
1972	139,370	143,413	186,381	0	0	91,489	0	478,342	-57,059	47,995	0
1973	245,399	223,940	232,875	0	0	87,490	0	478,449	65,856	48,059	0
1974	180,325	196,317	238,644	0	0	101,189	0	453,424	82,725	48,141	0
1975	152,839	162,055	211,414	0	0	92,837	0	464,945	1,361	48,143	0
1976	123,768	124,521	143,964	0	0	89,951	0	481,985	-123,549	48,022	0
1977	124,709	120,554	114,172	0	0	80,625	0	510,071	-194,719	47,833	0
1978	215,388	195,810	250,053	0	0	77,494	0	459,367	63,991	47,894	0
1979	181,751	186,171	214,659	0	0	78,624	0	491,244	-11,791	47,882	0
1980	210,351	205,621	244,641	0	0	84,063	0	452,103	82,222	47,962	0
1981	144,847	157,165	169,635	0	0	91,038	0	484,250	-66,413	47,897	0
1982	235,897	228,663	277,901	0	0	87,238	0	405,890	187,911	48,081	0
1983	297,796	290,082	273,756	0	0	94,815	0	405,953	252,700	48,328	0
1984	184,996	205,371	201,154	0	0	93,036	0	479,519	20,043	48,348	0
1985	154,202	162,577	180,202	0	0	90,298	0	480,221	-47,144	48,303	0
1986	255,860	236,731	222,477	0	0	82,445	0	458,613	83,040	48,385	0
1987	150,971	165,079	149,960	0	0	84,131	0	507,106	-107,935	48,280	0
1988	155,058	156,411	152,894	0	0	77,450	0	478,180	-91,425	48,191	0
1989	151,418	153,051	179,723	0	0	77,321	0	466,368	-56,273	48,136	0
1990	129,899	132,450	167,259	0	0	79,041	0	440,142	-61,392	48,076	0
1991	149,175	142,972	161,523	0	0	76,504	0	489,440	-108,441	47,969	0
AVERAGE	170,262	170,072	209,203	0	0	84,699	0	468,923	-4,948	47,969	0

1990 BASELINE CONDITIONS
GROUND WATER BUDGET IN AC.-FT FOR ENTIRE MODEL AREA
AREA: 562744 ACRES

TIME	DEEP PERC. (+)	NET DEEP PERC. (+)	GAIN FROM STREAM (+)	RECHARGE (+)	OTHER INFLOW (+)	BOUNDARY INFLOW (+)	SUBSURF. INFLOW (+)	PUMPING (-)	CHANGE IN STORAGE (=)	END STORAGE 1000 AF	LAND SUBSIDENCE 1000 AF
1922	167,303	158,620	239,913	0	0	42,591	0	550,600	-109,476	48,200	0
1923	171,484	170,094	240,793	0	0	71,124	0	514,520	-32,510	48,167	0
1924	138,277	135,309	160,867	0	0	75,889	0	573,137	-201,072	47,970	0
1925	148,433	150,957	254,304	0	0	78,317	0	485,185	-1,607	47,968	0
1926	150,312	146,544	206,828	0	0	81,244	0	520,320	-85,704	47,884	0
1927	169,760	165,431	259,735	0	0	84,998	0	515,571	-5,406	47,878	0
1928	138,604	141,531	231,080	0	0	86,675	0	532,636	-73,352	47,805	0
1929	150,966	144,831	208,762	0	0	87,135	0	561,179	-120,450	47,687	0
1930	159,746	155,789	221,203	0	0	85,751	0	539,297	-76,553	47,612	0
1931	143,281	139,235	183,885	0	0	83,219	0	563,063	-156,724	47,458	0
1932	179,581	170,861	250,187	0	0	86,406	0	565,504	-58,051	47,400	0
1933	142,724	145,333	208,220	0	0	92,789	0	560,738	-114,396	47,288	0
1934	174,665	164,289	215,403	0	0	90,351	0	576,231	-106,188	47,183	0
1935	160,920	167,818	278,846	0	0	94,843	0	509,860	31,648	47,214	0
1936	187,951	177,233	273,673	0	0	99,068	0	521,562	28,413	47,241	0
1937	184,179	186,585	265,475	0	0	105,738	0	541,565	16,233	47,257	0
1938	228,782	218,916	297,904	0	0	112,111	0	527,340	101,591	47,355	0
1939	128,211	146,707	201,628	0	0	105,298	0	521,851	-68,217	47,289	0
1940	231,398	209,335	260,539	0	0	104,384	0	535,131	39,128	47,327	0
1941	239,531	237,827	271,829	0	0	113,236	0	483,813	139,079	47,463	0
1942	182,958	201,640	276,032	0	0	110,719	0	478,199	110,192	47,570	0
1943	180,349	187,677	276,426	0	0	106,982	0	527,551	43,534	47,613	0
1944	165,741	167,298	225,260	0	0	105,605	0	535,655	-37,493	47,578	0
1945	169,583	172,497	255,341	0	0	100,520	0	541,245	-12,887	47,565	0
1946	155,025	158,104	250,925	0	0	105,734	0	536,794	-22,031	47,544	0
1947	146,111	146,069	219,777	0	0	101,977	0	551,832	-84,010	47,463	0
1948	112,549	122,948	239,228	0	0	100,522	0	473,101	-10,402	47,453	0
1949	163,586	151,132	237,250	0	0	97,056	0	545,628	-60,189	47,394	0
1950	153,968	155,852	249,237	0	0	99,177	0	526,695	-22,428	47,372	0
1951	219,355	200,651	299,429	0	0	99,370	0	526,597	72,854	47,442	0
1952	227,182	224,659	301,249	0	0	105,422	0	522,640	108,690	47,548	0
1953	172,332	184,360	243,287	0	0	113,641	0	519,986	21,302	47,569	0
1954	142,292	150,818	232,028	0	0	105,110	0	526,396	-38,440	47,531	0
1955	173,954	168,621	233,326	0	0	101,416	0	527,359	-23,996	47,508	0
1956	289,073	261,898	272,804	0	0	104,605	0	527,458	111,849	47,616	0
1957	123,366	156,521	226,584	0	0	109,223	0	471,288	21,040	47,637	0
1958	205,340	195,773	280,307	0	0	103,265	0	479,377	99,967	47,735	0
1959	159,378	166,929	201,965	0	0	105,755	0	561,899	-87,251	47,650	0
1960	142,232	145,067	206,592	0	0	102,653	0	547,183	-92,871	47,559	0
1961	156,686	152,736	202,254	0	0	100,069	0	553,393	-98,334	47,462	0
1962	173,380	165,906	226,715	0	0	96,465	0	561,636	-72,549	47,391	0
1963	154,568	163,576	287,223	0	0	103,733	0	494,318	60,215	47,450	0
1964	153,018	150,836	224,998	0	0	106,978	0	546,529	-63,718	47,387	0
1965	181,541	177,575	289,632	0	0	105,480	0	500,757	71,930	47,458	0
1966	171,597	168,125	231,736	0	0	110,016	0	585,651	-75,773	47,383	0
1967	215,730	210,212	299,685	0	0	105,687	0	508,671	106,913	47,488	0
1968	151,458	161,410	225,114	0	0	107,944	0	545,811	-51,342	47,438	0
1969	284,415	252,930	292,731	0	0	106,027	0	539,456	112,231	47,547	0
1970	194,274	213,069	256,454	0	0	113,349	0	549,042	33,831	47,580	0
1971	179,767	191,933	254,534	0	0	113,489	0	521,700	38,255	47,618	0
1972	146,146	151,100	221,499	0	0	108,528	0	539,859	-58,732	47,561	0
1973	253,242	230,520	270,985	0	0	104,382	0	539,993	65,893	47,625	0
1974	189,370	205,140	276,542	0	0	118,023	0	514,975	84,730	47,708	0
1975	160,177	170,636	247,930	0	0	109,779	0	526,496	1,850	47,710	0
1976	130,755	132,148	179,271	0	0	107,002	0	543,482	-125,061	47,588	0
1977	131,615	128,024	147,088	0	0	97,687	0	571,595	-198,796	47,395	0
1978	222,720	201,757	286,468	0	0	94,472	0	520,616	62,082	47,454	0
1979	189,125	193,091	250,626	0	0	95,737	0	552,830	-13,376	47,440	0
1980	217,791	212,301	283,817	0	0	101,139	0	513,636	83,621	47,522	0
1981	151,566	165,191	205,649	0	0	108,271	0	545,800	-66,688	47,457	0
1982	245,761	236,248	316,608	0	0	104,123	0	466,974	190,004	47,643	0
1983	307,848	298,547	312,731	0	0	111,715	0	467,035	255,958	47,893	0
1984	193,205	216,125	240,248	0	0	109,951	0	541,111	25,213	47,918	0
1985	161,735	171,690	216,614	0	0	107,166	0	541,837	-46,367	47,873	0
1986	264,276	243,708	262,707	0	0	99,168	0	520,140	85,442	47,957	0
1987	158,039	173,739	186,313	0	0	101,136	0	568,721	-107,533	47,853	0
1988	162,174	164,105	188,278	0	0	94,370	0	539,769	-93,017	47,763	0
1989	158,847	160,239	215,622	0	0	94,290	0	527,911	-57,760	47,706	0
1990	135,673	139,277	202,486	0	0	96,186	0	501,615	-63,667	47,644	0
1991	156,303	149,627	196,224	0	0	93,768	0	551,025	-111,406	47,535	0
AVERAGE	177,618	177,190	242,242	0	0	99,801	0	530,405	-11,173	47,535	0

2000 BASELINE CONDITIONS
GROUND WATER BUDGET IN AC.-FT FOR ENTIRE MODEL AREA
AREA: 562744 ACRES

TIME	DEEP PERC. (+)	NET DEEP PERC. (+)	GAIN FROM STREAM (+)	RECHARGE (+)	OTHER INFLOW (+)	BOUNDARY INFLOW (+)	SUBSURF. INFLOW (+)	PUMPING (-)	CHANGE IN STORAGE (=)	END STORAGE 1000 AF	LAND SUBSIDENCE 1000 AF
1922	156,286	152,139	242,219	122	0	44,789	0	564,860	-125,591	48,183	0
1923	161,685	162,133	245,358	122	0	74,404	0	529,726	-47,710	48,135	0
1924	125,523	125,167	166,458	122	0	79,949	0	585,159	-213,463	47,925	0
1925	139,008	141,711	262,372	122	0	83,512	0	502,563	-14,847	47,910	0
1926	139,256	136,341	214,424	122	0	87,175	0	535,449	-97,388	47,814	0
1927	159,773	155,425	268,946	122	0	91,666	0	530,755	-14,596	47,798	0
1928	126,989	130,583	240,438	122	0	93,638	0	546,929	-82,148	47,717	0
1929	138,623	133,397	217,820	122	0	94,372	0	573,023	-127,312	47,592	0
1930	148,080	143,927	230,604	122	0	93,513	0	553,247	-85,081	47,509	0
1931	130,983	128,293	193,346	122	0	91,407	0	575,932	-162,764	47,349	0
1932	168,105	158,584	260,064	122	0	94,962	0	577,627	-63,895	47,285	0
1933	130,247	133,835	218,186	122	0	101,524	0	572,901	-119,234	47,167	0
1934	162,649	151,876	224,896	122	0	99,522	0	587,740	-111,323	47,057	0
1935	150,582	156,770	289,947	122	0	104,221	0	525,209	25,851	47,083	0
1936	176,702	165,009	286,231	122	0	108,850	0	537,213	23,000	47,104	0
1937	172,445	174,102	277,816	122	0	115,678	0	555,190	12,528	47,116	0
1938	217,026	206,038	312,034	122	0	122,048	0	542,184	98,058	47,212	0
1939	116,404	136,129	213,157	122	0	115,189	0	537,000	-72,403	47,141	0
1940	218,913	195,192	274,058	122	0	114,804	0	549,415	34,762	47,175	0
1941	229,338	225,819	285,992	122	0	123,422	0	500,864	134,491	47,306	0
1942	173,622	191,915	290,383	122	0	120,995	0	494,974	108,441	47,412	0
1943	169,278	177,363	290,463	122	0	117,043	0	541,938	43,053	47,455	0
1944	154,320	156,691	237,511	122	0	115,624	0	550,347	-40,397	47,416	0
1945	158,017	161,161	268,740	122	0	110,726	0	555,328	-14,579	47,402	0
1946	143,940	148,285	264,147	122	0	115,863	0	551,054	-22,638	47,380	0
1947	134,036	134,952	231,489	122	0	112,267	0	564,855	-86,025	47,296	0
1948	102,592	113,555	252,079	122	0	110,745	0	490,740	-14,239	47,283	0
1949	151,675	139,186	249,814	122	0	107,750	0	559,404	-62,532	47,221	0
1950	142,114	144,195	262,046	122	0	109,786	0	541,219	-25,070	47,197	0
1951	209,430	188,528	315,519	122	0	110,259	0	541,522	72,906	47,268	0
1952	215,796	211,948	317,294	122	0	116,282	0	537,660	107,986	47,372	0
1953	162,483	173,684	256,310	122	0	124,174	0	535,470	18,819	47,391	0
1954	130,504	140,438	244,449	122	0	115,705	0	540,753	-40,040	47,352	0
1955	163,614	158,591	246,086	122	0	111,957	0	542,672	-25,917	47,327	0
1956	276,016	247,066	289,502	122	0	115,505	0	542,643	109,551	47,432	0
1957	113,031	146,544	240,547	122	0	120,347	0	489,806	17,754	47,450	0
1958	194,458	184,282	296,484	122	0	114,651	0	496,479	99,060	47,547	0
1959	146,838	155,250	214,637	122	0	116,623	0	574,619	-87,987	47,461	0
1960	130,678	134,866	219,335	122	0	113,414	0	560,884	-93,147	47,370	0
1961	144,695	141,312	215,230	122	0	111,118	0	566,224	-98,442	47,273	0
1962	161,077	153,872	239,722	122	0	107,478	0	574,018	-72,824	47,201	0
1963	145,623	154,350	301,422	122	0	114,872	0	509,346	61,419	47,261	0
1964	141,723	139,960	237,076	122	0	118,429	0	560,359	-64,773	47,198	0
1965	172,516	167,570	305,245	122	0	116,775	0	517,786	71,926	47,268	0
1966	158,996	155,979	244,835	122	0	121,061	0	596,780	-74,783	47,195	0
1967	205,430	197,956	315,762	122	0	116,696	0	523,700	106,836	47,300	0
1968	138,842	149,331	236,938	122	0	119,062	0	559,247	-53,794	47,247	0
1969	270,787	237,651	310,608	122	0	117,197	0	553,746	111,831	47,356	0
1970	182,424	200,914	270,609	122	0	124,526	0	562,284	33,886	47,389	0
1971	169,978	182,153	268,086	122	0	124,572	0	536,808	38,126	47,427	0
1972	134,486	141,287	233,898	122	0	119,393	0	554,666	-59,966	47,368	0
1973	240,537	216,060	285,858	122	0	115,703	0	554,321	63,422	47,430	0
1974	179,455	194,557	293,782	122	0	129,127	0	530,045	87,544	47,516	0
1975	148,766	160,359	263,874	122	0	120,839	0	541,262	3,932	47,520	0
1976	119,674	123,082	191,791	122	0	117,979	0	559,290	-126,317	47,397	0
1977	118,717	117,224	158,834	122	0	108,565	0	583,522	-198,776	47,203	0
1978	210,510	187,174	300,905	122	0	105,724	0	535,017	58,908	47,260	0
1979	177,314	180,286	264,124	122	0	106,920	0	565,690	-14,237	47,245	0
1980	206,118	200,027	300,328	122	0	112,655	0	529,206	83,926	47,327	0
1981	139,188	153,598	218,649	122	0	119,599	0	559,448	-67,481	47,261	0
1982	236,180	224,455	334,464	122	0	115,589	0	485,128	189,502	47,446	0
1983	296,529	285,593	331,225	122	0	123,183	0	485,070	255,053	47,696	0
1984	183,149	206,562	255,842	122	0	121,105	0	554,656	28,975	47,725	0
1985	150,840	161,940	229,575	122	0	117,921	0	555,464	-45,907	47,681	0
1986	252,114	231,027	278,052	122	0	110,187	0	534,818	84,570	47,764	0
1987	145,530	162,505	199,593	122	0	111,932	0	580,969	-106,817	47,660	0
1988	150,867	153,802	201,683	122	0	105,339	0	554,425	-93,478	47,570	0
1989	147,092	148,803	228,912	122	0	105,265	0	542,420	-59,317	47,511	0
1990	124,852	130,221	215,923	122	0	107,337	0	518,169	-64,566	47,448	0
1991	144,163	138,193	209,120	122	0	104,933	0	563,875	-111,507	47,338	0
AVERAGE	166,275	165,982	255,045	122	0	109,792	0	544,902	-13,960	47,338	0

2010 BASELINE CONDITIONS
GROUND WATER BUDGET IN AC.-FT FOR ENTIRE MODEL AREA
AREA: 562744 ACRES

TIME	DEEP PERC. (+)	NET DEEP PERC. (+)	GAIN FROM STREAM (+)	RECHARGE (+)	OTHER INFLOW (+)	BOUNDARY INFLOW (+)	SUBSURF. INFLOW (+)	PUMPING (-)	CHANGE IN STORAGE (=)	END STORAGE 1000 AF	LAND SUBSIDENCE 1000 AF
1922	150,232	147,592	245,043	247	0	47,376	0	605,025	-164,767	48,144	0
1923	157,562	156,492	251,777	247	0	77,690	0	571,471	-85,265	48,058	0
1924	117,985	118,160	173,187	247	0	84,302	0	624,078	-248,183	47,814	0
1925	134,596	135,307	274,015	247	0	88,994	0	545,243	-46,681	47,767	0
1926	133,551	130,032	224,818	247	0	93,782	0	576,935	-128,056	47,640	0
1927	155,156	149,206	283,257	247	0	99,407	0	571,884	-39,767	47,600	0
1928	120,454	124,583	255,130	247	0	102,154	0	587,582	-105,468	47,496	0
1929	131,480	126,155	230,340	247	0	103,649	0	611,862	-151,471	47,347	0
1930	141,743	136,384	244,621	247	0	103,806	0	593,883	-108,825	47,240	0
1931	123,910	121,538	206,972	247	0	102,672	0	615,615	-184,186	47,058	0
1932	162,344	151,067	275,099	247	0	106,956	0	616,651	-83,281	46,975	0
1933	123,027	127,265	233,183	247	0	114,026	0	612,031	-137,310	46,840	0
1934	156,071	144,158	239,374	247	0	112,931	0	626,301	-129,591	46,712	0
1935	145,486	150,615	307,053	247	0	118,090	0	566,923	9,082	46,720	0
1936	170,870	158,337	305,536	247	0	123,339	0	579,086	8,373	46,728	0
1937	166,481	167,133	295,884	247	0	130,561	0	595,338	-1,513	46,726	0
1938	210,962	199,361	335,593	247	0	137,211	0	583,378	89,034	46,812	0
1939	109,592	131,762	230,715	247	0	130,758	0	578,397	-84,915	46,730	0
1940	212,043	186,400	295,076	247	0	130,890	0	590,008	22,605	46,751	0
1941	224,636	219,611	308,393	247	0	139,488	0	543,512	124,227	46,872	0
1942	169,662	187,399	314,251	247	0	137,110	0	537,382	101,625	46,971	0
1943	163,885	171,959	314,944	247	0	133,324	0	582,569	37,905	47,009	0
1944	148,497	151,572	257,193	247	0	132,119	0	591,399	-50,268	46,960	0
1945	152,260	155,525	288,997	247	0	127,585	0	595,877	-23,523	46,937	0
1946	138,391	142,639	286,640	247	0	132,818	0	591,785	-29,440	46,909	0
1947	127,147	128,947	250,672	247	0	129,680	0	604,660	-95,113	46,816	0
1948	97,618	109,527	272,840	247	0	128,308	0	533,725	-22,804	46,794	0
1949	145,305	131,430	269,933	247	0	125,925	0	599,740	-72,206	46,723	0
1950	135,661	137,349	282,789	247	0	128,323	0	582,133	-33,425	46,690	0
1951	205,289	182,047	343,733	247	0	128,883	0	582,888	72,021	46,760	0
1952	210,187	205,327	346,345	247	0	134,937	0	578,683	108,173	46,865	0
1953	158,617	170,465	277,204	247	0	142,712	0	576,846	13,781	46,878	0
1954	123,890	135,756	265,184	247	0	134,300	0	581,311	-45,824	46,834	0
1955	159,165	152,724	266,818	247	0	130,947	0	584,336	-33,601	46,801	0
1956	268,632	237,670	319,033	247	0	134,493	0	583,771	107,672	46,905	0
1957	107,437	143,643	262,863	247	0	139,886	0	533,563	13,077	46,918	0
1958	188,883	177,573	326,726	247	0	134,174	0	539,178	99,543	47,016	0
1959	139,709	149,314	235,105	247	0	136,185	0	614,340	-93,488	46,924	0
1960	124,132	129,766	240,281	247	0	132,791	0	601,134	-98,049	46,828	0
1961	138,329	134,788	235,826	247	0	130,836	0	606,018	-104,321	46,725	0
1962	154,657	146,302	260,647	247	0	127,464	0	613,366	-78,705	46,648	0
1963	142,041	149,488	324,671	247	0	134,947	0	550,594	58,760	46,705	0
1964	135,950	134,989	257,143	247	0	139,129	0	600,498	-68,991	46,637	0
1965	169,017	162,178	331,749	247	0	137,007	0	560,568	70,612	46,707	0
1966	151,933	149,930	265,319	247	0	141,620	0	635,202	-78,086	46,630	0
1967	201,167	192,144	343,790	247	0	136,979	0	565,131	108,029	46,736	0
1968	131,822	144,221	258,110	247	0	139,689	0	599,276	-57,009	46,681	0
1969	262,371	227,262	341,825	247	0	137,738	0	594,283	112,788	46,790	0
1970	176,775	195,682	296,030	247	0	145,045	0	602,306	34,698	46,824	0
1971	166,215	177,881	291,484	247	0	145,050	0	578,025	36,637	46,860	0
1972	128,073	136,922	255,700	247	0	139,882	0	595,800	-63,049	46,798	0
1973	233,710	207,422	313,165	247	0	136,476	0	595,209	62,102	46,859	0
1974	175,416	190,162	322,699	247	0	149,779	0	571,170	91,718	46,949	0
1975	142,746	155,316	288,763	247	0	141,627	0	582,257	3,695	46,953	0
1976	113,275	119,167	211,042	247	0	138,850	0	600,503	-131,197	46,825	0
1977	110,699	111,068	178,313	247	0	129,319	0	622,571	-203,624	46,626	0
1978	203,865	177,277	324,569	247	0	126,644	0	575,774	52,963	46,677	0
1979	171,355	173,596	286,266	247	0	128,246	0	605,299	-16,943	46,660	0
1980	199,956	192,797	329,105	247	0	133,998	0	570,594	85,553	46,743	0
1981	132,220	148,726	239,356	247	0	141,167	0	599,894	-70,398	46,675	0
1982	232,245	217,382	367,043	247	0	136,843	0	528,980	192,535	46,863	0
1983	290,619	278,024	365,855	247	0	144,283	0	528,535	259,874	47,117	0
1984	178,831	203,737	286,794	247	0	141,711	0	594,519	37,969	47,154	0
1985	145,194	157,720	252,936	247	0	138,295	0	595,838	-46,640	47,109	0
1986	245,749	223,108	310,926	247	0	130,624	0	575,912	88,992	47,197	0
1987	138,355	158,003	220,956	247	0	132,280	0	620,193	-108,706	47,092	0
1988	145,290	148,682	223,503	247	0	125,943	0	595,572	-97,196	46,997	0
1989	141,176	142,158	251,133	247	0	126,043	0	583,462	-63,881	46,935	0
1990	118,432	125,736	238,433	247	0	128,466	0	560,256	-67,374	46,869	0
1991	137,391	131,087	230,175	247	0	126,346	0	603,583	-115,727	46,755	0
AVERAGE	160,392	159,925	276,285	247	0	126,927	0	585,739	-22,355	46,755	0

2020 BASELINE CONDITIONS
GROUND WATER BUDGET IN AC.-FT FOR ENTIRE MODEL AREA
AREA: 562744 ACRES

TIME	DEEP PERC. (+)	NET DEEP PERC. (+)	GAIN FROM STREAM (+)	RECHARGE (+)	OTHER INFLOW (+)	BOUNDARY INFLOW (+)	SUBSURF. INFLOW (+)	PUMPING (-)	CHANGE IN STORAGE (=)	END STORAGE 1000 AF	LAND SUBSIDENCE 1000 AF
1922	146,167	142,515	247,035	360	0	48,819	0	651,920	-213,191	48,095	0
1923	154,714	152,389	257,250	360	0	79,762	0	618,707	-128,946	47,966	0
1924	112,888	113,867	180,157	360	0	86,160	0	669,307	-288,763	47,681	0
1925	131,981	130,503	284,551	360	0	92,594	0	595,436	-87,429	47,594	0
1926	130,269	125,941	235,937	360	0	98,413	0	625,241	-164,590	47,431	0
1927	152,041	144,472	297,026	360	0	105,078	0	619,403	-72,467	47,358	0
1928	116,214	121,008	269,327	360	0	108,625	0	635,346	-136,026	47,224	0
1929	126,855	121,092	243,229	360	0	110,514	0	656,876	-181,682	47,045	0
1930	138,055	131,158	258,480	360	0	112,033	0	641,281	-139,250	46,908	0
1931	119,230	117,545	221,572	360	0	111,569	0	661,746	-210,699	46,700	0
1932	158,527	144,845	290,623	360	0	116,751	0	661,883	-109,303	46,592	0
1933	118,409	123,507	248,218	360	0	124,285	0	657,573	-161,204	46,433	0
1934	151,329	138,096	254,484	360	0	124,210	0	671,040	-153,889	46,281	0
1935	144,030	146,971	323,978	360	0	130,675	0	617,135	-15,152	46,265	0
1936	166,246	153,763	324,455	360	0	136,965	0	627,883	-12,340	46,252	0
1937	162,518	162,049	314,497	360	0	144,705	0	642,734	-21,123	46,231	0
1938	206,655	193,897	359,488	360	0	151,869	0	630,516	75,097	46,304	0
1939	105,643	129,840	249,680	360	0	145,673	0	626,684	-101,131	46,205	0
1940	206,573	179,138	316,165	360	0	146,726	0	638,144	4,245	46,208	0
1941	221,949	214,182	330,417	360	0	155,656	0	594,588	106,026	46,311	0
1942	168,332	185,633	338,334	360	0	154,020	0	588,341	90,006	46,399	0
1943	160,776	169,399	340,837	360	0	150,101	0	630,485	30,212	46,429	0
1944	144,605	148,159	277,160	360	0	149,307	0	639,500	-64,515	46,366	0
1945	149,139	151,604	310,938	360	0	144,965	0	642,723	-34,856	46,332	0
1946	135,502	140,446	307,907	360	0	150,473	0	639,527	-40,341	46,293	0
1947	122,768	125,942	270,611	360	0	147,777	0	651,037	-106,348	46,189	0
1948	95,282	107,989	294,381	360	0	147,163	0	584,803	-34,911	46,155	0
1949	141,419	125,952	291,002	360	0	145,256	0	646,797	-84,227	46,072	0
1950	131,922	133,053	304,104	360	0	148,044	0	628,010	-42,449	46,030	0
1951	202,159	176,407	370,477	360	0	148,441	0	628,172	67,514	46,096	0
1952	205,887	200,101	375,974	360	0	154,939	0	626,833	104,542	46,198	0
1953	156,109	167,644	299,021	360	0	162,743	0	624,031	5,736	46,203	0
1954	120,050	133,789	286,117	360	0	154,346	0	628,524	-53,912	46,150	0
1955	156,539	149,115	288,797	360	0	151,690	0	631,074	-41,113	46,110	0
1956	261,331	228,301	346,190	360	0	155,221	0	630,597	99,475	46,206	0
1957	104,156	143,334	285,357	360	0	161,064	0	582,409	7,707	46,214	0
1958	185,731	172,985	358,636	360	0	155,792	0	589,707	98,066	46,310	0
1959	134,168	145,055	256,737	360	0	157,341	0	657,909	-98,416	46,213	0
1960	119,721	126,669	262,530	360	0	153,960	0	649,211	-105,692	46,109	0
1961	134,675	130,722	257,846	360	0	152,360	0	649,884	-108,595	46,003	0
1962	150,560	141,240	283,011	360	0	149,337	0	657,533	-83,585	45,921	0
1963	142,466	148,445	347,971	360	0	157,292	0	599,452	54,616	45,974	0
1964	131,441	131,618	278,627	360	0	161,282	0	644,949	-73,063	45,902	0
1965	166,501	157,767	355,724	360	0	159,249	0	606,326	66,774	45,968	0
1966	147,241	145,958	286,451	360	0	163,747	0	677,234	-80,718	45,888	0
1967	199,809	188,325	369,295	360	0	159,500	0	611,705	105,775	45,992	0
1968	127,316	142,460	280,094	360	0	162,093	0	643,694	-58,687	45,935	0
1969	254,759	218,262	371,209	360	0	160,401	0	638,944	111,287	46,043	0
1970	172,560	189,814	319,776	360	0	167,858	0	646,869	30,938	46,073	0
1971	164,425	175,737	314,217	360	0	168,241	0	625,759	32,796	46,105	0
1972	123,603	135,053	278,763	360	0	162,604	0	638,818	-62,036	46,045	0
1973	228,429	199,807	339,321	360	0	159,314	0	640,672	58,129	46,101	0
1974	172,633	187,214	350,269	360	0	172,923	0	618,675	92,090	46,192	0
1975	138,617	152,080	313,599	360	0	164,975	0	628,023	2,990	46,195	0
1976	109,560	118,634	233,082	360	0	161,726	0	645,505	-131,703	46,067	0
1977	105,464	107,775	199,273	360	0	151,641	0	665,256	-206,208	45,865	0
1978	199,238	169,278	348,466	360	0	149,955	0	621,910	46,149	45,910	0
1979	167,476	168,708	309,823	360	0	151,828	0	649,606	-18,888	45,890	0
1980	195,321	187,213	355,500	360	0	158,071	0	617,427	83,717	45,972	0
1981	127,856	146,127	262,101	360	0	165,008	0	643,465	-69,868	45,904	0
1982	229,913	212,411	401,024	360	0	160,675	0	576,811	197,658	46,097	0
1983	286,300	271,012	403,854	360	0	167,827	0	578,484	264,568	46,356	0
1984	175,566	202,150	317,288	360	0	164,958	0	640,563	44,193	46,400	0
1985	142,167	156,718	276,406	360	0	161,218	0	641,754	-47,052	46,354	0
1986	240,961	216,870	345,719	360	0	153,499	0	622,470	93,977	46,446	0
1987	134,245	156,345	243,248	360	0	154,808	0	666,411	-111,650	46,338	0
1988	141,321	144,899	246,278	360	0	148,525	0	642,165	-102,104	46,239	0
1989	137,645	138,820	274,400	360	0	148,380	0	627,605	-65,645	46,174	0
1990	114,208	123,446	261,988	360	0	151,319	0	608,038	-70,925	46,105	0
1991	133,087	126,320	252,964	360	0	149,626	0	648,506	-119,237	45,988	0
AVERAGE	156,589	155,851	297,847	360	0	144,914	0	632,395	-33,423	45,988	0

2030 BASELINE CONDITIONS
GROUND WATER BUDGET IN AC.-FT FOR ENTIRE MODEL AREA
AREA: 562744 ACRES

TIME	DEEP PERC.	NET DEEP PERC. (+)	GAIN FROM STREAM (+)	RECHARGE (+)	OTHER INFLOW (+)	BOUNDARY INFLOW (+)	SUBSURF. INFLOW (+)	PUMPING (-)	CHANGE IN STORAGE (=)	END STORAGE 1000 AF	LAND SUBSIDENCE 1000 AF
1922	149,341	143,917	248,063	430	0	52,071	0	662,596	-218,115	48,090	0
1923	158,347	156,679	257,900	430	0	82,840	0	629,364	-131,516	47,959	0
1924	115,749	118,508	180,558	430	0	90,123	0	679,951	-290,332	47,672	0
1925	135,233	134,666	286,122	430	0	96,245	0	606,155	-88,692	47,583	0
1926	133,458	129,614	236,753	430	0	102,464	0	636,017	-166,755	47,418	0
1927	155,317	148,124	298,438	430	0	108,936	0	629,945	-74,017	47,343	0
1928	119,279	124,670	270,280	430	0	112,727	0	646,017	-137,910	47,207	0
1929	129,728	124,686	244,360	430	0	114,889	0	667,490	-183,125	47,026	0
1930	141,110	134,405	259,567	430	0	116,779	0	651,959	-140,778	46,888	0
1931	122,265	121,039	222,470	430	0	116,625	0	672,466	-211,901	46,679	0
1932	161,889	148,862	291,331	430	0	121,734	0	672,473	-110,116	46,569	0
1933	121,371	127,070	249,489	430	0	129,350	0	668,198	-161,859	46,409	0
1934	154,298	141,105	255,045	430	0	129,523	0	681,698	-155,595	46,256	0
1935	147,146	150,461	325,586	430	0	135,553	0	627,710	-15,680	46,240	0
1936	169,669	156,788	326,017	430	0	142,121	0	638,421	-13,065	46,226	0
1937	165,837	165,415	315,997	430	0	149,853	0	652,462	-20,767	46,205	0
1938	210,128	197,398	361,428	430	0	156,698	0	641,992	73,963	46,276	0
1939	108,640	132,551	251,108	430	0	150,376	0	636,733	-102,269	46,177	0
1940	209,864	182,240	316,971	430	0	152,048	0	646,743	4,947	46,181	0
1941	225,438	217,881	331,722	430	0	159,987	0	603,592	106,427	46,284	0
1942	171,796	189,257	339,711	430	0	158,307	0	598,564	89,141	46,371	0
1943	164,169	172,374	343,282	430	0	154,605	0	640,058	30,633	46,401	0
1944	147,912	151,811	279,543	430	0	153,919	0	650,339	-64,636	46,338	0
1945	152,381	155,042	311,739	430	0	149,455	0	652,159	-35,494	46,303	0
1946	138,909	143,827	309,173	430	0	155,068	0	649,462	-40,964	46,264	0
1947	125,687	128,831	272,072	430	0	152,793	0	659,716	-105,590	46,161	0
1948	98,536	111,283	296,222	430	0	151,930	0	594,991	-35,126	46,126	0
1949	144,313	129,104	292,569	430	0	150,588	0	654,987	-82,296	46,045	0
1950	135,010	136,278	305,980	430	0	153,505	0	637,300	-41,107	46,005	0
1951	205,990	179,540	372,218	430	0	152,775	0	638,383	66,580	46,070	0
1952	209,453	203,554	378,670	430	0	159,417	0	634,683	107,389	46,174	0
1953	159,799	170,975	300,632	430	0	167,251	0	632,467	6,821	46,180	0
1954	122,963	137,437	288,132	430	0	158,821	0	637,507	-52,687	46,129	0
1955	160,149	152,298	290,142	430	0	156,613	0	640,083	-40,600	46,089	0
1956	264,674	232,534	347,743	430	0	159,634	0	639,652	100,689	46,186	0
1957	107,235	145,483	287,557	430	0	165,207	0	594,234	4,444	46,191	0
1958	189,028	176,275	360,970	430	0	160,062	0	600,175	97,562	46,287	0
1959	136,990	148,245	257,747	430	0	161,964	0	665,932	-97,546	46,191	0
1960	122,687	129,768	263,992	430	0	158,323	0	657,904	-105,391	46,087	0
1961	137,730	134,036	259,733	430	0	157,393	0	660,163	-108,572	45,981	0
1962	153,813	144,180	284,263	430	0	154,569	0	667,687	-84,245	45,898	0
1963	145,983	151,837	349,711	430	0	161,937	0	608,627	55,288	45,952	0
1964	134,545	135,202	279,858	430	0	166,166	0	652,871	-71,215	45,882	0
1965	170,454	161,102	357,687	430	0	163,755	0	618,007	64,967	45,945	0
1966	150,246	149,208	287,967	430	0	168,831	0	684,349	-77,914	45,868	0
1967	203,541	192,175	370,902	430	0	163,511	0	621,895	105,123	45,972	0
1968	130,262	145,314	281,888	430	0	166,426	0	654,063	-60,004	45,914	0
1969	257,974	221,516	373,347	430	0	164,852	0	649,689	110,456	46,021	0
1970	176,056	193,782	321,953	430	0	172,025	0	655,498	32,692	46,053	0
1971	168,207	178,998	315,610	430	0	172,391	0	633,688	33,741	46,086	0
1972	126,686	138,204	279,814	430	0	167,143	0	649,456	-63,864	46,024	0
1973	231,809	203,271	340,849	430	0	163,639	0	650,295	57,895	46,080	0
1974	176,226	190,606	351,926	430	0	177,118	0	627,864	92,216	46,170	0
1975	141,628	155,049	315,103	430	0	169,315	0	638,797	1,100	46,172	0
1976	112,685	121,730	234,261	430	0	166,337	0	654,660	-131,902	46,043	0
1977	108,227	110,978	200,067	430	0	156,749	0	674,502	-206,278	45,842	0
1978	202,506	171,908	350,338	430	0	155,066	0	631,207	46,535	45,886	0
1979	170,826	171,666	310,999	430	0	157,116	0	659,059	-18,849	45,867	0
1980	198,731	190,889	357,467	430	0	163,191	0	626,773	85,205	45,950	0
1981	130,759	149,551	262,823	430	0	170,101	0	653,442	-70,537	45,882	0
1982	233,919	216,020	403,942	430	0	164,910	0	586,715	198,587	46,076	0
1983	290,256	275,229	406,821	430	0	171,909	0	588,104	266,285	46,337	0
1984	179,237	205,643	319,538	430	0	169,099	0	648,930	45,780	46,382	0
1985	145,317	159,918	277,584	430	0	165,586	0	650,746	-47,228	46,336	0
1986	244,388	220,382	347,088	430	0	157,801	0	631,931	93,770	46,428	0
1987	137,037	159,093	244,004	430	0	159,256	0	675,683	-112,899	46,318	0
1988	144,750	148,030	248,361	430	0	152,848	0	651,470	-101,802	46,220	0
1989	140,645	142,022	276,285	430	0	153,012	0	637,533	-65,784	46,155	0
1990	117,246	126,555	264,170	430	0	155,458	0	618,292	-71,679	46,085	0
1991	136,031	129,373	254,255	430	0	154,754	0	659,027	-120,215	45,967	0
AVERAGE	159,850	159,192	299,370	430	0	149,478	0	642,166	-33,695	45,967	0

APPENDIX D

DYNAMIC BASELINE MODEL
Assumptions and Results

Baseline Dynamic Model Runs

As discussed in Section 2 of this memorandum for analyses of groundwater conditions in Sacramento County, two different approaches were considered: static and dynamic. Sections 2 and 3 of this memorandum presented the approach to the static analysis and the corresponding results. This appendix describes the approach and the impacts to groundwater conditions under the dynamic analysis. It is noteworthy that although the static model runs were updated for the latest surface water delivery schedules, the dynamic model runs do not include these updated assumptions.

Dynamic model runs are developed to analyze the near term response of the groundwater basin to annual incremental increases in groundwater pumping that may occur as additional urban growth occurs in the county. As opposed to the static model runs, dynamic model runs assume that the land use and water demands are changing every year in response to the projected urban growth. The analysis is made for a 40-year period to represent the expected change of land and water use conditions from the years 1990 to 2030. The hydrologic conditions (i.e. rainfall) assumed in this period are four different historical sequences (1922-1961, 1932-1971, 1942-1981, and 1952-1991) each reflecting a different sequence of wet, dry and average years. The range and average values of groundwater elevations resulting from the four different runs will provide the range of groundwater conditions for the next 40 years for the given land and water use conditions.

In performing the dynamic model runs, several assumptions are made. Assumptions on the land use and water requirements, water supply conditions, location and depth of groundwater pumping, and initial conditions are the same as the static model runs and are described in Section 2.1 of this memorandum. Following is a discussion on the assumptions on hydrology and boundary conditions.

Hydrology

The dynamic model runs utilize the historical hydrologic data sequences that have occurred under four separate 40-year periods (1922-61, 1932-71, 1942-81, 1952-91). The four different hydrologic periods were utilized to take into account the response of the groundwater basin under different sequences of wet, dry and normal years. The annual rainfall conditions for each of these hydrologic sequences is presented in Figures D1a - D1d. As presented in these figures, the average annual rainfall for the 40 year periods

varies from 16.68 inches (1922-1961 hydrology) to 18.66 inches (1952-1991 hydrology). The average annual rainfall for the 1932-1971 hydrologic sequence (17.76 inches) and 1942-1981 hydrologic sequence (17.59 inches) closely match the long-term (1922-1991) average annual rainfall of 17.59 inches. The lower average annual rainfall for the 1922-1961 hydrologic sequence is primarily attributed to a drought which extended from 1928 to 1934. The annual rainfall was well below average for each of the seven years of this drought. The 1952-1991 hydrologic sequence also contains the 1976-1977 drought and a portion of the recent 1987-1992 drought. However, due to the occurrence of several very wet years in the late 1950's (1956 and 1958) and the 1980's (1982, 1983, 1986) this hydrologic sequence has the highest average annual rainfall of the four hydrologic sequences.

Boundary Conditions

As in the case of static model runs, the groundwater conditions in Sacramento County are impacted by the operation of the groundwater system in Placer/Sutter Counties in the north and San Joaquin County in the south. Due to the continuous groundwater system in the Central Valley, the reverse of this condition is also true. To this effect, reasonable long-term assumptions are made in regard to the operation of the groundwater system outside Sacramento County in the north and south. The groundwater levels for the northern and southern boundaries are then simulated using the linked models for Placer/Sutter, Sacramento, and San Joaquin Counties for the period 1922 to 1990. The appropriate groundwater levels for the 40-year period for each baseline conditions are then used in the dynamic analysis.

Dynamic Baseline Model Results

This section presents the results of the dynamic baseline model runs. As discussed in Section 2, dynamic model runs utilize the changing land and water use conditions that are projected to occur between the years 1990 and 2030. The dynamic baseline runs incorporate the land use, water use and water supply conditions developed for the static Baseline Conditions for the years 1990, 2000, 2010, 2020 and 2030. A direct linear interpolation was used to develop the model input data for the intervening years. The purpose of the dynamic model runs is to determine the near-term response of the groundwater basin to the projected incremental increases in groundwater pumping.

FIGURE D1a
CITY OF SACRAMENTO
HISTORICAL RAINFALL (1922-1961)

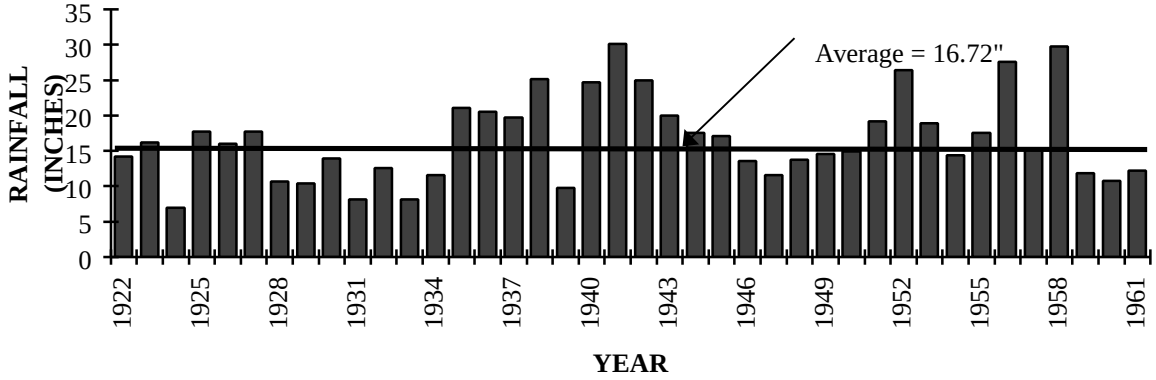


FIGURE D1b
CITY OF SACRAMENTO
HISTORICAL RAINFALL (1932-1971)

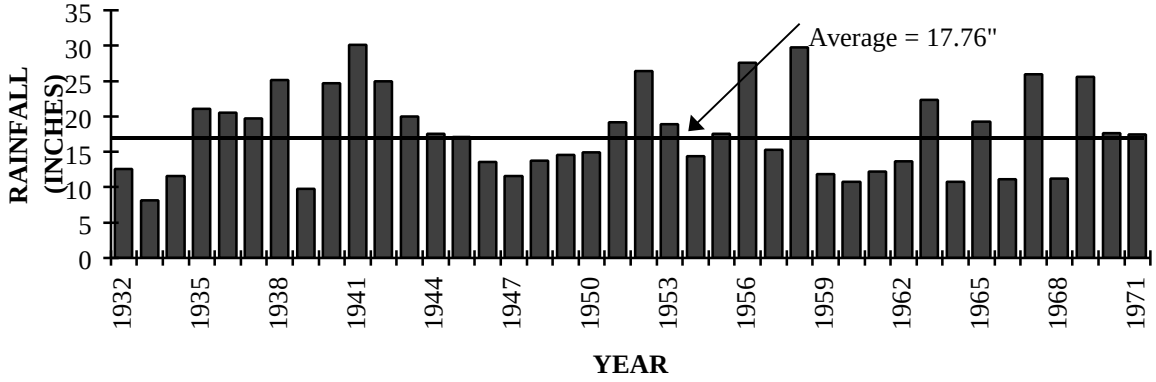


FIGURE D1c
CITY OF SACRAMENTO
HISTORICAL RAINFALL (1942-1981)

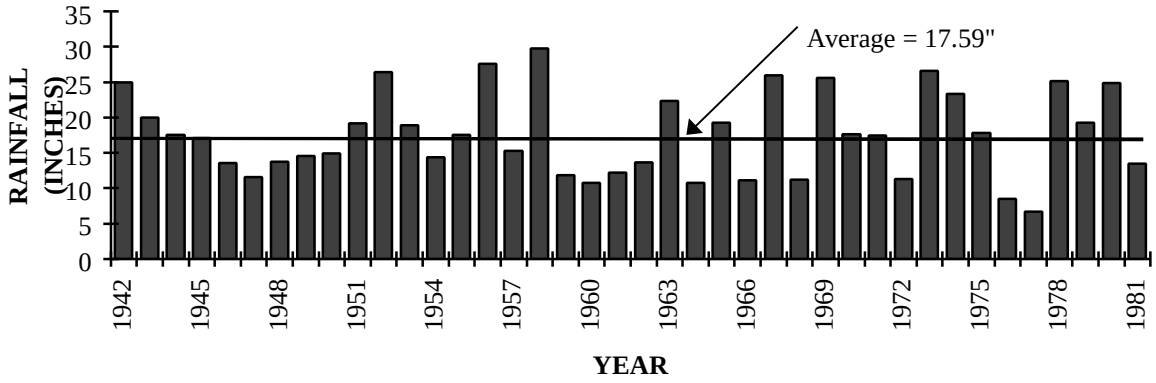
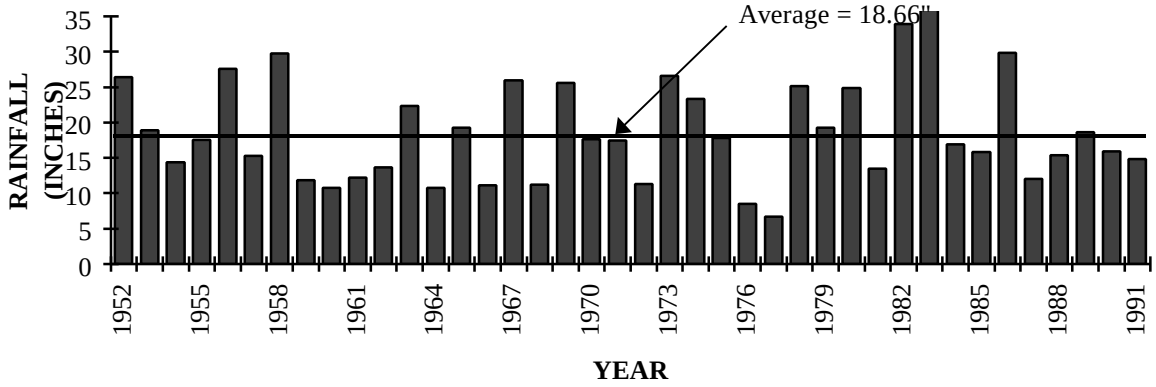


FIGURE D1d
CITY OF SACRAMENTO
HISTORICAL RAINFALL (1952-1991)



In order to take into account the potential variations in groundwater recharge under differing hydrologic conditions, the dynamic Baseline Conditions have been modeled with four different hydrologic periods (1922-61, 1932-71, 1942-81 and 1952-91). This approach was developed to take into account the uncertainty regarding future hydrologic conditions. The average annual amount of rainfall and streamflows is approximately the same for each of the hydrologic periods, however, the sequence of and magnitude of dry, wet and average years differs. Therefore, the use of the different hydrologic periods results in a range of model results for groundwater elevations (given the same land use, water use, and water supply conditions).

Groundwater Levels

Model results of the minimum groundwater levels in the North Sacramento, South Sacramento and Galt areas are presented in Figures D2 to D4. These figures present the model results for the decline in groundwater levels as groundwater production increases from 1990 Baseline Conditions to 2030 Baseline Conditions. The groundwater levels represent the lowest groundwater elevations within the cones of depression in each county area. The range in groundwater levels presented in Figures D2-D4 represent the expected range in groundwater levels which may occur as a result of different sequences of wet, dry and average years. The magnitude of the range in estimated groundwater levels differs for each county area and is based on a statistical analysis of the difference between simulated groundwater levels under the four different hydrologic sequences and the average value of the four sequences for each of the 40 years of model simulation. The range is then reported as two standard deviations of this difference which represents an approximately 95% confidence interval that the minimum groundwater levels will be within this range. The model results for the minimum groundwater levels at each of the county areas for each of the four hydrologic sequences are also presented in Appendix D.

The model results indicate a decline in groundwater elevations for all three county areas over the 40 year period. As is the case with the static Baseline Conditions, the greatest decline in groundwater levels is projected to occur in the South Sacramento area, primarily in response to the increases in urban pumping in the Zone 40 and Sunrise subregions. Based on these results, the minimum groundwater elevation in the South Sacramento area will drop by approximately 30 feet in twenty years (year 2010) and by approximately 70 feet in 40 years (year 2030).

In the North Sacramento area the model results indicate a groundwater level decline of approximately 30 feet by the year 2010, with an additional decline of approximately 5 feet over the following 20 years. This relatively small decline is attributed to the relatively small increase in groundwater pumping that is projected to occur in the North Sacramento area after the year 2010.

The model results for the dynamic Baseline Conditions represent the near-term response of the groundwater basin to incremental increases in groundwater pumping. However, as described in the static baseline model results (Section 3.1), if the groundwater pumping is maintained at an increased amount, the groundwater levels will eventually stabilize at lower levels. Table D1 presents a comparison of model results for minimum groundwater levels for both static (stabilized) and dynamic model runs. As indicated in the table, the greatest variation between dynamic and static groundwater levels occurs in the South Sacramento area. A comparison between the dynamic and static model results for each of the county areas are presented in Figures D5-D7. As indicated in Figure D6, the minimum groundwater levels expected at the South Sacramento County area in the year 2000 is 83 feet below msl. If the pumping rate is held constant at that rate, the minimum groundwater levels will continue to decline, and eventually stabilize at approximately 104 feet below msl. On the other hand, if the pumping rate is continuously increased in response to the water demands, the minimum groundwater level will be 141 feet below msl in the year 2030. If the pumping rate remains the same thereafter, the minimum groundwater levels will further decline and eventually stabilize at approximately 178 feet below msl. Figures D8-D10 show the minimum water levels over the 40-year simulation under the four hydrologic conditions.

TABLE D1
MINIMUM GROUNDWATER LEVELS: DYNAMIC AND STATIC CONDITIONS
(Elevation in Feet, mean-sea-level)

County Area	Subregion	Baseline Condition									
		1990		2000		2010		2020		2030	
		Dynamic	Static	Dynamic	Static	Dynamic	Static	Dynamic	Static	Dynamic	Static
North Sacramento	1 North Sacramento POU	-45.8	-66.0	-63.1	-73.2	-65.1	-80.7	-66.8	-87.3	-67.7	-88.4
	14 Citizens Utilities	-50.1	-79.5	-87.3	-96.6	-98.6	-118.8	-104.5	-131.8	-103.3	-135.7
	17 Fair Oaks WD	28.3	20.1	16.2	12.0	10.5	2.3	6.0	-7.3	3.5	-7.9
	18 Orangevale WD	103.2	101.5	97.7	96.6	95.5	91.2	92.9	86.2	91.7	86.1
	19 San Juan	137.9	133.3	128.8	123.8	127.7	115.8	126.4	110.6	126.6	110.6
	20 Carmichael	-10.2	-16.4	-16.3	-21.4	-19.6	-28.6	-22.4	-36.4	-24.1	-36.9
	21 Citrus Heights	-14.7	-36.7	-48.7	-54.8	-60.6	-71.8	-66.8	-86.4	-69.3	-88.5
	22 Northridge	-56.1	-78.2	-86.9	-96.5	-97.0	-118.9	-102.2	-132.8	-103.8	-136.4
	24 McClellan AFB	-63.3	-79.5	-78.4	-89.3	-82.5	-100.2	-83.7	-108.1	-82.7	-110.0
	25 Arcade WD	-61.1	-81.6	-87.4	-97.4	-96.7	-116.5	-101.1	-131.1	-103.2	-134.4
	26 Rio Linda	-45.4	-73.9	-73.8	-84.8	-77.3	-96.9	-78.4	-104.3	-75.9	-106.8
	27 Natomas Mutual	-12.5	-43.7	-42.2	-48.8	-41.6	-55.4	-41.9	-58.4	-39.8	-59.2
	28 Metro Airport	5.8	-6.0	-8.3	-8.5	-6.9	-11.2	-6.9	-12.2	-6.6	-12.6
	Minimum groundwater levels in North Sacramento Area:	**-63.3**	**-81.6**	**-87.4**	**-97.4**	**-98.6**	**-118.9**	**-104.5**	**-132.8**	**-103.8**	**-136.4**
South Sacramento	2 South Sacramento POU	-58.5	-67.6	-67.6	-90.0	-85.7	-129.7	-104.7	-170.9	-120.0	-179.0
	3 Zone 40	-69.9	-85.7	-82.5	-112.1	-100.7	-163.3	-124.7	-220.4	-140.6	-225.6
	4 Southwest	-65.2	-80.0	-77.5	-90.1	-89.5	-112.1	-106.5	-142.9	-117.4	-143.1
	10 Omochumne-Hartnell	-45.0	-57.4	-55.7	-60.9	-64.0	-73.8	-73.8	-93.9	-84.0	-97.2
	11 Rancho Murieta	76.1	64.3	67.5	68.2	69.5	58.3	68.9	39.9	65.8	46.6
	12 Sunrise "A"	-17.8	-35.9	-29.2	-39.7	-35.0	-59.7	-41.4	-94.3	-49.6	-97.3
	13 Sunrise "B"	15.8	-1.0	5.7	-0.9	2.5	-20.8	-3.3	-56.4	-8.3	-57.2
	15 City of Folsom	59.5	55.7	55.6	51.7	51.4	40.2	45.6	23.6	42.7	25.7
	16 Arden Cordova	0.5	0.5	0.3	-4.3	-3.1	-13.2	-7.3	-31.6	-9.7	-31.4
	23 SCWMD	43.9	35.0	36.3	28.6	29.9	9.3	21.2	-17.8	17.1	-15.9
	30 Foothills North	61.4	49.1	51.3	50.3	50.7	36.3	46.7	12.5	44.2	16.7
	Minimum groundwater levels in South Sacramento Area:	**-69.9**	**-85.7**	**-82.5**	**-112.1**	**-100.7**	**-163.3**	**-124.7**	**-220.4**	**-140.6**	**-225.6**
Galt	5 Galt ID	-45.3	-60.3	-58.6	-63.9	-69.2	-72.7	-77.4	-88.2	-84.7	-92.0
	6 Cityof Galt	-50.8	-52.5	-52.4	-55.9	-59.1	-63.1	-67.2	-74.5	-74.0	-78.2
	7 OFSCU	-45.1	-59.5	-57.8	-63.4	-68.7	-74.0	-77.1	-92.7	-85.2	-95.9
	8 SMUD	13.2	-9.1	-6.5	-9.1	-9.7	-11.4	-10.7	-15.9	-10.4	-13.7
	9 Clay WD	-24.7	-55.2	-51.1	-57.0	-59.6	-63.0	-65.1	-75.4	-69.5	-78.3
	31 Foothills South	-40.6	-54.3	-54.3	-56.5	-59.8	-61.0	-65.6	-70.5	-72.7	-78.6
	Minimum groundwater levels in Galt Area:	**-50.8**	**-60.3**	**-58.6**	**-63.9**	**-69.2**	**-74.0**	**-77.4**	**-92.7**	**-85.2**	**-95.9**
Courtland	29 Courtland Area	-40.5	-59.6	-58.3	-65.1	-64.5	-77.6	-74.3	-94.0	-82.8	-97.1

Notes: (1) Groundwater elevations represent average groundwater levels of all aquifer layers
(2) Dynamic conditions represent short term response of basin under increasing groundwater demands. Assumptions for the dynamic analysis have not been revised from the 12/94 Technical Me
(3) Static conditions represent minimum groundwater levels averaged over the period of stabilized conditions.

FIGURE D2
NORTH SACRAMENTO AREA MINIMUM GROUNDWATER LEVELS

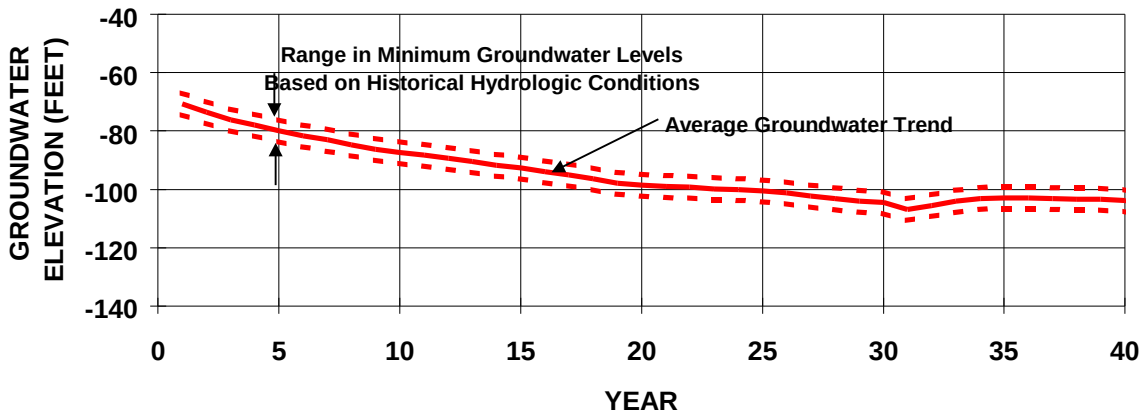


FIGURE D3
SOUTH SACRAMENTO AREA MINIMUM GROUNDWATER LEVELS

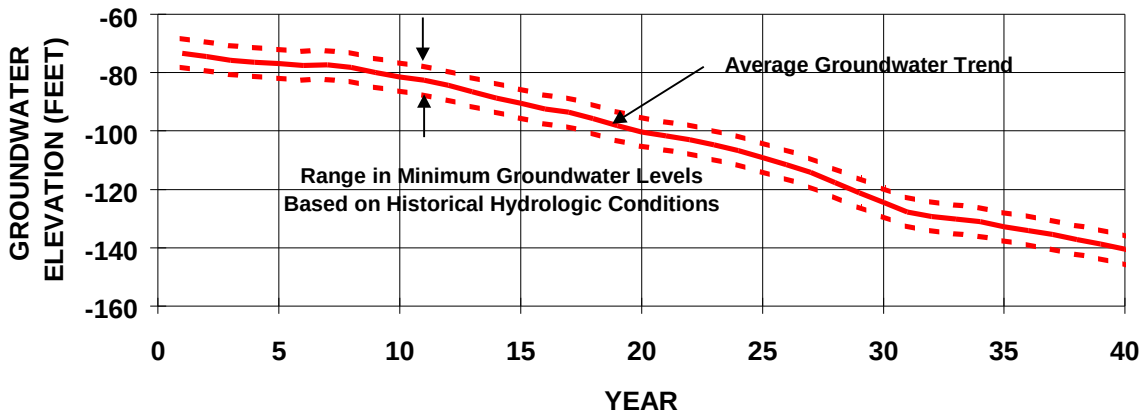


FIGURE D4
GALT AREA MINIMUM GROUNDWATER LEVELS

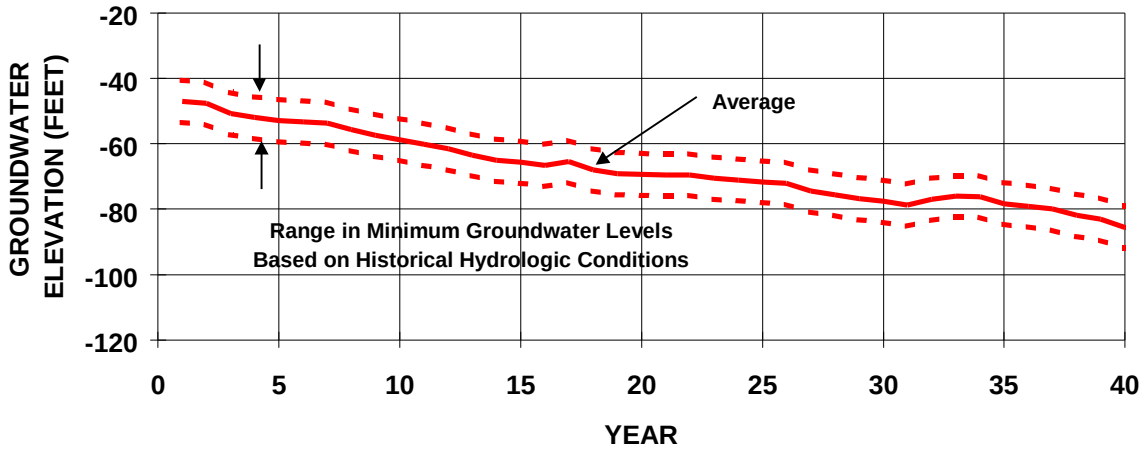
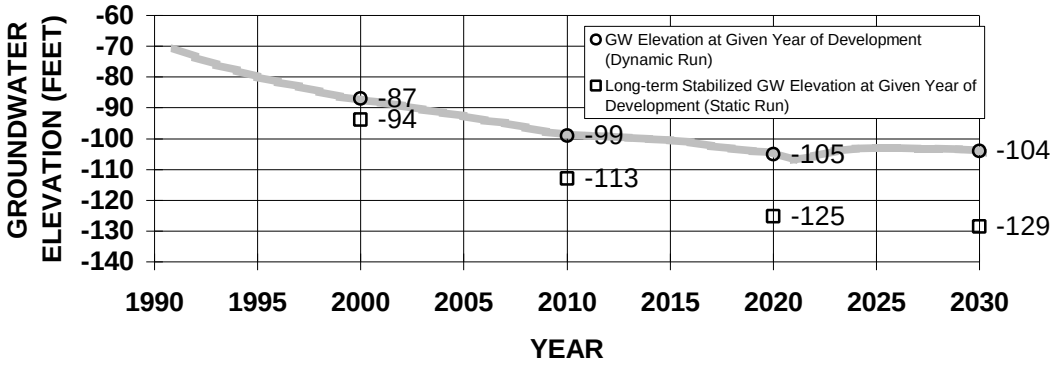
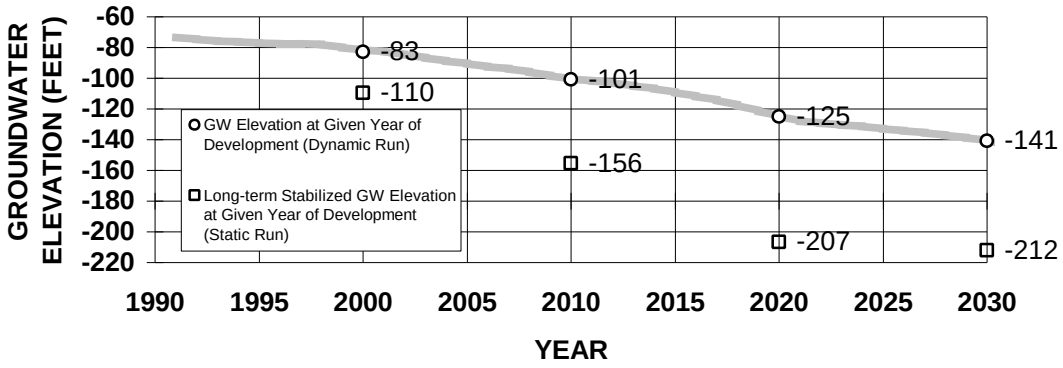


FIGURE D5
NORTH SACRAMENTO AREA MINIMUM GROUNDWATER LEVELS:
STATIC AND DYNAMIC BASELINE CONDITIONS



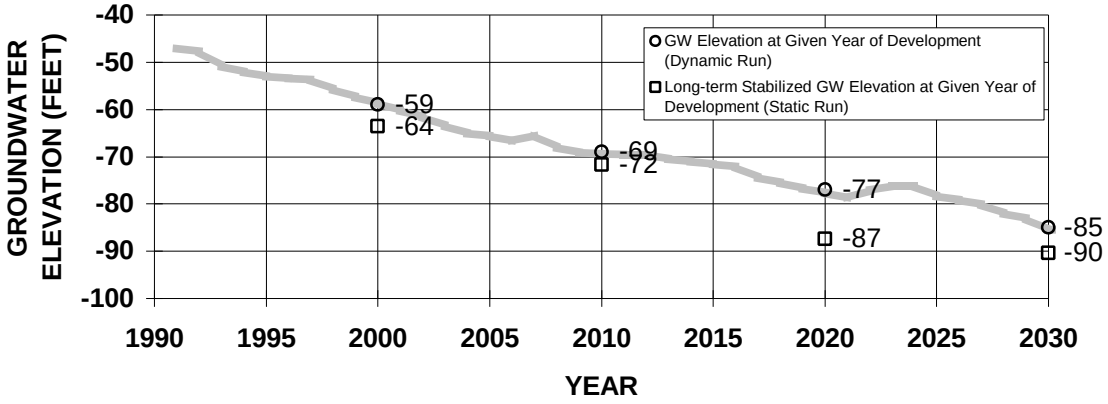
Note: (1) Groundwater levels represent the average of the groundwater levels over all of the aquifer laye

FIGURE D6
SOUTH SACRAMENTO AREA MINIMUM GROUNDWATER LEVELS:
STATIC AND DYMANIC BASELINE CONDITIONS



Note: (1) Groundwater levels represent the average of the groundwater levels over all of the aquifer layers

FIGURE D7
GALT AREA MINIMUM GROUNDWATER LEVELS
STATIC AND DYNAMIC BASELINE CONDITIONS



Note: (1) Groundwater levels represent the average of the groundwater levels over all of the aquifer layers

FIGURE D8
BASELINE CONDITIONS: DYNAMIC MODEL RESULTS
NORTH SACRAMENTO AREA MINIMUM GROUNDWATER LEVELS

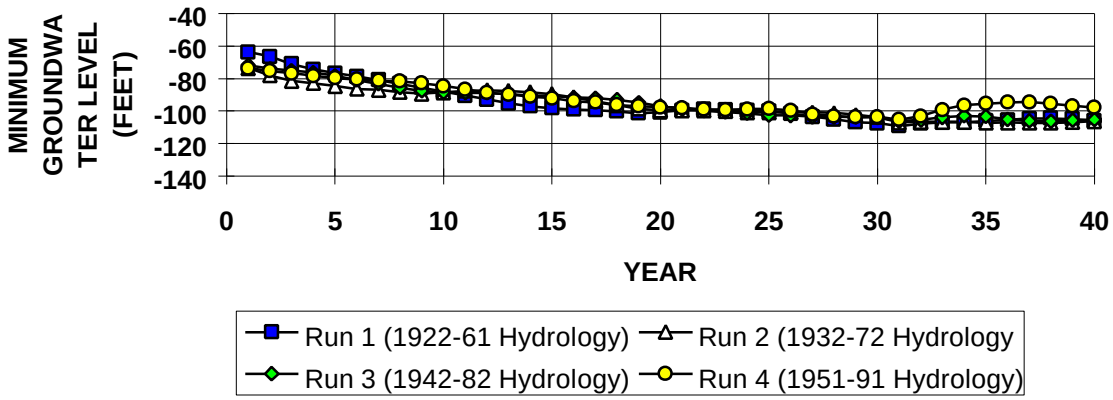


FIGURE D9
BASELINE CONDITIONS: DYNAMIC MODEL RESULTS
SOUTH SACRAMENTO AREA MINIMUM GROUNDWATER LEVELS

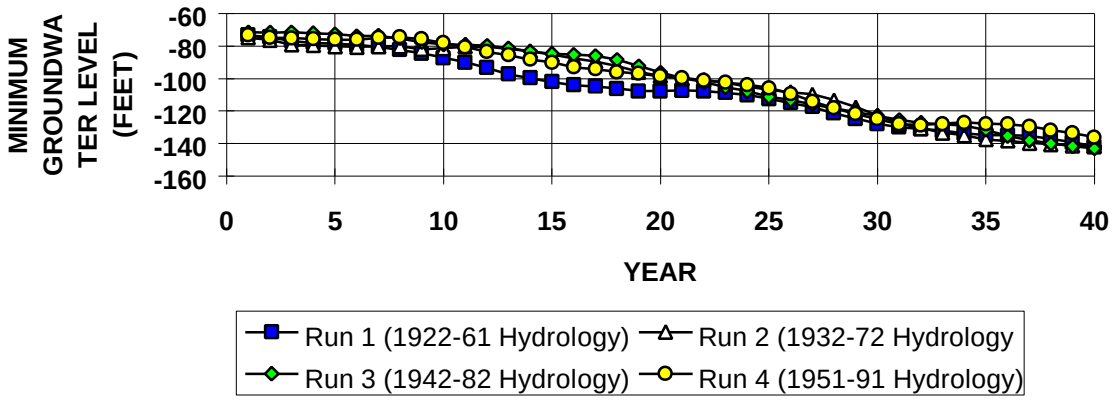
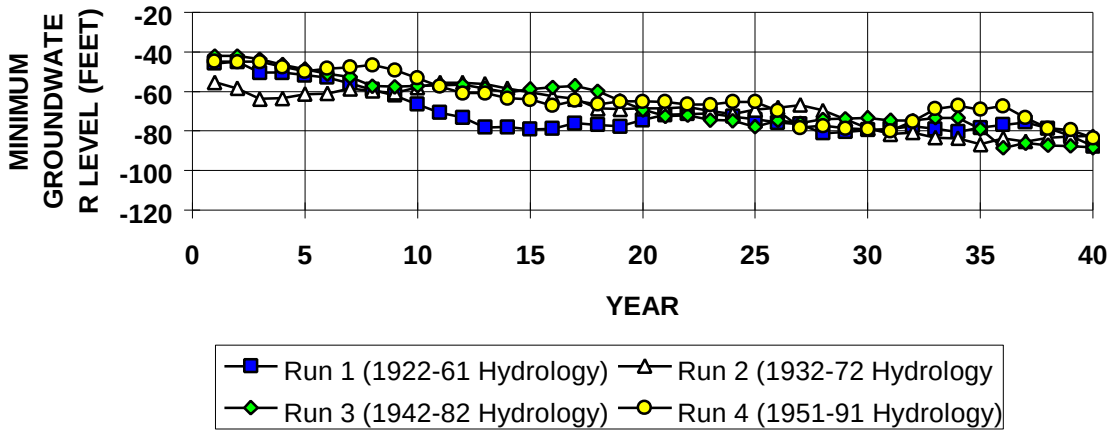


FIGURE D10
BASELINE CONDITIONS: DYNAMIC MODEL RESULTS
GALT AREA MINIMUM GROUNDWATER LEVELS



APPENDIX E – DRAFT WATER FORUM SOLUTION

This appendix describes groundwater modeling to simulate the June 3, 1996 Water Forum Draft Solution demand and supply scenario.

MODEL METHODOLOGY

The Sacramento County Integrated Groundwater and Surface Water Model (IGSM) and the North American River IGSM were used to analyze the impacts of the Water Forum Draft Solution on groundwater levels in Sacramento and Placer Counties. The Sacramento IGSM covers most of Sacramento County and the North American River IGSM covers portions of Placer and Sutter Counties. For this analysis, these models were linked to form a single model.

IGSM input data include hydrologic conditions, land use and water demand, and water supply for each of the several modelsubregions.

Hydrologic conditions simulated by the model are based on historical rainfall and streamflow conditions over the 1922-1991 period.

Land use and water demand are based on projected 2030 conditions for the Draft Water Forum Solution. Sacramento County municipal water demands are based on demand forecasts developed by the 1995 Sacramento Area Water Demand Study (Boyle Engineering Corporation, 1995). These demand forecasts include a 25.6 percent level of conservation. Placer County municipal demand forecasts reflect current Placer County growth projections and future conservation practices. Agricultural demands are based on projections for the year 2030 developed by the California Department of Water Resources.

Water supply by subregion is based on OASIS model results. This includes surface water supplies and groundwater pumping on a monthly basis over the 70-year hydrologic period under the Draft Solution. This information is summarized on Table 1.

TABLE E1
SUMMARY OF OASIS MODEL WATER DEMAND AND SUPPLY DATA
FOR WATER FORUM DRAFT SOLUTION AT 25.6% CONSERVATION

	Demand	Supply		Total Supply
		Surface Water	Ground-Water	
	1000 af/yr	1000 af/yr	1000 af/yr	1000 af/yr
Placer County (only those areas included in OASIS model)				
PCWA	35	35	0	35
PCWA (transfer)	25	25	0	25
Roseville	62	60	1	61
San Juqn WD (Placer Co.)	25	25	0	25
Subtotal	147	145	1	146
North Sacramento				
San Juan WD (Sacramento Co.)	57	51	6	57
North Central Group	65	24	41	65
City of Sacramento (N. of American R.)	64	42	22	64
City POU (N. of American R.)	15	0	15	15
Natomas Mutual WD	46	39	7	46
Carmichael WD	12	12	0	12
Arcade WD	18	15	3	18
Miscellaneous North Sacramento	7	0	7	7
Subtotal	284	183	101	284
South Sacramento				
City of Sacramento (S. of American R.)	88	88	0	88
City POU (S. of American R.)	37	7	30	37
South County	117	54	64	118
Arden Cordova	14	5	10	15
South CountyAg	130	2	127	129
Subtotal	386	156	231	387
Galt				
SMUD	25	24	1	25
Galt	7	0	7	7
South CountyAg	110	19	91	110
Subtotal	142	43	99	142
Other Areas				
Folsom	32	32	0	32
EBMUD	140	139	0	139
Georgetown/EID	33	33	0	33

OASIS results are based on an aggregate of purveyor areas (e.g. the San Juan Family includes portions of San Juan Water District, and all of Citrus Heights, Orangevale, and Fair Oaks Water Districts). These areas do not directly match the IGSM subregions, therefore, the OASIS water supply was disaggregated to match IGSM input data requirements. The total municipal water supply included in the IGSM (i.e. groundwater pumping and surface water diversions) matches the total OASIS municipal supply.[1] Data provided by the OASIS model and the Water Forum Draft Solution supply assumptions (dated June 21, 1996) were used to develop the data are included in Attachment A.

Average annual water demand, groundwater supply, and surface water supply for each model subregion is presented in Attachment B. The average annual groundwater pumping under both the recommended sustainable yield condition and under the Draft Solution are summarized below by groundwater zone.

Groundwater Zone	Recommended Sustainable Yield (AF/Yr)	Draft Solution Average Annual Groundwater Pumping (AF/Yr)
North Sacramento	131,000	102,600
South Sacramento	273,000	264,300
Galt	115,000	91,500

Draft Solution groundwater pumping varies from recommended sustainable yield pumping for two reasons. First, the Water Forum Draft Solution assumes 2030 municipal demand with 25.6 percent conservation while the sustainable yield recommendations were based on an 8 percent level of municipal conservation. Second, the water supply scenario provided by OASIS provides greater surface water supplies than those assumed in the recommended sustainable yield analysis.

[1] Agricultural supplies differ slightly between OASIS and IGSM. Both the Sacramento County and Placer/Sutter County IGSM include agriculture water demands based on the DWR 2030 projections. However, OASIS model agricultural demands are based on projections developed as part of the Sacramento Area Water Demand Study.

MODEL RESULTS

Model results are presented as the groundwater levels which occur at the center of the cones of depression in each of the three Sacramento County groundwater zones. Results are presented separately for Placer County. These results are summarized in Table 2 and in Attachment C. Table 2 displays long-term average groundwater pumping and the associated groundwater elevation within the cones of depression. Attachment C includes hydrographs showing how groundwater levels within the cones of depression change over the 70-year simulation period.

CONCLUSION

Under the Draft Solution, groundwater levels are generally higher than the long-term groundwater levels previously recommended by the Water Forum groundwater negotiation team. This is due to two factors: (1) the greater level of municipal conservation assumed by the Draft Solution, and (2) the greater volume of surface water supplies assumed by the Draft Solution.

TABLE E2

MODEL RESULTS: AVERAGE GROUNDWATER LEVELS IN PLACER AND SACRAMENTO COUNTY

	Groundwater Levels (feet above msl)			
	Placer County	**North Sacramento**	**South Sacramento**	**Galt**
1990 Groundwater Elevation (measured)	-40	-61	-72	-43
Sustainable Yield Recommendation	NA	-83	-123	-64
Water Forum Draft Solution (20k/15k/5k)[1]				
Average	-43	-46	-89	-42
Minimum	-53	-59	-111	-68
Maximum	-32	-35	-72	-23

Note: These water levels represent the average minimum water levels at the center of the cone of depression for the 70-year (1992-1991) simulation period.

[1] (29k/15k/k) Surface water deliveries in 1,000 af to North Central Group based on water year types defined by the Water Forum.

TABLE E-3

AVERAGE LAND AND WATER USE IN AC.-FT FROM 1922 THROUGH 1991

	REGION	AG ACRES	URBAN ACRES	CUAW DEMAND	AG SUP. REQ. (+)	URBAN SUP. REQ. (+)	GW PUMPING (-)	SW DIVERSION (-)	RECOV. LOSS (+)	NON-REC. LOSS (+)	IMPORT (-)	EXPORT (+)	SHORTAGE (=)
1	NORTH POU	988	43,466	0	3,546	102,403	46,084	0	0	0	60,439	0	-574
2	SOUTH POU	0	56,486	0	0	125,800	30,007	152,249	0	0	0	56,789	333
3	ZONE 40	10,975	22,112	0	39,283	65,398	68,202	0	0	0	36,530	0	-52
4	SOUTHWEST	27,750	1,726	0	97,859	875	98,734	0	0	0	0	0	0
5	GALT ID	16,070	3,668	0	55,962	3,407	45,977	0	0	0	13,540	0	-147
6	CITY OF GALT	0	3,044	0	0	7,200	7,200	0	0	0	0	0	0
7	OFSCU	5,014	1,350	0	17,655	1,716	15,136	0	0	0	4,273	0	-37
8	SMUD	0	2,000	0	0	24,900	789	0	0	0	24,016	0	96
9	CLAY WD	1,378	693	0	4,821	473	4,129	0	0	0	1,177	0	-12
10	OMOCHUMNE-HARTNELL	4,974	2,146	0	17,895	1,100	14,997	7,261	0	0	2,520	5,809	26
11	RANCHO MURIETA	0	3,120	0	0	6,282	0	0	0	0	6,283	0	-1
12	SUNRISE A	1,417	4,435	0	5,031	30,472	21,312	0	0	0	14,286	0	-96
13	SUNRISE B	699	5,302	0	2,467	18,518	12,349	0	0	0	8,701	0	-66
14	CUCC	0	9,497	0	0	24,140	16,663	0	0	0	7,477	0	0
15	FOLSOM	0	13,185	0	0	32,387	0	0	0	0	32,324	0	63
16	ARDEN CORDOVA	0	7,080	0	0	14,300	9,603	12,100	0	0	4,709	12,100	-11
17	FAIR OAKS WD	0	6,300	0	0	19,125	1,974	0	0	0	17,119	0	31
18	ORANGEVALE WD	0	2,376	0	0	8,204	847	0	0	0	7,344	0	13
19	SAN JUAN	0	650	0	0	6,733	695	0	0	0	6,027	0	11
20	CARMICHAEL	0	4,690	0	0	12,100	0	0	0	0	12,100	0	0
21	CITRUS HEIGHTS	0	7,164	0	0	22,519	2,325	0	0	0	20,158	0	36
22	NORTHRIDGE	0	5,500	0	0	12,940	5,609	0	0	0	7,331	0	0
23	SCWMD	0	895	0	0	1,020	1,020	0	0	0	0	0	0
24	McCLELLAN AFB	0	1,880	0	0	1,488	928	0	0	0	560	0	0
25	ARCADE WD	0	2,447	0	0	5,241	3,268	0	0	0	1,973	0	0
26	RIO LINDA	192	6,473	0	697	18,634	12,316	0	0	0	7,014	0	0
27	NATOMAS MUTUAL	4,892	4,044	0	18,056	3,407	9,294	15,299	0	0	0	3,650	520
28	METRO AIRPORT	1,032	3,299	0	3,826	836	5,608	0	0	0	0	0	-946
29	COURTLAND AREA	26,851	277	0	71,758	30	29,920	42,379	0	0	0	0	-511
30	FOOTHILL NORTH	0	3,052	0	0	5,074	5,074	0	0	0	0	0	0
31	FOOTHILL SOUTH	4,623	3,052	0	16,124	2,109	18,233	0	0	0	0	0	0
	TOTAL	106,855	231,409	0	354,978	578,831	488,293	229,288	0	0	221,203	3,650	-1,326

Figure E-1

Water Forum Draft Solution:
Sacramento County IGSM Results
Placer County - Minimum Groundwater Levels

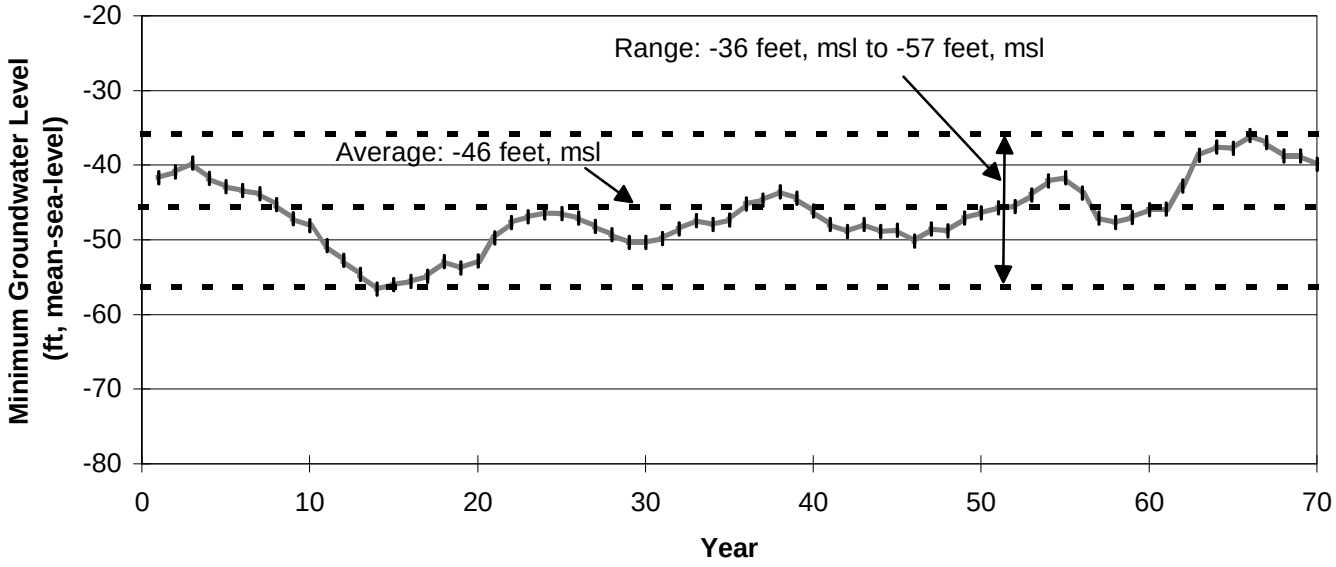


Figure E-2

Water Forum Draft Solution:
Sacramento County IGSM Results
North Sacramento Area - Minimum Groundwater Levels

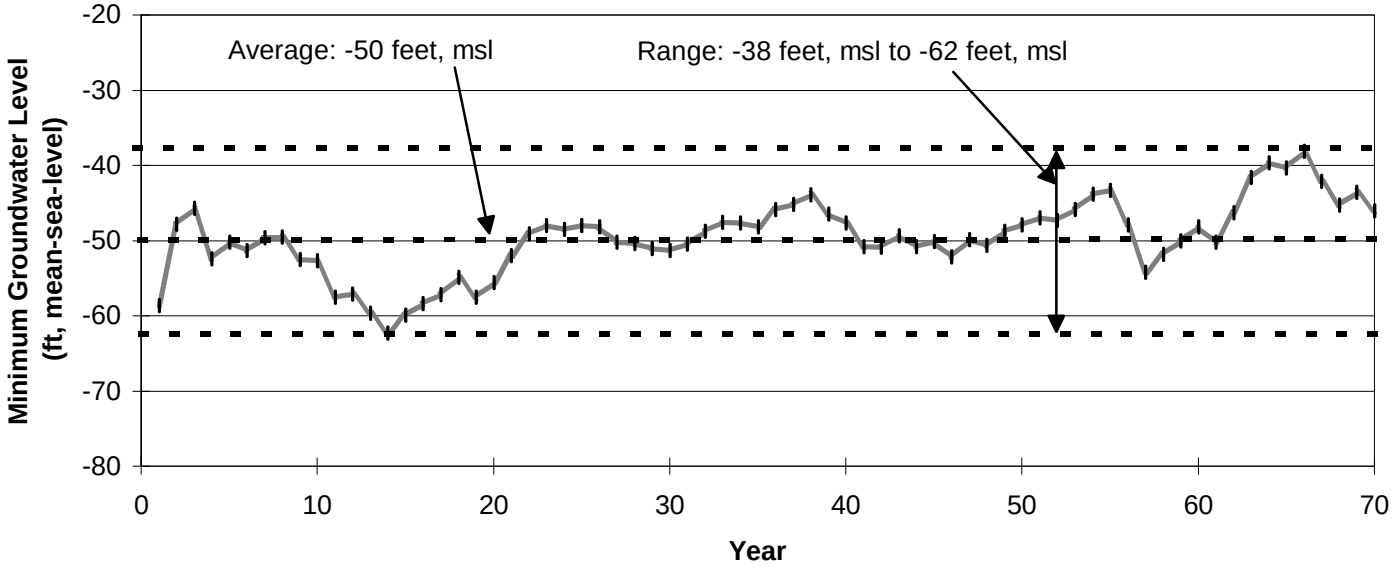


Figure E-3

Water Forum Draft Solution:
Sacramento County IGSM Results
South Sacramento Area - Minimum Groundwater Levels

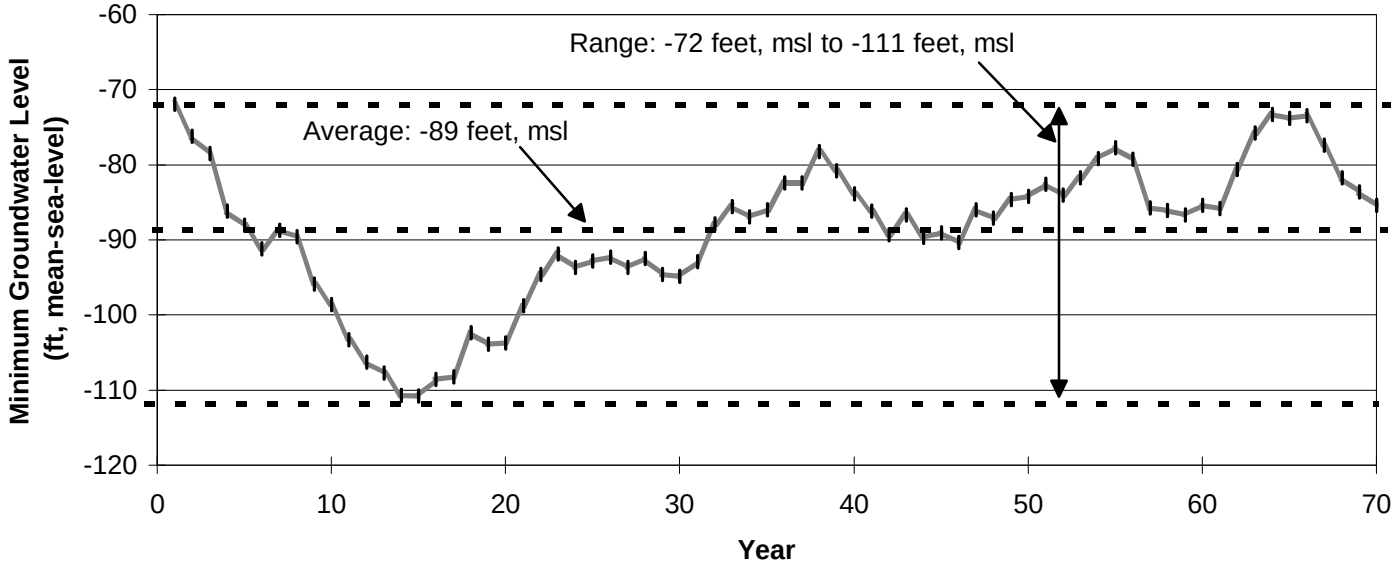
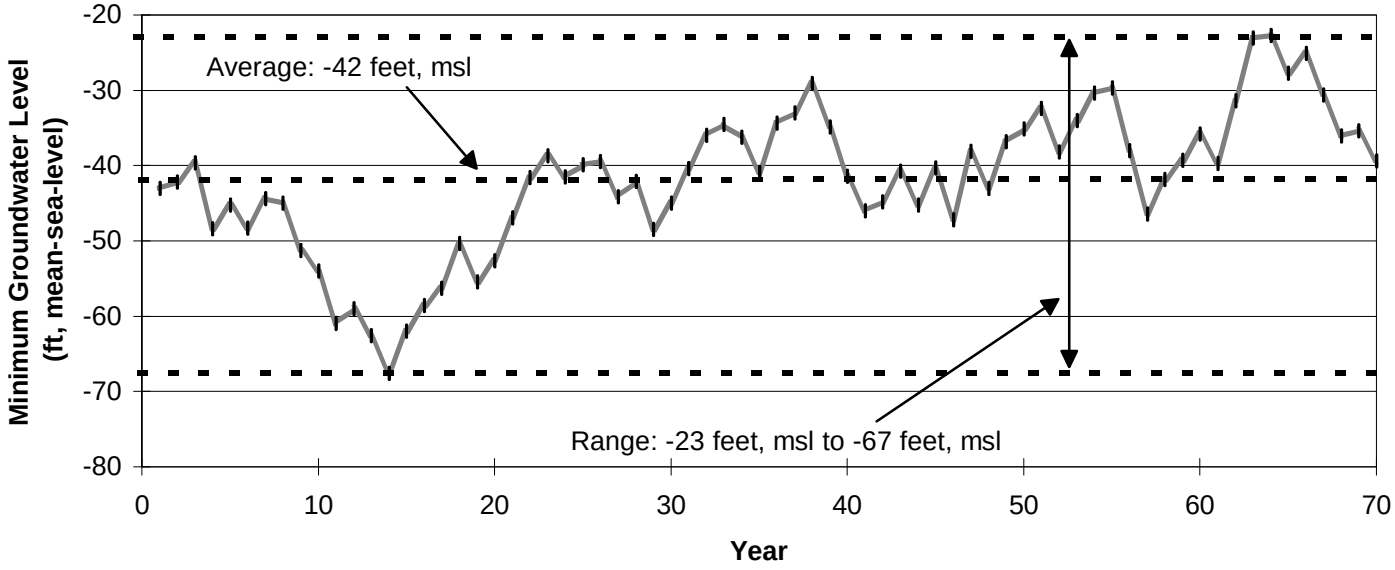


Figure E-4

Water Forum Draft Solution:
Sacramento County IGSM Results
Galt Area - Minimum Groundwater Levels



APPENDIX F

BASELINE GROUNDWATER PUMPING IN AGRICULTURAL, MUNICIPAL, AND RURAL AREAS

TABLE F-1

AGRICULTURAL GROUNDWATER PUMPING

County Area		Subregion	Acre (acres)	BASELINE CONDITIONS					
				1990 (cons.) (AF/Yr)	1990 (AF/Yr)	2000 (AF/Yr)	2010 (AF/Yr)	2020 (AF/Yr)	2030 (AF/Yr)
North Sacramento	1	North Sacramento POU	45759	5527	5527	3152	1338	0	0
	14	Citizens Utilities	10939	601	601	395	214	0	0
	17	Fair Oaks WD	7692	0	0	0	0	0	0
	18	Orangevale WD	3243	18	14	15	15	0	0
	19	San Juan	1205	0	0	0	0	0	0
	20	Carmichael	4695	0	0	0	0	0	0
	21	Citrus Heights	7864	0	0	0	0	0	0
	22	Northridge	5563	0	0	0	0	0	0
	24	McClellan AFB	1887	0	0	0	0	0	0
	25	Arcade WD	2547	36	36	22	8	0	0
	26	Rio Linda	10917	2120	2120	1792	1495	882	941
	27	Natomas Mutual	14874	6762	6762	6034	5628	963	977
	28	Metro Airport	5461	0	0	9	61	0	0
		Total:	**122,646**	**15,064**	**15,060**	**11,419**	**8,761**	**1,845**	**1,918**
South Sacramento	2	South Sacramento POU	59459	3680	3680	2232	0	0	0
	3	Zone 40	48456	63629	63754	47318	21405	20460	20157
	4	Southwest	42460	83503	83503	86497	97863	97859	97859
	10	Omochumne-Hartnell	19709	17013	17013	16599	16795	17043	17090
	11	Rancho Murieta	3646	0	0	0	0	0	0
	12	Sunrise "A"	18798	5554	5554	7417	8844	11156	10655
	13	Sunrise "B"	10641	2561	2561	2637	2957	3037	3040
	15	City of Folsom	13879	9	9	7	7	0	0
	16	Arden Cordova	9761	504	504	303	153	0	0
	23	SCWMD	915	216	216	106	48	0	0
	29	Courtland Area	32294	33058	33058	30560	29374	29376	29377
	30	Foothill North	18497	0	0	0	0	0	0
		Total:	**278,515**	**209,727**	**209,852**	**193,676**	**177,445**	**178,931**	**178,178**
Galt	5	Galt ID	32848	55353	55352	56620	56495	56349	56360
	6	City of Galt	3363	3327	3327	2145	0	0	0
	7	OFSCU	15076	18558	18558	21405	18332	18383	18377
	8	SMUD	2939	26	26	13	0	0	0
	9	Clay WD	7679	5019	5018	4846	4819	4819	4819
	31	Foothills South	99589	16706	16707	16068	15923	15823	15589
		Total:	**161,494**	**98,989**	**98,988**	**101,097**	**95,570**	**95,374**	**95,145**
		TOTAL	**562,655**	**323,780**	**323,899**	**306,191**	**281,776**	**276,150**	**275,241**

TABLE F-2

MUNICIPAL GROUNDWATER PUMPING

County Area		Subregion	Acre (acres)	BASELINE CONDITIONS					
				1990 (cons.) (AF/Yr)	1990 (AF/Yr)	2000 (AF/Yr)	2010 (AF/Yr)	2020 (AF/Yr)	2030 (AF/Yr)
North Sacramento	1	North Sacramento POU	45759	30073	50622	51002	51361	51611	52021
	14	Citizens Utilities	10939	10937	14583	19839	25406	30242	30242
	17	Fair Oaks WD	7692	0	0	792	1632	2363	2363
	18	Orangevale WD	3243	0	0	0	0	105	270
	19	San Juan	1205	0	0	742	1530	2216	2216
	20	Carmichael	4695	2349	5411	5673	5952	6194	6194
	21	Citrus Heights	7864	0	0	967	1994	2887	2887
	22	Northridge	5563	10473	13964	14542	15155	15688	15688
	24	McClellan AFB	1887	2520	3360	2859	2328	1866	1866
	25	Arcade WD	2547	3982	5310	5667	6045	6373	6373
	26	Rio Linda	10917	2109	2812	5131	7838	10920	14267
	27	Natomas Mutual	14874	820	784	572	439	211	201
	28	Metro Airport	5461	879	804	653	536	0	0
		Total:	**122,646**	**64,142**	**97,650**	**108,440**	**120,216**	**130,676**	**134,588**
South Sacramento	2	South Sacramento POU	59459	23750	31667	32849	33651	34587	35240
	3	Zone 40	48456	6272	8299	22480	57879	81173	85497
	4	Southwest	42460	0	0	0	0	0	0
	10	Omochumne-Hartnell	19709	71	67	69	68	70	70
	11	Rancho Murieta	3646	0	0	0	0	0	0
	12	Sunrise "A"	18798	4232	5642	9641	16525	25898	27060
	13	Sunrise "B"	10641	0	0	1172	10773	19869	20296
	15	City of Folsom	13879	0	0	0	0	0	0
	16	Arden Cordova	9761	6225	9455	10718	12020	13160	13160
	23	SCWMD	915	246	328	679	992	1244	1244
	29	Courtland Area	32294	501	500	505	507	506	506
	30	Foothill North	18497	8	0	0	0	0	0
		Total:	**278,515**	**41,305**	**55,958**	**78,112**	**132,414**	**176,505**	**183,072**
Galt	5	Galt ID	32848	0	0	0	0	0	0
	6	City of Galt	3363	2529	3371	5205	6523	7600	8724
	7	OFSCU	15076	0	0	0	0	0	0
	8	SMUD	2939	0	0	0	0	0	0
	9	Clay WD	7679	0	0	0	0	0	0
	31	Foothills South	99589	0	0	0	0	0	0
		Total:	**161,494**	**2,529**	**3,371**	**5,205**	**6,523**	**7,600**	**8,724**
		TOTAL	**562,655**	**107,976**	**156,979**	**191,757**	**259,153**	**314,781**	**326,384**

TABLE F-3

RURAL DOMESTIC GROUNDWATER PUMPING

County Area		Subregion	Acre (acres)	BASELINE CONDITIONS					
				1990 (cons.) (AF/Yr)	1990 (AF/Yr)	2000 (AF/Yr)	2010 (AF/Yr)	2020 (AF/Yr)	2030 (AF/Yr)
North Sacramento	1	North Sacramento POU	45759	1500	2000	1495	992	494	0
	14	Citizens Utilities	10939	0	0	0	0	0	0
	17	Fair Oaks WD	7692	0	0	0	0	0	0
	18	Orangevale WD	3243	181	185	212	251	165	0
	19	San Juan	1205	0	0	0	0	0	0
	20	Carmichael	4695	0	0	0	0	0	0
	21	Citrus Heights	7864	0	0	0	0	0	0
	22	Northridge	5563	0	0	0	0	0	0
	24	McClellan AFB	1887	0	0	0	0	0	0
	25	Arcade WD	2547	0	0	0	0	0	0
	26	Rio Linda	10917	9750	13000	12088	10969	9543	7726
	27	Natomas Mutual	14874	1759	2345	2732	3114	3649	4002
	28	Metro Airport	5461	634	845	875	905	584	603
		Total:	**122,646**	**13,824**	**18,375**	**17,402**	**16,232**	**14,434**	**12,332**
South Sacramento	2	South Sacramento POU	59459	750	1000	708	444	211	0
	3	Zone 40	48456	5894	7874	7164	8226	6729	5539
	4	Southwest	42460	2480	3307	2556	1756	1061	1061
	10	Omochumne-Hartnell	19709	498	664	675	688	697	697
	11	Rancho Murieta	3646	0	0	0	0	0	0
	12	Sunrise "A"	18798	1525	2034	2874	3567	4510	4308
	13	Sunrise "B"	10641	937	1249	1331	1501	1539	1540
	15	City of Folsom	13879	0	0	0	0	0	0
	16	Arden Cordova	9761	0	0	0	0	0	0
	23	SCWMD	915	0	0	0	0	0	0
	29	Courtland Area	32294	102	135	135	136	137	137
	30	Foothill North	18497	1460	1957	2502	3275	4253	6761
		Total:	**278,515**	**13,646**	**18,220**	**17,945**	**19,593**	**19,139**	**20,044**
Galt	5	Galt ID	32848	6761	9015	7392	5099	3736	3736
	6	City of Galt	3363	0	0	0	0	0	0
	7	OFSCU	15076	1114	1486	1688	1236	1361	1361
	8	SMUD	2939	0	0	0	0	0	0
	9	Clay WD	7679	356	475	509	545	576	576
	31	Foothills South	99589	1468	1957	2019	2107	2217	2492
		Total:	**161,494**	**9,699**	**12,933**	**11,608**	**8,986**	**7,890**	**8,165**
		TOTAL	**562,655**	**37,169**	**49,528**	**46,955**	**44,810**	**41,463**	**40,540**

APPENDIX G

PHASE II - GROUNDWATER YIELD ANALYSIS
TECHNICAL MEMORANDUM 2: IMPACT ANALYSIS

SACRAMENTO COUNTY WATER AGENCY
PHASE II - GROUNDWATER YIELD ANALYSIS
TECHNICAL MEMORANDUM NO. 2 - IMPACTS ANALYSIS

1.0 INTRODUCTION

This memorandum documents the impacts and associated impact costs of increased (and decreased) groundwater withdrawals from the aquifer systems underlying Sacramento County. The impacts and impact costs are based on the potential groundwater level changes for each of the Baseline Conditions as documented in Technical Memorandum No. 1 - Baseline Conditions for the Sacramento County Phase II - Groundwater Yield Analysis (TM No. 1). This memorandum is organized in the following sections.

1.1 Purpose of Technical Memorandum No. 2 - Groundwater Impacts Analysis

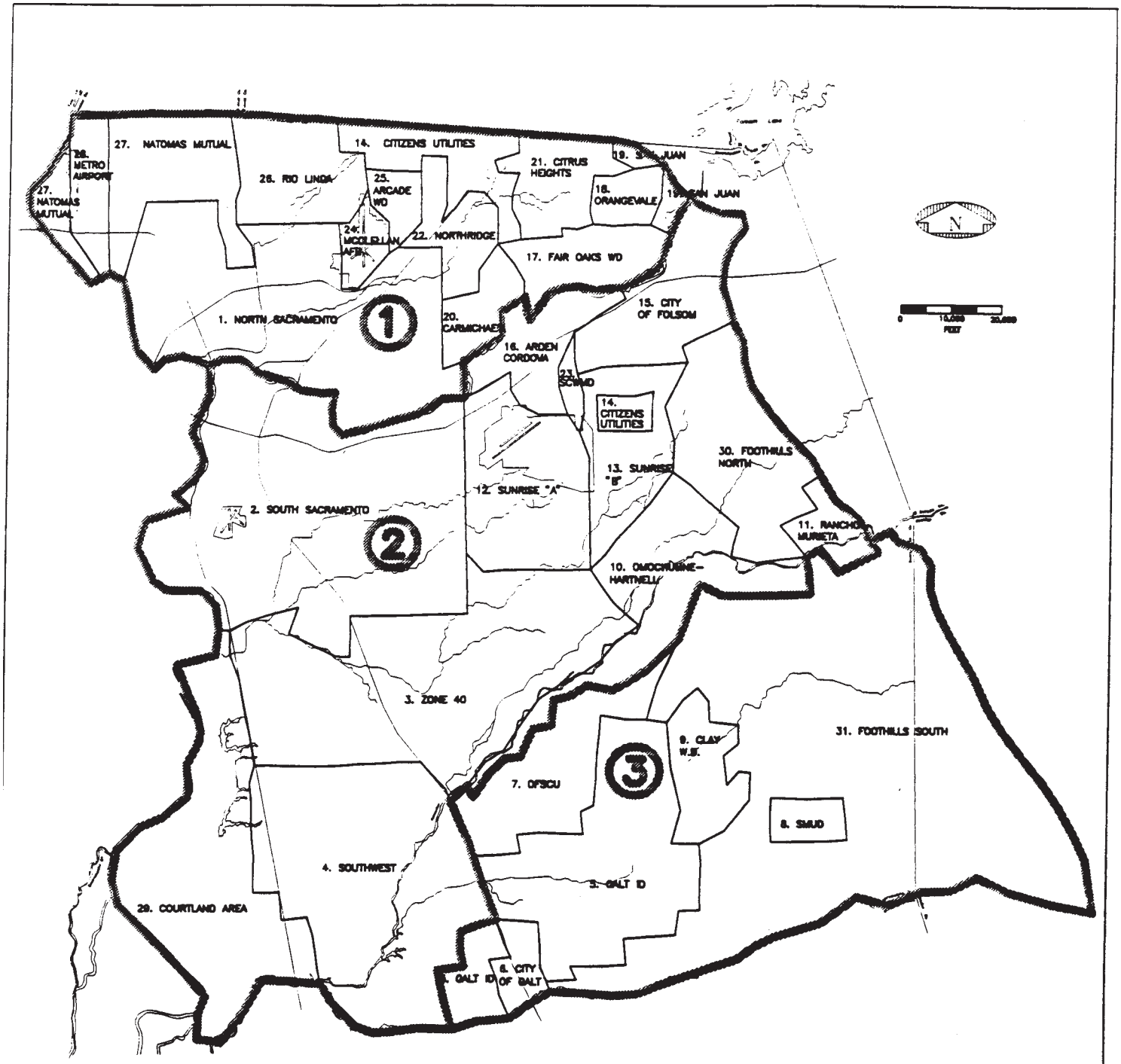
As described in TM No. 1, the main focus of the Phase II - Groundwater Yield Analysis is to provide the engineering analysis needed to recommend a long-term "safe yield" of the Sacramento area groundwater basin. For this investigation, the term safe yield is defined as the amount of water, which can be withdrawn from the groundwater basin without producing an undesired result. Groundwater modeling results have indicated that in order to increase the groundwater yield in the County area, groundwater levels will be required to be maintained at lower levels. The potential impacts associated with lowering groundwater levels may include:

- land subsidence,
- increased rate of movement of groundwater contamination,
- in-migration of poor quality water from the deep aquifer system,
- causing public and private wells to become inoperative due to lower groundwater levels, and
- increased pumping costs.

The purpose of this memorandum is to present the methodologies, assumptions, and results of the analysis of these potential impacts. In addition, the associated costs of these impacts (i.e., water treatment, well replacement, and increased pumping costs) are also evaluated on a reconnaissance level. The analysis of these potential impacts is based on the results of the Baseline Condition analyses presented in TM No. 1. For this memorandum, the potential impacts for the estimated groundwater level decline for each of the static Baseline Conditions (i.e., 1990, 2000, 2010, 2020, and 2030 levels of development) are evaluated. In addition, the impacts of a reduction in groundwater pumping (1990 Conditions with 25 percent additional water conservation) are also considered. As with the Baseline Condition analyses, the results from these analyses are presented for each model subregion, and are also summarized for each County area (See Figure 1).

2.0 WELL INVENTORY

In order to determine the potential impacts on wells (i.e., replacement and pumping costs) the general location, depth, and other characteristics of wells within the County area were assessed. For this study, the wells in Sacramento County were classified into three general categories based on their primary use: municipal, agricultural, and rural domestic. Municipal wells are those wells operated and maintained by water purveyors in the Sacramento area. These wells provide potable water supplies to much of the urbanized areas within the County. Agricultural wells are those wells, which



GROUNDWATER ZONES
1. NORTH SACRAMENTO AREA
2. SOUTH SACRAMENTO AREA
3. GALT AREA

FIGURE 1. SACRAMENTO COUNTY GROUNDWATER ZONES AND MODEL SUBREGIONS

are primarily utilized for crop and pasture irrigation. Rural domestic wells are typically much smaller than agricultural or municipal wells, and provide water supply to individual homes within the rural areas of the County which are not served by purveyors. Specific information developed for each of these well categories includes: (1) estimation of the number and location of wells, (2) well depth and perforation intervals, (3) well capacities, and (4) well efficiencies. The following provides a summary of these well characteristics for each of these three well categories.

2.1 Municipal Wells

As discussed above, municipal wells are those wells that are operated and maintained by water purveyors to provide potable water supply for domestic, commercial and industrial uses within the urbanized area of Sacramento County. As part of the development of the Sacramento County Integrated Groundwater Surface Water Model (IGSM), a complete inventory of municipal wells in the County area was performed. Well construction information such as depth, perforation intervals, capacity, and well radius was collected and incorporated in the model. Based on this inventory, there are approximately 448 municipal wells in the County area. The location of these wells is presented in Figure 2.

The total number of municipal wells in each model subregion is presented in Table 1 and the average depth, capacity, and well efficiencies are presented in Table 2. As indicated in Table 2, the average depth of the municipal wells in the County varies depending on the location of the wells. However, the average well depth exceeds 350 feet for all subregions within the County. There are relatively few municipal wells in the County with depths of less than 200 feet.

In addition to the well construction details, information was also collected on the well capacities, specific capacities, and well efficiencies. The well capacity refers to the overall production capacity of the well and is generally measured in gallons per minute (gpm). The specific capacity refers to the amount of drawdown that occurs in the well as a function of the pumping rate. Specific capacity is generally measured in gallons per minute (production) per foot of drawdown (gpm/ft). The efficiency of a well is measured in percent and refers to the overall efficiency of the pump and well in pumping the groundwater.

The average capacity, specific capacity, and well efficiency for the wells in each County area are presented in Table 2. In general, the pumping capacities averaged approximately 900 gpm, with well efficiencies averaging approximately 65 percent. On the average, the specific capacities were higher

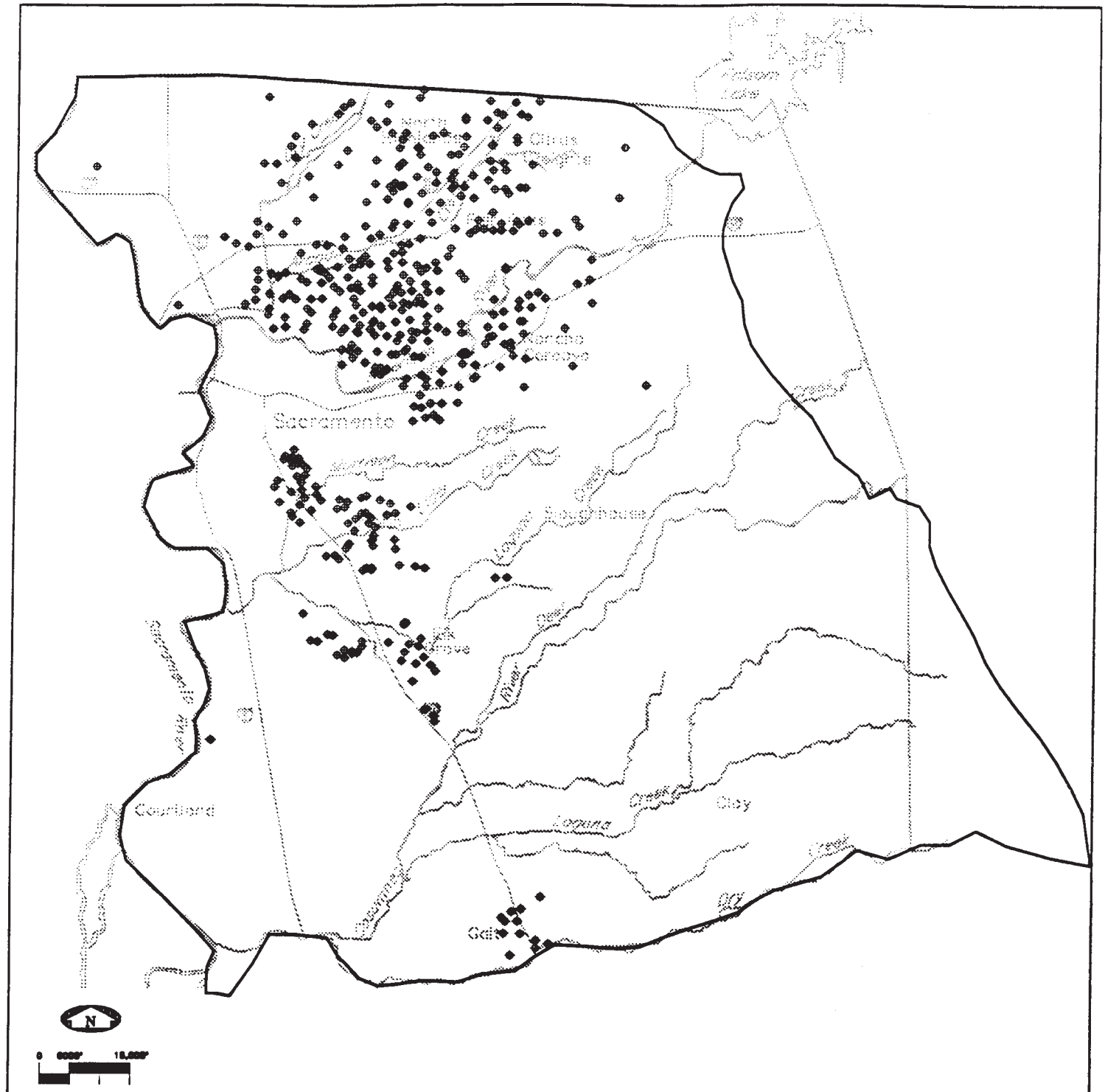


FIGURE 2. MUNICIPAL WELL LOCATIONS IN SACRAMENTO COUNTY

TABLE 1.
ESTIMATED NUMBER OF WELLS IN SACRAMENTO COUNTY

County Area	Subregion	Municipal Wells	Agricultural Wells	Rural Domestic Wells
North Sacramento	1 North Sacramento POU	168	10	235
	14 Citizens Utilities	32	1	0
	17 Fair Oaks WD	8	0	0
	18 Orangevale WD	1	0	107
	19 San Juan	0	0	0
	20 Carmichael	10	0	0
	21 Citrus Heights	6	0	0
	22 Northridge	24	0	0
	24 McClellan AFB	3	0	0
	25 Arcade WD	14	0	0
	26 Rio Linda	13	4	925
	27 Natomas Mutual	0	12	132
	28 Metro Airport	0	0	0
	Subtotal:	**279**	**28**	**1399**
South Sacramento	2 South Sacramento POU	84	7	133
	3 Zone 40	34	116	1850
	4 Southwest	0	153	1299
	10 Omochumne-Hartnell	0	31	223
	11 Rancho Murieta	0	0	0
	12 Sunrise "A"	10	10	237
	13 Sunrise "B"	0	5	0
	15 City of Folsom	0	0	0
	16 Arden Cordova	26	1	0
	23 SCWMD	1	0	0
	29 Courtland Area	2	61	1113
	30 Foothills North	0	0	1213
	Subtotal:	**157**	**385**	**6068**
Galt	5 Galt ID	0	102	742
	6 Cityof Galt	12	6	0
	7 OFSCU	0	34	223
	8 SMUD	0	0	0
	9 Clay WD	0	9	74
	31 Foothills South	0	31	214
	Subtotal:	**12**	**182**	**1253**
	TOTAL:	**448**	**595**	**8720**

Note: (1) Number of municipal wells based on water purveyor survey performed for the Phase I - Groundwater Model Development.

(2) Number of agricultural wells estimated based on irrigation requirements and an average well yield of 1,000 gpm.

(3) Number of rural domestic wells estimated based on 1990 SACOG population data and 1990 land use.

TABLE 2.
WELL CHARACTERISTICS SUMMARY

County Area	Municipal Wells				Agricultural Wells				Rural Domestic Wells			
	Average Depth (feet)	Average Yield (gpm)	Average Specific Capacity (gpm/ft)	Average Effeciency	Average Depth (feet)	Average Yield (gpm)	Average Specific Capacity (gpm/ft)	Average Effeciency	Average Depth (feet)	Average Yield (gpm)	Average Specific Capacity (gpm/ft)	Average Effeciency
North Sacramento	410	802	75.8	0.65	238	1195	87.8	0.59	170	291	34.0	0.51
South Sacramento	395	908	46.5	0.63	283	971	62.4	0.58	191	344	43.5	0.50
Galt	408	892	61.0	0.63	440	1000	78.6	0.59	240	353	30.0	0.47

Notes: (1) Municpal well depth and yields determined from water purveyor well inventory (Phase I - Groundwater Model Development)
(2) Agricultural and Rural Domestic well depths determined from partial well log inventory.
(3) Well specific capacity and effeciencies determined from SMUD Pump Test Reports survey.

in the North Sacramento area (average of 75 gpm/ft) and lowest in the South Sacramento area (average of 46 gpm/ft).

2.2 Agricultural Wells

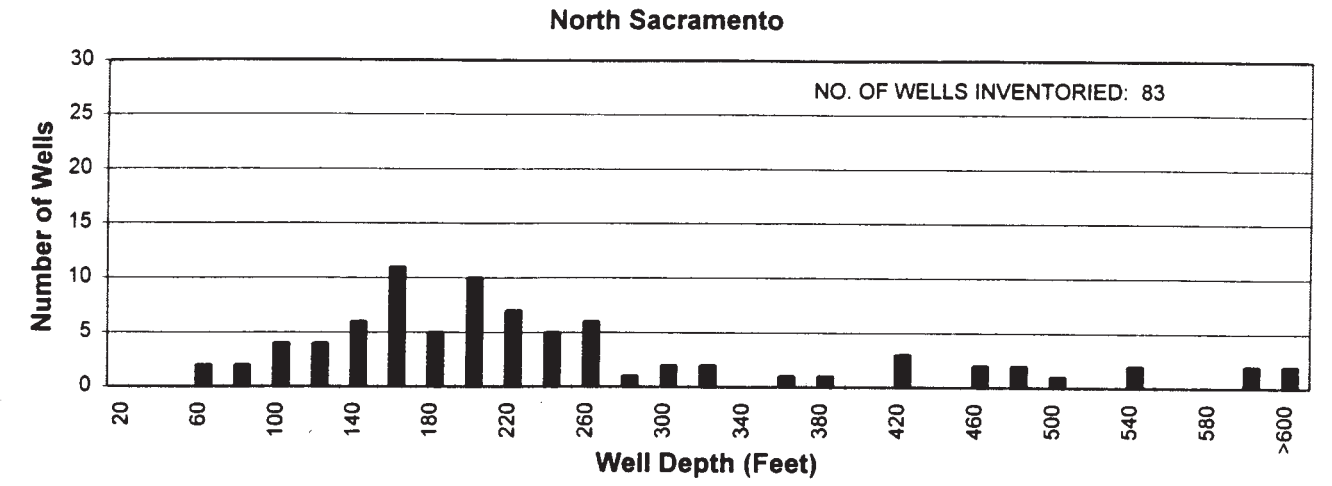
For the purpose of this study, agricultural wells are classified as those wells that are primarily utilized for crop and pasture irrigation. The agricultural wells within Sacramento County are privately owned and operated by individual farmers, and as such, information regarding the total number of agricultural wells and their specific locations is not readily available. Therefore, the number of agricultural wells in the County area was estimated based on land use. In addition, a partial inventory of well logs maintained by Sacramento County was performed to provide a representative sampling of the well construction details.

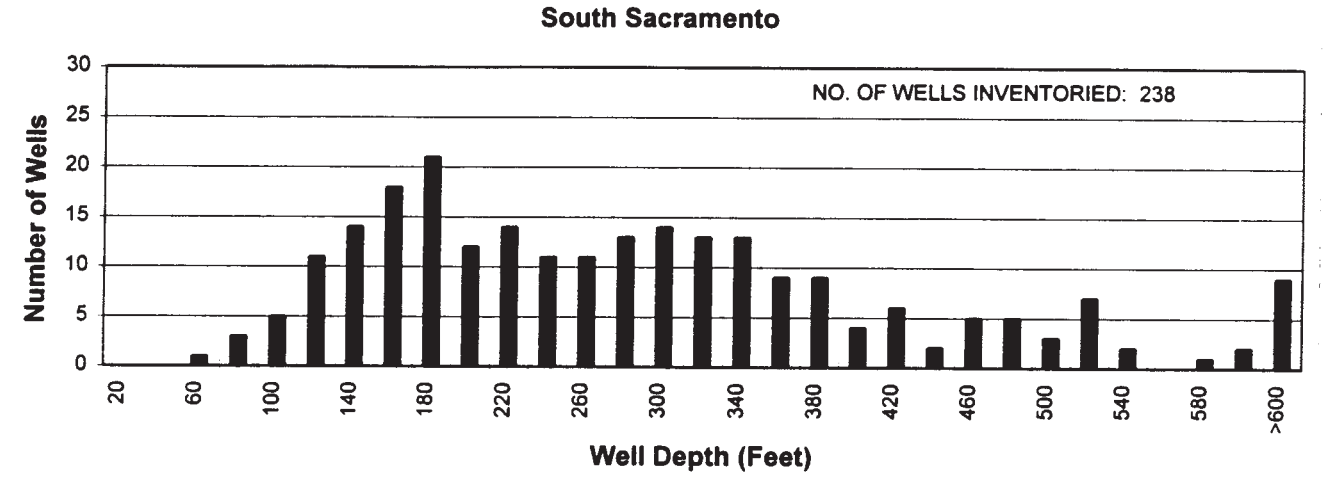
As part of this well log inventory, well construction details were collected for approximately 432 agricultural wells in the Sacramento County area. Specific information developed from the well logs include well location, depth and perforation intervals, well diameter, and the year the wells were installed. A summary of the agricultural wells inventoried is presented in Table 2. In addition, the distribution of well depths within each County area (i.e., North Sacramento, South Sacramento, Galt) was also developed and is presented in Figure 3. As indicated by Table 2 and Figure 3, agricultural wells in the County range in depth from 60 feet to over 600 feet. However, the deepest wells are in the Galt area (average depth of 440 feet), where the depth to groundwater is the greatest. In the North Sacramento area, the average agricultural well depth is shallowest (238 feet), largely due to the higher groundwater levels in the agricultural areas in the North Sacramento area (i.e., Natomas area).

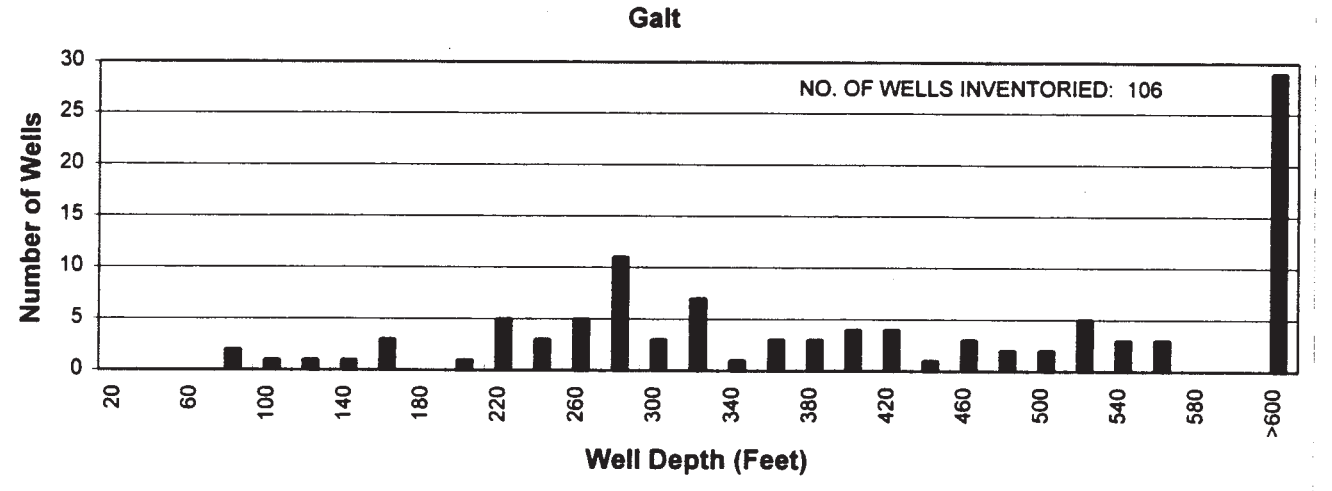
In addition to the well log inventory, approximately 200 pump test reports were obtained from the Sacramento Municipal Utility District (SMUD) to determine information on the average yield, specific capacity, and well efficiency. The results from this study are presented in Table 2. The average yield of the agricultural wells ranges from approximately 970 gpm in the South Sacramento area to 1195 gpm in the North Sacramento area. The average well efficiencies are similar for each County area, at approximately 60 percent.

As discussed above, information was not readily available on the total number of agricultural wells in the Sacramento County area. Therefore, the number of wells was estimated based on the average well capacity, and the 1990 level of agricultural demands (which are supplied by groundwater) within each model subregion. Based on an average yield of approximately 1000 gpm, each agricultural well is estimated to supply approximately 150 acres of agricultural land. The actual amount that can be

FIGURE 3.
IRRIGATION WELL DEPTH DISTRIBUTION







supplied will likely vary from well to well depending on the well yield, crop types, soil conditions, and irrigation practices. However, utilizing the above methodology, there are approximately 600 active agricultural wells in the Sacramento County area. The estimated number of active agricultural wells (by model subregion) are presented in Table 1. As indicated in the table, the South Sacramento and Galt areas are estimated to have the greatest amount of active agricultural wells (385 and 182 respectively). By comparison, the North Sacramento area is estimated to have relatively few agricultural wells (28). This is largely due to the smaller total agricultural area in the North Sacramento area, and the fact that the agricultural land in this area is primarily served by surface water from the Sacramento River.

2.3 Rural Domestic Wells

As discussed above, rural domestic wells are defined as those wells, which are used to supply water to homes in rural areas. These wells are owned and operated by the individual homeowners and the water supplied from these wells may be used both for indoor purposes, as well as for irrigation of landscaping, livestock, and pastures. As with agricultural wells, the total number of rural domestic wells and their characteristics is not readily available. Therefore, information from the well log inventory was utilized to determine representative information on the well characteristics. Information from a total of 667 rural domestic wells was obtained from this well log inventory and is summarized in Table 2. In addition, the distribution of well depths within each County area is also presented in Figure 4. In general, the rural domestic wells are not drilled as deep as municipal and agricultural wells. This is because rural domestic wells do not require the larger yield of the municipal and agricultural production wells, and therefore are not required to tap the deeper aquifer systems, which generally have higher yield.

Information from the SMUD pump test reports was also utilized to determine the average yield, specific capacity and efficiency of rural domestic wells in the study area. This information is summarized in Table 2. The average yield and specific capacities for the rural domestic wells are significantly less than that of the agricultural and municipal wells. This is due to the shallower depth and the smaller radius of the rural domestic wells.

As with the agricultural wells, information on the total number of rural domestic wells in the Sacramento County area is not readily available. Therefore, the number of rural domestic wells was estimated based on 1990 population data as provided by the Sacramento Area Council of Governments (SACOG). The SACOG population data was provided for 11 County areas, each of which represent one or more model subregions. In the County areas, which are predominantly rural and/or

agricultural, the total number of rural homes was estimated utilizing a factor of 2.8 people per home. In areas where there are both rural and urban land uses (i.e., Rio Linda, Zone 40), the total rural and agricultural areas were delineated from aerial photographs, and the rural population was estimated based on the areas of each of these land use categories. As with the agricultural areas, the number of rural homes was estimated by utilizing a factor of 2.8 people per home. These rural homes are in areas not served by water purveyors, and therefore it is assumed that each home has its own well to provide water. Based on this methodology, there are a total of 8720 rural homes (and wells) within the Sacramento County area. The distribution of these wells within the model subregions is presented in Table 1.

3.0 GROUNDWATER QUALITY IMPACTS

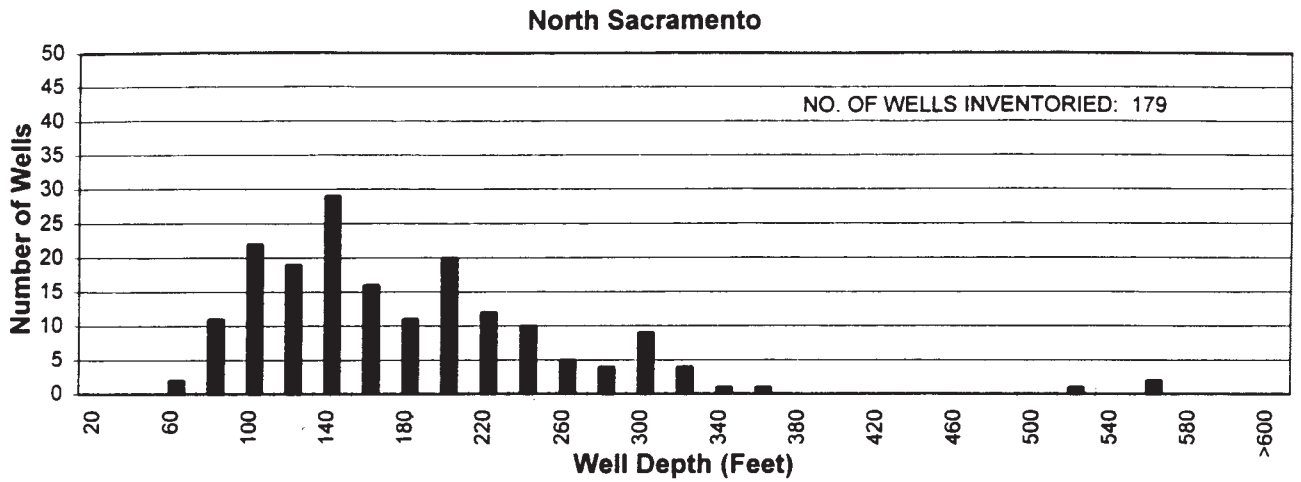
This section provides an overview of groundwater quality in the Sacramento County area and an analysis of the potential impacts on groundwater quality due to additional groundwater level decline. As discussed below, the constituents of primary concern are iron, manganese, arsenic, and radon.

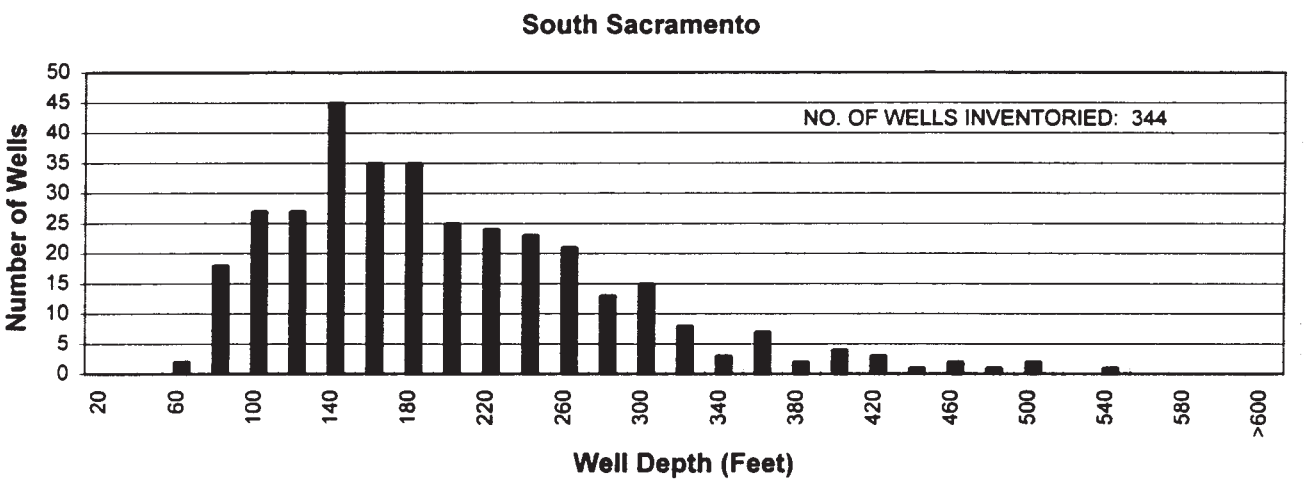
3.1 Groundwater Quality in Sacramento County

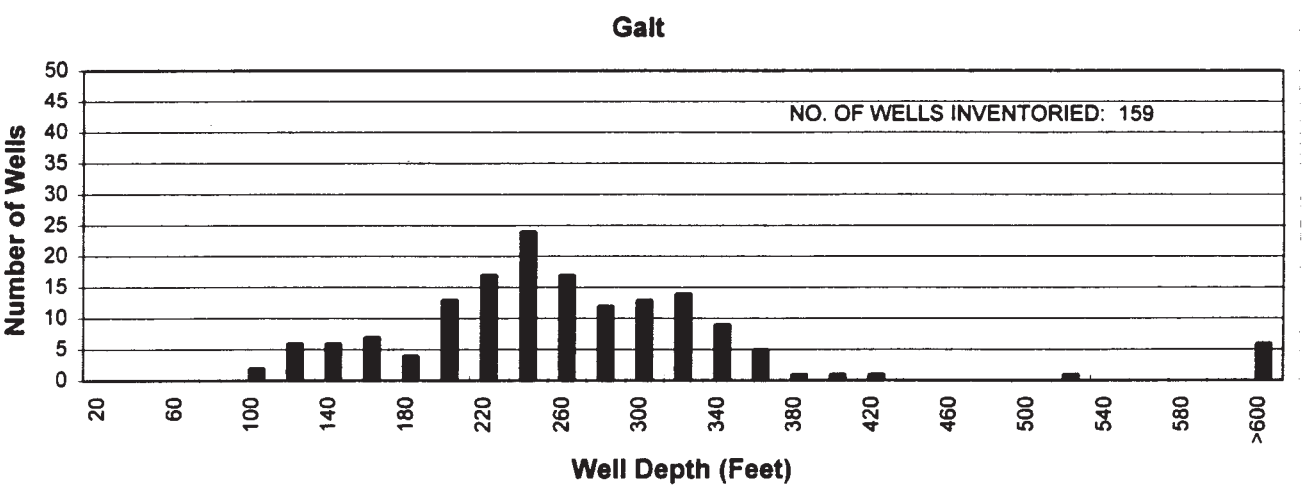
This section provides an overview of the occurrence of iron, manganese, arsenic, and radon in the groundwater in the Sacramento County area. The occurrence of these constituents is of specific concern due to potential additional costs required to treat groundwater with these constituents. The water quality information utilized in this study was obtained from the Sacramento Area Water Works Association (SAWWA) Well Testing Committee. The SAWWA well testing program was developed in 1979 and data was available through 1993. Information from individual purveyors from 1970 to 1978 was also collected and reviewed. This groundwater quality data (from 1970 to 1991) was previously summarized in the 1993 Sacramento County Groundwater Model Report (County Groundwater Model: Model Development and Basin Groundwater Yield, June 1993, Montgomery Watson, prepared for the Sacramento County Water Agency). For the Phase II - Groundwater Yield Analysis, this information was supplemented with 1992-1993 SAWWA water quality data, and additional data from the individual water purveyors. This data is summarized in Tables 4 to 6 for iron, manganese, and arsenic. Information for radon is from the 1991 SAWWA well tests, and is summarized in Table 7.

Groundwater in the Sacramento County area is generally classified as occurring in a shallow aquifer zone or in an underlying deeper aquifer zone. The shallow aquifer zone extends approximately 100 to 300 feet below ground surface and, in general, the water quality in this zone is considered to be good.

FIGURE 4.
RURAL DOMESTIC WELL DEPTH DISTRIBUTION







The deep aquifer is separated from the shallow aquifer by a discontinuous clay layer, which serves as a semi-confining clay layer for the deep aquifer. The thickness of the deep aquifer ranged from 200 to 1600 feet in the County area. The water quality in the deep aquifer is generally not as good as that of the shallow aquifer zone and has higher concentrations of TDS, iron, and manganese.

The groundwater supplied by the water purveyors in the Sacramento County area is from both the shallow and deep aquifer systems. The groundwater quality presently meets all of the DHS Title 22 drinking water quality standards, with the exception of iron and manganese. At some of the wells in the study area, iron and manganese concentrations exceed the secondary drinking water standards. These secondary standards are for aesthetic concerns, and the elevated levels of iron and manganese do not pose a health hazard. Arsenic and radon have also been measured in the groundwater in the study area, although not at levels exceeding the current drinking water standards. However, as discussed below, the EPA is considering new standards for these constituents which may result in the need for treatment.

At present, groundwater treatment is not provided at any wells in the North Sacramento area. In the South Sacramento area, Citizens Utilities provides treatment for ten of its wells and Sacramento County Water Maintenance District provides treatment for 6 wells. In the Galt area, the City of Galt provides treatment for 5 of its 12 wells. A summary of the treatment processes and wells treated for each of these purveyors is provided in Table 3. The following provides a discussion of the occurrence of each of the constituents of concern in the three County areas.

Iron and Manganese. The secondary drinking water standards for iron and manganese is 300 and 50 μg/L (parts per billion), respectively. As discussed above, the drinking water standards for iron and manganese are secondary standards and the occurrence of these constituents does not pose a health risk. However, elevated concentrations of the constituents cause aesthetic concerns due to discoloration of water, taste, and the staining of plumping fixtures and cooking utensils.

A summary of iron and manganese measurements for each of the County areas is presented in Tables 4 and 5. Measurements for the shallow aquifer system are from wells that are perforated in the shallow aquifer only. Measurements for the deep aquifer system are for wells that are either perforated in the shallow and deep aquifer, or in the deep aquifer only. The “unknown” aquifer classification are for wells in which the depth is not known. In addition, the water quality measurements are also tabulated for both the most recent measurements at the wells (“latest concentration”) as well as the maximum value recorded over the period of record (1970 - 1993).

In general, the concentrations of both iron and manganese were found to be higher in the deeper aquifer than in the shallow aquifer. However, in both aquifer systems, levels of iron and manganese in certain wells have exceeded the secondary drinking water standards. Elevated concentrations of both iron and manganese in some of the wells in the shallow aquifer system suggest that uprising of groundwater from the deep to the shallow aquifer system may have occurred.

In addition, the mean concentrations of both iron and manganese were higher in the South Sacramento area and Galt area than in the North Sacramento area. Based on the most recent measurements, the mean concentrations of manganese exceeded the secondary drinking water standards in both the Galt and South Sacramento areas. However, the mean concentration of wells in the deep zone of the North Sacramento area is below the standard. It should be noted that although the mean concentration is below that of the drinking water standard, there are wells that currently do exceed the standard in this area.

Arsenic. Arsenic is presently regulated by the DHS with a primary drinking water standard of 50 µg/L. However, the EPA is currently reevaluating the arsenic standard and it is anticipated that the revised standard will be between 2-5 µg/L.

A summary of the arsenic concentrations in groundwater in each of the Sacramento County areas is presented in Table 6. As indicated in the table, arsenic concentration in all of the wells sampled have been below the existing drinking water standard but have exceeded the anticipated drinking water standard in many wells. In the North Sacramento area, the mean arsenic concentration (from the latest measurements) is below 5 µg/L. However, in both the South Sacramento and Galt areas the mean concentrations have exceeded the anticipated standards for both the shallow and deep aquifer systems.

Radon. At present there is no drinking water standard for radon. However, the EPA is currently reviewing standards for radon, and a primary MCL of 300 pCi/L may be set, with an anticipated compliance date of late 1996. However, much of the water industry, including the DHS, is advocating a standard of 1000 to 1500 pCi/L.

In the spring of 1991, a radon well testing program was conducted by SAWWA. The results from that program are summarized in Table 7. As indicated on the table, approximately 85 percent of the wells tested in the Sacramento County area had radon concentrations exceeding the proposed standard. In addition, the mean concentrations were found to have exceeded the proposed standard in both the shallow and deep aquifer system for both the North and South Sacramento areas. Information from

TABLE 3.
GROUNDWATER TREATMENT IN SACRAMENTO COUNTY

Purveyor	Treatment Plant	Treatment Process	Well Data			
			Well Name	Total Depth (feet)	Top of Perforations (feet)	Bottom of Perforations (feet)
City of Galt	Quail Hollow	Oxidation w/ Chlorine & Rapid Sand Filtration	13. Quail Hollow	500	250	460
	Fumasi	Filtronics/Chlorination	15. Fumasi	700	318	652
	Creekside	Filtronics/Chlorination	11. Creekside	700	160	650
	Carillion	Filtronics/Chlorination	16. Carillon	500	n/a	n/a
	Gateway	Filtronics/Chlorination	14. Gateway	500	n/a	n/a
Citizens Utilities	Countryside	Potassium Permanganate Chlorine Sand Filter	157-1 Auberry	500	380	490
			138-1 Countryside 01	614	384	506
			138 Countryside 02	510	334	500
			159-1 Power Inn	1070	496	1060
	Park Site	Chlorine and Sand Filter	Park Site 01	460	377	457
			Park Site 02	990	700	960
			Wilbur Way 01	452	426	442
			Wilbur Way 02	605	332	580
	Vintage Park	Filtronics/Chlorination	145 Vintage Park 02	961	906	961
			145 Vintage Park 03	990	925	985
SCWMD	Waterman Road	Filtronics/Chlorine & Sulfur Dioxide Injection	VW 61 Caymus	960	710	920
			VW 64 Westray	1000	780	920
	Arden Park Vista	Phosphate Sequestering	AW 14 Cresta	428	302	403
	Hood	Phosphate Sequestering	HW 19 3rd Street	225	n/a	n/a
	Sunrise	Phosphate Sequestering/Air Stripper	SW17 White Rock Rd.	315	n/a	n/a
	Rio Cosumnes CC	Filtronics/Chlorination		n/a	n/a	n/a

Notes: (1) SCWMD - Sacramento County Water Maintenance District
(2) n/a - Data not available

TABLE 4.
SUMMARY OF GROUNDWATER QUALITY
IRON

County Area	Aquifer	No. of obs	Well Depth (feet)			Concentration: Latest (µg/l)				Concentration: Max (µg/l)			
			Min	Max	Mean	Min	Max	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.
North Sacramento	Shallow	94	180	575	343	10	510	59	78	10	4700	359	808
	Deep	121	248	660	464	10	550	72	79	10	6700	343	965
	Unknown	N/A	N/A	N/A	512	30	100	39	23	30	600	97	140
South Sacramento	Shallow	58	158	492	303	10	253	46	43	10	1340	143	228
	Deep	46	300	960	504	30	370	63	59	30	4900	498	893
	Unknown	N/A	N/A	N/A	463	30	197	63	54	30	1300	206	372
Galt	Shallow	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Deep	6	500	700	600	50	702	210	247	100	1200	550	504
	Unknown	N/A	N/A	N/A	500	90	1100	347	502	90	1100	550	531

Notes: (1) Drinking water standard for iron is 300 µg/l.
(2) Latest concentration represents most recent water quality records
(3) Maximum concentration represents maximum concentration over period of record (1970-1993).

TABLE 5.
SUMMARY OF GROUNDWATER QUALITY
MANGANESE

ZONE	Aquifer	No. of obs	Well Depth (feet)			Concentration: Latest (µg/l)				Concentration: Max (µg/l)			
			Min	Max	Mean	Min	Max	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.
North Sacramento	Shallow	93	180	575	343	4.9	77.0	12.5	9.4	4.9	301.0	22.1	36.9
	Deep	119	248	660	466	1.0	758.0	32.5	93.6	9.9	1100.0	77.7	176.9
	Unknown	26	N/A	N/A	N/A	9.9	140.0	19.0	26.9	9.9	320.0	41.7	63.7
South Sacramento	Shallow	59	158	492	305	4.9	250.0	21.8	41.7	4.9	250.0	44.4	56.8
	Deep	42	300	960	499	0.9	760.0	62.9	131.8	9.9	2500.0	225.9	565.5
	Unknown	15	N/A	N/A	N/A	9.9	204.0	86.8	74.7	9.9	1700.0	221.6	420.3
Galt	Shallow	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Deep	8	500	700	575	18.0	367.0	86.1	117.9	18.0	367.0	97.8	117.5
	Unknown	4	N/A	N/A	N/A	20.0	90.0	55.0	35.1	20.0	340.0	152.5	137.4

Notes: (1) Drinking water standard for manganeseis 50 µg/l.
(2) Latest concentration represents most recent water quality records
(3) Maximum concentration represents maximum concentration over period of record (1970-1993).

the SAWWA database was not available for the Galt area.

3.2 Groundwater Level Decline vs. Groundwater Quality

In order to further define the relationship between groundwater pumping and water quality degradation, an analysis was performed to explore if historical groundwater level declines have influenced vertical migration of poor quality water from the deeper aquifer zones. As part of this analysis, iron, manganese, and arsenic concentrations for specific wells were plotted against the historical decline in groundwater levels at these wells. The water quality data used in this analysis was developed from the SAWWA database and from information collected from individual purveyors. Because radon concentrations exceed the proposed drinking water standards throughout the County area (in both the shallow and deep aquifers), the occurrence of radon was not evaluated as a function of groundwater level decline.

Historical groundwater level declines at each well location was determined as the difference between pre-development groundwater levels in Sacramento County and existing (1990) groundwater levels. Both the pre-development and existing groundwater levels were developed by use of the Sacramento County Groundwater Model (IGSM). The pre-development conditions (Figure 5) are representative of conditions before groundwater pumping occurred in the County area (when groundwater levels were relatively high). The existing groundwater levels (Figure 6) are largely influenced by the subsequent groundwater pumping in the County, as evident by the development of the regional zones of depression in the North Sacramento, South Sacramento, and Galt areas. Figure 7 presents the difference between the pre-development water levels and the existing groundwater levels (i.e., the total decline in groundwater levels since groundwater pumping started in the County area). As evident in this figure, groundwater levels have declined by over 100 feet in all three of the cones of depression.

In order to determine the impact on groundwater quality from this groundwater level decline, concentrations of iron, manganese, and arsenic were evaluated as a function of historical groundwater level decline. Figures 8, 9, and 10 provide a summary of this analysis in which the average concentrations for each 20 foot increment of groundwater level decline are plotted. It should be noted that the concentrations presented in these figures represent average value for all wells within the specified interval of groundwater level decline.

As evident by the figures, in the North Sacramento area, the average concentrations of iron, manganese, and arsenic remain below the maximum contaminant level (MCL) for all levels of groundwater

TABLE 6.
SUMMARY OF GROUNDWATER QUALITY
ARSENIC

County Area	Aquifer	No. of obs	Well Depth (feet)			Concentration: Latest (µg/l)				Concentration: Max (µg/l)			
			Min	Max	Mean	Min	Max	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.
North Sacramento	Shallow	82	180	575	348	2	12	4	1.1	2	29	5	3.0
	Deep	115	238	660	466	1	12	4	1.5	1	12	4	1.7
	Unknown	25	N/A	N/A	N/A	1	7	4	1.1	1	8	4	1.4
South Sacramento	Shallow	56	158	492	303	4	30	7	5.9	4	32	8	7.5
	Deep	41	300	840	472	1	18	5	3.4	1	18	5	3.3
	Unknown	13	N/A	N/A	N/A	4	46	13	16.1	4	46	14	15.9
Galt	Shallow	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Deep	8	500	700	575	1	36	13	12.7	1	36	13	12.7
	Unknown	4	N/A	N/A	N/A	5	31	14	11.7	7	31	15	11.0

Notes: (1) Drinking water standard for iron is 50 µg/l. Proposed standard is 2 - 5 µg/l.
(2) Latest concentration represents most recent water quality records
(3) Maximum concentration represents maximum concentration over period of record (1970-1993).

TABLE 7.

SACRAMENTO AREA RADON WELL TESTING SUMMARY *
(Spring 1991 Results)

Agency	No. of Samples	No. >=300 (pCi/l)	% >=300 (pCi/l)	Average (pCi/l)	Std. Dev. (pCi/l)
Arcade WD	0	0	n/a	n/a	n/a
Carmichael ID	12	10	83%	779	516
Citizens UCC	20	13	65%	421	189
Citrus Heights WD	1	0	0%	100	0
Del Paso MWD	8	8	100%	493	134
Elk Grove WD	10	10	100%	473	103
Fair Oaks WD	6	3	50%	400	339
Florin County WD	8	8	100%	586	82
Fruitridge VWD	13	13	100%	572	149
Northridge WD	26	20	77%	462	212
Orangevale WD	1	1	100%	140	0
Rio Linda WD	10	10	100%	570	82
SCWMD	14	14	100%	469	112

Note: * Source: 1991 SAWWA Report (page 11)

decline. This indicates that, although there may be wells in the North Sacramento area with concentrations exceeding the MCLs, the occurrence of these concentrations is not directly related to the historical groundwater level decline in this area. However, in the South Sacramento area, the average concentrations of both manganese and arsenic show a notable increase in areas of greater groundwater level decline. This is attributed to uprising of the poor quality water from the lower Mehrten Formation, and mixing of this water with the upper Mehrten and shallow aquifer zone. For both the manganese and arsenic, a significant increase in average concentrations occurs where groundwater levels have declined 80 feet or more.

Water quality data in the Galt area was only available from the City of Galt's municipal wells, all of which are in areas of over 80 feet of groundwater level decline. In this area, the average concentrations of manganese and arsenic are similar to that of the South Sacramento area for the same increment of groundwater level decline (80 to 100 feet). However, the average iron concentration in the Galt area (260 µg/L) is much higher than in the other County areas for the same level of groundwater decline.

3.3 Potential Impacts on Groundwater Quality

The above analysis has indicated that the primary areas of concern for continued groundwater quality deterioration are in the South Sacramento and Galt areas. In these areas, analysis of the groundwater quality data has indicated that a groundwater level decline of over 80 feet (from pre-development conditions) results in average manganese concentrations (and iron in the Galt area) that exceed the secondary MCL. In addition, this level of groundwater decline also results in average arsenic levels, which exceed the proposed arsenic MCL of 5 µg/L. However, in the North Sacramento area, no direct relationship between groundwater level decline and groundwater quality has been determined from the available data.

Based on the above analysis of groundwater quality and groundwater level decline, it is likely that the further lowering of groundwater levels in the South Sacramento and Galt areas will result in continued groundwater quality deterioration. It is anticipated that this deterioration will eventually require that groundwater used for municipal purposes be treated for iron and manganese. If the arsenic regulation is lowered to 5 µg/L, then arsenic treatment will also likely be required. Therefore, the criteria established for determining groundwater quality impacts is if the groundwater level decline exceeds 80 feet in either the South Sacramento or Galt areas. As discussed above, it is not anticipated that additional water level declines will significantly impact the regional groundwater quality in the North Sacramento area.

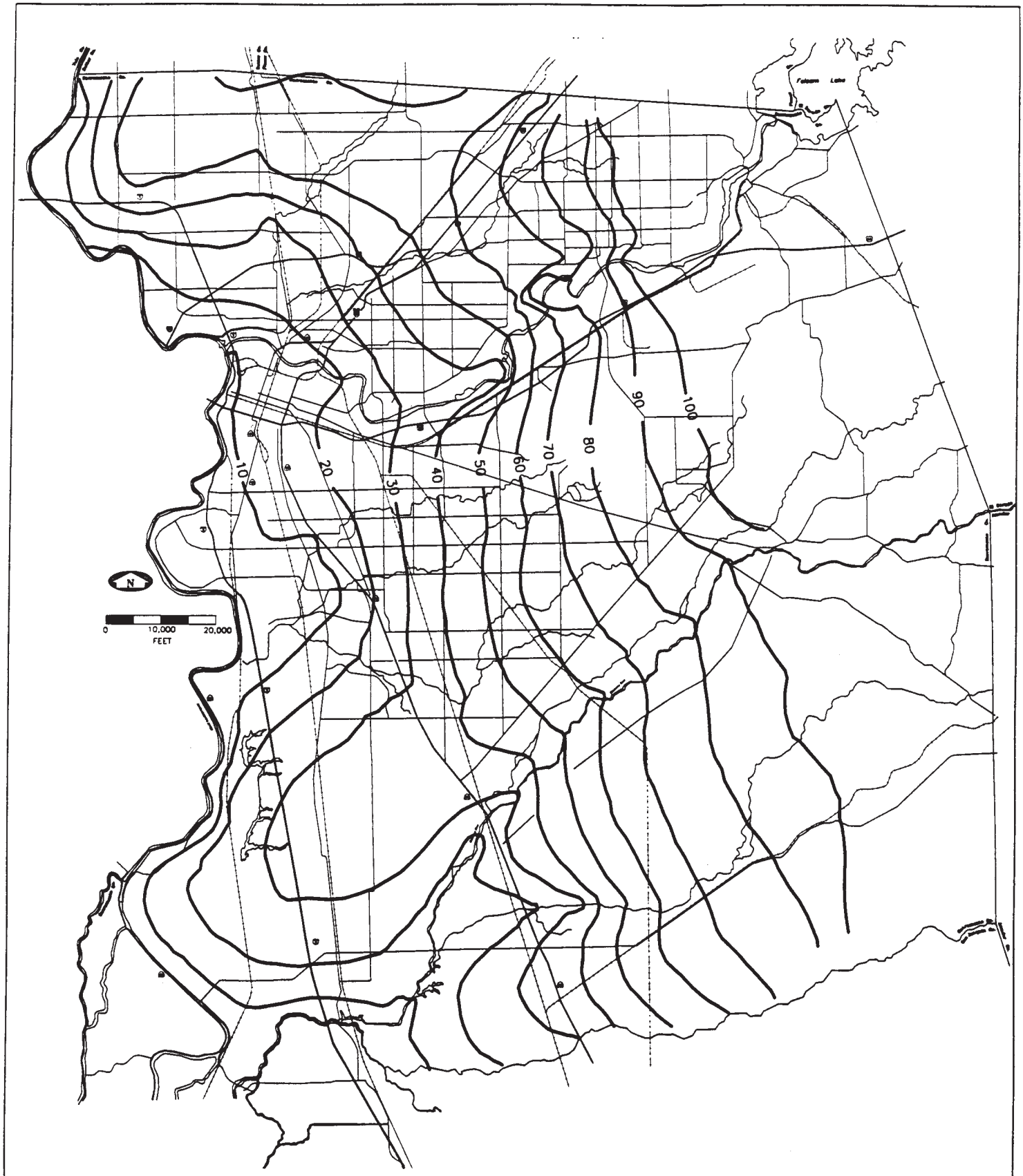


FIGURE 5.
GROUNDWATER LEVELS UNDER PRE-DEVELOPMENT CONDITIONS

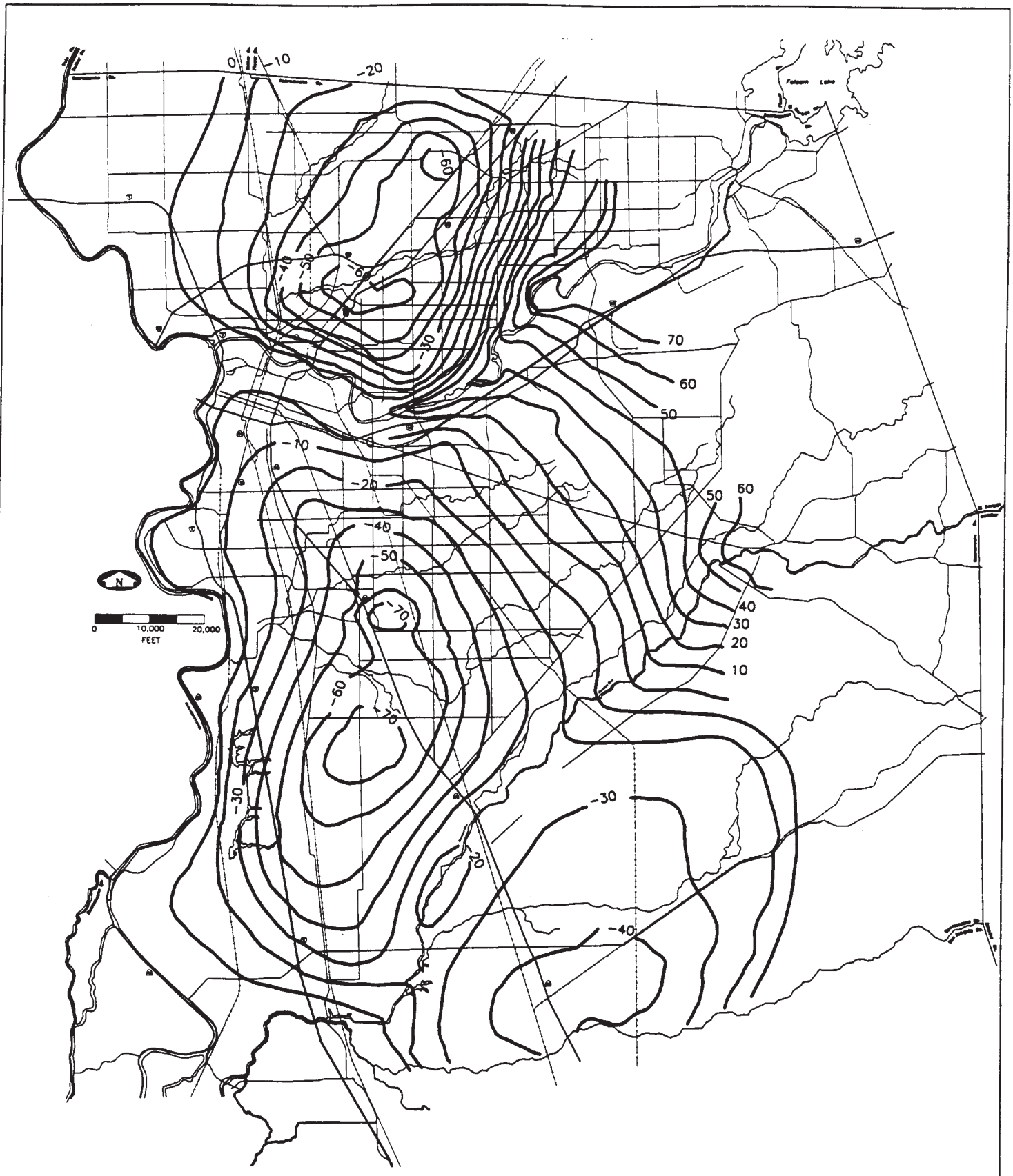


FIGURE 6.

GROUNDWATER LEVELS UNDER PRESENT CONDITIONS

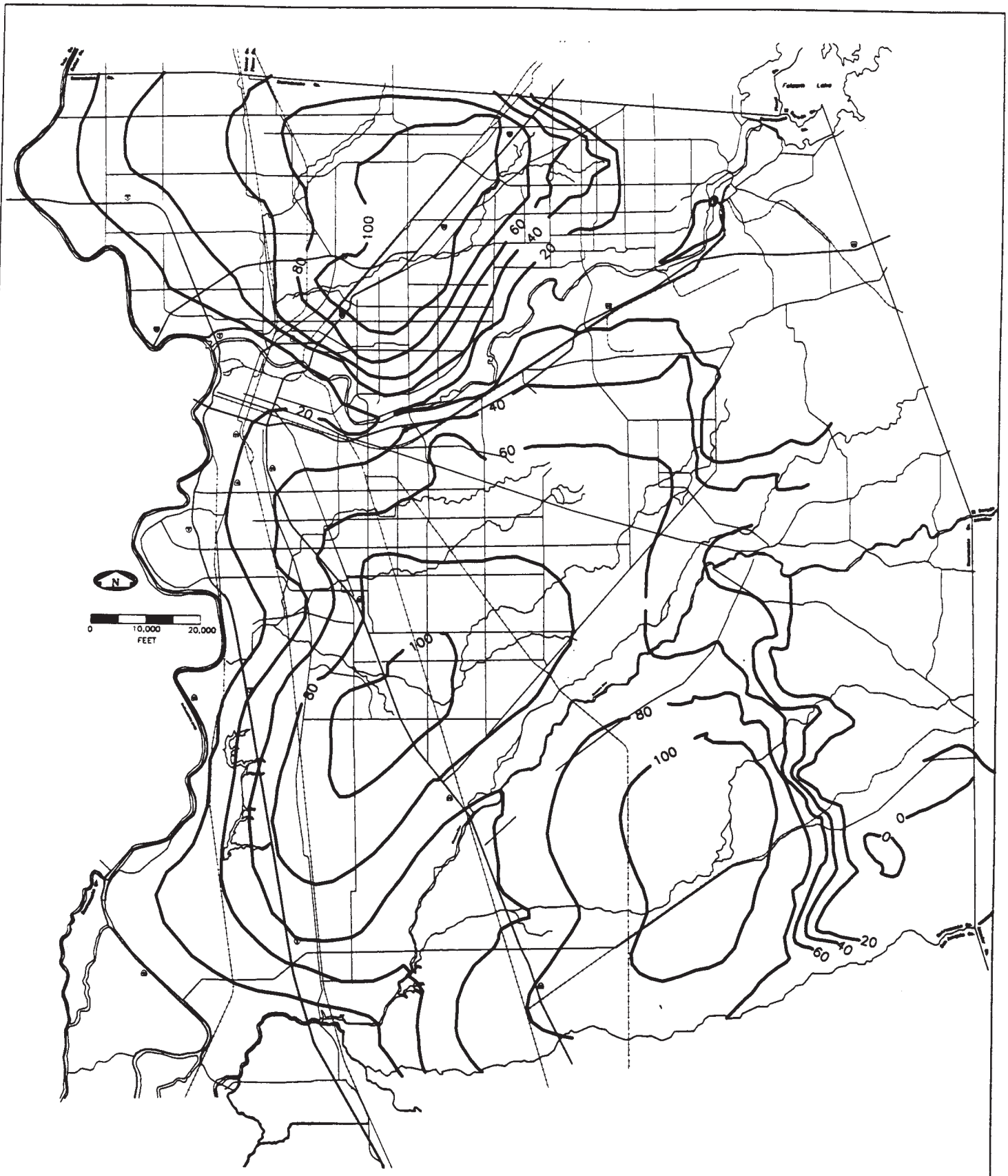


FIGURE 7.
GROUNDWATER LEVEL DECLINE FROM PRE-DEVELOPMENT CONDITIONS

FIGURE 8.

IRON CONCENTRATION VS. GROUNDWATER LEVEL DECLINE

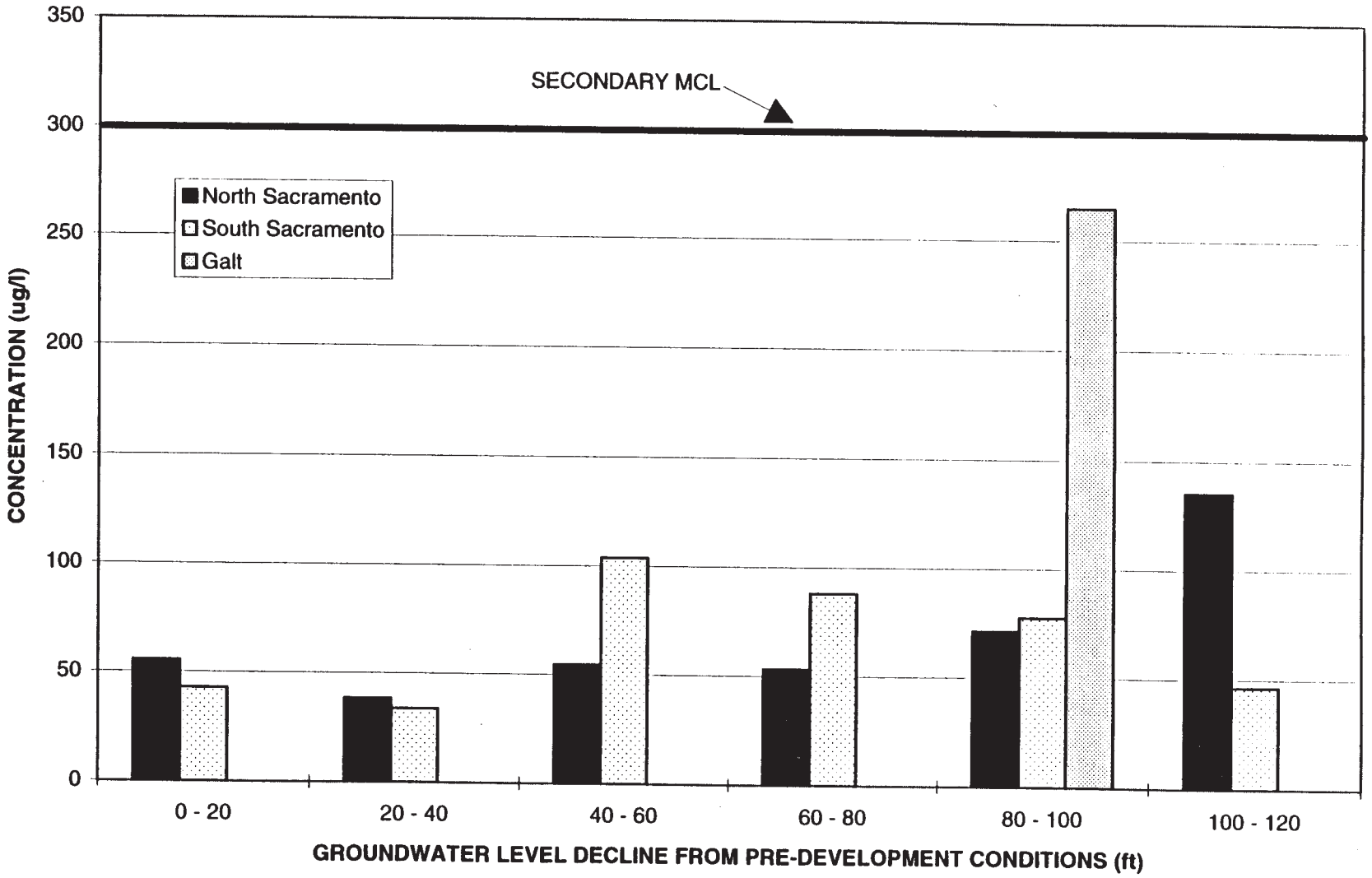


FIGURE 9.
MANGANESE CONCENTRATION VS. GROUNDWATER LEVEL DECLINE

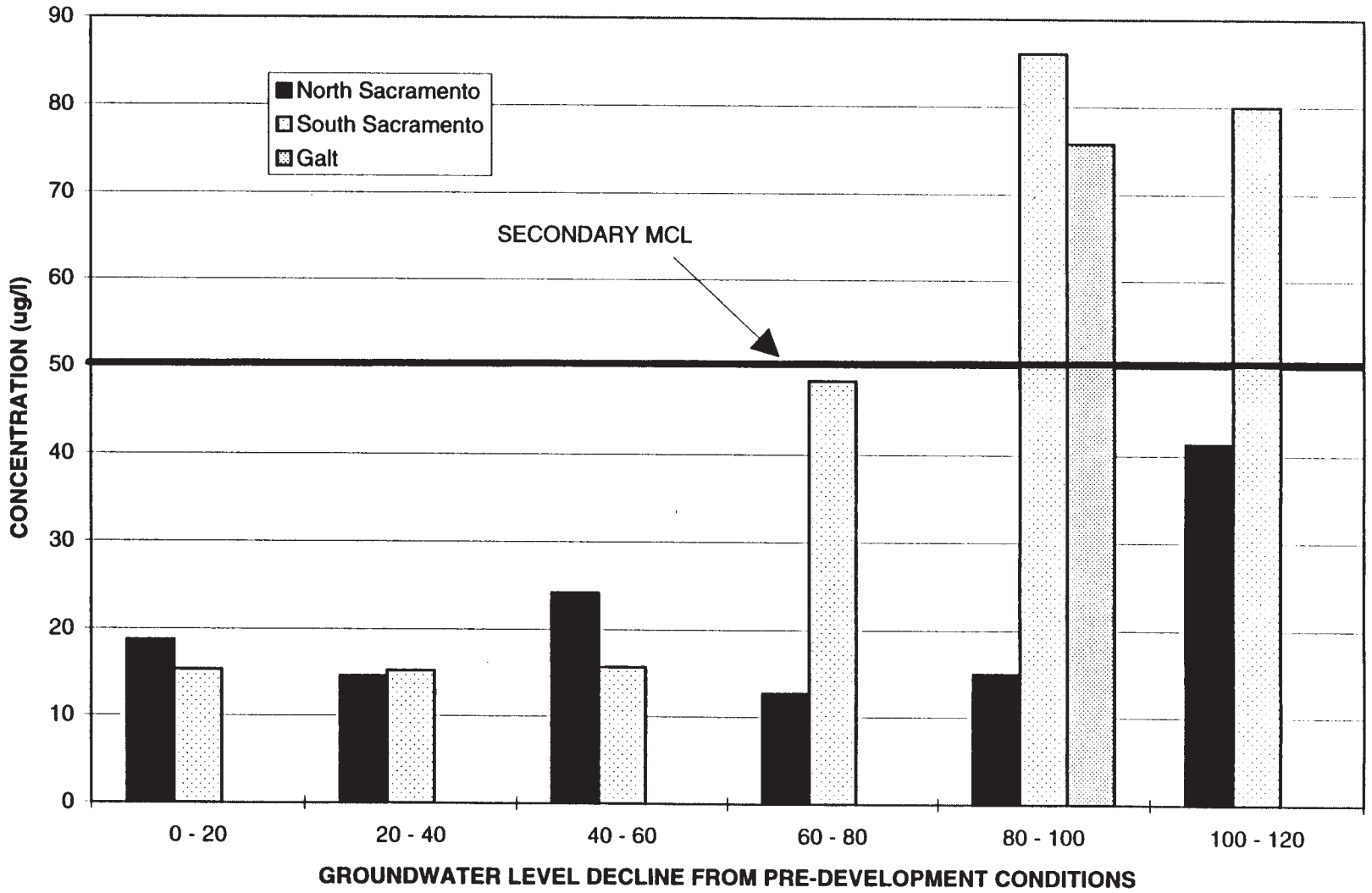
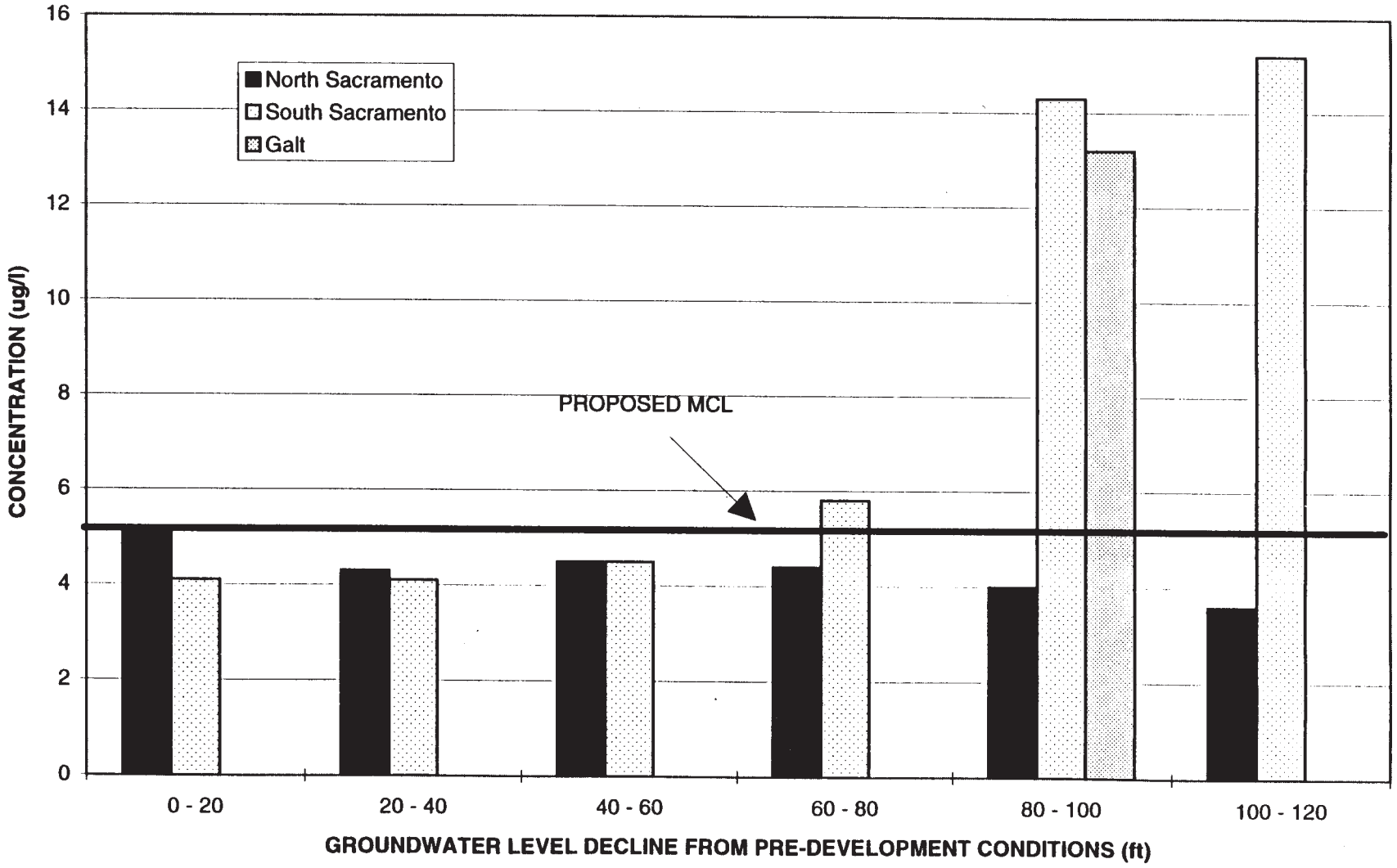


FIGURE 10.
ARSENIC CONCENTRATION VS. GROUNDWATER LEVEL DECLINE



Utilizing the above criteria, the total areas that may be impacted by groundwater quality deterioration have been delineated for each Baseline Condition. These areas have been developed based on the groundwater levels simulated by the IGSM for the static Baseline Conditions (as presented in TM No. 1). These results are summarized for each County area and model subregion in Table 8. Maps of the impacted areas for each Baseline Condition are also presented in Appendix A.

As indicated in the Table, under 1990 Baseline Conditions, there are approximately 42,500 acres in the South Sacramento area and 65,700 acres in the Galt area in which groundwater quality may be impacted. However, under 2030 Baseline Conditions, this area increases to over 108,000 acres in the South Sacramento area, and over 81,000 acres in the Galt area. Between 1990 and 2030 Baseline Conditions, the additional areas that are impacted primarily include the South Place of Use (POU), and the Sunrise areas. For the 1990 with Additional Conservation Baseline Conditions, there is a reduction in impacted area by approximately 22 percent (approximately 12,400 acres) in the South Sacramento area. However, in the Galt area, the total area impacted decreases by only 4 percent (approximately 3,100 acres).

4.0 ENGINEERING AND IMPACT COSTS

This section presents the engineering and impact costs for each of the static Baseline Conditions presented in TM No. 1. The specific impacts and costs considered under this section include: (1) well replacement costs, (2) pumping costs, and (3) water treatment costs.

4.1 Well Impacts and Replacement Costs

Impacts to wells and the associated replacement costs were developed for municipal, agricultural, and private domestic wells for each static Baseline Condition. The following provides a summary of these potential impacts and costs.

Municipal Wells. As described in Section 2.1, there are approximately 450 municipal wells in Sacramento County. Each well, its location, depth, and perforation intervals have previously been incorporated in the Sacramento County IGSM. The IGSM model results for each specific well location have been directly utilized to determine if the wells will be impacted by further groundwater level declines.

The criteria used in determining if a well will be impacted by additional groundwater level decline is if the pumping water level drops below the top perforation of the well. In such a case, the groundwater

will cascade into the well casing and may significantly reduce both the yield and efficiency of the well. The pumping water level (as determined by the IGSM for each Baseline Condition) was determined based on a combination of the regional groundwater level decline and the well drawdown, which is caused by the localized well pumping. The well drawdown was calculated as the pumping capacity of the well divided by the specific capacity.

The number of municipal wells impacted under each static baseline condition is presented in Table 9. As indicated by the table, under 2030 Baseline Conditions, approximately 13 percent of the municipal wells in the County will be impacted and require replacement. The largest impact to municipal wells occurs in the South Sacramento area where 31 out of 157 (approximately 20 percent) would eventually require replacement (under 2030 Baseline Conditions).

The impacts analysis also indicates that under both 1990 Baseline Conditions and 1990 Baseline Conditions with Additional Conservation, 10 to 14 municipal wells will require replacement. Most of these impacted wells are located in the North Sacramento area and may already be impacted or will be impacted by the additional groundwater level declines that are projected to occur under these Baseline Conditions.

The total replacement costs for the impacted wells are presented in Table 10. These costs are based on $390,000 per well (1995 costs) which include well construction, casing, housing, and pump. The cost assume that the well will be placed on the existing well site. In addition, the costs include engineering, administration, and contingency fees (35 percent of total construction costs). The total replacement costs for municipal wells range from approximately $4 million under 1990 Baseline Conditions (with additional conservation) to over $22 million under 2030 Baseline Conditions. As indicated in the table, the greatest costs would be in the Zone 40 area ($9 million) where 24 wells would require replacement.

Agricultural Wells. As indicated in Section 2.2, there are an estimated 600 active agricultural wells in the Sacramento County area. Most of these wells (over 95 percent) are located in the South Sacramento and Galt areas of the County. In order to determine the potential impacts on these wells from additional groundwater level decline, the information on well construction developed from the well inventory (Section 2.2) was utilized in conjunction with the projected groundwater level declines (from TM No. 1). Specifically, the information from the well log inventory on well depth (and perforation intervals) developed for each County area was considered to be representative of all agricultural wells in the specific area. This information was subsequently used to estimate the number of agricultural wells that may be impacted for each static Baseline Condition. As with municipal wells,

TABLE 8.

AREA IMPACTED BY GROUNDWATER QUALITY DECLINE

County Area	Subregion	Area (acres)	Present Conditions (acres)	BASELINE CONDITIONS					
				1990 (cons.) (acres)	1990 (acres)	2000 (acres)	2010 (acres)	2020 (acres)	2030 (acres)
North Sacramento	1 North Sacramento POU	45759	0	0	0	0	0	0	0
	14 Citizens Utilities	10939	0	0	0	0	0	0	0
	17 Fair Oaks WD	7692	0	0	0	0	0	0	0
	18 Orangevale WD	3243	0	0	0	0	0	0	0
	19 San Juan	1205	0	0	0	0	0	0	0
	20 Carmichael	4695	0	0	0	0	0	0	0
	21 Citrus Heights	7864	0	0	0	0	0	0	0
	22 Northridge	5563	0	0	0	0	0	0	0
	24 McClellan AFB	1887	0	0	0	0	0	0	0
	25 Arcade WD	2547	0	0	0	0	0	0	0
	26 Rio Linda	10917	0	0	0	0	0	0	0
	27 Natomas Mutual	14874	0	0	0	0	0	0	0
	28 Metro Airport	5461	0	0	0	0	0	0	0
		122,646	**0**	**0**	**0**	**0**	**0**	**0**	**0**
South Sacramento	2 South Sacramento POU	59459	5739	2350	865	10503	13453	19768	21463
	3 Zone 40	48456	28244	27418	37102	30710	32994	43144	43290
	4 Southwest	42460	8762	11860	13181	14337	17789	20321	20931
	10 Omochumne-Hartnell	19709	0	434	1747	390	626	2774	2800
	11 Rancho Murieta	3646	0	0	0	0	0	0	0
	12 Sunrise "A"	18798	151	0	1337	211	617	11080	11287
	13 Sunrise "B"	10641	0	0	0	0	0	4659	4622
	15 City of Folsom	13879	0	0	0	0	0	0	0
	16 Arden Cordova	9761	0	0	0	0	0	0	0
	23 SCWMD	915	0	0	0	0	0	0	0
	29 Courtland Area	32294	0	492	727	1303	2241	3630	3808
	30 Foothills North	18497	0	0	0	0	0	0	0
		278,515	**42,896**	**42,554**	**54,959**	**57,454**	**67,720**	**105,376**	**108,201**
Galt	5 Galt ID	32848	25379	25245	26003	26600	29251	31169	31406
	6 Cityof Galt	3363	2324	1075	1632	1893	2414	2670	2872
	7 OFSCU	15076	7751	8210	11077	9087	12282	14834	14893
	8 SMUD	2939	0	158	1153	1453	1302	1017	1200
	9 Clay WD	7679	7246	7679	7679	7679	7679	7679	7679
	31 Foothills South	99589	11848	23355	21277	23808	23313	22349	23003
		161,494	**54,548**	**65,722**	**68,821**	**70,520**	**76,241**	**79,718**	**81,053**
	TOTAL	**562,655**	**97,444**	**108,276**	**123,780**	**127,974**	**143,961**	**185,094**	**189,254**

Note: Area of groundwater level decline is the areas in which groundwater levels are projected to decline by over 80 feet from pre-development conditions.

the impact criteria utilized in this analysis is whether the pumping water level dropped below the top perforation of the wells.

The number of agricultural wells estimated to be impacted under each Baseline Condition is presented in Table 11. As with municipal wells, the greatest number of wells projected to be impacted are in the South Sacramento area with approximately 15 percent requiring replacement under 2030 Baseline Conditions. In the Galt area, approximately 11 percent would likely be impacted under 2030 Baseline Conditions. In the North Sacramento area, none of the agricultural wells are projected to be impacted under the various Baseline Condition scenarios. In this area, most agricultural wells are located where the average groundwater level decline (under 2030 Baseline Conditions) is less than 20 feet (i.e., North Sacramento POU and Natomas subregions) and the agricultural wells in these areas are constructed deep enough not to be impacted by this additional level of decline.

The replacement costs for the impacted agricultural wells are presented in Table 12. These costs are based on $150,000 per well (1995 costs) and include drilling and installation of the well, and pump costs. The total replacement costs range from $4.3 million under 2010 Baseline Conditions to over $11.1 million under 2030 Baseline Conditions.

Rural Domestic Wells. Based on estimates detailed in Section 2.3, there are an estimated 8,720 rural domestic wells in the Sacramento County area. These wells provide a potable water supply to individual homes and may also be used for outdoor irrigation purposes. As with the agricultural wells, the specific location and construction details of each rural domestic well was not available, and therefore the impacts were estimated by utilizing the information developed from the well inventory (i.e., distribution of well depths within each County area). As presented in Table 13, less than 5 percent of the rural wells are projected to require replacement under 2000 Baseline Conditions. However, over 13 percent of the wells would require replacement under 2030 Baseline Conditions. As with the municipal and agricultural wells, most of the impacts to the rural wells would occur in the South Sacramento area where the additional groundwater level decline is projected to be the greatest.

The replacement costs for the rural domestic wells are presented in Table 14. The costs range from approximately $4 million under 2000 Baseline Conditions to over $11 million under 2030 Baseline Conditions. These cost estimates are based on a unit cost of $10,000 per well, which includes the installation of the well, casing, and pump.

Total Replacement Costs The previous paragraphs have described the specific replacement costs for municipal, irrigation, and rural municipal wells. The total costs for replacement of these wells is

TABLE 9.
MUNICIPAL WELLS IMPACTED BY ADDITIONAL GROUNDWATER LEVEL DECLINE

County Area	Subregion	Total No. of M&I Wells	Static Baseline Condition					
			1990 w/ cons.	1990	2000	2010	2020	2030
North Sacramento	1 North Sacramento POU	168	2	2	4	4	4	4
	14 Citizens Utilities	32	1	2	3	5	5	5
	17 Fair Oaks WD	8	1	1	1	1	2	2
	18 Orangevale WD	1	0	0	0	0	0	0
	19 San Juan	0	0	0	0	0	0	0
	20 Carmichael	10	0	0	0	0	0	0
	21 Citrus Heights	6	1	1	2	3	4	4
	22 Northridge	24	0	2	4	5	6	6
	24 McClellan AFB	3	0	0	0	0	0	0
	25 Arcade WD	14	0	1	1	2	2	2
	26 Rio Linda	13	0	0	0	0	0	0
	27 Natomas Mutual	0	0	0	0	0	0	0
	28 Metro Airport	0	0	0	0	0	0	0
	subtotal:	**279**	**5**	**9**	**15**	**20**	**23**	**23**
South Sacramento	2 South Sacramento POU	84	2	2	3	4	6	6
	3 Zone 40	34	0	0	3	9	21	24
	4 Southwest	0	0	0	0	0	0	0
	10 Omochumne-Hartnell	0	0	0	0	0	0	0
	11 Rancho Murieta	0	0	0	0	0	0	0
	12 Sunrise "A"	10	0	0	0	0	0	0
	13 Sunrise "B"	0	0	0	0	0	0	0
	15 City of Folsom	0	0	0	0	0	0	0
	16 Arden Cordova	26	1	1	1	1	1	1
	23 SCWMD	1	0	0	0	0	0	0
	29 Courtland Area	2	0	0	0	0	0	0
	30 Foothills North	0	0	0	0	0	0	0
	subtotal:	**157**	**3**	**3**	**7**	**14**	**28**	**31**
Galt	5 Galt ID	0	0	0	0	0	0	0
	6 Cityof Galt	12	2	2	4	4	4	4
	7 OFSCU	0	0	0	0	0	0	0
	8 SMUD	0	0	0	0	0	0	0
	9 Clay WD	0	0	0	0	0	0	0
	31 Foothills South	0	0	0	0	0	0	0
	subtotal:	**12**	**2**	**2**	**4**	**4**	**4**	**4**
	Total:	**448**	**10**	**14**	**26**	**38**	**55**	**58**

Notes: (1) Impacted wells are those wells in which pumping water level is below the top well perforations.
(2) Pumping water level is developed for each well based on model simulated groundwater levels minus well drawdown (pumping rate divided by specific capacity).

TABLE 10.
SUMMARY OF MUNICIPAL WELL REPLACEMENT COSTS

County Area	Subregion	Static Baseline Condition					
		1990 w/ cons.	1990	2000	2010	2020	2030
North Sacramento	1 North Sacramento POU	780,000	780,000	1,560,000	1,560,000	1,560,000	1,560,000
	14 Citizens Utilities	390,000	780,000	1,170,000	1,950,000	1,950,000	1,950,000
	17 Fair Oaks WD	390,000	390,000	390,000	390,000	780,000	780,000
	18 Orangevale WD	0	0	0	0	0	0
	19 San Juan	0	0	0	0	0	0
	20 Carmichael	0	0	0	0	0	0
	21 Citrus Heights	390,000	390,000	780,000	1,170,000	1,560,000	1,560,000
	22 Northridge	0	780,000	1,560,000	1,950,000	2,340,000	2,340,000
	24 McClellan AFB	0	0	0	0	0	0
	25 Arcade WD	0	390,000	390,000	780,000	780,000	780,000
	26 Rio Linda	0	0	0	0	0	0
	27 Natomas Mutual	0	0	0	0	0	0
	28 Metro Airport	0	0	0	0	0	0
	subtotal:	**$1,950,000**	**$3,510,000**	**$5,850,000**	**$7,800,000**	**$8,970,000**	**$8,970,000**
South Sacramento	2 South Sacramento POU	780,000	780,000	1,170,000	1,560,000	2,340,000	2,340,000
	3 Zone 40	0	0	1,170,000	3,510,000	8,190,000	9,360,000
	4 Southwest	0	0	0	0	0	0
	10 Omochumne-Hartnell	0	0	0	0	0	0
	11 Rancho Murieta	0	0	0	0	0	0
	12 Sunrise "A"	0	0	0	0	0	0
	13 Sunrise "B"	0	0	0	0	0	0
	15 City of Folsom	0	0	0	0	0	0
	16 Arden Cordova	390,000	390,000	390,000	390,000	390,000	390,000
	23 SCWMD	0	0	0	0	0	0
	29 Courtland Area	0	0	0	0	0	0
	30 Foothills North	0	0	0	0	0	0
	subtotal:	**$1,170,000**	**$1,170,000**	**$2,730,000**	**$5,460,000**	**$10,920,000**	**$12,090,000**
Galt	5 Galt ID	0	0	0	0	0	0
	6 Cityof Galt	780,000	780,000	1,560,000	1,560,000	1,560,000	1,560,000
	7 OFSCU	0	0	0	0	0	0
	8 SMUD	0	0	0	0	0	0
	9 Clay WD	0	0	0	0	0	0
	31 Foothills South	0	0	0	0	0	0
	subtotal:	**$780,000**	**$780,000**	**$1,560,000**	**$1,560,000**	**$1,560,000**	**$1,560,000**
	Total:	**$3,900,000**	**$5,460,000**	**$10,140,000**	**$14,820,000**	**$21,450,000**	**$22,620,000**

Notes: (1) Municipal well replacement costs based on $390,000/well.

presented in Table 15 and summarized in Figure 11. These costs were developed by summing up all of the municipal, irrigation and rural domestic replacement costs for each static Baseline Condition. The total replacement costs range from approximately $3.9 million under 1990 Baseline Conditions (with Additional Conservation) to over $45 million under 2030 Baseline Conditions. The South Sacramento area has the largest replacement costs ($30.2 million under 2030 Baseline Conditions), with most of these costs ($19.3 million) occurring in the Zone 40 subregion.

4.2 Pumping Costs

This section evaluates the impacts to pumping costs as groundwater levels decline for each static Baseline Condition. Pumping costs refer to the energy costs required to pump groundwater and are a function of unit energy costs, the total lift required, and the overall efficiency of the well. The following documents the impacts to pumping costs for municipal, agricultural, and rural domestic wells for each of the static Baseline Conditions. The pumping cost estimates developed as part of this study were verified with actual pumping costs for municipal pumping (as reported by Sacramento County Water Maintenance District) and for agricultural pumping (as reported by the U.S. Bureau of Reclamation).

Municipal Pumping Costs. The impacts to municipal pumping costs were evaluated by model subregion for each Baseline Condition. These impacts are based on the average groundwater level decline within the individual subregions (as documented in TM No. 1). The existing pumping costs (under 1990 groundwater levels) were also evaluated based on the average municipal well yield, efficiency, and specific capacity (as documented in Section 2.1). In addition, the municipal pumping costs also assume that the groundwater is pumped at a pressure of 50 pounds per square inch (psi) for conveyance and distribution purposes. This additional pressure head is equivalent to an additional 115 feet of pumping lift.

The existing municipal pumping costs and pumping cost impacts for each Baseline Condition are presented in Table 16. In general, municipal pumping costs are higher than agricultural pumping costs due to the additional pressure head required for municipal wells. It should be noted that the existing pumping costs are based on the average well efficiency, specific capacity, pumping rate, and groundwater level within the specific subregion. The actual pumping cost may vary as these conditions vary.

The greatest impact to municipal pumping costs occurs in the South Sacramento area where average pumping costs may increase by over 27 percent ($6.72/acre-foot) under 2030 Baseline Condition. Under these Baseline Conditions, the average pumping costs are projected to increase by 15% ($3.97/

TABLE 11.
IRRIGATION WELLS IMPACTED BY ADDITIONAL GROUNDWATER LEVEL DECLINE

County Area	Subregion	Total No. of Irrig. Wells	Static Baseline Condition					
			1990 w/ cons.	1990	2000	2010	2020	2030
North Sacramento	1 North Sacramento POU	10	0	0	0	0	0	0
	14 Citizens Utilities	1	0	0	0	0	0	0
	17 Fair Oaks WD	0	0	0	0	0	0	0
	18 Orangevale WD	0	0	0	0	0	0	0
	19 San Juan	0	0	0	0	0	0	0
	20 Carmichael	0	0	0	0	0	0	0
	21 Citrus Heights	0	0	0	0	0	0	0
	22 Northridge	0	0	0	0	0	0	0
	24 McClellan AFB	0	0	0	0	0	0	0
	25 Arcade WD	0	0	0	0	0	0	0
	26 Rio Linda	4	0	0	0	0	0	0
	27 Natomas Mutual	12	0	0	0	0	0	0
	28 Metro Airport	0	0	0	0	0	0	0
	Subtotal:	**28**	**0**	**0**	**0**	**0**	**0**	**0**
South Sacramento	2 South Sacramento POU	7	0	0	0	0	0	0
	3 Zone 40	116	0	0	0	7	18	25
	4 Southwest	153	0	0	0	12	26	26
	10 Omochumne-Hartnell	31	0	0	0	0	2	2
	11 Rancho Murieta	0	0	0	0	0	0	0
	12 Sunrise "A"	10	0	0	0	0	1	1
	13 Sunrise "B"	5	0	0	0	0	0	0
	15 City of Folsom	0	0	0	0	0	0	0
	16 Arden Cordova	1	0	0	0	0	0	0
	23 SCWMD	0	0	0	0	0	0	0
	29 Courtland Area	61	0	0	0	0	0	0
	30 Foothills North	0	0	0	0	0	0	0
	Subtotal:	**385**	**0**	**0**	**0**	**19**	**47**	**54**
Galt	5 Galt ID	102	0	0	0	9	10	14
	6 Cityof Galt	6	0	0	0	0	1	1
	7 OFSCU	34	0	0	0	1	5	5
	8 SMUD	0	0	0	0	0	0	0
	9 Clay WD	9	0	0	0	0	0	0
	31 Foothills South	31	0	0	0	0	0	0
	Subtotal:	**182**	**0**	**0**	**0**	**10**	**16**	**20**
	TOTAL:	**595**	**0**	**0**	**0**	**29**	**63**	**74**

TABLE 12.

SUMMARY OF IRRIGATION WELL REPLACEMENT COSTS

County Area	Subregion	Static Baseline Condition					
		1990 w/ cons.	1990	2000	2010	2020	2030
North Sacramento	1 North Sacramento POU	0	0	0	0	0	0
	14 Citizens Utilities	0	0	0	0	0	0
	17 Fair Oaks WD	0	0	0	0	0	0
	18 Orangevale WD	0	0	0	0	0	0
	19 San Juan	0	0	0	0	0	0
	20 Carmichael	0	0	0	0	0	0
	21 Citrus Heights	0	0	0	0	0	0
	22 Northridge	0	0	0	0	0	0
	24 McClellan AFB	0	0	0	0	0	0
	25 Arcade WD	0	0	0	0	0	0
	26 Rio Linda	0	0	0	0	0	0
	27 Natomas Mutual	0	0	0	0	0	0
	28 Metro Airport	0	0	0	0	0	0
	Subtotal:	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
South Sacramento	2 South Sacramento POU	0	0	0	0	0	0
	3 Zone 40	0	0	0	1,050,000	2,700,000	3,750,000
	4 Southwest	0	0	0	1,800,000	3,900,000	3,900,000
	10 Omochumne-Hartnell	0	0	0	0	300,000	300,000
	11 Rancho Murieta	0	0	0	0	0	0
	12 Sunrise "A"	0	0	0	0	150,000	150,000
	13 Sunrise "B"	0	0	0	0	0	0
	15 City of Folsom	0	0	0	0	0	0
	16 Arden Cordova	0	0	0	0	0	0
	23 SCWMD	0	0	0	0	0	0
	29 Courtland Area	0	0	0	0	0	0
	30 Foothills North	0	0	0	0	0	0
	Subtotal:	**$0**	**$0**	**$0**	**$2,850,000**	**$7,050,000**	**$8,100,000**
Galt	5 Galt ID	0	0	0	1,350,000	1,500,000	2,100,000
	6 Cityof Galt	0	0	0	0	150,000	150,000
	7 OFSCU	0	0	0	150,000	750,000	750,000
	8 SMUD	0	0	0	0	0	0
	9 Clay WD	0	0	0	0	0	0
	31 Foothills South	0	0	0	0	0	0
	Subtotal:	**$0**	**$0**	**$0**	**$1,500,000**	**$2,400,000**	**$3,000,000**
	TOTAL:	**$0**	**$0**	**$0**	**$4,350,000**	**$9,450,000**	**$11,100,000**

Note: Irrigation well replacement costs based on $150,000/well.

acre-foot) in the North Sacramento area and by 7 percent ($2.23/acre-foot) in the Galt area. However, under 1990 Baseline Conditions (with Additional Conservation) the municipal pumping costs are projected to decrease by $0.34/acre-foot and $.53/acre-foot, respectively. In the North Sacramento area the pumping costs are projected to increase by $0.34/acre-foot, reflecting the additional drawdown that is projected to occur in this area even under reduced pumping conditions.

Agricultural Pumping Costs. Estimates for existing agricultural pumping costs and the potential impacts to these costs under the Baseline Conditions are presented in Table 17. As with the municipal pumping costs, the estimates of existing agricultural pumping costs are based on the average well characteristics (as reported in Section 2.2) and the average groundwater levels within each subregion. The actual pumping costs for specific wells may vary depending on the well location, well characteristics, and local groundwater conditions. Based on this analysis, the average increase in agricultural pumping costs will be similar for each County area (ranging from $3.42/acre-foot to $4.29/acre-foot under 2030 Baseline Conditions). However, within each County area, the impacts will vary depending on the magnitude of the groundwater level decline. For instance, in the Zone 40 subregion, the average agricultural pumping cost will increase by $7.41/acre-foot, representing a 51 percent increase in pumping costs over existing conditions.

Rural Domestic Pumping Costs. As with the municipal and agricultural pumping, impacts to rural pumping costs were developed for each Baseline Condition based on the average rural domestic well characteristics (documented in Section 2.3). As indicated in Table 18, both the South Sacramento and Galt areas are projected to have increases in rural pumping costs under 2030 Baseline Conditions by $6.56/acre-foot and $6.66/acre-foot respectively. This represents an increase in costs by 29 percent in the South Sacramento area and 22 percent in the Galt area. In the North Sacramento area, the average rural pumping costs are projected to increase between the present and the 2000 Baseline Conditions, and then are reduced between 2000 Baseline Conditions and 2030 Baseline Conditions. Although the actual pumping costs will increase for any given subregion, the reduction in the area-wide average pumping costs is attributed to the reduction in rural pumping in the Rio Linda area (with higher pumping costs) and an increase in rural pumping in the Natomas subregion (lower pumping costs). This shift in the areas of rural pumping subsequently impacts the weighted-average pumping impacts in the North Sacramento area.

Total Pumping Cost Impacts. The previous paragraphs have described the net impacts to pumping costs (in terms of cost per acre-foot) for each of the Baseline Conditions. However, the impacts to the total pumping costs (in terms of dollars per year) will depend on the actual quantity of groundwater pumped within the County areas. These costs were estimated by multiplying the net increase in

TABLE 13.

DOMESTIC WELLS IMPACTED BY ADDITIONAL GROUNDWATER LEVEL DECLINE

County Area	Subregion	Total No. of Domestic Wells	Static Baseline Condition					
			1990 w/ cons.	1990	2000	2010	2020	2030
North Sacramento	1 North Sacramento POU	235	0	0	0	24	24	24
	14 Citizens Utilities	0	0	0	0	0	0	0
	17 Fair Oaks WD	0	0	0	0	0	0	0
	18 Orangevale WD	107	0	0	0	0	0	0
	19 San Juan	0	0	0	0	0	0	0
	20 Carmichael	0	0	0	0	0	0	0
	21 Citrus Heights	0	0	0	0	0	0	0
	22 Northridge	0	0	0	0	0	0	0
	24 McClellan AFB	0	0	0	0	0	0	0
	25 Arcade WD	0	0	0	0	0	0	0
	26 Rio Linda	925	0	0	61	61	61	61
	27 Natomas Mutual	132	0	0	0	0	0	0
	28 Metro Airport	0	0	0	0	0	0	0
	Subtotal:	**1399**	**0**	**0**	**61**	**85**	**85**	**85**
South Sacramento	2 South Sacramento POU	133	0	0	0	6	6	6
	3 Zone 40	1850	0	0	242	242	617	617
	4 Southwest	1299	0	0	102	102	203	203
	10 Omochumne-Hartnell	223	0	0	0	0	17	17
	11 Rancho Murieta	0	0	0	0	0	0	0
	12 Sunrise "A"	237	0	0	0	0	31	31
	13 Sunrise "B"	0	0	0	0	0	0	0
	15 City of Folsom	0	0	0	0	0	0	0
	16 Arden Cordova	0	0	0	0	0	0	0
	23 SCWMD	0	0	0	0	0	0	0
	29 Courtland Area	1113	0	0	0	0	0	0
	30 Foothills North	1213	0	0	0	0	122	122
	Subtotal:	**6068**	**0**	**0**	**344**	**350**	**996**	**996**
Galt	5 Galt ID	742	0	0	0	33	33	52
	6 Cityof Galt	0	0	0	0	0	0	0
	7 OFSCU	223	0	0	0	0	10	10
	8 SMUD	0	0	0	0	0	0	0
	9 Clay WD	74	0	0	0	0	0	0
	31 Foothills South	214	0	0	0	0	0	0
	Subtotal:	**1253**	**0**	**0**	**0**	**33**	**43**	**62**
	TOTAL:	**8720**	**0**	**0**	**405**	**468**	**1124**	**1143**

TABLE 14.
SUMMARY OF DOMESTIC WELL REPLACEMENT COSTS

County Area	Subregion	Static Baseline Condition					
		1990 w/ cons.	1990	2000	2010	2020	2030
North Sacramento	1 North Sacramento POU	0	0	0	240,000	240,000	240,000
	14 Citizens Utilities	0	0	0	0	0	0
	17 Fair Oaks WD	0	0	0	0	0	0
	18 Orangevale WD	0	0	0	0	0	0
	19 San Juan	0	0	0	0	0	0
	20 Carmichael	0	0	0	0	0	0
	21 Citrus Heights	0	0	0	0	0	0
	22 Northridge	0	0	0	0	0	0
	24 McClellan AFB	0	0	0	0	0	0
	25 Arcade WD	0	0	0	0	0	0
	26 Rio Linda	0	0	610,000	610,000	610,000	610,000
	27 Natomas Mutúal	0	0	0	0	0	0
	28 Metro Airport	0	0	0	0	0	0
	Subtotal:	**$0**	**$0**	**$610,000**	**$850,000**	**$850,000**	**$850,000**
South Sacramento	2 South Sacramento POU	0	0	0	60,000	60,000	60,000
	3 Zone 40	0	0	2,420,000	2,420,000	6,170,000	6,170,000
	4 Southwest	0	0	1,020,000	1,020,000	2,030,000	2,030,000
	10 Omochumne-Hartnell	0	0	0	0	170,000	170,000
	11 Rancho Murieta	0	0	0	0	0	0
	12 Sunrise "A"	0	0	0	0	310,000	310,000
	13 Sunrise "B"	0	0	0	0	0	0
	15 City of Folsom	0	0	0	0	0	0
	16 Arden Cordova	0	0	0	0	0	0
	23 SCWMD	0	0	0	0	0	0
	29 Courtland Area	0	0	0	0	0	0
	30 Foothills North	0	0	0	0	1,220,000	1,220,000
	Subtotal:	**$0**	**$0**	**$3,440,000**	**$3,500,000**	**$9,960,000**	**$9,960,000**
Galt	5 Galt ID	0	0	0	330,000	330,000	520,000
	6 Cityof Galt	0	0	0	0	0	0
	7 OFSCU	0	0	0	0	100,000	100,000
	8 SMUD	0	0	0	0	0	0
	9 Clay WD	0	0	0	0	0	0
	31 Foothills South	0	0	0	0	0	0
	Subtotal:	**$0**	**$0**	**$0**	**$330,000**	**$430,000**	**$620,000**
	TOTAL:	**$0**	**$0**	**$4,050,000**	**$4,680,000**	**$11,240,000**	**$11,430,000**

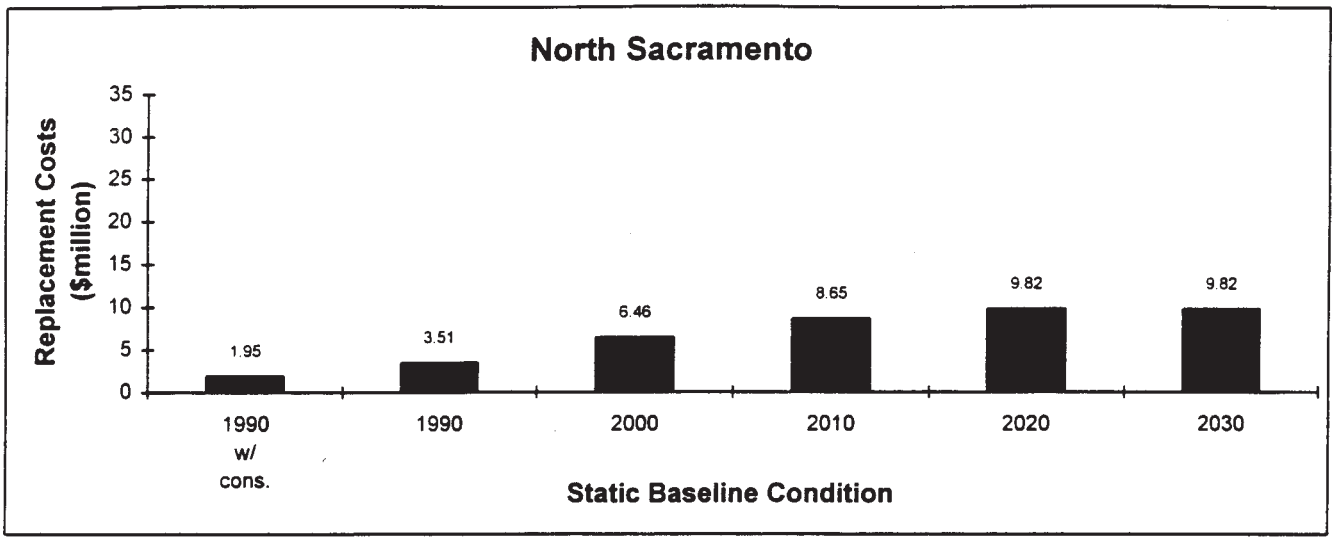
Note: Domestic well replacement costs based on $10,000/well.

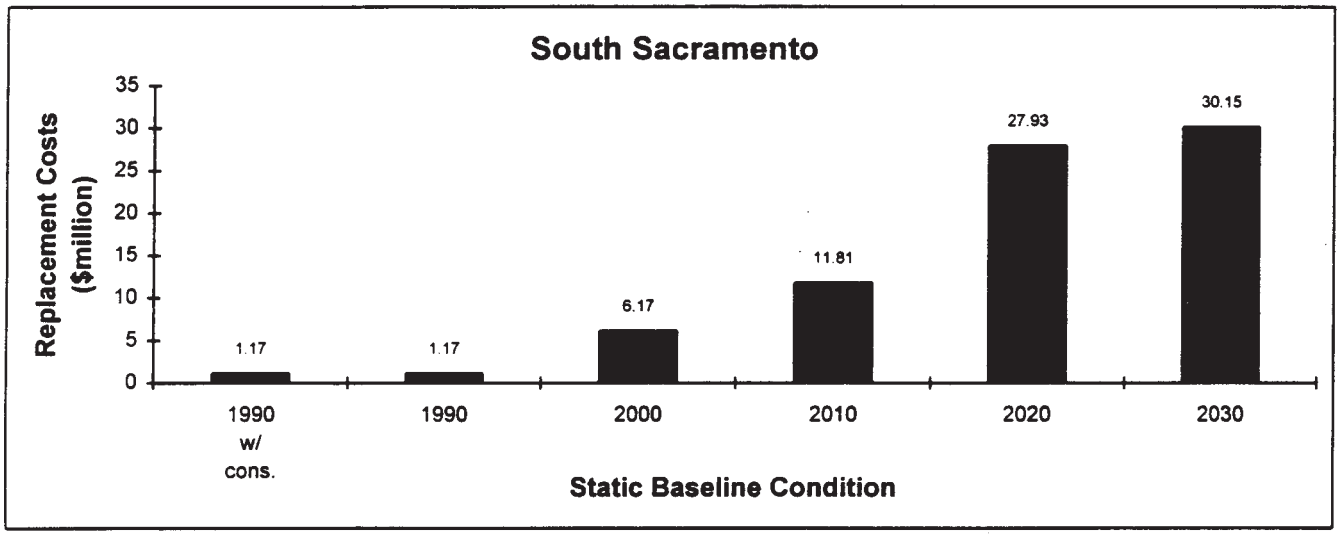
TABLE 15.
SUMMARY OF WELL REPLACEMENT COSTS

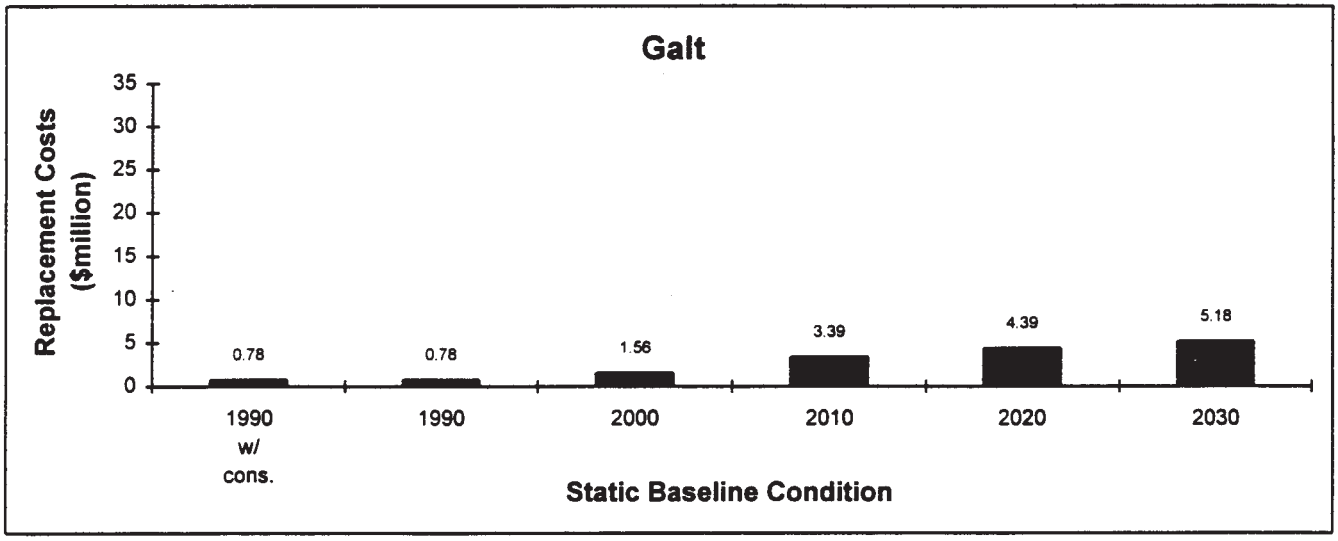
County Area	Subregion	Static Baseline Condition					
		1990 w/ cons.	1990	2000	2010	2020	2030
North Sacramento	1 North Sacramento POU	780,000	780,000	1,560,000	1,800,000	1,800,000	1,800,000
	14 Citizens Utilities	390,000	780,000	1,170,000	1,950,000	1,950,000	1,950,000
	17 Fair Oaks WD	390,000	390,000	390,000	390,000	780,000	780,000
	18 Orangevale WD	0	0	0	0	0	0
	19 San Juan	0	0	0	0	0	0
	20 Carmichael	0	0	0	0	0	0
	21 Citrus Heights	390,000	390,000	780,000	1,170,000	1,560,000	1,560,000
	22 Northridge	0	780,000	1,560,000	1,950,000	2,340,000	2,340,000
	24 McClellan AFB	0	0	0	0	0	0
	25 Arcade WD	0	390,000	390,000	780,000	780,000	780,000
	26 Rio Linda	0	0	610,000	610,000	610,000	610,000
	27 Natomas Mutual	0	0	0	0	0	0
	28 Metro Airport	0	0	0	0	0	0
	subtotal:	**$1,950,000**	**$3,510,000**	**$6,460,000**	**$8,650,000**	**$9,820,000**	**$9,820,000**
South Sacramento	2 South Sacramento POU	780,000	780,000	1,170,000	1,620,000	2,400,000	2,400,000
	3 Zone 40	0	0	3,590,000	6,980,000	17,060,000	19,280,000
	4 Southwest	0	0	1,020,000	2,820,000	5,930,000	5,930,000
	10 Omochumne-Hartnell	0	0	0	0	470,000	470,000
	11 Rancho Murieta	0	0	0	0	0	0
	12 Sunrise "A"	0	0	0	0	460,000	460,000
	13 Sunrise "B"	0	0	0	0	0	0
	15 City of Folsom	0	0	0	0	0	0
	16 Arden Cordova	390,000	390,000	390,000	390,000	390,000	390,000
	23 SCWMD	0	0	0	0	0	0
	29 Courtland Area	0	0	0	0	0	0
	30 Foothills North	0	0	0	0	1,220,000	1,220,000
	subtotal:	**$1,170,000**	**$1,170,000**	**$6,170,000**	**$11,810,000**	**$27,930,000**	**$30,150,000**
Galt	5 Galt ID	0	0	0	1,680,000	1,830,000	2,620,000
	6 Cityof Galt	780,000	780,000	1,560,000	1,560,000	1,710,000	1,710,000
	7 OFSCU	0	0	0	150,000	850,000	850,000
	8 SMUD	0	0	0	0	0	0
	9 Clay WD	0	0	0	0	0	0
	31 Foothills South	0	0	0	0	0	0
	subtotal:	**$780,000**	**$780,000**	**$1,560,000**	**$3,390,000**	**$4,390,000**	**$5,180,000**
	Total:	**$3,900,000**	**$5,460,000**	**$14,190,000**	**$23,850,000**	**$42,140,000**	**$45,150,000**

Notes: (1) Well replacement costs include municipal, agricultural, and rural domestic well replacement costs.

FIGURE 11. TOTAL REPLACEMENT COSTS







pumping costs by the amount of groundwater to be pumped for each water use category (municipal, agricultural, and rural domestic). The results from this analysis (presented in Table 19 and summarized in Figure 12) indicate pumping cost impacts of $2.56 million per year under 2030 Baseline Conditions. The bulk of these costs ($1.49 million per year) occur in the South Sacramento area, primarily due to the magnitude of the groundwater level decline and the relatively large increase in municipal pumping in this area.

4.3 Groundwater Treatment Costs

The impacts on groundwater quality for each static Baseline Condition has previously been addressed in Section 3.0 - Groundwater Quality Impacts. As discussed in Section 3.0, the impacts on groundwater quality from continued groundwater level decline will result in the need for iron and manganese treatment (and arsenic treatment if the arsenic MCL is lowered) in many of the municipal wells in the South Sacramento and Galt areas. The total area in which groundwater quality may be impacted increases from 123,780 acres under 1990 Baseline Conditions to over 189,000 acres under 2030 Baseline Conditions. The purpose of this section is to summarize the treatment costs for the municipal wells, which are located in the impacted areas. For this study, two levels of groundwater treatment are considered: (1) iron and manganese treatment, and (2) iron, manganese, and arsenic treatment.

For this study, all treatment costs are based on providing treatment at 10 mgd satellite treatment facilities. These facilities would be designed to serve 5 to 6 municipal wells each. The costs of providing only iron and manganese removal are based on the use of a greensand pressure filtration system. If the groundwater is also to be treated for arsenic, a conventional treatment system (coagulation, flocculation, filtration) is assumed to be required. An alternative to a conventional treatment system is the use of greensand filtration (for iron and manganese removal) in combination with activated alumina facility. The capital and operations costs for either the conventional or greensand/activated alumina treatment systems are similar, but both are more expensive than the greensand filtration system.

The total capital cost for the 10 mgd treatment facility (iron and manganese treatment only) is approximately $8.9 million. These costs include treatment facilities, land, conveyance facilities to the distribution system, and 35 percent engineering, administration, and contingency fees. If arsenic treatment is also required, the capital costs for the treatment facilities will increase to approximately $12.4 million per facility. The annual operations and maintenance (O&M) costs for either facility would be similar and are estimated to be approximately $600,000 per plant. These costs include

TABLE 16.
MUNICIPAL PUMPING COST IMPACTS

County Area	Subregion	Present Conditions	Baseline Condition Impacts (additional pumping costs)					
			1990 w/ cons	1990	2000	2010	2020	2030
		$/AF	$/AF	$/AF	$/AF	$/AF	$/AF	$/AF
North Sacramento	1 North Sacramento POU	21.78	-0.75	1.06	1.21	1.36	1.58	1.62
	14 Citizens Utilities	29.43	1.81	3.17	3.84	4.68	5.35	5.43
	17 Fair Oaks WD	31.07	0.02	0.34	0.56	0.84	1.18	1.19
	18 Orangevale WD	27.15	2.12	2.18	2.41	2.69	2.99	3.05
	19 San Juan	18.55	5.27	5.17	5.27	5.33	5.49	5.49
	20 Carmichael	24.30	-0.79	0.65	0.97	1.39	1.93	1.99
	21 Citrus Heights	28.77	1.12	1.68	2.20	2.77	3.33	3.38
	22 Northridge	32.78	-0.67	2.10	2.88	3.72	4.49	4.59
	24 McClellan AFB	30.08	0.87	3.68	4.08	4.38	4.62	4.68
	25 Arcade WD	34.14	-0.71	2.06	2.77	3.46	4.07	4.19
	26 Rio Linda	25.85	1.81	3.10	3.32	3.43	3.48	3.51
	27 Natomas Mutual	18.16	1.48	1.84	2.01	2.11	2.15	2.17
	28 Metro Airport	17.29	0.81	1.00	1.09	1.16	1.17	1.20
	Weighted Average:	**25.65**	**0.34**	**1.71**	**2.47**	**3.22**	**3.94**	**3.97**
South Sacramento	2 South Sacramento POU	23.27	-0.62	0.52	1.01	1.64	2.71	3.02
	3 Zone 40	28.28	0.69	1.69	2.35	3.49	6.37	6.86
	4 Southwest	25.57	0.63	0.98	1.44	2.55	3.83	4.07
	10 Omochumne-Hartnell	25.87	1.02	1.60	1.08	1.55	2.80	2.54
	11 Rancho Murieta	25.16	0.89	1.14	0.49	0.60	1.05	0.31
	12 Sunrise "A"	27.68	-0.02	1.10	1.06	1.77	3.57	3.63
	13 Sunrise "B"	31.65	0.53	1.20	1.12	1.91	3.55	3.21
	15 City of Folsom	22.08	0.04	0.20	0.22	0.41	0.75	0.67
	16 Arden Cordova	24.16	-0.63	0.13	0.38	0.92	1.77	1.77
	23 SCWMD	24.01	1.86	2.63	2.89	3.70	5.01	4.89
	29 Courtland Area	20.49	0.91	1.09	1.35	1.76	2.37	2.50
	30 Foothills North	32.41	0.33	0.68	0.42	0.82	1.70	1.31
	Weighted Average:	**24.58**	**-0.32**	**0.70**	**2.04**	**3.94**	**6.41**	**6.72**
Galt	5 Galt ID	29.63	1.70	2.10	2.24	3.31	4.39	4.81
	6 Cityof Galt	29.82	-0.52	-0.20	0.04	0.91	1.77	2.23
	7 OFSCU	29.00	1.22	1.78	1.74	2.83	4.27	4.48
	8 SMUD	33.67	3.60	3.74	3.67	3.87	4.07	3.73
	9 Clay WD	31.13	2.74	3.13	2.98	3.67	4.49	4.39
	31 Foothills South	38.05	2.14	2.31	2.16	2.35	2.60	2.13
	Weighted Average:	**29.82**	**-0.52**	**-0.20**	**0.04**	**0.91**	**1.77**	**2.23**

Notes: (1) Present pumping costs based on average groundwater levels and well characteristics within each subregion. Actual pumping costs will vary depending on local groundwater conditions and well characteristics.

(2) Weighted average pumping costs for County areas based on quantity of municipal pumping within individual subregions.

TABLE 17.
AGRICULTURAL PUMPING COST IMPACTS

County Area	Subregion	Present Conditions $/AF	Baseline Condition Impacts (additional pumping costs) 1990 w/ cor $/AF	1990 $/AF	2000 $/AF	2010 $/AF	2020 $/AF	2030 $/AF
North Sacramento	1 North Sacramento POU	8.77	-0.82	1.15	1.32	1.49	1.72	1.76
	14 Citizens Utilities	17.39	1.97	3.45	4.19	5.10	5.83	5.91
	17 Fair Oaks WD	19.58	0.02	0.37	0.61	0.91	1.28	1.30
	18 Orangevale WD	15.05	2.31	2.38	2.63	2.93	3.26	3.32
	19 San Juan	5.68	5.74	5.63	5.74	5.80	5.98	5.98
	20 Carmichael	11.54	-0.87	0.71	1.06	1.52	2.10	2.17
	21 Citrus Heights	16.27	1.22	1.83	2.39	3.02	3.63	3.69
	22 Northridge	20.73	-0.73	2.29	3.13	4.05	4.89	5.00
	24 McClellan AFB	17.67	0.95	4.01	4.45	4.77	5.03	5.10
	25 Arcade WD	22.28	-0.78	2.24	3.02	3.77	4.43	4.57
	26 Rio Linda	13.27	1.97	3.37	3.61	3.74	3.79	3.82
	27 Natomas Mutual	4.60	1.61	2.00	2.19	2.30	2.35	2.36
	28 Metro Airport	3.66	0.89	1.09	1.19	1.26	1.27	1.31
	Weighted Average:	**8.00**	**0.80**	**1.95**	**1.88**	**1.47**	**3.40**	**3.42**
South Sacramento	2 South Sacramento POU	8.95	-0.67	0.56	1.10	1.77	2.93	3.26
	3 Zone 40	14.53	0.74	1.82	2.53	3.76	6.87	7.41
	4 Southwest	11.54	0.68	1.06	1.55	2.75	4.13	4.39
	10 Omochumne-Hartnell	11.87	1.10	1.73	1.17	1.67	3.02	2.75
	11 Rancho Murieta	10.86	0.96	1.23	0.53	0.65	1.14	0.33
	12 Sunrise "A"	13.81	-0.03	1.19	1.15	1.91	3.85	3.92
	13 Sunrise "B"	18.32	0.57	1.29	1.21	2.07	3.83	3.47
	15 City of Folsom	7.65	0.04	0.21	0.23	0.44	0.81	0.72
	16 Arden Cordova	10.32	-0.68	0.14	0.41	0.99	1.91	1.92
	23 SCWMD	10.02	2.01	2.84	3.12	3.99	5.40	5.27
	29 Courtland Area	5.67	0.98	1.18	1.46	1.90	2.56	2.69
	30 Foothills North	18.90	0.36	0.73	0.45	0.88	1.83	1.42
	Weighted Average:	**11.64**	**0.74**	**1.36**	**1.54**	**1.91**	**3.35**	**3.54**
Galt	5 Galt ID	16.69	1.82	2.24	2.40	3.53	4.69	5.13
	6 Cityof Galt	16.81	-0.56	-0.21	0.04	0.97	1.89	2.38
	7 OFSCU	15.51	1.30	1.90	1.86	3.02	4.56	4.78
	8 SMUD	20.63	3.84	3.99	3.92	4.13	4.35	3.98
	9 Clay WD	18.36	2.92	3.35	3.18	3.91	4.80	4.69
	31 Foothills South	25.79	2.28	2.47	2.31	2.51	2.78	2.27
	Weighted Average:	**18.09**	**1.78**	**2.19**	**2.14**	**2.95**	**4.06**	**4.29**

Notes: (1) Present pumping costs based on average groundwater levels and well characteristics within each subregion. Actual pumping costs will vary depending on local groundwater conditions and well characteristics.

(2) Weighted average pumping costs for County areas based on quantity of agricultural pumping within individual subregions.

chemicals, energy, labor, and other miscellaneous costs.

In order to determine the total treatment costs, the quantity of municipal pumping in the impacted areas was estimated for each static Baseline Condition. As presented in Table 20, under 1990 Baseline Conditions there is approximately 28,000 AF/Yr of municipal pumping in these impacted areas. The impacted areas include all municipal wells in the Zone 40 and City of Galt subregions, and a portion of the municipal wells in the South POU. However, for each subsequent Baseline Condition (i.e., 2000, 2010, 2020, and 2030), both the impacted areas and the quantity of municipal pumping increases. Under 2030 Baseline Conditions, the total quantity of municipal pumping in the impacted areas increases to over 133,000 AF/Yr, and the impacted areas expand to include portions of the Sunrise "A" and Sunrise "B" subregions. In this Baseline Condition, all of the municipal pumping in the south POU, Zone 40, and City of Galt is located in areas that may be impacted by water quality deterioration and require treatment.

The estimated capital costs for providing treatment to wells in the impacted areas are presented in Table 21 (without arsenic treatment) and Table 22 (with arsenic treatment), and are also summarized in Figure 13. These capital costs are based on each treatment facility operating under average day conditions (5 mgd), and therefore providing treatment for approximately 5,600 AF/YR. The costs also take into account the existing groundwater treatment programs in the City of Galt, Citizens Utilities, and Sacramento County Water Maintenance District. As indicated by these tables, the capital costs for providing iron and manganese treatment range from approximately $38 million under 1990 Baseline Conditions to over $205 million under 2030 Baseline Conditions. If arsenic treatment is also required, the capital costs will range from $52.8 million (1990 Baseline Conditions) to over $286 million (2030 Baseline Conditions). Under 1990 Baseline Conditions with Additional Conservation, the groundwater treatment requirements are $20.5 million (without arsenic treatment) and $28.6 million (with arsenic treatment).

The annual O&M costs for each Baseline Condition are presented in Table 23. These costs range from $2.6 million per year under 1990 Baseline Conditions to $13.9 million per year under 2030 Baseline Conditions. As with the capital costs, the bulk of the O&M costs will be in the Zone 40 and South POU subregions.

4.4 Summary of Impact Costs

The previous sections have evaluated the impacts and impact costs for well replacement, pumping costs, and groundwater treatment for each static Baseline Condition. The purpose of this section is to

TABLE 18.
RURAL DOMESTIC PUMPING COST IMPACTS

County Area	Subregion	Present Conditions $/AF	Baseline Condition Impacts (additional pumping costs) 1990 w/ cor $/AF	1990 $/AF	2000 $/AF	2010 $/AF	2020 $/AF	2030 $/AF
North Sacramento	1 North Sacramento POU	16.66	-0.95	1.34	1.53	1.72	1.99	2.05
	14 Citizens Utilities	26.74	2.28	4.01	4.86	5.92	6.77	6.86
	17 Fair Oaks WD	28.51	0.02	0.43	0.71	1.06	1.49	1.51
	18 Orangevale WD	23.59	2.69	2.76	3.05	3.40	3.78	3.86
	19 San Juan	12.71	6.67	6.54	6.66	6.74	6.94	6.94
	20 Carmichael	19.90	-1.00	0.83	1.23	1.76	2.44	2.52
	21 Citrus Heights	25.56	1.42	2.12	2.78	3.51	4.22	4.28
	22 Northridge	30.73	-0.85	2.65	3.64	4.70	5.67	5.81
	24 McClellan AFB	27.17	1.10	4.66	5.16	5.54	5.84	5.92
	25 Arcade WD	32.32	-0.90	2.60	3.51	4.38	5.15	5.30
	26 Rio Linda	21.82	2.29	3.92	4.20	4.34	4.40	4.44
	27 Natomas Mutual	12.07	1.87	2.32	2.54	2.67	2.72	2.74
	28 Metro Airport	10.97	1.03	1.27	1.38	1.47	1.47	1.52
	Weighted Average:	**20.01**	**1.93**	**3.23**	**3.09**	**2.72**	**2.05**	**0.97**
South Sacramento	2 South Sacramento POU	16.53	-0.78	0.65	1.27	2.05	3.40	3.79
	3 Zone 40	23.06	0.86	2.12	2.94	4.37	7.98	8.60
	4 Southwest	19.55	0.79	1.23	1.80	3.20	4.79	5.10
	10 Omochumne-Hartnell	20.25	1.27	2.01	1.36	1.94	3.51	3.19
	11 Rancho Murieta	19.28	1.12	1.43	0.62	0.75	1.32	0.39
	12 Sunrise "A"	22.43	-0.03	1.38	1.33	2.22	4.47	4.54
	13 Sunrise "B"	27.48	0.66	1.50	1.40	2.40	4.44	4.02
	15 City of Folsom	15.38	0.04	0.24	0.27	0.51	0.94	0.83
	16 Arden Cordova	18.02	-0.79	0.16	0.47	1.15	2.22	2.22
	23 SCWMD	17.84	2.33	3.30	3.62	4.63	6.27	6.12
	29 Courtland Area	13.17	1.14	1.36	1.69	2.21	2.97	3.13
	30 Foothills North	28.35	0.42	0.85	0.52	1.03	2.13	1.65
	Weighted Average:	**22.69**	**0.61**	**1.60**	**2.24**	**3.62**	**6.37**	**6.56**
Galt	5 Galt ID	28.91	2.28	2.81	3.01	4.43	5.88	6.44
	6 Cityof Galt	29.16	-0.70	-0.27	0.05	1.22	2.37	2.99
	7 OFSCU	28.06	1.63	2.39	2.33	3.78	5.72	5.99
	8 SMUD	34.32	4.82	5.00	4.92	5.18	5.45	5.00
	9 Clay WD	30.93	3.67	4.20	3.99	4.91	6.02	5.88
	31 Foothills South	40.19	2.86	3.10	2.89	3.15	3.49	2.85
	Weighted Average:	**30.59**	**2.35**	**2.86**	**3.18**	**4.68**	**6.31**	**6.66**

Notes: (1) Present pumping costs based on average groundwater levels and well characteristics within each subregion. Actual pumping costs will vary depending on local groundwater conditions and well characteristics.

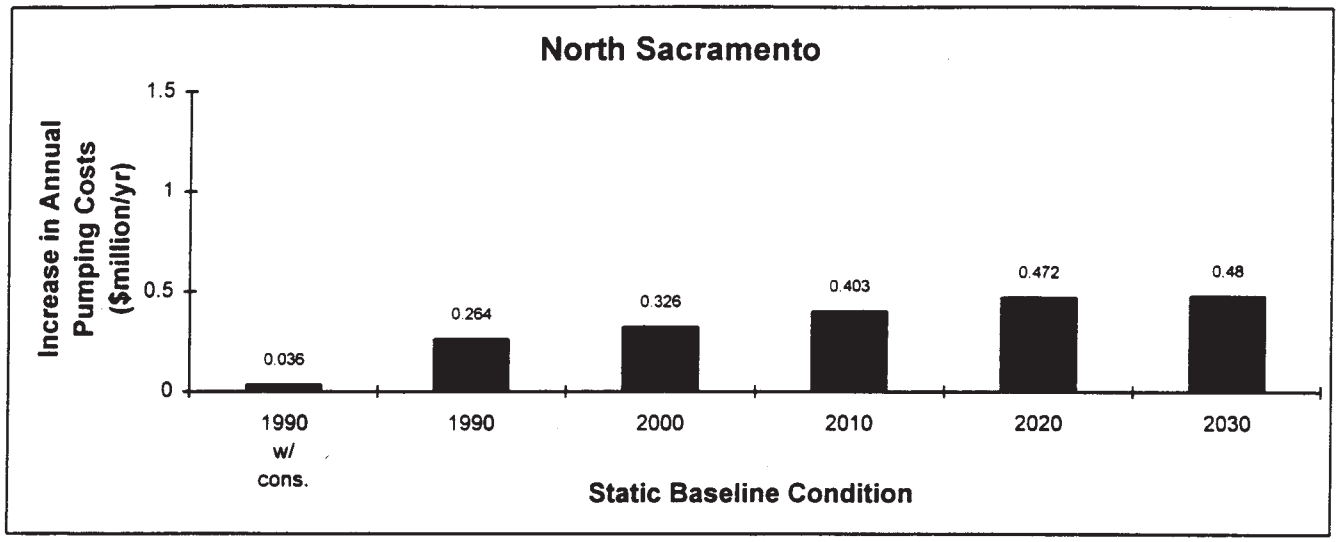
(2) Weighted average pumping costs for County areas based on quantity of rural domestic pumping within individual subregions.

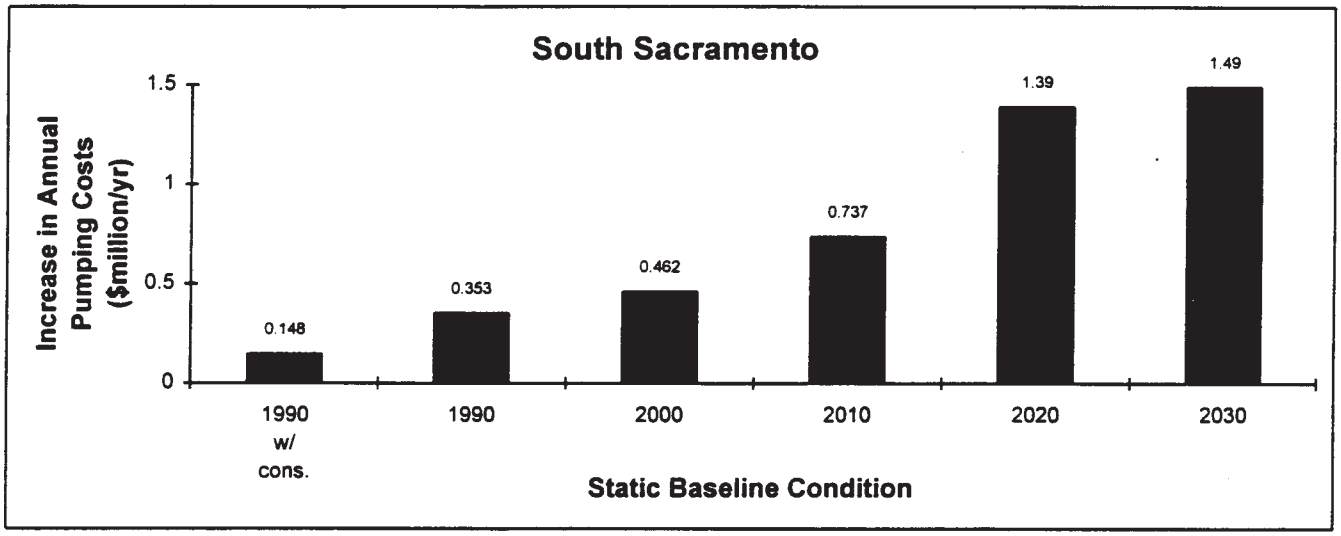
TABLE 19.
TOTAL PUMPING COST IMPACTS

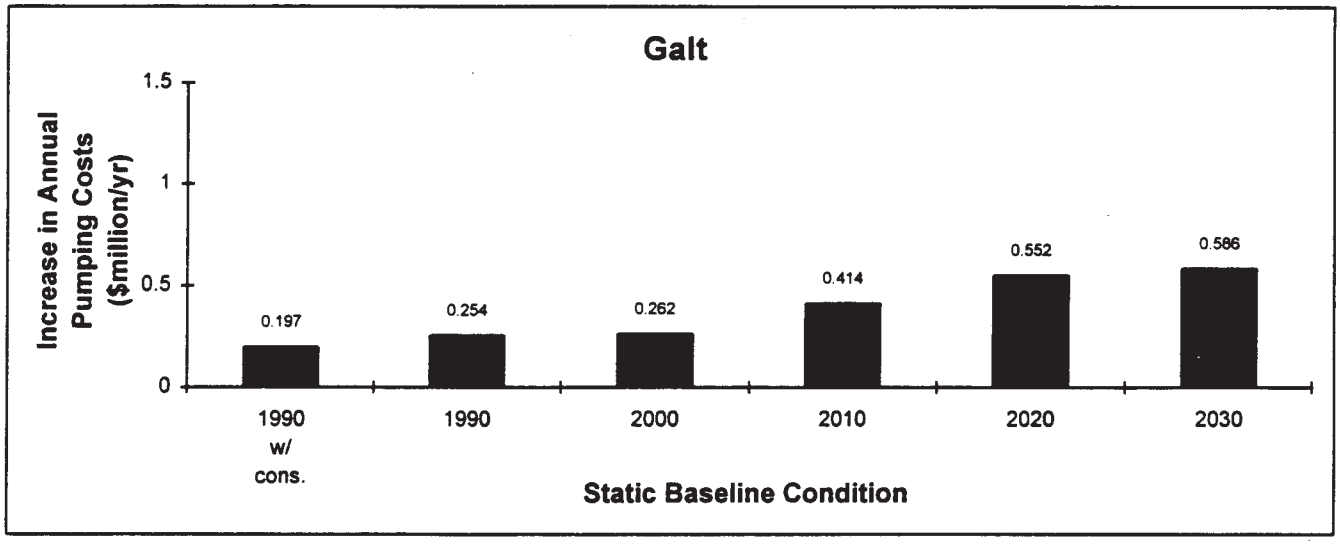
County Area	Subregion	Baseline Condition					
		1990 w/ cor ($/Yr)	1990 ($/Yr)	2000 ($/Yr)	2010 ($/Yr)	2020 ($/Yr)	2030 ($/Yr)
North Sacramento	1 North Sacramento POU	-28,678	62,492	68,373	74,309	83,355	85,525
	14 Citizens Utilities	20,937	48,295	79,613	124,198	168,775	171,255
	17 Fair Oaks WD	0	0	451	1,393	2,832	2,870
	18 Orangevale WD	5,806	7,787	6,437	4,745	3,771	3,311
	19 San Juan	0	0	3,266	6,808	10,160	10,164
	20 Carmichael	-1,865	3,530	5,524	8,315	11,997	12,381
	21 Citrus Heights	0	0	2,600	6,760	11,776	11,944
	22 Northridge	-7,058	29,311	40,148	51,902	62,620	64,100
	24 McClellan AFB	2,193	12,377	11,644	10,126	8,516	8,626
	25 Arcade WD	-2,863	11,012	16,775	23,525	30,314	31,227
	26 Rio Linda	30,352	66,751	68,633	68,299	65,819	65,152
	27 Natomas Mutual	15,397	20,437	20,987	21,566	11,645	12,438
	28 Metro Airport	1,367	1,882	1,908	1,980	1,331	1,396
	Subtotal:	**35,588**	**263,874**	**326,360**	**403,926**	**472,913**	**480,390**
South Sacramento	2 South Sacramento POU	-17,820	19,129	38,858	63,206	111,774	129,588
	3 Zone 40	56,335	145,575	187,584	234,814	550,142	614,131
	4 Southwest	58,774	92,211	138,592	275,201	409,391	435,150
	10 Omochumne-Hartnell	19,390	30,910	20,179	28,752	52,161	47,545
	11 Rancho Murieta	0	0	0	0	0	0
	12 Sunrise "A"	-283	15,634	15,965	30,876	70,165	75,309
	13 Sunrise "B"	2,071	5,186	5,979	25,218	72,146	66,432
	15 City of Folsom	0	2	2	3	0	0
	16 Arden Cordova	-4,267	1,278	4,619	13,687	30,201	30,242
	23 SCWMD	891	1,478	3,232	6,324	11,033	10,770
	29 Courtland Area	33,107	39,576	45,456	57,064	76,688	80,832
	30 Foothills North	614	1,659	1,058	2,183	4,788	4,240
	Subtotal:	**148,812**	**352,638**	**461,524**	**737,328**	**1,388,488**	**1,494,239**
Galt	5 Galt ID	116,091	149,595	157,895	246,777	319,013	349,070
	6 Cityof Galt	-3,177	-1,388	281	5,888	13,347	19,312
	7 OFSCU	25,912	38,889	43,792	92,442	140,666	147,423
	8 SMUD	100	104	51	0	0	0
	9 Clay WD	15,971	18,781	17,430	21,550	26,600	25,981
	31 Foothills South	42,299	47,352	43,042	46,993	52,541	43,966
	Subtotal:	**197,195**	**253,332**	**262,492**	**413,650**	**552,166**	**585,753**
	TOTAL:	**381,595**	**869,845**	**1,050,376**	**1,554,903**	**2,413,567**	**2,560,381**

Notes: (1) Total pumping cost impacts are based on the incremental increase in pumping costs times the total quantity of water pumped for municipal, agricultural, and rural domestic wells.

FIGURE 12. INCREASE IN ANNUAL PUMPING COSTS







summarize those impact costs in terms of the total capital costs and the annualized costs. The total capital costs include all capital costs associated with impacts from additional groundwater level decline (treatment facilities and well replacement costs). The annualized costs include capital recovery costs (for well replacement and treatment facilities), increased pumping costs, and treatment O&M costs. The capital recovery costs are based on a 7 percent with a 30-year amortization period.

The total capital costs are presented in Tables 24 and 25 and are summarized in Figure 14. Under 1990 Baseline Conditions the impact costs (capital costs) range from $43.3 million (without arsenic treatment) to $58.2 million (with arsenic treatment). However, under 2030 Baseline Conditions the impact costs increase to $250.7 million (without arsenic treatment) to $331.5 million (with arsenic treatment). The majority of these capital costs occur in the South Sacramento area where much of the increase in pumping is projected to occur.

The annualized costs for each Baseline Condition are presented in Tables 26 and 27 and are summarized in Figure 15. As with the capital impact costs, the most significant increase in annual impact costs occur in the South Sacramento area, where annual impact costs increase from $5.5 million per year under 1990 Baseline Conditions to $32.6 million per year under 2030 Baseline Conditions (without arsenic treatment). In comparison, the annualized impact costs in the North Sacramento and Galt areas are relatively small ($1.3 million per year and $2.8 million per year, respectively).

5.0 LAND SUBSIDENCE EVALUATION

The objectives of this section are to present the potential for additional land subsidence in Sacramento County due to projected groundwater conditions. Potential additional land subsidence was evaluated utilizing Sacramento County IGSM model results for the Baseline Conditions. This section is divided into the following subsections:

1. Hydrogeology of the Sacramento County Area
2. Description of Land Subsidence
3. Historical Land Subsidence in Sacramento County
4. Potential for Additional Land Subsidence in Sacramento County
5. Conclusions

5.1 Hydrogeology of the Sacramento County Area

During the past 65 million years, the area now known as Sacramento Valley has been subsiding at a very slow rate (a few thousandths of a foot per year), while the crest of the Sierra Nevada has been rising at about this same slow rate. Throughout this time, processes of erosion have worn away the upland areas and down-cut deep canyons in the mountains, and deposited the eroded sediments over the Sacramento Valley trough. Some of the earliest sediments in the trough were deposited when an arm of a shallow sea covered the area. Today these ancient marine sediments, penetrated by deep wells in Sacramento Valley, are several thousand feet below sea level in the deepest part of the trough (see Figure 16).

Underlying the relatively flat land surface of Sacramento County and overlying the ancient marine sediments is a sequence of westward dipping formational units (Figure 16). This sequence is over 1,500 feet thick on the western margin of the study area, thins to the east, and as a unit comprises the groundwater system of the area. Because of ongoing tectonic subsidence each hydrologic unit of the sequence has a uniform westward dip. The upper sequence comprising the shallow aquifer system includes the Laguna, Fair Oaks and Victor formations. The lower sequence comprising the deep aquifer system includes the Mehrten and pre-Mehrten formations extending to the base of freshwater. Since most of the water wells drilled in the County prior to 1980 were less than 800 feet deep, most of the early ground-water pumped was from the Fair Oaks, Victor and younger formations in the western part of the Sacramento County, and from the Laguna, Fair Oaks, Mehrten and older formations on the eastern part.

5.2 Description of Land Subsidence

Four quite unrelated processes are known to produce significant land subsidence in the Central Valley of California. In descending order of areal extent, these processes are: a) the compaction of water-bearing deposits caused by the intensive pumping of groundwater, b) hydrocompaction — the collapse of moisture-deficient deposits when water is applied, c) the lowering of the land surface due to the oxidation and burning of organic soils when the water table is lowered, and d) the compaction of deep formations when gas field fluids are extracted.

Of these man-induced processes, only the first is known to occur east of the Sacramento River in Sacramento County, and is the focus of this study. As noted above, continuing tectonic subsidence affects the entire area, but at rates several orders of magnitude slower than subsidence due to groundwater pumping.

TABLE 20.
QUANTITY OF GROUNDWATER REQUIRING TREATMENT

County Area	Subregion	Present Conditions (AF/Yr)	BASELINE CONDITIONS 1990 (cons.) (AF/Yr)	1990 (AF/Yr)	2000 (AF/Yr)	2010 (AF/Yr)	2020 (AF/Yr)	2030 (AF/Yr)
North Sacramento	1 North Sacramento POU	0	0	0	0	0	0	0
	14 Citizens Utilities	0	0	0	0	0	0	0
	17 Fair Oaks WD	0	0	0	0	0	0	0
	18 Orangevale WD	0	0	0	0	0	0	0
	19 San Juan	0	0	0	0	0	0	0
	20 Carmichael	0	0	0	0	0	0	0
	21 Citrus Heights	0	0	0	0	0	0	0
	22 Northridge	0	0	0	0	0	0	0
	24 McClellan AFB	0	0	0	0	0	0	0
	25 Arcade WD	0	0	0	0	0	0	0
	26 Rio Linda	0	0	0	0	0	0	0
	27 Natomas Mutual	0	0	0	0	0	0	0
	28 Metro Airport	0	0	0	0	0	0	0
		0	**0**	**0**	**0**	**0**	**0**	**0**
South Sacramento	2 South Sacramento POU	10899	8174	16267	21917	30584	40886	42885
	3 Zone 40	8221	6225	8221	21760	42709	62784	67003
	4 Southwest	0	0	0	0	0	0	0
	10 Omochumne-Hartnell	0	0	0	0	0	0	0
	11 Rancho Murieta	0	0	0	0	0	0	0
	12 Sunrise "A"	0	0	0	0	0	6883	7671
	13 Sunrise "B"	0	0	0	0	0	7058	7149
	15 City of Folsom	0	0	0	0	0	0	0
	16 Arden Cordova	0	0	0	0	0	0	0
	23 SCWMD	0	0	0	0	0	0	0
	29 Courtland Area	0	0	0	0	0	0	0
	30 Foothills North	0	0	0	0	0	0	0
		19,120	**14,399**	**24,488**	**43,677**	**73,293**	**117,611**	**124,708**
Galt	5 Galt ID	0	0	0	0	0	0	0
	6 Cityof Galt	3371	2529	3371	5186	6478	7539	8647
	7 OFSCU	0	0	0	0	0	0	0
	8 SMUD	0	0	0	0	0	0	0
	9 Clay WD	0	0	0	0	0	0	0
	31 Foothills South	0	0	0	0	0	0	0
		3,371	**2,529**	**3,371**	**5,186**	**6,478**	**7,539**	**8,647**
	TOTAL	**22,491**	**16,928**	**27,859**	**48,863**	**79,771**	**125,150**	**133,355**

Note: Quantity of groundwater requiring treatment is based on quantity of existing and projected municipal groundwater pumping in areas with groundwater level declines (from pre-development conditions) exceeding 80 feet in the South Sacramento and Galt areas..

TABLE 21.
CAPITAL COSTS OF TREATMENT PLANTS
(IRON AND MANGANESE TREATMENT)

County Area	Subregion	BASELINE CONDITIONS					
		1990 (cons.) ($M)	1990 ($M)	2000 ($M)	2010 ($M)	2020 ($M)	2030 ($M)
North Sacramento	1 North Sacramento POU	0.0	0.0	0.0	0.0	0.0	0.0
	14 Citizens Utilities	0.0	0.0	0.0	0.0	0.0	0.0
	17 Fair Oaks WD	0.0	0.0	0.0	0.0	0.0	0.0
	18 Orangevale WD	0.0	0.0	0.0	0.0	0.0	0.0
	19 San Juan	0.0	0.0	0.0	0.0	0.0	0.0
	20 Carmichael	0.0	0.0	0.0	0.0	0.0	0.0
	21 Citrus Heights	0.0	0.0	0.0	0.0	0.0	0.0
	22 Northridge	0.0	0.0	0.0	0.0	0.0	0.0
	24 McClellan AFB	0.0	0.0	0.0	0.0	0.0	0.0
	25 Arcade WD	0.0	0.0	0.0	0.0	0.0	0.0
	26 Rio Linda	0.0	0.0	0.0	0.0	0.0	0.0
	27 Natomas Mutual	0.0	0.0	0.0	0.0	0.0	0.0
	28 Metro Airport	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
South Sacramento	2 South Sacramento POU	10.6	23.4	32.4	46.2	62.6	65.7
	3 Zone 40	7.6	10.8	32.3	65.6	97.5	104.2
	4 Southwest	0.0	0.0	0.0	0.0	0.0	0.0
	10 Omochumne-Hartnell	0.0	0.0	0.0	0.0	0.0	0.0
	11 Rancho Murieta	0.0	0.0	0.0	0.0	0.0	0.0
	12 Sunrise "A"	0.0	0.0	0.0	0.0	10.9	12.2
	13 Sunrise "B"	0.0	0.0	0.0	0.0	11.2	11.4
	15 City of Folsom	0.0	0.0	0.0	0.0	0.0	0.0
	16 Arden Cordova	0.0	0.0	0.0	0.0	0.0	0.0
	23 SCWMD	0.0	0.0	0.0	0.0	0.0	0.0
	29 Courtland Area	0.0	0.0	0.0	0.0	0.0	0.0
	30 Foothills North	0.0	0.0	0.0	0.0	0.0	0.0
		18.2	**34.2**	**64.7**	**111.8**	**182.2**	**193.5**
Galt	5 Galt ID	0.0	0.0	0.0	0.0	0.0	0.0
	6 Cityof Galt	2.3	3.7	6.6	8.6	10.3	12.1
	7 OFSCU	0.0	0.0	0.0	0.0	0.0	0.0
	8 SMUD	0.0	0.0	0.0	0.0	0.0	0.0
	9 Clay WD	0.0	0.0	0.0	0.0	0.0	0.0
	31 Foothills South	0.0	0.0	0.0	0.0	0.0	0.0
		2.3	**3.7**	**6.6**	**8.6**	**10.3**	**12.1**
	TOTAL	**20.5**	**37.9**	**71.3**	**120.4**	**192.5**	**205.5**

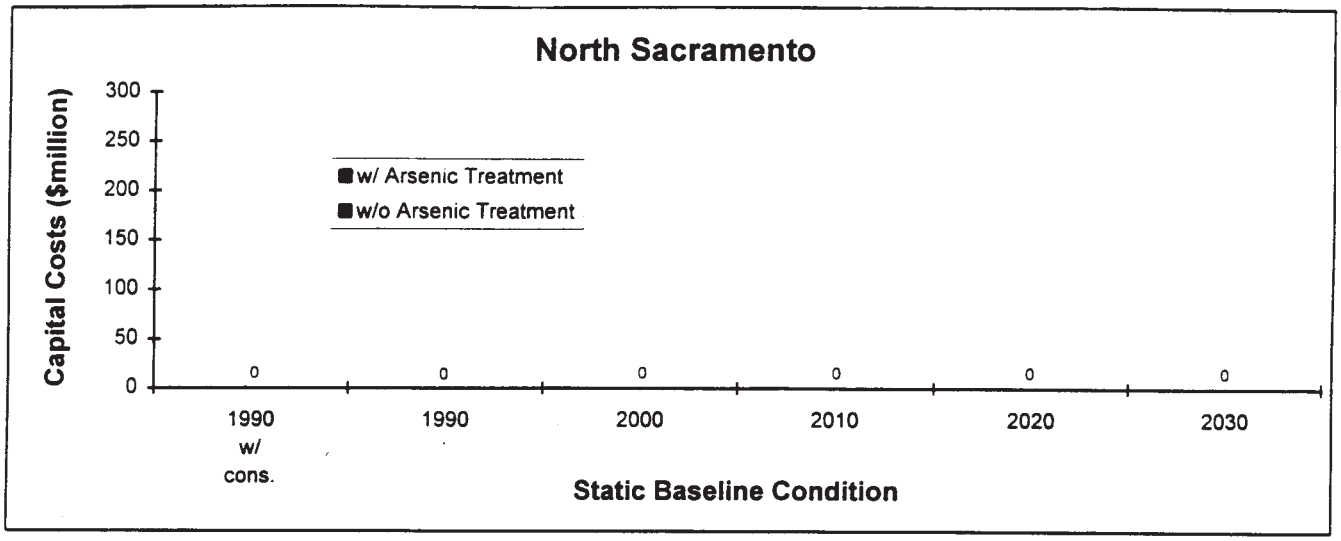
Note: Capital cost based on $8.9 million per treatment plant. Costs include treatment,land, conveyance facilities to distribution system, and 35% engineering, administration and contingency fees.

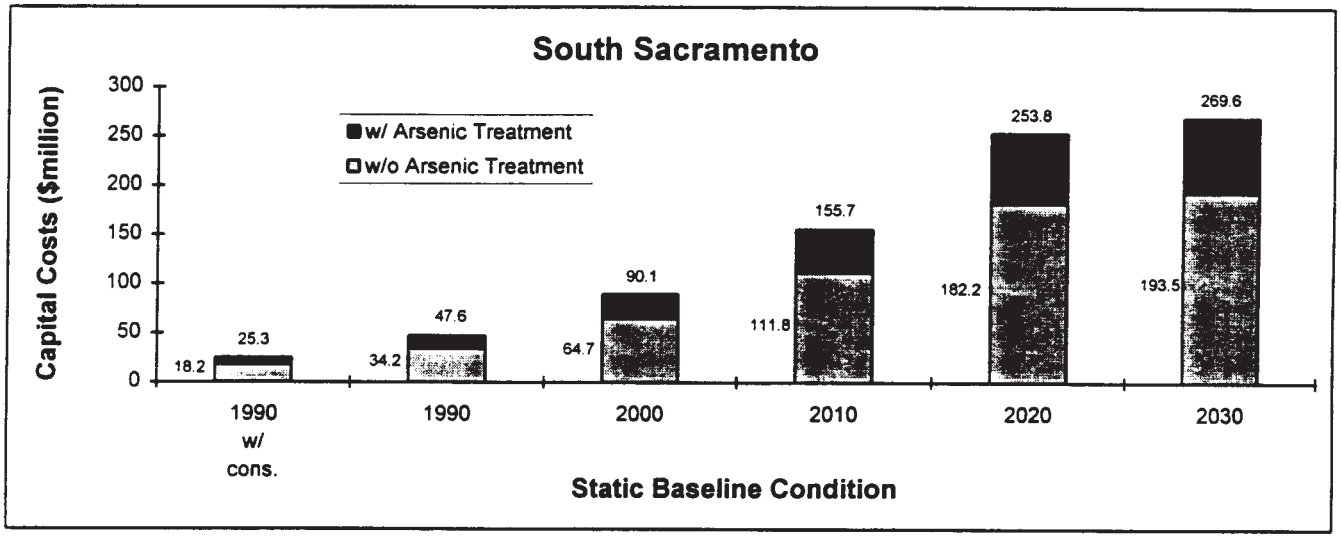
TABLE 22.
CAPITAL COSTS OF TREATMENT PLANTS
(IRON, MANGANESE AND ARSENIC TREATMENT)

County Area	Subregion	BASELINE CONDITIONS					
		1990 (cons.) ($M)	1990 ($M)	2000 ($M)	2010 ($M)	2020 ($M)	2030 ($M)
North Sacramento	1 North Sacramento POU	0.0	0.0	0.0	0.0	0.0	0.0
	14 Citizens Utilities	0.0	0.0	0.0	0.0	0.0	0.0
	17 Fair Oaks WD	0.0	0.0	0.0	0.0	0.0	0.0
	18 Orangevale WD	0.0	0.0	0.0	0.0	0.0	0.0
	19 San Juan	0.0	0.0	0.0	0.0	0.0	0.0
	20 Carmichael	0.0	0.0	0.0	0.0	0.0	0.0
	21 Citrus Heights	0.0	0.0	0.0	0.0	0.0	0.0
	22 Northridge	0.0	0.0	0.0	0.0	0.0	0.0
	24 McClellan AFB	0.0	0.0	0.0	0.0	0.0	0.0
	25 Arcade WD	0.0	0.0	0.0	0.0	0.0	0.0
	26 Rio Linda	0.0	0.0	0.0	0.0	0.0	0.0
	27 Natomas Mutual	0.0	0.0	0.0	0.0	0.0	0.0
	28 Metro Airport	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
South Sacramento	2 South Sacramento POU	14.7	32.6	45.2	64.3	87.2	91.6
	3 Zone 40	10.6	15.0	45.0	91.4	135.8	145.2
	4 Southwest	0.0	0.0	0.0	0.0	0.0	0.0
	10 Omochumne-Hartnell	0.0	0.0	0.0	0.0	0.0	0.0
	11 Rancho Murieta	0.0	0.0	0.0	0.0	0.0	0.0
	12 Sunrise "A"	0.0	0.0	0.0	0.0	15.2	17.0
	13 Sunrise "B"	0.0	0.0	0.0	0.0	15.6	15.8
	15 City of Folsom	0.0	0.0	0.0	0.0	0.0	0.0
	16 Arden Cordova	0.0	0.0	0.0	0.0	0.0	0.0
	23 SCWMD	0.0	0.0	0.0	0.0	0.0	0.0
	29 Courtland Area	0.0	0.0	0.0	0.0	0.0	0.0
	30 Foothills North	0.0	0.0	0.0	0.0	0.0	0.0
		25.3	**47.6**	**90.1**	**155.7**	**253.8**	**269.6**
Galt	5 Galt ID	0.0	0.0	0.0	0.0	0.0	0.0
	6 Cityof Galt	3.3	5.1	9.1	12.0	14.4	16.8
	7 OFSCU	0.0	0.0	0.0	0.0	0.0	0.0
	8 SMUD	0.0	0.0	0.0	0.0	0.0	0.0
	9 Clay WD	0.0	0.0	0.0	0.0	0.0	0.0
	31 Foothills South	0.0	0.0	0.0	0.0	0.0	0.0
		3.3	**5.1**	**9.1**	**12.0**	**14.4**	**16.8**
	TOTAL	**28.6**	**52.8**	**99.3**	**167.7**	**268.2**	**286.4**

Note: Capital cost based on $12.4 million per treatment plant. Costs include treatment,land, conveyance facilities to distribution system, and 35% engineering, administration and contingency fees.

FIGURE 13. CAPITAL COSTS OF TREATMENT PLANTS





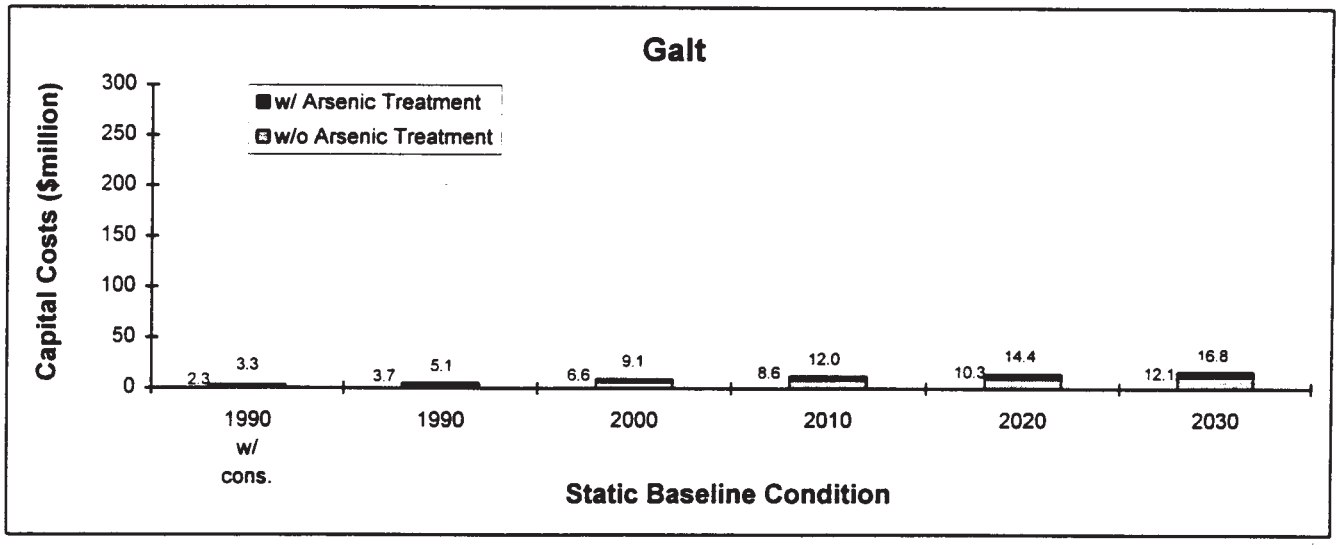


TABLE 23.
0&M COSTS OF TREATMENT PLANTS

County Area	Subregion	BASELINE CONDITIONS					
		1990 (cons.) ($M/Yr)	1990 ($M/Yr)	2000 ($M/Yr)	2010 ($M/Yr)	2020 ($M/Yr)	2030 ($M/Yr)
North Sacramento	1 North Sacramento POU	0.0	0.0	0.0	0.0	0.0	0.0
	14 Citizens Utilities	0.0	0.0	0.0	0.0	0.0	0.0
	17 Fair Oaks WD	0.0	0.0	0.0	0.0	0.0	0.0
	18 Orangevale WD	0.0	0.0	0.0	0.0	0.0	0.0
	19 San Juan	0.0	0.0	0.0	0.0	0.0	0.0
	20 Carmichael	0.0	0.0	0.0	0.0	0.0	0.0
	21 Citrus Heights	0.0	0.0	0.0	0.0	0.0	0.0
	22 Northridge	0.0	0.0	0.0	0.0	0.0	0.0
	24 McClellan AFB	0.0	0.0	0.0	0.0	0.0	0.0
	25 Arcade WD	0.0	0.0	0.0	0.0	0.0	0.0
	26 Rio Linda	0.0	0.0	0.0	0.0	0.0	0.0
	27 Natomas Mutual	0.0	0.0	0.0	0.0	0.0	0.0
	28 Metro Airport	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
South Sacramento	2 South Sacramento POU	0.7	1.6	2.2	3.1	4.2	4.4
	3 Zone 40	0.5	0.7	2.2	4.4	6.6	7.0
	4 Southwest	0.0	0.0	0.0	0.0	0.0	0.0
	10 Omochumne-Hartnell	0.0	0.0	0.0	0.0	0.0	0.0
	11 Rancho Murieta	0.0	0.0	0.0	0.0	0.0	0.0
	12 Sunrise "A"	0.0	0.0	0.0	0.0	0.7	0.8
	13 Sunrise "B"	0.0	0.0	0.0	0.0	0.8	0.8
	15 City of Folsom	0.0	0.0	0.0	0.0	0.0	0.0
	16 Arden Cordova	0.0	0.0	0.0	0.0	0.0	0.0
	23 SCWMD	0.0	0.0	0.0	0.0	0.0	0.0
	29 Courtland Area	0.0	0.0	0.0	0.0	0.0	0.0
	30 Foothills North	0.0	0.0	0.0	0.0	0.0	0.0
		1.2	**2.3**	**4.4**	**7.5**	**12.3**	**13.0**
Galt	5 Galt ID	0.0	0.0	0.0	0.0	0.0	0.0
	6 Cityof Galt	0.2	0.2	0.4	0.6	0.7	0.8
	7 OFSCU	0.0	0.0	0.0	0.0	0.0	0.0
	8 SMUD	0.0	0.0	0.0	0.0	0.0	0.0
	9 Clay WD	0.0	0.0	0.0	0.0	0.0	0.0
	31 Foothills South	0.0	0.0	0.0	0.0	0.0	0.0
		0.2	**0.2**	**0.4**	**0.6**	**0.7**	**0.8**
	TOTAL	**1.4**	**2.6**	**4.8**	**8.1**	**13.0**	**13.9**

Note: Annual operation and maintenence costs are based on $600,000 per treatment plant. Costs include chemicals, energy and labor.

Land subsidence due to declining groundwater levels is controlled by the complex interaction of many factors. After more than forty years of precise studies by the U.S. Geological Survey (USGS) and the California Department of Water Resources (DWR), the complex interrelationships between hydraulic head decline, aquifer-system compaction, and subsidence are fairly well understood. For the Sacramento County area, the following findings of these efforts are of importance:

(1) There is a definite correlation between subsidence and water level decline.

(2) The subsidence of the land surface results from the compaction of all underlying formations affected by the head decline.

(3) Three factors determine the amount of compaction that will occur, for either an individual bed or the entire aquifer system:

- thickness of the compacting interval;
- compressibility of the compacting interval; and
- magnitude of the applied stress.

(4) Consolidation of water-yielding formations, which leads to subsidence, can either be elastic or inelastic. In the case of elastic consolidation, full volumetric recovery of the formation occurs, resulting in zero net land subsidence. For cases of inelastic consolidation, the formation will undergo a permanent volumetric reduction as water is expelled from the fine-grained deposits and the voids containing the water close, resulting in permanent land subsidence.

5.3 Historical Land Subsidence in Sacramento County

Excessive groundwater pumping for irrigation has resulted in widespread land subsidence in the Central Valley since the 1920's. The U.S. Geological Survey subsidence research group have carried out field studies in several subsiding areas in California, and their measurements provide confirmation of the interrelationships between hydraulic head declines, aquitard compaction, and land subsidence. Figure 17 shows the major areas that have subsided in the Central Valley. As indicated in Figure 17, land subsidence in the San Joaquin Valley is more widespread and more severe than in the Sacramento Valley. In the Sacramento Valley the most significant observed land subsidence has occurred in Yolo and Colusa Counties, with land subsidence levels of up to 3.5 feet. In areas east of Zamora

TABLE 24.
TOTAL CAPITAL COSTS
(IRON AND MANGANESE TREATMENT)

County Area	Subregion	Static Baseline Condition					
		1990 (w/ cons.) ($M)	1990 ($M)	2000 ($M)	2010 ($M)	2020 ($M)	2030 ($M)
North Sacramento	1 North Sacramento POU	0.78	0.78	1.56	1.80	1.80	1.80
	14 Citizens Utilities	0.39	0.78	1.17	1.95	1.95	1.95
	17 Fair Oaks WD	0.39	0.39	0.39	0.39	0.78	0.78
	18 Orangevale WD	0.00	0.00	0.00	0.00	0.00	0.00
	19 San Juan	0.00	0.00	0.00	0.00	0.00	0.00
	20 Carmichael	0.00	0.00	0.00	0.00	0.00	0.00
	21 Citrus Heights	0.39	0.39	0.78	1.17	1.56	1.56
	22 Northridge	0.00	0.78	1.56	1.95	2.34	2.34
	24 McClellan AFB	0.00	0.00	0.00	0.00	0.00	0.00
	25 Arcade WD	0.00	0.39	0.39	0.78	0.78	0.78
	26 Rio Linda	0.00	0.00	0.61	0.61	0.61	0.61
	27 Natomas Mutual	0.00	0.00	0.00	0.00	0.00	0.00
	28 Metro Airport	0.00	0.00	0.00	0.00	0.00	0.00
	Subtotal:	**1.95**	**3.51**	**6.46**	**8.65**	**9.82**	**9.82**
South Sacramento	2 South Sacramento POU	11.35	24.21	33.58	47.81	64.96	68.14
	3 Zone 40	7.59	10.76	35.87	72.55	114.54	123.46
	4 Southwest	0.00	0.00	1.02	2.82	5.93	5.93
	10 Omochumne-Hartnell	0.00	0.00	0.00	0.00	0.47	0.47
	11 Rancho Murieta	0.00	0.00	0.00	0.00	0.00	0.00
	12 Sunrise "A"	0.00	0.00	0.00	0.00	11.40	12.65
	13 Sunrise "B"	0.00	0.00	0.00	0.00	11.22	11.36
	15 City of Folsom	0.00	0.00	0.00	0.00	0.00	0.00
	16 Arden Cordova	0.39	0.39	0.39	0.39	0.39	0.39
	23 SCWMD	0.00	0.00	0.00	0.00	0.00	0.00
	29 Courtland Area	0.00	0.00	0.00	0.00	0.00	0.00
	30 Foothills North	0.00	0.00	0.00	0.00	1.22	1.22
	Subtotal:	**19.33**	**35.36**	**70.86**	**123.57**	**210.12**	**223.62**
Galt	5 Galt ID	0.00	0.00	0.00	1.68	1.83	2.62
	6 Cityof Galt	3.12	4.46	8.13	10.18	12.02	13.78
	7 OFSCU	0.00	0.00	0.00	0.15	0.85	0.85
	8 SMUD	0.00	0.00	0.00	0.00	0.00	0.00
	9 Clay WD	0.00	0.00	0.00	0.00	0.00	0.00
	31 Foothills South	0.00	0.00	0.00	0.00	0.00	0.00
	Subtotal:	**3.12**	**4.46**	**8.13**	**12.01**	**14.70**	**17.25**
	TOTAL:	**24.40**	**43.33**	**85.45**	**144.23**	**234.64**	**250.69**

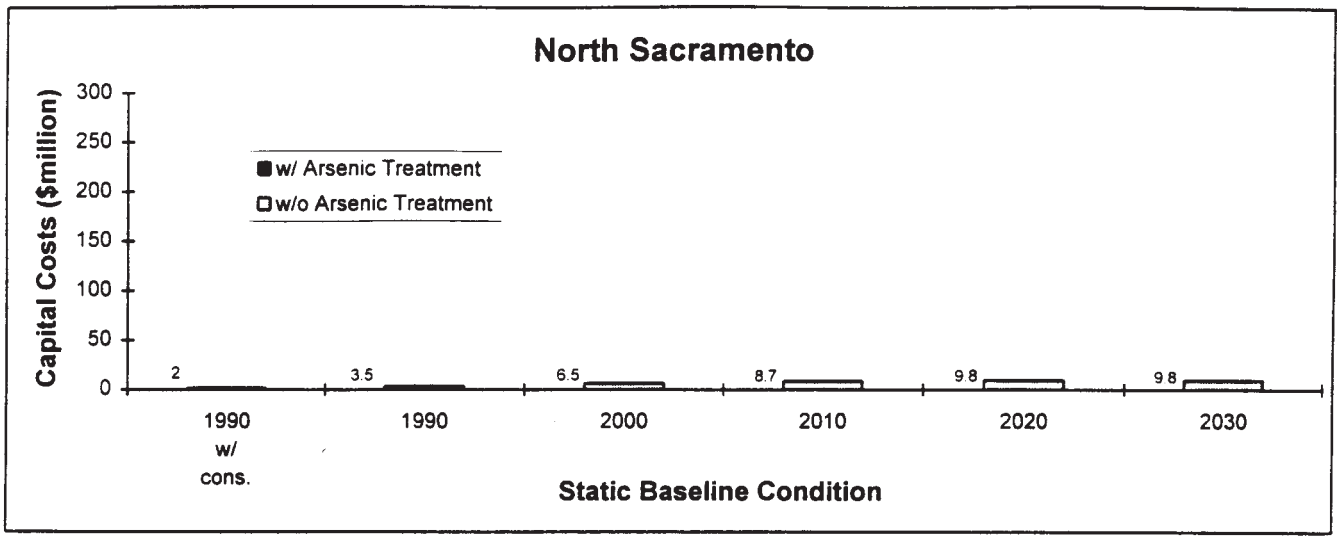
Notes: (1) Total capital costs include well replacement costs and treatment facility costs.

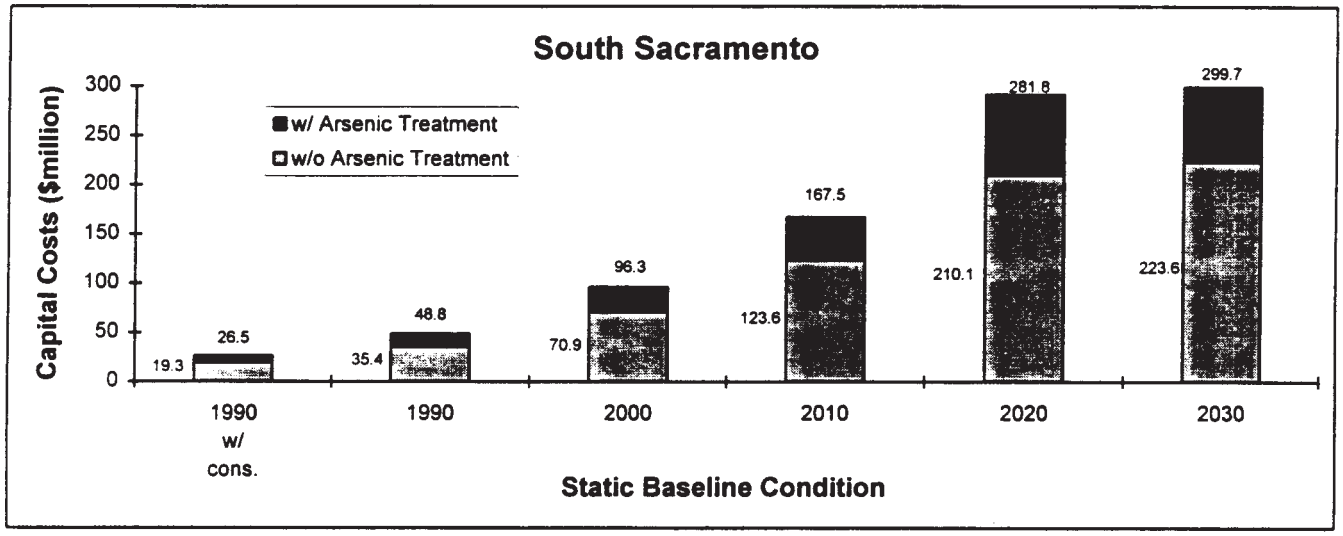
TABLE 25.
TOTAL CAPITAL COSTS
(IRON, MANGANESE AND ARSENIC TREATMENT)

County Area	Subregion	Static Baseline Condition					
		1990 (w/ cons.) ($M)	1990 ($M)	2000 ($M)	2010 ($M)	2020 ($M)	2030 ($M)
North Sacramento	1 North Sacramento POU	0.78	0.78	1.56	1.80	1.80	1.80
	14 Citizens Utilities	0.39	0.78	1.17	1.95	1.95	1.95
	17 Fair Oaks WD	0.39	0.39	0.39	0.39	0.78	0.78
	18 Orangevale WD	0.00	0.00	0.00	0.00	0.00	0.00
	19 San Juan	0.00	0.00	0.00	0.00	0.00	0.00
	20 Carmichael	0.00	0.00	0.00	0.00	0.00	0.00
	21 Citrus Heights	0.39	0.39	0.78	1.17	1.56	1.56
	22 Northridge	0.00	0.78	1.56	1.95	2.34	2.34
	24 McClellan AFB	0.00	0.00	0.00	0.00	0.00	0.00
	25 Arcade WD	0.00	0.39	0.39	0.78	0.78	0.78
	26 Rio Linda	0.00	0.00	0.61	0.61	0.61	0.61
	27 Natomas Mutual	0.00	0.00	0.00	0.00	0.00	0.00
	28 Metro Airport	0.00	0.00	0.00	0.00	0.00	0.00
	Subtotal:	**1.95**	**3.51**	**6.46**	**8.65**	**9.82**	**9.82**
South Sacramento	2 South Sacramento POU	15.51	33.43	46.33	65.97	89.56	93.99
	3 Zone 40	10.57	14.99	48.56	98.34	152.87	164.43
	4 Southwest	0.00	0.00	1.02	2.82	5.93	5.93
	10 Omochumne-Hartnell	0.00	0.00	0.00	0.00	0.47	0.47
	11 Rancho Murieta	0.00	0.00	0.00	0.00	0.00	0.00
	12 Sunrise "A"	0.00	0.00	0.00	0.00	15.70	17.45
	13 Sunrise "B"	0.00	0.00	0.00	0.00	15.63	15.83
	15 City of Folsom	0.00	0.00	0.00	0.00	0.00	0.00
	16 Arden Cordova	0.39	0.39	0.39	0.39	0.39	0.39
	23 SCWMD	0.00	0.00	0.00	0.00	0.00	0.00
	29 Courtland Area	0.00	0.00	0.00	0.00	0.00	0.00
	30 Foothills North	0.00	0.00	0.00	0.00	1.22	1.22
	Subtotal:	**26.47**	**48.81**	**96.30**	**167.52**	**281.77**	**299.70**
Galt	5 Galt ID	0.00	0.00	0.00	1.68	1.83	2.62
	6 Cityof Galt	4.05	5.91	10.71	13.57	16.07	18.52
	7 OFSCU	0.00	0.00	0.00	0.15	0.85	0.85
	8 SMUD	0.00	0.00	0.00	0.00	0.00	0.00
	9 Clay WD	0.00	0.00	0.00	0.00	0.00	0.00
	31 Foothills South	0.00	0.00	0.00	0.00	0.00	0.00
	Subtotal:	**4.05**	**5.91**	**10.71**	**15.40**	**18.75**	**21.99**
	TOTAL:	**32.46**	**58.23**	**113.47**	**191.57**	**310.34**	**331.52**

Notes: (1) Total capital costs include well replacement costs and treatment facility costs.

FIGURE 14. IMPACTS SUMMARY: CAPITAL COSTS





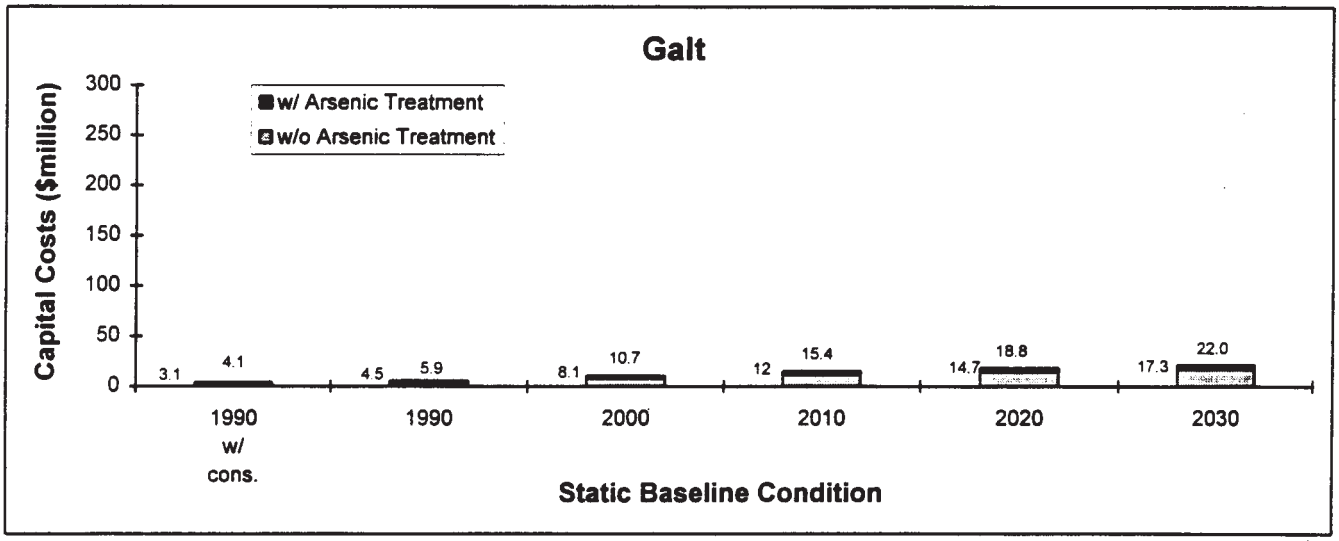


TABLE 26.
TOTAL ANNUAL COSTS
(IRON AND MANGANESE TREATMENT)

County Area	Subregion	BASELINE CONDITIONS					
		1990 (cons.) ($M/Yr)	1990 ($M/Yr)	2000 ($M/Yr)	2010 ($M/Yr)	2020 ($M/Yr)	2030 ($M/Yr)
North Sacramento	1 North Sacramento POU	0.03	0.13	0.19	0.22	0.23	0.23
	14 Citizens Utilities	0.05	0.11	0.17	0.28	0.33	0.33
	17 Fair Oaks WD	0.03	0.03	0.03	0.03	0.07	0.07
	18 Orangevale WD	0.01	0.01	0.01	0.00	0.00	0.00
	19 San Juan	0.00	0.00	0.00	0.01	0.01	0.01
	20 Carmichael	0.00	0.00	0.01	0.01	0.01	0.01
	21 Citrus Heights	0.03	0.03	0.07	0.10	0.14	0.14
	22 Northridge	-0.01	0.09	0.17	0.21	0.25	0.25
	24 McClellan AFB	0.00	0.01	0.01	0.01	0.01	0.01
	25 Arcade WD	0.00	0.04	0.05	0.09	0.09	0.09
	26 Rio Linda	0.03	0.07	0.12	0.12	0.11	0.11
	27 Natomas Mutual	0.02	0.02	0.02	0.02	0.01	0.01
	28 Metro Airport	0.00	0.00	0.00	0.00	0.00	0.00
		0.19	**0.55**	**0.85**	**1.10**	**1.26**	**1.27**
South Sacramento	2 South Sacramento POU	1.61	3.55	4.93	7.03	9.56	10.05
	3 Zone 40	1.18	1.74	5.25	10.50	16.35	17.59
	4 Southwest	0.06	0.09	0.22	0.50	0.89	0.91
	10 Omochumne-Hartnell	0.02	0.03	0.02	0.03	0.09	0.09
	11 Rancho Murieta	0.00	0.00	0.00	0.00	0.00	0.00
	12 Sunrise "A"	0.00	0.02	0.02	0.03	1.73	1.92
	13 Sunrise "B"	0.00	0.01	0.01	0.03	1.73	1.75
	15 City of Folsom	0.00	0.00	0.00	0.00	0.00	0.00
	16 Arden Cordova	0.03	0.03	0.04	0.05	0.06	0.06
	23 SCWMD	0.00	0.00	0.00	0.01	0.01	0.01
	29 Courtland Area	0.03	0.04	0.05	0.06	0.08	0.08
	30 Foothills North	0.00	0.00	0.00	0.00	0.10	0.10
		2.93	**5.51**	**10.53**	**18.23**	**30.61**	**32.56**
Galt	5 Galt ID	0.12	0.15	0.16	0.38	0.47	0.56
	6 Cityof Galt	0.41	0.61	1.10	1.41	1.68	1.94
	7 OFSCU	0.03	0.04	0.04	0.10	0.21	0.22
	8 SMUD	0.00	0.00	0.00	0.00	0.00	0.00
	9 Clay WD	0.02	0.02	0.02	0.02	0.03	0.03
	31 Foothills South	0.04	0.05	0.04	0.05	0.05	0.04
		0.61	**0.86**	**1.36**	**1.96**	**2.43**	**2.79**
	TOTAL	**3.73**	**6.92**	**12.74**	**21.29**	**34.30**	**36.62**

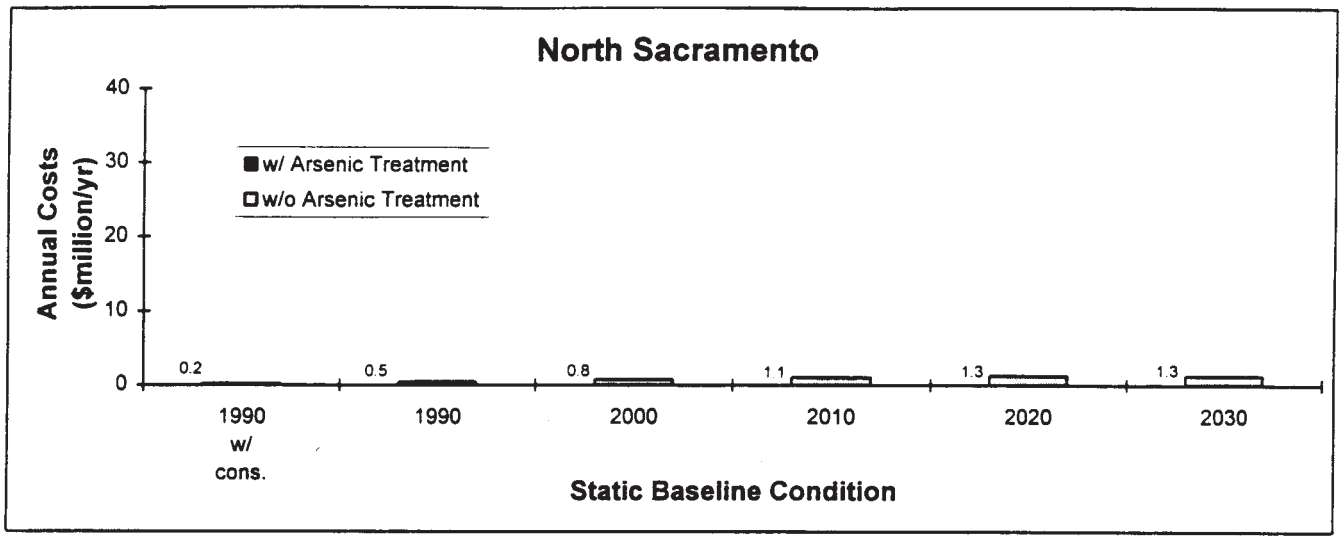
Note: (1) Annual impact costs include annualized capital costs (well replacement and treatment facilities), pumping impact costs, and treatment O&M costs.

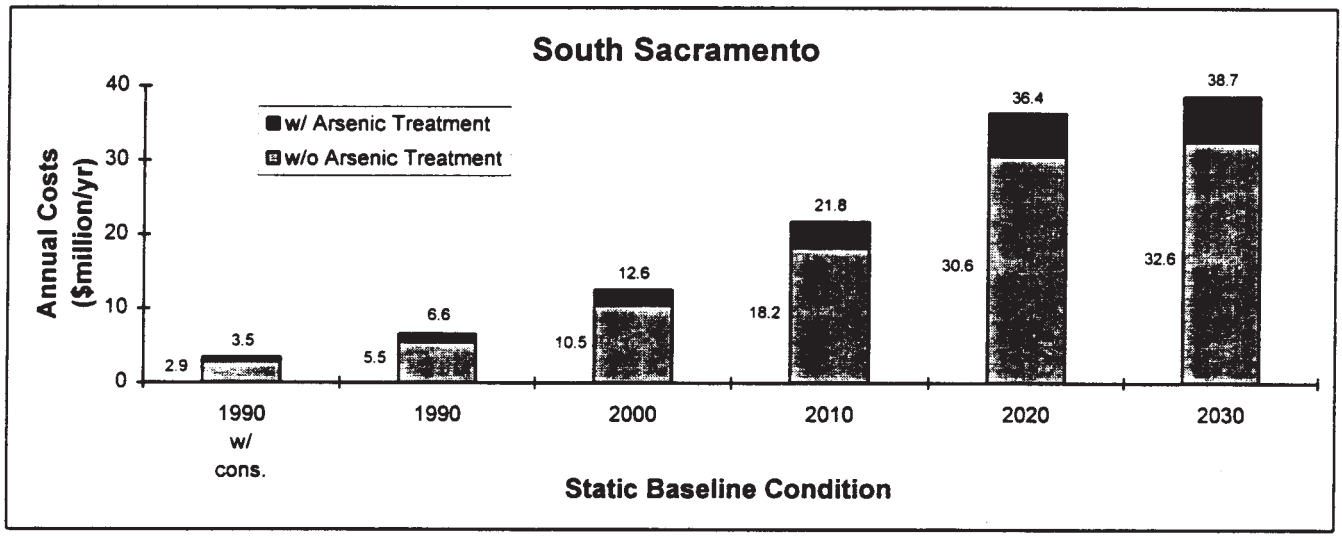
TABLE 27.
TOTAL ANNUAL COSTS
(IRON, MANGANESE AND ARSENIC TREATMENT)

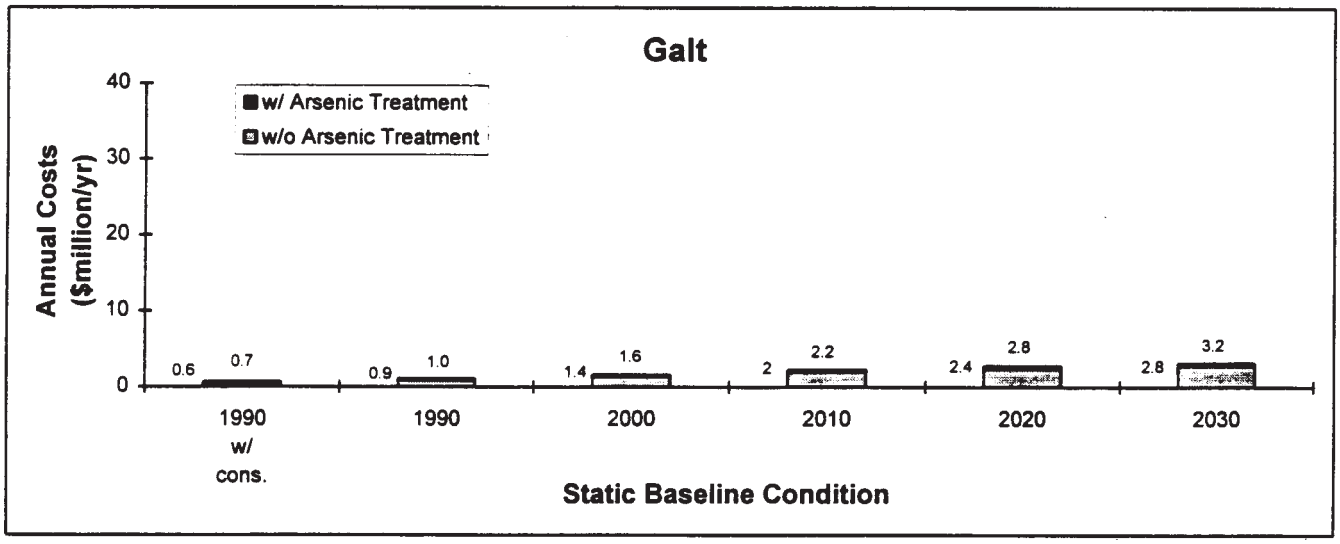
County Area	Subregion	BASELINE CONDITIONS					
		1990 (cons.) ($M/Yr)	1990 ($M/Yr)	2000 ($M/Yr)	2010 ($M/Yr)	2020 ($M/Yr)	2030 ($M/Yr)
North Sacramento	1 North Sacramento POU	0.03	0.13	0.19	0.22	0.23	0.23
	14 Citizens Utilities	0.05	0.11	0.17	0.28	0.33	0.33
	17 Fair Oaks WD	0.03	0.03	0.03	0.03	0.07	0.07
	18 Orangevale WD	0.01	0.01	0.01	0.00	0.00	0.00
	19 San Juan	0.00	0.00	0.00	0.01	0.01	0.01
	20 Carmichael	0.00	0.00	0.01	0.01	0.01	0.01
	21 Citrus Heights	0.03	0.03	0.07	0.10	0.14	0.14
	22 Northridge	-0.01	0.09	0.17	0.21	0.25	0.25
	24 McClellan AFB	0.00	0.01	0.01	0.01	0.01	0.01
	25 Arcade WD	0.00	0.04	0.05	0.09	0.09	0.09
	26 Rio Linda	0.03	0.07	0.12	0.12	0.12	0.11
	27 Natomas Mutual	0.02	0.02	0.02	0.02	0.01	0.01
	28 Metro Airport	0.00	0.00	0.00	0.00	0.00	0.00
		0.19	**0.55**	**0.85**	**1.10**	**1.27**	**1.27**
South Sacramento	2 South Sacramento POU	1.95	4.30	5.96	8.50	11.56	12.15
	3 Zone 40	1.42	2.08	6.28	12.59	19.46	20.91
	4 Southwest	0.06	0.09	0.22	0.50	0.89	0.91
	10 Omochumne-Hartnell	0.02	0.03	0.02	0.03	0.09	0.09
	11 Rancho Murieta	0.00	0.00	0.00	0.00	0.00	0.00
	12 Sunrise "A"	0.00	0.02	0.02	0.03	2.07	2.31
	13 Sunrise "B"	0.00	0.01	0.01	0.03	2.09	2.11
	15 City of Folsom	0.00	0.00	0.00	0.00	0.00	0.00
	16 Arden Cordova	0.03	0.03	0.04	0.05	0.06	0.06
	23 SCWMD	0.00	0.00	0.00	0.01	0.01	0.01
	29 Courtland Area	0.03	0.04	0.05	0.06	0.08	0.08
	30 Foothills North	0.00	0.00	0.00	0.00	0.10	0.10
		3.51	**6.60**	**12.59**	**21.79**	**36.41**	**38.72**
Galt	5 Galt ID	0.12	0.15	0.16	0.38	0.47	0.56
	6 Cityof Galt	0.48	0.72	1.31	1.68	2.00	2.33
	7 OFSCU	0.03	0.04	0.04	0.10	0.21	0.22
	8 SMUD	0.00	0.00	0.00	0.00	0.00	0.00
	9 Clay WD	0.02	0.02	0.02	0.02	0.03	0.03
	31 Foothills South	0.04	0.05	0.04	0.05	0.05	0.04
		0.68	**0.98**	**1.57**	**2.24**	**2.76**	**3.17**
	TOTAL	**4.38**	**8.12**	**15.01**	**25.13**	**40.44**	**43.17**

Note: (1) Annual impact costs include annualized capital costs (well replacement and treatment facilities), pumping impact costs, and treatment O&M costs.

FIGURE 15. IMPACTS SUMMARY: ANNUAL COSTS







and west of Arbuckle, subsidence levels of about four feet has been documented. Because formations of the eastern side of the Sacramento Valley are of older origin than those occurring on the west side, these older formations are generally subject to a greater degree of preconsolidation and are susceptible to less subsidence than other parts of the Sacramento Valley.

Although there are no formal studies or published reports of extensive regional land subsidence in Sacramento County, there are long records of water level changes and recorded ground surface elevations available in the area for interpretation. This investigation of historical land subsidence was conducted using historical water level measurements obtained from DWR and historical bench mark elevation data obtained from the National Geodetic Survey (NGS). The NGS records include repeated first order measurements at different times between 1912 and 1969. These are the most consistent and reliable set of leveling data available for the Sacramento County area. Indications of minor land subsidence were generally observed between the 1912 and the late 1960's for the North, South, and Galt areas of Sacramento County. With few exceptions, land subsidence did not exceed 0.40 feet. The majority of this subsidence occurred from the 1940's to the late 1960's corresponding to downward trends in groundwater levels.

Figure 18 shows a regional NGS leveling network within Sacramento County. Bench mark elevations along several level lines from each of these networks were used to evaluate historical land subsidence in the area (indicated by the thicker black lines). Figure 19 shows leveling profile A-B between the American River and Roseville measured between 1947 and 1969, corresponding to the North Sacramento area. Land subsidence along this leveling line ranged from 0.13 feet to 0.32 feet, with a general decrease in subsidence in a north eastward direction. The maximum land subsidence of 0.32 feet was measured at bench mark L846 located approximately 2 miles northeast of McClellan Air Force Base and bench mark G846 located approximately one mile northeast of the intersection of Greenback Lane and Elkhorn Boulevard. The magnitude of land subsidence along profile A-B begins to decrease approximately ten miles northeast of the American River.

Figure 20 shows leveling profile C-D between the American River and Galt measured between 1947, 1963, and 1967. In the South Sacramento area, between the American River and the Cosumnes River, land subsidence was observed to range between 0.20 feet and 0.40 feet, with increased land subsidence occurring in the vicinity of Elk Grove. The magnitude of land subsidence along profile C-D is at a maximum between Laguna Creek and Galt along the survey line, and decreases gradually in either direction. The Sacramento County area south of Cosumnes River near Galt exhibited land subsidence of 0.35 feet occurring between 1947 and 1967. South of this point observed land subsidence diminished.

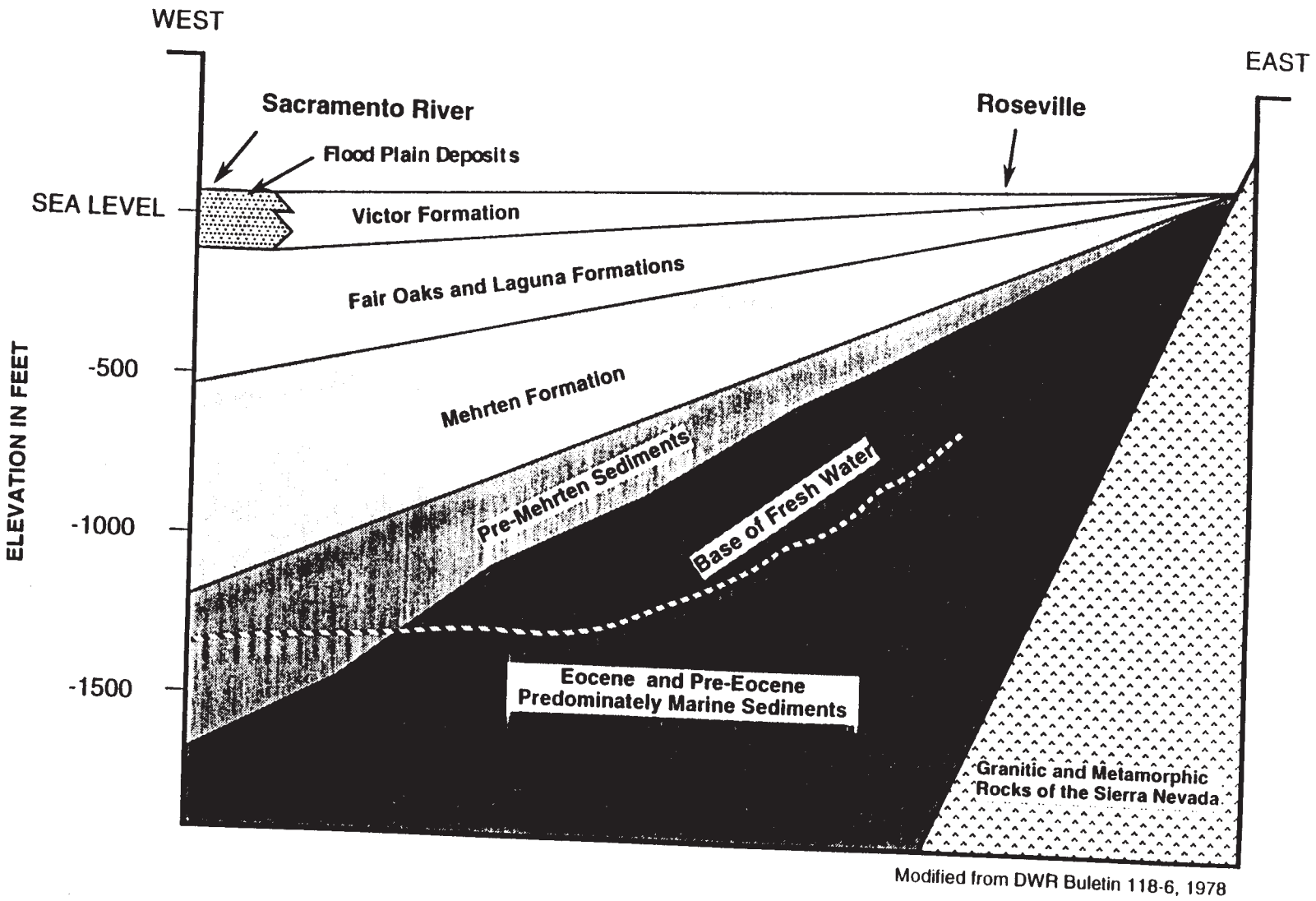


FIGURE 16. GENERALIZED GEOLOGIC CROSS-SECTION OF THE SACRAMENTO VALLEY

In all three areas discussed above land subsidence of similar magnitudes were observed westward towards the Sacramento River. However, evidence of land subsidence decreases towards the eastern Sacramento County area.

Measurement error associated with the NGS data are always present, especially with great differences from the sea-level datum. However, when comparing measurements over time for a given bench mark the potential magnitude of these errors are thousandths of a foot. For this reason, land subsidence estimates are presented here to the nearest hundredth of a foot.

5.4 Potential for Additional Land Subsidence in Sacramento County

As noted earlier the correlation between subsidence and water level decline has been well documented. If data are available, the "compaction-head decline ratio" of the individual fine-grained bed deposits can be calculated and used to predict future subsidence for future head conditions. The absence of these data in the Sacramento County area requires an alternative approach relying on the "subsidence-head decline ratio". This is an approximation of the net effect of all affected beds. This relationship is calculated from observed groundwater head data and observed historical subsidence. For example, if a head decline of 30 feet over a period of years in an area of heavy pumping produced 0.3 foot of subsidence during the same period of time, the calculated ratio is 0.01. This methodology however may underestimate future land subsidence because thick, slow draining aquitards may take years to drain, draining beyond the time of groundwater head decline.

From an analysis of ground elevation measurements and groundwater levels at nearby locations, land subsidence-head decline ratios are developed and used to project additional land subsidence for future declines in groundwater levels. This analysis was conducted for the North and South Sacramento County areas, as well as the Galt area. A single water level measurement and neighboring bench mark elevation observation point were used in each of the three areas. Consequently, the subsidence-head decline ratios are an average representation of conditions in each of these areas.

Figure 21 shows groundwater levels in the North Sacramento area measured at well 9N/5E-21M1 and observed land subsidence at bench mark X9. The relationship between groundwater levels and subsidence is clearly depicted in this figure. Considering a common period of record between the two measurements, groundwater levels decline by 22 feet and the ground surface elevation in the vicinity subsided approximately 0.17 feet. This is a ratio of approximately 0.01 feet of subsidence per foot of drawdown. In reference to the static baseline model results of the Sacramento County groundwater yield analysis (under 2030 Baseline Conditions) a decline of 40 feet in groundwater levels in the north area will result in a potential additional land subsidence of approximately 0.40 feet.

Figure 22 shows groundwater levels in the South Sacramento area measured at well location 6N/5E-10G1 and observed land subsidence at bench mark S9. Again a good correlation between these two measurements is revealed. In this case the ratio of land subsidence to groundwater decline was calculated to be 0.007 feet per foot. Groundwater levels in this area are estimated to decline 100 feet for 2030 Baseline Conditions, resulting in a potential additional land subsidence of 0.70 feet.

Figure 23 shows the subsidence to groundwater level decline ratio for the Galt area, based on data for well 6N/7E-28E1 and measured land subsidence at bench mark Q9. Like the south area, the ratio was estimated to be 0.007 feet of subsidence per foot of groundwater decline. In the Galt area groundwater levels are estimated to decline by approximately 45 feet under 2030 Baseline Conditions. This results in an additional subsidence of 0.32 feet in this area. The 2030 baseline conditions groundwater levels used are representative of minimum groundwater levels in each of the regions.

5.5 Land Subsidence Conclusions

There is an observed correlation between subsidence and water level declines, as depicted in Figures 21, 22, and 23. However, the presence of the older, preconsolidated formations in the Sacramento County area preclude the occurrence of extensive land subsidence. This is supported by historical data showing only minor land subsidence resulting from continued groundwater level declines. The analysis of historical data suggests that additional land subsidence will be minor for 2030 projected groundwater level declines. However, over time the amount of subsidence that results from a given water decline should be greater on the west side of the Sacramento County than on the east because the compacting beds are thicker and probably more compressible.

The greatest impacts resulting from minor land subsidence includes the lowering of flood control levee systems, potentially compromising the integrity of key flood control facilities (the presence of extensive levee systems in the Sacramento County area elevates this level of concern). It is not likely that there would be infrastructure damage to private or public property since historical land subsidence has been minor and regional in nature, and potential additional land subsidence will likely exhibit the same regional trends of minor land subsidence.

In order to monitor potential subsidence (in response to concerns related to the 1991 Drought Water Bank), a subsidence monitoring system has been established in some areas of the Sacramento Valley. The system will gather data to be used to determine subsidence rates and causes. The monitoring system includes a network of monuments and an extensometer. The extensometer detects the amount of compaction of formations from the land surface to a depth of 700 feet and is accurate to 0.001

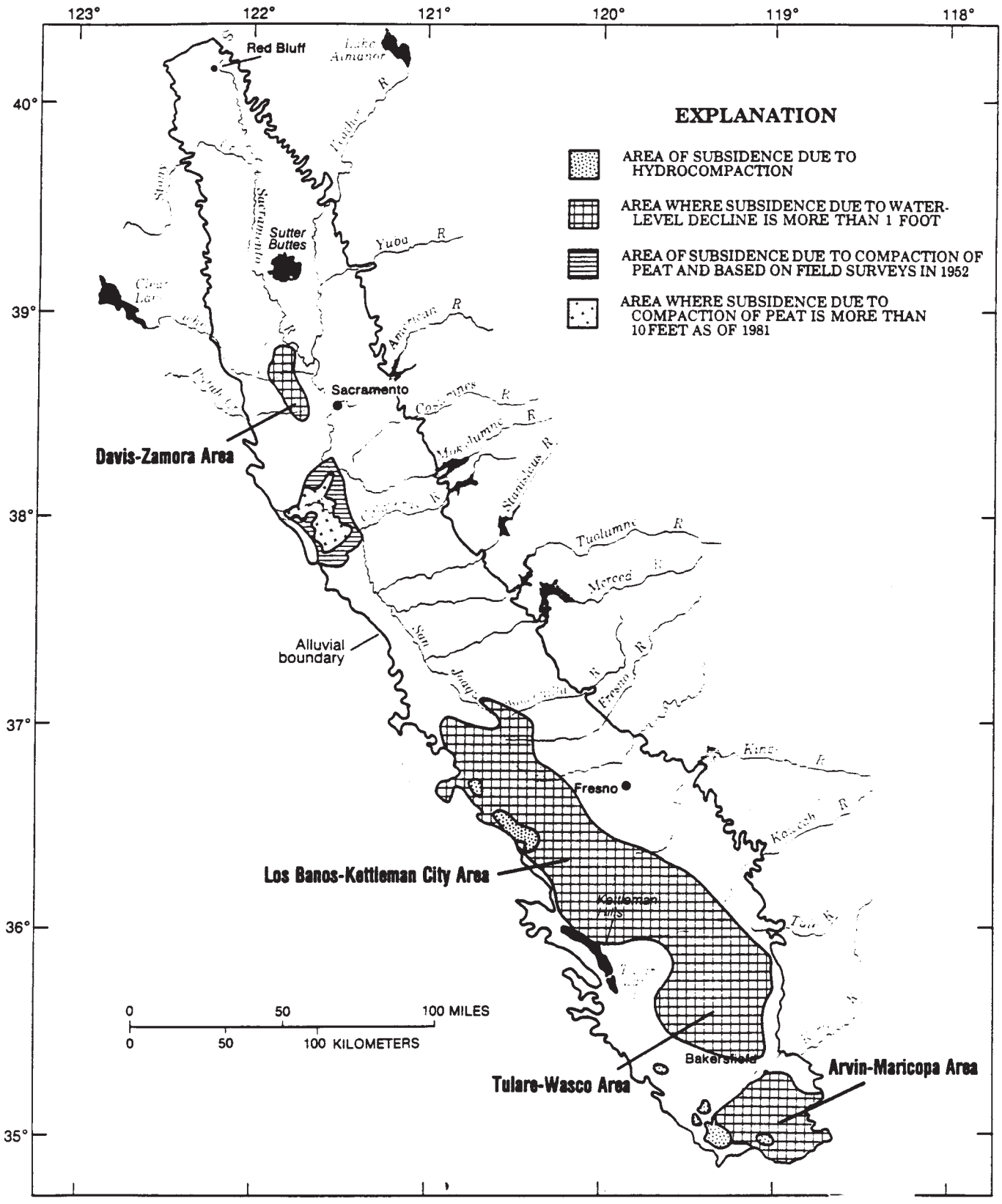


FIGURE 17. AREAS OF HISTORICAL LAND SUBSIDENCE IN THE CENTRAL VALLEY

foot. However, there are presently no extensometers in Sacramento County. If installed in the County area, they could be utilized to monitor future subsidence activity. This can be accomplished by identifying abandoned water wells and retrofitting them with the proper instrumentation.

6.0 GROUNDWATER CONTAMINATION IMPACTS

The purpose of this section is to evaluate the potential impacts that additional groundwater level declines in the County may have on the movement of contaminated groundwater. The following provides (1) a summary of the existing groundwater contamination sites which are of primary concern, and (2) the impacts on the lateral migration of the contaminant plumes under each of the static Baseline Conditions.

6.1 Existing Groundwater Contamination Sites

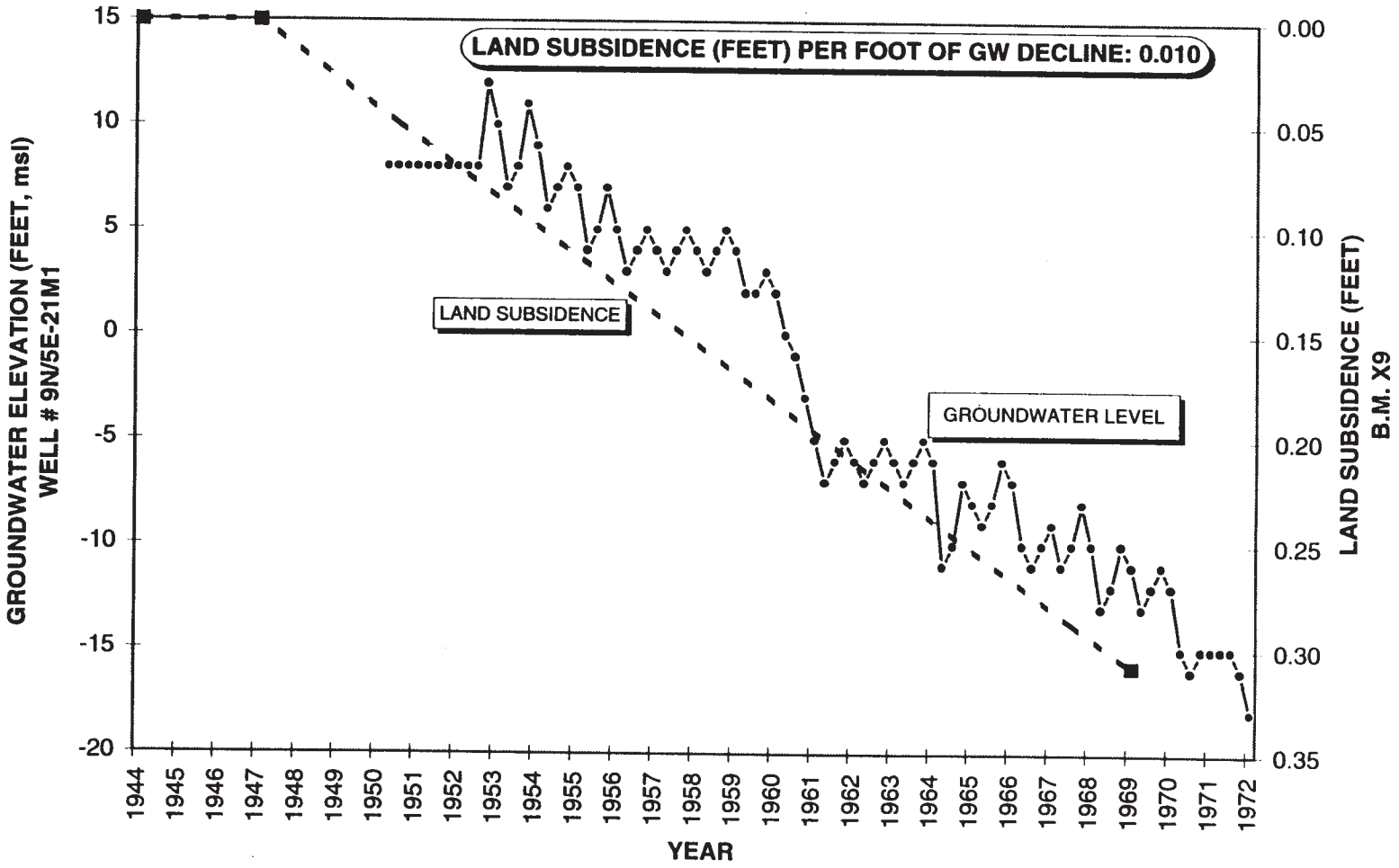
Nine sites within Sacramento County have been identified as major areas with contaminated groundwater, the locations of which are presented in Figure 24. These sites include four EPA Superfund sites - Aerojet, Mather Air Force Base, McClellan Air Force Base, and the Sacramento Army Depot. The remaining sites include the Kiefer Boulevard Landfill, the abandoned PG&E site adjacent to the Sacramento River near Old Sacramento, the Southern Pacific Rail Yards in downtown Sacramento and in Roseville, and the Union Pacific Railroad Yard in downtown Sacramento. All of these sites are in some form of remediation.

Aerojet. Major contaminants at this site include trichloroethylene (TCE), chloroform, 1,2-dichloroethane (1,2-DCA), tetrachloroethylene (PCE), freon 113, dichloromethane, toluene, zinc, lead, barium, arsenic, and 1,1,1-trichloroethane (1,1,1-TCA). The contamination extends 300 to 600 feet into the deep aquifer. The groundwater generally flows to the west and southwest across the site. Groundwater in the northwestern portion of the site flows in a northwest direction. With exception to one area, the plume has been controlled from spreading any further by extraction wells.

Since September of 1990, sixteen drinking water supply wells in the area have been contaminated. Three wells servicing Arden Cordova Water Service have tested positive for TCE. Arden Cordova Water Service lies west of the contamination, and is primarily a groundwater supplier, providing service from 27 full-time wells. Aerojet has installed five groundwater extraction and treatment facilities, or GETs, to intercept groundwater as it moves off-site and control movement of the plume. These GETs are composed of several extraction wells, ranging in depth and various treatment systems, including ultra-violet, activated carbon, and air stripping treatments. Activated carbon treatment

FIGURE 21

LAND SUBSIDENCE AND GROUNDWATER DECLINE NORTH SACRAMENTO COUNTY



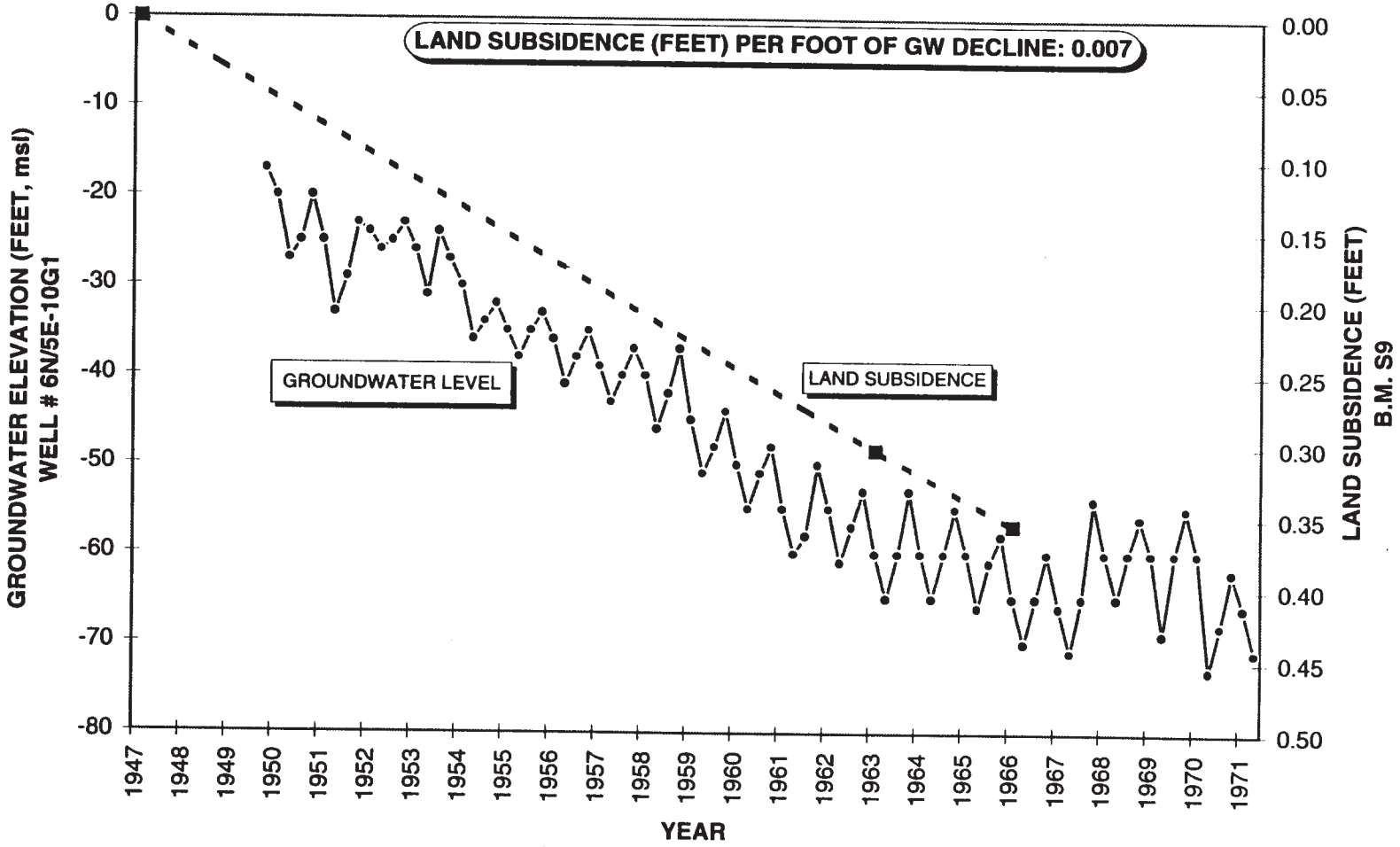
Note: (1) Land subsidence corresponds to ground elevations measured at bench mark X9. Groundwater levels correspond to well number 9N/5E-21M1.

systems are being applied to the contaminated wells servicing Arden Cordova Water Service. Aerojet is currently evaluating the short-term effectiveness of the existing GET facilities. Interim remedial measures include provisions of bottled water to property owners, excavation of contaminated soil for off-site disposal, use of air stripping and activated carbon treatments, and monitoring of groundwater. Aerojet is conducting a comprehensive Remedial Investigation/Feasibility Study. As of June 1993, Phase I was ongoing at the site. More monitoring and extraction wells will be constructed to further the effectiveness of the GET facilities. A new GET facility on the north side of the American River, west of Hazel Avenue, is planned to be constructed to control a plume which has moved off-site underneath the American River, near fish hatchery property. A carbon adsorption treatment system with extraction wells and a groundwater reinjection program will be used at this GET facility, and negotiations are ongoing concerning modifications to the design of the treatment facilities.

Mather Air Force Base. Major contaminants include TCE, PCE, 1,1-dichloroethylene (1,1-DCE), cis-1, 2-DCE, carbon tetrachloride, methylene chloride, benzene, dichloropropane, vinyl chloride, xylene, chlorobenzene, ethylbenzene, toluene, chloroform, and lead. The contamination extends 280 feet deep, and may extend into the deep aquifer. The contamination moves southwest at a rate of 2-2000 feet per year. Three contaminant plumes have been identified at Mather AFB, known as Aircraft Control and Warning (AC&W), Site 7, and the Main Base Area. AC&W is the only plume to date that has been completely defined and has begun remediation. Site 7 extends approximately one mile off base to the southwest.

Recent studies suggest that contaminants have extended a significant distance beyond the Mather AFB property boundary. Both the Main Base plume and the Site 7 plume extend off-base. Domestic wells northwest of the base have been contaminated, and are no longer in use. A new area of contamination northeast of Mather AFB has been discovered, but there is no evidence to show the source of contamination, therefore Mather AFB is not taking any remedial action towards the site. Potential impacts to nearby wells include Citizens Utility Company, which services approximately 60,000 people living within a 3 mile radius of the base and depend on groundwater as their main source of drinking water supplies. Groundwater is being monitored on and off the base to determine the extent of contamination, and possible remediation measures are being evaluated, which include potable reuse, groundwater recharge by surface spreading, and groundwater recharge by injection. Seventy-six monitoring wells have been installed at depths from 82 to 280 feet. Four separate Installation Restoration Programs (IRPs) have been completed at Mather AFB to identify and evaluate the extent of soil and groundwater contamination. Remediation for the AC&W plume includes groundwater recharge by injection of extracted treated groundwater. A Remedial Investigation, Feasibility Study, and Preliminary Design Investigation have been completed for the AC&W site. The 2

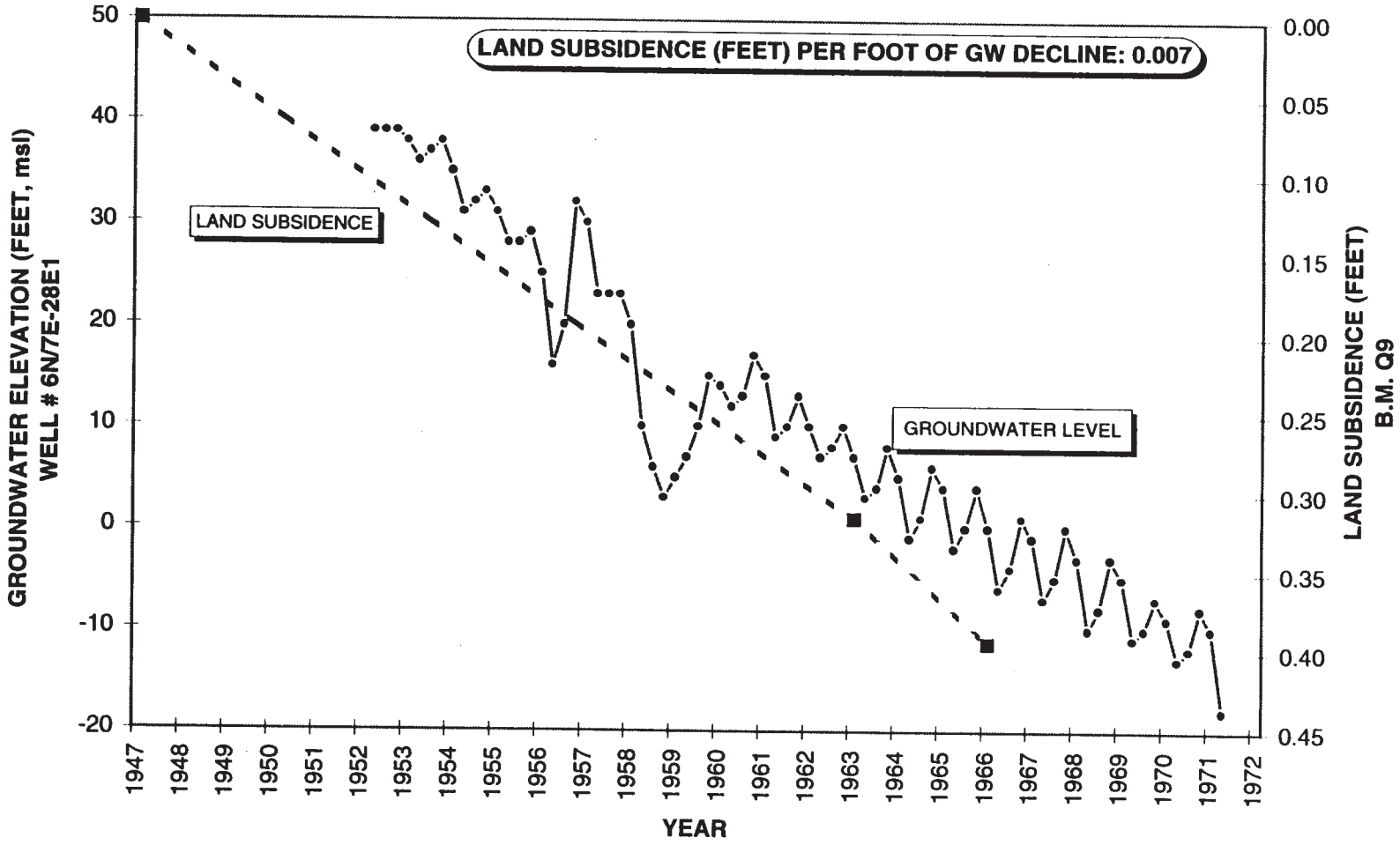
FIGURE 22
LAND SUBSIDENCE AND GROUNDWATER DECLINE
SOUTH SACRAMENTO COUNTY, NEAR ELK GROVE



Note: (1) Land subsidence corresponds to ground elevations measured at bench mark S9. Groundwater levels correspond to well number 6N/5E-10G1.

FIGURE 23

LAND SUBSIDENCE AND GROUNDWATER DECLINE SOUTH SACRAMENTO COUNTY, NEAR GALT



Note: (1) Land subsidence corresponds to ground elevations measured at bench mark Q9. Groundwater levels correspond to well number 6N/7E-28E1.

remaining plumes are anticipated to begin remediation in the middle of 1996.

McClellan Air Force Base. Major contaminants include TCE, 1,1-DCE, 1,2-DCA, vinyl chloride, methylene chloride, PCE, chloroform, 1,1,1-TCA, cadmium, chromium, lead, mercury, and thallium. The contaminated plume extends 390 feet below the ground surface, and may have extended into the deep aquifer. The plume flows in a south-southwesterly direction at a rate of 60-300 feet per year.

Solvent products including methylene chloride, bromoform, dibromochloromethane, PCE, dichloroethylene, and TCE have been detected in public and private wells to the west and south of McClellan AFB. Approximately 22,800 people live within a 3 mile radius of the base. Public water agencies to the west and south of the base are the Rio Linda Water District, and the City of Sacramento, respectively. Both agencies use groundwater as a supply source. Currently, a contaminant plume in the southwest corner of the base, migrating in the direction of the cone of depression, is less than 1000 feet from City Well #132. A Groundwater Task Force comprised of Air Force, local, state, and federal agencies monitors 400 wells on and off the base to define the extent and movement of the plume. Some wells are used for extraction to control the movement of the contaminants. As of September 1990, 59 underground storage tanks have been removed and 548 off-base residences have been provided with connection to City and County Water Supplies. In the northwest area of the base, contaminated soil was removed on an 11 acre site. A seal cap was installed over the site to eliminate vertical migration of contaminants. A groundwater treatment facility designed, constructed and operated by Metcalf and Eddy Inc. was put on line to remove organic chemicals and metals. It utilizes several methods of treatment: air stripping, incineration, activated carbon filters, and biological treatment. Currently the facility pumps 200 gpm, but has a capacity for 1500 gpm. An ongoing Remedial Investigation/Feasibility Study, which began in 1979, includes groundwater sampling and analysis, construction of 400 feet deep monitoring wells, and evaluation of other remediation measures. McClellan AFB, local water agencies and the Department of Health Services are discussing alternative uses for treated water. McClellan AFB is also working with CH2M Hill to develop a program and facility for treating greater quantities of water, up to 2000-3000 gpm.

Sacramento Army Depot. Major contaminants include freon 113, TCE, PCE, cis-1,2-DCE, trans-1,2-DCE, 1,2-DCA, and cadmium. The contamination extends 230 feet below the ground surface, and extends into the shallow and intermediate aquifers. The contamination is found in 2 primary plumes located under the central-west and southwest portions of the Depot. The groundwater flows from northeast to southwest.

No domestic wells appear to have been contaminated. Although information about the contaminants

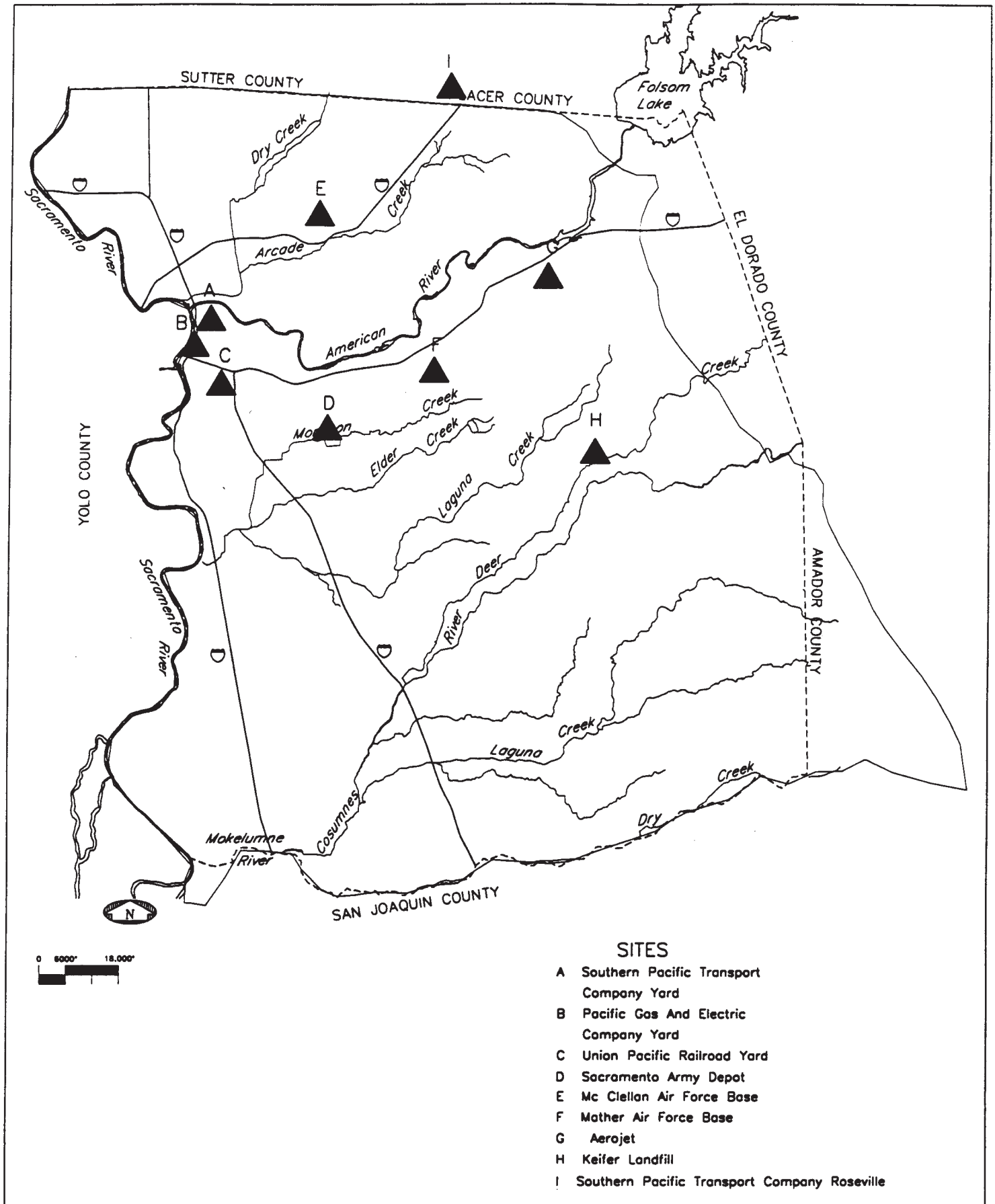


Figure 24. SITES WITH GROUNDWATER CONTAMINATION

in the wells is not available, the plume has not moved into the area where the wells are located. Approximately 50,000 people live within a 3 mile radius of the site. The City of Sacramento supplies water to citizens in the area. Kleinfelder Inc., an environmental/geotechnical engineering consulting firm, was hired by the Depot in 1987 to determine the extent and monitor movement of the contaminant plume. One hundred monitoring wells have been installed on and off the site to date, and occur in 4 zones: 79-107 feet, 110-148 feet, 156-188 feet., and 195-230 feet below the ground surface. In October 1989, 7 groundwater extraction wells and a water treatment system were completed. One well is located in the center of the main TCE plume, and the other 6 extraction wells surround the Depot, controlling contaminant flow past site boundaries. Groundwater is pumped to the treatment plant, hydrogen peroxide is added, and the flow is exposed to ultra-violet light to be decontaminated. Treated wastewater is released to the Sacramento Regional Sanitary Sewer. Under the Installation Restoration Program (conducted by the Department of Defense), the Depot has been quite successful in lessening the extent of contamination. They have anticipated that the site contaminant clean-ups will be completed or in place by the end of 1996.

Kiefer Boulevard Landfill. Major contaminants include TCE, PCE, 1,2-DCE, vinyl chloride, benzene, trichloroethane (TCA), 1,1-DCE, dichlorodifluoromethane, trichloro-fluoromethane, dichloromethane, freon, and chloroform. The contamination extends to 150 feet below the ground surface, and extends to the shallow aquifer. Due to intense pumping and the cone of depression in the Elk Grove area, the plume flows in a west-southwest direction and flows at a rate between 4 and 652 feet per year.

Volatile organic compounds (VOCs) have been detected in several on site wells. In 1993 the RWQCB conducted independent sampling and analyses of 61 agricultural and domestic wells surrounding the landfill and found no VOC contamination related to the contaminant plume. The land in the vicinity of the landfill includes pasture land, irrigated land, and Blodgett Reservoir and Cosumnes River. Twenty-two water supply wells are located within 1 mile of the site. In addition, residents of Rancho Murieta (located east of the site) have expressed concerns over contaminant migration. An Evaluation Monitoring Program (EMP) was implemented at the site in 1987 to determine the extent of the contaminant plumes, as well as the direction and gradients of contaminant flow. Phases I and II of the EMP were completed in June 1992. Phase III is currently being implemented with the objective of defining the off site gradient boundaries of the contaminant plume. In 1992, groundwater monitoring and contamination investigation were ongoing. A Corrective Action Plan and a Work Plan were developed to abate groundwater degradation at the project site and vicinity.

Old PG&E Site. Major contaminants include mainly polycyclic aromatic hydrocarbons (PAH), including benzene and naphthalene. Both carcinogenic and non-carcinogenic PAHs are found at the site, as well as kerosene, gasoline, ethylbenzene, arsenic, phenolic compounds, light aromatic hydrocarbons, and inorganic sulfur and nitrogen compounds. The contamination extends 80 feet below the ground surface, and extends into the shallow aquifer. The plume encompasses an area, which begins at the site and extends 300 - 400 yards off-site in a northern direction, and is approximately 80 - 90 feet wide. The plume flows in a northeasterly direction, and is strongly affected by pumping of the Ranney Collector. The groundwater flows at a rate of approximately 100 feet per year.

There have been no impacts to nearby domestic wells due to the contamination. The Ranney Collector, a large extraction well located approximately 400 feet from the site, draws the contaminated groundwater to it, leaving all other wells unimpacted. No potential well impacts are anticipated assuming the continued pumping of the Ranney Collector. Since 1987, Tetra Tech has been in charge of conducting a Remedial Investigation and developing a remedial action plan. The Ranney Collector has removed some groundwater contaminated with benzene, and soil excavation has been done to remove contaminants. The Feasibility Study recommended on-site remediation of soils containing elevated concentrations of gas plant residues that are migrating to the groundwater and of the groundwater itself. The completed design of an extraction and activated carbon treatment facility is due at the end of February 1995.

Southern Pacific Transport Company (SPTC) - Downtown Sacramento. Major contaminants include 1,1-DCA, cis-1,2-DCE, TCE, vinyl chloride, PCE, 1,1-DCE, and nickel. The contamination extends 65 feet below the ground surface, and extends to the shallow aquifer. The groundwater flows in a southeast and southwest direction.

The City of Sacramento has several drinking water wells nearby and the nearest residential area is 1500 feet north of the site on Bannon Street. In 1987, the Department of Toxic Substances Control and the Regional Water Quality Control Board (RWQCB) ordered SPTC to begin remediation studies. Currently, activities such as well monitoring, cone penetrometer and HydroPunch testing are being conducted to determine the extent of contamination. A remediation plan was approved by the Department of Toxic Substances Control in December 1989, but final remediation was postponed to further classify the contamination on-site. In May 1990, two feet of soil was excavated and disposed of in a hazardous waste landfill. Other on-site remediation measures, including bio-remediation, are being considered.

As part of the Remedial Investigation Activities, 23 new monitoring wells were installed in 1994.

Southern Pacific Transport Company - Roseville. Major contaminants include oil and grease, petroleum hydrocarbons, lead, methylene chloride, TCE, trans-1,2-DCE, acetone, 1,1-DCA, antimony, and mercury. The contamination occurs to a depth of 130 feet, and extends to the shallow aquifer. Approximately one third of the site is located in Sacramento County, with the rest located in Placer County. Groundwater flows in a southwest direction.

Contamination has been kept to on-site wells. The nearest threatened water well is located on Booth Road, one mile west of Roseville Yard. Sacramento County water districts, which exist south of the yard, include the Northridge Water District and the Citizens Utility Company. Both companies are heavily dependent on groundwater for water service. Currently, the extent of the contaminant plume is being identified by monitoring wells. In 1984, a wastewater treatment plant was put on line to neutralize new waste generated and prepare for discharge into the City of Roseville Sanitary Sewer. A Groundwater Monitoring Program is in effect as part of the Remediation Investigation, which began in 1993.

Union Pacific Railroad Yard (UPRRY). Major contaminants include chromium, 1,1-DCE, nickel, TCE, 1,1-DCA, and benzene. The contamination occurs to a depth of 45 - 55 feet below the ground surface, and extends into the shallow aquifer. Two primary plumes exist at this site. One extends from Central Fill Area to 18th Ave., and the other plume is centered at the Main Shop extending west 1,200 feet to Sutterville Road. The area of contamination extends from the middle of the site approximately one mile across and is approximately 300 feet wide. The plume flows to the southeast, at a rate of 200 - 300 feet per year.

There have been no impacts to nearby wells, and there are no domestic wells in the nearby area. Seven useable water wells are within a one mile radius of the site, of which all are used for irrigation purposes. The nearest drinking water well is in the Fruitridge Vista Water District, two miles southeast of the yard. The City of Sacramento also provides water to its customers from water wells in the area. Existing remediation efforts include a HydroPunch to collect water quality data and monitor wells and trace the movement of the plumes; soil excavation and the removal of leaking underground storage tanks; the removal and off-site disposal of approximately 1,600 cubic yards of wood, debris and soil; and the cleaning of the 72,000 gallon underground storage tank. Further investigations, including the installation of 150 feet deep monitoring wells and groundwater extraction and treatment, are currently proceeding to evaluate the extent of off-site migration of contaminants.

6.2 Potential Impacts on Contaminant Migration

As discussed above, some of the groundwater contamination sites within Sacramento County have directly impacted drinking water wells. Although remediation efforts are underway at all of the sites, the potential exists for additional wells to be threatened if the groundwater contaminants continue to migrate off-site. The general direction and rate of movement of the contaminant plumes is largely controlled by the regional groundwater gradient, although localized remediation pumping may also influence the advancement of the plumes. In order to assess the potential impacts that increased pumping may have on the movement of contaminants, the IGSM results for each of the static Baseline Conditions have been utilized. At each of the nine sites of contamination discussed above, the model results have been obtained for the regional flow direction and rate of movement. These results, along with reported direction and rate of movement, are summarized in Table 28 and discussed below.

As indicated in Table 28, the rate of groundwater movement at each of the groundwater contamination sites increases with the additional groundwater level decline under each Baseline Condition. Between the 1990 and 2030 Baseline Conditions the rate of movement increases by 17 to 506 feet per year depending on the contaminant location. The most significant movement impacts are projected to occur at the Southern Pacific site in Roseville. At the Roseville site the higher impact to movement rates is attributed to the increase in the groundwater gradient that occurs along the Sacramento County Placer County border in response to additional pumping in the North Sacramento area under the future Baseline Conditions. In addition, impacts on the rate of groundwater movement at the PG&E, Union Pacific, and Army Depot sites are also projected to be high as compared with impacts at other contamination sites. The impacts in this area are attributed to the additional groundwater pumping in the Zone 40 area under the future Baseline Conditions.

Although the regional groundwater movement rates are projected to increase at each of the contamination sites under the future Baseline Conditions, the magnitude of the increases is not considered to present a significant additional impact to the Sacramento County groundwater supplies. In general the present rate of regional groundwater movement is relatively small (on the order of hundreds of feet per year) and these rates do not significantly increase under the future Baseline Conditions. In addition, as discussed above, each of these sites is presently undergoing clean-up efforts, much of which includes the use of extraction wells. Pumping at these extraction wells is generally designed to stop the movement of the plumes, and thus will likely provide localized mitigation of the increases in regional groundwater movement rates.

TABLE 28. SUMMARY OF IMPACTS ON CONTAMINANT MOVEMENT

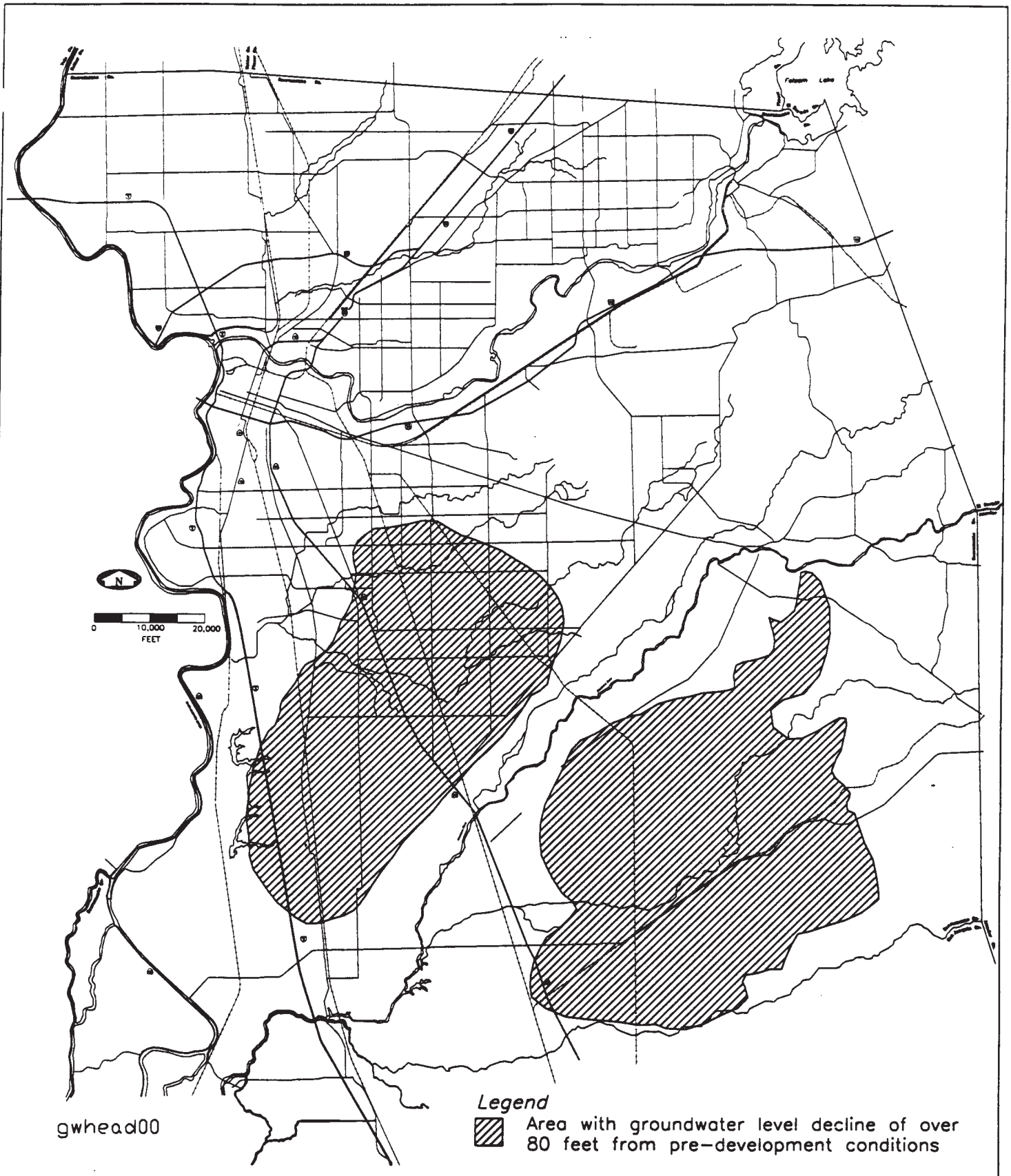
Contamination Site	BASELINE CONDITIONS - RATE OF MOVEMENT					
	1990 (cons.) (Ft/Yr)	1990 (Ft/Yr)	2000 (Ft/Yr)	2010 (Ft/Yr)	2020 (Ft/Yr)	2030 (Ft/Yr)
1. McClellan AFB	183 (N)	187 (NE)	196 (NE)	209 (NE)	196 (NE)	204 (NE)
2. Southern Pacific - Sacramento	105 (S)	152 (S)	161 (S)	177 (S)	194 (S)	201 (S)
3. PG&E	55 (S)	97 (S)	110 (SE)	128 (SE)	155 (SE)	161 (SE)
4. Union Pacific	206 (SE)	299 (SE)	320 (SE)	384 (SE)	433 (SE)	450 (SE)
5. Army Depot	465 (S)	576 (S)	603 (S)	662 (S)	733 (S)	762 (S)
6. Mather AFB	424 (SW)	470 (SW)	460 (SW)	473 (S-SW)	562 (S-SW)	578 (S-SW)
7. Kiefer Landfill	292 (SW)	302 (W)	300 (W)	303 (W)	316 (W)	341 (W)
8. Aerojet	539 (SW)	584 (SW)	595 (SW)	635 (SW)	700 (SW)	714 (SW)
9. Southern Pacific - Roseville	548 (NW)	569 (W)	619 (W)	910 (SW)	1045 (SW)	1075 (SW)

Notes: (1) Direction and rate of movement values reported are for the shallow aquifer system and are developed from the IGSM results for the Baseline Conditions. The rate of movement represents the regional groundwater movement rate in the vicinity of the contamination sites.

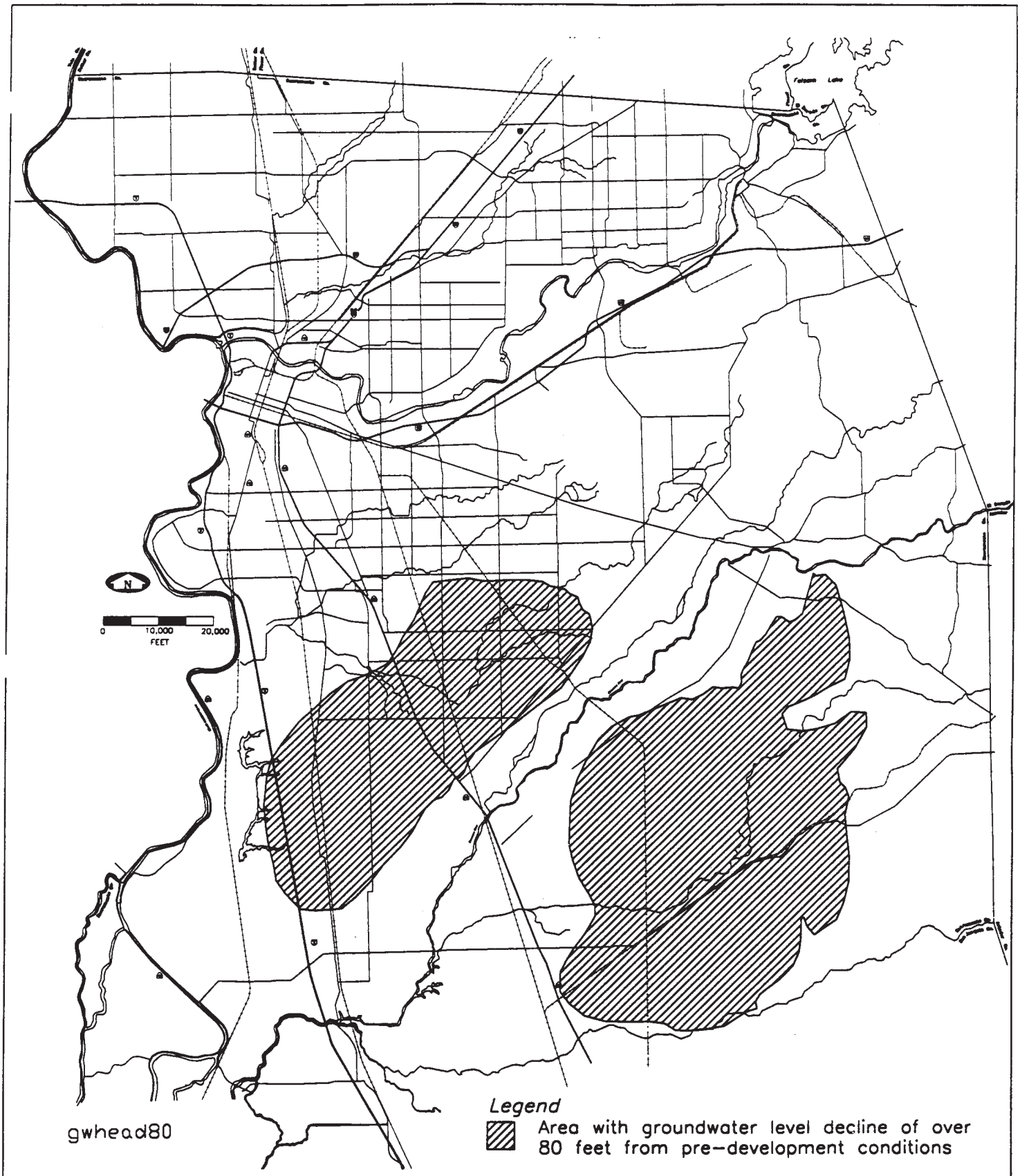
APPENDIX A

AREAS IMPACTED BY GROUNDWATER QUALITY DECLINE

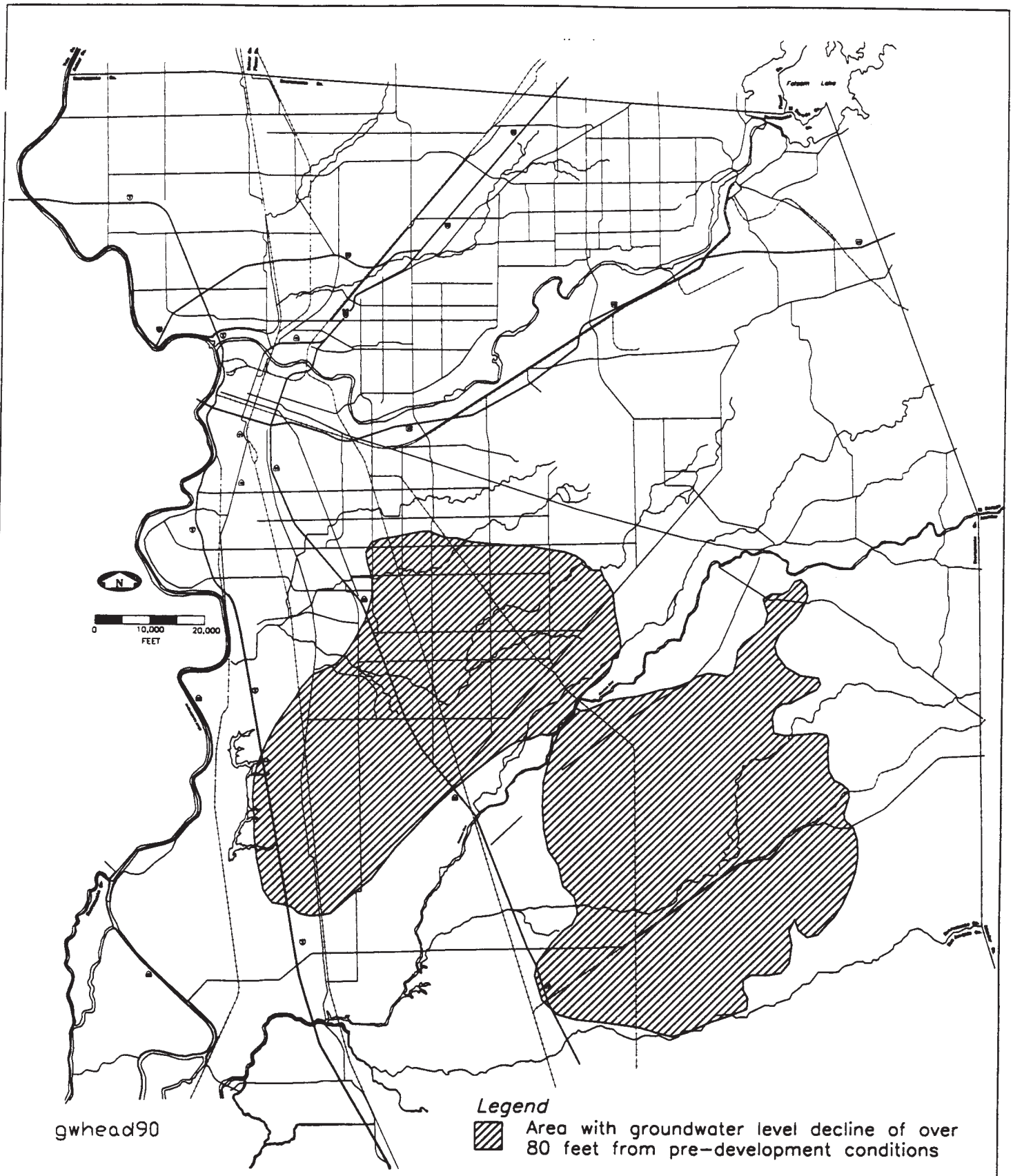
- 1990 Baseline Conditions with Additional Conservation
- 1990 Baseline Conditions
- 2000 Baseline Conditions
- 2010 Baseline Conditions
- 2020 Baseline Conditions
- 2030 Baseline Conditions



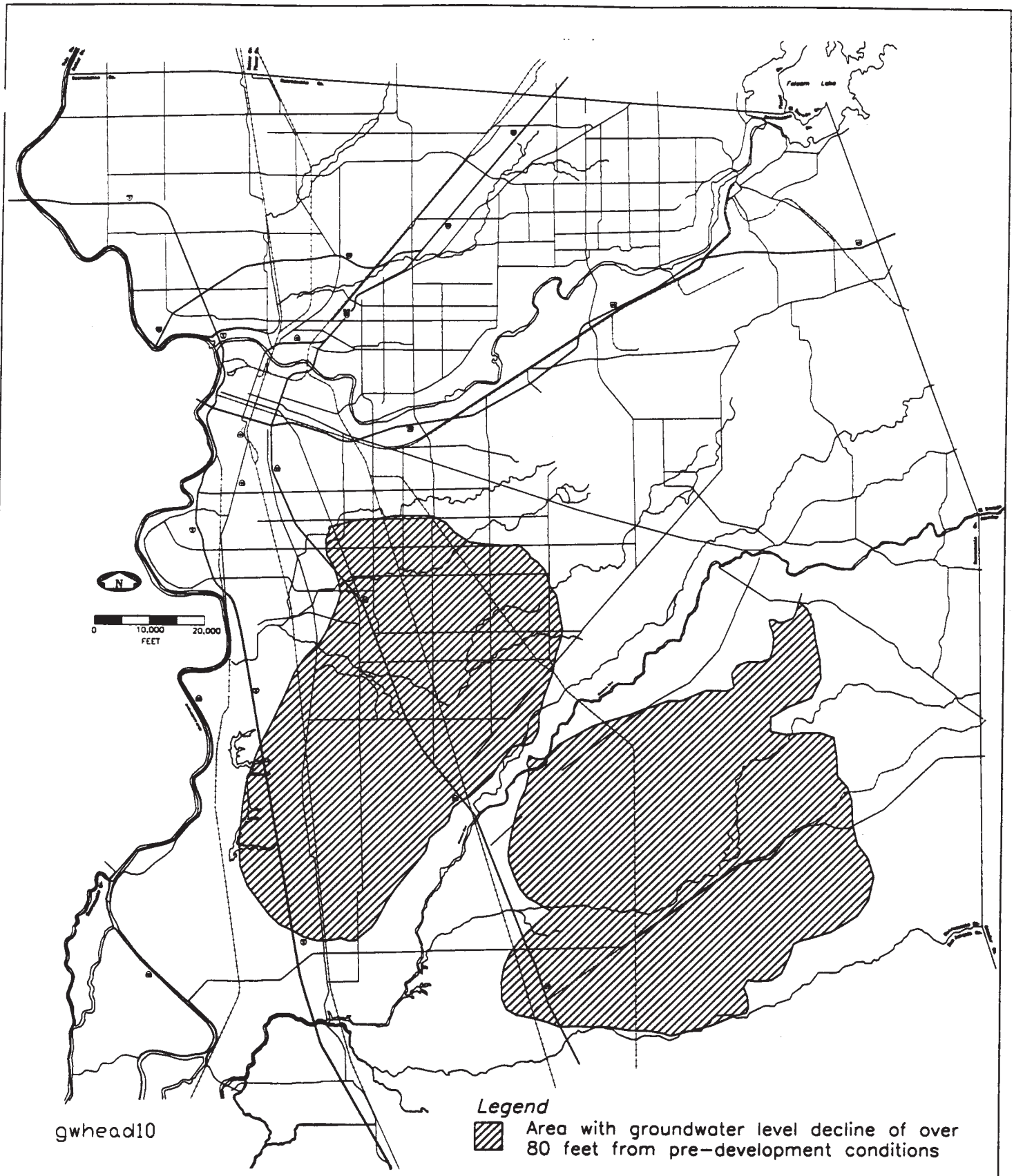
1990 BASELINE CONDITIONS:
AREAS IMPACTED BY WATER QUALITY DECLINE



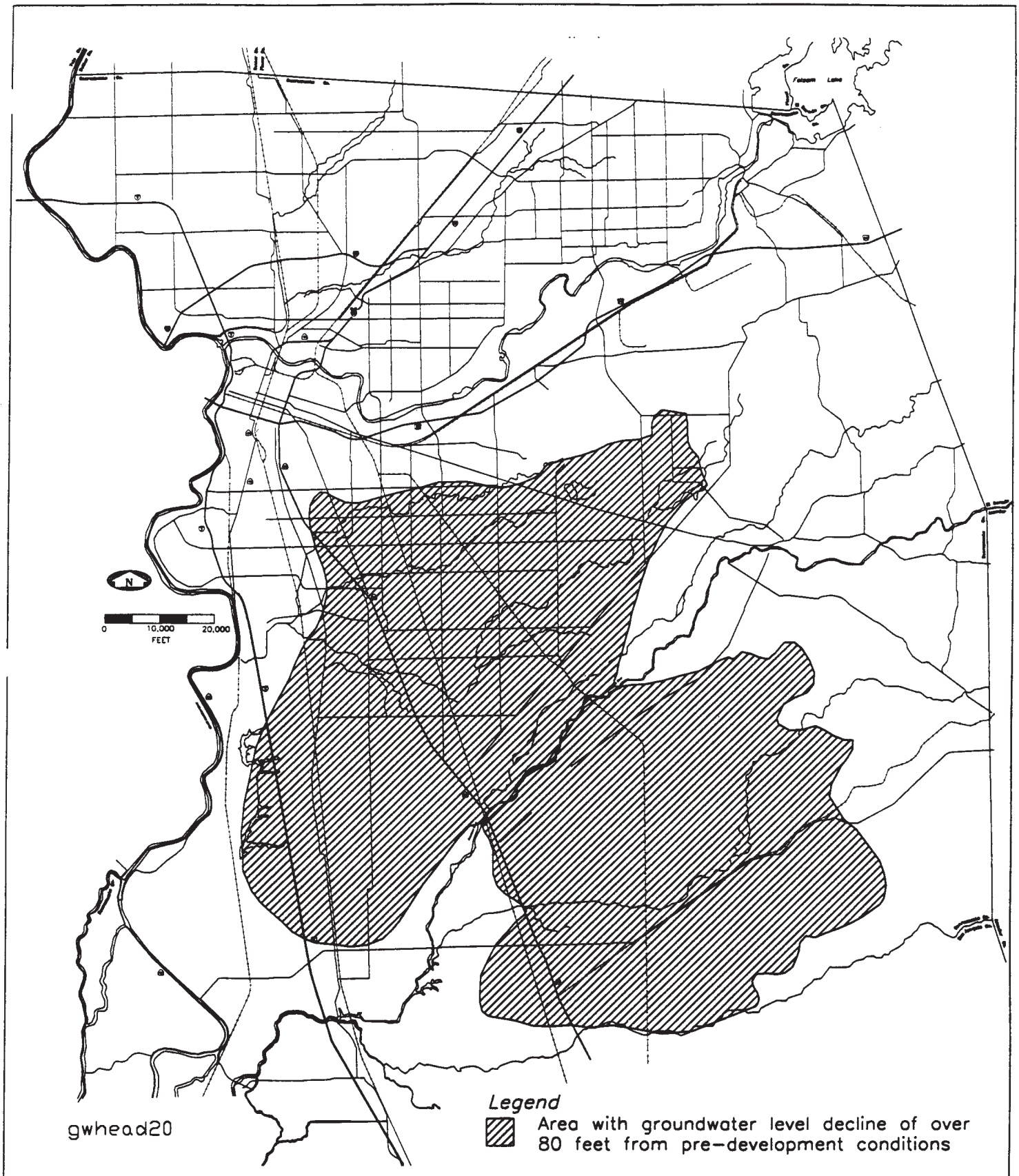
1990 BASELINE CONDITIONS (WITH ADDITIONAL CONSERVATION): AREAS IMPACTED BY WATER QUALITY DECLINE



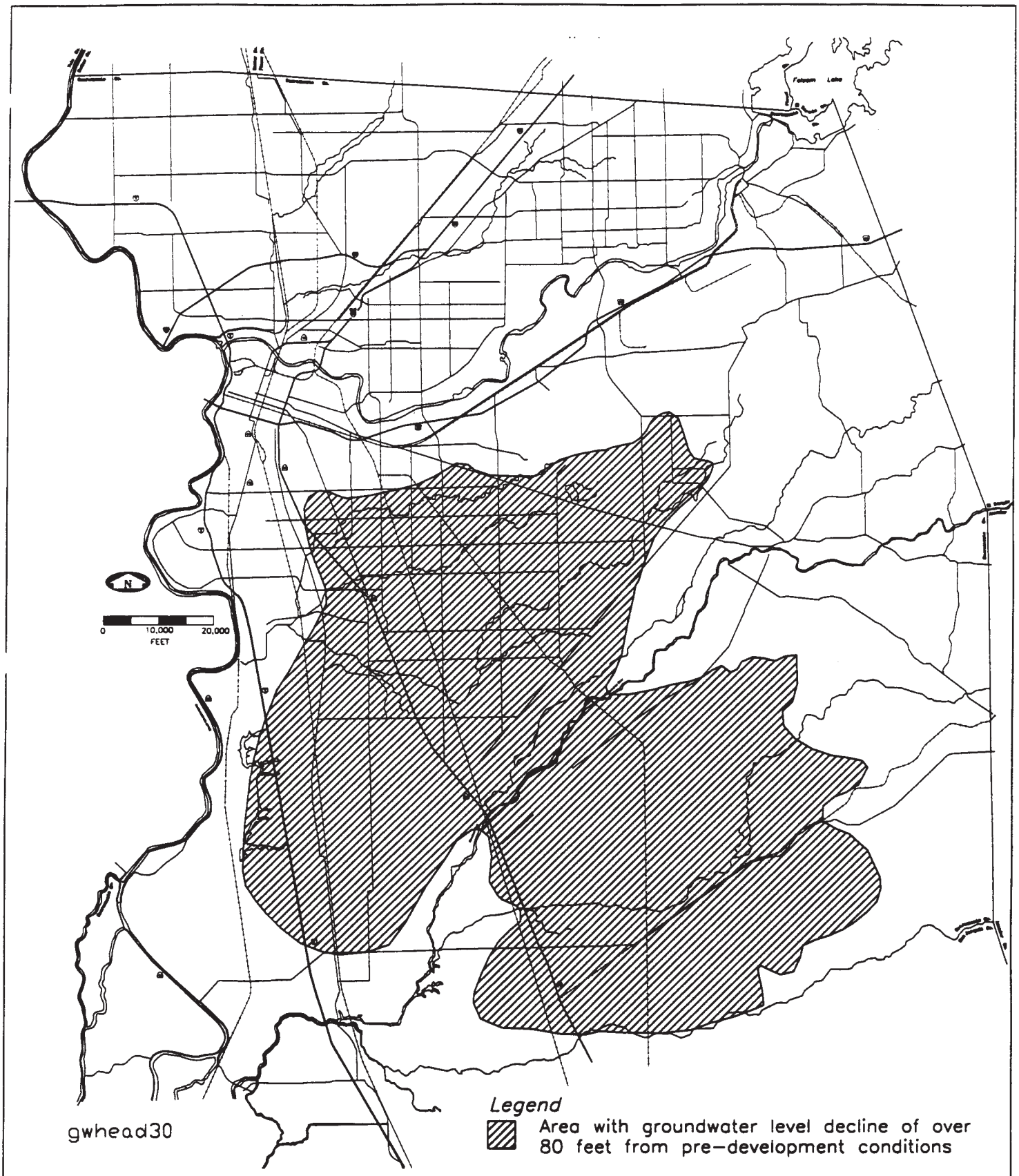
2000 BASELINE CONDITIONS:
AREAS IMPACTED BY WATER QUALITY DECLINE



2010 BASELINE CONDITIONS:
AREAS IMPACTED BY WATER QUALITY DECLINE



2020 BASELINE CONDITIONS:
AREAS IMPACTED BY WATER QUALITY DECLINE



2030 BASELINE CONDITIONS:
AREAS IMPACTED BY WATER QUALITY DECLINE

RESEARCH DESIGN FOR PREHISTORIC, ETHNOGRAPHIC, AND HISTORIC CULTURAL RESOURCES AT FOLSOM RESERVOIR, CALIFORNIA

by

Sharon A. Waechter, M.A.
Far Western Anthropological Research Group, Inc.
P.O. Box 413
Davis, California 95617

and

Steven D. Mikesell, M.A.
JRP Historical Consulting Services
712 Fifth Street, Suite F
Davis, California 95616

with contributions by

Helen McCarthy, Ph.D.
Cultural Resource Research & Consulting

and

David S. Byrd, M.A.
JRP Historical Consulting Services

Prepared for

USDI BUREAU OF RECLAMATION
SACRAMENTO, CALIFORNIA

At the request of

DAVID R. SCHUSTER CONSULTANTS

October 1994

TABLE OF CONTENTS

TABLE OF CONTENTS (Cont.)

TABLE OF CONTENTS (Cont.)

LIST OF TABLES

LIST OF MAPS

LIST OF FIGURES

INTRODUCTION

Folsom Reservoir lies at the intersection of Sacramento, Placer, and El Dorado counties, and at the confluence (now flooded) of the North and South Forks of the American River (Maps 1 and 2). The reservoir, completed in 1956 as part of the Central Valley project, forms the nucleus of Folsom Lake State Recreation Area. The recreation area is managed, under agreement, by the California Department of Parks and Recreation, on lands belonging to the Federal Bureau of Reclamation (BOR). The dam was built by the U.S. Army Corps of Engineers and transferred to the BOR; the Army Corps is responsible for determining the criteria for flood control for the reservoir. Federal laws protecting cultural resources--including the National Historic Preservation Act, the Archeological Resources Protection Act (ARPA), Executive Order 11593, and the Native American Graves Protection and Repatriation Act (NAGPRA) apply to Federal lands at Folsom.

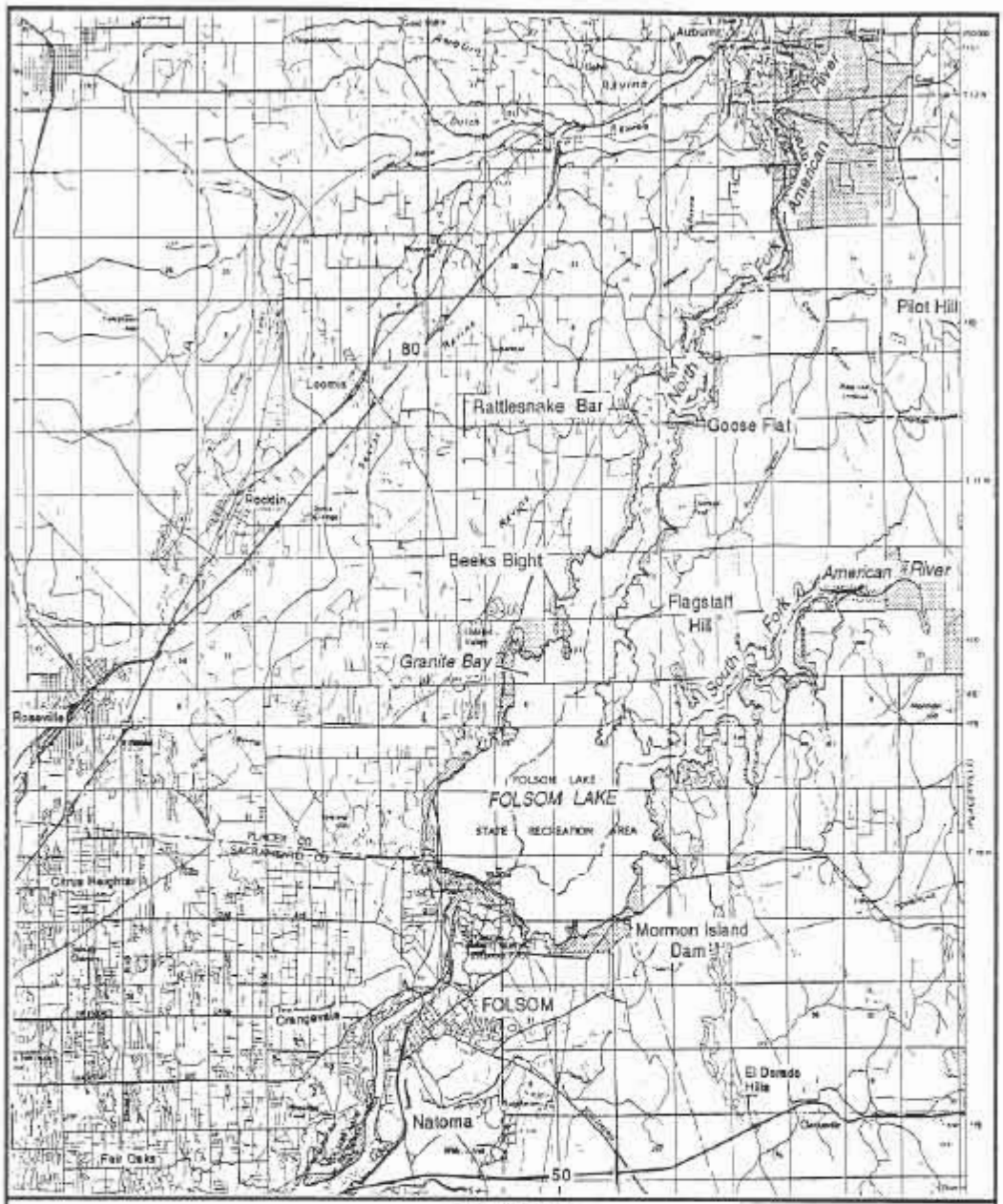
The first documented archeological work at the reservoir was a pre-construction inventory conducted as part of the Smithsonian Institution Basin River Surveys (Drucker 1948); one site, CA-ELD-1, was recorded on the South Fork. Several other surveys and studies have taken place since that time, usually during periods of drought when the water level has fallen below normal levels and exposed sites which otherwise would be inundated. At least 123 prehistoric sites (meant in this document to include possible ethnographic sites) and 52 historic properties have been recorded as a result of these surveys; many sites have both prehistoric and historic components. These are primarily scatters of flaked-stone tools and debitage, groundstone, and bedrock milling features, and historic mining, water development, and settlement sites. Documented excavation has taken place at only one site, CA-ELD-201 (Foster *et al.* 1977). Judging by field observations made since the 1970s, inundation has had a serious detrimental effect on many, if not most, of the sites within the reservoir basin. Studies at other reservoirs in northern California have suggested, however, that important scientific and/or cultural data may still survive within some of these sites.

This research design was developed by Far Western at the request of Beak, Associates and the Bureau of Reclamation, as part of a re-operation study being conducted for the Sacramento Area Flood Control Agency (SAFCA). The goal of this document is to guide future archeological research at the reservoir, in order to protect or salvage as much as possible of the remaining data, in compliance with the National Historic Preservation Act, Executive Order 11593, and other laws pertaining to cultural resources on state and federal lands.

PROJECT DESCRIPTION

In order to provide increased flood control for the Sacramento area, SAFCA proposes to maintain a lower water level at Folsom Reservoir than is currently practiced; this will create a greater water storage capability during times of peak precipitation and runoff. Two alternatives are proposed: ALT670, under which 670,000 acre-feet of storage space will be created; and ALT800, by which 800,000 acre-feet of storage space will be created. Implementation of either of these alternatives would cause archeological sites and features within the Area of Potential Effect (APE, defined as the area between the 390 ft and the 466 ft elevations; Map 3) to be exposed more frequently and for longer periods of time, with the greatest difference occurring during the winter months; these changes would be most dramatic under ALT800 (Figures 1 and 2). Increased exposure and more frequent

AREA ENLARGED
PLACERVILLE
AUBURN
FOLSOM LAKE
FAIR OAKS
SACRAMENTO
KILOMETERS



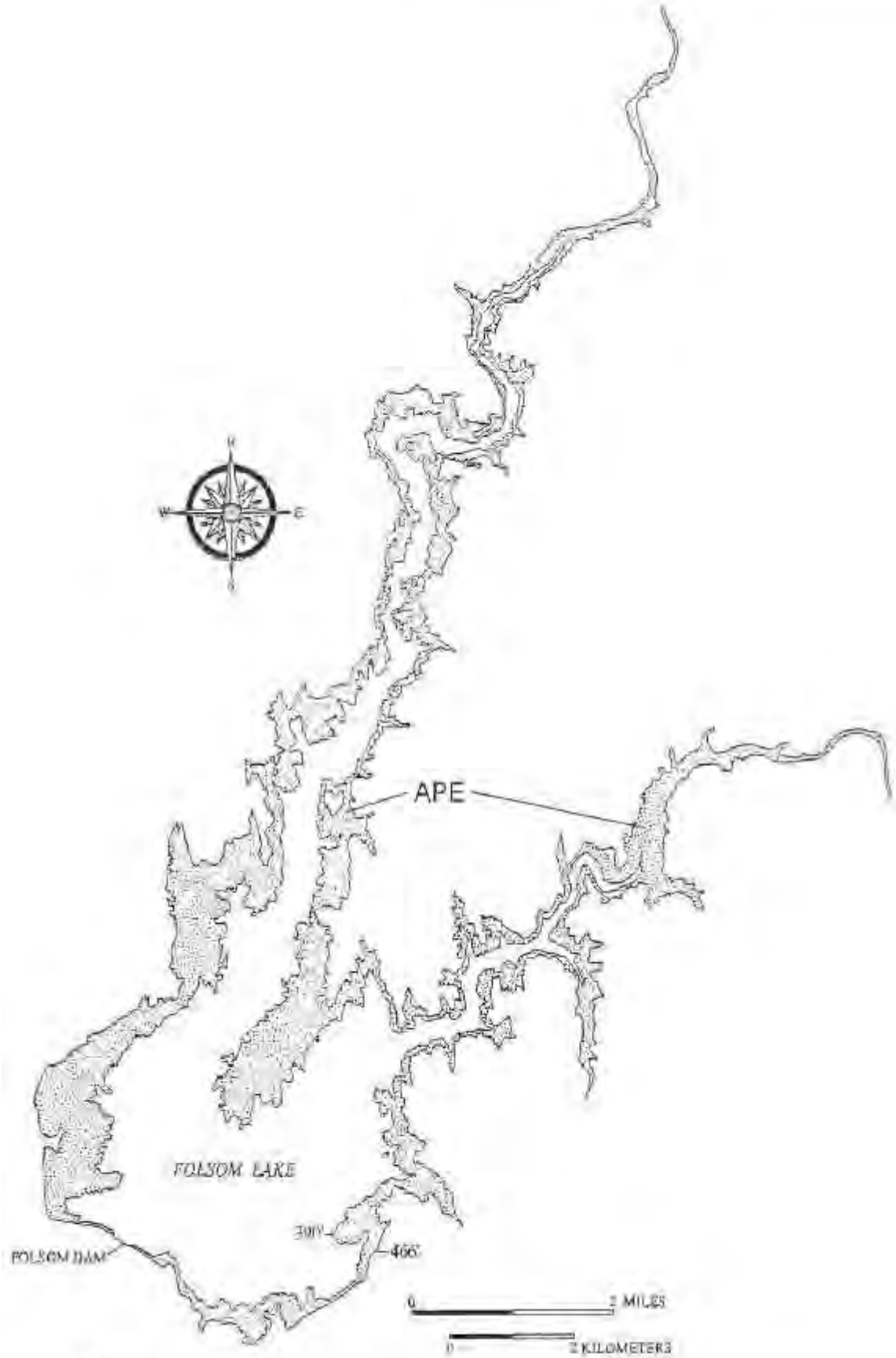
A PORTION OF
SACRAMENTO QUADRANGLE
30X60 MINUTE
BUREAU OF LAND MANAGEMENT
REDUCED TO 60 % OF ORIGINAL SIZE

TN

KILOMETERS 1 0 20

MILES 1 0 13

Map 2. Project Location.



Map 3 Project APE

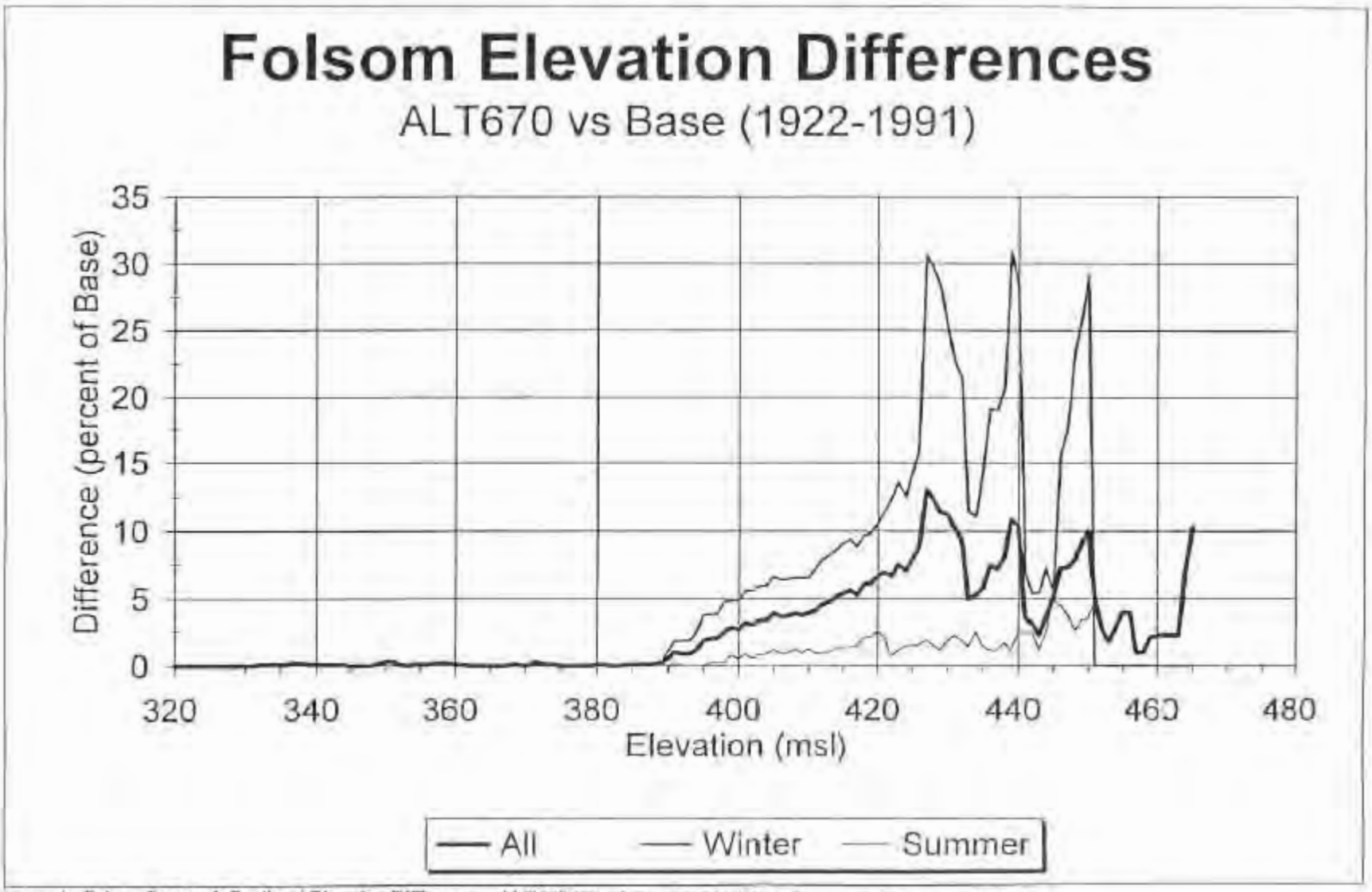


Figure 1 Folsom Reservoir Predicted Elevation Differences - ALT670 (Graph Provided by Water Resources Management Inc.)

PCWA-069

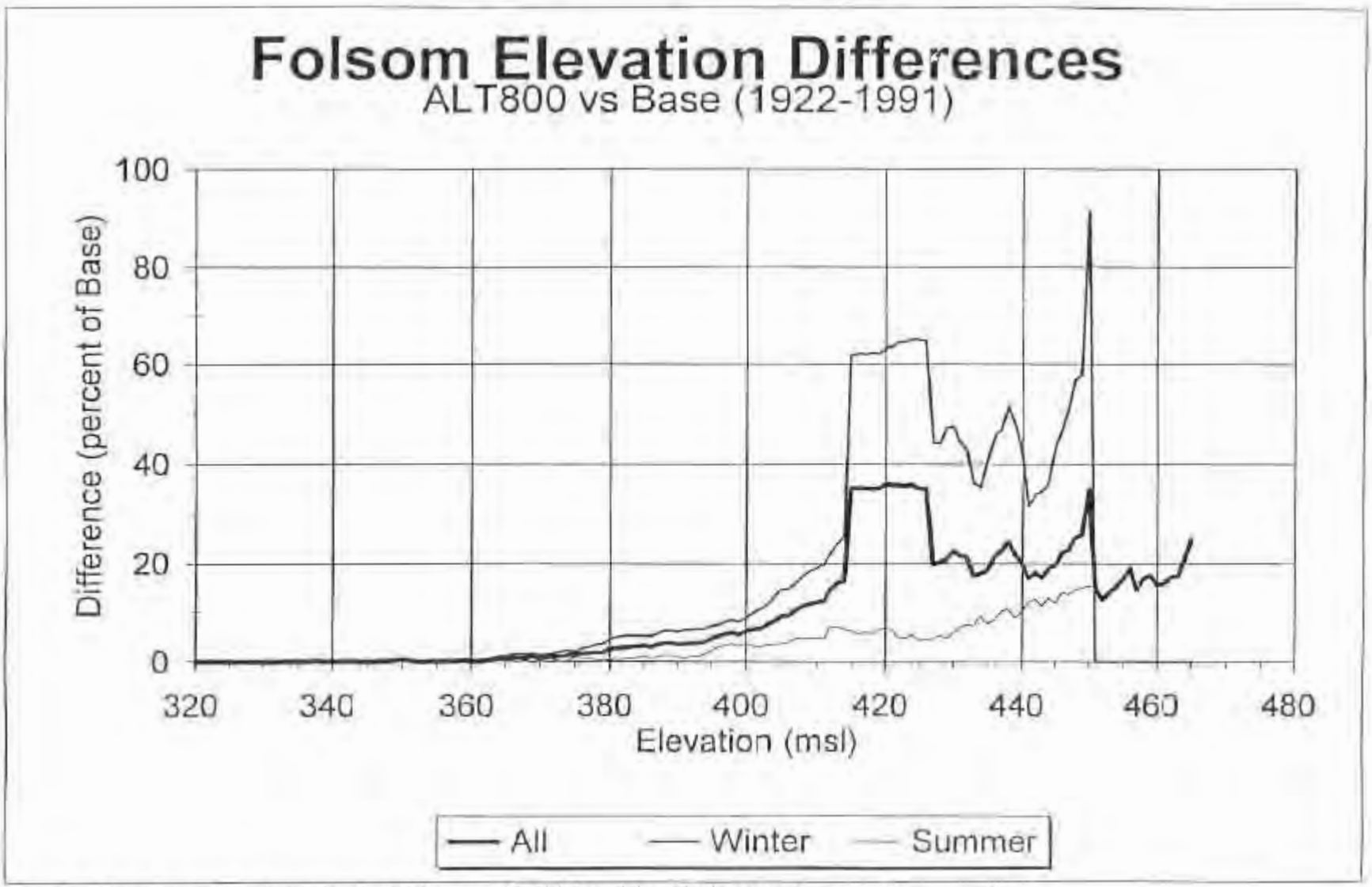


Figure 2. Folsom Reservoir Predicted Elevation Differences - ALT800 (Graph Provided by Water Resources Management Inc.)

fluctuations in water levels will likely subject these sites and features to increases in vandalism, unauthorized artifact collection, recreation use, wave action, and decomposition of materials through repeated wetting and drying. These effects are discussed in later sections of this document.

OBJECTIVES OF THE RESEARCH DESIGN

Archeological survey and limited excavation has taken place at Folsom Reservoir since at least 1948, beginning with the Basin River Surveys (see the discussion of previous research, below). These studies have been done using a variety of strategies and methods, ranging from complete, intensive surveys with full reports, to intermittent or "spot" surveys with no reports at all. The only documented excavation was a limited data recovery operation at CA-ELD-201 on a small knoll overlooking the South Fork of the American River, undertaken by the Department of Parks and Recreation to salvage materials from the newly exposed site before it was re-submerged (Foster *et al.* 1977; Foster and Bingham 1978). According to Foster *et al.*, two other sites on the South Fork were excavated by Clifford Curtice in 1955, but no report of that work is available. Because of the cursory nature of many of these studies, archeological data for the Folsom Reservoir area, though numerous, are not always available, and those that are available are not always useful. In large part, this is because there has been no over-arching theoretical and methodological framework to guide the research; various types of information have been collected and (usually) documented, but without common standards, methods, or goals.

This document is offered as such a framework. In general terms, the objective of this research design is to guide future data collection at Folsom Reservoir, toward the following ends: to advance the scientific knowledge about past human uses of the area; to identify cultural, social, and educational values which may survive within the cultural resources at the reservoir; and to comply with relevant laws and regulations regarding the management of those resources. In order to reach any of these ends, it is necessary first to understand the current state of knowledge about the area, the gaps in this knowledge, and the kinds of information necessary to fill those gaps. The next step is to determine which, if any, of the Folsom Reservoir sites contain such information— especially given their history of impacts— and which of them should therefore be considered significant and worthy of additional management. This research design is intended to take the first step, and to help guide the second.

NATURAL AND CULTURAL BACKGROUND

The value of a cultural resource lies not only in the resource itself, but in how and where it fits into a larger system. For example, a bedrock mortar site among other bedrock mortar sites within an oak woodland clearly suggests a certain kind of subsistence pattern and a certain degree of environmental stability; the same kind of site, when found in a grassland environment where milling slabs dominate, may indicate changes in climate and vegetation, and in human subsistence practices, over time. The following section summarizes the environmental and cultural contexts within which the Folsom Reservoir sites will be viewed.

ENVIRONMENTAL CONTEXT

The project area lies at the approximate interface between the Central Valley and the lower Sierran foothills. It is roughly 25 air miles northeast of downtown Sacramento, and eight (at Rattlesnake Bar) to 15 (at Granite Bay) air miles south of the town of Auburn, between Highway 50 and Interstate 80. The reservoir includes portions of the North and South Forks of the American River, and their confluence (now submerged).

Near this confluence, in the vicinity of Beals Point at the lower (western) end of the reservoir, the topography is one of gently rolling hills and open plains, sloping gradually down toward the river channels. These channels are bounded by alluvial fans and fill terraces (Payen 1973). As one moves upstream along the North and South Forks, the river canyons become increasingly steep and narrow; east of Rattlesnake Bar, for example, on the North Fork arm, the broad, flat granitic terraces and benches along both sides of the river give way to steep, brushy slopes, and benches and terraces become much more scarce.

Drucker (1948) reported that dense underbrush covered the reservoir location prior to initial inundation; he also noted that "extensive portions of the original terrain (and, presumably, the original vegetation cover) were removed during the extensive hydraulic operations" that had taken place in the vicinity during historic times (1948:4-5). During reservoir construction by the Corps of Engineers in the 1950s, remaining vegetation in the area between 360 and 466 feet in elevation was apparently cleared and burned (Foster *et al.* 1977). The present perimeter of Folsom Reservoir is surrounded by vegetation communities typical of the regional Upper and Lower Sonoran zones, including blue oak, live oak and valley oak woodlands near the lower end, and a mixture of oak and scattered grey pine, with various brush species (e.g., ceanothus, manzanita) extending into the foothills along the upper arms. Until recently, wildlife within these zones probably included black-tailed deer, (grizzly?) bear, elk, antelope, raccoon, mink, skunk, badger, fox, coyote, rabbit, bobcat, river otter, hawk, flicker, duck, goose, heron, pelican, quail, owl, woodpecker, rattlesnake, grasshopper, turtle, sturgeon, salmon, perch, chub, and lamprey eels, among others (Jenkins 1936; Schulz 1981).

The reservoir lies at the lower edge of the Sierra Nevada Province, close to where it merges with the Great Valley Province. The geology of the project area is primarily granitic; nearly all of the reservoir is underlain by the Mesozoic-age dioritic rocks of the Rocklin Pluton (Wagner *et al.* 1987), some of which contain gold-quartz veins (Bailey 1966). This geologic formation is manifested in the many granitic outcrops and decomposing granitic sand that covers much of the reservoir area. On its eastern and southeastern edge, the reservoir is bounded by a formation that may be part of the Jurassic-age Copper Hill Volcanics. Surficial deposits consist of Quaternary-age terraces and alluvial fans. A model has been developed for the Pleistocene evolution of the landscape along the lower American River drainage, which may prove to be important to the interpretation of the local archeology (Shlemon 1972)

The climate of the region is Mediterranean, with hot dry summers and wet winters. In general, weather conditions are relatively moderate at this elevation (approximately 100-600 ft): rainfall averages 15-40 inches a year, mean maximum summer temperatures are recorded at 75-96° F, and mean winter minimums are 29-45° F (Munz and Keck 1973:17). Drought conditions, however, are not uncommon— historic records document two severe droughts spanning 1850-51 and 1862-64, with frequent (10-15 year) re-occurrence of such phenomena (Barbour and Major 1988); periodic droughts undoubtedly occurred in prehistoric times, as well. Major water arteries such as the

American and Sacramento rivers no doubt gained even greater importance in determining land use and settlement during these periods of extreme water stress.

CULTURAL CONTEXT

Historic Context (David Byrd, JRP)

Transportation

Prior to the discovery of gold in 1848 and the resulting rush of prospectors into California, there existed only a rudimentary trail system in the Sierra Nevada mountains. Most of the few non-native routes only extended east to west, as a means of crossing the imposing granite mass on the way to the fertile Central Valley. The opening of the mines, the thousands of miners, the hundreds of new towns, and the tons of supplies they needed, provided the impetus to build an improved road and trail system in the Sierra. The first trail into the Folsom Reservoir region was the Coloma Road. Laid out in 1847-48 by John Sutter and his men as a route to the sawmill on the American River, it followed the river's south bank from Sutter's Fort to Coloma (Hoover *et al.* 1978). In time the road was extended, with a branch leading to Mormon Island and Negro Hill. By 1850 a stage line ran directly from Sacramento to the growing settlement of Mormon Island, and another passed through Mormon Island on its way to Coloma (Thompson and West 1960:231).

Among the earliest enterprises undertaken to improve transportation in the mining region, and to turn a profit, were ferries across the rivers. By 1849, there were boats operating at Condemned Bar, Beals Bar, and Rattlesnake Bar (Thompson and West 1960:287). Other ferries operated at Whiskey Bar, Oregon Bar, and Salmon Falls (Tryner 1976:164). To make the ferries successful, operators had to construct roads leading up from the rivers and along the sides of the canyons to the ridge tops on either side.

As early as 1851 there was a bridge spanning the American River to Mormon Island. In 1854, a wire suspension bridge replaced the original wooden span when high water washed out that structure. Flood waters destroyed the second bridge in 1862. The replacement span, built that same year, stood for many years (Thompson and West 1960:231). In 1856, W.C. Lyon constructed a wire suspension bridge across the North Fork of the American River at Condemned Bar. In 1865, this bridge was dismantled and moved to a location just below the junction of the North and Middle Forks. By July of the following year the crossing and the road associated with it became an important thoroughfare to the railroad depot at Auburn (Thompson and West 1882:290).

After the gold deposits played out and the miners left the region, most of the roads and trails fell into disuse and disrepair. The main roads that did survive, like the Coloma Road, were re-routed in the 1950s to accommodate Folsom Reservoir. A few of the bridges and associated structures inundated by the Reservoir can be seen when the water level is extremely low.

Water Development

As the forms of gold extraction changed from placer to hard rock and hydraulic mining, the need for large amounts of water from high above the normal river channels was required. To convey this

water, long ditches and flumes had to be constructed to bring the water by gravity to where it was needed. The construction and maintenance of these ditches and flumes was costly and often required the formation of joint stock companies to raise the necessary capital.

The Natoma Water and Mining Company, at one time one of the largest owners of water rights in Sacramento County, was organized by A.P. Catlin in 1851. That same year the company began work on a twenty-mile-long main canal commencing from a point two miles above Salmon Falls on the South Fork of the American River to bring water for mining and agriculture in the Folsom area. As the canal exited the American River canyon, it split with a branch leading to the Mormon Island Diggings. By 1853 the main canal reached as far as Prairie City; it was finished to Granite City (Folsom) the following year. The total cost of the maincanal and associated reservoirs and irrigation branches amounted to $175,000. The canal ran through country that, without the water it furnished, would have been completely worthless for mining (Thompson and West 1960:226).

In 1862, Horatio G. Livermore acquired the Natoma Water and Mining Company and 9000 acres of the Leidsdorff Grant, a 1844 Mexican land grant south of the American River and east of the modern city of Sacramento, which included the present-day town of Folsom; the grant is properly called the *Rancho Rio de los Americanos.* Livermore's intention was to promote water-powered manufacturing at Folsom by building a dam and harnessing the energy of the American River. In addition to generating power, the dam he envisioned would also create a still-water basin for logs floated down river from the rich sugar pine stands higher up in El Dorado County. The dam was completed in 1893. Prior to the dam's completion, however, the water development and lumbering interests in the Natoma Water and Mining Company became separate entities. The new Folsom Water and Power Company promoted water- powered industry, and the American River Land and Lumber Company invested in timber- related activities. To compensate for the loss of mining contracts as the gold deposits gave out, the Natoma Water and Mining Company began investing in agriculture. By 1890 the company was reorganized as the Natoma Vineyards Company; around the turn of the century, all of the separate companies were absorbed into Natomas Consolidated of California which, in turn, became the Natoma Company. In 1912, to support dredging operations, the company revamped the dam at Salmon Falls and lined over 13,000 feet of ditch with concrete (Plimpton n.d.). In 1953 much of the South Fork holdings were sold to the U.S. government for the Folsom Reservoir project.

In the spring of 1854 the primary shareholders in the Natoma Water and Mining Company organized a similar company to deliver water to the miners on the North Fork of the American River. By the following December the American River Ditch Company was delivering water from its North Fork Ditch to Rattlesnake Bar. By 1857, the North Fork Ditch extended over a distance of 24 miles from a diversion dam at Tamaroo Bar to a point opposite the town of Folsom known as Big Gulch (Ashland). The main ditch, reservoirs, and over 60 miles of lesser flumes and ditches supplied water to mining areas in the region (including Rattlesnake Bar), with some water diverted for agricultural purposes (Thompson and West 1960). The original North Fork Ditch was six feet wide and four feet deep, excavated into solid rock along the steep canyon walls and buttressed at points by long supporting walls of unmortared stone (Shoup 1980:6). In 1899, the American River Water and Mining Company was sold and reorganized as the North Fork Ditch Company. This company sold its water primarily to the burgeoning agricultural areas of Fair Oaks and Orangevale. In 1909, the American Canyon Water Company bought the North Fork Ditch, and in 1954 ownership of the North Fork Ditch Company passed to the San Juan Suburban Water District (Plimpton n.d.).

Although the American River Water and Mining Company and the Natoma Water and Mining Company represent the largest builders of water conveyance systems in the Folsom Reservoir area, several smaller companies also built ditches and flumes there. Most notable are the Clark-Eastman Ditch of the Salmon Falls Water and Mining Company and the Negro Hill Ditch of the Negro Hill Ditch Company.

Mining

During the early years of the California Gold Rush, roughly 90% of the prospectors were engaged in some form of river or "placer" mining. This type of mining employed the relatively simple methods of washing the river gravel in pans, rockers, or sluice boxes. At its most ambitious, river mining meant damming and diverting the river so as to dig out the exposed beds. This profitable and relatively inexpensive type of mining was usually carried out by solitary miners or as the cooperative effort of small companies who chose their own foremen, pooled their labor and expertise, and bought their supplies on credit from local merchants (Paul 1963:28).

As the placer deposits in the rivers and streams diminished, miners turned to the deeper placer deposits in the prehistoric riverbeds or to the gold-bearing quartz veins or lodes locked in the granite mass of the Sierra Nevada. The former required washing the deep gravel with a high powered jet of water, or "hydraulicking;" the latter involved deep drift or hard rock mines. Both required an immense capital outlay and were better suited to a hired, specialized labor force working under single direction than to cooperative, informal arrangements. In short, the very nature of mining in California changed radically as there became a growing emphasis on long term development and skilled wage-laborers.

Eventually, the pioneer-type miners, with their characteristic impatience, restlessness, limited technical knowledge, and inability to accumulate capital, left the California mines for gold and silver strikes elsewhere in the west (Paul 1963:35). In turn, they were replaced with skilled engineers, clerks, masons, carpenters, and others needed to construct and maintain the new mines and associated systems.

Although mining in the Folsom Reservoir region had sharply declined by the 1870s, in the Rattlesnake Bar area on the North Fork of the American River, mining continued to be an important industry into the 20th century. The Zantgraf Mine (CA-ELD-237/H), the principal quartz mine in the area, operated from 1880 to 1901, and was active again in the 1930s. Also in the 1930s there was some dragline dredging conducted in the region (Clark 1970:112).

Settlement

The settlement of the Folsom Reservoir region by non-native peoples did not begin until after the discovery of gold at Coloma in January 1848. As the flood of miners made their way up the American River and its tributaries in search of gold, numerous camps and towns sprang up at the sites of major discoveries. These communities included Mormon Island, Goose Flat, Alabama Bar, Sailor's Bar, Negro Hill, Salmon Falls, McDowell Hill (McDowellsville), Beal's Bar, Condemned Bar, Doton's

Bar, Long Bar, Horseshoe Bar, and Rattlesnake Bar (Hoover *et al*. 1966:300; Peak and Associates 1990:5).

The first major settlement in the region was the result of the second important gold strike in California. In the spring of 1848, two Mormons travelling along the South Fork of the American River camped one night on a bar near the confluence of the North and South Forks (now under the Reservoir). They discovered small quantities of gold at the site which would become known as Mormon Island. Some members of the Mormon Battalion, sent to California during the United States war on Mexico, stopped and mined the area, with good results. By 1853 the camp had some 2500 inhabitants and had three dry good stores, five general merchandise stores, two blacksmith's shops, a bakery, saloons, hotels, schools, a post office, and express offices for both Wells Fargo & Co. and Adams & Co. (Hoover *et al*. 1966:300; Peak and Associates 1990:6). By the late 1850s Mormon Island was in decline as the nearby gold deposits were exhausted. In 1856, fire destroyed the southwest portion of the town and the section was never rebuilt. By the 1880s the Mormon Island settlement had a population of only 20, and the only significant mining operation in the vicinity was a drift mine about one-half mile from town at Richmond Hill (Thompson and West 1960:231). In 1890 the Mormon Island post office closed and by the time Folsom Reservoir was completed, all that remained of the town were a few rock cellars (Hoover *et al*. 1966:300).

The town of Folsom (originally known as Granite City) was established in the Granite Township on the river bluffs above the site of Negro Bar, on property owned by John L. Folsom. The town was laid out by Theodore Judah, Richmond Chenery, and Samuel C. Bruce in 1855; lots were sold at public auction in Sacramento the following year (Thompson and West 1960:222).

Although the city of Folsom flourished, most of the communities in the region now covered by Folsom Reservoir shared a similar fate with that of Mormon Island. As the gold deposits eventually gave out, the towns which sprang up around the mines were deserted, and eventually they disappeared altogether. Negro Hill, settled about the same time as Mormon Island, boomed with a one-time population of nearly 1200 residents, but by 1885 the last of the original buildings were gone (Plimpton n.d.). Much of the town of Rattlesnake Bar, which at one time boasted hotels, theaters, saloons, a Wells Fargo office, and a post office, burned in 1863 and was never rebuilt (Plimpton n.d.). By 1887, Gaines Store in Salmon Falls, once a community of over 3000, was the only remaining place of business in the region (Peak and Associates 1990:6). At the time of inundation by Folsom Reservoir, all that remained of the community was an old frame boarding house and the remnant of a pioneer cemetery (Hoover *et al*. 1966:84).

In the early years of the Gold Rush, agriculture in California came almost to a standstill. But as the supplies of river gold diminished, many California and out-of-state farmers returned to the land (Jelinek 1982:33). By 1853, producing food for miners was a more stable way of making a living than mining. Recognizing the area's quality agricultural lands and the available water supply, experienced farmers were soon growing wine grapes, hay, grain, oranges and other fruits. Between 1850 and 1860, the consumption of alcohol by the miners had made grape growing the most profitable form of cultivation in California (Jelinek 1982:35). By 1890, the Natoma Vineyard Company was irrigating 500 acres of crops and 8,000 acres of orchards and vineyards, and providing water to many small producers in the area (Plimpton n.d.). By the mid-1860s, many people had permanently homesteaded in the region (Olsen 1981). At least six sites inundated by Folsom Reservoir in 1956 are documented as being farms or homesteads.

Ethnographic Context (Helen McCarthy)

The following section presents and analyzes what is currently known about the indigenous people, the Nisenan, who inhabited the Folsom Reservoir area prior to contact with Euro-American settlement in California. Of particular interest are their activities which potentially contribute to site development, such as dwelling construction, village structure and settlement patterns, subsistence and economic activities, trade relationships, and funerary practices. The events of the historic period are also of major concern as they relate the trajectory of Native American/White contact and the consequences for Native American residence within the project area. Additionally, it is critical to evaluate the existing ethnographic data base in order to understand both its limits and merits. Thus, previous ethnographic research and other pertinent documents are reviewed here as background context for a research design dealing with the cultural resources at Folsom Reservoir.

Literature Review

There are a number of published materials which pertain to the Nisenan, also known as the Southern Maidu, who resided in the Folsom Reservoir area at contact. The earliest systematic reports on the California Indians were produced by Stephen Powers, a journalist who traveled throughout the state visiting Indian peoples in the 1870s (Powers 1976 [orig. 1877]). While his data pertain to the Nisenan in general and do not specifically mention the study area, Powers' information is important, nevertheless, as he identified nearly all the indigenous California tribes and their territorial relationships as well as documenting selected cultural practices. His materials thus provide a baseline at a relatively early date (historically speaking) against which subsequent investigations can be compared.

No further ethnographic work was accomplished until after the turn of the century, when anthropological studies in California began to be conducted by Alfred Kroeber at the University of California, Berkeley, and by investigators such as C. Hart Merriam and J.P. Harrington, both of whom were supported by the Smithsonian Institution. Merriam's brief notes for the area date from 1903 (Merriam n.d.a, n.d.b), when he interviewed "Blind Tom," an elderly man from the large Nisenan town of *Pujune* at the confluence of the American and Sacramento rivers. He was living near *Hahkon*, a traditional Nisenan village in the Sloughhouse area, when Merriam worked with him (Merriam 1966:60-62). Most of Merriam's Nisenan information, however, derives from the foothill area along the North and Middle Forks of the Cosumnes River (Merriam 1979:136), and thus does not specifically address the area now inundated by Folsom Reservoir.

C.E. Kelsey, a Special Agent for the Bureau of Indian Affairs, conducted a state-wide census of landless Indians in the early 1900s, but he did not report any Indians in Sacramento County (Kelsey 1971 [1906]). Given the intense level of historic activity in the Sacramento/Folsom vicinity by that time, it is probable that most of the indigenous Nisenan people had found it expedient to move to more remote, quieter, and safer locations. Thus, even at this relatively early time, sources of information for the Nisenan in the study area were extremely limited.

Kroeber began his investigations of Valley Maidu (Konkow) in 1910 (Kroeber 1932:375), research which continued sporadically into the 1920s and which was incorporated into the Maidu chapters in

his *Handbook of the Indians of California* (1925). These chapters present important information pertaining to the Southern Maidu (Nisenan), but since they address all three of the geographically widespread and culturally diverse Maidu groups (Northeastern, Northwestern, and Southern) together, they are quite general in nature. Kroeber also worked with "Blind Tom" Cleanso, Merriam's informant, as did Gayton and Forde, both of whom carried out limited research in the area in the mid 1920s. Kroeber acknowledged the use of these researchers' notes in the preparation of his manuscript, *The Valley Nisenan* (Kroeber 1929:253), which is the most specific of these studies for the project area and contains considerable detail regarding ceremonialism. Little of his data pertain to subsistence or material culture, however, which are the most likely aspects to be expressed in the archeological record.

It is important to recognize that virtually all the ethnographic information for the Valley Nisenan— both Merriam's and Kroeber's— is derived from a single consultant, Tom Cleanso, and that the special circumstances of Tom's life (his blindness from a young age) may have significantly biased his knowledge. Tom's father was from the village of *Pujune* (supra) while his mother was from *Yukulme* on the Feather River (Kroeber 1929:254). Since Tom was blind from a young age, it is probable that he stayed home with his mother to a greater extent than other boys his age, and consequently learned much of his geographical information from her. It may be that his considerable knowledge about Valley villages and peoples such as the Patwin to the west, in contrast to his lack of knowledge about the Folsom area and Foothill Nisenan, are more a product of these particular learning experiences than a reflection of the actual relationships between groups.

Two of Kroeber's students, Beals (1933) and Littlejohn (n.d.), carried out research with Foothill Nisenan in the late 1920s. Both of these documents contain important data regarding subsistence, settlement systems, social organization, and material culture pertinent to the study area. There were a number of Nisenan consultants living throughout the foothills who were able to give substantial and detailed information at that time. Unfortunately, a map originally prepared by Littlejohn has been lost for many years (Littlejohn n.d.:prefacatory note by Kroeber, 1958).

These basic ethnographies are supported by other investigations, principally Gifford (1927) and Loeb (1933), both of whom focus on ceremony, and a brief article by Faye (1923). Voegelin (1942:y) administered the Culture Element Distribution list for this area in 1936, working with Foothill Nisenan consultants. Her work is thorough and thoughtful and provides both validation of the earlier studies as well as additional detail. Unlike the circumstance for Valley Nisenan, for whom there was but one representative, a number of Foothill Nisenan consultants contributed information to these studies.

In 1939, J.P. Harrington also interviewed Foothill Nisenan consultants. His notes on this group are reportedly brief (Mills 1985:21), but judging by previous examination of Harrington's notes for other groups, his Nisenan notes contain linguistic and perhaps ethnogeographic data of value to the project area. Inspection of these notes was beyond the scope of research for this project, but it should be recognized that they may be useful for future projects.

More recently, Payen (1961) has presented data on the Walltown Nisenan, who resided in a post-contact village about eight miles south of Folsom and on approximately the same elevational contour as Folsom Dam. They are thus comparable to the residents of the project area in their transitional

relationship between the Valley and Foothill Nisenan, but the vicinity of the confluence of the two major forks of the American River undoubtedly presented a significantly different circumstance for its precontact occupants than the less centrally located Walltown. Payen specifically addresses the nature of the regional transitional relationship and provides some new data on the post-contact social circumstances of the Nisenan people.

Wilson and Towne (1978) present a valuable synthesis of Nisenan culture in their chapter in Volume 8 (*California*) of the Handbook of North American Indians, and also provide some new information based on Wilson's own fieldwork with Foothill Nisenan in the late 1950s and 60s. Additionally, linguistic investigations have been carried out by Udall and Shipley (1966). Finally, some sense of the circumstances for the Nisenan during the early contact period in the Sacramento area is provided by Sutter (1939 [orig. 1845-1848]), Lienhard (1941 [1846-1850]), and Paul Wilhelm, Duke of Wurtemberg (n.d.). Unfortunately, none of these on-the-spot observers recorded details which are pertinent to the study area, although their comments are useful in understanding the EuroAmerican/Indian relations during that period.

In sum, there is considerable general information pertaining to the Foothill Nisenan but more limited knowledge about the Valley Nisenan in the available literature and unpublished documents. This imbalance presents some challenges for any attempt to make a close comparison between the Valley and Foothill cultures, although this distinction is stressed by both Kroeber and Beals. While there are no specific ethnographic data for the study area, the more general data base provides an adequate foundation for inferences and hypotheses pertaining to the prehistoric and ethnographic use of the Folsom Reservoir vicinity.

Language, Territory and Boundaries, and Population

The Nisenan speak Nisenan or Southern Maidu, one of three languages in the Maiduan language family, which also includes Konkow (Northwestern Maidu) and Maidu (Mountain or Northeastern Maidu) (Shipley 1978:83). Maiduan belongs to the Penutian language stock, which is a classification of distantly related language families whose member languages were spoken across a widespread area of central California. Nisenan was probably the largest of the three Maiduan groups and was spoken as a number of dialects, seven of which have been identified (Shipley 1978:83). These dialects may have corresponded to political units.

The Nisenan, the most southerly of the Maiduan speakers, held a territory that stretched from the South Fork Feather River south to the Middle Fork Cosumnes River, and from the Sacramento River east to the Sierran crest (Beals 1933:338-339; Kroeber 1925:391-392; Merriam and Talbot 1974:16-17); Plains Miwok territory may have been just a few miles to the south (Bennyhoff 1977). Nisenan apparently did not reside in the mountains above the 3000 ft elevation, but used this territory for summer hunting and gathering expeditions (Beals 1933:363). The Washo, to the east, also used this zone as hunting territory, and Nisenan and Washo hunting groups often had fights here (Littlejohn n.d.:13, 66). Several, but probably not all, subdivisions of Nisenan have been identified by anthropologists. The Valley Nisenan held a territory along the Sacramento River from just below the confluence with the American River, up river to just beyond Yuba City/Marysville; it also extended eastward approximately eight miles along the American River (Kroeber 1925:392, 1932:map, end;

Merriam and Talbot 1974:17). Both Kroeber (1929:253-256) and Beals (1933:338) note that there was a sharp distinction between the Valley Nisenan and the Foothill groups.

The Foothill divisions are not as well defined and are perhaps better described by the foci of major settlement. Several of these centers are Grass Valley/Nevada City, Clipper Gap, Auburn, Georgetown, and Latrobe (Beals 1933:335-339; Littlejohn n.d.:13-16; Wilson and Towne 1978:387). While these researchers felt that it was not possible to determine clear boundaries for these groups, Heizer (1966:Merriam Map), based on Merriam's work (Merriam n.d.a; Merriam and Talbot 1974:17), has placed boundaries along the North and South Forks of the American River, so that three Foothill groups would have converged at what is now Folsom Reservoir. He also draws the Valley–Foothill boundary, which trends northwest/southeast along the eastern geological edge of the Sacramento Valley, at the confluence of these streams. It must be considered, however, that Heizer may have over-defined these boundaries in order to achieve a precise map corresponding to Euro-American concepts of territoriality and ownership. Nevertheless, it is probable that this confluence of major streams was an area of importance to several Nisenan groups, and use was undoubtedly regulated by intergroup agreement. There is consensus regarding the Valley–Foothill boundary in the vicinity of the town of Folsom, and it may be suggested, then, that this was a zone of interaction and trade between the Valley and Foothill Peoples.

There are no comprehensive population figures available from early observers for the Valley and Foothill Nisenan, and estimates vary considerably. Kroeber (1925:394, 883) assigned 9,000 to the Maidu as a whole; Nisenan, the largest of the three divisions, may have comprised half that number. The Valley Nisenan, again representing the larger population, could have numbered 3,000, with the Hill Nisenan at 1,500 under Kroeber's scheme. Cook (1976) allots much larger numbers to this group. On the basis of some early observations of the large village populations along the Sacramento River, he assigns the four tribes in the Sacramento Valley a population of 47,000 non-missionized Indians (Cook 1976:19); Valley Nisenan, if a fourth of this, would number approximately 11,750. According to Cook's estimates, Hill Nisenan and Hill Maidu together numbered 7,400 (Cook 1976:19), or 3,700 each. Cook's estimates are almost four times higher for the Valley Nisenan and 2.5 times greater for the Hill Nisenan than Kroeber's. His overall population estimates for the whole state (304,440 [Cook 1976:43]) are only a little more than twice Kroeber's (133,000 [Kroeber 1925:883-884 ff]), so that his reassessment significantly increases estimates for the Maidu.

Settlement and Subsistence

The Valley Nisenan reportedly lived in large towns along the American and Sacramento rivers (Kroeber 1925:395), while the Foothill peoples tended to locate their major settlements "on a knoll or on a bench of the mountainside on high ground between the rivers" (Beals 1933:363; Kroeber 1925:395). In his *Handbook*, Kroeber (1925:Plate 37) places three villages on the American River between the towns of Sacramento and Folsom, as well as one on the South Fork of the American in the vicinity of the study area. By 1929, he lists 12 villages, apparently all Valley Nisenan, along the American River between its confluence with the Sacramento River and Folsom, and many more upstream on the Sacramento (Kroeber 1929:256-257). He does not list any upstream of Folsom, presumably because the upstream area is Foothill Nisenan territory. Unfortunately, Kroeber does not provide a map which locates these additional settlements, which were identified by Blind Tom.

Wilson and Towne (1978:388), with a wider variety of historic sources at their disposal, place 10 villages along the American and show considerable, though not total, agreement with Kroeber. Clearly there was a large village in the vicinity of Folsom named either *Yolimhü* (Kroeber 1929:256) or *Yodok* (Kroeber 1925:394, Plate 37; Wilson and Towne 1978:388). A village is also identified on the south bank of the South Fork American River within the study area. Kroeber names this settlement *Yalisu-mni* (Kroeber 1925:394, Plate 37), while Wilson and Towne identify it as *Yukulu* (Wilson and Towne 1978:388). There is some disagreement regarding the name of this village, however, as well as the location of the villages by these names. In 1925, Kroeber places *Yüküli* well up on the South Fork towards Coloma (1925:394, Plate 378) but by 1929, he places *Yüküli* below Folsom, near Fair Oaks; he does not locate any settlements beyond Folsom in 1929 and so leaves this question unresolved [Kroeber 1929:256]. In turn, Wilson and Towne (1978:388) place *Yalisumni* downstream on the American, closer to the Sacramento River. Thus, while there is no agreement on the name, there does seem to be consensus that there was an ethnographic village on the South Fork, perhaps in the vicinity of CA-ELD-1 (refer to discussion of prehistoric context, below).

Additionally, the village of *Odayan* is located on the north bank of the North Fork (Wilson and Towne 1978:388), possibly in the vicinity of Rattlesnake Bar and within the study area. Riddell also places a settlement, *Batak Pai*, in this area, based on information from Lizzie Enos (Riddell 1965); Kroeber does not mention a village in this area. These two named settlements on the North and South Forks are certainly Foothill Nisenan settlements and probably represent distinct socio-political groups.

Nisenan villages ranged in size from small, with 25 to 30 residents, up to large, with 500 and even 1000 persons (Cook 1976:9; Kroeber 1925:831; Wilson and Towne 1978:389). The largest villages were in the Valley, along the Sacramento River and its tributaries. Each Valley village consisted of a number of pole-frame dome-shaped houses, called *hü*, 10 to 15 feet in diameter and covered with tules or tule mats plastered with earth (Kroeber 1925:407; Wilson and Towne 1978:388). Major villages had one and sometimes two ceremonial/ dance house(s) or *k'um*, owned by the chief(s). The *k'um* was a large semi-subterranean structure with the door to the west, and, like the dwelling, was earth covered (Kroeber 1929:259,271). Most villages also had at least one sweathouse or *k'um-im-hü*, separate from the dancehouse and similar in construction although smaller, accommodating only four to five men (Kroeber 1929:259; Wilson and Towne 1978:389).

Dwellings, called *'hu* in the Valley and *hu'pu* in Foothill Nisenan villages, were conical bark or brush thatch covered structures with a shallow, excavated floor (Beals 1933:344; Voegelin 1942:66). Major Foothill villages also had a ceremonial house and sweathouse similar in design to those in the Valley villages (Beals 1933:344; Voegelin 1942:66-67). Both Valley and Foothill villages also contained granaries for storage of acorns and other winter supplies (Wilson and Towne 1978:388). When people travelled away from the main villages for summer gathering expeditions, they constructed temporary brush shelters at their camps (Kroeber 1925:407).

Both the Valley and Foothill Nisenan had access to diverse resources throughout their territories, and they scheduled their subsistence activities according to the seasonal availability of critical, target harvests. Many foods were prepared and eaten immediately after they were gathered, but large amounts were also dried for storage and delayed consumption or for trade with neighboring groups. Families and/or groups of families moved to the gathering sites as the location of the resources and

season dictated, returning to the permanent village to store the harvests and to live during the winter months. The plant gathering cycle began in spring with the collection of fresh greens, such as clover, which appeared in the fields. The season continued with the digging of a variety of available bulbs and later the collection of the many grass and "weed" seeds. Tule roots were an important food for the Valley people, and the stalks were used extensively for the production of matting and fibers. Berries and nuts, particularly pine nuts, were available in late summer and early fall, and vast quantities of acorns were gathered later in the fall.

Valley people collected acorns from the local Valley oaks (*Quercus lobata*), while the Foothill people collected blue oak (*Q. douglasii*) and black oak (*Q. kelloggii*) acorns. In the Valley, some trees were owned by individuals or families (Kroeber 1929:261). Black oak acorns were the most highly preferred variety, and the Valley people traded with the Foothills people to obtain them (Beals 1933:351). The people stored as many acorns as possible, since this was the basic staple food and was also important for ceremonies. Acorns were dried, stored in the hull, and shucked just prior to being pounded into a fine meal. Foothill women reportedly used bedrock mortars or portable stone mortars and natural, unshaped cobble pestles to pound their acorns, while the Valley women, living in an environment with much less available stone, used oak mortars with the hole burned out so the wood would be hard (Kroeber 1929:261; Voegelin 1942:73). The meal was then leached with several baths of water to remove the bitter tanins and subsequently cooked by stone boiling with additional water in a basket. In this fashion, large amounts of "acorn"[1] could be prepared at one time and available to feed many persons such as might attend a ceremony.

Fish, particularly salmon and lamprey eels, were essential resources for the Nisenan. The spring salmon were good but the winter salmon were "without tails" and reported to be inedible (Kroeber 1929:262). Salmon were taken by the Valley people by the use of weirs, which were built communally. The fish swam through gates into enclosures where the people scooped them up with nets (Kroeber 1929:262). The Foothill people used spears and harpoons but made extensive use of willow nets hung from two long poles. They were used at falls or bars, where the water was shallow. Two or three villages were likely to join together for such a venture, and some of the best fishing locations were owned. The falls (in the vicinity of the town of Folsom?) were owned by the local chief (Beals 1933:347). Salmon was preserved by slicing the meat and hanging it on poles to dry or by cooking and drying and then pounding it to powder (Kroeber 1929:262). The rivers also yielded numerous other fish, as well as freshwater clams and mussels (Wilson and Towne 1978:389).

Large game mammals were an important component of the diet and in the study area included deer, antelope, elk, and bear (Beals 1933:347-348; Kroeber 1925:409-410; Voegelin 1942:58-59). Small game such as rabbits and squirrels were taken, as were many varieties of birds, particularly water fowl; water fowl were especially valuable since they were abundant in the winter, when other resources were scarce. These animals not only provided essential foods throughout the year, but their hides, feathers, bones, and sinew supplied necessary materials for clothing, blankets, and tools (Beals 1933; Kroeber 1925, 1929; Voegelin 1942; Wilson and Towne 1978).

Deer were hunted communally by driving them into a surround or past a concealed hunter who shot them with a bow and arrow (Voegelin 1942:51; Wilson and Towne 1978:389). Individual hunters wearing antlers and hides also stalked deer or trapped them in deadfalls (Beals 1933:347-348; Kroeber 1925:409-410, 1929:262; Voegelin 1942:51-53). Antelope could be taken in drives or

surrounded by hunters, while elk were usually hunted in the soft ground near the river or sloughs where they could not run (Kroeber 1925:410; Wilson and Towne 1978:389). Rabbits were driven into 100-foot-long nets which were usually owned by thechief, and birds were trapped with a variety of nets, nooses, and snares (Beals 1933:348-350; Kroeber 1925:410).

Large game was shared with the village, but small game belonged to the hunter. Like other foods, meat was sun dried in strips, which might then be pounded into a powder. Both strips and powder were stored in baskets, usually in the house (Beals 1933:350). Thus all subsistence activities had a dual objective: to provide food for immediate use, and as importantly, to generate a food supply for future use, whether for winter supplies when fewer resources were available or for ceremony and trade with other groups.

Social Organization, Trade, and Ceremony

As with many other California Indian peoples, Nisenan political organization focused in a major village which was associated withone or more satellite settlements. The chief, or sometimes two or three chiefs, resided in this village, and all political and ceremonial activities centered here, where the ceremonial/assembly house(s) belonging to each chief was(were) located. The people of this village and its associated settlements controlled a common territory, cooperated together in subsistence and ceremonial activities, and were known by the name of the principal village (Beals 1933:358-359).

A man from the chiefly lineage inherited the position via rules of patrilineality and primogeniture, although group consensus was also required. The chief had few explicit powers but rather administered the group through influence and persuasion. He was always a wealthy man and was responsible for the well-being of his people, particularly the elderly and poor, who were unable to provide adequately for themselves. The chief was also responsible for seeing that the "Big Times" and ceremonies were held, and he contributed major portions of the food for these events; he received gifts of resources, foods, and other goods from his people to help him meet this obligation (Beals 1933:360; Voegelin 1942: 105; see also Kroeber 1929:264-265). The chief also directed the group in its necessary subsistence activities, such as acorn collecting and rabbit drives. Additionally, he settled intra-tribal disputes and conducted inter-tribal relations (Beals 1933:358-362; Voegelin 1942:105-106).

Trade was a major component of inter-tribal relations, in which the chief took a leading role. Considerable trade was conducted between the Foothill Nisenan groups across ecological zones which produced different resources. Peoples higher in the mountains traded black oak acorns and sugar pine nuts with those lower in the foothills for salt, game, fish, roots, grasses, beads and shells. Feathers were also of great value in these exchanges. Trade was practiced more formally and was more limited between the Foothill Nisenan and their Valley neighbors. Large groups (100-200) of Foothill men travelled at night to the Valley to make the desired exchanges, which were usually made between relatives. These trade groups did not stay overnight in the valley, thus suggesting suspicious or even hostile relations between the groups.

Acorns, salt, and beads comprised the major trade items (Beals 1933:365). The Valley People received black oak acorns; sugar pine nuts; manzanita berries; yew wood for bows; yellowhammer

and red-headed woodpecker scalps and feathers; dried deer and bear meat; wild cat, mountain lion, and bear hides; rabbit-skin blankets; redbud for baskets; milkweed for fiber; and salt, all of which were available in the foothills (there were valuable salt deposits near both Rocklin and Cool) (Beals 1933:365; Littlejohn n.d.:35). In return the Foothill people received basket roots, oyster shells, salmon, antelope meat, and the valuable shell beads which moved from the coast into the interior through active trade networks (Beals 1933:365; Littlejohn n.d.:35). Clamshell disk beads were equivalent to money, as they had a standard value and acted ascurrency for most other resources and goods. Many other kinds of highly valued shell beads also moved through this exchange system. The east/west trade routes generally followed the major streams, and major trails in Nisenan territory approximated the routes of Highway 50 and old Highway 40 (now partially re-routed Interstate 80) (Davis 1974:73, Map 1). Consequently, the vicinity where the streams converged— the Folsom area— may have been an important trade center.

Ceremony was also an important component of inter-tribal relations at the same time that it was essential for the well-being of the local group. The Valley Nisenan, along with the Patwin, Pomo and Miwok, performed a complex ceremonial cycle, the Kuksu cult, which was administered by the leaders of the secret society (Gifford 1927; Kroeber 1929:266 ff, 1932; Loeb 1933). The Foothill Nisenan did not have a secret society, so while they performed some of the spirit impersonation dances associated with the Kuksu ceremonies, according to Kroeber, they did not have the Kuksu cult proper (1929:267; 1932:376). This elaboration of ceremony found in the Valley Kuksu performances is a major distinctionbetween the Valley and Foothill cultures (Gifford 1927; Kroeber 1929); however, Gifford identifies the groups at Folsom, Michigan Bar, and Ione as transitional between the two and notes that they "approach more closely the high culture of the delta region of the Sacramento and San Joaquin rivers" (1927:219). Kuksu ceremonies were held in the large semi-subterranean dance houses found in major villages. The regalia for the spirit representations were beautiful and elaborate, skillfully crafted of many feathers, which unfortunately would leave no trace in the archeological record. Residents of neighboring villages came to these ceremonies, both as participants in and witnesses for the ceremonies, which continued all night for three or four consecutive nights (Kroeber 1925:388).

In addition to the ceremonial cycle, rituals for the dead were a prominent component of Nisenan religious expression. Initially upon the death of a community member, a funeral was performed. Foothill Nisenan reported that they always cremated the deceased until this practice was stopped by the Whites (Beals 1933:376), and this may also have been true of the Valley Nisenan (Kroeber 1925:404). All of the deceased's property was burned with the body. If it was a chief's or other wealthy person's cremation, a considerable amount of property would be burned at this time. When the ashes cooled, they were gathered together in a basket and buried in the cemetery, which was separate from the burning ground. Each settlement had its own burning ground but not its own cemetery; apparently there were centralized cemeteries which were shared by several communities (Beals 1933:376). In the precontact period, these cemeteries were on high knolls, but when grave robbing became a problem after contact, the Nisenan moved the cemeteries closer to their villages so they could protect them more effectively (Beals 1933:376).

Several months to a year after the funeral, the Nisenan held a mourning ceremony or "cry" for the deceased. There seems to have been considerable variation in the expression of this event across Nisenan territory. Kroeber (1929:272) reports that it was a fairly simple one-day observance, during

which clothing, baskets and beads were burned in honor of the dead, and the participants cried. The comparable ceremony was more complex for the Foothill Nisenan[2]. It was a several day event held in the fall for one, and sometimes several, person(s) who had died during the previous year. Neighboring groups were invited to attend and participate. Images of the honored deceased were made for display during the ceremony. Extensive and often lavish gifts of baskets, beads, clothes and food were hung on poles for display and ultimately burned along with the images in the final phase of the ceremony. Since the same categories of goods were burned at both a funeral and at a cry, it might be difficult to distinguish the two on the basis of archeological evidence.

The chief delivered an oratory to the audience, and the participants sang mourning songs, danced, wailed, and finally were purified after the burning in a face washing ritual. The event closed with a communal feast provided by the chief and principal mourners (Vogelin 1942:141-142). The cry was an important inter-group event which probably alternated between several neighboring groups every several years.

Ethnohistory

The indigenous patterns of Nisenan society were irrevocably changed with the arrival of Euro-Americans in California. The first colonizers were the Franciscan priests who began to establish their missions along the coastal strip in 1769. Over the next five decades they forced multitudes of California Indians to convert to Christianity and into the agricultural labor system at the missions, where thousands died of Old World diseases to which the Indians had no immunity. The padres and soldiers invaded the Central Valley seeking new converts, destroying villages and capturing many Indians from Bay Miwok and Patwin groups not far south of the Nisenan, but there are no records which indicate that Nisenan people were seized in these raids during this time period. Some neophytes escaped the missions, fleeing to tribes in the interior and bringing information about the Euro-Americans (and probably diseases, too). Undoubtedly, the Nisenan were affected to some degree by these activities, but there is no record of these impacts.

By the 1830s, however, more Whites were coming to California, principally trappers who operated throughout the Central Valley. These expeditions also brought diseases, and in 1833 the Indian population was decimated by a pandemic thought to be malaria (Cook 1955). This certainly would have had a devastating effect on the Nisenan communities. Additionally, by this time Mexico had won its independence from Spain and was instituting new administrative policies in California. Many new land grants were given to private citizens for enormous ranchos (the missions had previously controlled much of the land), and like the missionaries, the ranchers sought their labor supply in the native villages, which they raided for strong, young workers and servants. Although the missions were secularized in 1834, the Baptismal Register for Mission San Jose shows that Indians from the Cosumnes/Sacramento area, a few Nisenan among them, were baptized in 1836, as was another, similar group in 1840 (Milliken, personal communication 1994).

The Mexican government also allowed a small number of other nationals to settle, apply for Mexican citizenship, and so become eligible to receive land grants. One such was the Swiss immigrant John Sutter, who in 1840 established a fort, which he named New Helvetia, on the south bank of the American River in Valley Nisenan territory. Sutter engaged in cattle ranching, fur trapping, wheat

farming and other agricultural pursuits and also developed a grist mill, sawmill (in the foothills at Coloma), and tannery. Much of his labor was supplied by local Indians, whose services he contracted for with the local chiefs (Sutter 1939). Sutter locked his workers in the fort at night so as to have them on the job in the morning (Lienhard 1841:68). Undoubtedly, Nisenan from the project area were significantly affected by John Sutter's nearby activities. It is also clear throughout Sutter's and Lienhard's diaries that there was considerable illness throughout the local native communities, i.e., the Nisenan, at this time. Although Sutter identifies a number of "captains" and others from particular villages, he does not mention anyone who can be tied specifically to the Folsom area.

Circumstances became incrementally worse for the Nisenan when gold was discovered at Sutter's sawmill in Coloma, in their territory on the South Fork of the American River, in 1848. A year later, 100,000 miners poured into the Sierran Foothills, many of them through the Sacramento/Folsom area, disrupting Nisenan (and other Indian) life and often destroying villages and homes. The riverbeds held the placer gold deposits and were thus a major focus of mining activities for many years. Consequently, Nisenan residents of the study area would have borne a major brunt of the Gold Rush. In 1861, miners burned a Nisenan village near Cameron Park, murdered the leaders, and drove the 450 residents away (Payen 1961:6). This is well after the initial onslaught of prospectors into the Folsom area, during a decade for which no specific records exist regarding White/Indian relationships in the vicinity. On the basis, however, of reports for Cameron Park and many other similar incidents throughout the foothills, it was a devastating period for the Nisenan, and most of the population either died of disease, were murdered by miners, or left the area for more remote, safer locations. For instance, nearby and to the south, Nisenan abandoned a large, old village on Deer Creek in 1872, and most Nisenan residents left their home in Walltown (also just south of Folsom) prior to 1880, although a small group remained into the 1880s (Payen 1961:6). However, "no date was established for the disappearance of the peoples in the Folsom area" according to information collected by Payen from local settlers' whose personal observations dated to the 1860s and 1870s (Payen 1961:6).

It may be assumed that the Nisenan abandoned the Folsom Reservoir area by the early 1850s to seek refuge in more remote locations, possibly in the foothills. Even C. Hart Merriam, who was often able to locate representatives of groups considered "extinct" by other Whites, was able to find only one elderly man (Tom Cleanso) and his sister in 1903[3], indicating that the Nisenan had indeed left the area. The inference is that no archeological evidence will reveal post 1850 use of the study area.

Endnotes:

1. There are several different products which can be made from the acorn meal, and each native language has distinct names for each product. In English, many California Indian peoples refer to these foods as "acorn" (McCarthy 1993).

2. It must be considered here that Kroeber's information on the Valley Nisenan is very limited, and his data for this ceremony may not be representative of the actual practices.

3. The sister was an unwilling consultant and so, unfortunately, no information was collected from her.

Prehistoric Context

Folsom Reservoir lies at the junction of two relatively well-studied culture areas: the lower Sacramento Valley/Delta and the north-central Sierran foothill/mountain region. Culture histories have been written for both of these areas, and for the foothill zone to the north (Auburn, Oroville) and south (New Melones) of Folsom; none has been developed as yet for the Folsom area itself. The prehistories of the lower Valley and the north-central Sierra, as they are presently understood, are summarized here very briefly. For more detail, consult the references cited.

Sacramento Valley Chronology

Some of the earliest archeology in northern California took place just a few miles south of Folsom, along the Cosumnes River, where students and faculty from Sacramento Junior (now City) College excavated at several mounds above the floodplain of the river. Their excavations uncovered many human burials with associated grave offerings— particularly shell beads, ornaments, and charmstones— which formed the basis of the first cultural sequence for the lower Sacramento Valley and Delta (Lillard *et al.* 1939; Lillard and Purves 1936). With later revisions (Beardsley 1948, 1954; Heizer 1949, 1974; Ragir 1972), this sequence, which became known as the Central California Taxonomic System, delineated three Central California horizons—*Early*, *Middle*, and *Late*. The *Early Horizon* is characterized by extended burials with westerly orientation and frequent grave offerings; heavy stemmed and leaf-shaped projectile points; well-made charmstones; certain types of *Haliotis* and *Olivella* shell beads; and rare milling equipment. The *Middle Horizon* is represented by more varied types of burials (including cremations) and burial orientations; large, heavy, concave-base projectile points; fishtail and asymmetrical spindle-shaped charmstones; characteristic shell bead types; cobble and wooden mortars; and many bone and baked-clay artifacts. The *Late Horizon* is marked by preinterment burning of grave offerings; small, side-notched arrow points, often serrated and mostly of obsidian; distinctive *Haliotis* and *Olivella* shell bead types as well as clamshell disc beads and magnesite beads and cylinders; stone pipes; incised bird bone; flat-bottomed mortars and cylindrical pestles; an abundance of baked-clay artifacts; and, in the latest period, historic materials. Bennyhoff (1977:46) divided the Late Horizon into five periods— one prehistoric, one protohistoric, and three historic (the Mission, Sutter and American periods).

It was Beardsley (1948, 1954) who first recognized the fact that the beads and ornaments commonly recovered as grave offerings at these sites were temporally diagnostic. James Bennyhoff spent much of the next several decades refining a cultural chronology based on these artifacts; his Scheme B (Bennyhoff and Hughes 1987) dates the Early (sometimes called "Windmiller") Period at about 5000-2500 B.P., the Middle Period at about 2500-1300 B.P., and the Late Period at about 1300 B.P. to the Historic era.

The Central California Taxonomic System did not account well for cultural variation between sub-regions, nor for gradual changes through time. It dealt primarily with material culture and paid little attention to subsistence and settlement, social organization, or other patterns of behavior. As Moratto (1984:201) has observed, "central California prehistory was far too complex and dynamic to have been represented by [such] a monolithic scheme." Consequently, other researchers have broken the prehistory of the region into local *districts* and *phases* (Bennyhoff and Fredrickson 1994).

North-Central Sierran Foothills Chronology

There is no definitive cultural sequence for the north-central foothills; instead, various local sequences have been developed (see below). While some researchers working in the region have referred to the Central Valley/Delta sequence (e.g., J. Johnson 1970), others— including many working at Folsom Reservoir— have tried to relate their findings to the Martis–Kings Beach sequence first developed by Heizer and Elsasser (1953) and later revised by Elsasser (1960), Elston (1971), Elston *et al.* (1977), and Elsasser and Gortner (1991). While Elston *et al.* (1977) have tentatively identified earlier assemblages, the Martis "Complex" represents the earliest *well-documented* occupation of the north-central Sierran foothills and mountains, including the area around Lake Tahoe and extending northward at least into Plumas and Lassen counties, and southward into Alpine County (Elsasser 1960). The defining characteristics, as outlined by Elsasser and Gortner, include a preference for local basalt over chert or obsidian; projectile points which are large and heavy, roughly flaked, and variable in form (but resembling several Great Basin forms, including those of the Elko series); grinding slabs and handstones as the dominant milling equipment; an apparent economic emphasis on hunting and seed collection (based in part on the large numbers of projectile points and grinding slabs found); and an abundance of distinctive tool forms, including basalt pressure-retouched flake "scrapers," finger-held drills or punches, large biface blades and cores, and spokeshave-notched tools with a concave edge. Elsasser and Gortner also note the frequent association of Martis assemblages with petroglyphs of the "Central Sierra Abstract Style" and suggest that these locations may represent high-elevation summer hunting camps. Radiocarbon dates and obsidian hydration measurements suggest a date of about 4000–1500 B.P. for the Martis Complex (Elsasser and Gortner 1991:361).

Later assemblages in the same region usually are attributed to the Kings Beach Complex, believed by some researchers to represent the ancestral Washo (Elston 1971; Elston *et al.* 1977). These groups apparently emphasized a fishing over a hunting strategy and preferred (or simply had better access to) obsidian and chert over basalt. They used bedrock mortars and cobble pestles, bows, and arrows tipped with small, light projectile points (including points resembling Desert Side-notched, Cottonwood, and Rosegate forms). Heizer and Elsasser (1953) dated the Kings Beach Complex to no earlier than 1000 years ago, leaving a 1000-year gap between it and Martis. The revised sequence developed by Elston *et al.* (1977:171) has no such gap; rather, they saw evidence for a transitional phase between the two (1977:16). This revised sequence has been adopted and used by most archeologists working in the north-central Sierran mountains and foothills since that time, even though many questions have been raised about its validity (see, for example, Jackson *et al.* 1994:I.B.10).

Other Sierran/Foothill Chronologies

Excavations in the northern foothills in the vicinity of Oroville (Humphreys 1969; Kowta 1984; Ritter 1970) and in the area around Grass Valley and Nevada City (Clewlow 1984; Kowta 1988) have given rise to several local cultural sequences. These sequences share several traits with each other and with "Martis" assemblages, including a shift from milling slabs and handstones to (bowl, hopper, or bedrock) mortars and pestles; and from certain types of large, heavy basalt and slate points to more gracile forms made predominantly of cherts and obsidians, and including especially those forms

referred to as Cottonwood Triangular and Desert Side-notched. These and other similarities led Kowta (1988) to suggest that the early foothill complexes identified by various researchers should be considered local manifestations of a larger Martis "Tradition" (a term used earlier by Ritter [1971]).

Summary of Previous Archeological Research in the Lower Sacramento Valley and North-Central Foothill Regions

What little we know about the subsistence, settlement, and material culture of the prehistoric populations in the valley/foothills transition zone comes from a few documented studies carried out in within about 20 miles of Folsom Reservoir. One such study was at CA-SAC-225, a large, multi-component site located on Deer Creek about 12 miles south of the reservoir. It was excavated in the 1960s and yielded large numbers of broken or incomplete groundstone artifacts. Analysis of these artifacts by D. McGowan led to the conclusion that CA-SAC-225 was a groundstone manufacturing site and may have been a source of these artifacts for other sites in the lower Sacramento Valley where appropriate stone is relatively scarce (McGowan 1990). Although analyses of temporally diagnostic artifacts (beads, charmstones, projectile points) from the site have not yet been published, preliminary comparison with similar artifacts at nearby dated sites suggests primary occupation during the Middle and Late periods (i.e., after about 3500 B.P.); scant evidence exists of use during the Early and Protohistoric periods, as well. The presence of melted and fused glass trade beads may indicate use as a "cry" site during Historic times; the burning of large quantities of these beads at such ceremonies has been reported by early White occupants in the foothills near Placerville.

CA-SAC-267, the Blodgett Site, is located roughly 18 miles south/southwest of the project area. Excavations were carried out at the site in the 1960s and 1970s by several archeologists, and the data gathered into a report by J. Johnson and others in 1976. These excavations yielded many burials and burial offerings, structure remains, and artifacts, as well as floral and faunal materials. Based on obsidian hydration, radiocarbon dating and cross-dating of time-sensitive artifacts, Johnson (1976:366) placed the occupation of the site at between A.D. 500 and 1840 (Late Horizon). Two components were represented, the earlier one characterized by Gunther-barbed projectile points and Type 2a1 *Olivella* beads, and the later one by Desert Side-notched, Stockton serrated and Stockton side-notched, and small triangular points, clam diskbeads, steatite beads, several types of *Olivella* beads and *Haliotis* ornaments, coiled and twined basketry, and a baked-clay industry with pottery, effigies, pipes and other artifacts. Based on the baked-clay materials at CA-SAC-267 and at other sites in the vicinity, Johnson (1990) defined a pottery type for the lower Cosumnes and Sacramento rivers which he named Cosumnes Brownware.

In 1991, archeologists from Far Western Anthropological Research Group, Inc., conducted test excavations for CalTrans at CA-SAC-133, about a mile and a half east of Sloughhouse and 13 miles south of Folsom Reservoir (Bouey and Waechter 1992). The site, an occupation and cemetery mound above the floodplain of the Cosumnes River, contained many burials, six of which were exposed and radiocarbon dated to between 1500 and 1100 B.P., or the terminal Middle and Middle/Late transition periods. These burials included a wide variety of *Olivella* shell bead types dating primarily from the early Middle, Middle, and Middle/Late transition periods. Temporally diagnostic artifacts from the midden included five large "Martis-series" contracting-stemmed, corner-

notched, or concave-based points; 10 smaller points of the Desert Side-notched, Gunther, or Stockton series; tubular bone beads; stone disk beads; a steatite pipe fragment; and a drilled canid tooth. Hydration readings on 99 obsidian specimens ranged from 1.3 to 7.5 F (excluding one outlier of 10.2) on predominantly Napa Valley glass; other obsidians (Bodie Hills, Borax Lake, Casa Diablo, Queen, Mono, Coso?, and Unknown) were present in very small numbers. Carbonized plant remains recovered from the site included acorn, buckeye, gray pine, bay, manzanita, wild grape, wild cucumber, tule, elderberry, clover, brodiaea, and a variety of grasses and herbs. Identified faunal remains included those of deer and elk, as well as 12 other mammal species (large and small), seven bird taxa, and at least 10 taxa of lentic and riverine fish.

One of the earlier studies conducted in the north-central Sierran foothills was a salvage excavation at the Applegate Site (CA-AMA-56) in 1965 (J. Johnson 1970). CA-AMA-56 is located on a knoll near the confluence of Jackson and Dry creeks, approximately six air miles south of Folsom Reservoir. The excavations yielded the remains of at least 29 human interments; grave offerings included *Olivella* beads, *Haliotis* pendants and ornaments, modified bone and bone tools, stone pestles, and *Margaritifera* shell spoons. The site also contained flaked, ground and battered stone tools, debitage, stone beads and pendants, a charmstone, fragments of baked clay, and a wide variety of bone implements. Obsidian hydration on five projectile points from the site ranged from 3.4 to 5.7 F (Napa Valley). Based on artifact types, burial patterns and hydration measurements, Johnson (1970:119-120) hypothesized that the site was occupied from the Early Horizon into the early Middle Horizon, and that the assemblage showed similarities to both the Central Valley and the foothills. For these reasons, he felt that data from the site could help to address questions of temporal and cultural transition in the region.

Another study, important because of its proximity to the project area and its early use of obsidian hydration data, is Eric Ritter's (1971) excavations at five sites for the proposed Auburn Dam. From one of these, CA-PLA-101 (Spring Garden Ravine) near the town of Foresthill (about 20 miles northeast of Folsom Reservoir), Ritter obtained three radiocarbon dates and obsidian hydration readings, ranging from 1.0 to 8.9 F, with all but four readings at 2.0 F or greater (mean = 4.4 F; no source data given). The ^{14}C dates were 3350 $\pm$ 110 B.P., 974 $\pm$ 90 B.P., and 911 $\pm$ 80 B.P. Ritter interpreted these data to mean that CA-PLA-101 was first occupied prior to 3350 B.P. and inhabited sporadically (perhaps seasonally) until about 200 years ago, with a brief period of intensive use—presumably based on the two younger radiocarbon dates— at around 1000-900 B.P. Ritter recovered 572 projectile points and fragments, including 381 typeable specimens, which he classified into arbitrary types based on "attribute clustering supplemented by intuitive reasoning" (1970:327). The drawings and photographs in the report show many forms of points and drills/perforators closely resembling "Martis" forms as illustrated by Elston *et al.* 1977 (figures 17-29), as well as two forms (small triangular and Desert Side-notched points) which Ritter describes as distinctive of the Kings Beach and Oroville complexes (1970:520). Excavations at CA-PLA-101 also yielded large numbers of bifaces, cores and cobble/core tools, retouched flakes, debitage, milling slabs, handstones, and hammerstones. Faunal bone, though poorly preserved, was also recovered (288 g), identified as small and large mammal (including *Odocoileus*) and bird.

Suggested Chronological Framework for Future Studies at Folsom

The application within the north-central Sierra of various— often very tentatively defined— cultural chronologies developed for other areas has served to cloud, rather than to clarify, the picture. Recognizing this, R. Jackson *et al.* (1994:I.B.10), as part of their recent research design and overview for the north-central Sierran region, have proposed a broad framework which builds on, but is largely independent of, previous chronological schemes. This framework will be discussed here in some detail because of its potential utility for the present research design. This framework begins with six *periods*, in the sense used by Fredrickson (1973a, 1973b, 1993) of time spans independent of specific artifact assemblages and therefore applicable to whole regions. Jackson *et al.* argue that, once such an over-arching framework is established, then more specific local sequences can be fitted to it. They propose the following periods, adapted from Jones and Haney's (1992) work on the central California coast (B.C. dates are converted here to approximate years B.P.): Paleoindian (11,000-8500 B.P.), Archaic/MillingStone (8500-5500 B.P.), Early Sierran (regional diversification; 5500-2600 B.P.), Middle Sierran (regional "efflorescence"; 2600-1000 B.P.), Late Prehistoric Sierran (emergence of more complex settlement systems; 1000-500 B.P.), and Protohistoric (beginning of contact with non-Indian cultures; 500-225 B.P.). It should be stressed that these dates are *very* approximate and meant only as general guidelines (R. Jackson, personal communication 1994). Preliminary data from several sites on the Eldorado National Forest above Placerville have suggested approximate hydration ranges (Bodie Hills obsidian) for these periods in some areas of the Forest; these data have also called into question the traditional assumption that large "dart" points in the region are necessarily "Martis" in age (Tremaine and Jackson 1994).

Table 1 is a comparison of several chronological schemes that have been developed for various areas of California (the Jones 1993 scheme is a revision of Jones and Haney 1992). It is obvious from the comparison that there is close agreement on the general periods and approximate dates for much of California. It is recommended that such a scheme be used in future archeological studies at Folsom Reservoir. Once the sites, components, artifact types and artifact assemblages at Folsom have been dated, these can be fitted to the larger framework to provide a basis for comparison with sites and assemblages in this and other regions.

Summary of Previous Archeological Research in the Folsom Project Area

A review of reports and maps filed at the North Central Information Center of the California Historical Resources Information System (housed at CSU Sacramento), and of the cultural resources files of the Army Corps of Engineers (Sacramento), indicates that a great number of studies have been carried out in and adjacent to the Folsom Reservoir basin (Table 2). These studies, and the sites recorded, have been documented to varying degrees. Many of the earlier site records and survey coverage maps give only sketchy locational data, with the result that some sites probably have been (unknowingly) recorded more than once; others, when checked again by later surveyors, appeared to have been misplotted or could not be found at all (Tordoff 1987a; Waechter 1992, 1993).

In 1977, as a result of a drought which substantially lowered the reservoir level, many previously unknown prehistoric and historic resources were exposed within the reservoir basin. Archeologists from the Folsom Lake State Recreation Area and the Department of Parks and Recreation conducted

Table 1: Selected Chronological Schemes for Central California

Periods[1]	**Central California Coast Jones 1993**	**Central California Bennyhoff & Hughes 1987 - B1**	**California Fredrickson 1993**	**North-Central Sierra Nevada Jackson et al. 1994**	**Tahoe-Truckee Area Elston et al. 1977**
Historic	225[2]		200	225	"Contact"
Protohistoric	500	500	500	500	800
Late	1000-800[3]	1300-1100[3]	1000	1000	1500
Middle	2600	2500-2100[3]	2500	2600	2500
Early					3500
	5500	5000	5000	5500	4500
"Milling Stone"	8500	(N/A)	8000	8500	8000
Paleoindian	11,000	(N/A)	10,000	11,000	(N/A)

Notes: [1]Period names borrowed from Jones 1993. [2]Single dates represent beginning dates in years **Before Present**. [3]Date ranges represent transitional periods.

Table 2: Documented Cultural Resources Studies at Folsom Reservoir

Date	Report	Author(s)	Type of Study	
1948	Preliminary Appraisal of the Archeological Resources of Folsom Reservoir, Placer, Eldorado, and Sacramento Counties, California	Drucker (survey led by F. Fenenga) Smithsonian Basin River Surveys	Survey (level of intensity unknown)	One site found (ELD-1); report notes very dense underbrush in reservoir basin
1976	A Cultural Resource Inventory of Folsom Lake State Recreation Area and the Proposed Auburn Reservoir	Cooley-Reynolds and Carter	Archival records search; compilation and interpretation of site records; informant interviews	
1976	An Intensive Archeological Survey of Both Banks of Portions of Miners and Strap Ravines and the Linda Creek Drainage in Placer and Sacramento Counties, California	J. Johnson	Linear survey adjacent to reservoir	53 sites recorded or re-recorded
1977	A Survey of Archaeological Resources Inundated by Folsom Reservoir	G. Olsen	Intuitive survey	53 sites recorded
1977	Effects of Inundation on the Pedersen Site, CA:ELD:201 Folsom Lake, California	Foster, Bingham, Carter, Cooley-Reynolds, Kelly	Salvage excavation	Preliminary report
1978	Archaeology in Solution: Testing Inundation's Effects at Folsom Reservoir, California	Foster and Bingham	Salvage excavation	Final report
1978	A Survey of Archeological Resources Inundated by Folsom Reservoir: South Fork American River Drainage	G. Olsen (a)	Intuitive survey	No coverage maps in report; 17 sites recorded

Table 2 (Cont.): Documented Cultural Resources Studies at Folsom Reservoir

Date	Report	Author(s)	Type of Study	
1978	Artifact Analysis of A Survey of Archaeological Resources Inundated by Folsom Reservoir	G. Olsen (b)	Laboratory Analysis	Artifact photographs and metric data included in report
1980	Cultural Resources Evaluation for the Southeast Placer County Wastewater Project, Placer County, CA	Chavez	Survey of approx. 260 acres adjacent to reservoir at Beek's Bight	"Numerous" previously recorded sites, no new sites (data from NCIC files)
1980	A Cultural Resource Assessment of the Proposed Digiorgio Development, Placer County, California	Motz	Survey of approx. 750 (?) acres adjacent to reservoir at Beek's Bight	Five sites recorded (PLA-336, -337, -338H, -339H, -340H)
1981	Cultural Resources Inundated by Folsom Reservoir: An Attempt at Historical Reconstruction	G. Olsen	Archival research	Seven historic sites researched
1981	Archaeological Reconnaissance of the Newcastle Powerhouse Project, Folsom State Park, Placer County, California	Shoup and Baker	Linear survey	Recorded portion of North Fork Ditch (PLA-520H) and two flume features (PLA-519H)
1983	Archeological Survey Report (~5 acres at Beal's Point)	Rumming	Intensive survey	No sites found
1986	Cultural Resource Assessment of the Horseshoe Bay Planned Unit Development, Placer County, California	Peak & Associates	Survey of 202 acres SW of Horseshoe Bar (adjacent to reservoir)	No sites recorded; one ditch and one (mining?) shaft noted
1987	Archeological Survey Report (30 acres along Mooney Ridge, north of Beal's Point)	Tordoff (a)	Complete survey	Four recorded sites in area, mostly underwater at time of survey; not re-recorded

Table 2 (Cont.): Documented Cultural Resources Studies at Folsom Reservoir

Date	Report	Author(s)	Type of Study	Comments
1987	Archeological Survey Report (2 Acres at Beal's Point campground)	Tordoff (b)	Attempt to re-locate and re-recorded site "KC2" (Carter and Cooley-Reynolds 1976)	No site found
1989	Status Report: Documentation of Archeological Sites at Folsom Lake State Recreation Area	Barrett	Data compendium and analysis of resource status as of 8/89; recommendations for future studies	Does not include all site records available from NCIC
1990	Archeological Survey of Mormon Island Dam [and] Brown's Ravine Haul Road	West	Small survey at southern end of reservoir	Re-recordation of one prehistoric site (ELD-261)
1990	Folsom Lake Reoperation: Historical Resources Overview	Peak & Associates	Historical overview, archival records search, list of recorded historic sites and components, list of potential historic sites and features taken from archival sources	28 recorded sites and approx. 200 unrecorded sites and features listed; includes map
1992	Folsom Reservoir Reoperation Study El Dorado, Placer, and Sacramento Counties, California: Cultural Resources Survey	Waechter	Intensive survey of 1,035 acres at Granite Bay and Horseshoe Bar	33 sites recorded, 13 sites re-recorded
1993	Final Report on a Cultural Resources Inventory of a Portion of the Folsom Reservoir Study Area	Waechter	Intensive survey of 655 acres at Beals Point and Beek's Bight	32 sites recorded, 5 sites re-recorded

an inventory of these exposed resources, recording 53 sites along the North Fork drainage and 18 along the South Fork (Olsen 1977, 1978a). Prehistoric sites included remnant middens; bedrock mortars; and scatters of milling slabs, handstones, pestles, projectile points, "scrapers," bifacial tools, cores, and debitage. Historic sites included stone or metal bridges, stone building foundations, cabin remains, trash dumps (cookware, dish fragments, jar and bottle fragments, square nails), redwood and metal pipe, rock wall segments, irrigation features (rock and earthen retaining wall, holding ponds, cement box), and the remains of a cemetery. Olsen noted disturbances to the sites over the 20 years since their inundation, including siltation, severe erosion of the middens, water-wear on artifacts, and bioturbation caused by burrowing of the introduced Japanese clam (*Corbicula* sp.). From her observations of these sites, Olsen concluded that it was "doubtful whether many archeological questions can ever be adequately answered due to [this] destruction and disturbance of cultural deposits" (1978a:9).

From the summer of 1976 until January 1978, a group of archeologists under the direction of John Foster (Department of Parks and Recreation) carried out data recovery work at CA-ELD-201, the Pedersen Site, about two miles northeast of the confluence of the North and South Forks of the American River. The site, lying between 409 and 436 feet in elevation, was exposed during a drought; the work was aimed at salvaging some of the surviving data before it was re-submerged, and assessing impacts to the site from 20 years of repeated inundation, exposure, and wave action. "Nearly all of the midden and top soil had been washed away" (Foster *et al.* 1977:1), leaving the artifacts exposed, without vertical provenience, on a single bedrock surface; these included flaked-stone cores, flake tools, "choppers [cobble tools], scrapers, and [predominantly large, heavy] knives/points" of andesite, basalt, quartz, quartzite, slate, and shale; handstones and pestles made of granitic stone; a cache of basin milling slabs, also granitic; battered cobbles; a few pieces of deer bone; and large amounts of charcoal, which the authors attribute to the burning of vegetation during reservoir construction. The site also yielded three bedrock mortars and three possible housepit "depressions" which had been pedestalled when the less compacted surrounding soil was washed away. During the first phase of the study, roughly 77% of the 8,500 square meter site area was "surface" collected, and soil samples were taken. The highest part of the site, between 428 and 436 ft, had been completely scoured down to granite bedrock and boulders, on which many artifacts lay exposed. The middle section (no elevations given) contained a combination of decomposing granite and quartz, sand, pedestalled midden, and artifacts. The lowest area of the site was covered with alluvial sand; very few artifacts were recorded here, although wave-cut terraces revealed the presence of buried midden. Foster *et al.* estimated that one meter of soil had been removed over much of the site area, judging by the heights of the bedrock mortars and surrounding stumps. Other documented effects of inundation included water-wear on artifacts, loss of artifact provenience, loss of certain types of midden constituents (especially faunal remains), and bioturbation from introduced clams. During the second phase of fieldwork, units were excavated into the midden remnants (including one of the housepits). A comparison of surface collection materials with those from subsurface units indicated that smaller, lighter-weight materials (flakes, flake tools, bone) had been removed from the deflated surface but still remained within the midden (and in rock crevices); heavier items were found in both (Foster and Bingham 1978:25). A hearth feature found within the midden yielded a radiocarbon date of 510 $\pm$ 120 years B.P.; two Desert Side-notched projectile points were found in association with the hearth. The authors concluded that "the remaining midden soil [was] well preserved" (1978:31), and that, despite the presence of

charcoal from recent burning of vegetation, viable radiocarbon samples might still be obtained from reservoir sites.

In 1989, L. Barrett of the State Department of Parks and Recreation, in consultation with other agency archeologists from DPR, the Bureau of Reclamation, and the Army Corps of Engineers, put together a status report on the documentation of archeological sites at Folsom Reservoir (Barrett 1989). The report includes lists of sites within the State Recreation Area which (as of August 1989) had been assigned state trinomials, a list of sites which were known but not adequately documented, a brief discussion of vandalism and other effects to the reservoir sites, and recommendations for additional survey.

The most recent studies at the reservoir were two separate inventories conducted by Far Western at the request of the Army Corps of Engineers and the Bureau of Reclamation, for environmental assessments of proposed reoperation projects similar to the current one (Waechter 1992, 1993). These inventories consisted of intensive pedestrian surveys of 410 acres at Rattlesnake Bar, on the North Fork arm; and 1,280 acres at the lower end of the reservoir, between Beeks Bight and the dam. These lands lay between the high water line (466 ft) and the water level at the time of the inventories (397 ft in 1992, 365 ft in 1993). The surveyors recorded, revisited, and/or re-recorded 83 sites. Historic sites, as expected, were mostly related to mining and historic-period settlement and included tailings, ditches, rock or concrete structure foundations, concrete footings, portions of rock wall, remains of an orchard, and scatters of 19th and early 20th-century debris (glass, ceramics, brick, wire and cut nails, cast iron stove parts, tin cans, irrigation pipe, miscellaneous metal fragments, clay pipe fragments, butchered bone). Historic sites especially mine tailings, adits, and associated remains were most common in the Rattlesnake Bar area, which was known to be the site of a 19th-century mining settlement. Prehistoric sites included many sparse scatters of volcanic cobble tools and debitage, often situated on low, rocky knolls; and more dense tool and debitage scatters, sometimes including projectile points, groundstone (milling slabs, handstones, bowl/boulder/bedrock mortars, pestles), and, in a few cases, remnant patches of midden. Prehistoric site types varied by location: the sparse tool, milling slab, and debitage scatters were most common at Granite Bay, where the plain is dotted with low rocky knolls. Farther north, along the North Fork arm, the canyon narrows and steepens, and bedrock outcrops are much more common; these areas contain many more bedrock mortar sites, ranging from one to 39 mortar cups. Nearly all of the sites recorded during these surveys showed signs of adverse effects from inundation and/or recreation use, with these effects tending to be more pronounced in the Granite Bay/Beals Point area.

These and other previous studies in the region and in the project area have produced a large, though incomplete, body of data. For the reservoir itself, these data consist almost exclusively of survey-level information, mainly in the form of site records. Tables 3 and 4 (in subsequent sections) list all recorded sites within or immediately adjacent to the Folsom Reservoir basin; sites within the APE of the current project are highlighted. The list was compiled from the above named sources, with considerable input from Barry Scott of Jones and Stokes Associates, Sacramento.

RESEARCH DESIGN FOR HISTORIC ARCHEOLOGICAL PROPERTIES
Steven Mikesell, JRP

SUMMARY OF KNOWN HISTORIC ARCHEOLOGICAL SITE TYPES WITHIN THE PROJECT AREA

General Character of Known Historic Archeological Sites

The Folsom Reservoir basin includes 52 recorded historic archeological sites, of which 30 are known or believed to be located within the project APE (390-466 ft). These sites may be distinguished according to historic context and by property type; themes represented in the Folsom historic sites include transportation, water development, mining, and settlement. Because the context of historic sites is so critical to an evaluation of their data potential, 50 of the known sites within the reservoir basin (all except CA-ELD-673H and 677/H, for which no site records are available) were considered during the development of this research design (refer to Table 3).

The great majority (37 of the 50, or 74%) of the sites are associated with the general theme of settlement, with the bulk of these represented in two property types: structural remains or trash dumps/artifact scatters (or both). Three sites are categorized as townsites because they appear to fall within the boundaries of known townsites. Two of these sites are related to Mormon Island, and one to Goose Flat.

Sites associated with the theme of water development include three canals, a length of wooden pipe, and two concrete catchment basins. Two sites (CA-ELD-248 and 251) are identified on site forms as transportation bridges but most likely are aqueduct bridges associated with the Negro Hill Ditch (Plimpton, n.d.).

Three sites are associated with the theme of mining: one a mine, one mining debris, and a third a rock wall identified on the site form as being associated with the mining industry. Two sites are identified in site forms as being associated with the transportation theme, both of them stone arch bridges (CA-ELD-248 and 251); as noted above, these bridges are almost certainly aqueduct bridges, associated with the water development theme.

Status of Historic Archeological Sites within the APE

No historic archeological site within the APE has been determined eligible for listing in the National Register of Historic Places. Site CA-SAC-434H, the Natomas Ditch, was determined eligible for the National Register on the basis of ditch segments downstream from the reservoir. The ditch extends throughout much of the reservoir area, often at elevations within the APE, raising the inference that intact elements of the canal within the APE would also be eligible, for the same reasons expressed in the eligibility document for the downstream project (Jones and Stokes 1993). The extent of the surviving ditch which lies within the APE is not known.

Table 3: Recorded Sites at Folsom Reservoir - Historic

Trinomial/Temporary #	Description	Elevation (ft)	Source of Data	Comments
CA-ELD-77/H	Midden	425	JSA 1994	
CA-ELD-139H	Town of Goose Flat	500	JSA 1994	
CA-ELD-216H	Foundation/Historic debris	420	JSA 1994	
CA-ELD-219H	Foundations/Historic debris	370	JSA 1994	
CA-ELD-222H	Dump/Historic structure	370	JSA 1994/Barrett 1989	
CA-ELD-223H	Foundations/Dump	380	JSA 1994	
CA-ELD-224H	Mining tunnel/Historic debris	370	JSA 1994	
CA-ELD-229H	Rock wall alignments/Historic debris	435	JSA 1994	
CA-ELD-233/H	Glass/Ceramic/Iron/Rock wall/Tailings	420	JSA 1994	
CA-ELD-237/H	Foundations/Mine tailings/Historic debris	445	JSA 1994	Re-recorded FW 1992
CA-ELD-248H	Stone bridge	360	JSA 1994	
CA-ELD-250H	Historic structures/Historic debris	400	JSA 1994	
CA-ELD-251H	Stone bridge	440	JSA 1994	
CA-ELD-256H	Foundation/Dump	470	JSA 1994	
CA-ELD-259H	Pipe (associated with flume)	356	JSA 1994	
CA-ELD-673H	Unknown	400	JSA 1994	No site record (Browns Ravine)
CA-ELD-677/H	Unknown	390	JSA 1994	No site record (Peninsula)
CA-ELD-791/H	Historic debris	460	FW 1992	FD-30/H
CA-ELD-796H	Historic mining debris	440-460	FW 1992	FD-38H
CA-PLA-245H	Remains of historic ranch/Historic debris	390	JSA 1994	Re-recorded FW 1993;expanded
CA-PLA-247H	Historic structure/Historic debris	390	JSA 1994/ACF	
CA-PLA-250H	Concrete structure near flume	400	JSA 1994	
CA-PLA-251H	Historic dump	400	JSA 1994	
CA-PLA-252H	Historic dump	380	JSA 1994	
CA-PLA-253H	Historic structure	380	JSA 1994	Re-recorded FW 1993
CA-PLA-256H	Historic debris/Dump	440	JSA 1994	At/near edge of reservoir
CA-PLA-257H	Cement/Stone foundation/Historic debris	445	JSA 1994	Re-recorded FW 1993
CA-PLA-263/H	Historic rock alignments	440	FW 1992	
CA-PLA-266H	Historic dump	350	JSA 1994	
CA-PLA-267H	Flume caretaker's home	480	JSA 1994/ACF	
CA-PLA-269H	Historic structures/Dump	500	JSA 1994/ACF	
CA-PLA-270H	Historic foundations	500	JSA 1994/ACF	At/near edge of reservoir
CA-PLA-519H	Ditch at Mormon Ravine	577-660	ACF	May extend into reservoir

Table 3 (Cont.): Recorded Sites at Folsom Reservoir - Historic

Trinomial/Temporary #	Description	Elevation (ft)	Source of Data	Comments
CA-PLA-520H	Large earthen ditch	460	ACF	Additional segments recorded FW 1992
CA-PLA-749/H	Historic debris	420	FW 1992	FD-4/H
CA-PLA-750H	Historic debris	410	FW 1992	FD-5H
CA-PLA-766H	Historic foundation/wells/debris	450	FW 1992	FD-26H
CA-PLA-769/H	Historic debris	480	FW 1992	FD-29/H
CA-SAC-189H	Town of Mormon Island	250	JSA 1994	
CA-SAC-358H	Cement holding pond	390	JSA 1994	
CA-SAC-359/H	Historic dump/wall	360	JSA 1994	
CA-SAC-360H	Mormon Island Cemetery	370	JSA 1994	
CA-SAC-361H	Historic structure/dump	470	Barrett 1989	
CA-SAC-364H	Historic pipe	356	Barrett 1989	
CA-SAC-434H (?)[1]	Natoma Ditch system	-	JSA 1994	
FD-15H	Historic debris	400-445	FW 1992	
FD-40/H	Historic debris/concrete pads	383	FW 1993	
FD-42/H	Historic debris	381	FW 1993	
FD-50/H	Historic debris	405	FW 1993	
FD-51/H	Historic debris	395	FW 1993	
FD-56/H	Historic debris	390	FW 1993	
FD-70/H	Historic debris	400	FW 1993	

Note: Bold sites are located within the APE (390-466 ft). Source of Data: JSA - Jones and Stokes Associates, Inc.; FW - Far Western Anthropological Research Group, Inc.; ACF - Army Corps Files. Comments: FD - Folsom Dam (temporary number). [1]Extent of system within APE is unknown.

The vast majority of the known historic sites within the APE have not been tested archeologically or researched archivally. In most cases, even basic identification research has not been conducted; i.e., the identity of the resources have not been established through archival sources. Ten sites have been researched to some extent (see below).

Water development sites are the best-recorded type of sites. The most thoroughly researched site is CA-SAC-434H, the Natomas Ditch, for which a formal determination of eligibility was prepared and accepted by the SHPO. The North Fork Ditch, CA-PLA-520H and 519H, was researched by Lawrence Shoup (Shoup and Baker 1981) but not evaluated against National Register eligibility criteria.

Gwen Olsen conducted background research on seven sites (CA-PLA-245H, 247H, 257H, 266H, 267H, 269H, and 270H) as part of a college research project in 1981 (Olsen 1981). This research is important because it concerns the most common site types within the APE: artifact scatters and structural remains. Olsen's research focuses on chains of title, with some biographical information about likely settlers. It does not evaluate the sites against the National Register eligibility criteria. None of the seven sites, nor any other recorded habitation or settlement sites, has been tested archeologically.

Many of the historic archeological sites have been researched by John H. Plimpton, an ambitious historian who has prepared volumes of material relating to the general Folsom area and Folsom Reservoir. Peak and Associates (1990) made some attempt to correlate Plimpton's research with historic archeological sites at Folsom Reservoir, but this work was not comprehensive. Plimpton's work provides a rich source for the identification and evaluation of historic properties within the APE and should be consulted in any management program for historic sites at the reservoir.

Discussion of Past and Continuing Disturbances

All sites at the reservoir, both prehistoric and historic, have been affected by the same factors (pre-reservoir clearing and construction, wave action, siltation, vandalism, recreation), but in different ways. While prehistoric sites by their nature have been damaged most heavily by the effects of water movement, historic sites, which often include structural remains and other obvious surface features, probably sustained their most serious disturbance during clearing for the reservoir. Any remaining artifacts or features are subject to decomposition by weathering and inundation, as well as vandalism (including "bottle hunting") and recreation activities. One type of historic site, stone masonry features (dams, bridges, foundations, road embankments), appear better able to withstand these disturbances than any other structural types; they also will be among the oldest of historical features at the reservoir.

RESEARCH ISSUES AND DATA SETS FOR HISTORIC SITES WITHIN THE FOLSOM RESERVOIR BASIN

Historic research issues for sites at Folsom Reservoir must take into account both what is possible and what is practical, recognizing the circumstances at the lake. The land now occupied by Folsom

Reservoir was settled by EuroAmericans as early as 1848 and intensively used for about a century. Many well-known mining camps and settlements were established there in the early years of the Gold Rush, a fact highlighted by Peak and Associates (1990). In theory, cultural properties within the area might provide rich data regarding many aspects of our history, much of which would be unavailable through archival research. Practically considered, however, the likelihood of such information surviving has diminished considerably because of the disturbances described above.

Transportation

Transportation systems within the APE may be seen as creating two classes of properties: roads and bridges. Ferry operations were also important to the history of the reservoir area, but this activity is not likely to be represented within the APE, since the ferries were across the main stem of the river, below the 390 ft elevation; in addition, ferry operation occurred very early in the EuroAmerican period, and remains associated with the operation are unlikely to have survived.

Bridges are of particular interest because such structures were built of permanent material and are apparently able to withstand the destructive effects of inundation and wave action. Two sites have been recorded as bridges: CA-ELD-251H (within the APE) and 248H (just below the APE). These bridges have not been researched or evaluated. Based upon research conducted by Plimpton, however, it appears the two were built as aqueduct bridges, carrying the Negro Hill Ditch over ravines. Given the good condition of these aqueduct bridges, we may expect that stone arch highway bridges, if they were built in the area, would also be in good physical condition.

Other well-known bridges existed within the APE historically and are likely to be represented archeologically, though they have not been recorded as yet. The Rattlesnake Bar Bridge, for example, was a famous early suspension bridge that served through traffic until the early 1950s, just prior to inundation. With stone suspension towers and abutments, the bridge probably retains some degree of integrity and could offer valuable information about construction methods used in suspension bridges of the 1850s, none of which are still standing in California (Mikesell 1990).

No historic roads have been recorded archeologically within the APE. One road, the Pioneer Express Trail, was evaluated by Shoup (Shoup 1980) but not recorded archeologically. The road is a California Historical Landmark (No. 585) but, in Shoup's analysis, does not retain integrity except in a commemorative sense. Dozens of other roads existed within the APE historically and it is likely that some still exist, although the effects of inundation and wave action are probably much more destructive to roads than to bridges. It is possible that the oldest roadway elements, such as stone masonry retaining walls and culverts, are also the features most likely to have survived.

Research into transportation features should be concerned with their function and construction methods:

- Can archeological sites within the APE help in our understanding of the history of ground transportation in the area? For example, are there road alignments and river crossings which can be documented only through field recordation (i.e., which are undocumented in the archival historical record)? Can additional research into road alignments contribute important information about settlement patterns and economic development of the area? Data sets needed to answer these questions are the roads and bridges themselves, in a sufficient state of preservation to facilitate interpretation of the transportation networks. To

facilitate this type of research, the identified transportation features must retain sufficient integrity to allow for a delineation of road systems beyond what is already known from archival sources. As Shoup discovered in analyzing the Pioneer Express Trail (Shoup 1980), historic trails and road were realigned continually (and still are today), complicating the task of interpreting them on the basis of physical evidence alone.

- Can cultural resources within the APE help in our understanding of the technology of road and bridge building? Early roads and bridges often were built without plans and according to traditional methods. In such cases, the features themselves are the best repositories of information.

  Data sets necessary to address these questions are the roads and bridges themselves, with sufficient integrity to allow for an interpretation and study of historic construction methods. The degree of integrity required and the usefulness of this information will vary with the resource in question. For example, there may be reinforced concrete bridges below the lake which would likely be in a very good state of preservation owing to the permanence of the material. Reinforced concrete construction methods, however, are well-documented, and the usefulness of these bridges from a research standpoint is minimal. By contrast, the Rattlesnake Bar Bridge will, if it exists, likely be in a very deteriorated state. Construction methods for early suspension bridges are very poorly documented, however, and any physical remains of this bridge which may survive will be useful from a research standpoint.

Water Development

Water development is the most thoroughly researched historic context pertaining to the Folsom Reservoir area. The water systems, especially those controlled by the Natoma Water and Mining Company, are recorded in general historical literature on water development in California, and several aspects of those systems have been recorded archeologically. Portions of the North Fork Ditch, one aspect of the Natomas system, have been recorded by Shoup and Baker (1981) and by Far Western (Waechter 1992). The main Natomas Ditch, which drew water from the South Fork of the American River, was recorded in detail by Peak and Associates and evaluated by Jones and Stokes (1993). As noted, two highly unusual aqueduct bridges (CA-ELD-248 and 251) exist within the APE but have not been researched or evaluated.

As with transportation properties, research issues into water development properties relate both to the function and construction methods for these systems:

- Can cultural resources within the APE help in our understanding of the history of water development in the area? While a great deal is known about the history of water systems in the area, the potential exists that discrete elements of those systems, perhaps even entire networks, have not been recorded either archivally or archeologically.

  Data sets needed to address these questions are the water works themselves. To be useful from a research standpoint, the canal or other feature must retain sufficient integrity to inform us about its function. As noted, water systems have been recorded in considerable detail, particularly those of the Natomas companies. It is anticipated that additional information in the field will concern marginal aspects of major systems like the Natomas, or of minor systems that were considered too small to warrant archival recordation.

- Can cultural resources within the APE help in our understanding of the technology of water development? Early canals, like early roads and bridges, often were built without plans and according to traditional methods. In such cases, the canals themselves are the best repositories of information. This is especially true with canal structures, including bridges, flumes, and control structures.

  Data sets needed to answer these questions are the water works themselves, with sufficient integrity to allow a meaningful study of historic construction methods. Logic and the experience of previous site records suggest that relatively few historic canals will retain such integrity. For example, some parts of the Natomas Ditch may have survived because they were lined in concrete. This lining may have helped preserve the resource but diminishes the historic integrity and destroys historic materials. Such a canal segment is unlikely to yield information that cannot be gained from canals outside the project area or in archival sources. By contrast, canal segments that reflect antiquated construction methods (e.g. brick siphons, stone masonry abutments for control features, and so forth) carry with them information that is difficult or impossible to record archivally or at other locations; only archeological survey and recordation can determine whether or not such characteristics survive in the Folsom Reservoir sites.

Mining

Despite the rich mining history of the area, a surprisingly small number of mining sites have been recorded within the APE. In part, the paucity of mining sites can be attributed to the destructive nature of mining, particularly dredging, in the years just prior to construction of Folsom Reservoir; each subsequent generation of mining tended to obliterate all previous generations of work.

As with transportation and water properties, research issues into mining sites relate both to the function and methods for these sites:

- Can mining sites within the APE contribute to our understanding of the history of mining in the area? For example, are there mines within the APE that can be documented only through field recordation?

  Data sets required to address these questions are the mines themselves, with enough integrity to allow their interpretation in the context of regional mining history. The vast majority of mining-related sites are associated with the dredging fields at the town of Folsom and at Rattlesnake Bar, on the North Fork of the American River. Scattered remnants of earlier lode mining may still exist. The possibility exists of more unusual mining sites as well, such as those associated with river mining or ground sluicing. Physical research in this regard should be accompanied with identification-level archival research, as this line of inquiry inherently compares what is known archivally against the physical record.

- Can cultural resources within the APE help in our understanding of the technology of mining?
  Data sets needed to answer these questions are the mines themselves. The technology of mining is amply documented in the historical record. The focus in this regard should be on what is *not* known, or on sites which offer an especially important example of a particular

method of mining. Does a site retain sufficient integrity to inform us regarding aspects of mining technology that are not fully understood?

Settlement

Settlement sites are of critical importance to this research design for two reasons: they account for the vast majority of recorded sites; and virtually no settlement sites at Folsom have been researched archivally or tested archeologically. Settlement sites are also of interest for their potential in answering research questions which have been developed through the historic archeological community, especially with respect to Western United States sites (see, for example, Hardesty 1985).

Settlement sites within the Folsom Reservoir (if they survive) have the potential to be particularly complex, because they may represent layers of settlement periods and types. While the tendency is to consider the canyon primarily as a mining area, the bulk of recorded settlement sites for which historical research has been conducted are agricultural sites and townsites. As noted, Gwen Olsen investigated a number of reservoir sites in Placer County (Olsen 1981) along the North Fork. All were agricultural in nature except for a trash dump, tentatively associated with Mormon Island. Even the Mormon Island site appears to represent re-use of a mining claim for agricultural purposes, a use documented in the archival records, if not in the archeological record.

Research issues can be refined to take into account the three most common settlement-related property types: artifact scatters (often trash dumps); structural remains, most of which probably represent residential sites; and townsites.

- Trash dumps and other artifact deposits have been shown to afford information regarding the consumer choices of those responsible for their deposition. This research is best conducted in conjunction with documentary research; i.e., the data are more meaningful when they can be identified directly with a particular individual or group. Research issues pertaining to trash dumps include consumer behavior and product availability, especially with respect to food products and their containers, which typically form the bulk of available materials.

  Trash dumps vary considerably in depth and chronological complexity. To answer questions about consumer choices, the deposits must be sufficiently discrete as to be attributed to a targeted group or groups or to occupation within a known period of time. The value diminishes if the dump is neither temporally discrete nor comprised of temporally discrete strata.

- Sites which include both artifact deposits and structural remains afford the opportunity to study a range of issues pertaining to settlement in the region, including differences in settlement patterns that correlate with ethnicity, occupations, and status. These sites are likely associated with individual households and generally include a more complex group of resources, including architectural remains as well as artifact collections. Again, this line of inquiry is more useful when combined with documentary research, which can provide essential information on identification, and which can develop variables such as ethnicity or gender which might also be reflected in the artifact assemblage.

  To study patterns in ethnicity, status, or other areas of household research, the site in question must include an assemblage that reflects occupancy by the targeted individual or group.

Ideally, the individual or group should be identified and their social characteristics confirmed through archival or oral sources.

- With respect to townsites, the range of research issues is greater still because of the complexity of materials which may be present and the fact that these materials may be interpreted in spatial relation to one another. Townsites have yielded among the richest of archeological data, especially with respect to the complex of research issues associated with frontier adaptation.

  The many historic townsites within the reservoir area are well known and are enumerated in Peak and Associates (1990) and discussed in Plimpton and numerous general historical sources, historic maps, and other documentary sources. The degree to which the townsites are represented archeologically has yet to be demonstrated, although recent surveys have indicated that many of the archival locations show little or no evidence of occupation (Waechter 1992, 1993). Mormon Island was the biggest of these communities but also the area most directly affected by the reservoir construction. The smaller towns like Rattlesnake Bar and the ephemeral camps throughout the reservoir area have to date not yielded evidence of substantial physical remains.

  Nonetheless, these site should be regarded as including the types of data which can address the most critical issues in frontier historic archeology, pertaining to ethnicity and group differentiation, consumer choices of different types of households, and other issues addressed in the historic archeological literature. These issues address social complexity, indicating that the archeological material must represent a variety of households to be useful in addressing them.

FUTURE MANAGEMENT OF HISTORIC RESOURCES AT FOLSOM RESERVOIR

Because our knowledge of surviving historic resources at the reservoir is somewhat spotty, and because these resources continue to be impacted from reservoir operations and recreation use, future management should include additional inventory and site recordation, site evaluation, and where appropriate mitigation of effects to significant resources. Mitigation, or data recovery, will require site-specific research designs tied to the present, more general, document and so will not be discussed here. Methods for inventory and evaluation of historic sites at the reservoir are described below. Both the methods and the criteria for evaluation take into account the highly disturbed nature of these sites.

Phase 1: Enhanced Inventory

The Phase 1 survey of historic archeological sites should be undertaken as part of a general purpose archeological survey, designed to identify prehistoric as well as historic sites. Because so many of the reservoir sites have been heavily impacted, the assumption is made here that many of them will no longer retain sufficient integrity or data potential to warrant future management. The methods listed here, which include subsurface probing, are designed to identify such sites at the inventory stage. These should include the following:

- Complete, pedestrian coverage of all unsurveyed areas, areas not surveyed to intensive standards (transects <20 meters wide), or areas without adequate survey documentation.

- Recordation or re-recordation of all sites to minimum standards, including complete descriptions of all artifacts and features, density/numbers of materials, identifiable construction techniques, state of preservation, photo-documentation, mapping, and plotting of site locations on 7.5' USGS quadrangles. Because of the difficulty of plotting sites within the often featureless plain of the reservoir, use of a Global Positioning System (GPS) is recommended.

- Shovel probing of those historic sites with the potential for a subsurface component, to determine the presence or absence of such a component. These include settlement sites (trash scatters; structural remains indicating residential usage; townsites), and mining sites for which there is reason to suspect the existence of subsurface deposits. Sites for which probing is *not* recommended, because of the improbability of a subsurface component, include water delivery systems (canals, dams, aqueducts), transportation systems (roads, bridges), and mining sites for which there is no reason to suspect subsurface deposits. Historic properties which lack both physical integrity and a subsurface component most likely will be ineligible for listing on the National Register.

- Base-line (identification-level) archival research for those sites with some physical integrity and with a subsurface component.

Phase 2: Evaluation

Criteria for Historic Site Evaluation

Where complete and adequate Phase 1 survey has been done, the next step will be to conduct evaluations of cultural properties recorded during that survey. Evaluations of historic sites must be founded in the criteria for listing on the National Register of Historic Places as well as the various guidelines for their application, particularly those in Bulletin 15, "Guidelines for Applying the National Register Criteria for Evaluation" (NPS 1982). National Register guidelines strongly recommend that properties be evaluated in their historic context. The historic contexts for Folsom Reservoir are reasonably well understood, enabling us to discuss eligibility criteria by context and property types.

This section discusses the general considerations of significance and integrity for the various historical contexts. Appendix 1 offers a series of checklists, which afford a more focused approach to the application of specific evaluation criteria.

Transportation Sites. Significance for transportation sites (roads and bridges) should be assessed first under National Register criteria A (association with events important to our history) and C (distinguished example of a type, period, or method of construction). Evaluation under either criteria must take into account both significance and integrity, and both must be considered simultaneously. Significance must be assessed to determine whether the road or bridge was important as a transportation link or in the historical engineering perspective. Integrity must be assessed on the basis of physical attributes to determine whether the property retains sufficient historical authenticity to warrant consideration for National Register listing.

For specific research questions, refer to Appendix 1 , Evaluation Criteria and Methods: Checklist for Evaluation of Transportation Sites.

Water Development Sites. Significance for water development sites (canals, dams, flumes, and so forth) should be assessed first under National Register criteria A (association with events important to our history) and C (distinguished example of a type, period, or method of construction). As with transportation sites, evaluation under either criteria must take into account both significance and integrity. Significance is a measure of the importance of the site within the historic water delivery network (Criterion A) or as an example of the technologies of water development, from the period in which the feature was built (Criterion C). Integrity must address the relationship between the current condition of the feature and its condition or appearance at the time it achieved significance.

The canal systems are complicated by the fact that CA-SAC-434H (the Natomas Ditch) has been determined eligible in its downstream locations and could be found eligible for the same reasons within the reservoir area. A specific research design should be developed for the Natomas Ditch that identifies the historic appearance of it prior to 1945, as well as its exact alignment. Recordation and evaluation could proceed in a straightforward manner, identifying the canal segments that do or do not meet the integrity criteria.

See Appendix 1, Evaluation Criteria and Methods: Checklist for Evaluation of Water Development Sites.

Mining Sites. Significance for mining sites should be assessed first under National Register criteria A (association with events important to our history) and C (distinguished example of a type, period, or method of construction). Again, evaluation under either criteria must take into account both significance and integrity, and both considerations must be taken into account simultaneously. In evaluating mining sites, identification and documentary research are especially important, in that one major area of significance (Criterion C, example of a type, period, or method of construction) pertains to the method of mining involved and whether the site is a distinguished example of that method. Mining methods are generally recorded but may not be obvious from physical conditions. Integrity must be assessed on the basis of physical attributes to determine whether the property retains sufficient historical authenticity to warrant consideration for National Register listing.

Refer to Appendix 1, Evaluation Criteria and Methods Checklist for Evaluation of Mining Sites.

Settlement Sites. Evaluation criteria for settlement sites will, with rare exceptions, be built around National Register Criterion D, "potential to yield information." All settlement sites recorded to date represent trash scatters or habitation sites in which the principal buildings exist only as foundations. This condition is so overwhelmingly the case among recorded sites that it is expected to prevail among unrecorded sites, as well. This condition precludes listing under National Register Criteria A, B, or C, because the buildings do not retain sufficient integrity to qualify. Evaluation criteria, then, must represent the application of archeological research questions to archeological data under National Register Criterion D.

See Appendix 1, Evaluation Criteria and Methods Checklist for Evaluation of Settlement Sites.

Methods of Historic Site Evaluation

Historic archeological sites are distinctive among the universe of archeological sites in that information about them may be retrieved archivally as well as archeologically. As a first principle, historic archeological sites should be evaluated using both archival and archeological methods.

As a second principle, both archival and archeological research should be phased to allow for efficient allocation of resources. Archival research may be seen as proceeding in two phases of research: identification-level (see discussion of Phase 1, above) and evaluation-level. Evaluation-level research seeks to interpret the importance of a resource within its context. For example, if a site is identified as an African-American mining settlement, how does this site compare with other known sites and with the general history of African-American miners? Similarly, if a bridge is known to have served as an aqueduct from the 1890s, what is the known history of aqueduct bridges, and how does this particular bridge fit into that history?

Recommended methods for evaluation of historic properties at Folsom Reservoir are incorporated into the "Evaluation Criteria and Methods" checklists in Appendix 1. Because the methods are different from one historic context to another, different checklists are presented for the various site types. The checklists are designed to carry the researcher through from initial identification of a property to a preliminary (unofficial) determination of National Register eligibility.

One alternative for evaluation of sites in the reservoir is to consider them as part of a potential National Register district, as defined in Section 106 of the National Historic Preservation Act. Such a district may be significant "as a whole even though it may be composed of components....that lack

individual distinction" (ACHP 1988:III.G.2). In other words, significance may lie in the grouping of sites or components which, taken together, may contribute important data on such research issues as, for example, settlement and land use patterning. Thus, individual sites may need to be evaluated on the basis of their potential to contribute to the significance of the larger district.

Recommendations for Phase 3 Treatment of Eligible Properties

All classes of historic archeological properties within the APE are subject to destruction from potential increases in disturbance as a result of reservoir reoperation. With all properties, treatment should focus first on avoidance of adverse effects, and secondarily on data recovery for eligible properties that cannot be protected. This discussion, while not intended as a research design for data recovery, offers recommendations for inclusion in such a research design, should one be developed in the future.

Protection of Resources

As a first measure, historic archeological sites should be protected from project-related impacts, including vandalism, wave actions, and other destructive forces that can be associated with the proposed reoperation regime. It is recognized, however, that some sites simply cannot be protected and that others, because of their nature, probably do not need protection.

For purposes of protection, historic archeological sites may be seen as comprising three types: archeological sites subject to vandalism and other destructive forces; structural sites subject to vandalism and other destructive forces; and structural sites which are not subject to vandalism or other destructive forces. Non-structural sites, i.e., archeological sites without major structural components, are the most vulnerable of the three classes. These would include all of the trash dumps, townsites, and habitation sites. These sites are favored by amateur excavators ("bottle hunters"), and the proposed periodic drawdown of the lake will likely expose many more sites to this form of vandalism. National Register-eligible sites should be protected to the extent possible. Practical measures to protect these sites are limited, however, and it is likely that the only available mitigative strategy for many of these sites will be data recovery.

Some structural sites are also fragile and subject to vandalism and other forms of destruction. The Rattlesnake Bar Bridge, for example, may represent this type of fragile structural site. If the bridge still exists, it is likely in a very deteriorated condition. Important information about the bridge the type of wire used in the suspension cables, the manner in which the cables were anchored, the pier and abutment systems, and so forth is vulnerable to vandalism and the loss of important information. These types of sites, if they are to be exposed by long-term reservoir drawdown, should be protected where possible through physical barriers (e.g., fencing and/or vehicle barricades); this option may be viable only at the higher sites, since those lower down in the reservoir still will be subject to frequent inundation. If physical barriers prove unworkable, the sites should be salvaged, as discussed below under Data Recovery.

Other structural sites probably do not require protection. This determination must be made on a case-by-case basis, taking into account the structural integrity of the feature and the history of vandalism in the area. If it can be determined that the sites do not need protection, the public interest is served by opening these to public interpretation and encouraging public use and enjoyment. For example, it

is possible that the two aqueduct bridges (CA-ELD-248 and 251) are significant, structurally intact, and not subject to vandalism. If this is the case, the bridges do not need protection; rather, they should be opened to public inspection and interpretation. Indeed, the public can be invited to study the bridges through formal interpretive programs. This, of course, presumes that the bridges are accessible and that their interpretation would not conflict with operational requirements at the reservoir.

Mitigation of Unavoidable Effects

Mitigation of affects should be regarded as the last and least desirable alternative, appropriate for a site that meets three criteria: it is eligible for listing in the National Register; it is subject to adverse impacts; and protection/avoidance is not feasible. Mitigation measures should be developed by the federal agency in consultation with the State Historic Preservation Officer and the Advisory Council on Historic Preservation. Some recommended mitigation measures include archeological data recovery and/or recordation to the standards of the Historic American Engineering Record (HAER).

Archeological Data Recovery. This work should be guided by a site- or project-specific research design which identifies the kind(s) of data expected from a site or class of sites, and the methods to be used for extracting those data. At some sites, archeological data recovery might include large, relatively shallow block exposures to identify and examine structural features; at others, smaller, deeper units may be more appropriate. Many classes of sites (e.g., ditches, roads, bridges, mine tailings) will not warrant subsurface excavations.

HAER Recordation. HAER recordation of properties (primarily engineering features) which meet the three criteria for mitigation (see above) should follow established Federal procedures. Briefly, the responsible agency would contact the HABS/HAER coordinator at the National Park Service (NPS), San Francisco, and request a ruling regarding appropriate levels of documentation and other specifications for the HAER recordation. This documentation would be prepared, submitted to the NPS for encoding into the HABS system, and filed at the appropriate repositories.

RESEARCH DESIGN FOR PREHISTORIC SITES

SUMMARY OF KNOWN PREHISTORIC SITE TYPES WITHIN THE PROJECT AREA

General Characteristics of Known Prehistoric Sites

As near as can be determined from various and sometimes conflicting sources, the project APE (defined as all lands between 390 ft and 466 ft) includes 88 recorded prehistoric sites or components; many more undoubtedly exist but have not yet been recorded. Table 4 lists all known prehistoric sites at Folsom Reservoir (n = 123), with those in the APE shown in bold type. While the current project will not involve all 123 sites, they are included here to provide a more thorough and accurate assessment of the numbers and types of sites, and the nature of the known impacts, within the reservoir basin.

Status of Known Prehistoric Sites within the Project APE

In 1989, Barrett listed 72 recorded prehistoric sites at the reservoir; Far Western surveys in 1992 and 1993 recorded another 51, for a total of 123. Sites have been recorded to varying standards, and subsequent survey has indicated that the previously plotted locations for many of these sites may be in error (refer to Waechter 1992, 1993). Of the recorded sites within the reservoir basin, only two (CA-ELD-1 and CA-ELD-201) have been excavated and documented; only CA-ELD-201 is recorded as lying within the project APE. Two unidentified sites along the South Fork of the American River reportedly were excavated by C. Curtice in the mid-1950s, but no documentation is available (Foster *et al.* 1977:13). To date, no prehistoric sites within the APE have been listed on, or determined eligible for, the National Register of Historic Places.

DISCUSSION OF PAST AND CONTINUING DISTURBANCES

Several studies have been conducted on the effects of reservoir inundation to archeological sites in California and elsewhere (Foster *et al.* 1977; Foster and Bingham 1978; Henn and Sundahl 1986; Lenihan *et al.* 1981; Stoddard and Fredrickson 1978; Ware 1989). The consensus among these researchers was that the nature and extent of the effects were dependent on several factors, most notably the location of a cultural property within the reservoir basin. Sites within the zone of seasonal fluctuation or drawdown suffered the greatest impacts, primarily in the form of erosion/scouring, deflation, hydrologic sorting, and artifact displacement, caused by waves and currents. Sites located lower in the reservoir, within the deep pool (including those adjacent to old river flood plains), were more likely to be covered with silt, which sometimes formed a protective cap. Sites at or near the high water line, and sites exposed during drawdown, suffered both erosion and vandalism.

Many of the materials within the sites, however, appeared to be relatively well preserved. Stone artifacts, the most common type at most prehistoric sites in California, showed only minor water-wear; obsidian specimens retained their value for hydration and sourcing analyses (Lenihan *et al.* 1981:179-180, 193). Soil texture and discoloration (for example, in features) still were identifiable

Table 4: Recorded Sites within the Folsom Reservoir Basin - Prehistoric

Trinomial/ Field #	Date Recorded	Materials/Features Recorded										Elevation (ft)	Comments
		M/S	M/P	M/H	Ob	PP	FCT	D	FST	PH	Ot		
ELD-1	1947	X										345	Presumed by Drucker (1948) to be Nisenan village of *Yalisu-mni*; not corroborated by ethnographic maps
ELD-31	1955	X				X					X	400	Burial, housepits, shell beads
ELD-32	1955					X					X	400-550	Shell beads; excavated by Curtice? (Foster *et al.* 1977)
ELD-35	1955	X	X	X						X	X	500	Burial; Excavated by Curtice? (Foster *et al.* 1977)
ELD-76	1961	X						X				440-480	
ELD-77/H	1960/77/92		X	X	X	X		X			X	425	Stone vessel frags
ELD-100	1966		X									480	May be just outside/above reservoir
ELD-201	1976	X	X	X	X	X		X			X	400-440	Bone; Salvage work by Foster *et al.* 1977
ELD-213	1977	X						X	X			360	
ELD-214	1977	X				X	X	X				390	
ELD-215	1977	X		X			X		X		X	390	Shell beads
ELD-217	1977	X	X					X	X			370	
ELD-218	1977	X	X	X			X	X				365	
ELD-220	1977	X					X				X	390	Quartz crystal
ELD-221	1977	X		X			X					440	
ELD-225	1977			X		X						380	
ELD-226	1977			X		X	X	X	X			360-380	
ELD-227	1977	X		X			X	X				410	
ELD-228	1977	X		X			X	X				382	
ELD-230	1977/92	X		X		X	X					430	
ELD-231	1977/92	X	X	X		X	X		X			420	
ELD-232	1977	X	X	X								470	
ELD-233/H	1977			X			X	X	X			420	
ELD-234	1977	X	X	X			X	X				440	
ELD-235	1977		X	X			X	X				400	
ELD-236	1977	X	X	X				X	X			380	
ELD-237/H	1977/92			X			X	X				440-480	
ELD-249	1977		X	X								400	
ELD-252	1977			X		X		X	X			450	
ELD-257	1978	X	X	X								455	Formerly SAC-362
ELD-258	1977			X				X	X			440	Formerly SAC-363
ELD-260	1977	X		X		X			X			450	Formerly SAC-367

Table 4 (Cont.): Recorded Sites within the Folsom Reservoir Basin - Prehistoric

Trinomial/ Field #	Date Recorded	Materials/Features Recorded										Elevation (ft)	Comments
		M/S	M/P	M/H	Ob	PP	FCT	D	FST	PH	Ot		
ELD-261	1977	X	X	X				X				430-435	
ELD-262	1977	X		X		X			X			450	
ELD-677/H	?	(No site record)											"Peninsula;" BOR files
ELD-791/H	1992		X	X			X	X				460	FD-30/H
ELD-792	1992		X					X				440	FD-31
ELD-793	1992	X	X				X	X				440	FD-32
ELD-794	1992							X				400	FD-34
ELD-795	1992						X	X				440	FD-36
PLA-30	1955					X					X	400	Clamshell beads; loc. checked FW 92-nothing found
PLA-131	1965	"Nisenan village of *Batak pai*"										400	Location checked FW 92-nothing found
PLA-158/255	1975/92	X	X					X	X			435-460	Re-recorded FW 92-determined to be same site
PLA-204	?/1992		X			X	X	X				480	At/near edge of reservoir
PLA-242	1977	X	X									370	Location checked FW 93-nothing found
PLA-243	1977	X	X	X			X	X	X			424	
PLA-244	1977		X	X		X		X				426	
PLA-246	1977	X	X	X			X	X				390	
PLA-248	1977/92	X	X	X		X			X			420	Re-recorded, location moved east (FW 92)
PLA-249	1977	X	X	X			X	X	X			415	
PLA-254	1977/92	X	X	X		X	X					380	Re-recorded FW 92; enlarged
PLA-258	1977	X	X	X				X	X			380	
PLA-259	1977		X	X		X		X	X	X		455	
PLA-260	1977		X					X	X			440	Location checked FW 92-nothing found
PLA-261	1977	X	X					X	X			350	Location checked FW 92-nothing found
PLA-262	1977/92		X	X				X				360-400	Portion re-recorded FW 92
PLA-263	1977/92	X	X					X				455	Re-recorded FW 92-moved north (2 sites?)
PLA-264	1977		X									365	
PLA-265	1977	X	X	X					X			420	
PLA-268	1977	X	X					X				450	
PLA-435	1987	X						X				400-410	
PLA-746	1992						X	X				410	FD-1
PLA-747	1992			X			X	X				410	FD-2
PLA-748	1992						X	X				400	FD-3
PLA-749/H	1992					X	X	X				420	FD-4/H

Table 4 (Cont.): Recorded Sites within the Folsom Reservoir Basin - Prehistoric

Trinomial/ Field #	Date Recorded	Materials/Features Recorded										Elevation (ft)	Comments
		M/S	M/P	M/H	Ob	PP	FCT	D	FST	PH	Ot		
PLA-751	1992						X	X				425	FD-6
PLA-752	1992						X	X				420	FD-7
PLA-753	1992						X	X				415	FD-8
PLA-754	1992		X					X				405	FD-9
PLA-755	1992						X	X				418	FD-10
PLA-756	1992						X	X				420	FD-11
PLA-757	1992	X					X	X				405	FD-13
PLA-758	1992	X	X	X	X		X	X			X	410	Hammerstones; FD-14
PLA-759	1992	X	X	X		X		X				440+	FD-16; probably extends above high water line
PLA-760	1992	X						X				405	FD-17
PLA-761	1992			X			X	X				395	FD-18
PLA-762	1992			X			X	X				425	FD-19
PLA-763	1992						X	X	X			440	FD-22
PLA-764	1992			X			X	X				430	FD-24
PLA-765	1992			X			X	X				425	FD-25
PLA-767	1992		X				X	X				440	FD-27
PLA-768	1992			X			X	X				405	FD-28
PLA-769/H	1992						X	X				480	FD-29/H
SAC-353/354	1977/93	X	X			X	X	X				370	SAC-353/354 recorded as 1 site
SAC-357	1977	X		X				X	X			360	
SAC-359/H	1977	X		X				X	X			360	
SAC-365	1977	X	X	X				X				440	
SAC-366	1977	X	X	X				X				380	
SAC-368	1977	X		X		X		X	X			450	
FD-23/90-1	1991/92			X			X	X	X			440	BOR site 90-1, FW locus FD-23
FD-37	1993	X	X	X			X	X				440	
FD-40/H	1993	X	X									383	
FD-41	1993			X			X	X				383	
FD-42/H	1993	X	X					X	X			381	
FD-43	1993			X			X	X				375	
FD-44	1993	X	X				X	X				370	
FD-45	1993	X	X				X	X				384	
FD-46	1993	X					X	X				390	

Table 4 (Cont.): Recorded Sites within the Folsom Reservoir Basin - Prehistoric

Trinomial/ Field #	Date Recorded	Materials/Features Recorded										Elevation (ft)	Comments
		M/S	M/P	M/H	Ob	PP	FCT	D	FST	PH	Ot		
FD-47	1993	X	X				X	X				422	
FD-48	1993	X		X			X	X				429	
FD-49	1993			X			X	X				420	
FD-50/H	1993	X	X	X			X					405	
FD-51/H	1993	X					X	X				395	
FD-52	1993	X					X	X				410	
FD-53	1993	X		X			X	X				380	
FD-54	1993	X	X	X			X	X				370	
FD-55	1993	X	X	X			X	X				370	
FD-56/H	1993	X					X	X				390	
FD-57	1993	X		X			X	X				410	
FD-58	1993						X	X				412	
FD-59	1993	X	X	X		X	X	X				410	
FD-60	1993	X					X	X				400	
FD-61	1993	X					X	X				385	
FD-62	1993	X	X				X	X				390	
FD-63	1993	X	X				X	X				370	
FD-64	1993	X				X	X	X			X	370	Quartz crystal
FD-65	1993	X	X	X			X	X				330	
FD-66	1993	X	X	X			X	X			X	420	Stone bowl frag
FD-67/71	1993	X	X				X	X				410	
FD-68	1993	X		X			X	X				400	
FD-69	1993	X	X									440	
FD-70/H	1993	X	X	X			X	X				400	
FD-72	1993	X	X				X	X				360	

Note: Bold sites are located within the APE (390-466 ft). Description: M/S = midden/soil on site (potential for subsurface); M/P = mortar or anvil/pestle; M/H = millingslab/handstone; Obs = obsidian; PP = projectile points; FCT - flaked cobble tools; D = debitage (includes cores); FST = other flaked stone tools; PH = proto-historics (glass beads, modified glass, etc.); Ot = other (explained in Comments column).

after 20-30 years of inundation, though soil chemistry was affected; even so, radiocarbon samples from three different reservoir studies indicated that ^{14}C dating of inundated organics was still viable (Lenihan *et al.* 1981:177-179). On the other hand, organic materials such as bone, shell, and carbonized plant remains were less likely to survive unless they were deeply buried (Ware 1989:22-28). Over-all, these studies indicated that sites which had been inundated for a few decades may still contain viable research data.

Barrett's 1989 status report identified two types of site disturbance at Folsom Reservoir: erosion and deflation of deposits during inundation, and vandalism (primarily unauthorized artifact collection) during those times when sites were exposed by draw-down of the water level. The extent of these impacts has never been quantified; Barrett's report is based on casual observations made by several individuals over the last two decades. However, Foster *et al.* (1977) were able to identify specific effects of inundation at one site, CA-ELD-201. Despite two decades of scouring, deflation, alluviation, artifact displacement, water wear, burrowing by clams, and the introduction of modern charcoal, Foster *et al.* determined that portions of the site ─ primarily the intact midden remnants ─ still could yield important information (refer to Background discussion). At another site, CA-ELD-261 at Brown's Ravine, West (1990) documented the loss of a small area of midden which was recorded by Olsen (1977) to have survived two decades after the filling of the reservoir. West concluded that the site, which now consisted of "a very sparse scatter of chipped stone and unifacial tools" (1990:2) no longer retained sufficient integrity to be eligible for inclusion on the National Register of Historic Places.

During the 1992 and 1993 Far Western surveys at Folsom Reservoir, the senior author observed several instances of site disturbance. Removal of top soil (and, presumably, of midden) was quite extensive, especially in the area between Granite Bay and Beals Point (refer to Map 2), where all or portions of nearly every site had been scoured down to bare granitic sand and rock. This area, because of its southerly exposure and long fetch (the distance that winds can blow across open land or water), is much more susceptible to deflation and erosion than the steeper ─ and, presumably, more resistant ─ slopes along the upper arms of the rivers (West, personal communication 1994a). Even so, many of the reservoir sites retained some areas of soil, either as remnant patches of (compacted?) midden, vegetated areas at or just above the high water line, or layers of organic soil capped by alluvial silts (usually mixed with granitic sand). Of the prehistoric sites in all areas visited during the two surveys, two-thirds (62.5%) had the potential for subsurface deposits, judging by the presence of at least some soil (as opposed to bedrock or bare granitic sand) on the site surface. For the reservoir as a whole, roughly the same percentage (61.7%) of all recorded prehistoric sites contained some soil at the time of recordation (Table 3). Judging by the results of auger probing at Lake Mendocino, there may well be additional deposits which are not visible from the surface (Stoddard and Fredrickson 1978).

Other disturbances noted during 1992 and 1993 included heavy recreation use, especially in the popular and readily accessible area around Granite Bay. The most common impacts came from four-wheel drive jeeps and trucks racing across the exposed lake bed, churning up the sand and soil to depths of several feet. In one instance, recreationists in a jeep were stopped by the archeologists from driving across a large bedrock exposure with mortars (site CA-PLA-158/255), only to turn their attention to another site in the vicinity. Pot-hunting also undoubtedly occurs at the exposed sites and may account in part for the relative paucity of projectile points recorded; future researchers may do well to examine private collections from the reservoir.

RESEARCH ISSUES FOR PREHISTORIC SITES WITHIN THE FOLSOM RESERVOIR BASIN

The foregoing review of previous archeological studies in the Folsom vicinity and adjacent regions suggests certain important research issues which might be explored; further, a review of the recorded prehistoric sites at the reservoir (Table 4) gives an indication of which of these issues can most profitably be addressed using the data sets available from these sites, given their recent (1977-1993) condition. The presence in at least some of the reservoir sites of obsidian, projectile points, dateable organics, and other potentially diagnostic materials suggests that these sites can be placed into a chronological sequence and, ultimately, into a larger regional or state-wide framework such as the one discussed earlier in this document. Settlement patterns may be addressed using the large existing and available body of data on site types and locations, especially considering the excellent visibility offered at the reservoir during periods of low water. Artifact assemblages, especially the larger numbers of milling tools and flaked-cobble tools resembling those found in several other areas of the state, may reveal subsistence practices and technologies for Folsom, and allow for comparisons with other regions. Other data sets, while less plentiful, still may prove useful for addressing questions about inter-regional trade and ethnicity/group boundaries.

Each of these research issues, and the available data sets known or believed to survive within the Folsom Reservoir sites, are discussed below and summarized in Table 5.

Chronology

Temporal control is critical to an understanding of the prehistoric sites and assemblages at Folsom. To date, studies done in the vicinity of the reservoir have yielded very little objective chronological data; one exception is the salvage excavations at CA-ELD-201, which produced a single late-period radiocarbon date in association with what were identified as two Desert Side-notched projectile points (Foster *et al.* 1977). Despite (or perhaps because of) this almost complete lack of chronological control over the resource base, various researchers working at Folsom have had to resort to chronological sequences developed for other regions, specifically the lower Sacramento Valley/Delta and the north-central Sierra (refer to the Cultural Context discussion). This method is inappropriate, for a number of reasons: one is that these sequences are based on limited and sometimes questionable data (for a discussion of this problem, refer to Bouey 1994; Clewlow 1984; R. Jackson *et al.* 1994:I.B.10); another is that it is often misleading to apply to one area a cultural scheme that was developed for another, even when the scheme is well supported.

That the prehistoric Folsom occupants had cultural or temporal affiliations with the Central Valley and/or the foothill culture areas remains to be demonstrated, and so the assignment of archeological assemblages at Folsom to either the Central California Taxonomic System or the "Martis–Kings Beach" scheme is premature. To avoid further muddying the waters, it is proposed that chronological data from the Folsom Reservoir sites be interpreted independently of either the Valley/Delta or the north-central Sierran models. While the Folsom data certainly can and should be compared to the data from adjacent areas, they should not be assigned to temporal periods developed for those areas, unless future research can document a cultural, as well as temporal, affiliation. A more useful (and certainly less confounding) approach at present would be to assign chronological data, as they are

Table 5: Summary of Research Issues and (Potentially) Available Data Sets

Research Issues	Data Sets	Surface-only Sites	Sites with Subsurface Deposits
Chronology	Obsidian tools and debitage	?	X
	Faunal remains, carbonized plant remains, (buried) hearth features with charcoal or ash		X
	Temporally-sensitive artifacts (e.g., shell beads and ornaments, glass beads, tools chipped from man-made glass, projectile points?, milling equipment?)	X	X
	Artifact assemblages in single-component sites/areas (e.g., mortars/pestles vs. milling slabs/handstones; flaked-cobble tools in association w/ milling slabs?)	X	X
Subsistence/Technology	Artifact assemblages in single-component sites/areas (e.g., milling stone assemblages, flaked-stone assemblages)	?	X
	Raw material ratios	?	X
Trade	Obsidian, marine shell, possibly basalt	X	X
Settlement Patterning	Site types/locations	X	X
	Artifact assemblages in single-component sites/areas	?	X
Ethnicity/Boundaries	"Valley" vs. "Sierran" points, pestles, etc.	X	X
	Obsidian source ratios	?	X
	DNA[1]		X

Notes: "?" indicates probable lack of sufficient types/numbers of materials, based on field observations (Waechter 1992, 1993). [1]Collected/analyzed with permission from Most Likely Descendant(s).

collected, to a much broader framework, in the manner suggested by Fredrickson (1973a, 1973b, 1993), Jackson *et al*. (1994:I.B.10), and Jones (1993). Such a framework, with general time periods which are independent of specific cultural assemblages, is sufficiently broad to encompass all of the local variants which have been, or may be, identified within a particular region. As reflected in Table 1, a comparison of three such frameworks with two of the most commonly used cultural sequences from the Valley/Delta and north-central Sierran regions shows general consensus (and a good deal of borrowing) among researchers regarding the dates of major cultural shifts reflected in the archeological record of California. It is proposed here that such a broad temporal framework (as shown in the first column of Table 1) be used in future research at Folsom.

Available Data Sets

Three kinds of chronological data are expected to exist within (some of) the reservoir sites: potentially diagnostic artifact types and assemblages, obsidian for source-specific hydration analyses, and organic remains (charcoal, bone, ash) for radiocarbon dating.

Artifact Types/Assemblages. It is a basic tenant of culture chronology studies that certain artifact styles change over time, and that these artifacts therefore can provide the archeologist with relative dates for the contexts in which they are found. In some parts of California and the Great Basin, morphologically distinct forms have been dated by direct association with radiocarbon and/or obsidian hydration dates; once such direct associations have been made for a local area, then these "diagnostic" forms can be used to cross-date components *in that area* from which no absolute chronological data are available. It is also common practice for archeologists to extend these temporal assignments well beyond the areas for which they were developed; hence, we find "Gunther-barbed" points hundreds of miles from Gunther Island, "McKee unifaces" found hundreds of miles across the state from McKee Flat, and "Martis" points in places — including Folsom Reservoir — for which economic or cultural ties to the Martis Valley/Truckee area have never been demonstrated. While it is marginally helpful to use terms like "Gunther-barbed" or "Martis corner-notched" to describe the physical characteristics of a particular artifact, it has become much too customary to borrow the chronology along with the taxonomy.

One example of the danger inherent in this practice is illustrated by data recently gathered on the Eldorado National Forest, roughly 40 miles east of the project area. Large, heavy projectile points (including large corner-notched, large side-notched, and large contracting-stem forms) from sites in the Cleveland Fire area yielded hydration measurements ranging from 5.7 to 1.0 μ (Bodie Hills). Hydration on smaller "arrow" points from the same area, identified as small corner-notched, small contracting-stem, and Desert Side-notched, ranged from 3.8 to 0.9 μ (BH). This overlap in readings between "old" and "young" might be explained in various ways — for example, the cuts may have been made at more recent flake scars on older, scavenged pieces, or the criteria used to classify the points may have been faulty — but the data still call into question the traditional assumption that large, heavy points found in the north-central Sierra and adjacent foothills are necessarily "Martis" (or "Elko") in age.

This argument is made, not to discourage the use for relative dating purposes of projectile points and other morphologically distinct artifact forms from Folsom Reservoir, but to encourage the testing of hypotheses about the age of certain forms found there. This will mean finding such forms made from dateable materials, or in direct association with such materials. Some artifact types, of course, will be dateable without such testing; these include proto-historic and historic items such as glass and

porcelain trade beads, and tools chipped from bottle glass (both of which have been recorded at Folsom Reservoir; refer to Table 4). Certain types of shell beads, because they are well dated at sites in the vicinity of the reservoir, may also prove to be reliable temporal markers; both *Olivella* and clamshell beads have been found in the reservoir sites.

Future study may show other artifacts to be temporally diagnostic, as well. There has long been debate, for example, about the relative dating of various groundstone assemblages in the Sierran foothills and the Central Valley; available data from both areas suggest that milling slabs and handstones are earlier than mortars and pestles (see discussion of milling technologies, below). Future research at the reservoir and in the larger vicinity may be able to document and date this apparent shift in milling technology. Both types of milling equipment have been recorded at Folsom Reservoir in large numbers, sometimes at the same site but often one without the other, suggesting at least the possibility of single-component assemblages (see below).

Another potentially diagnostic artifact type from the Folsom sites are those identified as "flaked cobble tools;" this category includes artifacts recorded on earlier Folsom site records as "choppers." In studies at Lake Berryessa at the edge of the Valley in western Napa County, D. L. True and M.A. Baumhoff (1985; with J. E. Hellen 1979) recorded 388 items which they classified as "cobble scrapers," "domed scrapers," "core scrapers," and "chopping tools;" the illustrations of these artifacts show them to be identical to the flaked cobble tools from Folsom (see discussion of flaked stone technology in the Subsistence and Technology section, below). At Berryessa, and at several other locations in northern California, these tools commonly are found in association with milling slabs and handstones, but almost never with mortars and pestles (True *et al.*1979). This observation led the authors to identify a "milling stone−cobble tool based component" that they believed was part of the Milling Stone Horizon, representing "a single group of people with substantially similar culture who essentially filled up (in some sense) the area now covered by the State of California in the period from 6000 to 3000 B.C. [8000-5000 B.P.]" (1979:153). The flaked cobble tools recorded so far at Folsom have been found in association with milling slabs and/or handstones 31.4% of the time, with mortars and/or pestles 18.6% of the time, with both kinds of milling equipment 22.9% of the time, and 27.1% of the time with neither. Some of these tools, primarily isolated items found in older soils, exhibit clay rinds or "skins" derived from those soils, indicating that the artifacts have been in association with those soils for some time (West, personal communication, 1994b). The large numbers of both flaked-cobble tools and associated milling slabs at Folsom Reservoir, in a setting with excellent visibility and access during times of low water, provides an opportunity to explore the very exciting issue of early "milling stone" occupation in the area. Further studies at the reservoir should include careful recordation of these tool types and their associations, and testing of the hypothesis that the sites with flaked cobble tools and milling slabs/handstones (but no mortars/pestles) are single-component "Milling Stone" sites (see section on Site Evaluation).

Obsidian Hydration. Obsidian is present in the artifact assemblage from Folsom Reservoir, though it is very difficult to estimate how much. Only three of the sites are documented as having obsidian (all three are within the APE ─ refer to Table 4); however, it should be pointed out that many of the site records do not mention raw material types at all. The assumption is made here that

obsidian, an imported and therefore expensive commodity, occurred in the area only as relatively small items, which ─ when exposed on the surface ─ will readily be carried down stream or down slope by water movement. Some items, however, will be caught in rock crevices on or near the sites (personal observation, 1992), and others will remain within intact remnants of the subsurface deposits.

Assuming that obsidian specimens will be collected from the reservoir sites, these should provide base-line hydration data for relative dating of artifacts, sites, and components at Folsom, and for comparison with other sites in the vicinity. As described in the section on site disturbance, limited data from inundated sites suggest that a few decades of inundation will not seriously effect hydration readings. This presumption is shared by K. Tremaine (personal communication 1994), who has conducted extensive research on induced obsidian hydration. Hydration readings on obsidian projectile points will be especially important for defining temporally diagnostic point styles specific to the area (see discussion of Artifact Types/Assemblages, below). In addition, those obsidian sources for which hydration rates have been calculated, and which are expected to occur at Folsom ─ e.g., Napa Valley (Bouey 1994; Origer 1987), Annadel and Borax Lake (Tremaine 1989), and Casa Diablo and Mono (Hall and Jackson 1989) ─ can yield tentative calendar dates. Lastly, hydration analyses should be designed to test for the presence of multiple hydration bands, since these can provide valuable information on patterns of obsidian procurement and re-use (Skinner 1988; Waechter and Origer 1993).

Radiocarbon Dating. Excavations at Folsom Reservoir (Foster *et al.* 1997) and at two other reservoirs in north-central California (Lenihan *et al.* 1981) have yielded viable ^{14}C dates from sites which had been inundated continuously or intermittently for two decades. Thus it is reasonable to assume that those sites at Folsom which retain some remnant of midden or other soil (and thus the potential for a subsurface deposit) may also retain dateable organics; roughly two-thirds (61.3%) of the documented prehistoric sites fit this description at the time they were recorded or re-recorded (Table 4), though it is not known to what extent this may have changed for sites recorded before the 1990s. Radiocarbon dates will be important for the development of a cultural chronology at Folsom, and special efforts should be made to collect organic samples (e.g., charcoal, ash, burnt earth, bone, shell, carbonized plant remains) from any demonstrably cultural contexts where they may be encountered. Because of the large-scale burning of vegetation during reservoir construction, it will be important to differentiate between clearly archeological charcoal (for example, from buried features) and that which has been deposited in recent times.

Settlement Patterning

Studies of hunter-gatherer settlement are concerned with what kinds of sites (e.g., permanent occupation, temporary occupation, task-specific, religious) are created in the course of a subsistence cycle, and where these sites are located on the land. Since most project study areas ─ including Folsom Reservoir ─ may take in only part of a population's territory, a third consideration is whether the sites within the area represent a complete system, or only a portion of a much larger one. As with most other research issues, settlement studies demand a certain level of chronological control, to determine which of the sites may have been occupied during the same period.

Several models have been developed to explain settlement behavior among hunter-gatherer groups in California and elsewhere (see, for example, Bettinger and Baumhoff 1982; Binford 1980; Delacorte 1990). A basic criterion of most models is the degree of mobility involved in a particular system. In Binford's (1980) model, for example, *foragers* travel to the resources, where they set up residential bases and associated foraging locations within a fairly small catchment area; when the resources within this area are depleted, foragers simply move on to establish other residential bases. *Collectors*, on the other hand, tend to establish temporary field camps and stations, from which they bring resources back to the residential base and store them for long-term use.

The ethnographic record for the vicinity of Folsom Reservoir indicates that the Valley and Foothill Nisenan scheduled their subsistence activities according to seasonal availability of critical resources (refer to discussion by McCarthy, above). Small groups travelled from the permanent villages (residential bases) and established field camps, where they collected food and prepared it to be carried back to the villages for storage and use. In short, the people who occupied the project area during ethnographic times were *collectors*, in Binford's sense. The ethnographic data suggest that residential bases may exist within the study area, specifically the settlements of *Odayan* on the North Fork and *Batak Pai* on the South Fork; these may represent distinct socio-political groups, and the smaller sites nearby may be associated field camps or activity loci (see McCarthy's discussion). How closely the ethnographic settlement reflects the prehistoric pattern is not yet known.

Available Data Sets

Settlement studies may be among the most viable at Folsom, since site location data are the most common, and perhaps the most unaltered. In fact, we probably have a much higher potential for collecting settlement data at reservoir locations than in most areas of California outside the desert, because of the excellent visibility during periods of low water (True *et al.* 1979:151-153). In order to take advantage of this situation, it will be necessary to continue to survey exposed portions of the reservoir and to thoroughly record and accurately plot all discernible sites.

Part of this recordation must be the careful and complete description of the kinds and numbers of artifacts and features, the raw materials, and the topographic setting of these sites, in order that site type and function may be determined. For example, the difference between a residential base and a field camp, while not easily quantified at this stage, may emerge from the data base once enough sites have been recorded to these standards (see the discussion of methods presented in the following section). Early site records which list only "flaked and ground stone artifacts," without mention of the abundance of items or the range of artifact types, add very little to our knowledge. Moreover, while more careful recordation of sites at the reservoir undoubtedly will provide much information on site types and settlement patterns, partial excavations of a representative sample of these sites also will be necessary, in order to examine certain components and features which may survive only beneath the surface.

Subsistence and Technology

A *subsistence* pattern is the set of activities by which a group acquires food and shelter; *technology* describes the tools employed in these activities, the processes involved in making those tools, and

their subsequent use, re-use, and discard. Because tools — primarily those made of durable materials like stone, bone, and shell — are the most common constituents in many archeological sites, they are useful for the explication of those subsistence practices which they represent.

The available prehistoric and ethnographic data indicate that the occupants of the Central Valley and adjacent Sierran foothills, as with most other parts of California, were hunter-gatherers involved in a seasonal cycle of resource use. The resource base shifted with the seasons and over time (as climatic changes caused variations in plant and animal habitats), though the primary food species for most of the pre-Historic era probably were deer, elk, salmon, small rodents and lagomorphs, fish, waterfowl, grass seeds, tubers, pine nuts, berries, and — perhaps not until the later prehistoric periods — acorns. The nature, proximity, and abundance of these critical resources, and the technologies available for their exploitation, greatly influenced both the subsistence strategies and the settlement locations of a particular group.

One of these critical resources, the acorn, has been the subject of a fair amount of study by archeologists working in central and northern California. In his dissertation, for example, Schulz (1981) explored the role of acorns in the prehistoric diet of the Central Valley/Delta region. This resource, because of its abundance and ease of storage, contributed to the "high population densities and complex social and economic organizations of the area" during the middle and late periods (1981:Abstract). Schulz examined osteological data (pathologies, season of mortality, life expectancy) and found that early populations had experienced greater dietary stress than did those of the middle or late period. He concluded that the early period was characterized by more food shortages, lower population densities, and greater mobility than would occur later. These results supported the argument that acorns had not yet become a dietary staple in the region, despite the fact that acorn-based economies had already emerged in surrounding areas. Schulz attributed this delay to drier climatic conditions during the early period, which caused the oak woodlands to retreat out of the valley and into the higher foothill zone. His assumption of greater mobility during the early period fits with Moratto's (1984:206) hypothesis that some "Windmiller" (early-period) groups may have travelled to the Sierran foothills during the summer.

Basgall (1987) challenged the idea that environmental limitations were responsible for the delayed appearance of an acorn economy in the Central Valley and Delta. He argued instead that such a costly subsistence activity would not have been adopted until such time as the dietary stresses brought on by population pressures (stresses which are evident in Schulz's osteopathic data) outweighed the costs of gathering, processing, and storage. Once that shift occurred, however, the organizational demands of large-scale harvesting, processing, and storage would have had implications for the social structure of a population; for example, large-scale storage would have reduced group mobility, effectively tying the population to a smaller catchment area and prompting increased territorial consolidation. This would have led, in turn, to the need for some kind of leadership to govern new and presumably more intense inter- and intra-group relations. Thus the decreased mobility and concomitant intensification of land use brought on by the adoption of an acorn-based subsistence pattern may have been a primary impetus behind the organizational complexity of the later Valley/Delta cultures.

Available Data Sets

Subsistence patterns and technologies should be represented in the Folsom sites by flaked-stone and ground stone assemblages. These will be especially valuable where they are found in single-component contexts, where all tool types are assumed to be contemporaneous.

Flaked-stone Technologies. Flaked-stone materials quite often are the most abundant remains at archeological sites in California. Flaked-stone tools and debitage are analyzed to determine, among other things, the origins of the raw materials, the methods of manufacture, and use-wear and tool morphology as they may reflect tool function. In addition, assemblages of characteristic core and debitage types can indicate the manufacture and use of certain tools, even when these tools are not represented within the collection (for example, tiny notching flakes may indicate the manufacture of notched projectile points). Changes in flaked-stone tool and debitage profiles may also represent changes in subsistence and other activities over time.

The flaked stone inventory at Folsom includes projectile points and bifaces (in small numbers); cores; flake tools; debitage; and a very large number of large, heavy, unifacial or (less often) bifacial flaked-cobble tools. Battered cobbles also have been recorded, some of which may represent hammerstones used in the manufacture of various types of flaked-stone items. At sites for which material types have been recorded, tools and debitage are made primarily of basalt or "volcanics" (including mostly basalt and andesite), followed by miscellaneous igneous stone; obsidian and cryptocrystalline silicates also are present in the surface assemblages but are much less common. A preponderance of basalt is one of the traits by which researchers have defined early assemblages in the Tahoe-Truckee region ("Martis"), calling it an indication of "membership in a wider group of early cultures in which basalt was the usual material for flaked implements" (Heizer and Elsasser 1953:20; see Rondeau 1982 for an opposing view). Elsasser and Gortner (1991) later noted that basalt was used only sparingly among early ("Windmiller") cultures in the Valley, who apparently preferred obsidian and cryptocrystalline stone. The question of whether the dominance of basalt and other volcanics at the Folsom Reservoir sites is a matter of chronology, function, cultural preference, or simply availability (or some combination of these) might be partially addressed through the identification of discrete assemblages in single-component sites or areas.

One of the most intriguing and most common tool forms at the reservoir sites are the flaked-cobble tools, which are rounded river cobbles of varying sizes that have been unifacially or bifacially modified by the removal of one, two, or several large flakes to form a sharp edge. These have been noted at 73 (59.3%) of the recorded Folsom Reservoir sites and probably exist at more, but were not specifically mentioned on some of the earlier, less detailed site records. In two studies at Lake Berryessa in eastern Napa County, researchers collected 388 tools which they classified as "cobble scrapers," "domed scrapers," "core scrapers," or "chopping tools," (True and Baumhoff 1985; True *et al.* 1979), and which look from the illustrations in those reports to be identical to the flaked-cobble tools from Folsom. As with the Folsom tools, those from Berryessa for which raw materials are given are primarily basalt (62.2%) or "volcanic" (14.0%). Based on their surveys and on earlier work at the lake, True *et al.* make several observations about these tool forms at Berryessa, including the following: they form an "overwhelming preponderance" relative to other flaked-stone forms; size may be a functionally meaningful attribute, but other characteristics (locations of flake removal, cortex versus flake based, original cobble shape) probably are not; they seem to be associated with milling stones and handstones, but not (or rarely) with mortars and pestles (refer to Chronology section for a more detailed discussion); small flaked-stone implements like projectile points and debitage are relatively scarce at these sites; and similar assemblages of milling slabs and flaked-

cobble tools are common in several areas of California (also see West 1990:2). True *et al.* hesitate to speculate on specific uses for these implements, but they do hypothesize that the items were expedient tools which were made, used one or a few times, and discarded, all at the same general location, in some "as yet unidentified subsistence activities" (1979:152). The authors also argue that, despite their location within the erosion zone of Lake Berryessa, these tools have not moved significantly from their original proveniences. Future research at Folsom may add to our understanding of these tools and their function(s); at the very least, continued (and more detailed) recordation of Reservoir sites with flaked-cobble tools will add to the data base for what appears to be a state-wide phenomenon.

Other flaked-stone studies which may be viable with the Folsom Reservoir assemblages include raw material acquisition and use/reuse, and reduction strategies/debitage analysis. Use-wear studies may not be possible, at least with surface or near-surface artifacts, since they are likely to be heavily water-worn; materials from buried deposits, however, may still provide such data.

Ground Stone Technologies. The issue of changes in milling equipment, as described in the chronology section, is important as well to the study of subsistence strategies in the Central Valley and the Sierran foothills, since plant foods ― perhaps especially the acorn ― played such a major role in the prehistoric and ethnographic diet. Ethnographic data indicate that (bowl, boulder, or bedrock) mortars and pestles were used extensively, though not exclusively, for the processing of acorns (Baumhoff 1963; Driver and Massey 1957; Gifford 1936; all cited in Basgall 1987), while milling slabs and handstones characteristically were used to grind small, hard seeds. This functional differentiation suggests that both types of milling equipment should have occurred throughout prehistoric and ethnographic times; however, much data indicate that mortars and pestles largely replaced milling slabs and handstones both in the Sierran foothills (Elston 1971; Heizer and Elsasser 1953; T. Jackson and Dietz n.d.; J. Johnson 1967; Moratto 1984) in the Central Valley (Bennyhoff and Fredrickson 1994 [1969]; J. Johnson 1984; Schulz 1981), as well as other areas of California (although the presence of "grinding slicks" on bedrock mortar outcrops [personal observation by the author] raises questions about this "replacement"). This apparent shift, which has been tentatively dated to about 2800 B.P. in the Valley and 1000-1100 B.P. in the central and southern Sierran foothills, may represent a move toward a more intensive use of acorns brought on by population−resource imbalances (Basgall 1987; see above).

More than 72% of the recorded sites at Folsom Reservoir are known to contain some form(s) of ground stone, including milling slabs and/or handstones (23.5%), mortars and/or pestles (22.0%), or both (26.8%); refer to Table 4. The large percentage of sites which appear, at least from the surface, to contain one type but not the other suggests that they *could* represent single-component areas; if further study shows this to be the case−either here or at sites in the vicinity−then it may be possible to date these milling assemblages and thereby to document changes in certain subsistence practices at the reservoir over time.

Artifact Assemblages. One of the keys to understanding a subsistence strategy is the identification of artifact assemblages, since it is the assemblage which best reflects site function,

technology, and the patterns of — and changes in — prehistoric lifeways. In order to recognize these changes, artifact assemblages must be dated, preferably by identifying single-component sites and areas, within which all materials are presumed to be contemporaneous; such identification is best done using a suite of radiocarbon dates and/or obsidian hydration measurements; both types of data have been recovered at Folsom. Another common technique, the assignment of relative age to groups of physically associated artifacts within a deposit based on stratigraphic provenience, may prove to be of little utility at Folsom, where a high percentage of the sites are deflated and appear to lack any vertical provenience at all.

Another difficulty with the identification of assemblages at the reservoir sites is the fact that many constituents — especially the lighter items like projectile points, beads, and small debitage — presumably have been transported away from their original proveniences by currents and wave action. Archeological studies at Folsom and other reservoirs suggest that this will be especially true of sites in the upper elevations of the reservoir, within the normal drawdown zone (refer to discussion of past and continuing disturbances); sites in the deeper reservoir pool, sites with buried deposits, and portions of sites that extend above the high water line, should retain greater integrity and therefore more potential for identifying complete, or nearly complete, assemblages.

Trade

In a hunter-gatherer economy, trade is an important adaptive strategy which allows for the acquisition of raw materials and goods not available within the home territory, serves as a source of wealth for those in power, and maintains social alliances between groups. In addition, periodic food shortages were partially ameliorated by trade with groups in other environments; there is some evidence that a complex trade network may have existed by the early period between the Delta, the Coast Ranges, and the Sierra Nevada (Moratto 1984:203).

While ethnographic information tells us that trade during that period (and, presumably, during earlier ones) involved a wide variety of materials, only the most durable will be preserved in the physical record in any substantial numbers. Studies of prehistoric and ethnographic trade in central California have necessarily centered on two durable and source-specific materials, obsidian and marine shell. A third material, and one which is much more common at Folsom, is basalt, which recent work in the Sierra has shown may be geochemically distinct by source (R. Jackson *et al.* 1994; also see below).

The nearest source of obsidian is the Napa Valley, roughly 65 miles to the west of Folsom, which means that all obsidian at the reservoir had to be transported perhaps three days or more to get there. Napa glass is, in fact, likely to be the dominant obsidian in the Folsom Reservoir sites, given its abundance at sites in the vicinity (e.g., Bouey 1994; Bouey and Waechter 1992; Dougherty 1990; Johnson 1976) and in central California as a whole. Judging by sourcing data from nearby sites, other obsidians which might be found at Folsom include Borax Lake, Bodie Hills, Mt. Hicks, Casa Diablo, Annadel, Queen, Mono, and possibly Coso (Bouey 1994; Bouey and Waechter 1992; Dougherty 1990; Noble, personal communication 1994). Documenting the relative proportions of these obsidians, and how/whether these proportions changed over time, will add to our understanding of trade relationships between the Folsom occupants and other groups/regions.

One assumption made in many studies of exchange is that "distribution patterns of obsidian will reflect social boundaries because of individual group preferences or accessibility of sources" (T. Jackson 1986:4). This issue is especially relevant to the present study, since Folsom Reservoir lies near the approximate boundary of three different ethnographic groups: the Valley Nisenan, the

Foothill Nisenan, and the Plains Miwok (refer to discussion of ethnographic context). Jackson (1986:114) suggests that the "socially relevant source" (as opposed to the geographic source) of obsidian in west-central California was the tribelet center, from which the glass was disseminated through the tribelet territory. Thus, primary villages for a tribelet (and perhaps the smaller satellite sites close to this village) ought to contain a relatively wide variety of obsidians, with source diversity decreasing as one travels away from this center; this seems to be the case for portions of the northern and north-central Sierra, where obsidians from many different sources appear to converge in the vicinity of Nevada City (Waechter 1989, 1990). As noted by McCarthy in the ethnographic background to this research design, the Folsom area, at the confluence of two major rivers, may also have been an important trade center. The ethnographic literature also suggests that such villages may occur within the project area, as well; these may be identifiable in the archeological record, using such data as obsidian source ratios.

Shell beads, ornaments, and raw material have long been recognized as trade goods among the native inhabitants of central California. Beads made of *Olivella* shell from the Pacific coast and the Gulf of California have been found at many sites in the Central Valley and central Sierran regions, and the shells are believed to have been "collected for beads...since early Holocene [into late prehistoric] times and...traded hundreds of miles into the interior" (Bennyhoff and Hughes 1987:87); in fact, these shells were traded inland as far as the western Great Basin (1987:147). *Haliotis* ornaments also are common at Valley (and some Sierran) sites, especially in mortuary contexts, from the early period all the way through to the late period (Bennyhoff, cited in Moratto 1984; Gifford 1947). Clamshell (*Saxidomus* and *Tresus*) disk beads appear in the middle period (Bennyhoff, cited in Moratto 1984), and by the ethnographic period they are a principal medium of exchange between the Maidu and their trade partners (Kroeber 1925:421; see also Ethnographic background section).

Available Data Sets

Both obsidian and marine shell (including shell beads and ornaments) have been reported from sites at the reservoir. The challenge will be to recover large enough samples of these items to be able to identify with any confidence patterns and changes in trade during the pre-Historic era. Basalt, on the other hand, is extremely common at these sites, and it may be possible to link basalt and other volcanic artifacts with specific geochemical sources. In their recent study in the Eldorado, Tahoe, and Stanislaus National Forests and the Lake Tahoe Basin Management Unit, R. Jackson *et al.* (1994) have reported encouraging results from attempts at x-ray fluorescence (XRF) sourcing of basalt and vitric tuff. While additional work obviously needs to be done (for example, a thorough inventory must be made of the distribution and physical/chemical characteristics of various source areas), the potential value of this technique is tremendous. Artifacts and debitage of basalt and other volcanic stone, unlike obsidian, are known to be extremely common at the reservoir sites (and at many other locations where obsidian is scarce), and the ability to source these materials may provide a great deal of additional data on inter-group trade. One possible limitation, however, should be noted: basalt flows are much more common than obsidian, and it may prove to be the case that sources used for artifact manufacture are mostly local and so not as elucidating as obsidian sourcing.

It may well be the case at Folsom that basalt was obtained from the Copper Hill volcanics formation along the east side of the reservoir, and/or as cobbles from the river beds. Still, future work at the Reservoir should consider the collection of basalt artifacts for possible sourcing analyses, to determine whether the material was obtained locally or from some non-local source.

Ethnicity/Group Boundaries

The ethnographic data, while somewhat equivocal, do suggest that Folsom Reservoir lies at the approximate boundary between the Valley and Foothill Nisenan (see McCarthy's discussion). It is known that territorial boundaries shifted back and forth, and that contact zones often were areas of overlap and use by neighboring groups, who probably shared certain technological and even stylistic traits; therefore, it may be very difficult to define or discern "Valley" versus "Foothill" Nisenan sites; it is even more tenuous to try and trace these differences back into the prehistoric era. On the other hand, there are differences in both the archeological and the ethnographic records which may show up at the reservoir sites, and which might be used to establish working hypotheses about which group(s) used the area during various periods.

Available Data Sets

The potential archeological data for addressing questions of ethnicity and group boundaries include obsidian source ratios ("eastern" versus "western" sources; refer to Waechter 1989); certain artifact styles (e.g., shaped "Valley" pestles versus unshaped cobble "Sierran" pestles, and Valley/Delta versus Foothill projectile point styles); and DNA analysis of human remains; each of these kinds of data has been recorded at the reservoir. Settlement patterns also may vary by group: ethnographic information suggests that Foothill Nisenan established their major settlements on knolls or benches between the rivers, while the Valley people lived along the rivers themselves (Beals 1933; Kroeber 1925). Of course, this preference may have been determined more by topography than by cultural preferences, and so site location may not prove to be a useful indicator of ethnographic group.

Summary

Previous surveys at Folsom, and surveys and excavations at other reservoirs in northern and central California, have suggested that viable and important research data may survive in many of the reservoir sites. While artifact assemblages and provenience data probably will be incomplete, especially at surface-only sites, there is reason to believe that future archeological study within the project area, and the reservoir basin as a whole, can add to our knowledge of the prehistory and ethnohistory of the valley/foothill interaction zone.

FUTURE MANAGEMENT OF PREHISTORIC RESOURCES AT FOLSOM RESERVOIR

Previous studies at Folsom and other reservoirs in California suggest that at least some of the inundated sites will retain important data for increasing our understanding of the prehistory and ethnography of the area (National Register Criterion D). Because our knowledge of surviving at the reservoir is somewhat spotty, and because these resources continue to be impacted from reservoir operations and recreation use, future management should include additional inventory and site recordation, site evaluation, and — where appropriate — mitigation of effects to significant resources. Mitigation, or data recovery, will require site-specific research designs tied to the present,

more general, document and so will not be discussed here. Methods for inventory and evaluation of prehistoric sites at the reservoir are described below.

Phase 1: Enhanced Inventory

Phase 1 inventory of prehistoric sites at the reservoir should be considered for all future projects, as part of a general purpose archeological survey designed to identify historic as well as prehistoric sites. Because so many of the reservoir sites have been heavily impacted, the assumption is made here that some of them will no longer retain sufficient integrity or data potential to warrant future management; many others may retain only limited data that may be easily exhausted during the survey phase. In addition, the fact that water levels fluctuate within the reservoir basin means that many sites are exposed only periodically (some only occasionally, as during a major drought), and so inventory methods must be as inclusive and yet as efficient as possible. The methods listed here, which include subsurface probing, are designed to identify and classify sites at the inventory stage and, at the same time, to collect (a representative sample of) whatever data may survive in them. In some cases, the enhanced recordation described here will exhaust the data potential of a site. Phase 1 methods should include the following:

- Complete, pedestrian coverage of all unsurveyed areas, areas not surveyed to intensive standards, or areas without adequate survey documentation, within the project APE.

- Recordation or re-recordation of all sites to minimum standards, including complete descriptions of all artifacts, artifact classes, and features, density/numbers of materials, raw materials present, state of preservation, topographic setting, photo-documentation, mapping, and plotting of site locations on 7.5' USGS quadrangles. Because of the difficulty of plotting sites within the often featureless plain of the reservoir, use of a Global Positioning System (GPS) is recommended. For descriptions of artifacts and artifact classes, it is recommended that the recorder use standardized field forms similar to those shown in Appendix 2. Collection of this information will allow us to add information to our data base on site types and settlement patterns, even for those sites which hold no other research value.

- Recordation and collection of all diagnostic isolates (e.g., obsidian, projectile points, beads). Because water action has deposited a sparse scatter of "background" materials across much of the reservoir basin, it is not feasible to record and collect non-diagnostic isolates; these should be noted, however, in any survey report.

- Shovel probing or augering of those sites where the potential for subsurface deposit cannot be determined from the surface (e.g., no visible remnant midden or other soil), to determine the presence or absence of such a deposit. For clusters of similar sites in the same topographic location/setting, it may be sufficient to probe a sample, rather than all sites, if it can be determined from this sample that sites in this location/setting have no potential for an intact

subsurface component. Sites without a subsurface component can be classified as surface scatters and managed accordingly; one option is the application of the SHPO CARIDAP program for surface lithic scatters (R. Jackson *et al.* 1988; R. Jackson *et al.* 1994).

- Shovel probing or augering of the locations of some previously recorded sites which currently show no surface signs of occupation, to determine whether the sites have been covered by recent alluvial deposits. This method should be used selectively, since this author's personal observation has shown that these site locations often are inaccurate.

- Incorporation of site recordation data into a Geographic Information System (GIS) data base for management of cultural resources.

Phase 1 inventory will not be required in those areas which have been inventoried to current professional standards; these include intensive studies conducted within the last five years for which complete survey reports have been prepared (Waechter 1992, 1993; West 1990). Other areas should be inventoried to these standards, using the following criteria to determine survey priorities:

- Priority 1: areas with high potential for significant cultural properties (that is, properties which retain data potential), and which are rarely accessible; these include the lower terraces and floodplains of the North and South Forks of the American River. Such areas will be accessible for survey only during periods of extreme drought.

- Priority 2: areas with high potential for significant cultural properties, and where adverse impacts are greatest. Examples of such areas would be the unsurveyed portions of the reservoir between Beals Point and Beek's Bight, where wave action and recreation use are heavy.

- Priority 3: areas with high potential for significant cultural properties, but where adverse impacts are less severe. This includes the upstream portions of the reservoir along the North and South Forks (for example, in the area between Rattlesnake Bar and the Zantgraf Mine), where recreation access and the effects of wave action are more limited.

- Priority 4: areas with low potential for significant cultural properties and minimal adverse impacts. This would include primarily the steep-sided river canyons farther upstream.

- Priority 5: areas which have suffered extreme disturbance, and where the existence of intact cultural remains is therefore highly unlikely. Such areas would include, for example, the vicinity of Brown's Ravine and Mormon Island dam (West 1990), the boat ramps previously existing or under construction at Granite Bay (author's personal observation, 1992-1993), and other areas where modern construction has obliterated the natural ground surface.

Phase 2: Evaluation

Where complete and adequate Phase 1 survey has been done, the next step will be to conduct evaluations of cultural properties recorded during that survey. Prehistoric sites which retain some level of integrity should be evaluated for their research potential, defined as the potential for materials contained within the sites to address important research issues and thus add to our knowledge of the prehistory/ethnohistory of the area (National Register Criterion D). Site integrity, nearly always a factor in assessments of significance, is especially pertinent here, since all of the Folsom Reservoir sites have sustained heavy impacts from construction, operation, and use of the reservoir over the past four decades. Phase 1 was designed in part to allow for the identification of sites which no longer retain sufficient integrity or data potential to be considered for formal evaluation. Phase 3 (see below) will be immediately appropriate for sites which can be determined from surface observation to preserve such integrity and data potential, and at which adverse project effects cannot be avoided. Phase 2 is applicable to all other sites.

Evaluation Criteria

Specific evaluation criteria should be drawn from the Research Issues identified in the previous section of this document. Data sets which are known or believed to survive within (at least some of) the Folsom Reservoir sites include obsidian for hydration and XRF sourcing; basalt for potential XRF sourcing; organics for radiocarbon assay; known or potentially diagnostic tool types; intact (buried) features; assemblages of tools for determining site function and for comparison with assemblages from other sites in the region; faunal and/or floral remains for dietary studies; exotic materials (e.g., obsidian, shell) which may reflect inter-regional trade; and human remains, for possible DNA studies (with permission from appropriate Native American consultants). Sites which are shown to contain sufficient variety and/or numbers of these materials to address the research issues identified in this document, or other issues to be identified in the future, should be considered significant and therefore eligible to the National Register under Criterion D (potential to yield information important in prehistory or history). Refer to Appendix 3: Checklist for Evaluation of Prehistoric Sites.

Evaluation Methods

The most appropriate methods for obtaining samples of these data will vary by site. As a general rule, however, Phase 2 should include the following:

- Hand excavation of surface transect units (STUs) to a depth of 20 cm, to identify concentrations and component areas within the site.

- Hand excavation of subsurface units, where appropriate, to identify areas of depth and to collect a sample of materials from these areas. Because the reservoir sites have been subject to deflation and subsequent loss of vertical and horizontal provenience, standard 10-cm excavation levels may be inappropriate in many instances (except for sites with portions above the high water line, or which contain deeply buried and potentially intact strata). In addition, it may be appropriate in some cases to use a small backhoe or other machinery to

expose soil strata, explore site depth, check for buried deposits beneath alluvial silts, and look for archeological features.

- Surface collection of diagnostic materials (e.g., obsidian, basalt, certain artifact forms).

- Laboratory analyses of collected materials and preparation of a testing report, to include recommendations on National Register eligibility and future site management.

Members of the Nisenan/Maidu community should be contacted prior to any excavation, to determine whether there are sites or locations which have cultural, economic, religious, or other values for these people.

One alternative for evaluation of sites in the reservoir is to consider them as part of a potential National Register district, as defined in Section 106 of the National Historic Preservation Act. Such a district may be significant "as a whole even though it may be composed of components....that lack individual distinction" (ACHP 1988:III.G.2). In other words, significance may lie in the grouping of sites or components which, taken together, may contribute important data on such research issues as, for example, settlement and land use patterning. Thus, individual sites may need to be evaluated on the basis of their potential to contribute to the significance of the larger district.

Recommendations for Phase 3 Treatment of Eligible Properties

Eligible prehistoric sites within the APE are subject to further damage from potential increases in disturbance as a result of the proposed reservoir reoperation plan. Under that plan, all but the very lowest sites (most of which have never been recorded and so are virtual unknowns) will suffer longer periods of exposure, while still being affected by the periodic inundation/drawdown cycle. Because of the nature of these effects, site protection may be very costly and perhaps even impossible in some cases. While data recovery generally is a last resort in site management, it may prove in this case to be the most cost-effective and best way to preserve the archeological data. The following discussion, while not intended as a research design for data recovery, offers recommendations for inclusion in such a research design, should one be developed in the future.

Typical measures for protection of archeological sites can include fences, barricades, and increased patrolling to discourage vandals and recreationists; rip-rap, vegetation, and other ground covers to decrease erosion; and covering with sterile fill to prevent various kinds of disturbance (which, in this instance, would require permits from State Fish and Game and the U. S. Army Corps of Engineers). At sites near the upper edge of the reservoir (above 440 ft), repeated inundation would be less of a factor under the proposed reoperation, fences, barricades, and patrolling may prove to be effective against vandalism and accidental damage from recreation use; however, it should be noted that physical barriers will also increase site visibility and might therefore attract more vandalism. Sites located lower in the reservoir, below the APE (390-466 ft), probably will not suffer additional impacts as a result of reoperation. It is the remaining sites, between about 390 ft and 440 ft, that stand the greatest likelihood of damage and offer the fewest alternatives for protection. For eligible sites in this part of the reservoir, data recovery may be the best management option. Data recovery methods should be developed on a site-by-site basis, as part of a site- or project-specific research design which references the present document.

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APPENDIX 1:

CHECKLIST OF EVALUATION CRITERIA AND METHODS FOR HISTORIC SITES

APPENDIX 1

EVALUATION CRITERIA AND METHODS -- CHECKLIST FOR EVALUATION OF TRANSPORTATION SITES

1. Can the road or bridge be identified, based upon archival sources?

    a. If the feature cannot be identified, it cannot be found to be significant for historical associations (Criterion A). It may, however, be significant for its construction methods (Criterion C).

2. If the feature can be identified, was it an important part of the transportation network?

    a. If the feature is known to have been an insignificant part of the transportation network, it is not eligible, unless it is important on the basis of its construction methods.

    b. If the resource is known to have been an important transportation link, it should be inspected in terms of integrity.

3. Characterize the construction methods used for the road or bridge.

    a. If the property is so deteriorated that construction methods cannot be characterized, it lacks integrity and cannot be eligible.

    b. If the construction methods appear to be 19th century in origin (e.g. use of stone masonry), integrity should be evaluated within that context.

    c. If construction methods appear to be 20th century in origin (e.g. use of reinforced concrete), integrity should be evaluated within that context.

    d. If the property shows various phases of construction, the period of significance must extend to the various periods of construction represented in the resource.

4. Characterize integrity of the resource.

    a. If the property is so deteriorated that construction methods cannot be characterized, it lacks integrity and cannot be eligible.

    b. If the property shows attributes of a particular period of construction (e.g. 19th century stone masonry), to what extent are the identifiable attributes intact?

5. Combine information regarding significance and integrity.

    a. If the property is not significant and lacks integrity, it is not eligible.

b. If the property is significant historically but lacks integrity, it is not eligible.

c. If the property is significant historically and retains integrity, it is eligible.

EVALUATION CRITERIA AND METHODS -- CHECKLIST FOR EVALUATION OF WATER DEVELOPMENT SITES

1. Can the feature (canal, flume, dam, etc.) be identified, based upon archival sources?

a. If the feature cannot be identified, it cannot be found to be significant for historical associations (Criterion A). It may, however, be significant for its construction methods (Criterion C).

2. If the feature can be identified, was it an important part of water delivery systems in the area?

a. If the feature is known to have been an insignificant part of local water systems, it is not eligible, unless it is important on the basis of its construction methods.

b. If the resource is known to have been an important water delivery resource, it should be inspected in terms of integrity.

3. Characterize the construction methods used for the water delivery feature.

a. If the property is so deteriorated that construction methods cannot be characterized, it lacks integrity and cannot be eligible.

b. If the construction methods appear to be 19th century in origin (e.g. use of stone masonry), integrity should be evaluated within that context.

c. If construction methods appear to be 20th century in origin (e.g. use of concrete lining and control structures), integrity should be evaluated within that context.

d. If the property shows various phases of construction, the period of significance must extend to the various periods of construction represented in the resource.

4. Characterize integrity of the resource.

a. If the property is so deteriorated that construction methods cannot be characterized, it lacks integrity and cannot be eligible.

b. If the property shows attributes of a particular period of construction (e.g. 19th century stone masonry or concrete control structures), to what extent are the identifiable attributes intact?

5. Combine knowledge of significance and integrity.

a. If the property is not significant and lacks integrity, it is not eligible.

b. If the property is significant historically but lacks integrity, it is not eligible.

c. If the property is significant historically and retains integrity, it is eligible.

EVALUATION CRITERIA AND METHODS -- CHECKLIST FOR EVALUATION OF MINING SITES

1. Can the feature (mine, tunnel, etc.) be identified, based upon archival sources?

a. If the feature cannot be identified, it cannot be found to be significant for historical associations (Criterion A). It may, however, be significant for its construction methods (Criterion C).

2. If the feature can be identified, was it an important to the mining history of the area?

a. If the feature is known to have been insignificant in terms of local mining, it is not eligible, unless it is important on the basis of observed attributes.

b. If the resource is known to have been an important mining feature, it should be inspected in terms of integrity.

3. Characterize the mining methods at the site.

a. If the property is so deteriorated that mining methods cannot be characterized, it lacks integrity and cannot be eligible.

b. Characterize the extent to which the site includes features that illustrate or are representative of the three major modes of mining: placer, lode, and dredge operations. Mine tailings generally do not accurately reflect the mining methods involved, particularly with respect to dredging sites.

c. If the property does not include sufficient information to allow for an interpretation of mining methods, it does not qualify under National Register Criterion C.

4. Characterize integrity of the resource.

a. If the property is so deteriorated that mining methods cannot be characterized, it lacks integrity and cannot be eligible.

b. If the property shows attributes of a particular period of mining (e.g. dredging, lode mining, ground sluicing), to what extent are the identifiable attributes intact?

5. Combine knowledge of significance and integrity.

a. If the property is not significant and lacks integrity, it is not eligible.

b. If the property is significant historically but lacks integrity, it is not eligible.

c. If the property is significant historically and retains integrity, it is eligible.

EVALUATION CRITERIA AND METHODS -- CHECKLIST FOR EVALUATION OF SETTLEMENT SITES

1. Can the history of the site be identified through archival research?

a) If it cannot be identified, the site can still be eligible for its potential to yield information (Criterion D).

b) For documented sites, does the historical use coincide with a topic of historical or archaeological importance? E.g., is it the home of an important settler about whom little is known? Is it a settlement associated with an ethnic group about which little is known? The topic should be clearly identified and some proof offered for the association.

2. Does the site contain subsurface deposits, as revealed through Extended Phase 1 work?

a) If not, the site is not eligible, unless it is significant on the basis of surface materials alone.

b) If it has depth, the site should be categorized according to associations and integrity.

3. Categorize the sites that contain subsurface deposits.

a) If the site has important associations (see 1.b), it should be tested archaeologically.

b) If the site has no known historical associations, it should be evaluated in terms of integrity and the number of similar sites.

c) If the site retains low or marginal integrity and is a common type, it should be categorized with sites of its type for prioritization; see item 4 below.

d) If the site is a rare type, it should be tested archaeologically.

4. Prioritization of common site types.

a) Following Phase 1 (including Extended Phase 1) work, common settlement sites should be assessed for the need for archaeological testing.

b) If it appears that many examples of given site types exist, a priority list should be developed for testing the better examples of common site types.

5. Conduct test excavations.

6. Combine knowledge of significance and integrity.

a. If test excavations show the site has no potential to yield important information, it is not eligible.

b. If test excavations show the site has the potential to yield important information, it is eligible.

APPENDIX 2:

SAMPLE FIELD FORMS FOR PHASE 1 ENHANCED INVENTORY AT PREHISTORIC SITES

State of California — The Resources Agency
Department of Parks and Recreation

ARTIFACT RECORD

Primary # _____

HRI #/Trinomial _____

Page _____ of _____

Resource Identifier: _____

Location Where Collected Specimens are Curated: _____

Artifact #	Type	Condition	Description (form, material, etc.)	Dimensions (cm) L W TH	Locational Data (distance/bearing from datum)	Sketch/ Photo	Collected?

Type Key: (List abbreviations used.)	Condition Key:
_____ _____ _____ _____ _____ _____	C complete F fragmentary Other: _____

DPR 523K (Test (12/93)

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

MILLING STATION RECORD

Primary # _____
HRI#/Trinomial _____

Page ____ of ____
Resource Identifier: _____
Form Prepared by: _____ Date: _____

Feature #	Outcrop Dimensions (m) and Orientation	Bedrock Type and Condition
_____	_____ × _____ × Height _____	_____
_____	_____ × _____ × Height _____	_____
_____	_____ × _____ × Height _____	_____
_____	_____ × _____ × Height _____	_____

Feature #	Milling Surface #	Type	Length (cm)	Width (cm)	Depth (cm)	Contents	Remarks

Type Key:

CC Conical mortar
OM Oval mortar
SM Saucer mortar
PM Possible mortar
CU Cup-shaped mortar
MS Milling slick
BM Basin milling feature
Other: _____

Contents Key:

S Filled with soil
L Filled with leaves
U Unexcavated
R Contains rock
P Contains pestle
M Contains mano
Other: _____

NOTE: Attach plan(s) of milling stations.

DPR 523I Test (12/93)

SURFACE ARTIFACT FORM: SPECIFIC
GROUNDSTONE - FIELD ANALYSIS

SITE NO. _____ LOCUS _____

PROVENIENCE _____ deg. x _____ m from datum ARTIFACT NO. _____

Millingstone:

Dimensions: (length) _____ cm x (width) _____ cm x (thickness) x _____ cm

Condition: (whole, almost whole, margin, interior) _____; burst (yes/no) _____

Margin: shaped (yes/no) _____

Surface Configuration:

Face 1: flat ___ dished ___ basin ___; smooth, polished ___ irregular ___; pecked (yes/no) _____

Face 2: flat ___ dished ___ basin ___; smooth, polished ___ irregular ___; pecked (yes/no) _____

Material: (granitic, igneous, sandstone, schist) _____

Handstone:

Dimensions: (length) _____ cm x (width) _____ cm x (thickness) x _____ cm

Type: (uniface, biface) _____ Shaped/Unshaped _____

Condition: (whole, almost whole, margin) _____; burst (yes/no) _____

Grinding Facet(s):

Face 1: planar _____ convex _____ concave _____ Pecked (yes/no) _____

Face 2: planar _____ convex _____ concave _____ Pecked (yes/no) _____

Secondary Wear: (end/edge battered, end/edge grinding) _____

Material: (granitic, igneous, sandstone, scoria) _____

COMMENTS:

SKETCH ON BACK (plan & profile): (yes/no) _____

SUPPLEMENTAL SITE FORM NO. TWO

(Flaked Stone Debitage Techno-morphological Observations)

Page 1 of _____

PROJECT: QUAD SHEET: _____

TEMP SITE NO. _____ SECTION QUARTER: _____

LOCUS _____ DATE: _____

COUNTY _____ INITIALS: _____

TECHNO-MORPH OBSERVATIONS

Quantified Sample Provenience: _____ Size: _____

Material	Angular			Cortical			Interior			BTF			Other	Total
	1-2	2-4	>4	1-2	2-4	>4	1-2	2-4	>4	1-2	2-4	>4		
CCR														
Basalt														
Rhyolite														
Obsidian														

Supplemental Subjective Provenience: _____

Material	Angular			Cortical			Interior			BTF			Other	Total
	1-2	2-4	>4	1-2	2-4	>4	1-2	2-4	>4	1-2	2-4	>4		

1. Quarry material availability and kind (size, density, shape):

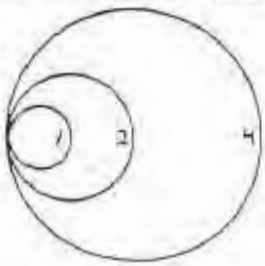
2. Material variability: rank them by frequency:

CCR:___ Basalt:___ Rhyolite:___ Obsid:___ Other ___ Other ___

CCR Subranking:

White:___ Tan:___ Dark (brwn/blck) :___ Mustard/Orange:___ Red:___

Other ___ Other: ___



SUPPLEMENTAL SITE FORM NO. TWC

Page 2 of ___

Site No. _____

3. Type of Reduction Activities (cobble testing, core, flake production, bifacing, tool finishing, etc.)

4. Integrity of area (slope wash, displacement, water-rolled, heavy patina/desert varnish, busted up flakes, etc.)

5. Comments: (Why Quantified sample placed where it is, Is Quantified sample representative?, Collect anything? Shovel testing? (Why not?)

SUPPLEMENTAL SITE FORM NO. THREE

(Flaked Stone Assemblage List)

Page 1 of _____

PROJECT:

SITE NO. _____ DATE: _____

LOCUS _____ INITIALS: _____

PROJ. PT.	CCR	BAS	RHY	OBS			TOTAL	COMMENT

BF/PT	CCR	BAS	RHY	OBS			TOTAL	COMMENT
tip								
medial								
end								

BIFACES	CCR	BAS	RHY	OBS			TOTAL	COMMENT
tip								
medial								
end								

FRM FLKTL	CCR	BAS	RHY	OBS			TOTAL	COMMENT

CASUAL FLKTL	CCR	BAS	RHY	OBS			TOTAL	COMMENT

CORES	CCR	BAS	RHY	OBS			TOTAL	COMMENT
bifacial								
uni-dir								
non-pattern								

Flaked-cobble tool	CCR	BAS	RHY	OBS			TOTAL	COMMENT

TOTALS							

APPENDIX 3:

CHECKLIST OF EVALUATION CRITERIA AND METHODS FOR PREHISTORIC SITES

APPENDIX 3

EVALUATION CRITERIA AND METHODS:
CHECKLIST FOR EVALUATION OF PREHISTORIC SITES

1. a. Phase 1 probing (or surface observation) has indicated no subsurface deposit or remnant midden/soil present:

    (1) Site is a sparse surface scatter of non-diagnostic flaked cobble tools, debitage, and ground/battered stone that has been thoroughly recorded during Phase 1 Enhanced Inventory → Data potential exhausted; no further treatment.

    (2) Site is a surface scatter which includes obsidian, beads, points, or other (potentially) diagnostic materials → Data potential remains; advance to #2.

   b. Probing or surface observation indicates remnant midden/soil or subsurface deposit → Data potential remains; advance to #2.

2. a. At surface sites with diagnostic materials, carry out surface collection of these materials (e.g., obsidian, projectile points, basalt, groundstone); collect only a sample of very abundant items (e.g., basalt) → Data potential exhausted; no further treatment.

   b. At sites with remnant midden/soil or subsurface deposits, carry out excavations using STUs and/or subsurface units, and/or backhoe excavation, where appropriate (see text):

    (1) No features, diagnostics (e.g., obsidian, beads, dateable organics), human remains, or other significant data recovered → Data potential exhausted; no further treatment.

    (2) Features, diagnostics, human remains, or other significant data recovered; laboratory analyses indicate mixed deposit without discrete temporal components or areas → Data potential exhausted; no further treatment.

    (3) Features, diagnostics, human remains, or other significant data recovered; laboratory analyses indicate discrete temporal components or areas → Eligible site with good data potential; recommend for protection or Phase 3 data recovery.

3. Phase 3 data recovery at eligible sites where avoidance/protection is not feasible; to be guided by site- or project-specific research design for data recovery.

Water Forum Proposal EIR

Modeling Technical Appendix G

Surface Water Resources, Inc.

November 1998

TABLE OF CONTENTS

1. INTRODUCTION

Computer simulation models of water systems provide a means for evaluating changes in system characteristics such as carryover storage, reservoir water storage elevation, river flow, and power generation, as well as the effects of these changes on environmental parameters such as water temperature, early lifestage chinook salmon survival, and recreational opportunities. Tools used to evaluate operational alternatives and/or impacts of proposed projects include three types of U.S. Bureau of Reclamation (Reclamation) simulation models, which are:

(1) Project Simulation (PROSIM) model of the Central Valley Project (CVP) and State Water Project (SWP);

(2) Reclamation's water temperature models; and

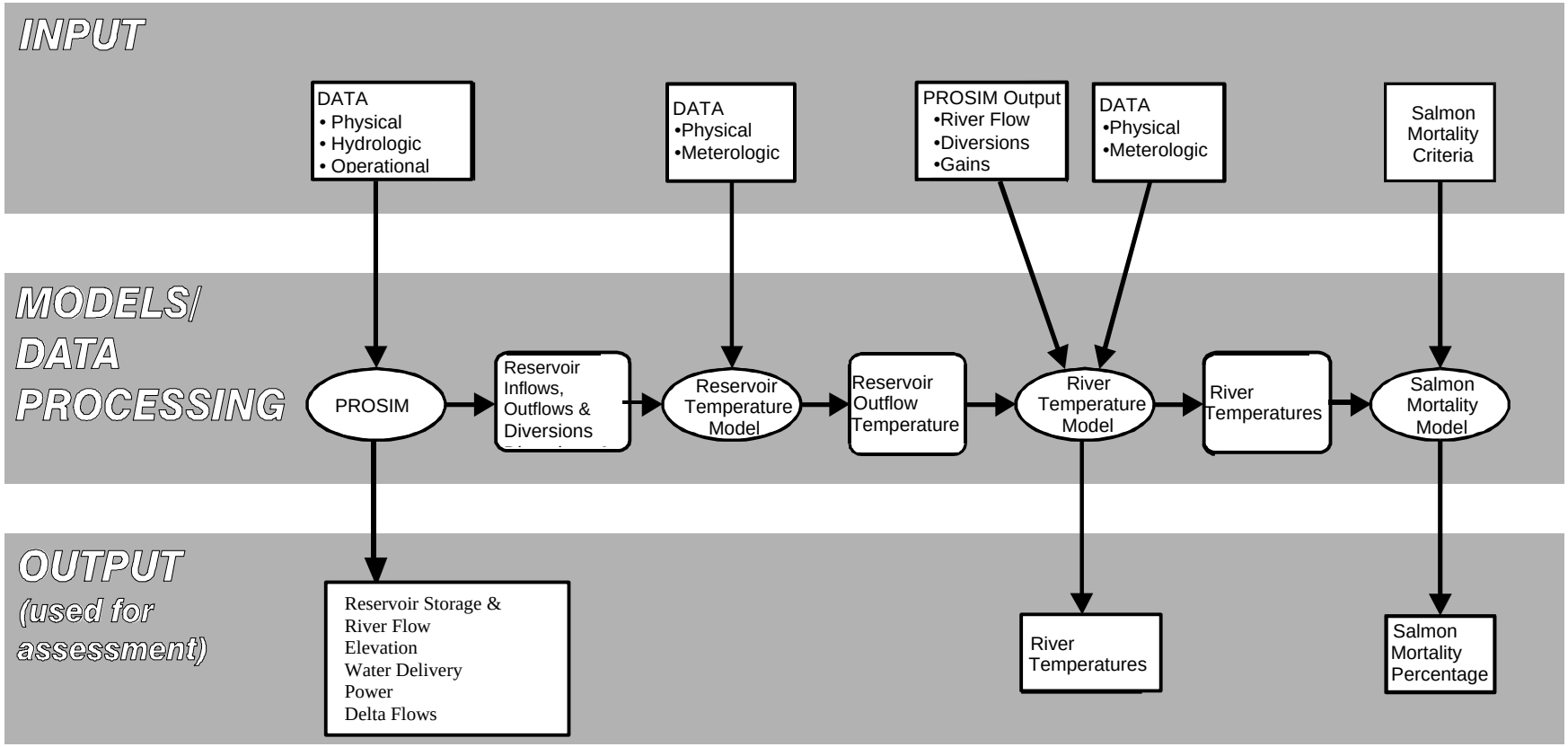
(3) Early lifestage chinook salmon mortality models for the Sacramento and American rivers.

PROSIM provides a monthly simulation of the CVP and SWP water and power operations. Output from PROSIM serves as input to the temperature models that simulate monthly Sacramento River and American River water temperatures. Temperature model output serves as input to the early lifestage chinook salmon mortality models. **Figure 1.1** displays a flowchart of the model process. The model flowchart displays the type of inputs used by each model, as well as model outputs available for assessment purposes.

This appendix describes the simulation models, CVP and SWP facilities represented in the modeling, model inputs, hydrologic, operational, and environmental assumptions, and documents the simulations performed for this EIR.

Figure 1.1

MODEL FLOW



2. MODELS

2.1 PROSIM MODEL

2.1.1 Model Description

Reclamation's PROSIM model is a monthly "rule-and-demand-driven" computer simulation model of the CVP and SWP that mimics CVP and SWP operations and the hydrologic effects of those operations on the major Central Valley river systems. The model simulates system operations within the geographical area affected by CVP and SWP facilities, including the Sacramento-San Joaquin Delta (Delta). PROSIM is a linked-node model.

A network of 67 computation points, or nodes (**Figure 2.1**), represents river systems and project facilities. PROSIM uses a mass balance approach to simulate the occurrence, regulation, and movement of water from one node to another. At each node, various physical processes (e.g., surface water inflow or accretion, flow from another node, groundwater accretion or depletion, and diversion) can be simulated or assumed. Operational constraints, such as reservoir size and seasonal storage limits or minimum flow requirements, can be defined for each node.

PROSIM simulates monthly operations of the following water storage and conveyance facilities:

- Trinity, Whiskeytown, and Shasta/Keswick reservoirs (CVP);
- Spring Creek and Clear Creek tunnels (CVP);
- Oroville Reservoir (SWP);
- Folsom Reservoir and Lake Natoma (CVP);
- Tracy (CVP), Contra Costa (CVP), and Banks (SWP) pumping plants;
- San Luis Reservoir (shared by CVP and SWP); and
- East Branch and West Branch SWP reservoirs.

To varying degrees, conveyance facilities including the Tehama-Colusa, Corning, Folsom-South, Delta-Mendota, and California Aqueduct canals, also are defined by nodes. Other systems tributary to the Delta are modeled separately from PROSIM (e.g., the New Melones/Stanislaus River system and the San Joaquin River) and are incorporated as fixed input to a PROSIM node.

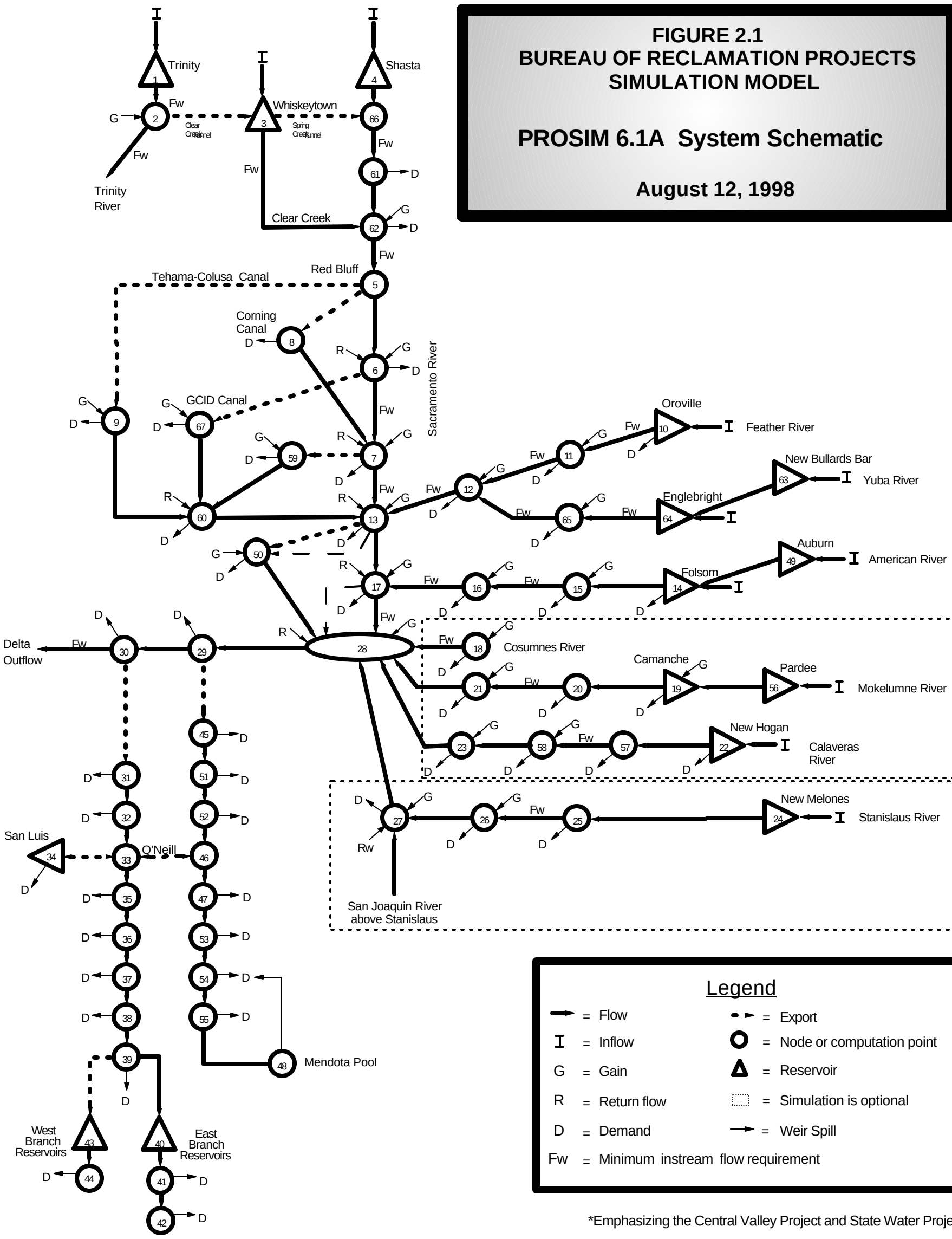


FIGURE 2.1
BUREAU OF RECLAMATION PROJECTS SIMULATION MODEL

PROSIM 6.1A System Schematic

August 12, 1998

Legend

➡	= Flow	⇢	= Export
I	= Inflow	○	= Node or computation point
G	= Gain	△	= Reservoir
R	= Return flow	⬚	= Simulation is optional
D	= Demand	→	= Weir Spill
Fw	= Minimum instream flow requirement		

*Emphasizing the Central Valley Project and State Water Project

The model simulates one month of operation at a time, sequentially from one month to the next, and from one year to the next. Each decision that the model makes regarding stream flow regulation is the result of defined operational requirements and constraints (e.g., flood control storage limitations, minimum instream flow requirements, Delta outflow requirements, diversion assumptions) or operational rules (e.g., preference among reservoirs for releasing water). Certain decisions, such as the definition of water year type, are triggered once a year, which leads to water delivery allocations and specific stream flow requirements. Other decisions, such as specific Delta outflow requirements, are dynamic from month-to-month. PROSIM output is represented by flow or storage conditions at each node on a mean monthly basis for the 70-year period of record (1922-1991).

PROSIM is well documented in the Central Valley Project Improvement Act (CVPIA), *Draft Programmatic Environmental Impact Statement (PEIS), Technical Appendix Volume Seven*. PROSIM documentation and a user guide is available from Reclamation's Mid-Pacific Regional Office. Reclamation also has an Internet Web site where the PROSIM model and user manual can be obtained. PROSIM Version 60A was used for all hydrologic modeling.

2.2 TEMPERATURE MODELS

2.2.1 Overview

Reclamation has developed water temperature models for the Sacramento, Feather, and American rivers. The models have both reservoir and river components to simulate temperatures in five major reservoirs (Trinity, Whiskeytown, Shasta, Oroville, and Folsom); four downstream regulating reservoirs (Lewiston, Keswick, Thermalito, and Natoma); and three main river systems (Sacramento, Feather, and American).

These temperature models are designed to estimate water temperatures that would occur for conditions simulated by PROSIM. They are used to assess changes in average monthly temperature caused by changes in CVP/SWP operations.

Reclamation's temperature models are well documented in the CVPIA *Draft PEIS Technical Appendix, Volume Nine*. These temperature models also are documented in the report titled: *U.S. Bureau of Reclamation Monthly Temperature Model Sacramento River Basin*, June 1990.

2.2.2 Reservoir Component

The reservoir models simulate monthly temperature profiles in five major reservoirs; Trinity, Whiskeytown, Shasta, Oroville, and Folsom. Vertical water temperature profile in a reservoir is simulated in one-dimension using monthly storage, inflow and outflow water temperature and flow rate, evaporation, precipitation, solar radiation, and average air temperature. The models also compute the water temperature of dam

releases. Release temperature control measures in reservoirs, such as the penstock shutters in Folsom Reservoir and the temperature control device in Shasta Lake are incorporated in the models.

2.2.2.1 Model Code Modifications

The Folsom Reservoir temperature model was modified to simulate a Temperature Control Device (TCD) for the Folsom Dam Pumping Plant. This device has been authorized by Congress and should be in place in the next few years. The TCD was incorporated into the model by defining numerous levels from which Folsom Dam diversions could occur. The TCD is operated to maximize the use of warm water; thus, the diversion level is set as close to 25 feet below the reservoir water surface as possible.

Another modification, related to satisfying downstream temperature objectives, was incorporated into the Folsom Reservoir temperature model. Target temperature release objectives are used to control the shutter operation at Folsom Dam. Previously, the model improperly included Folsom Dam Pumping Plant diversions in the river water temperature calculations. Pumping Plant diversions are located at a relatively low level in the reservoir, and therefore often divert from the cold water pool. Previously, the model assumed this cold water was used to satisfy the target temperature release objective. The modification incorporated into the model corrects this error.

2.2.3 River Component

Release rate and temperature of regulating reservoir storage serve as the boundary conditions for the river model. The river temperature model computes water temperatures at 52 locations on the Sacramento River from Keswick Dam to Freeport, and at multiple locations on the Feather and American rivers. The river temperature model also calculates water temperature within Lewiston, Keswick, Thermalito, and Natoma reservoirs. This model is used to simulate temperatures in these reservoirs because they are relatively small bodies of water with short residence times, thereby having physical characteristics approximating those of riverine environments.

2.3 SALMON MORTALITY MODELS

Reclamation's chinook salmon mortality models produce a single estimate of early life stage chinook salmon mortality for each year of the simulation. This estimate consolidates calculations of salmon mortality for three separate early-life stages: (1) pre-spawned eggs; (2) fertilized eggs; and (3) pre-emergent fry. For the Sacramento River, the model computes mortality for each of the four chinook salmon runs; fall, late-fall, winter, and spring. For the American River, the model produces estimates of fall-run chinook salmon mortality. The mortality estimates are based on output temperatures from Reclamation's temperature models. Temperature units (TUs), defined as the difference between river temperatures and 32^{o}F, are accounted for on a daily basis by the mortality model, and are used to track life-stage development. For

example, incubating eggs exposed to 42°F water for one day would experience 10 TUs. Eggs are assumed to hatch upon exposure to 750 TUs following fertilization. Similarly, the model assumes that fry emerge from the gravel after being exposed to 750 TUs following egg hatching into the pre-emergent fry stage.

3. FACILITY DESCRIPTIONS AND OPERATIONAL CONSIDERATIONS

3.1 TRINITY LAKE AND TRINITY RIVER

3.1.1 Facility Description

3.1.1.1 Trinity Dam and Trinity Lake

Trinity Dam is a zoned earthfill structure 538 feet high, 40 feet wide at the crest, and a 2,450 crest length. The reservoir located on the Trinity River near Weaverville, CA has a maximum storage capacity of 2,447 thousand acre feet (TAF) with a minimum active storage level of 303 TAF. The power generating plant consists of two Francis Turbines capable of generating a total of 140,000 kilowatts (kW) with a maximum power release of 3,900 cubic feet per second (cfs).

3.1.1.2 Lewiston Dam and Lake

Lewiston Dam is a zoned earthfill dam 91 feet high, 25 feet wide at the crest, and 745 feet long. Lewiston Lake is located on the Trinity River approximately seven miles downstream of Trinity Dam, and serves primarily to regulate flows from Trinity Lake. The power generating plant consists of a Francis Turbine capable of generating 350 kW with a maximum power release of 100 cfs. Water is also released from Lewiston Lake through Clear Creek Tunnel (CCT) to Whiskeytown Lake.

3.1.2 Operation

Trinity Lake is simulated in PROSIM to meet Safety of Dams criteria, minimum storage requirements, and instream flow requirements for the Trinity River. Releases through the CCT are made based on supply remaining after satisfying these requirements.

Lewiston Dam is represented as the diversion point for CCT and is assumed to have no storage operation. PROSIM uses a storage-release relationship to determine the timing and volume of the CCT releases. The storage-release function is a step-threshold function that determines monthly CCT release, based on storage in Shasta and Trinity Lakes.

3.1.3 Temperature Considerations

The reservoir temperature model simulates temperatures of water released from Trinity Lake for the three outlets: spillway, power plant, and power plant bypass outlet. The power plant bypass outlet and the power plant outlet level is at 2,100 feet and the bypass is at 1,999.5 feet.

3.2 WHISKEYTOWN LAKE EXPORTS

3.2.1 Facility Description

3.2.1.1 Whiskeytown Lake

Clair A. Hill Dam at Whiskeytown Lake is a zoned earthfill dam 537.5 feet high. The maximum storage capacity of Whiskeytown Lake is 241 TAF with a minimum active storage of 27.5 TAF. The minimum operating pool is 206 TAF. Whiskeytown Lake releases water to Clear Creek directly, and to Keswick Reservoir via the Spring Creek Tunnel (SCT).

3.2.1.2 Judge Frances Carr Powerhouse

Judge Frances Carr Powerhouse is located at the outlet of the CCT at the northwestern end of Whiskeytown Lake. This facility generates power from water exported from the Trinity River Basin through the CCT. The plant consists of two Francis Turbines capable of generating a total of 153,000 kW at a maximum release of 3,300 cfs.

3.2.1.3 Spring Creek Power Plant

Spring Creek Power Plant is located on the Spring Creek arm of Keswick Reservoir and generates power from water released through the SCT from Whiskeytown Lake. Water discharged from the plant flows into Keswick Reservoir. The plant consists of two Francis Turbines capable of generating a total of 190,000 kW with a maximum power release of 4,200 cfs. Spring Creek discharge is managed to minimize the build-up of heavy metal concentrations introduced to the Spring Creek arm of Keswick Reservoir by releases from Spring Creek Debris Dam.

3.2.2 Operation

Whiskeytown Lake is operated in PROSIM to satisfy environmental flow requirements in Clear Creek, meet Safety of Dams criteria, and regulate inflows from the CCT with outflow to the SCT. PROSIM operates Whiskeytown Lake to satisfy Safety of Dams criteria on a monthly basis.

3.2.3 Temperature Considerations

Whiskeytown Lake is equipped with two temperature curtains, one at the upstream end of the reservoir, and one at the SCT inlet. The purpose of the curtains is to force cooler water from CCT towards the bottom of the reservoir to reduce the mixing of the warm reservoir water with the inflowing water, thereby preserving cooler water from the lake bottom for release through the SCT. This permits an operation by which cold water can be moved from Trinity Lake through both the CCT and SCT to satisfy power requirements while minimizing adverse water temperature impacts in the Sacramento River.

3.3 SHASTA LAKE, KESWICK LAKE, AND SACRAMENTO RIVER

3.3.1 Facility Description

3.3.1.1 Shasta Dam and Lake

Shasta Dam on the Sacramento River is a curved concrete gravity-type dam 602 feet high, 883 feet thick at the base, 30 feet thick at the top, and 3,460 feet long. The maximum storage capacity of Shasta Lake is 4,568 TAF with a minimum active pool of 471 TAF. The minimum desirable storage is 1,900 TAF and minimum storage pool for regulation of downstream temperatures is 1,200 TAF. The Shasta Power Plant consists of five Francis Turbines capable of generating 572 MW with a maximum power discharge of 18,000 cfs.

3.3.1.2 Keswick Dam and Lake

Keswick Dam downstream of Shasta Dam is a concrete gravity structure 157 feet high, 20 feet wide at the crest, and 1,046 feet long. The lake serves as regulating reservoir for releases from Shasta Dam and Whiskeytown *via* the SCT, and Spring Creek Debris Dam. The Keswick Power Plant consists of three Francis Turbines with a total maximum capacity of 105,000 kW under a maximum power discharge of 16,000 cfs.

3.3.2 Operation

Shasta Dam and Lake on the Sacramento River serve to control floodwater and store surplus winter runoff for irrigation use in the Sacramento and San Joaquin valleys. Shasta is operated to provide for instream flow for fish, navigation in the Sacramento River, protection of the Delta from intrusion of saline ocean water, agriculture and municipal and industrial (M&I) water needs, and generation of hydroelectric energy. Keswick Dam and Lake serve to regulate Shasta Dam, SCT, and Spring Creek Debris Dam releases on a day-to-day basis. PROSIM (a monthly model) does not attempt to simulate the day-to-day operation.

PROSIM simulates the Red Bluff Diversion Dam, Corning Canal, Tehama-Colusa Canal, and numerous smaller diversions from the Sacramento River. Releases are made from Shasta Dam to satisfy these diversions while maintaining instream flow requirements.

PROSIM operates Shasta Dam by first observing requirements for flood control and minimum storage. PROSIM then releases water to satisfy instream flow and agricultural diversion requirements in the Sacramento River. Once PROSIM has operated the entire Central Valley Project to satisfy requirements upstream from the Delta, it may call for additional release from Shasta Lake for Delta needs. Shasta Lake's release for Delta needs is balanced with Folsom Reservoir release, based on the amount of storage in each reservoir.

3.3.3 Temperature Considerations

The Sacramento River Basin temperature model recognizes the presence of the temperature control device at Shasta Dam in accordance with design operating criteria and the *Shasta Outflow Temperature Control Planning Report/Environmental Impact Statement*. Output from the model is used to determine compliance with the *1993 Winter-Run Chinook Salmon Biological Opinion* criteria prescribed by the National Marine Fisheries Service (NMFS). These criteria define monthly water temperature objectives for the Sacramento River based on a Sacramento River hydrologic year type index.

3.4 OROVILLE LAKE AND FEATHER RIVER

3.4.1 Facility Description

3.4.1.1 Oroville Dam and Lake

Oroville Dam is 770 feet high and 6,920 feet long. Lake Oroville has a maximum storage capacity of 3,537 TAF with a minimum operating pool of 860 TAF. The E. Hyatt Power Plant is capable of generating a total of 813,000 kW at a maximum power discharge of 16,950 cfs.

3.4.1.2 Thermalito Facilities

The Thermalito storage facilities provide for off-stream storage of water from the Feather River. The system consists of three dams; Thermalito Diversion Dam, Thermalito Forebay Dam, and Thermalito Afterbay Dam. Storage capacity is 11.7 TAF in the forebay and 57 TAF in the afterbay. The Thermalito Diversion Dam generator design capacity is 3,000 kW at a maximum power discharge of 615 cfs while the Thermalito afterbay power generation capacity is 119,600 kW at a design flow of 16,900 cfs.

3.4.2 Operation

Oroville Dam and Lake on the Feather River serve to control floodwater and store surplus winter runoff for agriculture and M&I use in the Feather River Basin, San Joaquin Valley, and southern California. Oroville Dam is operated to provide instream flow for fish in the Feather River, protection of the Delta from intrusion of saline ocean water, agriculture and M&I water needs, and generation of hydroelectric energy. Thermalito Diversion Dam is used to regulate Oroville Dam releases on a day-to-day basis. PROSIM, a monthly time step model, does not attempt to simulate this day-to-day operation.

3.4.3 Temperature Considerations

The reservoir temperature model simulates release temperatures at Oroville Dam from its nine outlets; eight power outlets, one power plant bypass outlet, and the spillway.

Oroville Dam release temperatures provide the upstream conditions used in the Feather River temperature model.

3.5 UPPER AMERICAN RIVER, FOLSOM RESERVOIR, AND AMERICAN RIVER

3.5.1 Facility Description

3.5.1.1 Upper American River Basin

There are more than 20 reservoirs in the Upper American River Basin, ranging from about 400 acre-feet (af) to about 277,000 af. The upstream simulation is limited to nine reservoirs located on the Rubicon River, Gerle Creek, Pilot Creek, Silver Creek, Caples Creek, and the North, Middle, and South Forks of the American River. Several smaller creeks and diversions also are simulated.

Reservoirs in the upstream simulation have a combined storage of about 800,000 af including Lake Valley Reservoir (8,100 af), French Meadows Reservoir (133,700 af), Hell Hole Reservoir (208,400 af), Loon Lake (76,500 af), Stumpy Meadows (20,000 af), Union Valley Reservoir (277,000 af), Ice House Reservoir (46,000 af), Caples Lake (21,000 af), and Silver Lake (11,800 af).

3.5.1.2 Folsom Dam and Reservoir

Folsom Dam on the American River is a concrete gravity structure 340 feet high, 36 feet wide at the crest, and 1,400 feet long. The maximum storage capacity of Folsom Reservoir is 975 TAF with a minimum active storage of 90 TAF, which approximates the minimum power operating pool. The power plant consists of three Francis turbines capable of generating a total of 211,000 kW with a maximum power discharge of 8,600 cfs.

3.5.1.3 Nimbus Dam

Nimbus Dam is a concrete gravity structure 87 feet high, 28 feet wide and 1,093 feet long. Maximum storage capacity is 8.76 TAF. The Nimbus Power Plant consists of two Kaplan turbines capable of generating a total of 19,900 kW at a maximum power discharge of 5,500 cfs. Nimbus Dam impounds Lake Natoma and besides regulating Folsom releases to the American River, is the diversion location for the Folsom South Canal (FSC).

3.5.2 Operation

3.5.2.1 Upper American River Basin

The upstream reservoirs on the American River are operated to maintain minimum storage and flow requirements while providing water supply and power generation. The Department of Water Resources' (DWR's) Upper American River Model was modified and used in conjunction with spreadsheet tools to simulate the Upper American River system. DWR's model uses the U.S. Army Corps of Engineers' (Corps) HEC-III

program for hydrologic routing and storage accounting purposes, and spreadsheets to simulate operations including water rights diversions, storage releases for water rights diversions, storage releases for power generation and storage rights restrictions. Using this approach of coupling the HEC-III model and spreadsheets, sophisticated modeling of constraints and operations can be accomplished that are not possible to model in HEC-III alone. Upper American River operations can be dependent, in part, on conditions in the Lower American River simulated by PROSIM. When this dependency exists, iterative simulations of the Upper American River and PROSIM's Folsom/Lower American River operations must be performed.

Simulating the Upper American River utilized the Upper American River model developed by DWR for input to DWRSIM as described in the Central District Memorandum Report, *American River Watershed Model,* March 1984. In general, criteria for minimum storage requirements, minimum flow requirements, water rights related diversions, and certain storage operations are based on Folsom unimpaired inflow, Folsom storage conditions and CVP contract allocations. Modifications to the DWR's version of the HEC-III Upper American River model were made to the model structure and the input data in order to implement these requirements and determine reservoir operations. Output from the Upper American River simulations is used to provide PROSIM time series inflow data for Folsom Reservoir, and time series storage data for calculating "creditable" upstream storage space which will, at times, dictate additional flood control storage requirements for Folsom Reservoir.

Data used in DWR's HEC-III Upper American River simulation were developed by DWR except for the following assumptions/methodology. With the exception of diversion changes, the modifications to DWR's version of the model are isolated to the Middle Fork of the American River, the Rubicon River and Placer County Water Agency's (PCWA) Middle Fork Project (MFP) facilities. The diversion changes include deliveries to PCWA at the Auburn Dam site, Georgetown Divide Public Utilities District (GDPUD) at the Auburn Dam site, GDPUD at Pilot Creek and El Dorado Irrigation District (EID) at Lotus on the South Fork of the Upper American River.

3.5.2.2 Middle Fork Project

Middle Fork Project (MFP) storage is operated to maintain minimum storage and bypass flow requirements while providing water supplies and power generation. American River direct diversions, diversions to storage and related operations of the MFP storage for water rights diversions and power generation releases are constrained by water rights permits from the State Water Resources Control Board (SWRCB), contracts, and agreements between PCWA and Reclamation and Pacific Gas and Electric (PG&E). Minimum storage and bypass flow requirements are required by the Federal Energy Regulatory Commission (FERC) and SWRCB.

3.5.2.2.1 PCWA's Water Rights

- Maximum Diversion Rates and Diversion to Storage Volumes for Power Generation:

Source	Direct Diversion *(All Year)*	Diversion to Storage *(Nov 1 - Jul 1)*
Duncan Creek	200 cfs	25,000 af/yr
Middle Fork American River at French Meadows Dam	400 cfs	105,000 af/yr
Rubicon River at Hell Hole Dam	830 cfs	165,000 af/yr

(Note: Long Canyon facilities and Ralston interbay and afterbay facilities are not operated in the simulation)

- Maximum Volume and Restrictions on Diversion / Rediversion for Consumptive Use:

Maximum Volume	120,000 af/yr
Direct Diversion and Diversion to Storage Season	Nov 1 - Jul 1
Point of Diversion/Rediversion	Auburn Dam site & Folsom Dam

(Note: To accomplish full diversions required at either the Auburn Dam site or Folsom Dam in all seasons of the year, MFP will need to release for the rediversion of water during the Jul 1 - Nov 1 season)

At current level demands, only the PCWA diversion at the Auburn Dam site and the San Juan Water District (SJWD) diversion at Folsom Dam are considered in the operation of the MFP. At future level demands, the PCWA diversion at Auburn Dam, and the SJWD, City of Roseville, and Northridge Water District (NWD) diversions at Folsom Dam are considered in the operation of the MFP. SJWD, City of Roseville and NWD are assumed to have purchased PCWA water. The City of Roseville's actual PCWA water diversion is dependent on demand unmet by its CVP M&I contract allocation. Even though NWD may take its water from the Sacramento River in certain years, it is assumed that this arrangement is accomplished through a water exchange and the MFP is operated as if the diversion occurs from the American River.

3.5.2.2.2 Minimum Storage Requirements

- FERC Requirements:

French Meadows Reservoir	Jun 1 - Sep 30	Oct 1 - May 31
$FUI_{Oct\ 1 - Sep\ 30} > 2{,}000{,}000$ af	60,000 af	50,000 af
$1{,}200{,}000 \text{ af} < FUI_{Oct\ 1 - Sep\ 30} < 2{,}000{,}000$ af	60,000 af	25,000 af
$FUI_{Oct\ 1 - Sep\ 30} < 1{,}200{,}000$ af	28,000 af	8,700 af

Hell Hole Reservoir

$FUI_{\text{Oct 1 - Sep 30}}$ > 2,000,000 af	70,000 af	50,000 af
1,200,000 af < $FUI_{\text{Oct 1 - Sep 30}}$ < 2,000,000 af	70,000 af	25,000 af
$FUI_{\text{Oct 1 - Sep 30}}$ < 1,200,000 af	26,000 af	5,500 af

($FUI_{\text{Oct 1 - Sep 30}}$ = April forecast of Folsom unimpaired Inflow for the period from the previous October to the following September. Value is used as the FUI index for the following June - May period)

3.5.2.2.3 Minimum Bypass Flow Requirements

- FERC Requirements:

Duncan Creek Diversion Dam	Bypass	Season
$FUI_{\text{Oct 1 - Sep 30}}$ > 1,000,000 af	8 cfs or natural flow	Jun 1 - May 31
$FUI_{\text{Oct 1 - Sep 30}}$ < 1,000,000 af	4 cfs or natural flow	
French Meadows Reservoir		
$FUI_{\text{Oct 1 - Sep 30}}$ > 1,000,000 af	8 cfs	Jun 1 - May 31
$FUI_{\text{Oct 1 - Sep 30}}$ < 1,000,000 af	4 cfs	
Hell Hole Reservoir		
$FUI_{\text{Oct 1 - Sep 30}}$ > 1,000,000 af	20 cfs	May 15 - Dec 14
	10 cfs	Dec 15 - May 14
$FUI_{\text{Oct 1 - Sep 30}}$ < 1,000,000 af	10 cfs	Jun 1 - Oct 14
	6 cfs	Oct 15 - May 31
Oxbow		
Downstream of the confluence of the Middle Fork American River and the North Fork of the Middle Fork of the American River		75 cfs

($FUI_{\text{Oct 1 - Sep 30}}$ = April forecast of Folsom unimpaired Inflow for the period from the previous October to the following September. Value is used as the FUI index for the following June - May period)

- SWRCB Requirements:

Auburn Dam site

Downstream of the Auburn Dam site to Folsom Reservoir (D-1400)	75 cfs

3.5.2.2.4 Reclamation February 20, 1963 Contract

1. In years when the April forecasted $FUI_{Oct\ 1\ -\ Sep\ 30}$ < 600,000 af, the MFP end-of-September storage will not exceed the previous year's end-of-September storage.

2. During the period of July 1 - December 31, the MFP end-of-month storage will not exceed the beginning-of-month storage if; natural inflow to French Meadows Reservoir plus diversions from Duncan Creek to French Meadows Reservoir exceeds 19,000 af in the month, and natural inflow to Hell Hole Reservoir plus diversions from the North and South forks of Long Canyon to Hell Hole Reservoir exceeds 45,000 af in the month; then MFP may increase storage in the MFP.

3.5.2.2.5 Informal MFP Operation Rules

Absent the temporary purchase of Water Forum mitigation water (ReOp water) from PCWA, the MFP is operated to:

1. Achieve a December 31 target MFP storage of 150,000 af.

2. Minimize spills from the MFP (which do not generate power) by making timely power releases and maintaining adequate available storage capacity through periods of high inflows.

3. Achieve June 30 storage as high as possible to maximize power generation capacity in all years and/or water supply availability in drier years. Water supply operations are given higher priority than power operations.

3.5.2.3 Folsom Dam

Folsom Dam and Reservoir is operated to control floodwater and store surplus winter runoff for agriculture and M&I use in the American River Basin and San Joaquin Valley. Folsom also is operated to provide instream flow for fish in the American River, protection of the Delta from intrusion of saline ocean water, and generation of hydroelectric energy. Because Nimbus Dam serves to regulate Folsom Dam releases on a day-to-day basis, PROSIM does not attempt to simulate this operation but does portray Nimbus as a diversion point for the FSC.

Folsom Reservoir is presently operated in accordance with the 400-670 TAF variable flood control diagram developed for the Sacramento Area Flood Control Agency (SAFCA) and described in the December 1993 Corps report *Folsom Dam And Lake Operation Evaluation*. These criteria recognize incidental flood control provided by available storage in upstream reservoirs (French Meadows, Hell Hole, and Union

Valley), such that the maximum Folsom Reservoir flood control reservation varies from 400 TAF to 670 TAF.

PROSIM operates Folsom Reservoir by first maintaining requirements for flood control and minimum storage, then releasing water to satisfy instream flow, diversion requirements in the Lower American River, and direct diversion from the Reservoir. Once PROSIM has operated the entire Central Valley Project to satisfy requirements upstream from the Delta, it may call for additional release from Folsom Reservoir for Delta needs. Folsom Reservoir's release for Delta needs is balanced with Shasta Lake release, based on the amount of storage in each reservoir. The CVP obligation to satisfy Delta requirements is shared with the SWP, based on the terms of the Coordinated Operating Agreement (COA).

3.5.3 Temperature Considerations

Lower American River water temperature modeling incorporates a 3-2-4 shutter configuration on the power penstock intakes at Folsom Dam and variable monthly target release temperatures. Target temperature release objectives are based on the best use of the available cold water for instream beneficial uses. Simulations of future conditions also incorporate a temperature control device (TCD) on the intake to the Folsom Dam Pumping Plant.

3.6 EAST SIDE STREAMS

East Side streams consist of the Cosumnes River, Mokelumne River, Calaveras River, and several smaller creeks. The East Side streams encompass the geographic area bounded by the American River on the north and the Stanislaus River to the south. Jenkinson Lake, a Federal project operated by El Dorado Irrigation District in cooperation with Reclamation, is located on the Cosumnes River and has a storage capacity of about 41,000 AF. Pardee and Camanche Reservoirs are located on the Mokelumne River and have a combined storage capacity of approximately 640,000 AF. The Mokelumne project is operated by EBMUD. New Hogan Dam is located on the Calaveras River and has a storage capacity of about 317,000 AF. This reservoir is operated by the U.S. Army Corps of Engineers.

Operation of East Side streams is not explicit in PROSIM. The combined flow from these rivers, as they enter the Delta are, however, an input to PROSIM. The flows used for all simulations are consistent with PROSIM version 60A.

3.7 SAN JOAQUIN RIVER

3.7.1 Operation

The simulation of the San Joaquin River at Vernalis is extracted from Reclamation's SANJASM model. This representation of the San Joaquin River Basin includes the

Stanislaus River and New Melones Dam, Tuolumne River and New Don Pedro Dam, Merced River and New Exchequer Dam, Chowchilla River and Buchanan Dam, Fresno River and Hidden Dam, and the San Joaquin River upstream to Friant Dam. The results from SANJASM are used in Reclamation's STANMOD model.

There is no integrated operation of San Joaquin Basin reservoirs; all reservoirs are owned and operated by different entities for local needs. PROSIM requires the flow at Vernalis on the San Joaquin River for its simulation. Flows used for all simulations are consistent with PROSIM version 60A.

3.8 DELTA

3.8.1 Facility Description

Facilities in the Delta include the Cross Channel Gate operated by the CVP, Banks Pumping Plant operated by the SWP, Tracy Pumping Plant operated by the CVP, and Delta channels. The SWP Banks Pumping Plant average monthly capacity with four pumps is 6,680 cfs (8,500 cfs in some winter months) in compliance with the Corps' October 31, 1981 Public Notice criteria. The CVP Tracy Pumping Plant capacity is 4,600 cfs, but physical constraints along the Delta Mendota Canal and at the re-lift pumps to O'Neill Forebay can restrict export capacity as low as 4,200 cfs in some months.

3.8.2 Operation

Once all tributaries to the Delta have been operated to satisfy upstream requirements, PROSIM simulates the Delta. PROSIM calculates the flow required to satisfy all Delta water quality control plan requirements. Once this is accomplished, the model determines if the Delta is in "surplus" water or "balanced" water conditions. The model then allocates available surplus to CVP and SWP export or allocates responsibility for additional upstream release based on this determination. CVP/SWP sharing of responsibility for Delta operations is described in the COA.

Of the numerous facilities in the Delta, PROSIM only operates the Cross Channel Gate, Contra Costa Pumping Plant, Tracy Pumping Plant and Banks Pumping Plant. Agricultural diversions for Delta lands are combined into one diversion for the entire area and identified as Net Delta Consumptive Use.

3.9 SOUTH OF DELTA

3.9.1 Facility Description

3.9.1.1 San Luis Reservoir

San Luis Reservoir is a joint CVP/SWP facility that stores water pumped from O'Neill Forebay until required to satisfy demands downstream of O'Neill. San Luis Reservoir

has a maximum storage capacity of 2,047 TAF, of which the CVP uses 972 TAF and the SWP uses 1,067 TAF. The minimum power operating pool for this facility is 90 TAF. The power plant consists of eight Francis Turbines with a total capacity of 424,000 kW at a maximum power discharge of 11,000 cfs. Reclamation's portion of the generation design capacity is 186,000 kW.

3.9.1.2 O'Neill Forebay

O'Neill Forebay provides off-stream storage for water pumped from the Delta *via* the Delta-Mendota Canal and the Edmund G. Brown California Aqueduct. The reservoir has a maximum capacity of 56,400 TAF of which 29,500 TAF is dedicated to SWP storage. The combined power generating capacity of the six pump/generator units, which move water to and from the DMC, is 25,200 kW.

3.9.1.3 CVP - Delta Mendota Canal

The Delta Mendota Canal receives water from the Tracy Pumping Plant and carries it along the west side of the San Joaquin Valley for irrigation supply. The canal is 116 miles long and ends at the Mendota Pool about 30 miles from Fresno, California. At its head, the canal design capacity is 4,600 cfs, which gradually decreases to 3,211 cfs at its southern extremity.

3.9.1.4 SWP - West and East Branch Aqueducts

The Governor Edmund G. Brown California Aqueduct conveys water from the Delta to southern California through a series of canals, pipelines and tunnels extending 444 miles. The aqueduct has a variety of capacities ranging from 3,129 cfs at the southern extremity to 13,100 cfs downstream of O'Neill Forebay.

The West Branch Aqueduct conveys water for storage in Pyramid and Castaic reservoirs, which serve Los Angeles and other coastal cities. It consists of a total of 31.9 miles of canals, reservoirs, pipelines and tunnels, with a combined maximum storage capacity of 498 TAF.

The East Branch Aqueduct traverses the Antelope Valley and incorporates Silverwood Lake and Lake Perris for storage. This branch of the aqueduct system provides water to San Bernardino and Riverside counties. Maximum storage capacity in this portion of the system is 200 TAF.

3.9.2 Operation

South of Delta exports pumped at Tracy and Banks Pumping Plants are calculated monthly by summing the total project demands south of the Delta with the volume of water required to achieve target storage in San Luis Reservoir (target storage is specified monthly for both the CVP and SWP shares of San Luis). The volume is exported from the Delta to the extent possible consistent with export restrictions specified in the 1995 Bay-Delta Accord and prudent CVP/SWP operating policies.

4. PROSIM INPUTS

PROSIM requires multiple inputs that describe the physical representation and operational criteria for the CVP and SWP, as well as hydrologic data for the Delta, Sacramento, and San Joaquin basins.

4.1 PHYSICAL PARAMETERS

The physical representations of CVP and SWP facilities described in **3. FACILITY DESCRIPTIONS AND OPERATIONAL CONSIDERATIONS,** are input to PROSIM through several input files. In addition to the input, portions of the physical representation of the CVP and SWP are contained in the PROSIM FORTRAN source code. A master control file contains information describing the characteristics of each PROSIM node along with conveyance capacities of links connecting nodes. Reservoir capacities, minimum storage, and power plant capacities are contained in the reservoir input file. Physical parameters describing power plants and pump stations are contained in the power input files.

4.2 OPERATIONAL CRITERIA

Operational criteria include data governing the operation of reservoirs, environmental flow requirements, and federal and state operating policy. Operational criteria vary depending on the scenario simulated. Reservoir operating rules or operations policies may need to be adjusted to achieve an acceptable simulation. Operational criteria that differ between various simulations are discussed in **5. SIMULATIONS PERFORMED**.

4.2.1 Reservoir Operation Criteria

Reservoir operation parameters are established to achieve an appropriate water storage balance between project reservoirs. Balancing rules are used by the model for any condition where water needs can be satisfied from more than one reservoir. This forces the model to balance all CVP reservoirs north of the Delta (Trinity, Shasta, and Folsom) in pursuit of an acceptable operation. PROSIM must also balance the storage in northern CVP and SWP reservoirs with storage south of the Delta. This balancing is accomplished using target storages for San Luis Reservoir. When storage in CVP San Luis Reservoir is below its target, releases are made from CVP reservoirs north of the Delta. Likewise, SWP's Oroville Dam north of the Delta will make releases when storage in SWP San Luis Reservoir is below its target.

Reservoir balancing north of the Delta is controlled by criteria that describe refill potential, minimum storage, and unconditional releases. These criteria, along with criteria to balance north and south of Delta storage, are input data that can be adjusted in the reservoir input file. For any simulation, these reservoir operation criteria are adjusted to achieve a reasonable representation of CVP and SWP operations.

4.2.2 Environmental Flow Requirements

4.2.2.1 *Trinity River*

For existing conditions simulations, instream flow requirements for the Trinity River are 340 TAF per year, in all year types, based on the May 8, 1991 decision of the Secretary of the Interior. Future level simulations use the instream flow requirements defined by the April 26, 1995 U.S. Fish and Wildlife Service 390-750 TAF Trinity River flow pattern. The 390-750 allocation to the Trinity River is based on available water supply, expressed in terms of Trinity Lake inflow for the given year.

4.2.2.2 *Clear Creek*

Flows in Clear Creek below Whiskeytown are in accordance with minimum instream flow requirements specified in the Department of Interior's Final Administrative Proposal on the Management of Section 3406(b)(2) dated November 20, 1997.

4.2.2.3 *Sacramento River Below Keswick Dam*

Flows in the Sacramento River below Keswick Dam are in accordance with minimum instream flow requirements specified in the Department of Interior's Final Administrative Proposal on the Management of Section 3406(b)(2) dated November 20, 1997.

4.2.2.4 Sacramento River at The Navigation Control Point

The Navigation Control Point (NCP) flow is a condition of CVP authorization, and requires Reclamation to maintain flows in the Sacramento River sufficient to support commercial navigation. The location of the NCP is defined as the Sacramento River at Wilkins Slough, located approximately 65 miles upstream of the City of Sacramento. Commercial navigation in the river above Sacramento has not existed for many years. Over the years, however, water diverters along the Sacramento River have become accustomed to the flow levels provided by the NCP requirement, and have established pump intakes at elevations commensurate with historic flow levels. The NCP flow has become a requirement associated with the ability to pump.

PROSIM establishes flow in the Sacramento River at the NCP based on available storage in Shasta Lake and "Delivery Level." "Delivery Level" is a function within the PROSIM model that is used to estimate overall water supply availability (based on system storage, forecasted inflow, desired carryover storage, and other parameters) and determine necessary shortages among project users (i.e., agriculture, M&I, and settlement users). Flows at the NCP are maintained at 5,000 cfs in high delivery years and can be reduced to 3,250 cfs during years when large deficiencies are imposed on Sacramento River diverters.

4.2.2.5 Feather River

Feather River instream flow requirements are: 1,700 cfs October through March of non-critical years; 1,200 cfs October through February and 1,000 cfs in March of critical years; and 1,000 cfs April through September in all year types. Critical years are defined as those years when the previous April through July unimpaired inflow to Lake

Oroville was below the historical average of 1,964 TAF. These required flows may be reduced by 25% if Lake Oroville storage drops below 1,500 TAF. Per the August 26, 1983 agreement between DWR and CDFG, the above minimum flow requirements may be modified further if releases exceed 2,500 cfs between October 15 and November 30. PROSIM's implementation of this criteria includes the exemption of flood control releases from the foregoing criteria (to the extent a monthly model can recognize short-term phenomena).

4.2.2.6 American River

Flows in the American River below Folsom Dam are set based on minimum instream flow requirements specified in the Department of Interior's Final Administrative Proposal on the Management of Section 3406(b)(2) dated November 20, 1997. Regardless of the flow requirement specified under (b)(2), State Water Resources Control Board Decision 893 monthly flow requirements are maintained as a minimum throughout the LAR, from Nimbus Dam to the mouth.

4.2.2.7 Delta

Environmental Requirements for the Delta are set based on the SWRCB May 1995 Water Quality Control Plan (WQCP) and the Department of the Interior's Final Administrative Proposal on the Management of Section 3406(b)(2) dated November 20, 1997.

The SWRCB May 1995 WQCP prescribes constraints/requirements in the Delta, including standards for salinity, dissolved oxygen, flow, and exports. Salinity and dissolved oxygen standards, for which there are no corresponding specified relationships to flow (i.e., flow-salinity or flow-dissolved oxygen relationships), are indirectly considered in the PROSIM model through the use of minimum Delta outflow requirements. PROSIM treats all flow standards specified in the WQCP as requirements that cannot be compromised.

The WQCP specifies standards based on year type and water availability, which may relax requirements during drier years. Standards, such as X2, vary depending on antecedent flow conditions. PROSIM determines the appropriate flow standard based on allowable adjustments/relaxations specified in the WQCP and sets Delta outflow requirements that ensure violations of these standards do not occur.

4.2.3 Delivery Logic

One of the most critical operating decisions for the CVP and SWP is the annual water supply allocation, which occurs in every March of the simulation. PROSIM uses perfect foresight to determine the water demand and available water supply for the forecast horizon (March through September). PROSIM then calculates water allocations by balancing available supply and demand over the forecast horizon. If the supply is greater than demand, then a full allocation is made. However, if demand is greater than supply, deficiencies are imposed. Additional reductions in water allocations are made

to CVP users south of the Delta when it is determined that there are conveyance limitations through the Delta.

PROSIM imposes deficiencies by using a step function representing delivery levels. A delivery Level 1 indicates a full delivery. Increasing delivery levels indicate a decrease in water allocation. The imposition of deficiencies is consistent with PROSIM version 60A.

4.3 POWER

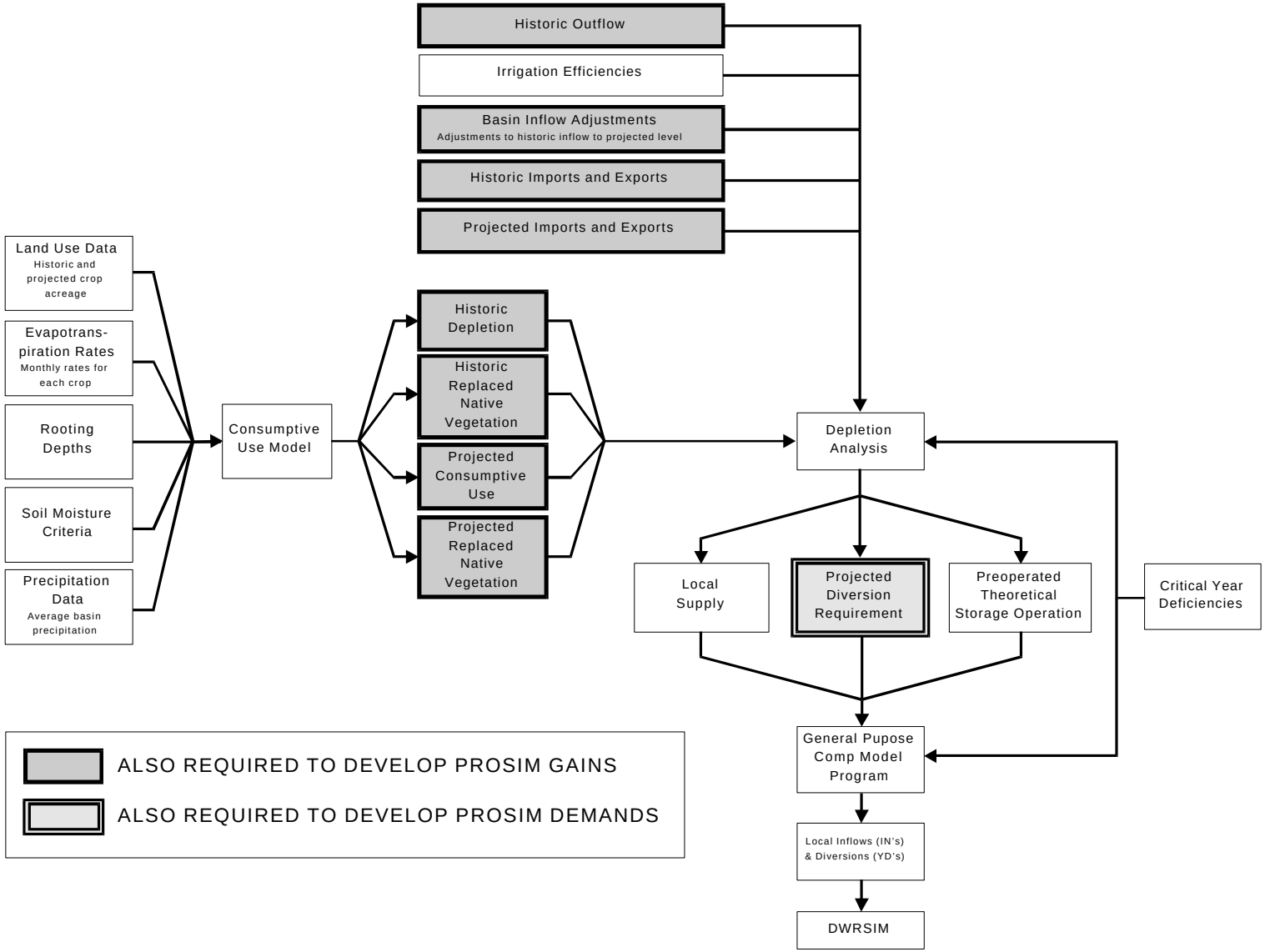
Data describing storage–efficiency and storage–capacity curves are contained in the power generation inputs for each federal facility simulated by PROSIM. CVP electrical loads for Project facilities are defined in the power input file. Power routines in PROSIM use this information to calculate generation, capacity, and energy requirements at the CVP load center.

4.4 HYDROLOGY

Stream gains, reservoir inflows, water diversion requirements, irrigation efficiency, and groundwater operation are components that make up the hydrology used in PROSIM. The hydrology is developed using the DWR hydrology development process, designed to adjust the historic sequence of monthly stream flows to represent a sequence of flows at a future level of development. Adjustments to historic water supplies are determined by imposing future level land use on historic meteorological and hydrologic conditions. The resulting hydrology represents the water supply available from Central Valley streams to the CVP and SWP at a future level of development. DWR's Consumptive Use (CU) and Depletion Analysis are the two major components of the hydrology development process; data and results from the CU and Depletion Analysis are structured for use in PROSIM. A flow chart representing the hydrology development process is presented in **Figure 4.3**.

Figure 4-3

DWR HYDROLOGY DEVELOPMENT PROCESS



The CU model determines water use in the Sacramento Valley and the Delta service area. It requires land use data, evapotranspiration rates, rooting depths, soil moisture criteria, and precipitation data as inputs. Using these inputs, the CU model produces water depletions and replaced native vegetation CU for both the historic and projected levels of development. CU model output is a major component of the input data used in the depletion analysis.

The depletion analysis determines the effect of future water diversions and reservoir operations for each Depletion Area (DA) tributary to the Delta. Analysis begins by removing the effects of actions that have historically influenced water supply in each DA, such as water projects and land use. The result is a natural water supply for each DA. Once natural water supply is determined, non-CVP and non-SWP water projects are imposed on each DA resulting in supply available at a future level of development. Future land use is then imposed to determine water diversion requirements. Withdrawals from theoretical storage are made when available supply is less than diversion requirements. Appropriate withdrawals are made from theoretical storage to ensure that full water diversion requirements are satisfied. The depletion analysis provides outputs containing available water supply, diversion requirement, and a theoretical storage operation for each DA.

Individual nodes in PROSIM represent depletion areas in the valley floor basins while depletion areas known as rim basins are represented as either inflow to reservoir nodes, or incorporated in gains for valley floor depletion areas. A map showing the DWR depletion areas is presented in **Figure 4.4**. All water entering, exiting, or stored within each depletion area is accounted for in the DWR hydrology process. These data are used to calculate all hydrologic inputs to PROSIM. The hydrologic data are input to PROSIM via the gains, inflow, groundwater, efficiency inputs, and demands,

4.4.1 Gains

Available water supply within each DA is represented in PROSIM's gains input data. PROSIM gains are calculated using inputs to the depletion analysis, and are calculated using the same approach as the depletion analysis. **Figure 4.3** indicates the components of the DWR hydrology process that are used to calculate PROSIM gains. Gains consist of accretions and depletions (water gain and loss) at a node and are not always positive. Gains, with the exception of the American River, are consistent with PROSIM version 60A.

Gains on the American River were developed by performing rainfall-runoff analyses and by incorporating seepage estimates produced from groundwater modeling. Gains are determined for three reaches of the Lower American River; Folsom Dam to Nimbus Dam, Nimbus Dam to H Street, and H Street to the mouth.

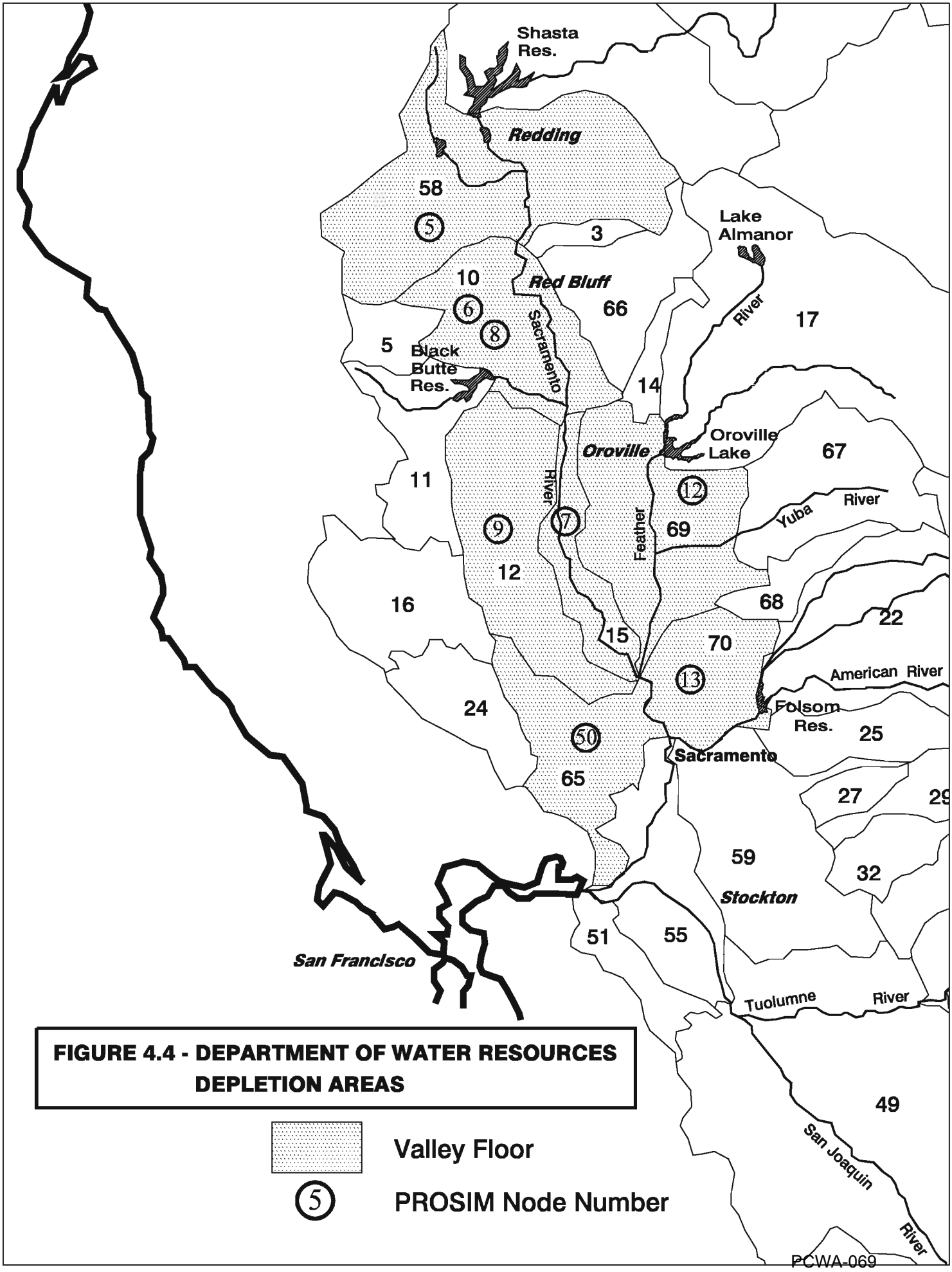


FIGURE 4.4 - DEPARTMENT OF WATER RESOURCES DEPLETION AREAS

Rainfall-runoff estimates for the American River from Folsom Dam to Nimbus Dam were provided by DWR, and were determined by relating drainage characteristics of the adjacent Dry Creek watershed to drainage at Lake Natoma. The rainfall-runoff estimates for both reaches below Nimbus Dam were determined employing methods developed by Dan Steiner on behalf of the County of Sacramento. Approximately 25,636 acres contribute to drainage entering the American River from Nimbus Dam to H Street and 16,219 acres contribute to drainage from H Street to the mouth. To determine the volume of runoff, precipitation data for DA 70 were multiplied by these respective areas with a 0.5 runoff coefficient applied.

4.4.2 Delta

Delta gains are developed and provided by DWR. Gains in the Delta are simply precipitation volumes.

4.4.3 Reservoir Inflow

Inflow to Trinity, Whiskeytown, and Shasta reservoirs are extracted directly from the DWR hydrology development process. Inflow to Lake Oroville is extracted from the DWR process. Flow through Kelly Ridge is added to Lake Oroville inflow because PROSIM has no means of properly introducing the flow into the Feather River downstream of Oroville Dam. Inflow to Folsom Reservoir is necessarily modified from the inflow used in the DWR process because of the iterative upstream operations required by the WFP and described in **3.5.2.1 Upper American River Basin**.

4.4.4 Groundwater

The groundwater operation in PROSIM is consistent with the DWR depletion analysis. Theoretical storage in the depletion analysis is drawn upon (groundwater pumping) whenever surface water supplies within a depletion area are insufficient to satisfy demands. No limits are placed on the volume of water that can be drawn from theoretical storage. The withdrawal is set to the volume necessary to fully satisfy demands. Diversion to theoretical storage is considered to be recharge. Ability to recharge theoretical storage, unlike theoretical storage withdrawals, is limited by hydrologic conditions.

Theoretical storage operations critical to PROSIM are restricted to valley floor depletion areas. Of the seven valley floor depletion areas represented by PROSIM nodes, five have a significant theoretical storage operation. These areas include DA 10, 12, 15, 69, and 65, as presented in **Figure 4.4**.

4.4.5 Efficiency and Return Flows

Basin efficiencies for each depletion area are used to determine diversion requirements based on consumptive use (CU) requirements. Diversions in excess of CU requirements enter the surface water system in the form of return flows. Demands are input to PROSIM in the form of diversion requirements. PROSIM uses efficiency factors for the sole purpose of determining the portion of diversion that will be realized as return flow. The efficiency values used are consistent with the DWR hydrology process.

4.4.6 Demands

Demands in PROSIM are classified as CVP project, SWP project, or non-project demands. CVP project demands are separated into several classes based on contract type. Demands also are designated by geographic location; Sacramento River Basin (CVP and non-project), Feather River Service Area (SWP and non-project), American River Basin (CVP), Delta, CVP south of Delta, and SWP south of Delta. All CVP demands, with the exception of the American River, are consistent with PROSIM version 60A.

4.4.6.1 Sacramento River Basin

Sacramento River CVP diversions serve the Central Valley for a variety of uses including agricultural, national wildlife refuge water supply, and M&I use. All CU demands, such as agricultural and M&I outdoor use, are determined using the DWR hydrology process. The DWR hydrology process does not address water requirements for wildlife refuges and non-consumptive demands, such as M&I indoor use. It is necessary to incorporate refuge and M&I demands into PROSIM because reservoirs must release water to satisfy these requirements. These demands are added to the demands determined by the DWR hydrology process.

Diversion requirements determined by the DWR hydrology process are used as the total demand for each DA represented in PROSIM. Total demand from the DWR hydrology process is disaggregated into project and non-project demands based on CVP contract amounts in each DA. Project demands are set to the minimum of the CVP contract amount or the total demand in the DA. Non-project demands are calculated as the total demand minus the CVP project demand. Non-project demands can be satisfied from direct stream diversions if adequate streamflow is available. Reservoir withdrawals are not made to satisfy these demands. Reservoirs will release water to satisfy project demands, up to the amount determined by PROSIM through delivery allocations.

Firm Level II national wildlife refuge water demands are used for both the Sacramento and San Joaquin Valleys.

M&I water diversion requirements are determined based on both recent historic diversions and contract amounts. Even though M&I diversion requirements are not

included in the DWR hydrology development process, the CU portion is included. Therefore, efficiency factors are established to ensure that the appropriate volume of return flow enters the surface water system.

4.4.6.2 Feather River Service Area

Feather River Service Area (FRSA) demands are the only SWP demand north of the Delta. The FRSA users are entitled to approximately 1,000 TAF per year of Feather River water. The DWR hydrology process is used to determine these diversions. Deficiencies imposed on FRSA users, by the SWP, are determined in the DWR hydrology process and remain unchanged in PROSIM. Refuge water for Butte Creek Duck Club and M&I diversion for Yuba City and Butte County is added to the Feather River diversion requirement determined in the depletion analysis.

4.4.6.3 American River Basin

American River demands are predominantly for M&I use, and include diversions located upstream of and from Folsom Reservoir, Lake Natoma and the FSC, and the Lower American River.

All demands in the Lower American River are based on the Sacramento Area Water Forum assumptions. American River demands used in the simulations are addressed in **5. SIMULATIONS PERFORMED**.

The Upper American River system demands are modeled using the HEC-III model described previously, and are based on the Sacramento Area Water Plan Forum demands. Certain demands in the Lower American River require Middle Fork Project releases during July 1 through November 1. These demands represent water purchased from PCWA, and are operated in a manner consistent with PCWA water rights restrictions. Middle Fork Project operations are discussed in **3.5.2.2 Middle Fork Project**.

4.4.6.4 Delta

Diversions in the Delta include City of Vallejo, Contra Costa Water District, and Delta CU. Delta CU is determined in the DWR hydrology process. The CU model uses routines specific to the Delta, along with variable evapotranspiration (ET) rates to determine the Delta CU.

4.4.6.5 CVP South of Delta

South of Delta CVP demands include agricultural and M&I needs served from the San Luis Reservoir and Unit, the Cross Valley Canal, the Delta-Mendota Canal and Mendota Pool. In PROSIM, CVP demands south of the Delta are always set to contract amount and do not vary based on hydrologic conditions. These demands also contain exchange contractors, refuge water supplies and operational losses.

4.4.6.6 SWP South of Delta Demands

Demands are set per the Monterey Agreement criteria, which imposes demand deficiencies equally to both agricultural and M&I requests. They are calculated from the 1996 Table A entitlements assuming zero entitlements and deliveries to Santa Barbara and San Luis Obispo counties through the Coastal Aqueduct.

Maximum SWP Contractor deliveries are designed to vary in response to local wetness indices. As such, maximum deliveries are reduced in the wetter years, assuming greater availability of local water supplies. Deliveries to San Joaquin Valley agricultural contractors are reduced in wetter years using an index developed from annual Kern River inflows to Lake Isabella.

Deliveries to Metropolitan Water District of Southern California (MWDSC) are reduced in wetter years using the 10-station, two-year average precipitation index.

Maximum deliveries to all other SWP M&I Contractors are not adjusted for a wetness index. As a result of the use of wetness indices, the maximum delivery to SWP contractors varies by year. Actual demands input to PROSIM are dependent on level of development assumed for each simulation. The range of SWP demand assumptions are discussed in **5. Simulations Performed**.

5. SIMULATIONS PERFORMED

Study assumptions are developed to produce model simulations that reflect conditions appropriate for fulfilling California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) analysis requirements. The methods by which model simulations are performed and compared form the basis for many impact analyses. There were four simulations performed for this project:

- Base Condition
- Base with Water Forum Proposal (WFP)
- 2030 with WFP
- 2030 Constrained Alternative

Performing the four simulations required developing assumptions for both current conditions (nominally 1998) and future conditions (nominally 2030). The Current Condition hydrology uses 1995 land use projections, while 2020 land use projections are used for future condition hydrology. The Base Condition simulation employs Reclamation's 1997 operational criteria for flow and environmental requirements (e.g., temperature and instream flow objectives). Future condition simulations reflect an assumed operating criteria to meet anticipated flow and environmental requirements.

Any representation of CVP and SWP operations for 20 to 30 years in the future is speculative. This speculation is, however, necessitated by the environmental process; thus, assumptions about future operations are unavoidable. Drawing on knowledge of past and present CVP/SWP operations and applying a fairness principle to situations for which there is no precedence, a "reasonable" future operation was determined for the future condition simulations. Individual project operators will each have an opinion on the "goodness" of the operation, which reinforces the fact that there is no correct operation, only a range of reasonable operations.

Since the "reasonable" future operation is dependent on a fairness principle when competing demands for water cannot be resolved by current guidelines, some explanation of the principle is necessary. The allocation of the available water supply between water contractors and the environment in the future is difficult to identify. For the future condition simulations performed for this project, the sequence for allocating a limited water supply was as follows.

1. Delta requirements were met in all months of all years.

2. Trinity River flow requirements were met before any export to the Sacramento Basin.

3. Flow and storage requirements associated with the Sacramento River winter run salmon biological opinion was implemented to achieve a level of protection consistent with current operating policy.

4. Water contractor deliveries were diminished to achieve the preceding actions.

5.1 BASE CONDITION

This simulation is designed to represent how the CVP and SWP presently operate with existing obligations. The criteria used to guide operations of the CVP and SWP are consistent with criteria currently in place (October 1998). The hydrology used for the existing condition PROSIM model studies are consistent with the DWR hydrology titled D06A. This hydrology is based on 1995 land use projections published in DWR Bulletin 160-98.

5.1.1 Demands

5.1.1.1 Sacramento River Basin Including FRSA

Demands in the Sacramento River Basin are developed using the DWR hydrology process discussed in **4.4.5 Demands**. Demands vary depending on hydrologic conditions. However, annual average project agricultural demands are 3,500 TAF, and annual average non-project demands are 2,300 TAF.

5.1.1.2 American River Basin

American River demands for this simulation are based on Water Forum Proposal current use declarations. These demands are presented in **Table 5.1**.

5.1.1.3 Delta

Annual demands in the Delta include the City of Vallejo (16,000 AF), Contra Costa Water District (145,000 AF), and Delta CU (1,700 TAF average annual) based on DWR hydrology D06A.

5.1.1.4 CVP South of Delta

CVP demands south of the Delta are fixed at 3,260 TAF per year, based on contractual obligations. These demands include all CVP contracts south of the Delta plus firm Level II refuge supply and operational losses.

5.1.1.5 SWP South of Delta

SWP demands for this simulation vary from 3,530 TAF to 2,620TAF based on southern California wetness indices.

TABLE 5.1 - AMERICAN RIVER BASE CONDITION DEMANDS

Location	Demand	Demand Type
Upstream of Folsom Reservoir		
El Dorado Irrigation District	15,000	Water Rights

Georgetown	10,000	Water Rights
Placer County Water Agency	8,500	Water Rights
Total	33,500	
Folsom Reservoir *Represented by PROSIM Node 14*		
Northridge Water District	0	Water Rights
City of Folsom	15,000	Water Rights
Folsom State Prison	2,000	Water Rights
San Juan Suburban Water District (Placer County)	10,000	Water Rights
San Juan Suburban Water District (Sacramento County),	44,200	Water Rights/M&I Contract
El Dorado County Water Agency	0	M&I Contractor
El Dorado Irrigation District	5,000	M&I Contractor
Roseville, City of	23,000	M&I Contractor
Total	99,200	
Folsom South Canal *Represented at PROSIM Node 15*		
Southern California Water Co.	3,500	Water Rights
California Parks and Recreation	0	M&I Contract
SMUD	15,000	Water Rights
South Sacramento Count Agriculture	0	Ag Contractor
Losses	1,000	
Total	19,500	
From Below Nimbus Dam to H Street *Represented by PROSIM Node 16*		
Arcade Water District	2,000	Water Rights
Carmichael Water District	8,000	Water Rights
Sacramento, City of	50,000	Water Rights
Total	60,500	
American River at I5 *Represented at PROSIM Node 16*		
EBMUD	0	
	0	
Total	0	
Sacramento River below the American River Confluence *Represented by PROSIM Node 17*		
Sacramento, City of	45,000	Water Rights
Sacramento county Water Agency	0	
Total	45,000	

5.1.2 Temperature

The Base Condition simulation assumes optimal management of Folsom Reservoir's cold water pool. Variable target temperature release objectives are selected that reflect the capability of manipulating the Folsom Dam shutters to achieve the best possible conditions for steelhead and chinook salmon. Existing facilities at Folsom Dam are assumed for temperature control.

5.2 WFP

This simulation is designed to represent how the CVP and SWP would operate with the implementation of the Water Forum Proposal. The criteria used to guide operations of the CVP and SWP are consistent with criteria currently in place (October 1998). The hydrology used for the WFP condition PROSIM simulation are consistent with the DWR

hydrology titled D06A. This hydrology is based on 1995 land use projections published in DWR Bulletin 160-98.

5.2.1 Water Forum Mitigation Water (MFP ReOp water) Operation

WFP simulations that include PCWA diversions at the Auburn Dam site, and/or City of Roseville diversions at Folsom Dam, have an associated mitigation (ReOp) water obligation. The ReOp water obligation is computed based on the same Folsom unimpaired index (FUI) as the delivery "wedge" is based ($FUI_{Mar\ 1 - Sep\ 30} + 60$). The $FUI_{Mar\ 1 - Sep\ 30} + 60$ is used in the hydrologic modeling as a surrogate for a $FUI_{Mar\ 1 - Nov\ 30}$ forecast. ReOp release obligation is accomplished in all years.

PCWA	ReOp Amount
$FUI_{Mar\ 1 - Sep\ 30} + 60 > 950$ af	0 af
400 af < $FUI_{Mar\ 1 - Sep\ 30} + 60 < 950$ af	Linearly interpolated
$FUI_{Mar\ 1 - Sep\ 30} + 60 < 400$ af	27,000 af
City of Roseville	
$FUI_{Mar\ 1 - Sep\ 30} + 60 > 950$ af	0 af
400 af < $FUI_{Mar\ 1 - Sep\ 30} + 60 < 950$ af	Linearly interpolated
$FUI_{Mar\ 1 - Sep\ 30} + 60 < 400$ af	20,000 af

The following rules are used in operating the MFP for the ReOp water obligation:

1. ReOp water is released at a constant rate during the months of March through September.

2. MFP baseline releases (the releases from the MFP that would have normally occurred without prior or current ReOp water releases) are maintained throughout the period that begins ReOp until Folsom Reservoir reaches its flood control storage diagram.

3. As soon as Folsom Reservoir storage reaches the flood storage diagram, MFP is allowed to refill the hole in MFP storage by storing inflow (previously spilled) and reducing power releases that are not needed for any other purpose downstream.

4. If refill of the MFP “hole” is not achieved by the time a subsequent ReOp operation commences, the “hole” is carried through until the next refill opportunity following the ReOp release period.

5. If September ReOp water releases would reduce MFP storage to lower than minimum pool requirements, ReOp releases are delayed into October (only occurs in 1977). If failure to refill the "hole" in MFP created by previous ReOp release causes MFP project to drop below minimum pool requirements, partial refill may occur before Folsom Reservoir reaches the flood storage diagram.

5.2.2 Demands

5.2.2.1 Sacramento River Basin Including FRSA

Demands in the Sacramento River Basin are developed using the DWR hydrology process discussed in **4.4.5 Demands**. Demands vary depending on hydrologic conditions. However, annual average project agricultural demands are 3,500 TAF and annual average non-project demands are 2,300 TAF. Demands on the Sacramento River between the confluence of the Feather and the American rivers are increased by 35 TAF to reflect a diversion for PCWA under the WFP.

5.2.2.2 American River Basin

American River demands for this simulation are those of the WFP. These demands are presented in **Table 5.2** American River surface diversions to WFP purveyors are reduced based on the unimpaired inflow to Folsom Reservoir. When the March through September unimpaired inflow to Folsom Reservoir plus 60 TAF is less than 950 TAF, surface diversions by Water Forum purveyors are reduced. The magnitude of reductions varies for each purveyor based on the WFP. Specifics for each purveyor are contained in the *Water Forum – Draft Recommendations for the Agreement – January 1997.*

5.2.2.3 Delta

Annual demands in the Delta are the same as those described in Section 5.1.1.3 for the Base Condition.

5.2.2.4 CVP South of Delta

CVP demands south of the Delta are the same as those described in Section 5.1.1.4. for the Base Condition.

TABLE 5.2- AMERICAN RIVER WFP DEMANDS

Location	Demand	Demand Type
Upstream of Folsom Reservoir		
El Dorado Irrigation District	33,350	Water Rights
Georgetown	11,200	Water Rights
Placer County Water Agency	35,500	Water Rights
Total	80,050	
Folsom Reservoir *Represented by PROSIM Node 14*		

Northridge Water District	29,000	Water Rights
City of Folsom	34,000	Water Rights
Folsom State Prison	2,000	Water Rights
San Juan Suburban Water District (Placer County)	25,000	Water Rights
San Juan Suburban Water District (Sacramento County),	57,200	Water Rights/M&I Contract
El Dorado County Water Agency	7,500	M&I Contractor
El Dorado Irrigation District	7,550	M&I Contractor
Roseville, City of	54,900	M&I Contractor
Total	217,150	
Folsom South Canal *Represented at PROSIM Node 15*		
Southern California Water Co.	5,000	Water Rights
California Parks and Recreation	5,000	M&I Contract
SMUD	30,000	Water Rights
South Sacramento Count Agriculture	35,000	Ag Contractor
Losses	1,000	
Total	76,000	
From Below Nimbus Dam to H Street *Represented by PROSIM Node 16*		
Arcade Water District	11,200	Water Rights
Carmichael Water District	12,000	Water Rights
Sacramento, City of	96,300	Water Rights
Total	119,500	
American River at I5 *Represented at PROSIM Node 16*		
EBMUD	0	M&I Contract
	0	
Total	0	
Sacramento River below the American River Confluence *Represented by PROSIM Node 17*		
Sacramento, City of	34,300	Water Rights
Sacramento county Water Agency	45,000	
Total	79,300	

5.2.2.5 SWP South of Delta

SWP demands are the same as those described in Section 5.1.1.5 for the Base Condition.

5.2.3 Temperature

The WFP simulation assumes optimal management of Folsom Reservoir's cold water pool. Variable target temperature release objectives are selected that reflect the capability of manipulating the Folsom Dam shutters to achieve the best possible conditions for steelhead and chinook salmon. This simulation also assumes a TCD is in operation at the Folsom Dam Pumping Plant.

5.3 2030 WITH WFP

This simulation assumes 2030 conditions for all areas including the American River. The hydrology used for the 2030 WFP PROSIM model simulation is consistent with the

DWR hydrology titled D09A. This hydrology is based on 2020 land use projections published in DWR Bulletin 160-93.

5.3.1 Demands

5.3.1.1 Sacramento River Basin Including FRSA

Demands in the Sacramento River Basin are developed using the DWR hydrology process discussed in **4.4.5 Demands**. Demands vary depending on hydrologic conditions; however, annual average project agricultural demands are 3,560 TAF and annual average non-project demands are 2,470 TAF. Demands on the Sacramento River between the confluence of the Feather and the American rivers are increased by 35 TAF to reflect a diversion for PCWA under the WFP.

5.3.1.2 American River Basin

American River demands are based on the WFP and set to those in Table 5.3

5.3.1.3 Delta

Annual demands in the Delta include City of Vallejo (16,000 AF), Contra Costa Water District (145,000 AF), and Delta CU (1,700 TAF average annual) based on the DWR hydrology D09A.

5.3.1.4 CVP South of Delta

CVP Demands south of the Delta are fixed at 3,260 TAF per year, based on contractual obligations. These demands include all CVP contracts south of the delta plus Firm Level II refuge supply and operational losses.

5.3.1.5 SWP South of Delta

SWP demands for this simulation vary from 4,200 TAF to 3,410 TAF based on southern California wetness indices.

TABLE 5.3- AMERICAN RIVER 2030 WITH WFP DEMANDS

Location	Demand	Demand Type
Upstream of Folsom Reservoir		
El Dorado Irrigation District	33,350	Water Rights
Georgetown	11,200	Water Rights
Placer County Water Agency	35,500	Water Rights
Total	80,050	
Folsom Reservoir *Represented by PROSIM Node 14*		
Northridge Water District	29,000	Water Rights
City of Folsom	34,000	Water Rights
Folsom State Prison	2,000	Water Rights
San Juan Suburban Water District (Placer County)	25,000	Water Rights

San Juan Suburban Water District (Sacramento County),	57,200	Water Rights/M&I Contract
El Dorado County Water Agency	7,500	M&I Contractor
El Dorado Irrigation District	7,550	M&I Contractor
Roseville, City of	54,900	M&I Contractor
Total	217,150	
Folsom South Canal *Represented at PROSIM Node 15*		
Southern California Water Co.	5,000	Water Rights
California Parks and Recreation	5,000	M&I Contract
SMUD	30,000	Water Rights
South Sacramento Count Agriculture	35,000	Ag Contractor
Losses	1,000	
Total	76,000	
From Below Nimbus Dam to H Street *Represented by PROSIM Node 16*		
Arcade Water District	11,200	Water Rights
Carmichael Water District	12,000	Water Rights
Sacramento, City of	96,300	Water Rights
Total	119,500	
American River at I5 *Represented at PROSIM Node 16*		
EBMUD	112,000	M&I Contract
	0	
Total	112,000	
Sacramento River below the American River Confluence *Represented by PROSIM Node 17*		
Sacramento, City of	34,300	Water Rights
Sacramento county Water Agency	45,000	
Total	79,300	

5.3.2 Temperature

The 2030 With WFP simulation assumes optimal management of Folsom Reservoir's cold water pool. Variable target temperature release objectives are selected that reflect the capability of manipulating the Folsom Dam shutters to achieve the best possible conditions for steelhead and chinook salmon. This simulation also assumes a TCD is in operation at the Folsom Dam Pumping Plant.

5.4 2030 CONSTRAINED

This simulation assumes 2030 conditions for all areas except for the American River. The hydrology used for the 2030 Constrained PROSIM model simulations is consistent with the DWR hydrology titled D09A. This hydrology is based on 2020 land use projections published in DWR Bulletin 160-93. American River diversions are constrained to the lesser of existing conveyance capacity, future demand, or existing water right or contract.

5.4.1 Demands

5.4.1.1 Sacramento River Basin Including FRSA

Demands in the Sacramento River Basin are developed using the DWR hydrology process discussed in **4.4.5 Demands**. Demands vary depending on hydrologic conditions; however, annual average project agricultural demands are 3,560 TAF and annual average non-project demands are 2,470 TAF.

5.4.1.2 American River Basin

5.4.1.3 Delta

Annual demands are the same as those described in Section 5.3.1.3.

5.4.1.4 CVP South of Delta

CVP Demands south of the Delta are fixed are the same as those described in Section 5.3.1.4.

5.4.1.5 SWP South of Delta

SWP demands for this simulation are the same as those described in Section 5.3.1.5.

5.4.2 Temperature

The 2030 Constrained simulation is constant with the approach described in Section 5.3.2

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TABLE 5.4 - AMERICAN RIVER CONSTRAINED CONDITION DEMANDS

Location	Demand	Demand Type
Upstream of Folsom Reservoir		
El Dorado Irrigation District	15,080	Water Rights
Georgetown	10,400	Water Rights
Placer County Water Agency	21,000	Water Rights
Total	46,480	
Folsom Reservoir *Represented by PROSIM Node 14*		
Northridge Water District	0	Water Rights
City of Folsom	20,000	Water Rights
Folsom State Prison	2,000	Water Rights
San Juan Suburban Water District (Placer County)	25,000	Water Rights
San Juan Suburban Water District (Sacramento County),	44,200	Water Rights/M&I Contract
El Dorado County Water Agency	0	M&I Contractor
El Dorado Irrigation District	7,550	M&I Contractor
Roseville, City of	27,000	M&I Contractor
Total	125,750	
Folsom South Canal *Represented at PROSIM Node 15*		
Southern California Water Co.	10,000	Water Rights
California Parks and Recreation	5,000	M&I Contract
SMUD	30,000	Water Rights
South Sacramento Count Agriculture	0	Ag Contractor
Losses	1,000	
Total	46,000	
From Below Nimbus Dam to H Street *Represented by PROSIM Node 16*		
Arcade Water District	3,500	Water Rights
Carmichael Water District	12,000	Water Rights
Sacramento, City of	90,000	Water Rights
Total	105,500	
American River at I5 *Represented at PROSIM Node 16*		
EBMUD	112,000	
	0	
Total	112,000	
Sacramento River below the American River Confluence *Represented by PROSIM Node 17*		
Sacramento, City of	81,800	Water Rights
Sacramento county Water Agency	0	
Total	81,800	

Water Forum Proposal
Environmental Impact Report

TECHNICAL APPENDIX I
Base Condition versus Water Forum Proposal

HOME

Section 1

FOLSOM RESERVOIR STORAGE

FOLSOM RESERVOIR STORAGE
October

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	459.3	443.9	-3.4	-15.4
1923	575.0	562.6	-2.2	-12.4
1924	506.1	501.2	-1.0	-4.9
1925	273.1	267.3	-2.1	-5.8
1926	425.7	398.6	-6.4	-27.1
1927	356.9	328.5	-8.0	-28.4
1928	575.6	560.3	-2.7	-15.3
1929	393.7	358.7	-8.9	-35.0
1930	299.0	259.5	-13.2	-39.5
1931	413.6	368.5	-10.9	-45.1
1932	271.6	254.2	-6.4	-17.4
1933	565.1	535.7	-5.2	-29.4
1934	352.6	302.8	-14.1	-49.8
1935	264.7	268.5	1.4	3.8
1936	562.2	548.9	-2.4	-13.3
1937	568.8	553.5	-2.7	-15.3
1938	574.2	561.0	-2.3	-13.2
1939	578.3	564.1	-2.5	-14.2
1940	362.7	317.8	-12.4	-44.9
1941	404.4	374.8	-7.3	-29.6
1942	577.1	560.9	-2.8	-16.2
1943	575.0	559.8	-2.6	-15.2
1944	530.2	453.6	-14.4	-76.6
1945	278.2	308.5	10.9	30.3
1946	463.0	421.6	-8.9	-41.4
1947	432.5	383.5	-11.3	-49.0
1948	377.3	384.9	2.0	7.6
1949	521.1	478.9	-8.1	-42.2
1950	475.0	417.3	-12.1	-57.7
1951	603.0	554.8	-8.0	-48.2
1952	455.6	411.3	-9.7	-44.3
1953	593.5	577.5	-2.7	-16.0
1954	573.4	557.5	-2.8	-15.9
1955	398.0	369.5	-7.2	-28.5
1956	341.9	334.0	-2.3	-7.9
1957	591.3	578.4	-2.2	-12.9
1958	546.1	479.1	-12.3	-67.0
1959	570.3	554.3	-2.8	-16.0
1960	342.3	323.5	-5.5	-18.8
1961	331.3	317.5	-4.2	-13.8
1962	342.2	327.4	-4.3	-14.8
1963	650.0	650.0	.0	.0
1964	584.5	571.3	-2.3	-13.2
1965	317.9	311.5	-2.0	-6.4
1966	581.3	564.7	-2.9	-16.6
1967	353.1	324.8	-8.0	-28.3
1968	589.1	573.2	-2.7	-15.9
1969	432.7	362.1	-16.3	-70.6
1970	592.7	578.6	-2.4	-14.1
1971	397.9	373.1	-6.2	-24.8
1972	573.4	557.4	-2.8	-16.0
1973	374.6	364.9	-2.6	-9.7
1974	523.4	450.0	-14.0	-73.4
1975	579.6	566.6	-2.2	-13.0
1976	625.0	613.1	-1.9	-11.9
1977	265.3	255.9	-3.5	-9.4
1978	137.7	145.8	5.9	8.1
1979	559.0	519.4	-7.1	-39.6
1980	456.8	414.0	-9.4	-42.8
1981	573.4	557.2	-2.8	-16.2
1982	382.7	353.1	-7.7	-29.6
1983	650.0	650.0	.0	.0
1984	650.0	650.0	.0	.0
1985	532.3	487.5	-8.4	-44.8
1986	321.8	320.2	-.5	-1.6
1987	497.8	408.0	-18.0	-89.8
1988	238.8	215.2	-9.9	-23.6
1989	258.6	260.4	.7	1.8
1990	389.7	353.3	-9.3	-36.4
1991	249.5	247.9	-.6	-1.6
Mean:	457.7	434.0	-5.2	-23.7
Median:	459.3	414.0	-3.4	-16.0
Min:	137.7	145.8	-18.0	-89.8
Max:	650.0	650.0	10.9	30.3
Littoral Habitat(ac)	88.0	-157.1	-278.5	-245.1

FOLSOM RESERVOIR STORAGE
November

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	384.8	361.4	-6.1	-23.4
1923	543.8	526.2	-3.2	-17.6
1924	422.2	407.0	-3.6	-15.2
1925	277.8	286.4	3.1	8.6
1926	362.0	342.2	-5.5	-19.8
1927	480.4	451.8	-6.0	-28.6
1928	575.0	572.1	-.5	-2.9
1929	339.3	311.2	-8.3	-28.1
1930	242.1	211.3	-12.7	-30.8
1931	366.6	332.2	-9.4	-34.4
1932	256.8	238.9	-7.0	-17.9
1933	488.1	450.4	-7.7	-37.7
1934	316.6	275.8	-12.9	-40.8
1935	294.0	327.3	11.3	33.3
1936	504.3	482.2	-4.4	-22.1
1937	492.9	467.2	-5.2	-25.7
1938	528.6	509.1	-3.7	-19.5
1939	521.0	497.9	-4.4	-23.1
1940	317.9	282.2	-11.2	-35.7
1941	388.7	366.0	-5.8	-22.7
1942	531.5	507.3	-4.6	-24.2
1943	575.0	575.0	.0	.0
1944	464.1	378.7	-18.4	-85.4
1945	354.0	384.2	8.5	30.2
1946	507.0	490.7	-3.2	-16.3
1947	443.2	403.3	-9.0	-39.9
1948	355.0	357.7	.8	2.7
1949	459.9	408.8	-11.1	-51.1
1950	396.8	330.6	-16.7	-66.2
1951	396.0	396.0	.0	.0
1952	477.0	442.8	-7.2	-34.2
1953	543.3	519.7	-4.3	-23.6
1954	543.1	520.5	-4.2	-22.6
1955	350.6	317.5	-9.4	-33.1
1956	309.5	297.5	-3.9	-12.0
1957	533.0	508.5	-4.6	-24.5
1958	491.4	415.7	-15.4	-75.7
1959	512.0	486.3	-5.0	-25.7
1960	288.9	263.0	-9.0	-25.9
1961	313.0	297.4	-5.0	-15.6
1962	293.2	272.9	-6.9	-20.3
1963	575.0	575.0	.0	.0
1964	575.0	575.0	.0	.0
1965	335.4	325.8	-2.9	-9.6
1966	571.7	551.5	-3.5	-20.2
1967	372.3	343.1	-7.8	-29.2
1968	570.7	546.1	-4.3	-24.6
1969	437.2	392.4	-10.2	-44.8
1970	545.7	522.9	-4.2	-22.8
1971	496.9	470.5	-5.3	-26.4
1972	532.1	508.4	-4.5	-23.7
1973	419.5	406.0	-3.2	-13.5
1974	573.0	571.0	-.3	-2.0
1975	506.6	483.9	-4.5	-22.7
1976	575.0	575.0	.0	.0
1977	262.6	249.4	-5.0	-13.2
1978	152.6	154.3	1.1	1.7
1979	498.0	448.6	-9.9	-49.4
1980	424.3	401.4	-5.4	-22.9
1981	512.2	484.1	-5.5	-28.1
1982	557.0	553.0	-.7	-4.0
1983	574.0	574.0	.0	.0
1984	410.0	403.0	-1.7	-7.0
1985	575.0	564.0	-1.9	-11.0
1986	334.0	346.3	3.7	12.3
1987	429.7	345.1	-19.7	-84.6
1988	219.1	199.3	-9.0	-19.8
1989	325.4	343.7	5.6	18.3
1990	384.9	340.7	-11.5	-44.2
1991	226.3	233.8	3.3	7.5
Mean:	431.6	410.9	-4.8	-20.7
Median:	437.2	403.3	-4.6	-22.7
Min:	152.6	154.3	-19.7	-85.4
Max:	575.0	575.0	11.3	33.3
Littoral Habitat(ac)	-183.0	-406.5	122.1	-223.5

FOLSOM RESERVOIR STORAGE
December

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	406.0	379.5	-6.5	-26.5
1923	575.0	575.0	.0	.0
1924	332.1	310.7	-6.4	-21.4
1925	300.4	324.8	8.1	24.4
1926	299.1	288.2	-3.6	-10.9
1927	547.9	513.8	-6.2	-34.1
1928	561.8	553.1	-1.5	-8.7
1929	288.7	269.2	-6.8	-19.5
1930	336.2	321.5	-4.4	-14.7
1931	278.8	254.4	-8.8	-24.4
1932	356.6	338.6	-5.0	-18.0
1933	403.9	360.0	-10.9	-43.9
1934	353.9	328.5	-7.2	-25.4
1935	308.2	370.6	20.2	62.4
1936	430.2	401.6	-6.6	-28.6
1937	411.8	380.9	-7.5	-30.9
1938	564.0	564.0	.0	.0
1939	453.5	421.7	-7.0	-31.8
1940	280.3	257.0	-8.3	-23.3
1941	560.3	549.2	-2.0	-11.1
1942	575.0	575.0	.0	.0
1943	574.0	574.0	.0	.0
1944	381.9	289.9	-24.1	-92.0
1945	418.1	443.1	6.0	25.0
1946	575.0	575.0	.0	.0
1947	429.3	398.1	-7.3	-31.2
1948	311.0	308.5	-.8	-2.5
1949	413.5	358.8	-13.2	-54.7
1950	306.4	233.0	-24.0	-73.4
1951	318.0	319.0	.3	1.0
1952	575.0	575.0	.0	.0
1953	547.3	521.2	-4.8	-26.1
1954	499.5	470.6	-5.8	-28.9
1955	382.5	348.7	-8.8	-33.8
1956	547.0	547.0	.0	.0
1957	472.6	440.6	-6.8	-32.0
1958	481.6	402.2	-16.5	-79.4
1959	429.5	395.4	-7.9	-34.1
1960	236.7	206.5	-12.8	-30.2
1961	291.9	270.1	-7.5	-21.8
1962	274.4	250.3	-8.8	-24.1
1963	575.0	575.0	.0	.0
1964	496.3	501.6	1.1	5.3
1965	418.0	420.0	.5	2.0
1966	541.6	512.8	-5.3	-28.8
1967	563.3	528.3	-6.2	-35.0
1968	534.2	504.2	-5.6	-30.0
1969	471.3	451.4	-4.2	-19.9
1970	572.0	573.0	.2	1.0
1971	575.0	575.0	.0	.0
1972	557.2	529.1	-5.0	-28.1
1973	548.7	529.5	-3.5	-19.2
1974	566.0	564.0	-.4	-2.0
1975	465.5	435.3	-6.5	-30.2
1976	510.2	502.9	-1.4	-7.3
1977	229.8	213.5	-7.1	-16.3
1978	299.3	304.9	1.9	5.6
1979	426.9	368.7	-13.6	-58.2
1980	406.7	408.9	.5	2.2
1981	447.9	412.1	-8.0	-35.8
1982	408.0	399.0	-2.2	-9.0
1983	570.0	570.0	.0	.0
1984	354.0	353.0	-.3	-1.0
1985	575.0	561.7	-2.3	-13.3
1986	408.4	431.0	5.5	22.6
1987	339.4	259.6	-23.5	-79.8
1988	268.3	268.7	.1	.4
1989	366.2	396.7	8.3	30.5
1990	349.0	296.1	-15.2	-52.9
1991	197.8	216.7	9.6	18.9
Mean:	430.4	413.2	-4.2	-17.2
Median:	418.1	401.6	-4.8	-19.2
Min:	197.8	206.5	-24.1	-92.0
Max:	575.0	575.0	20.2	62.4
Littoral Habitat(ac)	-195.4	-380.4	94.7	-185.0

FOLSOM RESERVOIR STORAGE
January

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	408.7	372.8	-8.8	-35.9
1923	575.0	575.0	.0	.0
1924	256.7	228.6	-10.9	-28.1
1925	259.2	281.1	8.4	21.9
1926	240.0	235.3	-2.0	-4.7
1927	575.0	573.0	-.3	-2.0
1928	524.8	506.5	-3.5	-18.3
1929	242.8	227.3	-6.4	-15.5
1930	376.5	355.9	-5.5	-20.6
1931	235.5	221.6	-5.9	-13.9
1932	398.5	392.5	-1.5	-6.0
1933	345.3	297.8	-13.8	-47.5
1934	391.4	374.9	-4.2	-16.5
1935	372.4	415.5	11.6	43.1
1936	575.0	575.0	.0	.0
1937	357.1	320.2	-10.3	-36.9
1938	562.0	562.0	.0	.0
1939	382.6	360.8	-5.7	-21.8
1940	573.0	572.0	-.2	-1.0
1941	575.0	575.0	.0	.0
1942	564.0	566.0	.4	2.0
1943	557.0	557.0	.0	.0
1944	338.4	240.2	-29.0	-98.2
1945	402.3	407.0	1.2	4.7
1946	566.0	566.0	.0	.0
1947	351.1	326.2	-7.1	-24.9
1948	354.8	349.7	-1.4	-5.1
1949	356.9	293.0	-17.9	-63.9
1950	496.8	418.5	-15.8	-78.3
1951	341.0	342.0	.3	1.0
1952	575.0	575.0	.0	.0
1953	573.0	574.0	.2	1.0
1954	496.6	460.6	-7.2	-36.0
1955	419.2	394.7	-5.8	-24.5
1956	392.0	392.0	.0	.0
1957	411.6	373.5	-9.3	-38.1
1958	522.8	450.6	-13.8	-72.2
1959	450.9	428.0	-5.1	-22.9
1960	238.0	207.1	-13.0	-30.9
1961	242.9	220.7	-9.1	-22.2
1962	254.1	225.8	-11.1	-28.3
1963	554.0	555.0	.2	1.0
1964	496.6	502.3	1.1	5.7
1965	370.0	368.0	-.5	-2.0
1966	520.7	483.7	-7.1	-37.0
1967	567.0	563.0	-.7	-4.0
1968	518.2	479.0	-7.6	-39.2
1969	554.0	554.0	.0	.0
1970	418.0	420.0	.5	2.0
1971	575.0	575.0	.0	.0
1972	525.9	487.6	-7.3	-38.3
1973	565.0	564.0	-.2	-1.0
1974	510.0	505.0	-1.0	-5.0
1975	433.9	396.5	-8.6	-37.4
1976	408.5	392.1	-4.0	-16.4
1977	214.9	196.4	-8.6	-18.5
1978	569.0	575.0	1.1	6.0
1979	467.0	417.9	-10.5	-49.1
1980	495.0	460.0	-7.1	-35.0
1981	419.0	392.2	-6.4	-26.8
1982	391.0	387.0	-1.0	-4.0
1983	561.0	561.0	.0	.0
1984	359.0	359.0	.0	.0
1985	505.3	485.8	-3.9	-19.5
1986	563.0	562.0	-.2	-1.0
1987	283.1	208.5	-26.4	-74.6
1988	364.2	376.6	3.4	12.4
1989	328.1	354.3	8.0	26.2
1990	341.0	300.1	-12.0	-40.9
1991	164.4	189.2	15.1	24.8
Mean:	431.0	415.2	-4.1	-15.9
Median:	418.0	396.5	-2.0	-6.0
Min:	164.4	189.2	-29.0	-98.2
Max:	575.0	575.0	15.1	43.1
Littoral Habitat(ac)	-188.9	-359.6	90.4	-170.7

FOLSOM RESERVOIR STORAGE
February

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	575.0	575.0	.0	.0
1923	550.0	550.0	.0	.0
1924	256.2	221.5	-13.5	-34.7
1925	560.0	564.0	.7	4.0
1926	402.2	400.6	-.4	-1.6
1927	563.0	560.0	-.5	-3.0
1928	541.6	515.0	-4.9	-26.6
1929	271.4	248.2	-8.5	-23.2
1930	393.7	368.3	-6.5	-25.4
1931	222.8	212.9	-4.4	-9.9
1932	575.0	575.0	.0	.0
1933	304.3	257.7	-15.3	-46.6
1934	425.5	403.4	-5.2	-22.1
1935	407.4	446.5	9.6	39.1
1936	575.0	574.0	-.2	-1.0
1937	573.1	541.3	-5.5	-31.8
1938	559.0	559.0	.0	.0
1939	344.0	314.9	-8.5	-29.1
1940	560.0	560.0	.0	.0
1941	575.0	575.0	.0	.0
1942	555.0	557.0	.4	2.0
1943	546.0	546.0	.0	.0
1944	386.5	287.5	-25.6	-99.0
1945	566.0	566.0	.0	.0
1946	550.0	550.0	.0	.0
1947	392.3	372.1	-5.1	-20.2
1948	305.9	310.1	1.4	4.2
1949	337.3	287.4	-14.8	-49.9
1950	575.0	575.0	.0	.0
1951	353.0	354.0	.3	1.0
1952	575.0	575.0	.0	.0
1953	567.0	569.0	.4	2.0
1954	575.0	533.9	-7.1	-41.1
1955	403.5	373.9	-7.3	-29.6
1956	387.0	387.0	.0	.0
1957	550.1	506.0	-8.0	-44.1
1958	566.0	566.0	.0	.0
1959	524.7	493.8	-5.9	-30.9
1960	491.8	462.5	-6.0	-29.3
1961	273.5	253.1	-7.5	-20.4
1962	575.0	543.2	-5.5	-31.8
1963	473.0	475.0	.4	2.0
1964	475.9	478.2	.5	2.3
1965	369.0	367.0	-.5	-2.0
1966	517.3	471.2	-8.9	-46.1
1967	556.0	553.0	-.5	-3.0
1968	558.0	558.0	.0	.0
1969	539.0	538.0	-.2	-1.0
1970	391.0	391.0	.0	.0
1971	567.0	568.0	.2	1.0
1972	575.0	540.9	-5.9	-34.1
1973	561.0	560.0	-.2	-1.0
1974	505.0	510.0	1.0	5.0
1975	562.0	519.6	-7.5	-42.4
1976	357.1	332.7	-6.8	-24.4
1977	201.4	181.0	-10.1	-20.4
1978	563.0	575.0	2.1	12.0
1979	560.3	501.9	-10.4	-58.4
1980	389.0	374.0	-3.9	-15.0
1981	416.3	381.3	-8.4	-35.0
1982	335.0	338.0	.9	3.0
1983	550.0	550.0	.0	.0
1984	363.0	362.0	-.3	-1.0
1985	522.5	497.7	-4.7	-24.8
1986	386.0	383.0	-.8	-3.0
1987	310.0	239.3	-22.8	-70.7
1988	324.7	333.0	2.6	8.3
1989	326.6	334.6	2.4	8.0
1990	335.5	287.5	-14.3	-48.0
1991	146.0	175.2	20.0	29.2
Mean:	457.5	443.8	-3.3	-13.7
Median:	505.0	478.2	-.4	-1.6
Min:	146.0	175.2	-25.6	-99.0
Max:	575.0	575.0	20.0	39.1
Littoral Habitat(ac)	85.9	-54.8	-163.8	-140.7

FOLSOM RESERVOIR STORAGE
March

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	604.9	595.4	-1.6	-9.5
1923	556.4	549.3	-1.3	-7.1
1924	213.4	184.2	-13.7	-29.2
1925	590.0	590.0	.0	.0
1926	409.7	415.1	1.3	5.4
1927	663.0	662.0	-.2	-1.0
1928	647.0	643.0	-.6	-4.0
1929	311.9	282.5	-9.4	-29.4
1930	547.3	515.6	-5.8	-31.7
1931	258.6	258.7	.0	.1
1932	640.0	630.6	-1.5	-9.4
1933	315.8	278.7	-11.7	-37.1
1934	485.7	460.8	-5.1	-24.9
1935	411.4	440.5	7.1	29.1
1936	670.0	670.0	.0	.0
1937	675.0	675.0	.0	.0
1938	670.0	670.0	.0	.0
1939	424.3	390.7	-7.9	-33.6
1940	618.0	626.0	1.3	8.0
1941	673.0	673.0	.0	.0
1942	531.8	523.5	-1.6	-8.3
1943	621.0	622.0	.2	1.0
1944	467.6	378.1	-19.1	-89.5
1945	626.8	617.6	-1.5	-9.2
1946	663.0	656.4	-1.0	-6.6
1947	518.0	508.0	-1.9	-10.0
1948	279.7	273.7	-2.1	-6.0
1949	510.0	451.3	-11.5	-58.7
1950	662.5	670.7	1.2	8.2
1951	587.0	587.0	.0	.0
1952	675.0	675.0	.0	.0
1953	564.8	557.7	-1.3	-7.1
1954	671.0	671.0	.0	.0
1955	401.9	364.4	-9.3	-37.5
1956	491.9	479.7	-2.5	-12.2
1957	665.0	665.0	.0	.0
1958	672.0	672.0	.0	.0
1959	563.0	526.2	-6.5	-36.8
1960	670.0	657.9	-1.8	-12.1
1961	315.9	306.5	-3.0	-9.4
1962	645.1	607.3	-5.9	-37.8
1963	493.2	486.0	-1.5	-7.2
1964	451.1	447.3	-.8	-3.8
1965	456.3	444.1	-2.7	-12.2
1966	566.1	512.1	-9.5	-54.0
1967	647.0	647.0	.0	.0
1968	654.0	537.9	-17.8	-116.1
1969	604.7	594.5	-1.7	-10.2
1970	587.7	595.0	1.2	7.3
1971	660.0	660.0	.0	.0
1972	656.0	656.0	.0	.0
1973	671.0	671.0	.0	.0
1974	606.0	608.0	.3	2.0
1975	675.0	675.0	.0	.0
1976	341.7	318.0	-6.9	-23.7
1977	198.3	181.7	-8.4	-16.6
1978	662.0	662.0	.0	.0
1979	673.0	644.5	-4.2	-28.5
1980	605.0	597.0	-1.3	-8.0
1981	512.4	482.0	-5.9	-30.4
1982	581.0	581.0	.0	.0
1983	634.0	632.0	-.3	-2.0
1984	582.5	589.0	1.1	6.5
1985	551.1	535.7	-2.8	-15.4
1986	578.0	578.0	.0	.0
1987	398.6	335.9	-15.7	-62.7
1988	316.8	324.3	2.4	7.5
1989	640.0	663.0	3.6	23.0
1990	419.1	366.5	-12.6	-52.6
1991	281.0	308.8	9.9	27.8
Mean:	541.3	528.8	-2.7	-12.5
Median:	582.5	581.0	-1.3	-6.6
Min:	198.3	181.7	-19.1	-116.1
Max:	675.0	675.0	9.9	29.1
Littoral Habitat(ac)	885.3	772.3	-12.8	-113.0

FOLSOM RESERVOIR STORAGE
April

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	739.0	714.5	-3.3	-24.5
1923	800.0	799.3	-.1	-.7
1924	251.4	224.5	-10.7	-26.9
1925	800.0	800.0	.0	.0
1926	646.1	645.0	-.2	-1.1
1927	800.0	800.0	.0	.0
1928	800.0	800.0	.0	.0
1929	370.9	362.2	-2.3	-8.7
1930	627.7	600.7	-4.3	-27.0
1931	305.2	303.0	-.7	-2.2
1932	702.3	695.7	-.9	-6.6
1933	358.9	325.0	-9.4	-33.9
1934	400.0	400.0	.0	.0
1935	800.0	800.0	.0	.0
1936	800.0	800.0	.0	.0
1937	800.0	800.0	.0	.0
1938	800.0	800.0	.0	.0
1939	512.7	499.4	-2.6	-13.3
1940	800.0	800.0	.0	.0
1941	800.0	800.0	.0	.0
1942	764.1	743.1	-2.7	-21.0
1943	800.0	800.0	.0	.0
1944	492.6	411.2	-16.5	-81.4
1945	741.8	717.9	-3.2	-23.9
1946	800.0	800.0	.0	.0
1947	573.4	554.4	-3.3	-19.0
1948	563.1	545.4	-3.1	-17.7
1949	702.4	627.7	-10.6	-74.7
1950	800.0	800.0	.0	.0
1951	800.0	800.0	.0	.0
1952	800.0	800.0	.0	.0
1953	689.9	685.1	-.7	-4.8
1954	800.0	800.0	.0	.0
1955	457.7	415.5	-9.2	-42.2
1956	619.7	593.8	-4.2	-25.9
1957	688.3	674.7	-2.0	-13.6
1958	800.0	800.0	.0	.0
1959	601.1	569.2	-5.3	-31.9
1960	756.0	735.0	-2.8	-21.0
1961	418.9	402.4	-3.9	-16.5
1962	800.0	800.0	.0	.0
1963	800.0	800.0	.0	.0
1964	510.9	495.9	-2.9	-15.0
1965	800.0	800.0	.0	.0
1966	708.1	642.3	-9.3	-65.8
1967	774.3	761.7	-1.6	-12.6
1968	698.9	570.2	-18.4	-128.7
1969	800.0	800.0	.0	.0
1970	637.5	647.7	1.6	10.2
1971	756.1	756.2	.0	.1
1972	722.9	712.0	-1.5	-10.9
1973	798.9	782.3	-2.1	-16.6
1974	800.0	800.0	.0	.0
1975	700.0	684.5	-2.2	-15.5
1976	390.5	365.3	-6.5	-25.2
1977	200.2	190.3	-4.9	-9.9
1978	800.0	800.0	.0	.0
1979	761.3	717.1	-5.8	-44.2
1980	786.0	777.1	-1.1	-8.9
1981	569.8	545.8	-4.2	-24.0
1982	800.0	800.0	.0	.0
1983	800.0	800.0	.0	.0
1984	725.8	721.4	-.6	-4.4
1985	700.8	689.3	-1.6	-11.5
1986	798.3	783.6	-1.8	-14.7
1987	490.7	422.6	-13.9	-68.1
1988	383.5	390.8	1.9	7.3
1989	800.0	800.0	.0	.0
1990	406.7	400.0	-1.6	-6.7
1991	377.3	394.7	4.6	17.4
Mean:	666.9	652.8	-2.5	-14.1
Median:	739.0	717.1	-.9	-6.6
Min:	200.2	190.3	-18.4	-128.7
Max:	800.0	800.0	4.6	17.4
Littoral Habitat(ac)	1913.8	1807.3	-5.6	-106.6

FOLSOM RESERVOIR STORAGE
May

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	975.0	975.0	.0	.0
1923	975.0	975.0	.0	.0
1924	284.3	264.5	-7.0	-19.8
1925	975.0	975.0	.0	.0
1926	586.1	572.3	-2.4	-13.8
1927	975.0	975.0	.0	.0
1928	890.5	869.0	-2.4	-21.5
1929	403.8	396.9	-1.7	-6.9
1930	600.2	576.0	-4.0	-24.2
1931	361.3	355.1	-1.7	-6.2
1932	881.5	862.6	-2.1	-18.9
1933	399.1	353.3	-11.5	-45.8
1934	422.6	416.3	-1.5	-6.3
1935	963.9	927.2	-3.8	-36.7
1936	957.2	936.1	-2.2	-21.1
1937	975.0	975.0	.0	.0
1938	975.0	975.0	.0	.0
1939	486.3	461.2	-5.2	-25.1
1940	946.7	934.7	-1.3	-12.0
1941	975.0	975.0	.0	.0
1942	975.0	975.0	.0	.0
1943	904.4	882.2	-2.5	-22.2
1944	561.9	482.8	-14.1	-79.1
1945	924.3	880.4	-4.7	-43.9
1946	975.0	956.0	-1.9	-19.0
1947	533.5	512.1	-4.0	-21.4
1948	755.3	717.5	-5.0	-37.8
1949	855.5	774.9	-9.4	-80.6
1950	971.5	950.5	-2.2	-21.0
1951	969.8	964.9	-.5	-4.9
1952	975.0	975.0	.0	.0
1953	794.8	768.0	-3.4	-26.8
1954	850.2	835.6	-1.7	-14.6
1955	544.2	505.2	-7.2	-39.0
1956	950.5	906.6	-4.6	-43.9
1957	894.3	881.0	-1.5	-13.3
1958	975.0	975.0	.0	.0
1959	542.8	513.8	-5.3	-29.0
1960	747.8	713.6	-4.6	-34.2
1961	470.4	443.5	-5.7	-26.9
1962	864.5	843.7	-2.4	-20.8
1963	975.0	975.0	.0	.0
1964	573.5	547.0	-4.6	-26.5
1965	957.5	951.7	-.6	-5.8
1966	675.3	593.9	-12.1	-81.4
1967	975.0	975.0	.0	.0
1968	667.2	523.3	-21.6	-143.9
1969	975.0	975.0	.0	.0
1970	702.7	713.4	1.5	10.7
1971	909.9	888.8	-2.3	-21.1
1972	789.3	778.2	-1.4	-11.1
1973	975.0	975.0	.0	.0
1974	975.0	975.0	.0	.0
1975	963.4	926.9	-3.8	-36.5
1976	420.0	422.2	.5	2.2
1977	207.7	202.5	-2.5	-5.2
1978	975.0	954.8	-2.1	-20.2
1979	975.0	942.6	-3.3	-32.4
1980	907.7	890.6	-1.9	-17.1
1981	530.5	509.0	-4.1	-21.5
1982	975.0	975.0	.0	.0
1983	975.0	975.0	.0	.0
1984	875.8	873.1	-.3	-2.7
1985	671.4	661.0	-1.5	-10.4
1986	905.3	869.6	-3.9	-35.7
1987	465.8	440.4	-5.5	-25.4
1988	412.3	414.5	.5	2.2
1989	823.6	821.7	-.2	-1.9
1990	381.9	381.6	-.1	-.3
1991	430.5	434.2	.9	3.7
Mean:	772.7	753.9	-2.8	-18.8
Median:	881.5	869.0	-1.9	-14.6
Min:	207.7	202.5	-21.6	-143.9
Max:	975.0	975.0	1.5	10.7
Littoral Habitat(ac)	2652.4	2528.7	-4.7	-123.8

FOLSOM RESERVOIR STORAGE
June

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	975.0	975.0	.0	.0
1923	863.0	846.8	-1.9	-16.2
1924	302.2	285.6	-5.5	-16.6
1925	770.5	740.1	-3.9	-30.4
1926	512.1	506.7	-1.1	-5.4
1927	975.0	975.0	.0	.0
1928	600.0	590.0	-1.7	-10.0
1929	365.4	340.0	-7.0	-25.4
1930	549.7	523.5	-4.8	-26.2
1931	363.0	354.7	-2.3	-8.3
1932	872.4	825.0	-5.4	-47.4
1933	419.4	360.8	-14.0	-58.6
1934	350.0	340.0	-2.9	-10.0
1935	975.0	946.6	-2.9	-28.4
1936	975.0	975.0	.0	.0
1937	908.8	890.3	-2.0	-18.5
1938	975.0	975.0	.0	.0
1939	472.0	461.2	-2.3	-10.8
1940	858.8	831.8	-3.1	-27.0
1941	945.1	934.8	-1.1	-10.3
1942	975.0	975.0	.0	.0
1943	893.1	845.6	-5.3	-47.5
1944	535.4	468.8	-12.4	-66.6
1945	730.9	672.3	-8.0	-58.6
1946	719.7	684.1	-4.9	-35.6
1947	498.2	476.1	-4.4	-22.1
1948	856.7	805.9	-5.9	-50.8
1949	776.4	701.5	-9.6	-74.9
1950	975.0	951.3	-2.4	-23.7
1951	888.9	858.8	-3.4	-30.1
1952	975.0	975.0	.0	.0
1953	939.5	902.7	-3.9	-36.8
1954	751.7	742.1	-1.3	-9.6
1955	526.0	486.5	-7.5	-39.5
1956	975.0	975.0	.0	.0
1957	843.4	832.0	-1.4	-11.4
1958	975.0	975.0	.0	.0
1959	510.7	480.9	-5.8	-29.8
1960	685.5	634.9	-7.4	-50.6
1961	498.8	471.9	-5.4	-26.9
1962	835.6	786.5	-5.9	-49.1
1963	968.7	942.7	-2.7	-26.0
1964	554.2	526.1	-5.1	-28.1
1965	963.5	931.5	-3.3	-32.0
1966	590.8	521.3	-11.8	-69.5
1967	975.0	975.0	.0	.0
1968	585.0	467.1	-20.2	-117.9
1969	975.0	975.0	.0	.0
1970	618.6	615.7	-.5	-2.9
1971	975.0	945.1	-3.1	-29.9
1972	600.0	580.0	-3.3	-20.0
1973	758.8	750.9	-1.0	-7.9
1974	975.0	975.0	.0	.0
1975	975.0	975.0	.0	.0
1976	350.0	340.0	-2.9	-10.0
1977	190.9	193.6	1.4	2.7
1978	975.0	950.6	-2.5	-24.4
1979	690.3	631.7	-8.5	-58.6
1980	891.9	863.5	-3.2	-28.4
1981	479.1	472.5	-1.4	-6.6
1982	975.0	975.0	.0	.0
1983	975.0	975.0	.0	.0
1984	739.0	726.9	-1.6	-12.1
1985	546.8	542.9	-.7	-3.9
1986	902.6	858.0	-4.9	-44.6
1987	466.5	430.8	-7.7	-35.7
1988	350.0	340.0	-2.9	-10.0
1989	671.8	658.9	-1.9	-12.9
1990	350.0	340.0	-2.9	-10.0
1991	388.8	370.3	-4.8	-18.5
Mean:	726.4	703.3	-3.6	-23.1
Median:	758.8	740.1	-2.9	-18.5
Min:	190.9	193.6	-20.2	-117.9
Max:	975.0	975.0	1.4	2.7
Littoral Habitat(ac)	2342.3	2179.8	-6.9	-162.4

FOLSOM RESERVOIR STORAGE
July

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	881.0	910.5	3.3	29.5
1923	662.1	738.9	11.6	76.8
1924	300.0	290.0	-3.3	-10.0
1925	642.0	611.6	-4.7	-30.4
1926	392.8	395.2	.6	2.4
1927	927.8	908.8	-2.0	-19.0
1928	556.8	518.4	-6.9	-38.4
1929	316.3	290.0	-8.3	-26.3
1930	443.5	427.1	-3.7	-16.4
1931	300.0	290.0	-3.3	-10.0
1932	836.9	751.9	-10.2	-85.0
1933	348.4	290.0	-16.8	-58.4
1934	300.0	290.0	-3.3	-10.0
1935	801.5	839.4	4.7	37.9
1936	877.4	941.0	7.2	63.6
1937	866.8	835.2	-3.6	-31.6
1938	950.0	950.0	.0	.0
1939	396.4	375.0	-5.4	-21.4
1940	600.0	590.0	-1.7	-10.0
1941	950.0	917.6	-3.4	-32.4
1942	950.0	950.0	.0	.0
1943	691.6	641.8	-7.2	-49.8
1944	483.0	462.5	-4.2	-20.5
1945	600.0	580.0	-3.3	-20.0
1946	600.0	580.0	-3.3	-20.0
1947	424.5	424.3	.0	-.2
1948	769.5	769.5	.0	.0
1949	645.2	626.4	-2.9	-18.8
1950	792.0	785.8	-.8	-6.2
1951	602.2	590.0	-2.0	-12.2
1952	950.0	950.0	.0	.0
1953	950.0	950.0	.0	.0
1954	600.0	590.0	-1.7	-10.0
1955	496.4	458.9	-7.6	-37.5
1956	950.0	950.0	.0	.0
1957	661.4	635.7	-3.9	-25.7
1958	950.0	950.0	.0	.0
1959	503.1	470.9	-6.4	-32.2
1960	541.7	537.8	-.7	-3.9
1961	498.0	455.2	-8.6	-42.8
1962	600.0	580.0	-3.3	-20.0
1963	950.0	901.2	-5.1	-48.8
1964	477.7	480.7	.6	3.0
1965	780.4	729.9	-6.5	-50.5
1966	529.6	487.4	-8.0	-42.2
1967	950.0	950.0	.0	.0
1968	527.7	436.6	-17.3	-91.1
1969	950.0	950.0	.0	.0
1970	600.0	600.0	.0	.0
1971	950.0	950.0	.0	.0
1972	575.6	537.6	-6.6	-38.0
1973	600.0	590.0	-1.7	-10.0
1974	950.0	950.0	.0	.0
1975	950.0	950.0	.0	.0
1976	300.0	290.0	-3.3	-10.0
1977	162.1	172.4	6.4	10.3
1978	742.1	725.2	-2.3	-16.9
1979	600.0	580.0	-3.3	-20.0
1980	833.8	835.9	.3	2.1
1981	485.6	462.5	-4.8	-23.1
1982	950.0	950.0	.0	.0
1983	956.4	950.0	-.7	-6.4
1984	600.0	600.0	.0	.0
1985	447.5	443.3	-.9	-4.2
1986	686.6	622.3	-9.4	-64.3
1987	380.2	375.0	-1.4	-5.2
1988	300.0	290.0	-3.3	-10.0
1989	511.1	507.7	-.7	-3.4
1990	300.0	290.0	-3.3	-10.0
1991	337.7	290.3	-14.0	-47.4
Mean:	642.7	628.5	-2.7	-14.2
Median:	600.0	590.0	-2.3	-10.0
Min:	162.1	172.4	-17.3	-91.1
Max:	956.4	950.0	11.6	76.8
Littoral Habitat(ac)	1730.0	1618.8	-6.4	-111.2

FOLSOM RESERVOIR STORAGE
August

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	800.0	800.0	.0	.0
1923	609.7	654.1	7.3	44.4
1924	314.0	298.7	-4.9	-15.3
1925	517.0	490.1	-5.2	-26.9
1926	411.3	394.7	-4.0	-16.6
1927	800.0	800.0	.0	.0
1928	450.0	440.0	-2.2	-10.0
1929	363.2	317.8	-12.5	-45.4
1930	483.0	448.0	-7.2	-35.0
1931	317.1	295.9	-6.7	-21.2
1932	800.0	717.4	-10.3	-82.6
1933	403.2	344.9	-14.5	-58.3
1934	294.9	267.2	-9.4	-27.7
1935	715.0	728.6	1.9	13.6
1936	796.2	800.0	.5	3.8
1937	800.0	790.2	-1.2	-9.8
1938	800.0	800.0	.0	.0
1939	407.1	368.5	-9.5	-38.6
1940	459.2	440.0	-4.2	-19.2
1941	800.0	800.0	.0	.0
1942	800.0	800.0	.0	.0
1943	644.1	575.6	-10.6	-68.5
1944	343.2	386.7	12.7	43.5
1945	576.7	527.3	-8.6	-49.4
1946	575.3	536.4	-6.8	-38.9
1947	437.0	436.4	-.1	-.6
1948	680.5	654.7	-3.8	-25.8
1949	591.5	555.0	-6.2	-36.5
1950	713.2	695.0	-2.6	-18.2
1951	506.9	476.5	-6.0	-30.4
1952	800.1	800.0	.0	-.1
1953	800.0	800.0	.0	.0
1954	487.5	444.6	-8.8	-42.9
1955	392.1	410.5	4.7	18.4
1956	800.0	800.0	.0	.0
1957	660.9	616.7	-6.7	-44.2
1958	800.0	800.0	.0	.0
1959	400.0	420.0	5.0	20.0
1960	418.8	409.5	-2.2	-9.3
1961	432.1	423.8	-1.9	-8.3
1962	404.4	420.0	3.9	15.6
1963	800.0	800.0	.0	.0
1964	365.6	368.0	.7	2.4
1965	787.9	724.9	-8.0	-63.0
1966	418.6	420.0	.3	1.4
1967	800.0	800.0	.0	.0
1968	542.8	450.4	-17.0	-92.4
1969	800.0	800.0	.0	.0
1970	450.0	450.0	.0	.0
1971	800.0	800.0	.0	.0
1972	400.0	420.0	5.0	20.0
1973	597.2	545.5	-8.7	-51.7
1974	800.0	800.0	.0	.0
1975	800.0	800.0	.0	.0
1976	250.0	250.0	.0	.0
1977	143.3	159.3	11.2	16.0
1978	735.3	684.1	-7.0	-51.2
1979	553.2	502.0	-9.3	-51.2
1980	800.0	800.0	.0	.0
1981	436.6	422.3	-3.3	-14.3
1982	800.0	800.0	.0	.0
1983	828.5	800.0	-3.4	-28.5
1984	613.9	593.6	-3.3	-20.3
1985	337.5	343.6	1.8	6.1
1986	557.7	475.0	-14.8	-82.7
1987	295.7	276.7	-6.4	-19.0
1988	250.0	250.0	.0	.0
1989	380.7	385.7	1.3	5.0
1990	250.0	250.0	.0	.0
1991	321.2	303.1	-5.6	-18.1
Mean:	564.6	549.4	-2.7	-15.2
Median:	553.2	490.1	-1.2	-8.3
Min:	143.3	159.3	-17.0	-92.4
Max:	828.5	800.0	12.7	44.4
Littoral Habitat(ac)	1090.2	957.5	-12.2	-132.7

FOLSOM RESERVOIR STORAGE
September

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	650.0	650.0	.0	.0
1923	586.2	594.2	1.4	8.0
1924	290.3	273.1	-5.9	-17.2
1925	501.1	470.2	-6.2	-30.9
1926	397.6	377.3	-5.1	-20.3
1927	650.0	650.0	.0	.0
1928	449.7	415.5	-7.6	-34.2
1929	350.7	303.8	-13.4	-46.9
1930	483.7	433.3	-10.4	-50.4
1931	295.1	282.9	-4.1	-12.2
1932	650.0	633.7	-2.5	-16.3
1933	393.6	333.7	-15.2	-59.9
1934	281.0	259.0	-7.8	-22.0
1935	632.1	631.6	-.1	-.5
1936	650.0	650.0	.0	.0
1937	650.0	650.0	.0	.0
1938	650.0	650.0	.0	.0
1939	395.4	343.4	-13.2	-52.0
1940	450.0	420.3	-6.6	-29.7
1941	650.0	650.0	.0	.0
1942	650.0	650.0	.0	.0
1943	607.5	544.8	-10.3	-62.7
1944	306.4	343.9	12.2	37.5
1945	521.0	460.5	-11.6	-60.5
1946	492.3	442.8	-10.1	-49.5
1947	384.4	398.0	3.5	13.6
1948	600.3	574.2	-4.3	-26.1
1949	557.0	513.7	-7.8	-43.3
1950	650.0	613.8	-5.6	-36.2
1951	496.6	450.0	-9.4	-46.6
1952	650.0	650.0	.0	.0
1953	650.0	650.0	.0	.0
1954	450.0	431.4	-4.1	-18.6
1955	388.3	391.3	.8	3.0
1956	650.0	650.0	.0	.0
1957	614.9	561.9	-8.6	-53.0
1958	650.0	650.0	.0	.0
1959	393.6	385.1	-2.2	-8.5
1960	375.5	368.5	-1.9	-7.0
1961	398.1	392.5	-1.4	-5.6
1962	397.9	396.5	-.4	-1.4
1963	650.0	650.0	.0	.0
1964	352.4	354.9	.7	2.5
1965	650.0	649.5	-.1	-.5
1966	400.0	381.8	-4.6	-18.2
1967	650.0	650.0	.0	.0
1968	494.5	400.0	-19.1	-94.5
1969	650.0	650.0	.0	.0
1970	450.7	433.8	-3.7	-16.9
1971	650.0	650.0	.0	.0
1972	398.8	400.0	.3	1.2
1973	583.2	522.8	-10.4	-60.4
1974	650.0	650.0	.0	.0
1975	650.0	650.0	.0	.0
1976	254.6	252.1	-1.0	-2.5
1977	133.6	149.4	11.8	15.8
1978	650.0	624.7	-3.9	-25.3
1979	518.2	457.7	-11.7	-60.5
1980	650.0	650.0	.0	.0
1981	406.0	382.8	-5.7	-23.2
1982	650.0	650.0	.0	.0
1983	697.4	650.6	-6.7	-46.8
1984	591.5	554.4	-6.3	-37.1
1985	356.3	349.0	-2.0	-7.3
1986	562.1	472.8	-15.9	-89.3
1987	287.3	260.5	-9.3	-26.8
1988	267.8	260.8	-2.6	-7.0
1989	404.8	379.5	-6.2	-25.3
1990	270.7	262.2	-3.1	-8.5
1991	315.4	281.9	-10.6	-33.5
Mean:	502.7	483.9	-3.8	-18.8
Median:	501.1	457.7	-2.6	-8.5
Min:	133.6	149.4	-19.1	-94.5
Max:	697.4	650.6	12.2	37.5
Littoral Habitat(ac)	529.2	348.7	-34.1	-180.5

RETURN TO TABLE OF CONTENTS

Section 2

FOLSOM RESERVOIR ELEVATION
2.1 Recreation and Fisheries

FOLSOM RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	407.5	.0	405.5	.0	-.5	-2.0
1923	421.3	-8.1	419.9	-9.5	-.3	-1.4
1924	413.3	-9.2	412.7	-10.7	-.1	-.6
1925	379.1	-3.1	378.0	-1.1	-.3	-1.1
1926	403.0	-9.7	399.3	-9.5	-.9	-3.7
1927	393.2	-6.0	388.7	-7.5	-1.1	-4.5
1928	421.4	-8.0	419.6	-9.8	-.4	-1.8
1929	398.6	-7.6	393.5	-8.1	-1.3	-5.1
1930	383.8	-8.4	376.5	-8.1	-1.9	-7.3
1931	401.4	-9.1	394.9	-9.2	-1.6	-6.5
1932	378.8	-4.3	375.4	-5.5	-.9	-3.4
1933	420.2	-9.2	416.8	-10.9	-.8	-3.4
1934	392.5	-6.1	384.4	-5.2	-2.1	-8.1
1935	377.5	-3.0	378.2	1.8	.2	.7
1936	419.8	-7.7	418.3	-9.2	-.4	-1.5
1937	420.6	-8.8	418.8	-10.6	-.4	-1.8
1938	421.2	-8.2	419.7	-9.7	-.4	-1.5
1939	421.7	-7.7	420.1	-9.3	-.4	-1.6
1940	394.1	-4.7	387.0	-4.1	-1.8	-7.1
1941	400.1	-6.1	395.9	-6.4	-1.0	-4.2
1942	421.5	-7.9	419.7	-9.7	-.4	-1.8
1943	421.3	-8.1	419.6	-9.8	-.4	-1.7
1944	416.1	-8.8	406.7	-11.2	-2.3	-9.4
1945	380.0	-5.0	385.4	-5.8	1.4	5.4
1946	407.9	-7.2	402.5	-5.1	-1.3	-5.4
1947	403.9	-7.7	397.1	-8.2	-1.7	-6.8
1948	396.2	-1.1	397.3	-1.9	.3	1.1
1949	415.1	-9.0	409.9	-11.3	-1.3	-5.2
1950	409.4	-9.8	401.9	-12.3	-1.8	-7.5
1951	424.4	-5.0	419.0	-6.6	-1.3	-5.4
1952	407.0	-5.1	401.1	-5.1	-1.4	-5.9
1953	423.3	-6.1	421.6	-7.8	-.4	-1.7
1954	421.1	-8.3	419.3	-10.1	-.4	-1.8
1955	399.2	-7.0	395.1	-8.7	-1.0	-4.1
1956	390.9	-6.9	389.6	-8.7	-.3	-1.3
1957	423.1	-6.3	421.7	-7.7	-.3	-1.4
1958	418.0	-7.7	410.0	-9.8	-1.9	-8.0
1959	420.8	-8.6	418.9	-10.5	-.5	-1.9
1960	390.9	-7.7	387.9	-9.5	-.8	-3.0
1961	389.2	-6.8	386.9	-8.0	-.6	-2.3
1962	390.9	-8.3	388.5	-9.9	-.6	-2.4
1963	429.4	30.2	429.4	30.4	.0	.0
1964	422.3	-7.1	420.9	-8.5	-.3	-1.4
1965	387.0	-5.5	385.9	-7.0	-.3	-1.1
1966	422.0	-7.4	420.1	-9.3	-.5	-1.9
1967	392.6	-6.9	388.1	-8.8	-1.1	-4.5
1968	422.9	-6.5	421.1	-8.3	-.4	-1.8
1969	404.0	-7.9	394.0	-5.5	-2.5	-10.0
1970	423.3	-6.1	421.7	-7.7	-.4	-1.6
1971	399.2	-7.1	395.6	-8.5	-.9	-3.6
1972	421.1	-8.3	419.3	-10.1	-.4	-1.8
1973	395.8	-3.5	394.4	-5.1	-.4	-1.4
1974	415.3	-6.9	406.2	-9.1	-2.2	-9.1
1975	421.8	-7.6	420.3	-9.1	-.4	-1.5
1976	426.8	-2.6	425.5	-3.9	-.3	-1.3
1977	377.6	2.1	375.8	.8	-.5	-1.8
1978	345.9	1.4	348.6	-1.1	.8	2.7
1979	419.5	-9.9	414.9	-11.8	-1.1	-4.6
1980	407.1	-7.6	401.4	-5.8	-1.4	-5.7
1981	421.1	-8.3	419.3	-10.1	-.4	-1.8
1982	397.0	-3.3	392.6	-4.4	-1.1	-4.4
1983	429.4	.0	429.4	.0	.0	.0
1984	429.4	-4.9	429.4	-.1	.0	.0
1985	416.4	-6.7	411.0	-7.9	-1.3	-5.4
1986	387.6	-5.5	387.4	-4.6	-.1	-.2
1987	412.3	-7.5	400.6	-8.6	-2.8	-11.7
1988	372.3	-9.4	367.2	-9.5	-1.4	-5.1
1989	376.3	-1.8	376.7	.0	.1	.4
1990	398.0	-2.2	392.6	-4.0	-1.4	-5.4
1991	374.5	-4.1	374.2	-2.8	-.1	-.3
Mean:	405.5	-5.8	402.4	-6.6	-.8	-3.2
Median:	407.5	-7.1	401.4	-8.2	-.5	-1.9
Min:	345.9	-9.9	348.6	-12.3	-2.8	-11.7
Max:	429.4	30.2	429.4	30.4	1.4	5.4
X < 360.0	1		1			
X < 375.0	3		3			
X < 395.0	20		26			
X < 405.0	32		37			
X < 420.0	46		58			
X inc > 20.0		1		1		
X dec > 9.0		7		27		
X dec > 10.0		0		11		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	397.3	.0	393.9	.0	-.9	-3.4
1923	417.7	-3.6	415.7	-4.2	-.5	-2.0
1924	402.6	-10.7	400.5	-12.2	-.5	-2.1
1925	380.0	.9	381.5	3.5	.4	1.5
1926	394.0	-9.0	390.9	-8.4	-.8	-3.1
1927	410.1	16.9	406.5	17.8	-.9	-3.6
1928	421.3	-.1	421.0	1.4	-.1	-.3
1929	390.4	-8.2	385.9	-7.6	-1.2	-4.5
1930	373.0	-10.8	366.3	-10.2	-1.8	-6.7
1931	394.6	-6.8	389.3	-5.6	-1.3	-5.3
1932	376.0	-2.8	372.3	-3.1	-1.0	-3.7
1933	411.1	-9.1	406.3	-10.5	-1.2	-4.8
1934	386.8	-5.7	379.6	-4.8	-1.9	-7.2
1935	382.9	5.4	388.5	10.3	1.5	5.6
1936	413.1	-6.7	410.3	-8.0	-.7	-2.8
1937	411.7	-8.9	408.5	-10.3	-.8	-3.2
1938	416.0	-5.2	413.6	-6.1	-.6	-2.4
1939	415.1	-6.6	412.3	-7.8	-.7	-2.8
1940	387.0	-7.1	380.8	-6.2	-1.6	-6.2
1941	397.9	-2.2	394.6	-1.3	-.8	-3.3
1942	416.3	-5.2	413.4	-6.3	-.7	-2.9
1943	421.3	.0	421.3	1.7	.0	.0
1944	408.1	-8.0	396.4	-10.3	-2.9	-11.7
1945	392.7	12.7	397.2	11.8	1.1	4.5
1946	413.4	5.5	411.4	8.9	-.5	-2.0
1947	405.4	1.5	400.0	2.9	-1.3	-5.4
1948	392.9	-3.3	393.3	-4.0	.1	.4
1949	407.5	-7.6	400.7	-9.2	-1.7	-6.8
1950	399.0	-10.4	389.1	-12.8	-2.5	-9.9
1951	398.9	-25.5	398.9	-20.1	.0	.0
1952	409.7	2.7	405.3	4.2	-1.1	-4.4
1953	417.7	-5.6	414.9	-6.7	-.7	-2.8
1954	417.6	-3.5	415.0	-4.3	-.6	-2.6
1955	392.2	-7.0	386.9	-8.2	-1.4	-5.3
1956	385.6	-5.3	383.5	-6.1	-.5	-2.1
1957	416.5	-6.6	413.6	-8.1	-.7	-2.9
1958	411.5	-6.5	401.7	-8.3	-2.4	-9.8
1959	414.0	-6.8	410.9	-8.0	-.7	-3.1
1960	382.0	-8.9	377.2	-10.7	-1.3	-4.8
1961	386.2	-3.0	383.5	-3.4	-.7	-2.7
1962	382.7	-8.2	379.0	-9.5	-1.0	-3.7
1963	421.3	-8.1	421.3	-8.1	.0	.0
1964	421.3	-1.0	421.3	.4	.0	.0
1965	389.8	2.8	388.3	2.4	-.4	-1.5
1966	420.9	-1.1	418.6	-1.5	-.5	-2.3
1967	395.5	2.9	391.0	2.9	-1.1	-4.5
1968	420.8	-2.1	418.0	-3.1	-.7	-2.8
1969	404.6	.6	398.4	4.4	-1.5	-6.2
1970	418.0	-5.3	415.3	-6.4	-.6	-2.7
1971	412.2	13.0	408.9	13.3	-.8	-3.3
1972	416.4	-4.7	413.6	-5.7	-.7	-2.8
1973	402.2	6.4	400.3	5.9	-.5	-1.9
1974	421.1	5.8	420.8	14.6	-.1	-.3
1975	413.3	-8.5	410.6	-9.7	-.7	-2.7
1976	421.3	-5.5	421.3	-4.2	.0	.0
1977	377.1	-.5	374.5	-1.3	-.7	-2.6
1978	350.7	4.8	351.2	2.6	.1	.5
1979	412.3	-7.2	406.1	-8.8	-1.5	-6.2
1980	402.8	-4.3	399.7	-1.7	-.8	-3.1
1981	414.0	-7.1	410.6	-8.7	-.8	-3.4
1982	419.2	22.2	418.8	26.2	-.1	-.4
1983	421.2	-8.2	421.2	-8.2	.0	.0
1984	400.9	-28.5	399.9	-29.5	-.2	-1.0
1985	421.3	4.9	420.1	9.1	-.3	-1.2
1986	389.6	2.0	391.5	4.1	.5	1.9
1987	403.6	-8.7	391.4	-9.2	-3.0	-12.2
1988	368.0	-4.3	363.4	-3.8	-1.3	-4.6
1989	388.2	11.9	391.1	14.4	.7	2.9
1990	397.3	-.7	390.7	-1.9	-1.7	-6.6
1991	369.6	-4.9	371.3	-2.9	.5	1.7
Mean:	402.3	-3.0	399.4	-2.8	-.7	-2.9
Median:	404.6	-4.9	400.0	-4.3	-.7	-2.8
Min:	350.7	-28.5	351.2	-29.5	-3.0	-12.2
Max:	421.3	22.2	421.3	26.2	1.5	5.6
X < 360.0	1		1			
X < 375.0	4		6			
X < 395.0	23		28			
X < 405.0	35		39			
X < 420.0	60		62			
X inc > 20.0		1		1		
X dec > 9.0		6		13		
X dec > 10.0		5		9		
X dec > 15.0		2		2		

FOLSOM RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	400.3	.0	396.6	.0	-.9	-3.7
1923	421.3	3.6	421.3	5.6	.0	.0
1924	389.3	-13.3	385.8	-14.7	-.9	-3.5
1925	384.0	4.0	388.1	6.6	1.1	4.1
1926	383.8	-10.2	381.9	-9.0	-.5	-1.9
1927	418.2	8.1	414.2	7.7	-1.0	-4.0
1928	419.8	-1.5	418.8	-2.2	-.2	-1.0
1929	381.9	-8.5	378.4	-7.5	-.9	-3.5
1930	390.0	17.0	387.6	21.3	-.6	-2.4
1931	380.1	-14.5	375.5	-13.8	-1.2	-4.6
1932	393.1	17.1	390.3	18.0	-.7	-2.8
1933	400.0	-11.1	393.7	-12.6	-1.6	-6.3
1934	392.7	5.9	388.7	9.1	-1.0	-4.0
1935	385.3	2.4	395.2	6.7	2.6	9.9
1936	403.6	-9.5	399.7	-10.6	-1.0	-3.9
1937	401.1	-10.6	396.8	-11.7	-1.1	-4.3
1938	420.0	4.0	420.0	6.4	.0	.0
1939	406.7	-8.4	402.5	-9.8	-1.0	-4.2
1940	380.4	-6.6	376.0	-4.8	-1.2	-4.4
1941	419.6	21.7	418.3	23.7	-.3	-1.3
1942	421.3	5.0	421.3	7.9	.0	.0
1943	421.2	-.1	421.2	-.1	.0	.0
1944	396.9	-11.2	382.2	-14.2	-3.7	-14.7
1945	402.0	9.3	405.3	8.1	.8	3.3
1946	421.3	7.9	421.3	9.9	.0	.0
1947	403.5	-1.9	399.2	-.8	-1.1	-4.3
1948	385.8	-7.1	385.4	-7.9	-.1	-.4
1949	401.4	-6.1	393.5	-7.2	-2.0	-7.9
1950	385.0	-14.0	371.1	-18.0	-3.6	-13.9
1951	387.0	-11.9	387.2	-11.7	.1	.2
1952	421.3	11.6	421.3	16.0	.0	.0
1953	418.1	.4	415.1	.2	-.7	-3.0
1954	412.5	-5.1	408.9	-6.1	-.9	-3.6
1955	397.0	4.8	391.9	5.0	-1.3	-5.1
1956	418.1	32.5	418.1	34.6	.0	.0
1957	409.1	-7.4	405.0	-8.6	-1.0	-4.1
1958	410.3	-1.2	399.8	-1.9	-2.6	-10.5
1959	403.5	-10.5	398.8	-12.1	-1.2	-4.7
1960	371.9	-10.1	365.2	-12.0	-1.8	-6.7
1961	382.5	-3.7	378.5	-5.0	-1.0	-4.0
1962	379.3	-3.4	374.7	-4.3	-1.2	-4.6
1963	421.3	.0	421.3	.0	.0	.0
1964	412.1	-9.2	412.7	-8.6	.1	.6
1965	402.0	12.2	402.3	14.0	.1	.3
1966	417.5	-3.4	414.1	-4.5	-.8	-3.4
1967	420.0	24.5	415.9	24.9	-1.0	-4.1
1968	416.6	-4.2	413.0	-5.0	-.9	-3.6
1969	409.0	4.4	406.4	8.0	-.6	-2.6
1970	420.9	2.9	421.1	5.8	.0	.2
1971	421.3	9.1	421.3	12.4	.0	.0
1972	419.3	2.9	416.0	2.4	-.8	-3.3
1973	418.3	16.1	416.1	15.8	-.5	-2.2
1974	420.3	-.8	420.0	-.8	-.1	-.3
1975	408.2	-5.1	404.3	-6.3	-1.0	-3.9
1976	413.8	-7.5	412.9	-8.4	-.2	-.9
1977	370.4	-6.7	366.8	-7.7	-1.0	-3.6
1978	383.8	33.1	384.8	33.6	.3	1.0
1979	403.2	-9.1	395.0	-11.1	-2.0	-8.2
1980	400.4	-2.4	400.7	1.0	.1	.3
1981	406.0	-8.0	401.2	-9.4	-1.2	-4.8
1982	400.6	-18.6	399.4	-19.4	-.3	-1.2
1983	420.7	-.5	420.7	-.5	.0	.0
1984	392.7	-8.2	392.6	-7.3	.0	-.1
1985	421.3	.0	419.8	-.3	-.4	-1.5
1986	400.7	11.1	403.7	12.2	.7	3.0
1987	390.5	-13.1	376.5	-14.9	-3.6	-14.0
1988	378.2	10.2	378.3	14.9	.0	.1
1989	394.6	6.4	399.0	7.9	1.1	4.4
1990	392.0	-5.3	383.2	-7.5	-2.2	-8.8
1991	363.1	-6.5	367.5	-3.8	1.2	4.4
Mean:	402.3	-.1	399.7	.3	-.6	-2.5
Median:	402.0	-1.9	399.7	-1.9	-.7	-2.8
Min:	363.1	-18.6	365.2	-19.4	-3.7	-14.7
Max:	421.3	33.1	421.3	34.6	2.6	9.9
X < 360.0	0		0			
X < 375.0	3		5			
X < 395.0	24		26			
X < 405.0	39		42			
X < 420.0	57		59			
X inc > 20.0		4		5		
X dec > 9.0		15		15		
X dec > 10.0		12		13		
X dec > 15.0		1		2		

FOLSOM RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	400.7	.0	395.6	.0	-1.3	-5.1
1923	421.3	.0	421.3	.0	.0	.0
1924	375.9	-13.4	370.1	-15.7	-1.5	-5.8
1925	376.4	-7.6	380.6	-7.5	1.1	4.2
1926	372.5	-11.3	371.6	-10.3	-.2	-.9
1927	421.3	3.1	421.1	6.9	.0	-.2
1928	415.5	-4.3	413.3	-5.5	-.5	-2.2
1929	373.1	-8.8	369.9	-8.5	-.9	-3.2
1930	396.1	6.1	393.0	5.4	-.8	-3.1
1931	371.6	-8.5	368.6	-6.9	-.8	-3.0
1932	399.3	6.2	398.4	8.1	-.2	-.9
1933	391.4	-8.6	383.6	-10.1	-2.0	-7.8
1934	398.3	5.6	395.9	7.2	-.6	-2.4
1935	395.5	10.2	401.6	6.4	1.5	6.1
1936	421.3	17.7	421.3	21.6	.0	.0
1937	393.2	-7.9	387.4	-9.4	-1.5	-5.8
1938	419.8	-.2	419.8	-.2	.0	.0
1939	397.0	-9.7	393.8	-8.7	-.8	-3.2
1940	421.1	40.7	420.9	44.9	.0	-.2
1941	421.3	1.7	421.3	3.0	.0	.0
1942	420.0	-1.3	420.3	-1.0	.1	.3
1943	419.2	-2.0	419.2	-2.0	.0	.0
1944	390.3	-6.6	372.6	-9.6	-4.5	-17.7
1945	399.8	-2.2	400.5	-4.8	.2	.7
1946	420.3	-1.0	420.3	-1.0	.0	.0
1947	392.3	-11.2	388.3	-10.9	-1.0	-4.0
1948	392.9	7.1	392.1	6.7	-.2	-.8
1949	393.2	-8.2	382.7	-10.8	-2.7	-10.5
1950	412.1	27.1	402.1	31.0	-2.4	-10.0
1951	390.7	3.7	390.9	3.7	.1	.2
1952	421.3	.0	421.3	.0	.0	.0
1953	421.1	3.0	421.2	6.1	.0	.1
1954	412.1	-.4	407.6	-1.3	-1.1	-4.5
1955	402.1	5.1	398.7	6.8	-.8	-3.4
1956	398.4	-19.7	398.4	-19.7	.0	.0
1957	401.1	-8.0	395.7	-9.3	-1.3	-5.4
1958	415.3	5.0	406.3	6.5	-2.2	-9.0
1959	406.4	2.9	403.3	4.5	-.8	-3.1
1960	372.1	.2	365.3	.1	-1.8	-6.8
1961	373.2	-9.3	368.4	-10.1	-1.3	-4.8
1962	375.4	-3.9	369.5	-5.2	-1.6	-5.9
1963	418.9	-2.4	419.0	-2.3	.0	.1
1964	412.1	.0	412.8	.1	.2	.7
1965	395.2	-6.8	394.9	-7.4	-.1	-.3
1966	415.0	-2.5	410.5	-3.6	-1.1	-4.5
1967	420.4	.4	419.9	4.0	-.1	-.5
1968	414.7	-1.9	409.9	-3.1	-1.2	-4.8
1969	418.9	9.9	418.9	12.5	.0	.0
1970	402.0	-18.9	402.3	-18.8	.1	.3
1971	421.3	.0	421.3	.0	.0	.0
1972	415.6	-3.7	411.0	-5.0	-1.1	-4.6
1973	420.2	1.9	420.0	3.9	.0	-.2
1974	413.7	-6.6	413.1	-6.9	-.1	-.6
1975	404.1	-4.1	399.0	-5.3	-1.3	-5.1
1976	400.7	-13.1	398.4	-14.5	-.6	-2.3
1977	367.1	-3.3	362.7	-4.1	-1.2	-4.4
1978	420.6	36.8	421.3	36.5	.2	.7
1979	408.4	5.2	402.0	7.0	-1.6	-6.4
1980	411.9	11.5	407.5	6.8	-1.1	-4.4
1981	402.1	-3.9	398.4	-2.8	-.9	-3.7
1982	398.2	-2.4	397.6	-1.8	-.2	-.6
1983	419.7	-1.0	419.7	-1.0	.0	.0
1984	393.5	.8	393.5	.9	.0	.0
1985	413.2	-8.1	410.8	-9.0	-.6	-2.4
1986	419.9	19.2	419.8	16.1	.0	-.1
1987	380.9	-9.6	365.6	-10.9	-4.0	-15.3
1988	394.3	16.1	396.1	17.8	.5	1.8
1989	388.7	-5.9	392.8	-6.2	1.1	4.1
1990	390.7	-1.3	383.9	.7	-1.7	-6.8
1991	354.2	-8.9	360.9	-6.6	1.9	6.7
Mean:	402.1	-.2	399.7	.0	-.6	-2.4
Median:	402.0	-1.3	399.0	-1.3	-.2	-.9
Min:	354.2	-19.7	360.9	-19.7	-4.5	-17.7
Max:	421.3	40.7	421.3	44.9	1.9	6.7
X < 360.0	1		0			
X < 375.0	7		11			
X < 395.0	22		24			
X < 405.0	38		41			
X < 420.0	57		58			
X inc > 20.0		3		4		
X dec > 9.0		9		13		
X dec > 10.0		6		10		
X dec > 15.0		2		3		

FOLSOM RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	421.3	.0	421.3	.0	.0	.0
1923	418.4	-2.9	418.4	-2.9	.0	.0
1924	375.8	-.1	368.6	-1.5	-1.9	-7.2
1925	419.6	43.2	420.0	39.4	.1	.4
1926	399.8	27.3	399.6	28.0	-.1	-.2
1927	419.9	-1.4	419.6	-1.5	-.1	-.3
1928	417.5	2.0	414.3	1.0	-.8	-3.2
1929	378.8	5.7	374.2	4.3	-1.2	-4.6
1930	398.6	2.5	394.9	1.9	-.9	-3.7
1931	368.9	-2.7	366.6	-2.0	-.6	-2.3
1932	421.3	22.0	421.3	22.9	.0	.0
1933	384.7	-6.7	376.1	-7.5	-2.2	-8.6
1934	403.0	4.7	400.0	4.1	-.7	-3.0
1935	400.5	5.0	405.8	4.2	1.3	5.3
1936	421.3	.0	421.2	-.1	.0	-.1
1937	421.1	27.9	417.4	30.0	-.9	-3.7
1938	419.5	-.3	419.5	-.3	.0	.0
1939	391.2	-5.8	386.5	-7.3	-1.2	-4.7
1940	419.6	-1.5	419.6	-1.3	.0	.0
1941	421.3	.0	421.3	.0	.0	.0
1942	419.0	-1.0	419.2	-1.1	.0	.2
1943	418.0	-1.2	418.0	-1.2	.0	.0
1944	397.6	7.3	381.7	9.1	-4.0	-15.9
1945	420.3	20.5	420.3	19.8	.0	.0
1946	418.4	-1.9	418.4	-1.9	.0	.0
1947	398.4	6.1	395.5	7.2	-.7	-2.9
1948	384.9	-8.0	385.7	-6.4	.2	.8
1949	390.1	-3.1	381.7	-1.0	-2.2	-8.4
1950	421.3	9.2	421.3	19.2	.0	.0
1951	392.6	1.9	392.7	1.8	.0	.1
1952	421.3	.0	421.3	.0	.0	.0
1953	420.4	-.7	420.6	-.6	.0	.2
1954	421.3	9.2	416.6	9.0	-1.1	-4.7
1955	400.0	-2.1	395.7	-3.0	-1.1	-4.3
1956	397.6	-.8	397.6	-.8	.0	.0
1957	418.5	17.4	413.3	17.6	-1.2	-5.2
1958	420.3	5.0	420.3	14.0	.0	.0
1959	415.5	9.1	411.8	8.5	-.9	-3.7
1960	411.5	39.4	407.9	42.6	-.9	-3.6
1961	379.2	6.0	375.2	6.8	-1.1	-4.0
1962	421.3	45.9	417.7	48.2	-.9	-3.6
1963	409.2	-9.7	409.4	-9.6	.0	.2
1964	409.6	-2.5	409.8	-3.0	.0	.2
1965	395.0	-.2	394.7	-.2	-.1	-.3
1966	414.6	-.4	409.0	-1.5	-1.4	-5.6
1967	419.1	-1.3	418.8	-1.1	-.1	-.3
1968	419.4	4.7	419.4	9.5	.0	.0
1969	417.2	-1.7	417.1	-1.8	.0	-.1
1970	398.2	-3.8	398.2	-4.1	.0	.0
1971	420.4	-.9	420.5	-.8	.0	.1
1972	421.3	5.7	417.4	6.4	-.9	-3.9
1973	419.7	-.5	419.6	-.4	.0	-.1
1974	413.1	-.6	413.7	.6	.1	.6
1975	419.8	15.7	414.9	15.9	-1.2	-4.9
1976	393.2	-7.5	389.4	-9.0	-1.0	-3.8
1977	363.9	-3.2	358.8	-3.9	-1.4	-5.1
1978	419.9	-.7	421.3	.0	.3	1.4
1979	419.6	11.2	412.8	10.8	-1.6	-6.8
1980	397.9	-14.0	395.7	-11.8	-.6	-2.2
1981	401.8	-.3	396.8	-1.6	-1.2	-5.0
1982	389.8	-8.4	390.2	-7.4	.1	.4
1983	418.4	-1.3	418.4	-1.3	.0	.0
1984	394.1	.6	394.0	.5	.0	-.1
1985	415.2	2.0	412.3	1.5	-.7	-2.9
1986	397.5	-22.4	397.1	-22.7	-.1	-.4
1987	385.6	4.7	372.4	6.8	-3.4	-13.2
1988	388.1	-6.2	389.4	-6.7	.3	1.3
1989	388.4	-.3	389.7	-3.1	.3	1.3
1990	389.9	-.8	381.7	-2.2	-2.1	-8.2
1991	348.6	-5.6	357.2	-3.7	2.5	8.6
Mean:	405.7	3.3	403.7	3.6	-.5	-2.0
Median:	413.1	-.3	409.8	-.3	-.1	-.2
Min:	348.6	-22.4	357.2	-22.7	-4.0	-15.9
Max:	421.3	45.9	421.3	48.2	2.5	8.6
X < 360.0	1		2			
X < 375.0	3		6			
X < 395.0	18		21			
X < 405.0	31		30			
X < 420.0	56		58			
X inc > 20.0		7		6		
X dec > 9.0		3		3		
X dec > 10.0		2		2		
X dec > 15.0		1		1		

FOLSOM RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	424.6	.0	423.6	.0	-.2	-1.0
1923	419.2	.8	418.4	.0	-.2	-.8
1924	366.8	-9.0	359.6	-9.0	-2.0	-7.2
1925	423.0	3.4	423.0	3.0	.0	.0
1926	400.8	1.0	401.6	2.0	.2	.8
1927	430.8	10.9	430.7	11.1	.0	-.1
1928	429.1	11.6	428.7	14.4	-.1	-.4
1929	386.0	7.2	380.8	6.6	-1.3	-5.2
1930	418.1	19.5	414.4	19.5	-.9	-3.7
1931	376.3	7.4	376.3	9.7	.0	.0
1932	428.4	7.1	427.4	6.1	-.2	-1.0
1933	386.6	1.9	380.1	4.0	-1.7	-6.5
1934	410.8	7.8	407.6	7.6	-.8	-3.2
1935	401.1	.6	405.0	-.8	1.0	3.9
1936	431.5	10.2	431.5	10.3	.0	.0
1937	432.0	10.9	432.0	14.6	.0	.0
1938	431.5	12.0	431.5	12.0	.0	.0
1939	402.8	11.6	398.2	11.7	-1.1	-4.6
1940	426.0	6.4	426.9	7.3	.2	.9
1941	431.8	10.5	431.8	10.5	.0	.0
1942	416.3	-2.7	415.4	-3.8	-.2	-.9
1943	426.3	8.3	426.5	8.5	.0	.2
1944	408.5	10.9	396.3	14.6	-3.0	-12.2
1945	427.0	6.7	426.0	5.7	-.2	-1.0
1946	430.8	12.4	430.1	11.7	-.2	-.7
1947	414.7	16.3	413.5	18.0	-.3	-1.2
1948	380.3	-4.6	379.2	-6.5	-.3	-1.1
1949	413.7	23.6	406.4	24.7	-1.8	-7.3
1950	430.7	9.4	431.6	10.3	.2	.9
1951	422.6	30.0	422.6	29.9	.0	.0
1952	432.0	10.7	432.0	10.7	.0	.0
1953	420.1	-.3	419.3	-1.3	-.2	-.8
1954	431.6	10.3	431.6	15.0	.0	.0
1955	399.8	-.2	394.3	-1.4	-1.4	-5.5
1956	411.5	13.9	410.0	12.4	-.4	-1.5
1957	431.0	12.5	431.0	17.7	.0	.0
1958	431.7	11.4	431.7	11.4	.0	.0
1959	419.9	4.4	415.7	3.9	-1.0	-4.2
1960	431.5	20.0	430.3	22.4	-.3	-1.2
1961	386.6	7.4	385.1	9.9	-.4	-1.5
1962	428.9	7.6	424.9	7.2	-.9	-4.0
1963	411.7	2.5	410.8	1.4	-.2	-.9
1964	406.4	-3.2	405.9	-3.9	-.1	-.5
1965	407.1	12.1	405.5	10.8	-.4	-1.6
1966	420.3	5.7	414.0	5.0	-1.5	-6.3
1967	429.1	10.0	429.1	10.3	.0	.0
1968	429.9	10.5	417.0	-2.4	-3.0	-12.9
1969	424.6	7.4	423.5	6.4	-.3	-1.1
1970	422.7	24.5	423.5	25.3	.2	.8
1971	430.5	10.1	430.5	10.0	.0	.0
1972	430.1	8.8	430.1	12.7	.0	.0
1973	431.6	11.9	431.6	12.0	.0	.0
1974	424.7	11.6	424.9	11.2	.0	.2
1975	432.0	12.2	432.0	17.1	.0	.0
1976	390.8	-2.4	387.0	-2.4	-1.0	-3.8
1977	363.2	-.7	359.0	.2	-1.2	-4.2
1978	430.7	10.8	430.7	9.4	.0	.0
1979	431.8	12.2	428.9	16.1	-.7	-2.9
1980	424.6	26.7	423.7	28.0	-.2	-.9
1981	414.0	12.2	410.3	13.5	-.9	-3.7
1982	422.0	32.2	422.0	31.8	.0	.0
1983	427.7	9.3	427.5	9.1	.0	-.2
1984	422.1	28.0	422.8	28.8	.2	.7
1985	418.6	3.4	416.8	4.5	-.4	-1.8
1986	421.6	24.1	421.6	24.5	.0	.0
1987	399.3	13.7	389.9	17.5	-2.4	-9.4
1988	386.8	-1.3	388.0	-1.4	.3	1.2
1989	428.4	40.0	430.8	41.1	.6	2.4
1990	402.1	12.2	394.6	12.9	-1.9	-7.5
1991	380.5	31.9	385.4	28.2	1.3	4.9
Mean:	416.0	10.2	414.3	10.6	-.4	-1.7
Median:	422.1	10.2	422.0	10.3	-.2	-.8
Min:	363.2	-9.0	359.0	-9.0	-3.0	-12.9
Max:	432.0	40.0	432.0	41.1	1.3	4.9
X < 360.0	0		2			
X < 375.0	2		2			
X < 395.0	10		13			
X < 405.0	16		16			
X < 420.0	30		33			
X inc > 20.0		9		10		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	438.5	.0	436.1	.0	-.5	-2.4
1923	444.5	25.3	444.4	26.0	.0	-.1
1924	374.9	8.1	369.2	9.6	-1.5	-5.7
1925	444.5	21.5	444.5	21.5	.0	.0
1926	429.0	28.2	428.9	27.3	.0	-.1
1927	444.5	13.7	444.5	13.8	.0	.0
1928	444.5	15.4	444.5	15.8	.0	.0
1929	395.3	9.3	394.0	13.2	-.3	-1.3
1930	427.1	9.0	424.1	9.7	-.7	-3.0
1931	384.8	8.5	384.5	8.2	-.1	-.3
1932	434.8	6.4	434.2	6.8	-.1	-.6
1933	393.5	6.9	388.1	8.0	-1.4	-5.4
1934	399.5	-11.3	399.5	-8.1	.0	.0
1935	444.5	43.4	444.5	39.5	.0	.0
1936	444.5	13.0	444.5	13.0	.0	.0
1937	444.5	12.5	444.5	12.5	.0	.0
1938	444.5	13.0	444.5	13.0	.0	.0
1939	414.1	11.3	412.5	14.3	-.4	-1.6
1940	444.5	18.5	444.5	17.6	.0	.0
1941	444.5	12.7	444.5	12.7	.0	.0
1942	441.0	24.7	438.9	23.5	-.5	-2.1
1943	444.5	18.2	444.5	18.0	.0	.0
1944	411.6	3.1	401.1	4.8	-2.6	-10.5
1945	438.8	11.8	436.4	10.4	-.5	-2.4
1946	444.5	13.7	444.5	14.4	.0	.0
1947	421.1	6.4	419.0	5.5	-.5	-2.1
1948	419.9	39.6	417.9	38.7	-.5	-2.0
1949	434.9	21.2	427.1	20.7	-1.8	-7.8
1950	444.5	13.8	444.5	12.9	.0	.0
1951	444.5	21.9	444.5	21.9	.0	.0
1952	444.5	12.5	444.5	12.5	.0	.0
1953	433.6	13.5	433.1	13.8	-.1	-.5
1954	444.5	12.9	444.5	12.9	.0	.0
1955	407.2	7.4	401.6	7.3	-1.4	-5.6
1956	426.2	14.7	423.4	13.4	-.7	-2.8
1957	433.4	2.4	432.0	1.0	-.3	-1.4
1958	444.5	12.8	444.5	12.8	.0	.0
1959	424.2	4.3	420.6	4.9	-.8	-3.6
1960	440.2	8.7	438.1	7.8	-.5	-2.1
1961	402.1	15.5	399.8	14.7	-.6	-2.3
1962	444.5	15.6	444.5	19.6	.0	.0
1963	444.5	32.8	444.5	33.7	.0	.0
1964	413.8	7.4	412.0	6.1	-.4	-1.8
1965	444.5	37.4	444.5	39.0	.0	.0
1966	435.4	15.1	428.6	14.6	-1.6	-6.8
1967	442.0	12.9	440.8	11.7	-.3	-1.2
1968	434.5	4.6	420.7	3.7	-3.2	-13.8
1969	444.5	19.9	444.5	21.0	.0	.0
1970	428.1	5.4	429.2	5.7	.3	1.1
1971	440.2	9.7	440.2	9.7	.0	.0
1972	436.9	6.8	435.8	5.7	-.3	-1.1
1973	444.4	12.8	442.8	11.2	-.4	-1.6
1974	444.5	19.8	444.5	19.6	.0	.0
1975	434.6	2.6	433.0	1.0	-.4	-1.6
1976	398.2	7.4	394.5	7.5	-.9	-3.7
1977	363.6	.4	361.2	2.2	-.7	-2.4
1978	444.5	13.8	444.5	13.8	.0	.0
1979	440.7	8.9	436.3	7.4	-1.0	-4.4
1980	443.1	18.5	442.3	18.6	-.2	-.8
1981	420.7	6.7	418.0	7.7	-.6	-2.7
1982	444.5	22.5	444.5	22.5	.0	.0
1983	444.5	16.8	444.5	17.0	.0	.0
1984	437.2	15.1	436.8	14.0	-.1	-.4
1985	434.7	16.1	433.5	16.7	-.3	-1.2
1986	444.3	22.7	442.9	21.3	-.3	-1.4
1987	411.4	12.1	402.6	12.7	-2.1	-8.8
1988	397.1	10.3	398.2	10.2	.3	1.1
1989	444.5	16.1	444.5	13.7	.0	.0
1990	400.4	-1.7	399.5	4.9	-.2	-.9
1991	396.2	15.7	398.7	13.3	.6	2.5
Mean:	429.7	13.6	428.1	13.6	-.4	-1.7
Median:	438.5	12.9	436.3	12.9	-.1	-.6
Min:	363.6	-11.3	361.2	-8.1	-3.2	-13.8
Max:	444.5	43.4	444.5	39.5	.6	2.5
X < 360.0	0		0			
X < 375.0	2		2			
X < 395.0	4		6			
X < 405.0	11		14			
X < 420.0	17		19			
X inc > 20.0		12		13		
X dec > 9.0		1		0		
X dec > 10.0		1		0		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	460.7	16.2	460.7	16.3	.0	.0
1924	381.2	6.3	377.4	8.2	-1.0	-3.8
1925	460.7	16.2	460.7	16.2	.0	.0
1926	422.5	-6.5	421.0	-7.9	-.4	-1.5
1927	460.7	16.2	460.7	16.2	.0	.0
1928	453.0	8.5	451.0	6.5	-.4	-2.0
1929	400.0	4.7	399.1	5.1	-.2	-.9
1930	424.1	-3.0	421.4	-2.7	-.6	-2.7
1931	393.9	9.1	392.9	8.4	-.3	-1.0
1932	452.2	17.4	450.4	16.2	-.4	-1.8
1933	399.4	5.9	392.6	4.5	-1.7	-6.8
1934	402.6	3.1	401.8	2.3	-.2	-.8
1935	459.7	15.2	456.4	11.9	-.7	-3.3
1936	459.1	14.6	457.2	12.7	-.4	-1.9
1937	460.7	16.2	460.7	16.2	.0	.0
1938	460.7	16.2	460.7	16.2	.0	.0
1939	410.8	-3.3	407.7	-4.8	-.8	-3.1
1940	458.1	13.6	457.0	12.5	-.2	-1.1
1941	460.7	16.2	460.7	16.2	.0	.0
1942	460.7	19.7	460.7	21.8	.0	.0
1943	454.3	9.8	452.2	7.7	-.5	-2.1
1944	419.8	8.2	410.4	9.3	-2.2	-9.4
1945	456.1	17.3	452.1	15.7	-.9	-4.0
1946	460.7	16.2	459.0	14.5	-.4	-1.7
1947	416.5	-4.6	414.0	-5.0	-.6	-2.5
1948	440.1	20.2	436.4	18.5	-.8	-3.7
1949	449.7	14.8	442.0	14.9	-1.7	-7.7
1950	460.4	15.9	458.5	14.0	-.4	-1.9
1951	460.2	15.7	459.8	15.3	-.1	-.4
1952	460.7	16.2	460.7	16.2	.0	.0
1953	444.0	10.4	441.4	8.3	-.6	-2.6
1954	449.2	4.7	447.9	3.4	-.3	-1.3
1955	417.8	10.6	413.2	11.6	-1.1	-4.6
1956	458.5	32.3	454.5	31.1	-.9	-4.0
1957	453.4	20.0	452.1	20.1	-.3	-1.3
1958	460.7	16.2	460.7	16.2	.0	.0
1959	417.6	-6.6	414.2	-6.4	-.8	-3.4
1960	439.4	-.8	436.0	-2.1	-.8	-3.4
1961	408.9	6.8	405.4	5.6	-.9	-3.5
1962	450.6	6.1	448.6	4.1	-.4	-2.0
1963	460.7	16.2	460.7	16.2	.0	.0
1964	421.1	7.3	418.1	6.1	-.7	-3.0
1965	459.1	14.6	458.6	14.1	-.1	-.5
1966	432.1	-3.3	423.4	-5.2	-2.0	-8.7
1967	460.7	18.7	460.7	19.9	.0	.0
1968	431.2	-3.3	415.3	-5.4	-3.7	-15.9
1969	460.7	16.2	460.7	16.2	.0	.0
1970	434.9	6.8	436.0	6.8	.3	1.1
1971	454.8	14.6	452.8	12.6	-.4	-2.0
1972	443.5	6.6	442.4	6.6	-.2	-1.1
1973	460.7	16.3	460.7	17.9	.0	.0
1974	460.7	16.2	460.7	16.2	.0	.0
1975	459.6	25.0	456.3	23.3	-.7	-3.3
1976	402.3	4.1	402.6	8.1	.1	.3
1977	365.4	1.8	364.2	3.0	-.3	-1.2
1978	460.7	16.2	458.9	14.4	-.4	-1.8
1979	460.7	20.0	457.8	21.5	-.6	-2.9
1980	454.6	11.5	453.0	10.7	-.4	-1.6
1981	416.2	-4.5	413.6	-4.4	-.6	-2.6
1982	460.7	16.2	460.7	16.2	.0	.0
1983	460.7	16.2	460.7	16.2	.0	.0
1984	451.6	14.4	451.4	14.6	.0	-.2
1985	431.7	-3.0	430.6	-2.9	-.3	-1.1
1986	454.4	10.1	451.1	8.2	-.7	-3.3
1987	408.3	-3.1	405.0	2.4	-.8	-3.3
1988	401.2	4.1	401.5	3.3	.1	.3
1989	446.7	2.2	446.5	2.0	.0	-.2
1990	396.9	-3.5	396.9	-2.6	.0	.0
1991	403.7	7.5	404.2	5.5	.1	.5
Mean:	439.9	9.9	437.9	9.5	-.5	-2.0
Median:	452.2	10.6	451.0	10.7	-.4	-1.5
Min:	365.4	-6.6	364.2	-7.9	-3.7	-15.9
Max:	460.7	32.3	460.7	31.1	.3	1.1
X < 360.0	0		0			
X < 375.0	1		1			
X < 395.0	3		4			
X < 405.0	10		10			
X < 420.0	18		20			
X inc > 20.0		3		5		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	450.4	-10.3	448.9	-11.8	-.3	-1.5
1924	384.3	3.1	381.4	4.0	-.8	-2.9
1925	441.6	-19.1	438.6	-22.1	-.7	-3.0
1926	414.0	-8.5	413.3	-7.7	-.2	-.7
1927	460.7	.0	460.7	.0	.0	.0
1928	424.1	-28.9	423.0	-28.0	-.3	-1.1
1929	394.5	-5.5	390.6	-8.5	-1.0	-3.9
1930	418.4	-5.7	415.4	-6.0	-.7	-3.0
1931	394.1	.2	392.8	-.1	-.3	-1.3
1932	451.3	-.9	446.9	-3.5	-1.0	-4.4
1933	402.2	2.8	393.8	1.2	-2.1	-8.4
1934	392.1	-10.5	390.6	-11.2	-.4	-1.5
1935	460.7	1.0	458.1	1.7	-.6	-2.6
1936	460.7	1.6	460.7	3.5	.0	.0
1937	454.7	-6.0	453.0	-7.7	-.4	-1.7
1938	460.7	.0	460.7	.0	.0	.0
1939	409.1	-1.7	407.7	.0	-.3	-1.4
1940	450.0	-8.1	447.5	-9.5	-.6	-2.5
1941	458.0	-2.7	457.1	-3.6	-.2	-.9
1942	460.7	.0	460.7	.0	.0	.0
1943	453.2	-1.1	448.8	-3.4	-1.0	-4.4
1944	416.8	-3.0	408.7	-1.7	-1.9	-8.1
1945	437.7	-18.4	431.8	-20.3	-1.3	-5.9
1946	436.6	-24.1	433.0	-26.0	-.8	-3.6
1947	412.3	-4.2	409.6	-4.4	-.7	-2.7
1948	449.9	9.8	445.0	8.6	-1.1	-4.9
1949	442.2	-7.5	434.8	-7.2	-1.7	-7.4
1950	460.7	.3	458.6	.1	-.5	-2.1
1951	452.9	-7.3	450.0	-9.8	-.6	-2.9
1952	460.7	.0	460.7	.0	.0	.0
1953	457.5	13.5	454.1	12.7	-.7	-3.4
1954	439.8	-9.4	438.8	-9.1	-.2	-1.0
1955	415.6	-2.2	410.9	-2.3	-1.1	-4.7
1956	460.7	2.2	460.7	6.2	.0	.0
1957	448.6	-4.8	447.5	-4.6	-.2	-1.1
1958	460.7	.0	460.7	.0	.0	.0
1959	413.8	-3.8	410.2	-4.0	-.9	-3.6
1960	433.1	-6.3	427.8	-8.2	-1.2	-5.3
1961	412.4	3.5	409.1	3.7	-.8	-3.3
1962	447.9	-2.7	443.2	-5.4	-1.0	-4.7
1963	460.1	-.6	457.8	-2.9	-.5	-2.3
1964	418.9	-2.2	415.7	-2.4	-.8	-3.2
1965	459.7	.6	456.8	-1.8	-.6	-2.9
1966	423.1	-9.0	415.1	-8.3	-1.9	-8.0
1967	460.7	.0	460.7	.0	.0	.0
1968	422.4	-8.8	408.4	-6.9	-3.3	-14.0
1969	460.7	.0	460.7	.0	.0	.0
1970	426.1	-8.8	425.8	-10.2	-.1	-.3
1971	460.7	5.9	458.0	5.2	-.6	-2.7
1972	424.1	-19.4	421.8	-20.6	-.5	-2.3
1973	440.5	-20.2	439.7	-21.0	-.2	-.8
1974	460.7	.0	460.7	.0	.0	.0
1975	460.7	1.1	460.7	4.4	.0	.0
1976	392.1	-10.2	390.6	-12.0	-.4	-1.5
1977	361.3	-4.1	362.0	-2.2	.2	.7
1978	460.7	.0	458.5	-.4	-.5	-2.2
1979	433.6	-27.1	427.5	-30.3	-1.4	-6.1
1980	453.1	-1.5	450.5	-2.5	-.6	-2.6
1981	410.0	-6.2	409.1	-4.5	-.2	-.9
1982	460.7	.0	460.7	.0	.0	.0
1983	460.7	.0	460.7	.0	.0	.0
1984	438.5	-13.1	437.3	-14.1	-.3	-1.2
1985	418.1	-13.6	417.6	-13.0	-.1	-.5
1986	454.1	-.3	450.0	-1.1	-.9	-4.1
1987	408.4	.1	403.7	-1.3	-1.2	-4.7
1988	392.1	-9.1	390.6	-10.9	-.4	-1.5
1989	431.7	-15.0	430.4	-16.1	-.3	-1.3
1990	392.1	-4.8	390.6	-6.3	-.4	-1.5
1991	397.9	-5.8	395.2	-9.0	-.7	-2.7
Mean:	435.1	-4.8	432.6	-5.3	-.6	-2.5
Median:	440.5	-2.7	438.6	-3.5	-.5	-2.2
Min:	361.3	-28.9	362.0	-30.3	-3.3	-14.0
Max:	460.7	13.5	460.7	12.7	.2	.7
X < 360.0	0		0			
X < 375.0	1		1			
X < 395.0	8		9			
X < 405.0	10		11			
X < 420.0	22		24			
X inc > 20.0		0		0		
X dec > 9.0		15		18		
X dec > 10.0		13		15		
X dec > 15.0		7		8		

FOLSOM RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	452.1	.0	454.8	.0	.6	2.7
1923	430.7	-19.7	438.5	-10.4	1.8	7.8
1924	383.9	-.4	382.2	.8	-.4	-1.7
1925	428.6	-13.0	425.3	-13.3	-.8	-3.3
1926	398.5	-15.5	398.8	-14.5	.1	.3
1927	456.4	-4.3	454.7	-6.0	-.4	-1.7
1928	419.2	-4.9	414.7	-8.3	-1.1	-4.5
1929	386.7	-7.8	382.2	-8.4	-1.2	-4.5
1930	405.4	-13.0	403.2	-12.2	-.5	-2.2
1931	383.9	-10.2	382.2	-10.6	-.4	-1.7
1932	448.0	-3.3	439.8	-7.1	-1.8	-8.2
1933	391.9	-10.3	382.2	-11.6	-2.5	-9.7
1934	383.9	-8.2	382.2	-8.4	-.4	-1.7
1935	444.6	-16.1	448.2	-9.9	.8	3.6
1936	451.8	-8.9	457.6	-3.1	1.3	5.8
1937	450.8	-3.9	447.8	-5.2	-.7	-3.0
1938	458.4	-2.3	458.4	-2.3	.0	.0
1939	399.0	-10.1	395.9	-11.8	-.8	-3.1
1940	424.1	-25.9	423.0	-24.5	-.3	-1.1
1941	458.4	.4	455.5	-1.6	-.6	-2.9
1942	458.4	-2.3	458.4	-2.3	.0	.0
1943	433.7	-19.5	428.6	-20.2	-1.2	-5.1
1944	410.4	-6.4	407.9	-.8	-.6	-2.5
1945	424.1	-13.6	421.8	-10.0	-.5	-2.3
1946	424.1	-12.5	421.8	-11.2	-.5	-2.3
1947	402.9	-9.4	402.8	-6.8	.0	-.1
1948	441.5	-8.4	441.5	-3.5	.0	.0
1949	428.9	-13.3	426.9	-7.9	-.5	-2.0
1950	443.7	-17.0	443.1	-15.5	-.1	-.6
1951	424.3	-28.6	423.0	-27.0	-.3	-1.3
1952	458.4	-2.3	458.4	-2.3	.0	.0
1953	458.4	.9	458.4	4.3	.0	.0
1954	424.1	-15.7	423.0	-15.8	-.3	-1.1
1955	412.1	-3.5	407.4	-3.5	-1.1	-4.7
1956	458.4	-2.3	458.4	-2.3	.0	.0
1957	430.6	-18.0	427.9	-19.6	-.6	-2.7
1958	458.4	-2.3	458.4	-2.3	.0	.0
1959	412.9	-.9	408.9	-1.3	-1.0	-4.0
1960	417.5	-15.6	417.0	-10.8	-.1	-.5
1961	412.3	-.1	406.9	-2.2	-1.3	-5.4
1962	424.1	-23.8	421.8	-21.4	-.5	-2.3
1963	458.4	-1.7	454.0	-3.8	-1.0	-4.4
1964	409.8	-9.1	410.2	-5.5	.1	.4
1965	442.6	-17.1	437.6	-19.2	-1.1	-5.0
1966	416.1	-7.0	411.0	-4.1	-1.2	-5.1
1967	458.4	-2.3	458.4	-2.3	.0	.0
1968	415.8	-6.6	404.5	-3.9	-2.7	-11.3
1969	458.4	-2.3	458.4	-2.3	.0	.0
1970	424.1	-2.0	424.1	-1.7	.0	.0
1971	458.4	-2.3	458.4	.4	.0	.0
1972	421.4	-2.7	417.0	-4.8	-1.0	-4.4
1973	424.1	-16.4	423.0	-16.7	-.3	-1.1
1974	458.4	-2.3	458.4	-2.3	.0	.0
1975	458.4	-2.3	458.4	-2.3	.0	.0
1976	383.9	-8.2	382.2	-8.4	-.4	-1.7
1977	353.5	-7.8	356.5	-5.5	.8	3.0
1978	438.8	-21.9	437.1	-21.4	-.4	-1.7
1979	424.1	-9.5	421.8	-5.7	-.5	-2.3
1980	447.7	-5.4	447.9	-2.6	.0	.2
1981	410.8	.8	407.9	-1.2	-.7	-2.9
1982	458.4	-2.3	458.4	-2.3	.0	.0
1983	459.0	-1.7	458.4	-2.3	-.1	-.6
1984	424.1	-14.4	424.1	-13.2	.0	.0
1985	405.9	-12.2	405.4	-12.2	-.1	-.5
1986	433.2	-20.9	426.5	-23.5	-1.5	-6.7
1987	396.7	-11.7	395.9	-7.8	-.2	-.8
1988	383.9	-8.2	382.2	-8.4	-.4	-1.7
1989	413.9	-17.8	413.5	-16.9	-.1	-.4
1990	383.9	-8.2	382.2	-8.4	-.4	-1.7
1991	390.2	-7.7	382.2	-13.0	-2.1	-8.0
Mean:	426.1	-8.9	424.4	-8.2	-.4	-1.8
Median:	424.1	-8.2	423.0	-7.1	-.4	-1.7
Min:	353.5	-28.6	356.5	-27.0	-2.7	-11.3
Max:	459.0	.9	458.4	4.3	1.8	7.8
X < 360.0	1		1			
X < 375.0	1		1			
X < 395.0	10		10			
X < 405.0	14		16			
X < 420.0	27		28			
X inc > 20.0		0		0		
X dec > 9.0		30		26		
X dec > 10.0		27		24		
X dec > 15.0		16		12		

FOLSOM RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	444.5	.0	444.5	.0	.0	.0
1923	425.1	-5.6	429.9	-8.6	1.1	4.8
1924	386.3	2.4	383.7	1.5	-.7	-2.6
1925	414.6	-14.0	411.3	-14.0	-.8	-3.3
1926	401.1	2.6	398.7	-.1	-.6	-2.4
1927	444.5	-11.9	444.5	-10.2	.0	.0
1928	406.2	-13.0	404.9	-9.8	-.3	-1.3
1929	394.1	7.4	387.0	4.8	-1.8	-7.1
1930	410.4	5.0	406.0	2.8	-1.1	-4.4
1931	386.8	2.9	383.2	1.0	-.9	-3.6
1932	444.5	-3.5	436.4	-3.4	-1.8	-8.1
1933	399.9	8.0	391.3	9.1	-2.2	-8.6
1934	383.0	-.9	378.0	-4.2	-1.3	-5.0
1935	436.1	-8.5	437.5	-10.7	.3	1.4
1936	444.1	-7.7	444.5	-13.1	.1	.4
1937	444.5	-6.3	443.5	-4.3	-.2	-1.0
1938	444.5	-13.9	444.5	-13.9	.0	.0
1939	400.5	1.5	394.9	-1.0	-1.4	-5.6
1940	407.4	-16.7	404.9	-18.1	-.6	-2.5
1941	444.5	-13.9	444.5	-11.0	.0	.0
1942	444.5	-13.9	444.5	-13.9	.0	.0
1943	428.8	-4.9	421.4	-7.2	-1.7	-7.4
1944	391.1	-19.3	397.6	-10.3	1.7	6.5
1945	421.5	-2.6	415.8	-6.0	-1.4	-5.7
1946	421.3	-2.8	416.9	-4.9	-1.0	-4.4
1947	404.5	1.6	404.5	1.7	.0	.0
1948	432.6	-8.9	429.9	-11.6	-.6	-2.7
1949	423.1	-5.8	419.0	-7.9	-1.0	-4.1
1950	435.9	-7.8	434.1	-9.0	-.4	-1.8
1951	413.4	-10.9	409.6	-13.4	-.9	-3.8
1952	444.5	-13.9	444.5	-13.9	.0	.0
1953	444.5	-13.9	444.5	-13.9	.0	.0
1954	411.0	-13.1	405.5	-17.5	-1.3	-5.5
1955	398.4	-13.7	401.0	-6.4	.7	2.6
1956	444.5	-13.9	444.5	-13.9	.0	.0
1957	430.6	.0	425.9	-2.0	-1.1	-4.7
1958	444.5	-13.9	444.5	-13.9	.0	.0
1959	399.5	-13.4	402.3	-6.6	.7	2.8
1960	402.1	-15.4	400.8	-16.2	-.3	-1.3
1961	403.9	-8.4	402.8	-4.1	-.3	-1.1
1962	400.1	-24.0	402.3	-19.5	.5	2.2
1963	444.5	-13.9	444.5	-9.5	.0	.0
1964	394.5	-15.3	394.9	-15.3	.1	.4
1965	443.3	.7	437.1	-.5	-1.4	-6.2
1966	402.1	-14.0	402.3	-8.7	.0	.2
1967	444.5	-13.9	444.5	-13.9	.0	.0
1968	417.6	1.8	406.3	1.8	-2.7	-11.3
1969	444.5	-13.9	444.5	-13.9	.0	.0
1970	406.2	-17.9	406.2	-17.9	.0	.0
1971	444.5	-13.9	444.5	-13.9	.0	.0
1972	399.5	-21.9	402.3	-14.7	.7	2.8
1973	423.8	-.3	417.9	-5.1	-1.4	-5.9
1974	444.5	-13.9	444.5	-13.9	.0	.0
1975	444.5	-13.9	444.5	-13.9	.0	.0
1976	374.6	-9.3	374.6	-7.6	.0	.0
1977	347.8	-5.7	352.7	-3.8	1.4	4.9
1978	438.2	-.6	433.0	-4.1	-1.2	-5.2
1979	418.8	-5.3	412.8	-9.0	-1.4	-6.0
1980	444.5	-3.2	444.5	-3.4	.0	.0
1981	404.5	-6.3	402.6	-5.3	-.5	-1.9
1982	444.5	-13.9	444.5	-13.9	.0	.0
1983	447.2	-11.8	444.5	-13.9	-.6	-2.7
1984	425.6	1.5	423.4	-.7	-.5	-2.2
1985	390.2	-15.7	391.1	-14.3	.2	.9
1986	419.3	-13.9	409.4	-17.1	-2.4	-9.9
1987	383.2	-13.5	379.7	-16.2	-.9	-3.5
1988	374.6	-9.3	374.6	-7.6	.0	.0
1989	396.7	-17.2	397.5	-16.0	.2	.8
1990	374.6	-9.3	374.6	-7.6	.0	.0
1991	387.5	-2.7	384.5	2.3	-.8	-3.0
Mean:	417.6	-8.4	415.8	-8.4	-.4	-1.8
Median:	418.8	-9.3	411.3	-9.0	-.2	-1.0
Min:	347.8	-24.0	352.7	-19.5	-2.7	-11.3
Max:	447.2	8.0	444.5	9.1	1.7	6.5
X < 360.0	1		1			
X < 375.0	4		4			
X < 395.0	13		14			
X < 405.0	26		28			
X < 420.0	36		40			
X inc > 20.0		0		0		
X dec > 9.0		37		34		
X dec > 10.0		34		32		
X dec > 15.0		9		9		

FOLSOM RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	429.4	.0	429.4	.0	.0	.0
1923	422.5	-2.6	423.4	-6.5	.2	.9
1924	382.2	-4.1	379.1	-4.6	-.8	-3.1
1925	412.7	-1.9	408.8	-2.5	-.9	-3.9
1926	399.2	-1.9	396.2	-2.5	-.8	-3.0
1927	429.4	-15.1	429.4	-15.1	.0	.0
1928	406.2	.0	401.6	-3.3	-1.1	-4.6
1929	392.2	-1.9	384.6	-2.4	-1.9	-7.6
1930	410.5	.1	404.1	-1.9	-1.6	-6.4
1931	383.1	-3.7	380.9	-2.3	-.6	-2.2
1932	429.4	-15.1	427.7	-8.7	-.4	-1.7
1933	398.6	-1.3	389.6	-1.7	-2.3	-9.0
1934	380.5	-2.5	376.4	-1.6	-1.1	-4.1
1935	427.5	-8.6	427.5	-10.0	.0	.0
1936	429.4	-14.7	429.4	-15.1	.0	.0
1937	429.4	-15.1	429.4	-14.1	.0	.0
1938	429.4	-15.1	429.4	-15.1	.0	.0
1939	398.8	-1.7	391.1	-3.8	-1.9	-7.7
1940	406.2	-1.2	402.3	-2.6	-1.0	-3.9
1941	429.4	-15.1	429.4	-15.1	.0	.0
1942	429.4	-15.1	429.4	-15.1	.0	.0
1943	424.9	-3.9	417.9	-3.5	-1.6	-7.0
1944	385.0	-6.1	391.2	-6.4	1.6	6.2
1945	415.1	-6.4	407.6	-8.2	-1.8	-7.5
1946	411.6	-9.7	405.3	-11.6	-1.5	-6.3
1947	397.3	-7.2	399.2	-5.3	.5	1.9
1948	424.1	-8.5	421.2	-8.7	-.7	-2.9
1949	419.2	-3.9	414.2	-4.8	-1.2	-5.0
1950	429.4	-6.5	425.6	-8.5	-.9	-3.8
1951	412.1	-1.3	406.2	-3.4	-1.4	-5.9
1952	429.4	-15.1	429.4	-15.1	.0	.0
1953	429.4	-15.1	429.4	-15.1	.0	.0
1954	406.2	-4.8	403.8	-1.7	-.6	-2.4
1955	397.8	-.6	398.3	-2.7	.1	.5
1956	429.4	-15.1	429.4	-15.1	.0	.0
1957	425.7	-4.9	419.8	-6.1	-1.4	-5.9
1958	429.4	-15.1	429.4	-15.1	.0	.0
1959	398.6	-.9	397.4	-4.9	-.3	-1.2
1960	396.0	-6.1	394.9	-5.9	-.3	-1.1
1961	399.2	-4.7	398.4	-4.4	-.2	-.8
1962	399.2	-.9	399.0	-3.3	-.1	-.2
1963	429.4	-15.1	429.4	-15.1	.0	.0
1964	392.5	-2.0	392.9	-2.0	.1	.4
1965	429.4	-13.9	429.4	-7.7	.0	.0
1966	399.5	-2.6	396.9	-5.4	-.7	-2.6
1967	429.4	-15.1	429.4	-15.1	.0	.0
1968	411.9	-5.7	399.5	-6.8	-3.0	-12.4
1969	429.4	-15.1	429.4	-15.1	.0	.0
1970	406.3	.1	404.1	-2.1	-.5	-2.2
1971	429.4	-15.1	429.4	-15.1	.0	.0
1972	399.3	-.2	399.5	-2.8	.1	.2
1973	422.2	-1.6	415.3	-2.6	-1.6	-6.9
1974	429.4	-15.1	429.4	-15.1	.0	.0
1975	429.4	-15.1	429.4	-15.1	.0	.0
1976	375.5	.9	375.0	.4	-.1	-.5
1977	344.5	-3.3	349.7	-3.0	1.5	5.2
1978	429.4	-8.8	426.7	-6.3	-.6	-2.7
1979	414.7	-4.1	407.2	-5.6	-1.8	-7.5
1980	429.4	-15.1	429.4	-15.1	.0	.0
1981	400.3	-4.2	397.0	-5.6	-.8	-3.3
1982	429.4	-15.1	429.4	-15.1	.0	.0
1983	434.3	-12.9	429.5	-15.0	-1.1	-4.8
1984	423.1	-2.5	418.9	-4.5	-1.0	-4.2
1985	393.1	2.9	392.0	.9	-.3	-1.1
1986	419.8	.5	409.2	-.2	-2.5	-10.6
1987	381.7	-1.5	376.7	-3.0	-1.3	-5.0
1988	378.1	3.5	376.7	2.1	-.4	-1.4
1989	400.2	3.5	396.6	-.9	-.9	-3.6
1990	378.6	4.0	377.0	2.4	-.4	-1.6
1991	386.6	-.9	380.7	-3.8	-1.5	-5.9
Mean:	411.0	-6.3	408.6	-6.9	-.6	-2.4
Median:	412.7	-4.2	407.2	-5.4	-.4	-1.6
Min:	344.5	-15.1	349.7	-15.1	-3.0	-12.4
Max:	434.3	4.0	429.5	2.4	1.6	6.2
X < 360.0	1		1			
X < 375.0	1		1			
X < 395.0	13		16			
X < 405.0	26		32			
X < 420.0	39		43			
X inc > 20.0		0		0		
X dec > 9.0		22		21		
X dec > 10.0		21		20		
X dec > 15.0		18		17		

RETURN TO TABLE OF CONTENTS

Section 2

FOLSOM RESERVOIR ELEVATION
2.2 Recreation

FOLSOM RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	407.5	.0	405.5	.0	-.5	-2.0
1923	421.3	-8.1	419.9	-9.5	-.3	-1.4
1924	413.3	-9.2	412.7	-10.7	-.1	-.6
1925	379.1	-3.1	378.0	-1.1	-.3	-1.1
1926	403.0	-9.7	399.3	-9.5	-.9	-3.7
1927	393.2	-6.0	388.7	-7.5	-1.1	-4.5
1928	421.4	-8.0	419.6	-9.8	-.4	-1.8
1929	398.6	-7.6	393.5	-8.1	-1.3	-5.1
1930	383.8	-8.4	376.5	-8.1	-1.9	-7.3
1931	401.4	-9.1	394.9	-9.2	-1.6	-6.5
1932	378.8	-4.3	375.4	-5.5	-.9	-3.4
1933	420.2	-9.2	416.8	-10.9	-.8	-3.4
1934	392.5	-6.1	384.4	-5.2	-2.1	-8.1
1935	377.5	-3.0	378.2	1.8	.2	.7
1936	419.8	-7.7	418.3	-9.2	-.4	-1.5
1937	420.6	-8.8	418.8	-10.6	-.4	-1.8
1938	421.2	-8.2	419.7	-9.7	-.4	-1.5
1939	421.7	-7.7	420.1	-9.3	-.4	-1.6
1940	394.1	-4.7	387.0	-4.1	-1.8	-7.1
1941	400.1	-6.1	395.9	-6.4	-1.0	-4.2
1942	421.5	-7.9	419.7	-9.7	-.4	-1.8
1943	421.3	-8.1	419.6	-9.8	-.4	-1.7
1944	416.1	-8.8	406.7	-11.2	-2.3	-9.4
1945	380.0	-5.0	385.4	-5.8	1.4	5.4
1946	407.9	-7.2	402.5	-5.1	-1.3	-5.4
1947	403.9	-7.7	397.1	-8.2	-1.7	-6.8
1948	396.2	-1.1	397.3	-1.9	.3	1.1
1949	415.1	-9.0	409.9	-11.3	-1.3	-5.2
1950	409.4	-9.8	401.9	-12.3	-1.8	-7.5
1951	424.4	-5.0	419.0	-6.6	-1.3	-5.4
1952	407.0	-5.1	401.1	-5.1	-1.4	-5.9
1953	423.3	-6.1	421.6	-7.8	-.4	-1.7
1954	421.1	-8.3	419.3	-10.1	-.4	-1.8
1955	399.2	-7.0	395.1	-8.7	-1.0	-4.1
1956	390.9	-6.9	389.6	-8.7	-.3	-1.3
1957	423.1	-6.3	421.7	-7.7	-.3	-1.4
1958	418.0	-7.7	410.0	-9.8	-1.9	-8.0
1959	420.8	-8.6	418.9	-10.5	-.5	-1.9
1960	390.9	-7.7	387.9	-9.5	-.8	-3.0
1961	389.2	-6.8	386.9	-8.0	-.6	-2.3
1962	390.9	-8.3	388.5	-9.9	-.6	-2.4
1963	429.4	30.2	429.4	30.4	.0	.0
1964	422.3	-7.1	420.9	-8.5	-.3	-1.4
1965	387.0	-5.5	385.9	-7.0	-.3	-1.1
1966	422.0	-7.4	420.1	-9.3	-.5	-1.9
1967	392.6	-6.9	388.1	-8.8	-1.1	-4.5
1968	422.9	-6.5	421.1	-8.3	-.4	-1.8
1969	404.0	-7.9	394.0	-5.5	-2.5	-10.0
1970	423.3	-6.1	421.7	-7.7	-.4	-1.6
1971	399.2	-7.1	395.6	-8.5	-.9	-3.6
1972	421.1	-8.3	419.3	-10.1	-.4	-1.8
1973	395.8	-3.5	394.4	-5.1	-.4	-1.4
1974	415.3	-6.9	406.2	-9.1	-2.2	-9.1
1975	421.8	-7.6	420.3	-9.1	-.4	-1.5
1976	426.8	-2.6	425.5	-3.9	-.3	-1.3
1977	377.6	2.1	375.8	.8	-.5	-1.8
1978	345.9	1.4	348.6	-1.1	.8	2.7
1979	419.5	-9.9	414.9	-11.8	-1.1	-4.6
1980	407.1	-7.6	401.4	-5.8	-1.4	-5.7
1981	421.1	-8.3	419.3	-10.1	-.4	-1.8
1982	397.0	-3.3	392.6	-4.4	-1.1	-4.4
1983	429.4	.0	429.4	.0	.0	.0
1984	429.4	-4.9	429.4	-.1	.0	.0
1985	416.4	-6.7	411.0	-7.9	-1.3	-5.4
1986	387.6	-5.5	387.4	-4.6	-.1	-.2
1987	412.3	-7.5	400.6	-8.6	-2.8	-11.7
1988	372.3	-9.4	367.2	-9.5	-1.4	-5.1
1989	376.3	-1.8	376.7	.0	.1	.4
1990	398.0	-2.2	392.6	-4.0	-1.4	-5.4
1991	374.5	-4.1	374.2	-2.8	-.1	-.3
Mean:	405.5	-5.8	402.4	-6.6	-.8	-3.2
Median:	407.5	-7.1	401.4	-8.2	-.5	-1.9
Min:	345.9	-9.9	348.6	-12.3	-2.8	-11.7
Max:	429.4	30.2	429.4	30.4	1.4	5.4
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	24		12			
X > 412.0	33		27			
X > 405.0	38		33			
X > 395.0	50		44			
X > 375.0	67		67			
X > 360.0	69		69			

FOLSOM RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	397.3	.0	393.9	.0	-.9	-3.4
1923	417.7	-3.6	415.7	-4.2	-.5	-2.0
1924	402.6	-10.7	400.5	-12.2	-.5	-2.1
1925	380.0	.9	381.5	3.5	.4	1.5
1926	394.0	-9.0	390.9	-8.4	-.8	-3.1
1927	410.1	16.9	406.5	17.8	-.9	-3.6
1928	421.3	-.1	421.0	1.4	-.1	-.3
1929	390.4	-8.2	385.9	-7.6	-1.2	-4.5
1930	373.0	-10.8	366.3	-10.2	-1.8	-6.7
1931	394.6	-6.8	389.3	-5.6	-1.3	-5.3
1932	376.0	-2.8	372.3	-3.1	-1.0	-3.7
1933	411.1	-9.1	406.3	-10.5	-1.2	-4.8
1934	386.8	-5.7	379.6	-4.8	-1.9	-7.2
1935	382.9	5.4	388.5	10.3	1.5	5.6
1936	413.1	-6.7	410.3	-8.0	-.7	-2.8
1937	411.7	-8.9	408.5	-10.3	-.8	-3.2
1938	416.0	-5.2	413.6	-6.1	-.6	-2.4
1939	415.1	-6.6	412.3	-7.8	-.7	-2.8
1940	387.0	-7.1	380.8	-6.2	-1.6	-6.2
1941	397.9	-2.2	394.6	-1.3	-.8	-3.3
1942	416.3	-5.2	413.4	-6.3	-.7	-2.9
1943	421.3	.0	421.3	1.7	.0	.0
1944	408.1	-8.0	396.4	-10.3	-2.9	-11.7
1945	392.7	12.7	397.2	11.8	1.1	4.5
1946	413.4	5.5	411.4	8.9	-.5	-2.0
1947	405.4	1.5	400.0	2.9	-1.3	-5.4
1948	392.9	-3.3	393.3	-4.0	.1	.4
1949	407.5	-7.6	400.7	-9.2	-1.7	-6.8
1950	399.0	-10.4	389.1	-12.8	-2.5	-9.9
1951	398.9	-25.5	398.9	-20.1	.0	.0
1952	409.7	2.7	405.3	4.2	-1.1	-4.4
1953	417.7	-5.6	414.9	-6.7	-.7	-2.8
1954	417.6	-3.5	415.0	-4.3	-.6	-2.6
1955	392.2	-7.0	386.9	-8.2	-1.4	-5.3
1956	385.6	-5.3	383.5	-6.1	-.5	-2.1
1957	416.5	-6.6	413.6	-8.1	-.7	-2.9
1958	411.5	-6.5	401.7	-8.3	-2.4	-9.8
1959	414.0	-6.8	410.9	-8.0	-.7	-3.1
1960	382.0	-8.9	377.2	-10.7	-1.3	-4.8
1961	386.2	-3.0	383.5	-3.4	-.7	-2.7
1962	382.7	-8.2	379.0	-9.5	-1.0	-3.7
1963	421.3	-8.1	421.3	-8.1	.0	.0
1964	421.3	-1.0	421.3	.4	.0	.0
1965	389.8	2.8	388.3	2.4	-.4	-1.5
1966	420.9	-1.1	418.6	-1.5	-.5	-2.3
1967	395.5	2.9	391.0	2.9	-1.1	-4.5
1968	420.8	-2.1	418.0	-3.1	-.7	-2.8
1969	404.6	.6	398.4	4.4	-1.5	-6.2
1970	418.0	-5.3	415.3	-6.4	-.6	-2.7
1971	412.2	13.0	408.9	13.3	-.8	-3.3
1972	416.4	-4.7	413.6	-5.7	-.7	-2.8
1973	402.2	6.4	400.3	5.9	-.5	-1.9
1974	421.1	5.8	420.8	14.6	-.1	-.3
1975	413.3	-8.5	410.6	-9.7	-.7	-2.7
1976	421.3	-5.5	421.3	-4.2	.0	.0
1977	377.1	-.5	374.5	-1.3	-.7	-2.6
1978	350.7	4.8	351.2	2.6	.1	.5
1979	412.3	-7.2	406.1	-8.8	-1.5	-6.2
1980	402.8	-4.3	399.7	-1.7	-.8	-3.1
1981	414.0	-7.1	410.6	-8.7	-.8	-3.4
1982	419.2	22.2	418.8	26.2	-.1	-.4
1983	421.2	-8.2	421.2	-8.2	.0	.0
1984	400.9	-28.5	399.9	-29.5	-.2	-1.0
1985	421.3	4.9	420.1	9.1	-.3	-1.2
1986	389.6	2.0	391.5	4.1	.5	1.9
1987	403.6	-8.7	391.4	-9.2	-3.0	-12.2
1988	368.0	-4.3	363.4	-3.8	-1.3	-4.6
1989	388.2	11.9	391.1	14.4	.7	2.9
1990	397.3	-.7	390.7	-1.9	-1.7	-6.6
1991	369.6	-4.9	371.3	-2.9	.5	1.7
Mean:	402.3	-3.0	399.4	-2.8	-.7	-2.9
Median:	404.6	-4.9	400.0	-4.3	-.7	-2.8
Min:	350.7	-28.5	351.2	-29.5	-3.0	-12.2
Max:	421.3	22.2	421.3	26.2	1.5	5.6
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	10		8			
X > 412.0	27		20			
X > 405.0	35		31			
X > 395.0	47		42			
X > 375.0	66		64			
X > 360.0	69		69			

FOLSOM RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	400.3	.0	396.6	.0	-.9	-3.7
1923	421.3	3.6	421.3	5.6	.0	.0
1924	389.3	-13.3	385.8	-14.7	-.9	-3.5
1925	384.0	4.0	388.1	6.6	1.1	4.1
1926	383.8	-10.2	381.9	-9.0	-.5	-1.9
1927	418.2	8.1	414.2	7.7	-1.0	-4.0
1928	419.8	-1.5	418.8	-2.2	-.2	-1.0
1929	381.9	-8.5	378.4	-7.5	-.9	-3.5
1930	390.0	17.0	387.6	21.3	-.6	-2.4
1931	380.1	-14.5	375.5	-13.8	-1.2	-4.6
1932	393.1	17.1	390.3	18.0	-.7	-2.8
1933	400.0	-11.1	393.7	-12.6	-1.6	-6.3
1934	392.7	5.9	388.7	9.1	-1.0	-4.0
1935	385.3	2.4	395.2	6.7	2.6	9.9
1936	403.6	-9.5	399.7	-10.6	-1.0	-3.9
1937	401.1	-10.6	396.8	-11.7	-1.1	-4.3
1938	420.0	4.0	420.0	6.4	.0	.0
1939	406.7	-8.4	402.5	-9.8	-1.0	-4.2
1940	380.4	-6.6	376.0	-4.8	-1.2	-4.4
1941	419.6	21.7	418.3	23.7	-.3	-1.3
1942	421.3	5.0	421.3	7.9	.0	.0
1943	421.2	-.1	421.2	-.1	.0	.0
1944	396.9	-11.2	382.2	-14.2	-3.7	-14.7
1945	402.0	9.3	405.3	8.1	.8	3.3
1946	421.3	7.9	421.3	9.9	.0	.0
1947	403.5	-1.9	399.2	-.8	-1.1	-4.3
1948	385.8	-7.1	385.4	-7.9	-.1	-.4
1949	401.4	-6.1	393.5	-7.2	-2.0	-7.9
1950	385.0	-14.0	371.1	-18.0	-3.6	-13.9
1951	387.0	-11.9	387.2	-11.7	.1	.2
1952	421.3	11.6	421.3	16.0	.0	.0
1953	418.1	.4	415.1	.2	-.7	-3.0
1954	412.5	-5.1	408.9	-6.1	-.9	-3.6
1955	397.0	4.8	391.9	5.0	-1.3	-5.1
1956	418.1	32.5	418.1	34.6	.0	.0
1957	409.1	-7.4	405.0	-8.6	-1.0	-4.1
1958	410.3	-1.2	399.8	-1.9	-2.6	-10.5
1959	403.5	-10.5	398.8	-12.1	-1.2	-4.7
1960	371.9	-10.1	365.2	-12.0	-1.8	-6.7
1961	382.5	-3.7	378.5	-5.0	-1.0	-4.0
1962	379.3	-3.4	374.7	-4.3	-1.2	-4.6
1963	421.3	.0	421.3	.0	.0	.0
1964	412.1	-9.2	412.7	-8.6	.1	.6
1965	402.0	12.2	402.3	14.0	.1	.3
1966	417.5	-3.4	414.1	-4.5	-.8	-3.4
1967	420.0	24.5	415.9	24.9	-1.0	-4.1
1968	416.6	-4.2	413.0	-5.0	-.9	-3.6
1969	409.0	4.4	406.4	8.0	-.6	-2.6
1970	420.9	2.9	421.1	5.8	.0	.2
1971	421.3	9.1	421.3	12.4	.0	.0
1972	419.3	2.9	416.0	2.4	-.8	-3.3
1973	418.3	16.1	416.1	15.8	-.5	-2.2
1974	420.3	-.8	420.0	-.8	-.1	-.3
1975	408.2	-5.1	404.3	-6.3	-1.0	-3.9
1976	413.8	-7.5	412.9	-8.4	-.2	-.9
1977	370.4	-6.7	366.8	-7.7	-1.0	-3.6
1978	383.8	33.1	384.8	33.6	.3	1.0
1979	403.2	-9.1	395.0	-11.1	-2.0	-8.2
1980	400.4	-2.4	400.7	1.0	.1	.3
1981	406.0	-8.0	401.2	-9.4	-1.2	-4.8
1982	400.6	-18.6	399.4	-19.4	-.3	-1.2
1983	420.7	-.5	420.7	-.5	.0	.0
1984	392.7	-8.2	392.6	-7.3	.0	-.1
1985	421.3	.0	419.8	-.3	-.4	-1.5
1986	400.7	11.1	403.7	12.2	.7	3.0
1987	390.5	-13.1	376.5	-14.9	-3.6	-14.0
1988	378.2	10.2	378.3	14.9	.0	.1
1989	394.6	6.4	399.0	7.9	1.1	4.4
1990	392.0	-5.3	383.2	-7.5	-2.2	-8.8
1991	363.1	-6.5	367.5	-3.8	1.2	4.4
Mean:	402.3	-.1	399.7	.3	-.6	-2.5
Median:	402.0	-1.9	399.7	-1.9	-.7	-2.8
Min:	363.1	-18.6	365.2	-19.4	-3.7	-14.7
Max:	421.3	33.1	421.3	34.6	2.6	9.9
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	11		9			
X > 412.0	25		24			
X > 405.0	31		27			
X > 395.0	46		43			
X > 375.0	67		65			
X > 360.0	70		70			

FOLSOM RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	400.7	.0	395.6	.0	-1.3	-5.1
1923	421.3	.0	421.3	.0	.0	.0
1924	375.9	-13.4	370.1	-15.7	-1.5	-5.8
1925	376.4	-7.6	380.6	-7.5	1.1	4.2
1926	372.5	-11.3	371.6	-10.3	-.2	-.9
1927	421.3	3.1	421.1	6.9	.0	-.2
1928	415.5	-4.3	413.3	-5.5	-.5	-2.2
1929	373.1	-8.8	369.9	-8.5	-.9	-3.2
1930	396.1	6.1	393.0	5.4	-.8	-3.1
1931	371.6	-8.5	368.6	-6.9	-.8	-3.0
1932	399.3	6.2	398.4	8.1	-.2	-.9
1933	391.4	-8.6	383.6	-10.1	-2.0	-7.8
1934	398.3	5.6	395.9	7.2	-.6	-2.4
1935	395.5	10.2	401.6	6.4	1.5	6.1
1936	421.3	17.7	421.3	21.6	.0	.0
1937	393.2	-7.9	387.4	-9.4	-1.5	-5.8
1938	419.8	-.2	419.8	-.2	.0	.0
1939	397.0	-9.7	393.8	-8.7	-.8	-3.2
1940	421.1	40.7	420.9	44.9	.0	-.2
1941	421.3	1.7	421.3	3.0	.0	.0
1942	420.0	-1.3	420.3	-1.0	.1	.3
1943	419.2	-2.0	419.2	-2.0	.0	.0
1944	390.3	-6.6	372.6	-9.6	-4.5	-17.7
1945	399.8	-2.2	400.5	-4.8	.2	.7
1946	420.3	-1.0	420.3	-1.0	.0	.0
1947	392.3	-11.2	388.3	-10.9	-1.0	-4.0
1948	392.9	7.1	392.1	6.7	-.2	-.8
1949	393.2	-8.2	382.7	-10.8	-2.7	-10.5
1950	412.1	27.1	402.1	31.0	-2.4	-10.0
1951	390.7	3.7	390.9	3.7	.1	.2
1952	421.3	.0	421.3	.0	.0	.0
1953	421.1	3.0	421.2	6.1	.0	.1
1954	412.1	-.4	407.6	-1.3	-1.1	-4.5
1955	402.1	5.1	398.7	6.8	-.8	-3.4
1956	398.4	-19.7	398.4	-19.7	.0	.0
1957	401.1	-8.0	395.7	-9.3	-1.3	-5.4
1958	415.3	5.0	406.3	6.5	-2.2	-9.0
1959	406.4	2.9	403.3	4.5	-.8	-3.1
1960	372.1	.2	365.3	.1	-1.8	-6.8
1961	373.2	-9.3	368.4	-10.1	-1.3	-4.8
1962	375.4	-3.9	369.5	-5.2	-1.6	-5.9
1963	418.9	-2.4	419.0	-2.3	.0	.1
1964	412.1	.0	412.8	.1	.2	.7
1965	395.2	-6.8	394.9	-7.4	-.1	-.3
1966	415.0	-2.5	410.5	-3.6	-1.1	-4.5
1967	420.4	.4	419.9	4.0	-.1	-.5
1968	414.7	-1.9	409.9	-3.1	-1.2	-4.8
1969	418.9	9.9	418.9	12.5	.0	.0
1970	402.0	-18.9	402.3	-18.8	.1	.3
1971	421.3	.0	421.3	.0	.0	.0
1972	415.6	-3.7	411.0	-5.0	-1.1	-4.6
1973	420.2	1.9	420.0	3.9	.0	-.2
1974	413.7	-6.6	413.1	-6.9	-.1	-.6
1975	404.1	-4.1	399.0	-5.3	-1.3	-5.1
1976	400.7	-13.1	398.4	-14.5	-.6	-2.3
1977	367.1	-3.3	362.7	-4.1	-1.2	-4.4
1978	420.6	36.8	421.3	36.5	.2	.7
1979	408.4	5.2	402.0	7.0	-1.6	-6.4
1980	411.9	11.5	407.5	6.8	-1.1	-4.4
1981	402.1	-3.9	398.4	-2.8	-.9	-3.7
1982	398.2	-2.4	397.6	-1.8	-.2	-.6
1983	419.7	-1.0	419.7	-1.0	.0	.0
1984	393.5	.8	393.5	.9	.0	.0
1985	413.2	-8.1	410.8	-9.0	-.6	-2.4
1986	419.9	19.2	419.8	16.1	.0	-.1
1987	380.9	-9.6	365.6	-10.9	-4.0	-15.3
1988	394.3	16.1	396.1	17.8	.5	1.8
1989	388.7	-5.9	392.8	-6.2	1.1	4.1
1990	390.7	-1.3	383.9	.7	-1.7	-6.8
1991	354.2	-8.9	360.9	-6.6	1.9	6.7
Mean:	402.1	-.2	399.7	.0	-.6	-2.4
Median:	402.0	-1.3	399.0	-1.3	-.2	-.9
Min:	354.2	-19.7	360.9	-19.7	-4.5	-17.7
Max:	421.3	40.7	421.3	44.9	1.9	6.7
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	12		11			
X > 412.0	29		22			
X > 405.0	32		29			
X > 395.0	48		46			
X > 375.0	63		59			
X > 360.0	69		70			

FOLSOM RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	421.3	.0	421.3	.0	.0	.0
1923	418.4	-2.9	418.4	-2.9	.0	.0
1924	375.8	-.1	368.6	-1.5	-1.9	-7.2
1925	419.6	43.2	420.0	39.4	.1	.4
1926	399.8	27.3	399.6	28.0	-.1	-.2
1927	419.9	-1.4	419.6	-1.5	-.1	-.3
1928	417.5	2.0	414.3	1.0	-.8	-3.2
1929	378.8	5.7	374.2	4.3	-1.2	-4.6
1930	398.6	2.5	394.9	1.9	-.9	-3.7
1931	368.9	-2.7	366.6	-2.0	-.6	-2.3
1932	421.3	22.0	421.3	22.9	.0	.0
1933	384.7	-6.7	376.1	-7.5	-2.2	-8.6
1934	403.0	4.7	400.0	4.1	-.7	-3.0
1935	400.5	5.0	405.8	4.2	1.3	5.3
1936	421.3	.0	421.2	-.1	.0	-.1
1937	421.1	27.9	417.4	30.0	-.9	-3.7
1938	419.5	-.3	419.5	-.3	.0	.0
1939	391.2	-5.8	386.5	-7.3	-1.2	-4.7
1940	419.6	-1.5	419.6	-1.3	.0	.0
1941	421.3	.0	421.3	.0	.0	.0
1942	419.0	-1.0	419.2	-1.1	.0	.2
1943	418.0	-1.2	418.0	-1.2	.0	.0
1944	397.6	7.3	381.7	9.1	-4.0	-15.9
1945	420.3	20.5	420.3	19.8	.0	.0
1946	418.4	-1.9	418.4	-1.9	.0	.0
1947	398.4	6.1	395.5	7.2	-.7	-2.9
1948	384.9	-8.0	385.7	-6.4	.2	.8
1949	390.1	-3.1	381.7	-1.0	-2.2	-8.4
1950	421.3	9.2	421.3	19.2	.0	.0
1951	392.6	1.9	392.7	1.8	.0	.1
1952	421.3	.0	421.3	.0	.0	.0
1953	420.4	-.7	420.6	-.6	.0	.2
1954	421.3	9.2	416.6	9.0	-1.1	-4.7
1955	400.0	-2.1	395.7	-3.0	-1.1	-4.3
1956	397.6	-.8	397.6	-.8	.0	.0
1957	418.5	17.4	413.3	17.6	-1.2	-5.2
1958	420.3	5.0	420.3	14.0	.0	.0
1959	415.5	9.1	411.8	8.5	-.9	-3.7
1960	411.5	39.4	407.9	42.6	-.9	-3.6
1961	379.2	6.0	375.2	6.8	-1.1	-4.0
1962	421.3	45.9	417.7	48.2	-.9	-3.6
1963	409.2	-9.7	409.4	-9.6	.0	.2
1964	409.6	-2.5	409.8	-3.0	.0	.2
1965	395.0	-.2	394.7	-.2	-.1	-.3
1966	414.6	-.4	409.0	-1.5	-1.4	-5.6
1967	419.1	-1.3	418.8	-1.1	-.1	-.3
1968	419.4	4.7	419.4	9.5	.0	.0
1969	417.2	-1.7	417.1	-1.8	.0	-.1
1970	398.2	-3.8	398.2	-4.1	.0	.0
1971	420.4	-.9	420.5	-.8	.0	.1
1972	421.3	5.7	417.4	6.4	-.9	-3.9
1973	419.7	-.5	419.6	-.4	.0	-.1
1974	413.1	-.6	413.7	.6	.1	.6
1975	419.8	15.7	414.9	15.9	-1.2	-4.9
1976	393.2	-7.5	389.4	-9.0	-1.0	-3.8
1977	363.9	-3.2	358.8	-3.9	-1.4	-5.1
1978	419.9	-.7	421.3	.0	.3	1.4
1979	419.6	11.2	412.8	10.8	-1.6	-6.8
1980	397.9	-14.0	395.7	-11.8	-.6	-2.2
1981	401.8	-.3	396.8	-1.6	-1.2	-5.0
1982	389.8	-8.4	390.2	-7.4	.1	.4
1983	418.4	-1.3	418.4	-1.3	.0	.0
1984	394.1	.6	394.0	.5	.0	-.1
1985	415.2	2.0	412.3	1.5	-.7	-2.9
1986	397.5	-22.4	397.1	-22.7	-.1	-.4
1987	385.6	4.7	372.4	6.8	-3.4	-13.2
1988	388.1	-6.2	389.4	-6.7	.3	1.3
1989	388.4	-.3	389.7	-3.1	.3	1.3
1990	389.9	-.8	381.7	-2.2	-2.1	-8.2
1991	348.6	-5.6	357.2	-3.7	2.5	8.6
Mean:	405.7	3.3	403.7	3.6	-.5	-2.0
Median:	413.1	-.3	409.8	-.3	-.1	-.2
Min:	348.6	-22.4	357.2	-22.7	-4.0	-15.9
Max:	421.3	45.9	421.3	48.2	2.5	8.6
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	14		11			
X > 412.0	36		34			
X > 405.0	39		40			
X > 395.0	51		49			
X > 375.0	67		64			
X > 360.0	69		68			

FOLSOM RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	424.6	.0	423.6	.0	-.2	-1.0
1923	419.2	.8	418.4	.0	-.2	-.8
1924	366.8	-9.0	359.6	-9.0	-2.0	-7.2
1925	423.0	3.4	423.0	3.0	.0	.0
1926	400.8	1.0	401.6	2.0	.2	.8
1927	430.8	10.9	430.7	11.1	.0	-.1
1928	429.1	11.6	428.7	14.4	-.1	-.4
1929	386.0	7.2	380.8	6.6	-1.3	-5.2
1930	418.1	19.5	414.4	19.5	-.9	-3.7
1931	376.3	7.4	376.3	9.7	.0	.0
1932	428.4	7.1	427.4	6.1	-.2	-1.0
1933	386.6	1.9	380.1	4.0	-1.7	-6.5
1934	410.8	7.8	407.6	7.6	-.8	-3.2
1935	401.1	.6	405.0	-.8	1.0	3.9
1936	431.5	10.2	431.5	10.3	.0	.0
1937	432.0	10.9	432.0	14.6	.0	.0
1938	431.5	12.0	431.5	12.0	.0	.0
1939	402.8	11.6	398.2	11.7	-1.1	-4.6
1940	426.0	6.4	426.9	7.3	.2	.9
1941	431.8	10.5	431.8	10.5	.0	.0
1942	416.3	-2.7	415.4	-3.8	-.2	-.9
1943	426.3	8.3	426.5	8.5	.0	.2
1944	408.5	10.9	396.3	14.6	-3.0	-12.2
1945	427.0	6.7	426.0	5.7	-.2	-1.0
1946	430.8	12.4	430.1	11.7	-.2	-.7
1947	414.7	16.3	413.5	18.0	-.3	-1.2
1948	380.3	-4.6	379.2	-6.5	-.3	-1.1
1949	413.7	23.6	406.4	24.7	-1.8	-7.3
1950	430.7	9.4	431.6	10.3	.2	.9
1951	422.6	30.0	422.6	29.9	.0	.0
1952	432.0	10.7	432.0	10.7	.0	.0
1953	420.1	-.3	419.3	-1.3	-.2	-.8
1954	431.6	10.3	431.6	15.0	.0	.0
1955	399.8	-.2	394.3	-1.4	-1.4	-5.5
1956	411.5	13.9	410.0	12.4	-.4	-1.5
1957	431.0	12.5	431.0	17.7	.0	.0
1958	431.7	11.4	431.7	11.4	.0	.0
1959	419.9	4.4	415.7	3.9	-1.0	-4.2
1960	431.5	20.0	430.3	22.4	-.3	-1.2
1961	386.6	7.4	385.1	9.9	-.4	-1.5
1962	428.9	7.6	424.9	7.2	-.9	-4.0
1963	411.7	2.5	410.8	1.4	-.2	-.9
1964	406.4	-3.2	405.9	-3.9	-.1	-.5
1965	407.1	12.1	405.5	10.8	-.4	-1.6
1966	420.3	5.7	414.0	5.0	-1.5	-6.3
1967	429.1	10.0	429.1	10.3	.0	.0
1968	429.9	10.5	417.0	-2.4	-3.0	-12.9
1969	424.6	7.4	423.5	6.4	-.3	-1.1
1970	422.7	24.5	423.5	25.3	.2	.8
1971	430.5	10.1	430.5	10.0	.0	.0
1972	430.1	8.8	430.1	12.7	.0	.0
1973	431.6	11.9	431.6	12.0	.0	.0
1974	424.7	11.6	424.9	11.2	.0	.2
1975	432.0	12.2	432.0	17.1	.0	.0
1976	390.8	-2.4	387.0	-2.4	-1.0	-3.8
1977	363.2	-.7	359.0	.2	-1.2	-4.2
1978	430.7	10.8	430.7	9.4	.0	.0
1979	431.8	12.2	428.9	16.1	-.7	-2.9
1980	424.6	26.7	423.7	28.0	-.2	-.9
1981	414.0	12.2	410.3	13.5	-.9	-3.7
1982	422.0	32.2	422.0	31.8	.0	.0
1983	427.7	9.3	427.5	9.1	.0	-.2
1984	422.1	28.0	422.8	28.8	.2	.7
1985	418.6	3.4	416.8	4.5	-.4	-1.8
1986	421.6	24.1	421.6	24.5	.0	.0
1987	399.3	13.7	389.9	17.5	-2.4	-9.4
1988	386.8	-1.3	388.0	-1.4	.3	1.2
1989	428.4	40.0	430.8	41.1	.6	2.4
1990	402.1	12.2	394.6	12.9	-1.9	-7.5
1991	380.5	31.9	385.4	28.2	1.3	4.9
Mean:	416.0	10.2	414.3	10.6	-.4	-1.7
Median:	422.1	10.2	422.0	10.3	-.2	-.8
Min:	363.2	-9.0	359.0	-9.0	-3.0	-12.9
Max:	432.0	40.0	432.0	41.1	1.3	4.9
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	40		37			
X > 412.0	48		46			
X > 405.0	54		53			
X > 395.0	60		57			
X > 375.0	68		68			
X > 360.0	70		68			

FOLSOM RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	438.5	.0	436.1	.0	-.5	-2.4
1923	444.5	25.3	444.4	26.0	.0	-.1
1924	374.9	8.1	369.2	9.6	-1.5	-5.7
1925	444.5	21.5	444.5	21.5	.0	.0
1926	429.0	28.2	428.9	27.3	.0	-.1
1927	444.5	13.7	444.5	13.8	.0	.0
1928	444.5	15.4	444.5	15.8	.0	.0
1929	395.3	9.3	394.0	13.2	-.3	-1.3
1930	427.1	9.0	424.1	9.7	-.7	-3.0
1931	384.8	8.5	384.5	8.2	-.1	-.3
1932	434.8	6.4	434.2	6.8	-.1	-.6
1933	393.5	6.9	388.1	8.0	-1.4	-5.4
1934	399.5	-11.3	399.5	-8.1	.0	.0
1935	444.5	43.4	444.5	39.5	.0	.0
1936	444.5	13.0	444.5	13.0	.0	.0
1937	444.5	12.5	444.5	12.5	.0	.0
1938	444.5	13.0	444.5	13.0	.0	.0
1939	414.1	11.3	412.5	14.3	-.4	-1.6
1940	444.5	18.5	444.5	17.6	.0	.0
1941	444.5	12.7	444.5	12.7	.0	.0
1942	441.0	24.7	438.9	23.5	-.5	-2.1
1943	444.5	18.2	444.5	18.0	.0	.0
1944	411.6	3.1	401.1	4.8	-2.6	-10.5
1945	438.8	11.8	436.4	10.4	-.5	-2.4
1946	444.5	13.7	444.5	14.4	.0	.0
1947	421.1	6.4	419.0	5.5	-.5	-2.1
1948	419.9	39.6	417.9	38.7	-.5	-2.0
1949	434.9	21.2	427.1	20.7	-1.8	-7.8
1950	444.5	13.8	444.5	12.9	.0	.0
1951	444.5	21.9	444.5	21.9	.0	.0
1952	444.5	12.5	444.5	12.5	.0	.0
1953	433.6	13.5	433.1	13.8	-.1	-.5
1954	444.5	12.9	444.5	12.9	.0	.0
1955	407.2	7.4	401.6	7.3	-1.4	-5.6
1956	426.2	14.7	423.4	13.4	-.7	-2.8
1957	433.4	2.4	432.0	1.0	-.3	-1.4
1958	444.5	12.8	444.5	12.8	.0	.0
1959	424.2	4.3	420.6	4.9	-.8	-3.6
1960	440.2	8.7	438.1	7.8	-.5	-2.1
1961	402.1	15.5	399.8	14.7	-.6	-2.3
1962	444.5	15.6	444.5	19.6	.0	.0
1963	444.5	32.8	444.5	33.7	.0	.0
1964	413.8	7.4	412.0	6.1	-.4	-1.8
1965	444.5	37.4	444.5	39.0	.0	.0
1966	435.4	15.1	428.6	14.6	-1.6	-6.8
1967	442.0	12.9	440.8	11.7	-.3	-1.2
1968	434.5	4.6	420.7	3.7	-3.2	-13.8
1969	444.5	19.9	444.5	21.0	.0	.0
1970	428.1	5.4	429.2	5.7	.3	1.1
1971	440.2	9.7	440.2	9.7	.0	.0
1972	436.9	6.8	435.8	5.7	-.3	-1.1
1973	444.4	12.8	442.8	11.2	-.4	-1.6
1974	444.5	19.8	444.5	19.6	.0	.0
1975	434.6	2.6	433.0	1.0	-.4	-1.6
1976	398.2	7.4	394.5	7.5	-.9	-3.7
1977	363.6	.4	361.2	2.2	-.7	-2.4
1978	444.5	13.8	444.5	13.8	.0	.0
1979	440.7	8.9	436.3	7.4	-1.0	-4.4
1980	443.1	18.5	442.3	18.6	-.2	-.8
1981	420.7	6.7	418.0	7.7	-.6	-2.7
1982	444.5	22.5	444.5	22.5	.0	.0
1983	444.5	16.8	444.5	17.0	.0	.0
1984	437.2	15.1	436.8	14.0	-.1	-.4
1985	434.7	16.1	433.5	16.7	-.3	-1.2
1986	444.3	22.7	442.9	21.3	-.3	-1.4
1987	411.4	12.1	402.6	12.7	-2.1	-8.8
1988	397.1	10.3	398.2	10.2	.3	1.1
1989	444.5	16.1	444.5	13.7	.0	.0
1990	400.4	-1.7	399.5	4.9	-.2	-.9
1991	396.2	15.7	398.7	13.3	.6	2.5
Mean:	429.7	13.6	428.1	13.6	-.4	-1.7
Median:	438.5	12.9	436.3	12.9	-.1	-.6
Min:	363.6	-11.3	361.2	-8.1	-3.2	-13.8
Max:	444.5	43.4	444.5	39.5	.6	2.5
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	39		38			
X > 420.0	53		51			
X > 412.0	56		55			
X > 405.0	59		56			
X > 395.0	66		64			
X > 375.0	68		68			
X > 360.0	70		70			

FOLSOM RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	460.7	16.2	460.7	16.3	.0	.0
1924	381.2	6.3	377.4	8.2	-1.0	-3.8
1925	460.7	16.2	460.7	16.2	.0	.0
1926	422.5	-6.5	421.0	-7.9	-.4	-1.5
1927	460.7	16.2	460.7	16.2	.0	.0
1928	453.0	8.5	451.0	6.5	-.4	-2.0
1929	400.0	4.7	399.1	5.1	-.2	-.9
1930	424.1	-3.0	421.4	-2.7	-.6	-2.7
1931	393.9	9.1	392.9	8.4	-.3	-1.0
1932	452.2	17.4	450.4	16.2	-.4	-1.8
1933	399.4	5.9	392.6	4.5	-1.7	-6.8
1934	402.6	3.1	401.8	2.3	-.2	-.8
1935	459.7	15.2	456.4	11.9	-.7	-3.3
1936	459.1	14.6	457.2	12.7	-.4	-1.9
1937	460.7	16.2	460.7	16.2	.0	.0
1938	460.7	16.2	460.7	16.2	.0	.0
1939	410.8	-3.3	407.7	-4.8	-.8	-3.1
1940	458.1	13.6	457.0	12.5	-.2	-1.1
1941	460.7	16.2	460.7	16.2	.0	.0
1942	460.7	19.7	460.7	21.8	.0	.0
1943	454.3	9.8	452.2	7.7	-.5	-2.1
1944	419.8	8.2	410.4	9.3	-2.2	-9.4
1945	456.1	17.3	452.1	15.7	-.9	-4.0
1946	460.7	16.2	459.0	14.5	-.4	-1.7
1947	416.5	-4.6	414.0	-5.0	-.6	-2.5
1948	440.1	20.2	436.4	18.5	-.8	-3.7
1949	449.7	14.8	442.0	14.9	-1.7	-7.7
1950	460.4	15.9	458.5	14.0	-.4	-1.9
1951	460.2	15.7	459.8	15.3	-.1	-.4
1952	460.7	16.2	460.7	16.2	.0	.0
1953	444.0	10.4	441.4	8.3	-.6	-2.6
1954	449.2	4.7	447.9	3.4	-.3	-1.3
1955	417.8	10.6	413.2	11.6	-1.1	-4.6
1956	458.5	32.3	454.5	31.1	-.9	-4.0
1957	453.4	20.0	452.1	20.1	-.3	-1.3
1958	460.7	16.2	460.7	16.2	.0	.0
1959	417.6	-6.6	414.2	-6.4	-.8	-3.4
1960	439.4	-.8	436.0	-2.1	-.8	-3.4
1961	408.9	6.8	405.4	5.6	-.9	-3.5
1962	450.6	6.1	448.6	4.1	-.4	-2.0
1963	460.7	16.2	460.7	16.2	.0	.0
1964	421.1	7.3	418.1	6.1	-.7	-3.0
1965	459.1	14.6	458.6	14.1	-.1	-.5
1966	432.1	-3.3	423.4	-5.2	-2.0	-8.7
1967	460.7	18.7	460.7	19.9	.0	.0
1968	431.2	-3.3	415.3	-5.4	-3.7	-15.9
1969	460.7	16.2	460.7	16.2	.0	.0
1970	434.9	6.8	436.0	6.8	.3	1.1
1971	454.8	14.6	452.8	12.6	-.4	-2.0
1972	443.5	6.6	442.4	6.6	-.2	-1.1
1973	460.7	16.3	460.7	17.9	.0	.0
1974	460.7	16.2	460.7	16.2	.0	.0
1975	459.6	25.0	456.3	23.3	-.7	-3.3
1976	402.3	4.1	402.6	8.1	.1	.3
1977	365.4	1.8	364.2	3.0	-.3	-1.2
1978	460.7	16.2	458.9	14.4	-.4	-1.8
1979	460.7	20.0	457.8	21.5	-.6	-2.9
1980	454.6	11.5	453.0	10.7	-.4	-1.6
1981	416.2	-4.5	413.6	-4.4	-.6	-2.6
1982	460.7	16.2	460.7	16.2	.0	.0
1983	460.7	16.2	460.7	16.2	.0	.0
1984	451.6	14.4	451.4	14.6	.0	-.2
1985	431.7	-3.0	430.6	-2.9	-.3	-1.1
1986	454.4	10.1	451.1	8.2	-.7	-3.3
1987	408.3	-3.1	405.0	2.4	-.8	-3.3
1988	401.2	4.1	401.5	3.3	.1	.3
1989	446.7	2.2	446.5	2.0	.0	-.2
1990	396.9	-3.5	396.9	-2.6	.0	.0
1991	403.7	7.5	404.2	5.5	.1	.5
Mean:	439.9	9.9	437.9	9.5	-.5	-2.0
Median:	452.2	10.6	451.0	10.7	-.4	-1.5
Min:	365.4	-6.6	364.2	-7.9	-3.7	-15.9
Max:	460.7	32.3	460.7	31.1	.3	1.1

X > 466.0	0	0
X > 455.0	29	27
X > 435.0	45	46
X > 420.0	52	50
X > 412.0	57	56
X > 405.0	60	59
X > 395.0	67	66
X > 375.0	69	69
X > 360.0	70	70

FOLSOM RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	450.4	-10.3	448.9	-11.8	-.3	-1.5
1924	384.3	3.1	381.4	4.0	-.8	-2.9
1925	441.6	-19.1	438.6	-22.1	-.7	-3.0
1926	414.0	-8.5	413.3	-7.7	-.2	-.7
1927	460.7	.0	460.7	.0	.0	.0
1928	424.1	-28.9	423.0	-28.0	-.3	-1.1
1929	394.5	-5.5	390.6	-8.5	-1.0	-3.9
1930	418.4	-5.7	415.4	-6.0	-.7	-3.0
1931	394.1	.2	392.8	-.1	-.3	-1.3
1932	451.3	-.9	446.9	-3.5	-1.0	-4.4
1933	402.2	2.8	393.8	1.2	-2.1	-8.4
1934	392.1	-10.5	390.6	-11.2	-.4	-1.5
1935	460.7	1.0	458.1	1.7	-.6	-2.6
1936	460.7	1.6	460.7	3.5	.0	.0
1937	454.7	-6.0	453.0	-7.7	-.4	-1.7
1938	460.7	.0	460.7	.0	.0	.0
1939	409.1	-1.7	407.7	.0	-.3	-1.4
1940	450.0	-8.1	447.5	-9.5	-.6	-2.5
1941	458.0	-2.7	457.1	-3.6	-.2	-.9
1942	460.7	.0	460.7	.0	.0	.0
1943	453.2	-1.1	448.8	-3.4	-1.0	-4.4
1944	416.8	-3.0	408.7	-1.7	-1.9	-8.1
1945	437.7	-18.4	431.8	-20.3	-1.3	-5.9
1946	436.6	-24.1	433.0	-26.0	-.8	-3.6
1947	412.3	-4.2	409.6	-4.4	-.7	-2.7
1948	449.9	9.8	445.0	8.6	-1.1	-4.9
1949	442.2	-7.5	434.8	-7.2	-1.7	-7.4
1950	460.7	.3	458.6	.1	-.5	-2.1
1951	452.9	-7.3	450.0	-9.8	-.6	-2.9
1952	460.7	.0	460.7	.0	.0	.0
1953	457.5	13.5	454.1	12.7	-.7	-3.4
1954	439.8	-9.4	438.8	-9.1	-.2	-1.0
1955	415.6	-2.2	410.9	-2.3	-1.1	-4.7
1956	460.7	2.2	460.7	6.2	.0	.0
1957	448.6	-4.8	447.5	-4.6	-.2	-1.1
1958	460.7	.0	460.7	.0	.0	.0
1959	413.8	-3.8	410.2	-4.0	-.9	-3.6
1960	433.1	-6.3	427.8	-8.2	-1.2	-5.3
1961	412.4	3.5	409.1	3.7	-.8	-3.3
1962	447.9	-2.7	443.2	-5.4	-1.0	-4.7
1963	460.1	-.6	457.8	-2.9	-.5	-2.3
1964	418.9	-2.2	415.7	-2.4	-.8	-3.2
1965	459.7	.6	456.8	-1.8	-.6	-2.9
1966	423.1	-9.0	415.1	-8.3	-1.9	-8.0
1967	460.7	.0	460.7	.0	.0	.0
1968	422.4	-8.8	408.4	-6.9	-3.3	-14.0
1969	460.7	.0	460.7	.0	.0	.0
1970	426.1	-8.8	425.8	-10.2	-.1	-.3
1971	460.7	5.9	458.0	5.2	-.6	-2.7
1972	424.1	-19.4	421.8	-20.6	-.5	-2.3
1973	440.5	-20.2	439.7	-21.0	-.2	-.8
1974	460.7	.0	460.7	.0	.0	.0
1975	460.7	1.1	460.7	4.4	.0	.0
1976	392.1	-10.2	390.6	-12.0	-.4	-1.5
1977	361.3	-4.1	362.0	-2.2	.2	.7
1978	460.7	.0	458.5	-.4	-.5	-2.2
1979	433.6	-27.1	427.5	-30.3	-1.4	-6.1
1980	453.1	-1.5	450.5	-2.5	-.6	-2.6
1981	410.0	-6.2	409.1	-4.5	-.2	-.9
1982	460.7	.0	460.7	.0	.0	.0
1983	460.7	.0	460.7	.0	.0	.0
1984	438.5	-13.1	437.3	-14.1	-.3	-1.2
1985	418.1	-13.6	417.6	-13.0	-.1	-.5
1986	454.1	-.3	450.0	-1.1	-.9	-4.1
1987	408.4	.1	403.7	-1.3	-1.2	-4.7
1988	392.1	-9.1	390.6	-10.9	-.4	-1.5
1989	431.7	-15.0	430.4	-16.1	-.3	-1.3
1990	392.1	-4.8	390.6	-6.3	-.4	-1.5
1991	397.9	-5.8	395.2	-9.0	-.7	-2.7
Mean:	435.1	-4.8	432.6	-5.3	-.6	-2.5
Median:	440.5	-2.7	438.6	-3.5	-.5	-2.2
Min:	361.3	-28.9	362.0	-30.3	-3.3	-14.0
Max:	460.7	13.5	460.7	12.7	.2	.7

X > 466.0	0	0
X > 455.0	22	21
X > 435.0	40	37
X > 420.0	48	46
X > 412.0	57	51
X > 405.0	60	59
X > 395.0	62	61
X > 375.0	69	69
X > 360.0	70	70

FOLSOM RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	452.1	.0	454.8	.0	.6	2.7
1923	430.7	-19.7	438.5	-10.4	1.8	7.8
1924	383.9	-.4	382.2	.8	-.4	-1.7
1925	428.6	-13.0	425.3	-13.3	-.8	-3.3
1926	398.5	-15.5	398.8	-14.5	.1	.3
1927	456.4	-4.3	454.7	-6.0	-.4	-1.7
1928	419.2	-4.9	414.7	-8.3	-1.1	-4.5
1929	386.7	-7.8	382.2	-8.4	-1.2	-4.5
1930	405.4	-13.0	403.2	-12.2	-.5	-2.2
1931	383.9	-10.2	382.2	-10.6	-.4	-1.7
1932	448.0	-3.3	439.8	-7.1	-1.8	-8.2
1933	391.9	-10.3	382.2	-11.6	-2.5	-9.7
1934	383.9	-8.2	382.2	-8.4	-.4	-1.7
1935	444.6	-16.1	448.2	-9.9	.8	3.6
1936	451.8	-8.9	457.6	-3.1	1.3	5.8
1937	450.8	-3.9	447.8	-5.2	-.7	-3.0
1938	458.4	-2.3	458.4	-2.3	.0	.0
1939	399.0	-10.1	395.9	-11.8	-.8	-3.1
1940	424.1	-25.9	423.0	-24.5	-.3	-1.1
1941	458.4	.4	455.5	-1.6	-.6	-2.9
1942	458.4	-2.3	458.4	-2.3	.0	.0
1943	433.7	-19.5	428.6	-20.2	-1.2	-5.1
1944	410.4	-6.4	407.9	-.8	-.6	-2.5
1945	424.1	-13.6	421.8	-10.0	-.5	-2.3
1946	424.1	-12.5	421.8	-11.2	-.5	-2.3
1947	402.9	-9.4	402.8	-6.8	.0	-.1
1948	441.5	-8.4	441.5	-3.5	.0	.0
1949	428.9	-13.3	426.9	-7.9	-.5	-2.0
1950	443.7	-17.0	443.1	-15.5	-.1	-.6
1951	424.3	-28.6	423.0	-27.0	-.3	-1.3
1952	458.4	-2.3	458.4	-2.3	.0	.0
1953	458.4	.9	458.4	4.3	.0	.0
1954	424.1	-15.7	423.0	-15.8	-.3	-1.1
1955	412.1	-3.5	407.4	-3.5	-1.1	-4.7
1956	458.4	-2.3	458.4	-2.3	.0	.0
1957	430.6	-18.0	427.9	-19.6	-.6	-2.7
1958	458.4	-2.3	458.4	-2.3	.0	.0
1959	412.9	-.9	408.9	-1.3	-1.0	-4.0
1960	417.5	-15.6	417.0	-10.8	-.1	-.5
1961	412.3	-.1	406.9	-2.2	-1.3	-5.4
1962	424.1	-23.8	421.8	-21.4	-.5	-2.3
1963	458.4	-1.7	454.0	-3.8	-1.0	-4.4
1964	409.8	-9.1	410.2	-5.5	.1	.4
1965	442.6	-17.1	437.6	-19.2	-1.1	-5.0
1966	416.1	-7.0	411.0	-4.1	-1.2	-5.1
1967	458.4	-2.3	458.4	-2.3	.0	.0
1968	415.8	-6.6	404.5	-3.9	-2.7	-11.3
1969	458.4	-2.3	458.4	-2.3	.0	.0
1970	424.1	-2.0	424.1	-1.7	.0	.0
1971	458.4	-2.3	458.4	.4	.0	.0
1972	421.4	-2.7	417.0	-4.8	-1.0	-4.4
1973	424.1	-16.4	423.0	-16.7	-.3	-1.1
1974	458.4	-2.3	458.4	-2.3	.0	.0
1975	458.4	-2.3	458.4	-2.3	.0	.0
1976	383.9	-8.2	382.2	-8.4	-.4	-1.7
1977	353.5	-7.8	356.5	-5.5	.8	3.0
1978	438.8	-21.9	437.1	-21.4	-.4	-1.7
1979	424.1	-9.5	421.8	-5.7	-.5	-2.3
1980	447.7	-5.4	447.9	-2.6	.0	.2
1981	410.8	.8	407.9	-1.2	-.7	-2.9
1982	458.4	-2.3	458.4	-2.3	.0	.0
1983	459.0	-1.7	458.4	-2.3	-.1	-.6
1984	424.1	-14.4	424.1	-13.2	.0	.0
1985	405.9	-12.2	405.4	-12.2	-.1	-.5
1986	433.2	-20.9	426.5	-23.5	-1.5	-6.7
1987	396.7	-11.7	395.9	-7.8	-.2	-.8
1988	383.9	-8.2	382.2	-8.4	-.4	-1.7
1989	413.9	-17.8	413.5	-16.9	-.1	-.4
1990	383.9	-8.2	382.2	-8.4	-.4	-1.7
1991	390.2	-7.7	382.2	-13.0	-2.1	-8.0
Mean:	426.1	-8.9	424.4	-8.2	-.4	-1.8
Median:	424.1	-8.2	423.0	-7.1	-.4	-1.7
Min:	353.5	-28.6	356.5	-27.0	-2.7	-11.3
Max:	459.0	.9	458.4	4.3	1.8	7.8

X > 466.0	0	0
X > 455.0	16	15
X > 435.0	26	27
X > 420.0	43	42
X > 412.0	51	46
X > 405.0	56	54
X > 395.0	60	60
X > 375.0	69	69
X > 360.0	69	69

FOLSOM RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	444.5	.0	444.5	.0	.0	.0
1923	425.1	-5.6	429.9	-8.6	1.1	4.8
1924	386.3	2.4	383.7	1.5	-.7	-2.6
1925	414.6	-14.0	411.3	-14.0	-.8	-3.3
1926	401.1	2.6	398.7	-.1	-.6	-2.4
1927	444.5	-11.9	444.5	-10.2	.0	.0
1928	406.2	-13.0	404.9	-9.8	-.3	-1.3
1929	394.1	7.4	387.0	4.8	-1.8	-7.1
1930	410.4	5.0	406.0	2.8	-1.1	-4.4
1931	386.8	2.9	383.2	1.0	-.9	-3.6
1932	444.5	-3.5	436.4	-3.4	-1.8	-8.1
1933	399.9	8.0	391.3	9.1	-2.2	-8.6
1934	383.0	-.9	378.0	-4.2	-1.3	-5.0
1935	436.1	-8.5	437.5	-10.7	.3	1.4
1936	444.1	-7.7	444.5	-13.1	.1	.4
1937	444.5	-6.3	443.5	-4.3	-.2	-1.0
1938	444.5	-13.9	444.5	-13.9	.0	.0
1939	400.5	1.5	394.9	-1.0	-1.4	-5.6
1940	407.4	-16.7	404.9	-18.1	-.6	-2.5
1941	444.5	-13.9	444.5	-11.0	.0	.0
1942	444.5	-13.9	444.5	-13.9	.0	.0
1943	428.8	-4.9	421.4	-7.2	-1.7	-7.4
1944	391.1	-19.3	397.6	-10.3	1.7	6.5
1945	421.5	-2.6	415.8	-6.0	-1.4	-5.7
1946	421.3	-2.8	416.9	-4.9	-1.0	-4.4
1947	404.5	1.6	404.5	1.7	.0	.0
1948	432.6	-8.9	429.9	-11.6	-.6	-2.7
1949	423.1	-5.8	419.0	-7.9	-1.0	-4.1
1950	435.9	-7.8	434.1	-9.0	-.4	-1.8
1951	413.4	-10.9	409.6	-13.4	-.9	-3.8
1952	444.5	-13.9	444.5	-13.9	.0	.0
1953	444.5	-13.9	444.5	-13.9	.0	.0
1954	411.0	-13.1	405.5	-17.5	-1.3	-5.5
1955	398.4	-13.7	401.0	-6.4	.7	2.6
1956	444.5	-13.9	444.5	-13.9	.0	.0
1957	430.6	.0	425.9	-2.0	-1.1	-4.7
1958	444.5	-13.9	444.5	-13.9	.0	.0
1959	399.5	-13.4	402.3	-6.6	.7	2.8
1960	402.1	-15.4	400.8	-16.2	-.3	-1.3
1961	403.9	-8.4	402.8	-4.1	-.3	-1.1
1962	400.1	-24.0	402.3	-19.5	.5	2.2
1963	444.5	-13.9	444.5	-9.5	.0	.0
1964	394.5	-15.3	394.9	-15.3	.1	.4
1965	443.3	.7	437.1	-.5	-1.4	-6.2
1966	402.1	-14.0	402.3	-8.7	.0	.2
1967	444.5	-13.9	444.5	-13.9	.0	.0
1968	417.6	1.8	406.3	1.8	-2.7	-11.3
1969	444.5	-13.9	444.5	-13.9	.0	.0
1970	406.2	-17.9	406.2	-17.9	.0	.0
1971	444.5	-13.9	444.5	-13.9	.0	.0
1972	399.5	-21.9	402.3	-14.7	.7	2.8
1973	423.8	-.3	417.9	-5.1	-1.4	-5.9
1974	444.5	-13.9	444.5	-13.9	.0	.0
1975	444.5	-13.9	444.5	-13.9	.0	.0
1976	374.6	-9.3	374.6	-7.6	.0	.0
1977	347.8	-5.7	352.7	-3.8	1.4	4.9
1978	438.2	-.6	433.0	-4.1	-1.2	-5.2
1979	418.8	-5.3	412.8	-9.0	-1.4	-6.0
1980	444.5	-3.2	444.5	-3.4	.0	.0
1981	404.5	-6.3	402.6	-5.3	-.5	-1.9
1982	444.5	-13.9	444.5	-13.9	.0	.0
1983	447.2	-11.8	444.5	-13.9	-.6	-2.7
1984	425.6	1.5	423.4	-.7	-.5	-2.2
1985	390.2	-15.7	391.1	-14.3	.2	.9
1986	419.3	-13.9	409.4	-17.1	-2.4	-9.9
1987	383.2	-13.5	379.7	-16.2	-.9	-3.5
1988	374.6	-9.3	374.6	-7.6	.0	.0
1989	396.7	-17.2	397.5	-16.0	.2	.8
1990	374.6	-9.3	374.6	-7.6	.0	.0
1991	387.5	-2.7	384.5	2.3	-.8	-3.0
Mean:	417.6	-8.4	415.8	-8.4	-.4	-1.8
Median:	418.8	-9.3	411.3	-9.0	-.2	-1.0
Min:	347.8	-24.0	352.7	-19.5	-2.7	-11.3
Max:	447.2	8.0	444.5	9.1	1.7	6.5
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	25		23			
X > 420.0	34		30			
X > 412.0	39		35			
X > 405.0	44		42			
X > 395.0	57		56			
X > 375.0	66		66			
X > 360.0	69		69			

FOLSOM RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	429.4	.0	429.4	.0	.0	.0
1923	422.5	-2.6	423.4	-6.5	.2	.9
1924	382.2	-4.1	379.1	-4.6	-.8	-3.1
1925	412.7	-1.9	408.8	-2.5	-.9	-3.9
1926	399.2	-1.9	396.2	-2.5	-.8	-3.0
1927	429.4	-15.1	429.4	-15.1	.0	.0
1928	406.2	.0	401.6	-3.3	-1.1	-4.6
1929	392.2	-1.9	384.6	-2.4	-1.9	-7.6
1930	410.5	.1	404.1	-1.9	-1.6	-6.4
1931	383.1	-3.7	380.9	-2.3	-.6	-2.2
1932	429.4	-15.1	427.7	-8.7	-.4	-1.7
1933	398.6	-1.3	389.6	-1.7	-2.3	-9.0
1934	380.5	-2.5	376.4	-1.6	-1.1	-4.1
1935	427.5	-8.6	427.5	-10.0	.0	.0
1936	429.4	-14.7	429.4	-15.1	.0	.0
1937	429.4	-15.1	429.4	-14.1	.0	.0
1938	429.4	-15.1	429.4	-15.1	.0	.0
1939	398.8	-1.7	391.1	-3.8	-1.9	-7.7
1940	406.2	-1.2	402.3	-2.6	-1.0	-3.9
1941	429.4	-15.1	429.4	-15.1	.0	.0
1942	429.4	-15.1	429.4	-15.1	.0	.0
1943	424.9	-3.9	417.9	-3.5	-1.6	-7.0
1944	385.0	-6.1	391.2	-6.4	1.6	6.2
1945	415.1	-6.4	407.6	-8.2	-1.8	-7.5
1946	411.6	-9.7	405.3	-11.6	-1.5	-6.3
1947	397.3	-7.2	399.2	-5.3	.5	1.9
1948	424.1	-8.5	421.2	-8.7	-.7	-2.9
1949	419.2	-3.9	414.2	-4.8	-1.2	-5.0
1950	429.4	-6.5	425.6	-8.5	-.9	-3.8
1951	412.1	-1.3	406.2	-3.4	-1.4	-5.9
1952	429.4	-15.1	429.4	-15.1	.0	.0
1953	429.4	-15.1	429.4	-15.1	.0	.0
1954	406.2	-4.8	403.8	-1.7	-.6	-2.4
1955	397.8	-.6	398.3	-2.7	.1	.5
1956	429.4	-15.1	429.4	-15.1	.0	.0
1957	425.7	-4.9	419.8	-6.1	-1.4	-5.9
1958	429.4	-15.1	429.4	-15.1	.0	.0
1959	398.6	-.9	397.4	-4.9	-.3	-1.2
1960	396.0	-6.1	394.9	-5.9	-.3	-1.1
1961	399.2	-4.7	398.4	-4.4	-.2	-.8
1962	399.2	-.9	399.0	-3.3	-.1	-.2
1963	429.4	-15.1	429.4	-15.1	.0	.0
1964	392.5	-2.0	392.9	-2.0	.1	.4
1965	429.4	-13.9	429.4	-7.7	.0	.0
1966	399.5	-2.6	396.9	-5.4	-.7	-2.6
1967	429.4	-15.1	429.4	-15.1	.0	.0
1968	411.9	-5.7	399.5	-6.8	-3.0	-12.4
1969	429.4	-15.1	429.4	-15.1	.0	.0
1970	406.3	.1	404.1	-2.1	-.5	-2.2
1971	429.4	-15.1	429.4	-15.1	.0	.0
1972	399.3	-.2	399.5	-2.8	.1	.2
1973	422.2	-1.6	415.3	-2.6	-1.6	-6.9
1974	429.4	-15.1	429.4	-15.1	.0	.0
1975	429.4	-15.1	429.4	-15.1	.0	.0
1976	375.5	.9	375.0	.4	-.1	-.5
1977	344.5	-3.3	349.7	-3.0	1.5	5.2
1978	429.4	-8.8	426.7	-6.3	-.6	-2.7
1979	414.7	-4.1	407.2	-5.6	-1.8	-7.5
1980	429.4	-15.1	429.4	-15.1	.0	.0
1981	400.3	-4.2	397.0	-5.6	-.8	-3.3
1982	429.4	-15.1	429.4	-15.1	.0	.0
1983	434.3	-12.9	429.5	-15.0	-1.1	-4.8
1984	423.1	-2.5	418.9	-4.5	-1.0	-4.2
1985	393.1	2.9	392.0	.9	-.3	-1.1
1986	419.8	.5	409.2	-.2	-2.5	-10.6
1987	381.7	-1.5	376.7	-3.0	-1.3	-5.0
1988	378.1	3.5	376.7	2.1	-.4	-1.4
1989	400.2	3.5	396.6	-.9	-.9	-3.6
1990	378.6	4.0	377.0	2.4	-.4	-1.6
1991	386.6	-.9	380.7	-3.8	-1.5	-5.9
Mean:	411.0	-6.3	408.6	-6.9	-.6	-2.4
Median:	412.7	-4.2	407.2	-5.4	-.4	-1.6
Min:	344.5	-15.1	349.7	-15.1	-3.0	-12.4
Max:	434.3	4.0	429.5	2.4	1.6	6.2
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	31		27			
X > 412.0	37		32			
X > 405.0	44		38			
X > 395.0	57		54			
X > 375.0	69		68			
X > 360.0	69		69			

RETURN TO TABLE OF CONTENTS

Section 3

FOLSOM RESERVOIR COLD WATER POOL

Not Applicable

RETURN TO TABLE OF CONTENTS

Section 4

FOLSOM RESERVOIR SURFACE AREA

FOLSOM RESERVOIR SURFACE AREA

October

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	7630.1	.0	7470.9	.0	-2.1	-159.2
1923	8712.7	-610.9	8605.5	-718.1	-1.2	-107.2
1924	8090.8	-717.4	8044.2	-831.3	-.6	-46.6
1925	5395.5	-239.7	5314.0	-82.7	-1.5	-81.5
1926	7277.7	-765.7	6979.1	-760.8	-4.1	-298.6
1927	6492.3	-475.3	6139.1	-595.3	-5.4	-353.2
1928	8717.8	-605.8	8585.3	-738.3	-1.5	-132.5
1929	6923.1	-607.9	6513.3	-653.1	-5.9	-409.8
1930	5753.6	-663.4	5201.5	-616.6	-9.6	-552.1
1931	7145.2	-729.4	6631.4	-727.5	-7.2	-513.8
1932	5375.1	-325.2	5123.5	-410.4	-4.7	-251.6
1933	8627.2	-696.4	8365.5	-830.4	-3.0	-261.7
1934	6439.6	-482.5	5804.3	-401.0	-9.9	-635.3
1935	5276.4	-230.6	5329.8	136.0	1.0	53.4
1936	8602.1	-581.5	8484.7	-694.8	-1.4	-117.4
1937	8659.0	-664.6	8525.2	-798.4	-1.5	-133.8
1938	8705.8	-617.8	8591.3	-732.3	-1.3	-114.5
1939	8740.9	-582.7	8618.6	-705.0	-1.4	-122.3
1940	6562.1	-380.5	6002.6	-323.8	-8.5	-559.5
1941	7043.5	-490.6	6705.8	-513.0	-4.8	-337.7
1942	8730.7	-592.9	8590.6	-733.0	-1.6	-140.1
1943	8712.7	-610.9	8581.0	-742.6	-1.5	-131.7
1944	8315.2	-670.1	7571.5	-876.8	-8.9	-743.7
1945	5468.4	-384.1	5880.7	-452.0	7.5	412.3
1946	7667.2	-563.1	7232.8	-409.5	-5.7	-434.4
1947	7349.9	-608.2	6806.1	-653.5	-7.4	-543.8
1948	6734.5	-82.8	6823.0	-149.3	1.3	88.5
1949	8231.8	-694.5	7827.0	-879.1	-4.9	-404.8
1950	7788.0	-768.1	7186.1	-976.6	-7.7	-601.9
1951	8948.3	-375.3	8536.6	-500.1	-4.6	-411.7
1952	7591.4	-408.4	7120.3	-413.8	-6.2	-471.1
1953	8869.4	-454.2	8734.3	-589.3	-1.5	-135.1
1954	8698.9	-624.7	8560.7	-762.9	-1.6	-138.2
1955	6971.7	-562.4	6642.8	-695.4	-4.7	-328.9
1956	6307.9	-554.3	6208.7	-687.8	-1.6	-99.2
1957	8851.0	-472.6	8742.0	-581.6	-1.2	-109.0
1958	8459.2	-586.6	7828.6	-770.3	-7.5	-630.6
1959	8672.2	-651.4	8532.5	-791.1	-1.6	-139.7
1960	6312.5	-610.2	6075.7	-748.8	-3.8	-236.8
1961	6175.0	-538.2	5998.7	-632.8	-2.9	-176.3
1962	6312.2	-661.1	6125.4	-784.0	-3.0	-186.8
1963	9323.6	2352.3	9323.6	2369.0	.0	.0
1964	8793.7	-529.9	8681.0	-642.6	-1.3	-112.7
1965	6003.6	-434.3	5919.5	-548.7	-1.4	-84.1
1966	8766.5	-557.1	8624.2	-695.8	-1.6	-142.3
1967	6445.9	-548.7	6092.5	-693.9	-5.5	-353.4
1968	8832.5	-491.1	8697.4	-626.2	-1.5	-135.1
1969	7351.9	-627.6	6554.7	-439.9	-10.8	-797.2
1970	8862.7	-460.9	8743.7	-579.9	-1.3	-119.0
1971	6970.6	-570.8	6685.6	-678.5	-4.1	-285.0
1972	8698.9	-624.7	8559.9	-763.7	-1.6	-139.0
1973	6702.5	-278.1	6588.2	-406.4	-1.7	-114.3
1974	8252.5	-530.4	7534.0	-712.9	-8.7	-718.5
1975	8752.0	-571.6	8640.3	-683.3	-1.3	-111.7
1976	9127.0	-196.6	9031.2	-292.4	-1.0	-95.8
1977	5285.2	155.9	5148.0	56.2	-2.6	-137.2
1978	3162.0	78.8	3318.5	-67.4	4.9	156.5
1979	8573.7	-749.9	8216.0	-908.4	-4.2	-357.7
1980	7604.3	-600.2	7150.1	-463.6	-6.0	-454.2
1981	8698.9	-624.7	8558.1	-765.5	-1.6	-140.8
1982	6797.2	-264.5	6445.4	-353.1	-5.2	-351.8
1983	9323.6	.0	9323.6	.0	.0	.0
1984	9323.6	-354.6	9323.6	-5.0	.0	.0
1985	8334.7	-517.9	7911.2	-621.8	-5.1	-423.5
1986	6054.4	-430.2	6032.8	-363.4	-.4	-21.6
1987	8011.4	-589.7	7084.2	-681.7	-11.6	-927.2
1988	4893.6	-700.5	4524.8	-690.0	-7.5	-368.8
1989	5187.2	-133.9	5214.0	-5.6	.5	26.8
1990	6878.1	-170.5	6448.9	-311.1	-6.2	-429.2
1991	5053.1	-309.4	5030.0	-209.9	-.5	-23.1
Mean:	7477.2	-446.0	7229.2	-508.8	-3.3	-248.0
Median:	7630.1	-557.1	7150.1	-642.6	-2.1	-142.3
Min:	3162.0	-768.1	3318.5	-976.6	-11.6	-927.2
Max:	9323.6	2352.3	9323.6	2369.0	7.5	412.3
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	67		67			
X < 8223.8	39		45			
X < 7614.2	34		40			
X < 7074.2	28		32			
X < 6301.3	13		20			
X < 4805.3	1		2			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

November

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	6822.0	.0	6545.7	.0	-4.1	-276.3
1923	8438.5	-274.2	8278.9	-326.6	-1.9	-159.6
1924	7239.8	-851.0	7072.7	-971.5	-2.3	-167.1
1925	5462.7	67.2	5581.2	267.2	2.2	118.5
1926	6553.4	-724.3	6311.5	-667.6	-3.7	-241.9
1927	7841.6	1349.3	7552.3	1413.2	-3.7	-289.3
1928	8712.8	-5.0	8688.0	102.7	-.3	-24.8
1929	6275.7	-647.4	5916.0	-597.3	-5.7	-359.7
1930	4942.4	-811.2	4462.5	-739.0	-9.7	-479.9
1931	6608.5	-536.7	6186.4	-445.0	-6.4	-422.1
1932	5161.3	-213.8	4894.0	-229.5	-5.2	-267.3
1933	7917.4	-709.8	7538.3	-827.2	-4.8	-379.1
1934	5986.0	-453.6	5434.1	-370.2	-9.2	-551.9
1935	5685.9	409.5	6124.8	795.0	7.7	438.9
1936	8073.6	-528.5	7859.8	-624.9	-2.6	-213.8
1937	7964.0	-695.0	7709.8	-815.4	-3.2	-254.2
1938	8300.5	-405.3	8118.9	-472.4	-2.2	-181.6
1939	8230.2	-510.7	8012.4	-606.2	-2.6	-217.8
1940	6003.0	-559.1	5524.0	-478.6	-8.0	-479.0
1941	6866.2	-177.3	6601.2	-104.6	-3.9	-265.0
1942	8327.0	-403.7	8102.2	-488.4	-2.7	-224.8
1943	8712.8	.1	8712.8	131.8	.0	.0
1944	7678.5	-636.7	6751.4	-820.1	-12.1	-927.1
1945	6456.9	988.5	6815.2	934.5	5.5	358.3
1946	8098.9	431.7	7942.4	709.6	-1.9	-156.5
1947	7463.0	113.1	7031.8	225.7	-5.8	-431.2
1948	6469.5	-265.0	6502.2	-320.8	.5	32.7
1949	7635.5	-596.3	7092.9	-734.1	-7.1	-542.6
1950	6958.3	-829.7	6166.8	-1019.3	-11.4	-791.5
1951	6949.5	-1998.8	6949.5	-1587.1	.0	.0
1952	7808.4	217.0	7459.2	338.9	-4.5	-349.2
1953	8434.8	-434.6	8218.5	-515.8	-2.6	-216.3
1954	8432.3	-266.6	8226.2	-334.5	-2.4	-206.1
1955	6415.3	-556.4	5997.5	-645.3	-6.5	-417.8
1956	5893.1	-414.8	5733.8	-474.9	-2.7	-159.3
1957	8341.5	-509.5	8113.4	-628.6	-2.7	-228.1
1958	7949.2	-510.0	7168.5	-660.1	-9.8	-780.7
1959	8146.1	-526.1	7899.9	-632.6	-3.0	-246.2
1960	5616.6	-695.9	5251.5	-824.2	-6.5	-365.1
1961	5939.9	-235.1	5731.3	-267.4	-3.5	-208.6
1962	5675.3	-636.9	5392.9	-732.5	-5.0	-282.4
1963	8712.8	-610.8	8712.8	-610.8	.0	.0
1964	8712.8	-80.9	8712.8	31.8	.0	.0
1965	6226.3	222.7	6105.2	185.7	-1.9	-121.1
1966	8684.1	-82.4	8507.2	-117.0	-2.0	-176.9
1967	6675.4	229.5	6323.2	230.7	-5.3	-352.2
1968	8675.4	-157.1	8459.5	-237.9	-2.5	-215.9
1969	7399.8	47.9	6909.2	354.5	-6.6	-490.6
1970	8456.3	-406.4	8248.2	-495.5	-2.5	-208.1
1971	8002.5	1031.9	7742.8	1057.2	-3.2	-259.7
1972	8332.6	-366.3	8112.6	-447.3	-2.6	-220.0
1973	7210.2	507.7	7062.2	474.0	-2.1	-148.0
1974	8695.6	443.1	8678.4	1144.4	-.2	-17.2
1975	8095.0	-657.0	7876.3	-764.0	-2.7	-218.7
1976	8712.8	-414.2	8712.8	-318.4	.0	.0
1977	5245.1	-40.1	5052.4	-95.6	-3.7	-192.7
1978	3445.7	283.7	3477.5	159.0	.9	31.8
1979	8013.0	-560.7	7519.4	-696.6	-6.2	-493.6
1980	7262.5	-341.8	7010.6	-139.5	-3.5	-251.9
1981	8148.0	-550.9	7878.3	-679.8	-3.3	-269.7
1982	8556.3	1759.1	8520.9	2075.5	-.4	-35.4
1983	8704.2	-619.4	8704.2	-619.4	.0	.0
1984	7106.1	-2217.5	7028.3	-2295.3	-1.1	-77.8
1985	8712.8	378.1	8618.1	706.9	-1.1	-94.7
1986	6208.9	154.5	6362.1	329.3	2.5	153.2
1987	7320.0	-691.4	6347.6	-736.6	-13.3	-972.4
1988	4587.1	-306.5	4266.1	-258.7	-7.0	-321.0
1989	6100.2	913.0	6330.6	1116.6	3.8	230.4
1990	6822.2	-55.9	6293.3	-155.6	-7.8	-528.9
1991	4700.6	-352.5	4816.9	-213.1	2.5	116.3
Mean:	7228.7	-236.9	7000.9	-215.1	-3.2	-227.9
Median:	7399.8	-366.3	7031.8	-334.5	-2.7	-218.7
Min:	3445.7	-2217.5	3477.5	-2295.3	-13.3	-972.4
Max:	8712.8	1759.1	8712.8	2075.5	7.7	438.9
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	50		56			
X < 7614.2	36		43			
X < 7074.2	29		37			
X < 6301.3	18		20			
X < 4805.3	3		3			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

December

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	7061.4	.0	6760.3	.0	-4.3	-301.1
1923	8712.8	274.3	8712.8	433.9	.0	.0
1924	6185.1	-1054.7	5909.4	-1163.3	-4.5	-275.7
1925	5771.8	309.1	6092.1	510.9	5.5	320.3
1926	5755.1	-798.3	5606.6	-704.9	-2.6	-148.5
1927	8475.4	633.8	8163.1	610.8	-3.7	-312.3
1928	8598.8	-114.0	8521.6	-166.4	-.9	-77.2
1929	5613.6	-662.1	5341.1	-574.9	-4.9	-272.5
1930	6237.0	1294.6	6049.4	1586.9	-3.0	-187.6
1931	5476.4	-1132.1	5126.2	-1060.2	-6.4	-350.2
1932	6489.0	1327.7	6266.6	1372.6	-3.4	-222.4
1933	7038.1	-879.3	6529.6	-1008.7	-7.2	-508.5
1934	6456.2	470.2	6139.5	705.4	-4.9	-316.7
1935	5876.5	190.6	6656.0	531.2	13.3	779.5
1936	7325.6	-748.0	7013.0	-846.8	-4.3	-312.6
1937	7126.3	-837.7	6776.3	-933.5	-4.9	-350.0
1938	8617.6	317.1	8617.6	498.7	.0	.0
1939	7570.6	-659.6	7234.3	-778.1	-4.4	-336.3
1940	5496.6	-506.4	5164.6	-359.4	-6.0	-332.0
1941	8585.0	1718.8	8486.9	1885.7	-1.1	-98.1
1942	8712.8	385.8	8712.8	610.6	.0	.0
1943	8704.2	-8.6	8704.2	-8.6	.0	.0
1944	6788.0	-890.5	5629.9	-1121.5	-17.1	-1158.1
1945	7195.4	738.5	7461.9	646.7	3.7	266.5
1946	8712.8	613.9	8712.8	770.4	.0	.0
1947	7315.5	-147.5	6973.3	-58.5	-4.7	-342.2
1948	5913.0	-556.5	5880.3	-621.9	-.6	-32.7
1949	7144.2	-491.3	6514.5	-578.4	-8.8	-629.7
1950	5852.4	-1105.9	4804.6	-1362.2	-17.9	-1047.8
1951	6004.6	-944.9	6017.6	-931.9	.2	13.0
1952	8712.8	904.4	8712.8	1253.6	.0	.0
1953	8470.3	35.5	8232.3	13.8	-2.8	-238.0
1954	8027.9	-404.4	7744.2	-482.0	-3.5	-283.7
1955	6795.0	379.7	6391.9	394.4	-5.9	-403.1
1956	8467.5	2574.4	8467.5	2733.7	.0	.0
1957	7764.3	-577.2	7435.9	-677.5	-4.2	-328.4
1958	7853.1	-96.1	7019.4	-149.1	-10.6	-833.7
1959	7318.7	-827.4	6943.0	-956.9	-5.1	-375.7
1960	4861.6	-755.0	4384.9	-866.6	-9.8	-476.7
1961	5657.0	-282.9	5352.9	-378.4	-5.4	-304.1
1962	5414.7	-260.6	5065.8	-327.1	-6.4	-348.9
1963	8712.8	.0	8712.8	.0	.0	.0
1964	7996.5	-716.3	8047.6	-665.2	.6	51.1
1965	7193.9	967.6	7215.7	1110.5	.3	21.8
1966	8419.1	-265.0	8154.2	-353.0	-3.1	-264.9
1967	8611.7	1936.3	8298.0	1974.8	-3.6	-313.7
1968	8352.0	-323.4	8072.3	-387.2	-3.3	-279.7
1969	7751.6	351.8	7548.6	639.4	-2.6	-203.0
1970	8687.0	230.7	8695.6	447.4	.1	8.6
1971	8712.8	710.3	8712.8	970.0	.0	.0
1972	8558.3	225.7	8305.5	192.9	-3.0	-252.8
1973	8482.9	1272.7	8308.9	1246.7	-2.1	-174.0
1974	8635.1	-60.5	8617.6	-60.8	-.2	-17.5
1975	7693.1	-401.9	7380.2	-496.1	-4.1	-312.9
1976	8129.9	-582.9	8059.8	-653.0	-.9	-70.1
1977	4755.4	-489.7	4497.9	-554.5	-5.4	-257.5
1978	5757.1	2311.4	5832.6	2355.1	1.3	75.5
1979	7289.9	-723.1	6633.5	-885.9	-9.0	-656.4
1980	7069.9	-192.6	7094.0	83.4	.3	24.1
1981	7512.7	-635.3	7129.5	-748.8	-5.1	-383.2
1982	7083.9	-1472.4	6983.4	-1537.5	-1.4	-100.5
1983	8669.7	-34.5	8669.7	-34.5	.0	.0
1984	6456.9	-649.2	6444.7	-583.6	-.2	-12.2
1985	8712.8	.0	8597.5	-20.6	-1.3	-115.3
1986	7088.8	879.9	7334.3	972.2	3.5	245.5
1987	6276.8	-1043.2	5202.6	-1145.0	-17.1	-1074.2
1988	5327.7	740.6	5333.9	1067.8	.1	6.2
1989	6603.8	503.6	6957.2	626.6	5.4	353.4
1990	6395.8	-426.4	5714.1	-579.2	-10.7	-681.7
1991	4240.5	-460.1	4548.3	-268.6	7.3	307.8
Mean:	7219.0	-13.1	7020.5	16.5	-2.9	-198.6
Median:	7195.4	-147.5	7013.0	-149.1	-3.0	-222.4
Min:	4240.5	-1472.4	4384.9	-1537.5	-17.9	-1158.1
Max:	8712.8	2574.4	8712.8	2733.7	13.3	779.5
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	48		51			
X < 7614.2	41		45			
X < 7074.2	29		36			
X < 6301.3	19		22			
X < 4805.3	2		4			
X < 3782.9	0		0			

FOLSOM RESERVOIR SURFACE AREA

January

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	7092.2	.0	6681.7	.0	-5.8	-410.5
1923	8712.8	.0	8712.8	.0	.0	.0
1924	5160.6	-1024.5	4736.9	-1172.5	-8.2	-423.7
1925	5195.8	-576.0	5508.0	-584.1	6.0	312.2
1926	4910.4	-844.7	4840.2	-766.4	-1.4	-70.2
1927	8712.8	237.4	8695.6	532.5	-.2	-17.2
1928	8265.8	-333.0	8094.9	-426.7	-2.1	-170.9
1929	4954.2	-659.4	4716.0	-625.1	-4.8	-238.2
1930	6725.0	488.0	6479.5	430.1	-3.7	-245.5
1931	4843.3	-633.1	4626.1	-500.1	-4.5	-217.2
1932	6978.1	489.1	6909.3	642.7	-1.0	-68.8
1933	6350.8	-687.3	5737.4	-792.2	-9.7	-613.4
1934	6897.6	441.4	6706.3	566.8	-2.8	-191.3
1935	6677.3	800.8	7166.7	510.7	7.3	489.4
1936	8712.8	1387.2	8712.8	1699.8	.0	.0
1937	6493.9	-632.4	6032.7	-743.6	-7.1	-461.2
1938	8600.2	-17.4	8600.2	-17.4	.0	.0
1939	6796.3	-774.3	6539.0	-695.3	-3.8	-257.3
1940	8695.6	3199.0	8687.0	3522.4	-.1	-8.6
1941	8712.8	127.8	8712.8	225.9	.0	.0
1942	8617.6	-95.2	8635.1	-77.7	.2	17.5
1943	8556.3	-147.9	8556.3	-147.9	.0	.0
1944	6264.2	-523.8	4913.5	-716.4	-21.6	-1350.7
1945	7020.3	-175.1	7073.4	-388.5	.8	53.1
1946	8635.1	-77.7	8635.1	-77.7	.0	.0
1947	6422.0	-893.5	6110.2	-863.1	-4.9	-311.8
1948	6466.5	553.5	6404.6	524.3	-1.0	-61.9
1949	6492.5	-651.7	5671.8	-842.7	-12.6	-820.7
1950	8002.0	2149.6	7199.6	2395.0	-10.0	-802.4
1951	6297.0	292.4	6309.4	291.8	.2	12.4
1952	8712.8	.0	8712.8	.0	.0	.0
1953	8695.6	225.3	8704.2	471.9	.1	8.6
1954	7999.5	-28.4	7642.9	-101.3	-4.5	-356.6
1955	7206.8	411.8	6934.3	542.4	-3.8	-272.5
1956	6904.1	-1563.4	6904.1	-1563.4	.0	.0
1957	7123.5	-640.8	6689.9	-746.0	-6.1	-433.6
1958	8247.5	394.4	7540.3	520.9	-8.6	-707.2
1959	7543.7	225.0	7302.3	359.3	-3.2	-241.4
1960	4881.0	19.4	4394.6	9.7	-10.0	-486.4
1961	4955.1	-701.9	4612.6	-740.3	-6.9	-342.5
1962	5121.1	-293.6	4692.2	-373.6	-8.4	-428.9
1963	8529.8	-183.0	8538.6	-174.2	.1	8.8
1964	7999.8	3.3	8054.2	6.6	.7	54.4
1965	6648.8	-545.1	6625.1	-590.6	-.4	-23.7
1966	8227.5	-191.6	7874.3	-279.9	-4.3	-353.2
1967	8643.7	32.0	8608.9	310.9	-.4	-34.8
1968	8204.2	-147.8	7827.5	-244.8	-4.6	-376.7
1969	8529.8	778.2	8529.8	981.2	.0	.0
1970	7193.9	-1493.1	7215.7	-1479.9	.3	21.8
1971	8712.8	.0	8712.8	.0	.0	.0
1972	8275.8	-282.5	7912.3	-393.2	-4.4	-363.5
1973	8626.4	143.5	8617.6	308.7	-.1	-8.8
1974	8127.6	-507.5	8080.2	-537.4	-.6	-47.4
1975	7365.2	-327.9	6955.3	-424.9	-5.6	-409.9
1976	7089.7	-1040.2	6904.7	-1155.1	-2.6	-185.0
1977	4520.0	-235.4	4217.2	-280.7	-6.7	-302.8
1978	8661.1	2904.0	8712.8	2880.2	.6	51.7
1979	7708.4	418.5	7193.0	559.5	-6.7	-515.4
1980	7984.3	914.4	7636.9	542.9	-4.4	-347.4
1981	7205.0	-307.7	6906.5	-223.0	-4.1	-298.5
1982	6892.7	-191.2	6846.9	-136.5	-.7	-45.8
1983	8591.4	-78.3	8591.4	-78.3	.0	.0
1984	6517.5	60.6	6517.5	72.8	.0	.0
1985	8083.5	-629.3	7894.3	-703.2	-2.3	-189.2
1986	8608.9	1520.1	8600.2	1265.9	-.1	-8.7
1987	5536.1	-740.7	4416.9	-785.7	-20.2	-1119.2
1988	6580.3	1252.6	6727.0	1393.1	2.2	146.7
1989	6134.4	-469.4	6460.0	-497.2	5.3	325.6
1990	6296.5	-99.3	5767.8	53.7	-8.4	-528.7
1991	3661.1	-579.4	4097.0	-451.3	11.9	435.9
Mean:	7211.6	-7.9	7022.5	3.2	-2.8	-189.0
Median:	7193.9	-99.3	6955.3	-101.3	-1.4	-70.2
Min:	3661.1	-1563.4	4097.0	-1563.4	-21.6	-1350.7
Max:	8712.8	3199.0	8712.8	3522.4	11.9	489.4
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	47		51			
X < 7614.2	39		42			
X < 7074.2	31		36			
X < 6301.3	15		17			
X < 4805.3	2		9			
X < 3782.9	1		0			

FOLSOM RESERVOIR SURFACE AREA

February

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	8712.8	.0	8712.8	.0	.0	.0
1923	8494.3	-218.5	8494.3	-218.5	.0	.0
1924	5152.9	-7.7	4625.2	-111.7	-10.2	-527.7
1925	8582.7	3386.9	8617.6	3109.6	.4	34.9
1926	7019.3	2108.9	7001.2	2161.0	-.3	-18.1
1927	8608.9	-103.9	8582.7	-112.9	-.3	-26.2
1928	8419.0	153.2	8174.4	79.5	-2.9	-244.6
1929	5371.4	417.2	5034.8	318.8	-6.3	-336.6
1930	6923.8	198.8	6629.1	149.6	-4.3	-294.7
1931	4645.3	-198.0	4488.3	-137.8	-3.4	-157.0
1932	8712.8	1734.7	8712.8	1803.5	.0	.0
1933	5824.6	-526.2	5174.1	-563.3	-11.2	-650.5
1934	7274.8	377.2	7033.2	326.9	-3.3	-241.6
1935	7076.9	399.6	7497.9	331.2	5.9	421.0
1936	8712.8	.0	8704.2	-8.6	-.1	-8.6
1937	8696.3	2202.4	8416.1	2383.4	-3.2	-280.2
1938	8573.9	-26.3	8573.9	-26.3	.0	.0
1939	6333.6	-462.7	5963.9	-575.1	-5.8	-369.7
1940	8582.7	-112.9	8582.7	-104.3	.0	.0
1941	8712.8	.0	8712.8	.0	.0	.0
1942	8538.6	-79.0	8556.3	-78.8	.2	17.7
1943	8458.6	-97.7	8458.6	-97.7	.0	.0
1944	6840.7	576.5	5597.3	683.8	-18.2	-1243.4
1945	8635.1	1614.8	8635.1	1561.7	.0	.0
1946	8494.3	-140.8	8494.3	-140.8	.0	.0
1947	6907.8	485.8	6673.7	563.5	-3.4	-234.1
1948	5845.2	-621.3	5901.0	-503.6	1.0	55.8
1949	6250.8	-241.7	5595.0	-76.8	-10.5	-655.8
1950	8712.8	710.8	8712.8	1513.2	.0	.0
1951	6444.7	147.7	6456.9	147.5	.2	12.2
1952	8712.8	.0	8712.8	.0	.0	.0
1953	8643.7	-51.9	8661.1	-43.1	.2	17.4
1954	8712.8	713.3	8348.9	706.0	-4.2	-363.9
1955	7033.7	-173.1	6694.6	-239.7	-4.8	-339.1
1956	6846.9	-57.2	6846.9	-57.2	.0	.0
1957	8495.1	1371.6	8089.3	1399.4	-4.8	-405.8
1958	8635.1	387.6	8635.1	1094.8	.0	.0
1959	8264.9	721.2	7973.0	670.7	-3.5	-291.9
1960	7953.4	3072.4	7662.3	3267.7	-3.7	-291.1
1961	5402.2	447.1	5106.3	493.7	-5.5	-295.9
1962	8712.8	3591.7	8433.3	3741.1	-3.2	-279.5
1963	7768.1	-761.7	7788.1	-750.5	.3	20.0
1964	7796.7	-203.1	7820.0	-234.2	.3	23.3
1965	6637.0	-11.8	6613.2	-11.9	-.4	-23.8
1966	8195.8	-31.7	7749.8	-124.5	-5.4	-446.0
1967	8547.5	-96.2	8520.9	-88.0	-.3	-26.6
1968	8565.1	360.9	8565.1	737.6	.0	.0
1969	8395.6	-134.2	8386.5	-143.3	-.1	-9.1
1970	6892.7	-301.2	6892.7	-323.0	.0	.0
1971	8643.7	-69.1	8652.4	-60.4	.1	8.7
1972	8712.8	437.0	8413.1	500.8	-3.4	-299.7
1973	8591.4	-35.0	8582.7	-34.9	-.1	-8.7
1974	8080.2	-47.4	8127.6	47.4	.6	47.4
1975	8600.1	1234.9	8217.2	1261.9	-4.5	-382.9
1976	6495.0	-594.7	6192.9	-711.8	-4.7	-302.1
1977	4300.0	-220.0	3955.3	-261.9	-8.0	-344.7
1978	8608.9	-52.2	8712.8	.0	1.2	103.9
1979	8585.3	876.9	8050.9	857.9	-6.2	-534.4
1980	6869.9	-1114.4	6695.9	-941.0	-2.5	-174.0
1981	7175.6	-29.4	6780.6	-125.9	-5.5	-395.0
1982	6221.9	-670.8	6259.5	-587.4	.6	37.6
1983	8494.3	-97.1	8494.3	-97.1	.0	.0
1984	6565.5	48.0	6553.5	36.0	-.2	-12.0
1985	8244.2	160.7	8010.2	115.9	-2.8	-234.0
1986	6835.4	-1773.5	6800.8	-1799.4	-.5	-34.6
1987	5899.7	363.6	4900.6	483.7	-16.9	-999.1
1988	6091.1	-489.2	6196.7	-530.3	1.7	105.6
1989	6115.2	-19.2	6217.3	-242.7	1.7	102.1
1990	6228.7	-67.8	5597.0	-170.8	-10.1	-631.7
1991	3320.6	-340.5	3853.6	-243.4	16.1	533.0
Mean:	7492.2	257.5	7336.8	285.3	-2.2	-155.3
Median:	8080.2	-26.3	7820.0	-26.3	-.3	-18.1
Min:	3320.6	-1773.5	3853.6	-1799.4	-18.2	-1243.4
Max:	8712.8	3591.7	8712.8	3741.1	16.1	533.0
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	36		42			
X < 7614.2	31		31			
X < 7074.2	28		30			
X < 6301.3	14		17			
X < 4805.3	3		4			
X < 3782.9	1		0			

FOLSOM RESERVOIR SURFACE AREA

March

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	8963.7	.0	8885.1	.0	-.9	-78.6
1923	8551.3	57.0	8488.0	-6.3	-.7	-63.3
1924	4496.3	-656.6	4011.2	-614.0	-10.8	-485.1
1925	8840.2	257.5	8840.2	222.6	.0	.0
1926	7103.1	83.8	7161.7	160.5	.8	58.6
1927	9423.1	814.2	9415.5	832.8	-.1	-7.6
1928	9300.4	881.4	9269.3	1094.9	-.3	-31.1
1929	5924.3	552.9	5528.4	493.6	-6.7	-395.9
1930	8470.0	1546.2	8180.2	1551.1	-3.4	-289.8
1931	5186.9	541.6	5189.2	700.9	.0	2.3
1932	9245.8	533.0	9171.3	458.5	-.8	-74.5
1933	5975.9	151.3	5474.6	300.5	-8.4	-501.3
1934	7893.6	618.8	7645.3	612.1	-3.1	-248.3
1935	7121.4	44.5	7434.6	-63.3	4.4	313.2
1936	9476.0	763.2	9476.0	771.8	.0	.0
1937	9513.4	817.1	9513.4	1097.3	.0	.0
1938	9476.0	902.1	9476.0	902.1	.0	.0
1939	7262.4	928.8	6888.9	925.0	-5.1	-373.5
1940	9070.8	488.1	9135.1	552.4	.7	64.3
1941	9498.5	785.7	9498.5	785.7	.0	.0
1942	8330.0	-208.6	8253.8	-302.5	-.9	-76.2
1943	9095.0	636.4	9103.1	644.5	.1	8.1
1944	7713.4	872.7	6743.7	1146.4	-12.6	-969.7
1945	9141.2	506.1	9067.5	432.4	-.8	-73.7
1946	9423.1	928.8	9372.9	878.6	-.5	-50.2
1947	8202.4	1294.6	8109.0	1435.3	-1.1	-93.4
1948	5488.3	-356.9	5404.3	-496.7	-1.5	-84.0
1949	8127.6	1876.8	7547.4	1952.4	-7.1	-580.2
1950	9419.3	706.5	9481.2	768.4	.7	61.9
1951	8814.9	2370.2	8814.9	2358.0	.0	.0
1952	9513.4	800.6	9513.4	800.6	.0	.0
1953	8624.6	-19.1	8562.5	-98.6	-.7	-62.1
1954	9483.5	770.7	9483.5	1134.6	.0	.0
1955	7016.1	-17.6	6582.7	-111.9	-6.2	-433.4
1956	7954.2	1107.3	7834.8	987.9	-1.5	-119.4
1957	9438.3	943.2	9438.3	1349.0	.0	.0
1958	9491.0	855.9	9491.0	855.9	.0	.0
1959	8609.2	344.3	8278.8	305.8	-3.8	-330.4
1960	9476.0	1522.6	9384.2	1721.9	-1.0	-91.8
1961	5977.2	575.0	5853.6	747.3	-2.1	-123.6
1962	9285.8	573.0	8983.5	550.2	-3.3	-302.3
1963	7967.0	198.9	7897.1	109.0	-.9	-69.9
1964	7546.0	-250.7	7505.6	-314.4	-.5	-40.4
1965	7598.8	961.8	7472.7	859.5	-1.7	-126.1
1966	8636.2	440.4	8147.6	397.8	-5.7	-488.6
1967	9300.4	752.9	9300.4	779.5	.0	.0
1968	9354.4	789.3	8385.4	-179.7	-10.4	-969.0
1969	8962.5	566.9	8878.1	491.6	-.9	-84.4
1970	8820.6	1927.9	8882.1	1989.4	.7	61.5
1971	9400.3	756.6	9400.3	747.9	.0	.0
1972	9369.8	657.0	9369.8	956.7	.0	.0
1973	9483.5	892.1	9483.5	900.8	.0	.0
1974	8973.1	892.9	8989.5	861.9	.2	16.4
1975	9513.4	913.3	9513.4	1296.2	.0	.0
1976	6305.2	-189.8	6005.2	-187.7	-4.8	-300.0
1977	4249.8	-50.2	3968.3	13.0	-6.6	-281.5
1978	9415.5	806.6	9415.5	702.7	.0	.0
1979	9498.5	913.2	9281.0	1230.1	-2.3	-217.5
1980	8964.9	2095.0	8898.7	2202.8	-.7	-66.2
1981	8150.2	974.6	7857.3	1076.7	-3.6	-292.9
1982	8764.1	2542.2	8764.1	2504.6	.0	.0
1983	9198.6	704.3	9182.8	688.5	-.2	-15.8
1984	8776.5	2211.0	8831.8	2278.3	.6	55.3
1985	8504.0	259.8	8365.6	355.4	-1.6	-138.4
1986	8738.5	1903.1	8738.5	1937.7	.0	.0
1987	6978.9	1079.2	6233.7	1333.1	-10.7	-745.2
1988	5989.1	-102.0	6086.5	-110.2	1.6	97.4
1989	9245.8	3130.6	9423.1	3205.8	1.9	177.3
1990	7205.5	976.8	6607.4	1010.4	-8.3	-598.1
1991	5506.8	2186.2	5883.6	2030.0	6.8	376.8
Mean:	8283.4	787.6	8153.6	814.4	-1.8	-129.7
Median:	8776.5	763.2	8764.1	771.8	-.7	-62.1
Min:	4249.8	-656.6	3968.3	-614.0	-12.6	-969.7
Max:	9513.4	3130.6	9513.4	3205.8	6.8	376.8
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	51		52			
X < 8223.8	25		27			
X < 7614.2	18		20			
X < 7074.2	12		15			
X < 6301.3	9		11			
X < 4805.3	2		2			
X < 3782.9	0		0			

FOLSOM RESERVOIR SURFACE AREA

April

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	9971.1	.0	9800.3	.0	-1.7	-170.8
1923	10372.4	1821.1	10367.7	1879.7	.0	-4.7
1924	5082.2	585.9	4672.2	661.0	-8.1	-410.0
1925	10372.4	1532.2	10372.4	1532.2	.0	.0
1926	9293.5	2190.4	9285.0	2123.3	-.1	-8.5
1927	10372.4	949.3	10372.4	956.9	.0	.0
1928	10372.4	1072.0	10372.4	1103.1	.0	.0
1929	6658.9	734.6	6556.2	1027.8	-1.5	-102.7
1930	9148.3	678.3	8929.1	748.9	-2.4	-219.2
1931	5836.1	649.2	5807.6	618.4	-.5	-28.5
1932	9713.5	467.7	9665.6	494.3	-.5	-47.9
1933	6515.9	540.0	6094.3	619.7	-6.5	-421.6
1934	6994.6	-899.0	6994.6	-650.7	.0	.0
1935	10372.4	3251.0	10372.4	2937.8	.0	.0
1936	10372.4	896.4	10372.4	896.4	.0	.0
1937	10372.4	859.0	10372.4	859.0	.0	.0
1938	10372.4	896.4	10372.4	896.4	.0	.0
1939	8152.7	890.3	8026.6	1137.7	-1.5	-126.1
1940	10372.4	1301.6	10372.4	1237.3	.0	.0
1941	10372.4	873.9	10372.4	873.9	.0	.0
1942	10140.3	1810.3	9999.0	1745.2	-1.4	-141.3
1943	10372.4	1277.4	10372.4	1269.3	.0	.0
1944	7960.7	247.3	7119.2	375.5	-10.6	-841.5
1945	9990.2	849.0	9824.9	757.4	-1.7	-165.3
1946	10372.4	949.3	10372.4	999.5	.0	.0
1947	8699.2	496.8	8533.5	424.5	-1.9	-165.7
1948	8610.0	3121.7	8453.2	3048.9	-1.8	-156.8
1949	9714.3	1586.7	9148.6	1601.2	-5.8	-565.7
1950	10372.4	953.1	10372.4	891.2	.0	.0
1951	10372.4	1557.5	10372.4	1557.5	.0	.0
1952	10372.4	859.0	10372.4	859.0	.0	.0
1953	9623.2	998.6	9588.2	1025.7	-.4	-35.0
1954	10372.4	888.9	10372.4	888.9	.0	.0
1955	7613.6	597.5	7166.5	583.8	-5.9	-447.1
1956	9084.6	1130.4	8871.9	1037.1	-2.3	-212.7
1957	9612.1	173.8	9510.9	72.6	-1.1	-101.2
1958	10372.4	881.4	10372.4	881.4	.0	.0
1959	8932.3	323.1	8662.9	384.1	-3.0	-269.4
1960	10086.2	610.2	9943.6	559.4	-1.4	-142.6
1961	7203.5	1226.3	7021.9	1168.3	-2.5	-181.6
1962	10372.4	1086.6	10372.4	1388.9	.0	.0
1963	10372.4	2405.4	10372.4	2475.3	.0	.0
1964	8136.0	590.0	7993.2	487.6	-1.8	-142.8
1965	10372.4	2773.6	10372.4	2899.7	.0	.0
1966	9754.7	1118.5	9263.7	1116.1	-5.0	-491.0
1967	10207.6	907.2	10124.0	823.6	-.8	-83.6
1968	9688.9	334.5	8671.1	285.7	-10.5	-1017.8
1969	10372.4	1409.9	10372.4	1494.3	.0	0
1970	9226.0	405.4	9305.5	423.4	.9	79.5
1971	10087.0	686.7	10087.7	687.4	.0	.7
1972	9859.9	490.1	9783.0	413.2	-.8	-76.9
1973	10365.6	882.1	10259.6	776.1	-1.0	-106.0
1974	10372.4	1399.3	10372.4	1382.9	.0	.0
1975	9697.2	183.8	9583.6	70.2	-1.2	-113.6
1976	6887.6	582.4	6593.4	588.2	-4.3	-294.2
1977	4281.0	31.2	4115.3	147.0	-3.9	-165.7
1978	10372.4	956.9	10372.4	956.9	.0	.0
1979	10121.7	623.2	9819.0	538.0	-3.0	-302.7
1980	10283.2	1318.3	10225.7	1327.0	-.6	-57.5
1981	8668.3	518.1	8456.8	599.5	-2.4	-211.5
1982	10372.4	1608.3	10372.4	1608.3	.0	.0
1983	10372.4	1173.8	10372.4	1189.6	.0	.0
1984	9879.9	1103.4	9849.3	1017.5	-.3	-30.6
1985	9702.4	1198.4	9619.1	1253.5	-.9	-83.3
1986	10361.4	1622.9	10267.5	1529.0	-.9	-93.9
1987	7942.4	963.5	7243.4	1009.7	-8.8	-699.0
1988	6806.5	817.4	6890.5	804.0	1.2	84.0
1989	10372.4	1126.6	10372.4	949.3	.0	.0
1990	7069.7	-135.8	6994.6	387.2	-1.1	-75.1
1991	6734.2	1227.4	6935.1	1051.5	3.0	200.9
Mean:	9286.9	989.1	9163.3	996.6	-1.5	-123.5
Median:	9971.1	896.4	9819.0	896.4	-.5	-47.9
Min:	4281.0	-899.0	4115.3	-650.7	-10.6	-1017.8
Max:	10372.4	3251.0	10372.4	3048.9	3.0	200.9
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	24		27			
X < 8223.8	16		16			
X < 7614.2	12		14			
X < 7074.2	10		11			
X < 6301.3	3		4			
X < 4805.3	1		2			
X < 3782.9	0		0			

FOLSOM RESERVOIR SURFACE AREA

May

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	11361.7	.0	11361.7	.0	.0	.0
1923	11361.7	989.3	11361.7	994.0	.0	.0
1924	5553.3	471.1	5272.5	600.3	-5.1	-280.8
1925	11361.7	989.3	11361.7	989.3	.0	.0
1926	8807.5	-486.0	8689.2	-595.8	-1.3	-118.3
1927	11361.7	989.3	11361.7	989.3	.0	.0
1928	10911.6	539.2	10789.3	416.9	-1.1	-122.3
1929	7037.1	378.2	6959.7	403.5	-1.1	-77.4
1930	8925.0	-223.3	8721.1	-208.0	-2.3	-203.9
1931	6545.5	709.4	6469.7	662.1	-1.2	-75.8
1932	10860.9	1147.4	10752.0	1086.4	-1.0	-108.9
1933	6984.8	468.9	6447.8	353.5	-7.7	-537.0
1934	7243.8	249.2	7175.7	181.1	-.9	-68.1
1935	11305.5	933.1	11113.5	741.1	-1.7	-192.0
1936	11270.9	898.5	11160.7	788.3	-1.0	-110.2
1937	11361.7	989.3	11361.7	989.3	.0	.0
1938	11361.7	989.3	11361.7	989.3	.0	.0
1939	7899.2	-253.5	7648.7	-377.9	-3.2	-250.5
1940	11216.7	844.3	11153.5	781.1	-.6	-63.2
1941	11361.7	989.3	11361.7	989.3	.0	.0
1942	11361.7	1221.4	11361.7	1362.7	.0	.0
1943	10989.5	617.1	10864.8	492.4	-1.1	-124.7
1944	8598.9	638.2	7865.1	745.9	-8.5	-733.8
1945	11097.8	1107.6	10854.6	1029.7	-2.2	-243.2
1946	11361.7	989.3	11264.6	892.2	-.9	-97.1
1947	8345.8	-353.4	8147.5	-386.0	-2.4	-198.3
1948	10081.7	1471.7	9821.7	1368.5	-2.6	-260.0
1949	10710.8	996.5	10211.0	1062.4	-4.7	-499.8
1950	11343.9	971.5	11236.2	863.8	-.9	-107.7
1951	11335.6	963.2	11310.7	938.3	-.2	-24.9
1952	11361.7	989.3	11361.7	989.3	.0	.0
1953	10339.6	716.4	10165.9	577.7	-1.7	-173.7
1954	10679.2	306.8	10591.9	219.5	-.8	-87.3
1955	8442.3	828.7	8081.7	915.2	-4.3	-360.6
1956	11236.1	2151.5	11001.3	2129.4	-2.1	-234.8
1957	10933.4	1321.3	10858.3	1347.4	-.7	-75.1
1958	11361.7	989.3	11361.7	989.3	.0	.0
1959	8429.5	-502.8	8163.5	-499.4	-3.2	-266.0
1960	10031.3	-54.9	9794.4	-149.2	-2.4	-236.9
1961	7742.1	538.6	7466.0	444.1	-3.6	-276.1
1962	10763.2	390.8	10640.7	268.3	-1.1	-122.5
1963	11361.7	989.3	11361.7	989.3	.0	.0
1964	8699.6	563.6	8467.4	474.2	-2.7	-232.2
1965	11272.5	900.1	11242.5	870.1	-.3	-30.0
1966	9515.3	-239.4	8873.1	-390.6	-6.7	-642.2
1967	11361.7	1154.1	11361.7	1237.7	.0	.0
1968	9455.1	-233.8	8251.9	-419.2	-12.7	-1203.2
1969	11361.7	989.3	11361.7	989.3	.0	.0
1970	9716.3	490.3	9792.8	487.3	.8	76.5
1971	11019.3	932.3	10902.2	814.5	-1.1	-117.1
1972	10304.6	444.7	10232.3	449.3	-.7	-72.3
1973	11361.7	996.1	11361.7	1102.1	.0	.0
1974	11361.7	989.3	11361.7	989.3	.0	.0
1975	11302.8	1605.6	11111.6	1528.0	-1.7	-191.2
1976	7215.3	327.7	7239.1	645.7	.3	23.8
1977	4404.2	123.2	4317.9	202.6	-2.0	-86.3
1978	11361.7	989.3	11258.6	886.2	-.9	-103.1
1979	11361.7	1240.0	11195.1	1376.1	-1.5	-166.6
1980	11007.5	724.3	10912.4	686.7	-.9	-95.1
1981	8318.4	-349.9	8117.9	-338.9	-2.4	-200.5
1982	11361.7	989.3	11361.7	989.3	.0	.0
1983	11361.7	989.3	11361.7	989.3	.0	.0
1984	10828.4	948.5	10813.0	963.7	-.1	-15.4
1985	9486.5	-215.9	9407.6	-211.5	-.8	-78.9
1986	10994.2	632.8	10792.8	525.3	-1.8	-201.4
1987	7696.1	-246.3	7433.8	190.4	-3.4	-262.3
1988	7131.3	324.8	7155.5	265.0	.3	24.2
1989	10519.0	146.6	10507.3	134.9	-.1	-11.7
1990	6788.4	-281.3	6785.1	-209.5	.0	-3.3
1991	7329.2	595.0	7368.5	433.4	.5	39.3
Mean:	9941.4	634.7	9800.3	614.6	-1.6	-141.1
Median:	10860.9	724.3	10789.3	741.1	-.9	-95.1
Min:	4404.2	-502.8	4317.9	-595.8	-12.7	-1203.2
Max:	11361.7	2151.5	11361.7	2129.4	.8	76.5
X > 11267.9	26		18			
X > 10638.3	40		38			
X < 9318.8	21		23			
X < 8223.8	13		18			
X < 7614.2	10		12			
X < 7074.2	6		6			
X < 6301.3	2		2			
X < 4805.3	1		1			
X < 3782.9	0		0			

FOLSOM RESERVOIR SURFACE AREA

June

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	11361.7	.0	11361.7	.0	.0	.0
1923	10754.8	-606.9	10659.5	-702.2	-.9	-95.3
1924	5796.0	242.7	5570.8	298.3	-3.9	-225.2
1925	10182.1	-1179.6	9978.5	-1383.2	-2.0	-203.6
1926	8147.0	-660.5	8096.2	-593.0	-.6	-50.8
1927	11361.7	.0	11361.7	.0	.0	.0
1928	8923.6	-1988.0	8840.2	-1949.1	-.9	-83.4
1929	6594.6	-442.5	6284.5	-675.2	-4.7	-310.1
1930	8491.7	-433.3	8254.0	-467.1	-2.8	-237.7
1931	6565.1	19.6	6465.2	-4.5	-1.5	-99.9
1932	10809.1	-51.8	10527.8	-224.2	-2.6	-281.3
1933	7208.7	223.9	6539.4	91.6	-9.3	-669.3
1934	6408.1	-835.7	6284.5	-891.2	-1.9	-123.6
1935	11361.7	56.2	11216.1	102.6	-1.3	-145.6
1936	11361.7	90.8	11361.7	201.0	.0	.0
1937	11013.6	-348.1	10910.8	-450.9	-.9	-102.8
1938	11361.7	.0	11361.7	.0	.0	.0
1939	7758.0	-141.2	7649.1	.4	-1.4	-108.9
1940	10730.0	-486.7	10569.0	-584.5	-1.5	-161.0
1941	11208.3	-153.4	11153.6	-208.1	-.5	-54.7
1942	11361.7	.0	11361.7	.0	.0	.0
1943	10926.3	-63.2	10652.2	-212.6	-2.5	-274.1
1944	8362.9	-236.0	7726.3	-138.8	-7.6	-636.6
1945	9915.4	-1182.4	9493.5	-1361.1	-4.3	-421.9
1946	9837.0	-1524.7	9581.0	-1683.6	-2.6	-256.0
1947	8014.7	-331.1	7798.7	-348.8	-2.7	-216.0
1948	10717.8	636.1	10409.3	587.6	-2.9	-308.5
1949	10220.9	-489.9	9707.8	-503.2	-5.0	-513.1
1950	11361.7	17.8	11240.6	4.4	-1.1	-121.1
1951	10903.1	-432.5	10730.1	-580.6	-1.6	-173.0
1952	11361.7	.0	11361.7	.0	.0	.0
1953	11178.7	839.1	10979.8	813.9	-1.8	-198.9
1954	10057.4	-621.8	9992.5	-599.4	-.6	-64.9
1955	8277.0	-165.3	7901.7	-180.0	-4.5	-375.3
1956	11361.7	125.6	11361.7	360.4	.0	.0
1957	10638.8	-294.6	10570.2	-288.1	-.6	-68.6
1958	11361.7	.0	11361.7	.0	.0	.0
1959	8134.6	-294.9	7847.0	-316.5	-3.5	-287.6
1960	9591.3	-440.0	9205.5	-588.9	-4.0	-385.8
1961	8020.9	278.8	7757.1	291.1	-3.3	-263.8
1962	10592.3	-170.9	10286.2	-354.5	-2.9	-306.1
1963	11330.0	-31.7	11195.3	-166.4	-1.2	-134.7
1964	8531.9	-167.7	8277.8	-189.6	-3.0	-254.1
1965	11303.3	30.8	11136.5	-106.0	-1.5	-166.8
1966	8847.2	-668.1	8233.8	-639.3	-6.9	-613.4
1967	11361.7	.0	11361.7	.0	.0	.0
1968	8797.8	-657.3	7708.8	-543.1	-12.4	-1089.0
1969	11361.7	.0	11361.7	.0	.0	.0
1970	9075.3	-641.0	9052.5	-740.3	-.3	-22.8
1971	11361.7	342.4	11208.3	306.1	-1.4	-153.4
1972	8923.6	-1381.0	8755.6	-1476.7	-1.9	-168.0
1973	10104.9	-1256.8	10051.8	-1309.9	-.5	-53.1
1974	11361.7	.0	11361.7	.0	.0	.0
1975	11361.7	58.9	11361.7	250.1	.0	.0
1976	6408.1	-807.2	6284.5	-954.6	-1.9	-123.6
1977	4124.2	-280.0	4170.1	-147.8	1.1	45.9
1978	11361.7	.0	11237.0	-21.6	-1.1	-124.7
1979	9626.3	-1735.4	9180.8	-2014.3	-4.6	-445.5
1980	10919.6	-87.9	10757.6	-154.8	-1.5	-162.0
1981	7829.3	-489.1	7763.1	-354.8	-.8	-66.2
1982	11361.7	.0	11361.7	.0	.0	.0
1983	11361.7	.0	11361.7	.0	.0	.0
1984	9970.9	-857.5	9887.7	-925.3	-.8	-83.2
1985	8465.7	-1020.8	8430.5	-977.1	-.4	-35.2
1986	10979.5	-14.7	10725.2	-67.6	-2.3	-254.3
1987	7703.3	7.2	7331.9	-101.9	-4.8	-371.4
1988	6408.1	-723.2	6284.5	-871.0	-1.9	-123.6
1989	9489.9	-1029.1	9391.7	-1115.6	-1.0	-98.2
1990	6408.1	-380.3	6284.5	-500.6	-1.9	-123.6
1991	6867.8	-461.4	6652.7	-715.8	-3.1	-215.1
Mean:	9608.6	-332.8	9427.8	-372.5	-2.0	-180.9
Median:	10104.9	-170.9	9978.5	-212.6	-1.5	-124.7
Min:	4124.2	-1988.0	4170.1	-2014.3	-12.4	-1089.0
Max:	11361.7	839.1	11361.7	813.9	1.1	45.9
X > 11267.9	20		14			
X > 10638.3	32		28			
X < 9318.8	27		29			
X < 8223.8	17		20			
X < 7614.2	10		11			
X < 7074.2	9		10			
X < 6301.3	2		7			
X < 4805.3	1		1			
X < 3782.9	0		0			

FOLSOM RESERVOIR SURFACE AREA

July

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	10858.4	.0	11023.0	.0	1.5	164.6
1923	9416.6	-1338.2	9970.4	-689.1	5.9	553.8
1924	5766.9	-29.1	5631.3	60.5	-2.4	-135.6
1925	9261.5	-920.6	9019.2	-959.3	-2.6	-242.3
1926	6913.7	-1233.3	6941.0	-1155.2	.4	27.3
1927	11116.3	-245.4	11013.7	-348.0	-.9	-102.6
1928	8554.6	-369.0	8206.5	-633.7	-4.1	-348.1
1929	5982.5	-612.1	5631.3	-653.2	-5.9	-351.2
1930	7465.9	-1025.8	7292.5	-961.5	-2.3	-173.4
1931	5766.9	-798.2	5631.3	-833.9	-2.4	-135.6
1932	10600.1	-209.0	10058.5	-469.3	-5.1	-541.6
1933	6388.2	-820.5	5631.3	-908.1	-11.8	-756.9
1934	5766.9	-641.2	5631.3	-653.2	-2.4	-135.6
1935	10382.1	-979.6	10615.2	-600.9	2.2	233.1
1936	10837.6	-524.1	11186.4	-175.3	3.2	348.8
1937	10776.6	-237.0	10589.7	-321.1	-1.7	-186.9
1938	11233.7	-128.0	11233.7	-128.0	.0	.0
1939	6953.9	-804.1	6707.7	-941.4	-3.5	-246.2
1940	8923.6	-1806.4	8840.2	-1728.8	-.9	-83.4
1941	11233.7	25.4	11061.8	-91.8	-1.5	-171.9
1942	11233.7	-128.0	11233.7	-128.0	.0	.0
1943	9635.7	-1290.6	9259.7	-1392.5	-3.9	-376.0
1944	7867.3	-495.6	7662.0	-64.3	-2.6	-205.3
1945	8923.6	-991.8	8755.6	-737.9	-1.9	-168.0
1946	8923.6	-913.4	8755.6	-825.4	-1.9	-168.0
1947	7264.4	-750.3	7262.7	-536.0	.0	-1.7
1948	10176.0	-541.8	10175.9	-233.4	.0	-.1
1949	9286.5	-934.4	9138.5	-569.3	-1.6	-148.0
1950	10321.3	-1040.4	10282.0	-958.6	-.4	-39.3
1951	8941.9	-1961.2	8840.2	-1889.9	-1.1	-101.7
1952	11233.7	-128.0	11233.7	-128.0	.0	.0
1953	11233.7	55.0	11233.7	253.9	.0	.0
1954	8923.6	-1133.8	8840.2	-1152.3	-.9	-83.4
1955	7998.1	-278.9	7625.9	-275.8	-4.7	-372.2
1956	11233.7	-128.0	11233.7	-128.0	.0	.0
1957	9411.3	-1227.5	9212.2	-1358.0	-2.1	-199.1
1958	11233.7	-128.0	11233.7	-128.0	.0	.0
1959	8062.2	-72.4	7746.6	-100.4	-3.9	-315.6
1960	8420.3	-1171.0	8384.8	-820.7	-.4	-35.5
1961	8013.6	-7.3	7587.5	-169.6	-5.3	-426.1
1962	8923.6	-1668.7	8755.6	-1530.6	-1.9	-168.0
1963	11233.7	-96.3	10971.7	-223.6	-2.3	-262.0
1964	7815.3	-716.6	7845.1	-432.7	.4	29.8
1965	10246.7	-1056.6	9908.5	-1228.0	-3.3	-338.2
1966	8310.0	-537.2	7910.0	-323.8	-4.8	-400.0
1967	11233.7	-128.0	11233.7	-128.0	.0	.0
1968	8292.2	-505.6	7393.3	-315.5	-10.8	-898.9
1969	11233.7	-128.0	11233.7	-128.0	.0	.0
1970	8923.6	-151.7	8923.6	-128.9	.0	.0
1971	11233.7	-128.0	11233.7	25.4	.0	.0
1972	8718.1	-205.5	8383.2	-372.4	-3.8	-334.9
1973	8923.6	-1181.3	8840.2	-1211.6	-.9	-83.4
1974	11233.7	-128.0	11233.7	-128.0	.0	.0
1975	11233.7	-128.0	11233.7	-128.0	.0	.0
1976	5766.9	-641.2	5631.3	-653.2	-2.4	-135.6
1977	3619.5	-504.7	3805.4	-364.7	5.1	185.9
1978	9992.3	-1369.4	9875.8	-1361.2	-1.2	-116.5
1979	8923.6	-702.7	8755.6	-425.2	-1.9	-168.0
1980	10581.4	-338.2	10594.2	-163.4	.1	12.8
1981	7892.9	63.6	7662.1	-101.0	-2.9	-230.8
1982	11233.7	-128.0	11233.7	-128.0	.0	.0
1983	11266.7	-95.0	11233.7	-128.0	-.3	-33.0
1984	8923.6	-1047.3	8923.6	-964.1	.0	.0
1985	7508.1	-957.6	7464.5	-966.0	-.6	-43.6
1986	9599.6	-1379.9	9105.8	-1619.4	-5.1	-493.8
1987	6768.0	-935.3	6707.7	-624.2	-.9	-60.3
1988	5766.9	-641.2	5631.3	-653.2	-2.4	-135.6
1989	8137.6	-1352.3	8105.4	-1286.3	-.4	-32.2
1990	5766.9	-641.2	5631.3	-653.2	-2.4	-135.6
1991	6255.5	-612.3	5635.7	-1017.0	-9.9	-619.8
Mean:	8972.8	-628.7	8838.7	-584.2	-1.7	-134.1
Median:	8923.6	-612.3	8840.2	-536.0	-1.2	-116.5
Min:	3619.5	-1961.2	3805.4	-1889.9	-11.8	-898.9
Max:	11266.7	63.6	11233.7	253.9	5.9	553.8
X > 11267.9	0		0			
X > 10638.3	19		18			
X < 9318.8	40		43			
X < 8223.8	23		26			
X < 7614.2	16		18			
X < 7074.2	13		13			
X < 6301.3	9		10			
X < 4805.3	1		1			
X < 3782.9	1		0			

FOLSOM RESERVOIR SURFACE AREA

August

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	10372.4	.0	10372.4	.0	.0	.0
1923	9003.6	-413.0	9355.2	-615.2	3.9	351.6
1924	5952.4	185.5	5748.8	117.5	-3.4	-203.6
1925	8193.6	-1067.9	7936.5	-1082.7	-3.1	-257.1
1926	7120.0	206.3	6935.1	-5.9	-2.6	-184.9
1927	10372.4	-743.9	10372.4	-641.3	.0	.0
1928	7534.1	-1020.5	7429.7	-776.8	-1.4	-104.4
1929	6568.5	586.0	6002.6	371.3	-8.6	-565.9
1930	7866.8	400.9	7513.3	220.8	-4.5	-353.5
1931	5992.9	226.0	5712.3	81.0	-4.7	-280.6
1932	10372.4	-227.7	9821.3	-237.2	-5.3	-551.1
1933	7030.3	642.1	6345.9	714.6	-9.7	-684.4
1934	5698.0	-68.9	5312.7	-318.6	-6.8	-385.3
1935	9803.9	-578.2	9899.2	-716.0	1.0	95.3
1936	10348.6	-489.0	10372.4	-814.0	.2	23.8
1937	10372.4	-404.2	10310.4	-279.3	-.6	-62.0
1938	10372.4	-861.3	10372.4	-861.3	.0	.0
1939	7074.5	120.6	6630.7	-77.0	-6.3	-443.8
1940	7628.3	-1295.3	7429.7	-1410.5	-2.6	-198.6
1941	10372.4	-861.3	10372.4	-689.4	.0	.0
1942	10372.4	-861.3	10372.4	-861.3	.0	.0
1943	9278.0	-357.7	8718.4	-541.3	-6.0	-559.6
1944	6324.3	-1543.0	6843.8	-818.2	8.2	519.5
1945	8727.5	-196.1	8288.5	-467.1	-5.0	-439.0
1946	8715.5	-208.1	8371.7	-383.9	-3.9	-343.8
1947	7397.7	133.3	7392.1	129.4	-.1	-5.6
1948	9554.6	-621.4	9359.9	-816.0	-2.0	-194.7
1949	8853.0	-433.5	8539.0	-599.5	-3.5	-314.0
1950	9791.4	-529.9	9660.5	-621.5	-1.3	-130.9
1951	8098.3	-843.6	7803.1	-1037.1	-3.6	-295.2
1952	10373.3	-860.4	10372.4	-861.3	.0	-.9
1953	10372.4	-861.3	10372.4	-861.3	.0	.0
1954	7911.4	-1012.2	7478.3	-1361.9	-5.5	-433.1
1955	6905.8	-1092.3	7111.9	-514.0	3.0	206.1
1956	10372.4	-861.3	10372.4	-861.3	.0	.0
1957	9407.2	-4.1	9060.2	-152.0	-3.7	-347.0
1958	10372.4	-861.3	10372.4	-861.3	.0	.0
1959	6994.6	-1067.6	7215.7	-530.9	3.2	221.1
1960	7203.2	-1217.1	7100.2	-1284.6	-1.4	-103.0
1961	7345.7	-667.9	7256.4	-331.1	-1.2	-89.3
1962	7043.8	-1879.8	7215.7	-1539.9	2.4	171.9
1963	10372.4	-861.3	10372.4	-599.3	.0	.0
1964	6596.3	-1219.0	6624.7	-1220.4	.4	28.4
1965	10295.5	48.8	9873.7	-34.8	-4.1	-421.8
1966	7200.3	-1109.7	7215.7	-694.3	.2	15.4
1967	10372.4	-861.3	10372.4	-861.3	.0	.0
1968	8429.6	137.4	7538.0	144.7	-10.6	-891.6
1969	10372.4	-861.3	10372.4	-861.3	.0	.0
1970	7534.1	-1389.5	7534.1	-1389.5	.0	.0
1971	10372.4	-861.3	10372.4	-861.3	.0	.0
1972	6994.6	-1723.5	7215.7	-1167.5	3.2	221.1
1973	8900.5	-23.1	8454.4	-385.8	-5.0	-446.1
1974	10372.4	-861.3	10372.4	-861.3	.0	.0
1975	10372.4	-861.3	10372.4	-861.3	.0	.0
1976	5061.2	-705.7	5061.2	-570.1	.0	.0
1977	3270.1	-349.4	3569.4	-236.0	9.2	299.3
1978	9945.8	-46.5	9581.1	-294.7	-3.7	-364.7
1979	8523.1	-400.5	8051.6	-704.0	-5.5	-471.5
1980	10372.4	-209.0	10372.4	-221.8	.0	.0
1981	7393.9	-499.0	7240.2	-421.9	-2.1	-153.7
1982	10372.4	-861.3	10372.4	-861.3	.0	.0
1983	10549.0	-717.7	10372.4	-861.3	-1.7	-176.6
1984	9037.9	114.3	8870.7	-52.9	-1.8	-167.2
1985	6252.7	-1255.4	6329.0	-1135.5	1.2	76.3
1986	8562.2	-1037.4	7787.7	-1318.1	-9.0	-774.5
1987	5708.4	-1059.6	5446.2	-1261.5	-4.6	-262.2
1988	5061.2	-705.7	5061.2	-570.1	.0	.0
1989	6774.7	-1362.9	6832.5	-1272.9	.9	57.8
1990	5061.2	-705.7	5061.2	-570.1	.0	.0
1991	6045.7	-209.8	5808.8	173.1	-3.9	-236.9
Mean:	8366.3	-599.5	8229.0	-600.4	-1.6	-137.3
Median:	8523.1	-705.7	7936.5	-641.3	-.6	-62.0
Min:	3270.1	-1879.8	3569.4	-1539.9	-10.6	-891.6
Max:	10549.0	642.1	10372.4	714.6	9.2	519.5
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	43		43			
X < 8223.8	33		36			
X < 7614.2	28		32			
X < 7074.2	19		17			
X < 6301.3	10		10			
X < 4805.3	1		1			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

September

Water Year	Base Area (acre)	Base Change from Prev (acre)	WFP Area (acre)	WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	9323.6	.0	9323.6	.0	.0	.0
1923	8808.2	-195.4	8875.5	-479.7	.8	67.3
1924	5635.2	-317.2	5396.7	-352.1	-4.2	-238.5
1925	8043.4	-150.2	7739.9	-196.6	-3.8	-303.5
1926	6967.6	-152.4	6734.4	-200.7	-3.3	-233.2
1927	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1928	7531.0	-3.1	7166.4	-263.3	-4.8	-364.6
1929	6417.0	-151.5	5818.1	-184.5	-9.3	-598.9
1930	7874.6	7.8	7358.9	-154.4	-6.5	-515.7
1931	5700.3	-292.6	5533.9	-178.4	-2.9	-166.4
1932	9323.6	-1048.8	9195.9	-625.4	-1.4	-127.7
1933	6922.1	-108.2	6205.3	-140.6	-10.4	-716.8
1934	5507.0	-191.0	5193.8	-118.9	-5.7	-313.2
1935	9183.6	-620.3	9179.5	-719.7	.0	-4.1
1936	9323.6	-1025.0	9323.6	-1048.8	.0	.0
1937	9323.6	-1048.8	9323.6	-986.8	.0	.0
1938	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1939	6942.6	-131.9	6326.4	-304.3	-8.9	-616.2
1940	7534.1	-94.2	7218.8	-210.9	-4.2	-315.3
1941	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1942	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1943	8985.3	-292.7	8448.3	-270.1	-6.0	-537.0
1944	5852.5	-471.8	6332.7	-511.1	8.2	480.2
1945	8230.3	-497.2	7642.3	-646.2	-7.1	-588.0
1946	7958.1	-757.4	7459.6	-912.1	-6.3	-498.5
1947	6817.3	-580.4	6972.3	-419.8	2.3	155.0
1948	8926.3	-628.3	8706.1	-653.8	-2.5	-220.2
1949	8556.1	-296.9	8162.7	-376.3	-4.6	-393.4
1950	9323.6	-467.8	9036.7	-623.8	-3.1	-286.9
1951	7999.8	-98.5	7534.1	-269.0	-5.8	-465.7
1952	9323.6	-1049.7	9323.6	-1048.8	.0	.0
1953	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1954	7534.1	-377.3	7338.2	-140.1	-2.6	-195.9
1955	6862.2	-43.6	6896.5	-215.4	.5	34.3
1956	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1957	9045.8	-361.4	8598.9	-461.3	-4.9	-446.9
1958	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1959	6922.7	-71.9	6824.5	-391.2	-1.4	-98.2
1960	6713.2	-490.0	6631.5	-468.7	-1.2	-81.7
1961	6973.3	-372.4	6909.4	-347.0	-.9	-63.9
1962	6971.3	-72.5	6954.6	-261.1	-.2	-16.7
1963	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1964	6437.9	-158.4	6468.2	-156.5	.5	30.3
1965	9323.6	-971.9	9320.0	-553.7	.0	-3.6
1966	6994.6	-205.7	6786.4	-429.3	-3.0	-208.2
1967	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1968	7979.5	-450.1	6994.6	-543.4	-12.3	-984.9
1969	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1970	7541.4	7.3	7364.1	-170.0	-2.4	-177.3
1971	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1972	6980.6	-14.0	6994.6	-221.1	.2	14.0
1973	8782.9	-117.6	8246.9	-207.5	-6.1	-536.0
1974	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1975	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1976	5129.3	68.1	5091.8	30.6	-.7	-37.5
1977	3083.2	-186.9	3385.9	-183.5	9.8	302.7
1978	9323.6	-622.2	9124.4	-456.7	-2.1	-199.2
1979	8204.5	-318.6	7613.7	-437.9	-7.2	-590.8
1980	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1981	7061.7	-332.2	6798.5	-441.7	-3.7	-263.2
1982	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1983	9678.2	-870.8	9328.6	-1043.8	-3.6	-349.6
1984	8852.6	-185.3	8533.0	-337.7	-3.6	-319.6
1985	6484.6	231.9	6396.2	67.2	-1.4	-88.4
1986	8601.1	38.9	7765.9	-21.8	-9.7	-835.2
1987	5594.1	-114.3	5214.8	-231.4	-6.8	-379.3
1988	5321.1	259.9	5219.6	158.4	-1.9	-101.5
1989	7048.6	273.9	6760.0	-72.5	-4.1	-288.6
1990	5362.5	301.3	5239.9	178.7	-2.3	-122.6
1991	5970.4	-75.3	5519.4	-289.4	-7.6	-451.0
Mean:	7899.5	-451.8	7710.1	-503.9	-2.4	-189.4
Median:	8043.4	-332.2	7613.7	-429.3	-1.9	-122.6
Min:	3083.2	-1049.7	3385.9	-1048.8	-12.3	-984.9
Max:	9678.2	301.3	9328.6	178.7	9.8	480.2
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	46		49			
X < 8223.8	36		39			
X < 7614.2	30		35			
X < 7074.2	26		27			
X < 6301.3	10		11			
X < 4805.3	1		1			
X < 3782.9	1		1			

RETURN TO TABLE OF CONTENTS

Section 5

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM
5.1 Fisheries

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

January

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	43.5	43.5	.0	.0
1923	44.3	44.2	-.2	-.1
1924	46.6	46.5	-.2	-.1
1925	46.7	47.3	1.3	.6
1926	44.7	44.7	.0	.0
1927	47.9	47.7	-.4	-.2
1928	47.4	47.3	-.2	-.1
1929	43.9	43.7	-.5	-.2
1930	46.5	46.3	-.4	-.2
1931	48.1	47.9	-.4	-.2
1932	45.7	45.6	-.2	-.1
1933	44.5	44.4	-.2	-.1
1934	47.2	47.1	-.2	-.1
1935	47.5	47.7	.4	.2
1936	48.1	47.9	-.4	-.2
1937	42.9	42.8	-.2	-.1
1938	47.0	47.0	.0	.0
1939	47.7	47.6	-.2	-.1
1940	48.1	47.9	-.4	-.2
1941	48.8	48.8	.0	.0
1942	46.3	46.3	.0	.0
1943	46.4	46.4	.0	.0
1944	48.2	47.9	-.6	-.3
1945	46.1	46.2	.2	.1
1946	45.7	45.6	-.2	-.1
1947	45.2	45.0	-.4	-.2
1948	48.2	48.2	.0	.0
1949	42.4	42.2	-.5	-.2
1950	44.7	44.4	-.7	-.3
1951	45.0	45.0	.0	.0
1952	45.3	45.3	.0	.0
1953	48.9	48.8	-.2	-.1
1954	48.2	48.1	-.2	-.1
1955	44.0	43.8	-.5	-.2
1956	46.0	46.0	.0	.0
1957	47.8	47.7	-.2	-.1
1958	47.7	47.4	-.6	-.3
1959	51.3	51.1	-.4	-.2
1960	48.2	48.0	-.4	-.2
1961	45.4	45.3	-.2	-.1
1962	44.7	44.6	-.2	-.1
1963	45.8	45.8	.0	.0
1964	44.9	44.9	.0	.0
1965	44.8	44.8	.0	.0
1966	46.5	46.4	-.2	-.1
1967	46.7	46.7	.0	.0
1968	46.8	46.7	-.2	-.1
1969	45.1	45.0	-.2	-.1
1970	47.2	47.2	.0	.0
1971	45.9	45.8	-.2	-.1
1972	44.6	44.5	-.2	-.1
1973	44.8	44.8	.0	.0
1974	46.7	46.7	.0	.0
1975	45.9	45.8	-.2	-.1
1976	48.7	48.7	.0	.0
1977	46.1	46.1	.0	.0
1978	48.2	48.2	.0	.0
1979	46.6	46.4	-.4	-.2
1980	46.8	46.2	-1.3	-.6
1981	49.6	49.4	-.4	-.2
1982	45.3	45.3	.0	.0
1983	45.5	45.5	.0	.0
1984	46.2	46.2	.0	.0
1985	46.0	45.9	-.2	-.1
1986	47.3	47.2	-.2	-.1
1987	47.9	47.5	-.8	-.4
1988	48.1	48.0	-.2	-.1
1989	46.8	46.9	.2	.1
1990	47.8	47.7	-.2	-.1
Mean:	46.5	46.4	-.2	-.1
Median:	46.5	46.3	-.2	-.1
Min:	42.4	42.2	-1.3	-.6
Max:	51.3	51.1	1.3	.6
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0		4		
X < 0.0		42		
0.0 < X <= .5		3		
.5 < X <= 1.0		0		
X > 1.0		1		
0.0 > X >= -.5		37		
-.5 > X > -1.0		4		
X < -1.0		1		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

February

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	45.9	46.0	.2	.1
1923	46.3	46.3	.0	.0
1924	50.3	50.7	.8	.4
1925	48.2	48.1	-.2	-.1
1926	49.3	49.5	.4	.2
1927	48.7	48.7	.0	.0
1928	48.5	48.6	.2	.1
1929	46.7	46.8	.2	.1
1930	52.1	52.5	.8	.4
1931	50.9	51.1	.4	.2
1932	46.9	46.9	.0	.0
1933	46.2	45.8	-.9	-.4
1934	49.8	49.9	.2	.1
1935	48.4	48.3	-.2	-.1
1936	47.7	47.7	.0	.0
1937	45.7	46.0	.7	.3
1938	48.2	48.2	.0	.0
1939	47.7	47.7	.0	.0
1940	49.1	49.2	.2	.1
1941	49.7	49.7	.0	.0
1942	46.6	46.6	.0	.0
1943	49.3	49.3	.0	.0
1944	48.3	47.9	-.8	-.4
1945	47.4	47.4	.0	.0
1946	46.1	46.1	.0	.0
1947	48.7	49.0	.6	.3
1948	47.5	47.5	.0	.0
1949	45.0	45.5	1.1	.5
1950	47.2	47.2	.0	.0
1951	46.4	46.4	.0	.0
1952	47.3	47.3	.0	.0
1953	50.3	50.3	.0	.0
1954	48.2	47.9	-.6	-.3
1955	46.4	46.6	.4	.2
1956	46.6	46.6	.0	.0
1957	49.3	49.3	.0	.0
1958	51.2	49.8	-2.7	-1.4
1959	49.9	49.7	-.4	-.2
1960	48.9	48.9	.0	.0
1961	49.5	49.8	.6	.3
1962	47.1	47.0	-.2	-.1
1963	49.5	49.5	.0	.0
1964	47.3	47.3	.0	.0
1965	47.1	47.2	.2	.1
1966	47.5	47.5	.0	.0
1967	48.2	48.2	.0	.0
1968	50.2	49.2	-2.0	-1.0
1969	46.3	46.3	.0	.0
1970	48.2	48.1	-.2	-.1
1971	47.2	47.2	.0	.0
1972	47.9	46.8	-2.3	-1.1
1973	49.4	49.4	.0	.0
1974	46.7	46.7	.0	.0
1975	47.4	47.4	.0	.0
1976	50.5	50.7	.4	.2
1977	52.5	52.8	.6	.3
1978	50.9	50.8	-.2	-.1
1979	47.6	47.5	-.2	-.1
1980	47.3	47.5	.4	.2
1981	50.8	51.0	.4	.2
1982	46.6	46.6	.0	.0
1983	49.0	49.0	.0	.0
1984	47.9	47.9	.0	.0
1985	47.6	47.8	.4	.2
1986	48.0	48.0	.0	.0
1987	51.7	50.2	-2.9	-1.5
1988	53.4	53.2	-.4	-.2
1989	47.6	47.5	-.2	-.1
1990	48.2	48.2	.0	.0
Mean:	48.3	48.3	-.1	.0
Median:	48.0	47.9	.0	.0
Min:	45.0	45.5	-2.9	-1.5
Max:	53.4	53.2	1.1	.5

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0			20	
X < 0.0			16	
0.0 < X <= .5			13	
.5 < X <= 1.0			6	
X > 1.0			1	
0.0 > X >= -.5			9	
-.5 > X > -1.0			3	
X < -1.0			4	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

March

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	50.9	50.9	.0	.0
1923	52.2	48.3	-7.5	-3.9
1924	53.3	53.5	.4	.2
1925	54.0	54.0	.0	.0
1926	55.1	55.2	.2	.1
1927	51.5	51.5	.0	.0
1928	52.0	52.1	.2	.1
1929	53.2	51.9	-2.4	-1.3
1930	52.8	52.8	.0	.0
1931	54.6	54.7	.2	.1
1932	53.7	53.7	.0	.0
1933	53.3	51.6	-3.2	-1.7
1934	55.8	56.2	.7	.4
1935	50.0	49.9	-.2	-.1
1936	52.7	52.7	.0	.0
1937	51.9	52.3	.8	.4
1938	49.8	49.8	.0	.0
1939	52.2	52.5	.6	.3
1940	51.8	51.8	.0	.0
1941	53.0	53.0	.0	.0
1942	49.4	49.2	-.4	-.2
1943	51.1	51.1	.0	.0
1944	51.7	52.5	1.5	.8
1945	50.0	50.0	.0	.0
1946	51.3	51.4	.2	.1
1947	52.4	52.6	.4	.2
1948	49.9	49.9	.0	.0
1949	50.1	50.3	.4	.2
1950	51.6	51.6	.0	.0
1951	50.6	50.6	.0	.0
1952	49.5	49.5	.0	.0
1953	52.7	52.7	.0	.0
1954	50.6	50.7	.2	.1
1955	51.6	51.9	.6	.3
1956	51.3	51.3	.0	.0
1957	53.7	53.4	-.6	-.3
1958	50.7	50.8	.2	.1
1959	53.4	53.3	-.2	-.1
1960	53.4	53.4	.0	.0
1961	53.5	53.3	-.4	-.2
1962	51.4	51.0	-.8	-.4
1963	50.9	50.9	.0	.0
1964	50.6	50.5	-.2	-.1
1965	51.3	51.3	.0	.0
1966	51.4	51.3	-.2	-.1
1967	51.0	51.0	.0	.0
1968	54.9	53.0	-3.5	-1.9
1969	51.8	51.4	-.8	-.4
1970	52.6	52.6	.0	.0
1971	50.7	50.7	.0	.0
1972	55.0	55.5	.9	.5
1973	50.5	50.5	.0	.0
1974	51.6	51.6	.0	.0
1975	50.6	50.6	.0	.0
1976	53.1	53.3	.4	.2
1977	53.5	53.6	.2	.1
1978	54.3	54.2	-.2	-.1
1979	53.3	52.8	-.9	-.5
1980	51.4	51.4	.0	.0
1981	52.5	52.5	.0	.0
1982	50.4	50.4	.0	.0
1983	50.5	50.5	.0	.0
1984	53.2	53.3	.2	.1
1985	50.2	50.4	.4	.2
1986	52.2	52.2	.0	.0
1987	52.8	52.9	.2	.1
1988	57.3	57.2	-.2	-.1
1989	51.5	51.4	-.2	-.1
1990	54.1	54.8	1.3	.7
Mean:	52.1	52.0	-.2	-.1
Median:	51.8	51.6	.0	.0
Min:	49.4	48.3	-7.5	-3.9
Max:	57.3	57.2	1.5	.8

X > 56.0	1	2		
Mean X > 56.0	57.3	56.7	-1.0	-.6
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0		21		
X < 0.0		17		
0.0 < X <= .5		14		
.5 < X <= 1.0		5		
X > 1.0		2		
0.0 > X >= -.5		9		
-.5 > X > -1.0		4		
X < -1.0		4		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

April

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	54.1	54.2	.2	.1
1923	55.3	55.6	.5	.3
1924	61.4	61.6	.3	.2
1925	55.3	55.5	.4	.2
1926	59.2	59.1	-.2	-.1
1927	53.8	53.8	.0	.0
1928	54.5	54.5	.0	.0
1929	55.7	56.4	1.3	.7
1930	58.6	57.6	-1.7	-1.0
1931	63.1	63.0	-.2	-.1
1932	55.9	56.1	.4	.2
1933	57.2	58.1	1.6	.9
1934	59.5	59.8	.5	.3
1935	54.7	54.7	.0	.0
1936	55.3	55.3	.0	.0
1937	54.1	54.1	.0	.0
1938	53.8	53.8	.0	.0
1939	59.2	61.2	3.4	2.0
1940	55.0	55.0	.0	.0
1941	54.6	54.6	.0	.0
1942	54.4	54.5	.2	.1
1943	54.6	54.6	.0	.0
1944	54.2	54.9	1.3	.7
1945	55.9	56.1	.4	.2
1946	55.3	55.4	.2	.1
1947	57.2	55.9	-2.3	-1.3
1948	53.3	53.1	-.4	-.2
1949	57.9	57.3	-1.0	-.6
1950	55.5	55.5	.0	.0
1951	55.9	56.0	.2	.1
1952	54.0	54.0	.0	.0
1953	55.9	56.0	.2	.1
1954	56.1	56.2	.2	.1
1955	53.6	53.7	.2	.1
1956	56.3	56.1	-.4	-.2
1957	57.7	57.7	.0	.0
1958	54.1	54.1	.0	.0
1959	62.7	59.0	-5.9	-3.7
1960	57.3	57.5	.3	.2
1961	60.4	60.5	.2	.1
1962	57.0	57.6	1.1	.6
1963	53.2	53.2	.0	.0
1964	54.5	54.5	.0	.0
1965	54.9	55.0	.2	.1
1966	60.6	60.0	-1.0	-.6
1967	51.6	51.6	.0	.0
1968	58.3	57.1	-2.1	-1.2
1969	54.2	54.3	.2	.1
1970	56.2	56.2	.0	.0
1971	54.1	54.2	.2	.1
1972	56.7	56.9	.4	.2
1973	56.4	56.4	.0	.0
1974	53.8	53.8	.0	.0
1975	52.9	52.9	.0	.0
1976	57.6	57.7	.2	.1
1977	64.7	64.9	.3	.2
1978	54.8	54.9	.2	.1
1979	56.2	56.5	.5	.3
1980	56.2	56.4	.4	.2
1981	56.4	56.2	-.4	-.2
1982	53.1	53.1	.0	.0
1983	53.5	53.5	.0	.0
1984	56.7	56.7	.0	.0
1985	59.5	59.5	.0	.0
1986	56.7	56.7	.0	.0
1987	63.2	63.8	.9	.6
1988	62.3	62.2	-.2	-.1
1989	57.2	57.4	.3	.2
1990	58.9	59.8	1.5	.9
Mean:	56.4	56.5	.0	.0
Median:	55.9	56.0	.0	.0
Min:	51.6	51.6	-5.9	-3.7
Max:	64.7	64.9	3.4	2.0

X > 56.0	33	35		
Mean X > 56.0	58.6	58.4	-.3	-.2
X > 60.0	8	7		
Mean X > 60.0	62.3	62.5	.3	.2
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

X > 0.0			32	
X < 0.0			12	
0.0 < X <= .5			25	
.5 < X <= 1.0			1	
X > 1.0			6	
0.0 > X >= -.5			6	
-.5 > X > -1.0			2	
X < -1.0			4	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

May

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	58.1	58.2	.2	.1
1923	58.3	58.4	.2	.1
1924	69.8	70.2	.6	.4
1925	58.9	59.0	.2	.1
1926	65.0	65.2	.3	.2
1927	58.1	58.0	-.2	-.1
1928	60.2	60.1	-.2	-.1
1929	61.9	62.3	.6	.4
1930	61.1	61.5	.7	.4
1931	70.6	70.6	.0	.0
1932	59.9	60.0	.2	.1
1933	59.1	59.5	.7	.4
1934	68.2	68.1	-.1	-.1
1935	58.4	58.4	.0	.0
1936	59.4	59.4	.0	.0
1937	58.7	58.6	-.2	-.1
1938	58.4	58.3	-.2	-.1
1939	62.6	62.7	.2	.1
1940	60.0	60.0	.0	.0
1941	58.2	58.1	-.2	-.1
1942	57.1	57.2	.2	.1
1943	59.5	59.4	-.2	-.1
1944	60.0	60.6	1.0	.6
1945	58.5	58.7	.3	.2
1946	58.7	58.6	-.2	-.1
1947	63.0	61.4	-2.5	-1.6
1948	58.1	58.3	.3	.2
1949	60.7	61.3	1.0	.6
1950	59.3	59.3	.0	.0
1951	59.5	59.4	-.2	-.1
1952	58.4	58.4	.0	.0
1953	58.2	58.2	.0	.0
1954	60.8	60.7	-.2	-.1
1955	58.7	59.6	1.5	.9
1956	59.6	59.8	.3	.2
1957	59.5	59.5	.0	.0
1958	58.8	58.7	-.2	-.1
1959	61.9	60.8	-1.8	-1.1
1960	61.0	61.4	.7	.4
1961	60.6	60.6	.0	.0
1962	59.5	59.6	.2	.1
1963	56.9	56.9	.0	.0
1964	58.7	57.8	-1.5	-.9
1965	58.5	58.5	.0	.0
1966	64.2	65.2	1.6	1.0
1967	57.3	57.3	.0	.0
1968	62.2	59.6	-4.2	-2.6
1969	58.4	58.4	.0	.0
1970	62.5	62.6	.2	.1
1971	57.0	56.9	-.2	-.1
1972	61.4	61.6	.3	.2
1973	60.4	60.5	.2	.1
1974	58.2	58.1	-.2	-.1
1975	58.9	59.1	.3	.2
1976	64.7	66.7	3.1	2.0
1977	63.0	63.0	.0	.0
1978	59.0	59.0	.0	.0
1979	59.8	60.3	.8	.5
1980	58.9	58.9	.0	.0
1981	61.4	60.6	-1.3	-.8
1982	58.3	58.2	-.2	-.1
1983	57.7	57.7	.0	.0
1984	61.6	61.7	.2	.1
1985	63.0	63.2	.3	.2
1986	60.1	60.2	.2	.1
1987	64.7	67.6	4.5	2.9
1988	65.2	65.1	-.2	-.1
1989	61.2	61.3	.2	.1
1990	63.7	63.9	.3	.2
Mean:	60.5	60.6	.1	.1
Median:	59.5	59.5	.0	.0
Min:	56.9	56.9	-4.2	-2.6
Max:	70.6	70.6	4.5	2.9

X > 56.0	69	69		
Mean X > 56.0	60.5	60.6	.2	.1
X > 60.0	29	30		
Mean X > 60.0	63.0	63.0	.0	.0
X > 65.0	4	8		
Mean X > 65.0	68.4	67.3	-1.6	-1.1
X > 68.0	3	3		
Mean X > 68.0	69.5	69.6	.1	.1
X > 70.0	1	2		
Mean X > 70.0	70.6	70.4	-.3	-.2
X > 0.0		32		
X < 0.0		20		
0.0 < X <= .5		20		
.5 < X <= 1.0		8		
X > 1.0		4		
0.0 > X >= -.5		15		
-.5 > X > -1.0		0		
X < -1.0		5		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

June

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	62.5	61.0	-2.4	-1.5
1923	61.6	61.5	-.2	-.1
1924	69.4	69.3	-.1	-.1
1925	63.5	62.1	-2.2	-1.4
1926	65.8	64.3	-2.3	-1.5
1927	61.8	60.3	-2.4	-1.5
1928	64.9	65.8	1.4	.9
1929	67.6	65.8	-2.7	-1.8
1930	65.2	62.4	-4.3	-2.8
1931	68.2	64.6	-5.3	-3.6
1932	64.4	64.1	-.5	-.3
1933	65.8	66.0	.3	.2
1934	68.7	65.1	-5.2	-3.6
1935	62.7	61.3	-2.2	-1.4
1936	63.3	63.0	-.5	-.3
1937	62.6	62.2	-.6	-.4
1938	63.3	62.1	-1.9	-1.2
1939	66.2	65.4	-1.2	-.8
1940	64.7	65.1	.6	.4
1941	61.4	59.3	-3.4	-2.1
1942	61.4	61.2	-.3	-.2
1943	62.9	62.1	-1.3	-.8
1944	63.4	64.6	1.9	1.2
1945	63.6	64.4	1.3	.8
1946	62.5	63.4	1.4	.9
1947	66.9	67.4	.7	.5
1948	63.6	61.6	-3.1	-2.0
1949	64.5	62.0	-3.9	-2.5
1950	62.5	61.8	-1.1	-.7
1951	63.3	63.0	-.5	-.3
1952	61.7	61.6	-.2	-.1
1953	62.2	62.4	.3	.2
1954	63.7	63.0	-1.1	-.7
1955	63.8	64.3	.8	.5
1956	63.3	63.0	-.5	-.3
1957	64.1	64.5	.6	.4
1958	62.6	62.4	-.3	-.2
1959	65.4	62.3	-4.7	-3.1
1960	66.4	63.6	-4.2	-2.8
1961	64.1	66.8	4.2	2.7
1962	64.1	64.0	-.2	-.1
1963	61.1	60.1	-1.6	-1.0
1964	65.7	62.3	-5.2	-3.4
1965	61.6	61.6	.0	.0
1966	67.6	62.9	-7.0	-4.7
1967	61.9	61.8	-.2	-.1
1968	65.1	65.2	.2	.1
1969	62.0	61.8	-.3	-.2
1970	65.5	66.0	.8	.5
1971	60.7	59.6	-1.8	-1.1
1972	64.0	65.4	2.2	1.4
1973	63.8	61.8	-3.1	-2.0
1974	62.6	62.1	-.8	-.5
1975	61.8	60.1	-2.8	-1.7
1976	67.8	65.2	-3.8	-2.6
1977	70.4	70.4	.0	.0
1978	62.7	62.6	-.2	-.1
1979	64.5	64.5	.0	.0
1980	62.0	62.0	.0	.0
1981	67.0	62.8	-6.3	-4.2
1982	61.9	60.5	-2.3	-1.4
1983	62.6	62.5	-.2	-.1
1984	66.0	64.5	-2.3	-1.5
1985	67.0	64.2	-4.2	-2.8
1986	64.5	64.7	.3	.2
1987	66.0	65.8	-.3	-.2
1988	67.5	64.3	-4.7	-3.2
1989	65.0	65.1	.2	.1
1990	67.7	64.5	-4.7	-3.2
Mean:	64.3	63.4	-1.4	-.9
Median:	63.8	63.0	-.7	-.4
Min:	60.7	59.3	-7.0	-4.7
Max:	70.4	70.4	4.2	2.7

X > 56.0	69	69		
Mean X > 56.0	64.3	63.4	-1.4	-.9
X > 60.0	69	67		
Mean X > 60.0	64.3	63.5	-1.2	-.8
X > 65.0	23	16		
Mean X > 65.0	66.9	66.2	-1.0	-.7
X > 68.0	4	2		
Mean X > 68.0	69.2	69.9	1.0	.7
X > 70.0	1	1		
Mean X > 70.0	70.4	70.4	.0	.0
X > 0.0		16		
X < 0.0		49		
0.0 < X <= .5		5		
.5 < X <= 1.0		5		
X > 1.0		6		
0.0 > X >= -.5		15		
-.5 > X > -1.0		2		
X < -1.0		32		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

July

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	65.5	63.0	-3.8	-2.5
1923	68.1	66.2	-2.8	-1.9
1924	69.6	69.8	.3	.2
1925	66.2	64.3	-2.9	-1.9
1926	70.0	68.5	-2.1	-1.5
1927	64.7	62.7	-3.1	-2.0
1928	65.1	64.9	-.3	-.2
1929	69.4	66.7	-3.9	-2.7
1930	68.8	69.2	.6	.4
1931	68.6	67.2	-2.0	-1.4
1932	67.7	65.6	-3.1	-2.1
1933	69.0	66.0	-4.3	-3.0
1934	68.4	65.7	-3.9	-2.7
1935	67.0	64.3	-4.0	-2.7
1936	67.3	64.0	-4.9	-3.3
1937	66.0	62.7	-5.0	-3.3
1938	66.2	64.0	-3.3	-2.2
1939	68.8	66.6	-3.2	-2.2
1940	68.0	68.7	1.0	.7
1941	63.5	61.2	-3.6	-2.3
1942	66.2	63.2	-4.5	-3.0
1943	67.0	65.3	-2.5	-1.7
1944	68.3	69.2	1.3	.9
1945	66.9	67.3	.6	.4
1946	65.4	65.2	-.3	-.2
1947	70.6	68.8	-2.5	-1.8
1948	66.7	64.0	-4.0	-2.7
1949	67.4	64.4	-4.5	-3.0
1950	66.9	64.7	-3.3	-2.2
1951	67.9	66.6	-1.9	-1.3
1952	66.1	65.0	-1.7	-1.1
1953	65.8	62.8	-4.6	-3.0
1954	65.9	65.1	-1.2	-.8
1955	68.8	69.1	.4	.3
1956	67.6	64.8	-4.1	-2.8
1957	66.8	68.7	2.8	1.9
1958	66.9	65.6	-1.9	-1.3
1959	66.9	70.1	4.8	3.2
1960	68.4	66.2	-3.2	-2.2
1961	71.2	69.9	-1.8	-1.3
1962	67.8	66.7	-1.6	-1.1
1963	65.1	62.5	-4.0	-2.6
1964	67.4	68.8	2.1	1.4
1965	66.2	65.3	-1.4	-.9
1966	66.7	62.0	-7.0	-4.7
1967	67.2	65.5	-2.5	-1.7
1968	65.2	63.4	-2.8	-1.8
1969	65.9	63.3	-3.9	-2.6
1970	65.6	65.5	-.2	-.1
1971	64.9	61.4	-5.4	-3.5
1972	63.3	64.6	2.1	1.3
1973	66.0	64.0	-3.0	-2.0
1974	66.5	64.3	-3.3	-2.2
1975	64.1	62.0	-3.3	-2.1
1976	67.9	65.3	-3.8	-2.6
1977	73.2	72.8	-.5	-.4
1978	67.0	65.5	-2.2	-1.5
1979	66.9	65.3	-2.4	-1.6
1980	66.4	63.9	-3.8	-2.5
1981	68.8	68.9	.1	.1
1982	65.6	63.3	-3.5	-2.3
1983	66.4	65.9	-.8	-.5
1984	66.9	65.0	-2.8	-1.9
1985	69.7	70.1	.6	.4
1986	69.7	68.8	-1.3	-.9
1987	70.6	67.1	-5.0	-3.5
1988	66.0	66.4	.6	.4
1989	65.9	65.6	-.5	-.3
1990	67.1	64.2	-4.3	-2.9
Mean:	67.2	65.7	-2.2	-1.5
Median:	66.9	65.3	-2.8	-1.9
Min:	63.3	61.2	-7.0	-4.7
Max:	73.2	72.8	4.8	3.2

X > 56.0	69	69	
Mean X > 56.0	67.2	65.7	-2.2	-1.5
X > 60.0	69	69	
Mean X > 60.0	67.2	65.7	-2.2	-1.5
X > 65.0	64	40	
Mean X > 65.0	67.4	67.3	-.1	-.1
X > 68.0	19	15	
Mean X > 68.0	69.5	69.4	-.1	-.1
X > 70.0	4	3	
Mean X > 70.0	71.4	71.0	-.6	-.4
X > 0.0		13	
X < 0.0		56	
0.0 < X <= .5		3	
.5 < X <= 1.0		5	
X > 1.0		5	
0.0 > X >= -.5		5	
-.5 > X > -1.0		1	
X < -1.0		50	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

August

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	65.4	64.3	-1.7	-1.1
1923	67.4	66.2	-1.8	-1.2
1924	72.9	71.7	-1.6	-1.2
1925	66.9	65.6	-1.9	-1.3
1926	66.2	64.0	-3.3	-2.2
1927	65.7	64.3	-2.1	-1.4
1928	69.1	68.8	-.4	-.3
1929	70.1	68.9	-1.7	-1.2
1930	65.6	63.8	-2.7	-1.8
1931	74.5	74.5	.0	.0
1932	67.3	65.5	-2.7	-1.8
1933	65.7	69.5	5.8	3.8
1934	70.3	69.6	-1.0	-.7
1935	65.8	64.5	-2.0	-1.3
1936	66.9	65.9	-1.5	-1.0
1937	65.5	63.2	-3.5	-2.3
1938	66.0	64.7	-2.0	-1.3
1939	68.2	67.9	-.4	-.3
1940	68.6	67.1	-2.2	-1.5
1941	65.6	64.1	-2.3	-1.5
1942	66.3	64.8	-2.3	-1.5
1943	66.2	64.7	-2.3	-1.5
1944	69.1	69.7	.9	.6
1945	65.7	66.7	1.5	1.0
1946	64.7	65.9	1.9	1.2
1947	68.1	65.7	-3.5	-2.4
1948	66.5	65.4	-1.7	-1.1
1949	67.3	66.3	-1.5	-1.0
1950	66.0	64.1	-2.9	-1.9
1951	67.1	67.1	.0	.0
1952	66.7	65.1	-2.4	-1.6
1953	67.0	65.8	-1.8	-1.2
1954	67.8	67.4	-.6	-.4
1955	69.2	70.0	1.2	.8
1956	67.1	65.6	-2.2	-1.5
1957	65.7	66.9	1.8	1.2
1958	67.2	65.9	-1.9	-1.3
1959	68.6	66.2	-3.5	-2.4
1960	70.7	71.2	.7	.5
1961	66.8	66.9	.1	.1
1962	66.8	66.9	.1	.1
1963	65.9	63.8	-3.2	-2.1
1964	69.4	71.0	2.3	1.6
1965	65.0	63.2	-2.8	-1.8
1966	70.9	65.8	-7.2	-5.1
1967	67.3	65.7	-2.4	-1.6
1968	66.2	65.5	-1.1	-.7
1969	66.0	64.6	-2.1	-1.4
1970	68.5	68.9	.6	.4
1971	65.3	63.6	-2.6	-1.7
1972	68.4	69.8	2.0	1.4
1973	65.1	63.5	-2.5	-1.6
1974	66.7	65.4	-1.9	-1.3
1975	65.0	63.9	-1.7	-1.1
1976	68.0	66.2	-2.6	-1.8
1977	74.5	74.0	-.7	-.5
1978	64.9	63.4	-2.3	-1.5
1979	66.2	67.4	1.8	1.2
1980	66.6	65.0	-2.4	-1.6
1981	68.0	65.8	-3.2	-2.2
1982	65.9	64.5	-2.1	-1.4
1983	66.4	65.2	-1.8	-1.2
1984	65.8	64.3	-2.3	-1.5
1985	71.1	69.9	-1.7	-1.2
1986	68.7	66.3	-3.5	-2.4
1987	67.7	66.3	-2.1	-1.4
1988	70.4	70.1	-.4	-.3
1989	70.0	70.3	.4	.3
1990	69.4	69.7	.4	.3
Mean:	67.5	66.6	-1.3	-.9
Median:	66.9	65.8	-1.9	-1.3
Min:	64.7	63.2	-7.2	-5.1
Max:	74.5	74.5	5.8	3.8

X > 56.0	69	69		
Mean X > 56.0	67.5	66.6	-1.3	-.9
X > 60.0	69	69		
Mean X > 60.0	67.5	66.6	-1.3	-.9
X > 65.0	65	48		
Mean X > 65.0	67.7	67.7	.0	.0
X > 68.0	22	17		
Mean X > 68.0	70.0	70.4	.6	.4
X > 70.0	9	7		
Mean X > 70.0	71.7	71.8	.1	.1
X > 0.0		15		
X < 0.0		52		
0.0 < X <= .5		4		
.5 < X <= 1.0		3		
X > 1.0		8		
0.0 > X >= -.5		3		
-.5 > X > -1.0		3		
X < -1.0		46		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

September

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	65.7	64.5	-1.8	-1.2
1923	67.9	66.7	-1.8	-1.2
1924	70.3	69.4	-1.3	-.9
1925	67.6	66.8	-1.2	-.8
1926	69.6	69.2	-.6	-.4
1927	66.5	65.3	-1.8	-1.2
1928	67.1	69.2	3.1	2.1
1929	69.7	68.1	-2.3	-1.6
1930	68.8	68.3	-.7	-.5
1931	70.5	70.0	-.7	-.5
1932	67.9	66.4	-2.2	-1.5
1933	69.5	68.9	-.9	-.6
1934	68.9	67.9	-1.5	-1.0
1935	67.1	65.9	-1.8	-1.2
1936	68.1	66.9	-1.8	-1.2
1937	67.2	65.9	-1.9	-1.3
1938	66.4	65.2	-1.8	-1.2
1939	68.8	67.4	-2.0	-1.4
1940	68.2	67.9	-.4	-.3
1941	66.3	65.0	-2.0	-1.3
1942	67.0	65.7	-1.9	-1.3
1943	66.6	65.0	-2.4	-1.6
1944	67.3	67.1	-.3	-.2
1945	66.7	68.5	2.7	1.8
1946	66.2	67.9	2.6	1.7
1947	68.8	67.1	-2.5	-1.7
1948	67.1	66.1	-1.5	-1.0
1949	67.7	66.7	-1.5	-1.0
1950	67.1	65.5	-2.4	-1.6
1951	69.8	69.5	-.4	-.3
1952	67.1	65.5	-2.4	-1.6
1953	67.1	65.8	-1.9	-1.3
1954	67.7	67.5	-.3	-.2
1955	68.0	68.1	.1	.1
1956	67.5	66.0	-2.2	-1.5
1957	67.0	68.2	1.8	1.2
1958	68.1	66.8	-1.9	-1.3
1959	70.1	68.7	-2.0	-1.4
1960	70.4	69.5	-1.3	-.9
1961	69.9	68.4	-2.1	-1.5
1962	68.5	68.7	.3	.2
1963	66.4	64.9	-2.3	-1.5
1964	68.5	68.4	-.1	-.1
1965	67.7	66.5	-1.8	-1.2
1966	70.1	67.8	-3.3	-2.3
1967	68.2	66.7	-2.2	-1.5
1968	68.1	68.1	.0	.0
1969	66.9	65.7	-1.8	-1.2
1970	67.0	69.3	3.4	2.3
1971	66.3	64.7	-2.4	-1.6
1972	67.3	68.1	1.2	.8
1973	67.1	65.2	-2.8	-1.9
1974	67.1	66.0	-1.6	-1.1
1975	65.3	64.2	-1.7	-1.1
1976	68.8	68.6	-.3	-.2
1977	70.3	70.0	-.4	-.3
1978	67.4	66.1	-1.9	-1.3
1979	66.6	70.1	5.3	3.5
1980	67.5	66.3	-1.8	-1.2
1981	70.0	68.7	-1.9	-1.3
1982	66.5	65.3	-1.8	-1.2
1983	66.9	65.7	-1.8	-1.2
1984	67.1	65.9	-1.8	-1.2
1985	67.7	67.8	.1	.1
1986	65.5	66.2	1.1	.7
1987	69.4	67.9	-2.2	-1.5
1988	71.5	70.3	-1.7	-1.2
1989	67.3	67.9	.9	.6
1990	71.0	71.1	.1	.1
Mean:	67.9	67.3	-1.0	-.7
Median:	67.5	67.0	-1.8	-1.2
Min:	65.3	64.2	-3.3	-2.3
Max:	71.5	71.1	5.3	3.5

X > 56.0	69	69		
Mean X > 56.0	67.9	67.3	-.9	-.6
X > 60.0	69	69		
Mean X > 60.0	67.9	67.3	-.9	-.6
X > 65.0	69	63		
Mean X > 65.0	67.9	67.5	-.6	-.4
X > 68.0	27	25		
Mean X > 68.0	69.4	69.0	-.6	-.4
X > 70.0	8	3		
Mean X > 70.0	70.5	70.5	.0	.0
X > 0.0		13		
X < 0.0		55		
0.0 < X <= .5		4		
.5 < X <= 1.0		1		
X > 1.0		8		
0.0 > X >= -.5		7		
-.5 > X > -1.0		4		
X < -1.0		44		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

October"

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	56.9	56.9	.0	.0
1923	61.5	59.8	-2.8	-1.7
1924	63.4	62.9	-.8	-.5
1925	58.2	57.9	-.5	-.3
1926	62.1	62.6	.8	.5
1927	57.2	57.0	-.3	-.2
1928	58.5	55.3	-5.5	-3.2
1929	64.3	64.5	.3	.2
1930	60.3	59.7	-1.0	-.6
1931	64.5	64.4	-.2	-.1
1932	60.6	59.7	-1.5	-.9
1933	65.6	64.9	-1.1	-.7
1934	65.1	64.8	-.5	-.3
1935	58.3	58.4	.2	.1
1936	60.3	58.9	-2.3	-1.4
1937	58.8	58.4	-.7	-.4
1938	57.7	57.8	.2	.1
1939	65.2	64.8	-.6	-.4
1940	55.9	54.8	-2.0	-1.1
1941	57.4	57.0	-.7	-.4
1942	56.5	56.1	-.7	-.4
1943	57.9	58.2	.5	.3
1944	61.4	58.3	-5.0	-3.1
1945	60.2	54.5	-9.5	-5.7
1946	57.6	54.7	-5.0	-2.9
1947	59.2	58.3	-1.5	-.9
1948	57.3	58.6	2.3	1.3
1949	59.3	59.9	1.0	.6
1950	57.1	56.7	-.7	-.4
1951	57.4	54.5	-5.1	-2.9
1952	57.7	56.8	-1.6	-.9
1953	58.9	57.8	-1.9	-1.1
1954	56.3	55.5	-1.4	-.8
1955	60.1	56.6	-5.8	-3.5
1956	59.8	59.4	-.7	-.4
1957	59.6	56.1	-5.9	-3.5
1958	60.6	60.0	-1.0	-.6
1959	64.9	64.9	.0	.0
1960	56.7	55.6	-1.9	-1.1
1961	66.3	64.7	-2.4	-1.6
1962	57.7	55.2	-4.3	-2.5
1963	57.3	56.6	-1.2	-.7
1964	59.5	56.0	-5.9	-3.5
1965	58.0	57.5	-.9	-.5
1966	61.1	61.6	.8	.5
1967	61.1	60.8	-.5	-.3
1968	60.3	62.0	2.8	1.7
1969	59.1	58.4	-1.2	-.7
1970	59.2	55.0	-7.1	-4.2
1971	57.2	57.6	.7	.4
1972	58.0	54.4	-6.2	-3.6
1973	57.9	57.5	-.7	-.4
1974	58.5	57.6	-1.5	-.9
1975	56.8	56.9	.2	.1
1976	65.0	66.1	1.7	1.1
1977	65.2	65.4	.3	.2
1978	58.8	58.3	-.9	-.5
1979	60.0	55.5	-7.5	-4.5
1980	58.8	58.1	-1.2	-.7
1981	63.5	64.1	.9	.6
1982	57.3	57.3	.0	.0
1983	57.7	56.8	-1.6	-.9
1984	61.1	60.4	-1.1	-.7
1985	57.2	55.1	-3.7	-2.1
1986	61.0	57.6	-5.6	-3.4
1987	65.2	66.4	1.8	1.2
1988	67.3	67.0	-.4	-.3
1989	58.6	55.8	-4.8	-2.8
1990	67.6	67.4	-.3	-.2
Mean:	60.0	59.1	-1.6	-1.0
Median:	59.0	57.8	-1.0	-.6
Min:	55.9	54.4	-9.5	-5.7
Max:	67.6	67.4	2.8	1.7

X > 56.0	68	55		
Mean X > 56.0	60.1	60.1	.0	.0
X > 60.0	28	19		
Mean X > 60.0	63.0	64.2	1.9	1.2
X > 65.0	8	5		
Mean X > 65.0	65.9	66.5	.9	.6
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0		15		
X < 0.0		51		
0.0 < X <= .5		6		
.5 < X <= 1.0		5		
X > 1.0		4		
0.0 > X >= -.5		7		
-.5 > X > -1.0		12		
X < -1.0		32		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

November

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	54.5	54.5	.0	.0
1923	57.3	57.0	-.5	-.3
1924	55.6	55.3	-.5	-.3
1925	56.6	56.5	-.2	-.1
1926	58.9	57.9	-1.7	-1.0
1927	56.3	56.3	.0	.0
1928	57.1	55.7	-2.5	-1.4
1929	59.4	59.0	-.7	-.4
1930	58.0	57.4	-1.0	-.6
1931	55.6	55.5	-.2	-.1
1932	57.0	57.1	.2	.1
1933	59.6	59.0	-1.0	-.6
1934	57.3	56.9	-.7	-.4
1935	56.4	56.4	.0	.0
1936	58.0	57.8	-.3	-.2
1937	57.7	56.8	-1.6	-.9
1938	56.7	56.7	.0	.0
1939	59.2	58.8	-.7	-.4
1940	56.2	54.2	-3.6	-2.0
1941	56.3	56.4	.2	.1
1942	56.5	56.5	.0	.0
1943	56.9	56.6	-.5	-.3
1944	54.7	54.8	.2	.1
1945	56.5	55.0	-2.7	-1.5
1946	55.1	52.9	-4.0	-2.2
1947	53.4	53.4	.0	.0
1948	56.7	56.7	.0	.0
1949	57.9	57.6	-.5	-.3
1950	56.4	56.1	-.5	-.3
1951	56.5	55.7	-1.4	-.8
1952	57.1	56.9	-.4	-.2
1953	57.4	57.6	.3	.2
1954	56.0	54.8	-2.1	-1.2
1955	56.1	55.7	-.7	-.4
1956	58.1	58.2	.2	.1
1957	58.5	56.8	-2.9	-1.7
1958	58.6	57.4	-2.0	-1.2
1959	61.0	60.9	-.2	-.1
1960	56.6	56.2	-.7	-.4
1961	58.0	57.8	-.3	-.2
1962	56.4	56.1	-.5	-.3
1963	56.4	56.5	.2	.1
1964	55.4	54.8	-1.1	-.6
1965	57.3	56.4	-1.6	-.9
1966	56.4	58.1	3.0	1.7
1967	58.0	57.5	-.9	-.5
1968	56.9	56.4	-.9	-.5
1969	57.6	56.6	-1.7	-1.0
1970	57.0	55.5	-2.6	-1.5
1971	57.1	57.0	-.2	-.1
1972	54.4	52.8	-2.9	-1.6
1973	55.7	55.2	-.9	-.5
1974	57.6	57.2	-.7	-.4
1975	56.0	55.8	-.4	-.2
1976	59.5	59.6	.2	.1
1977	56.9	57.0	.2	.1
1978	58.1	57.7	-.7	-.4
1979	57.9	56.4	-2.6	-1.5
1980	57.8	56.9	-1.6	-.9
1981	56.6	56.4	-.4	-.2
1982	56.4	56.4	.0	.0
1983	57.1	56.5	-1.1	-.6
1984	56.5	56.1	-.7	-.4
1985	54.8	54.2	-1.1	-.6
1986	56.0	56.1	.2	.1
1987	58.6	58.4	-.3	-.2
1988	57.6	57.2	-.7	-.4
1989	57.8	56.4	-2.4	-1.4
1990	58.1	57.7	-.7	-.4
Mean:	57.0	56.5	-.8	-.5
Median:	56.9	56.5	-.7	-.4
Min:	53.4	52.8	-4.0	-2.2
Max:	61.0	60.9	3.0	1.7
X > 56.0	56	51		
Mean X > 56.0	57.4	57.2	-.3	-.2
X > 60.0	1	1		
Mean X > 60.0	61.0	60.9	-.2	-.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0		10		
X < 0.0		51		
0.0 < X <= .5		9		
.5 < X <= 1.0		0		
X > 1.0		1		
0.0 > X >= -.5		16		
-.5 > X > -1.0		15		
X < -1.0		20		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

December

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922	47.8	47.7	-.2	-.1
1923	51.4	51.3	-.2	-.1
1924	47.0	46.7	-.6	-.3
1925	49.5	49.4	-.2	-.1
1926	50.9	50.6	-.6	-.3
1927	49.7	49.6	-.2	-.1
1928	48.9	48.5	-.8	-.4
1929	51.3	50.9	-.8	-.4
1930	50.4	50.1	-.6	-.3
1931	47.9	47.9	.0	.0
1932	50.0	49.8	-.4	-.2
1933	49.6	49.1	-1.0	-.5
1934	50.1	49.6	-1.0	-.5
1935	50.3	50.3	.0	.0
1936	50.4	50.2	-.4	-.2
1937	51.6	51.4	-.4	-.2
1938	50.7	50.6	-.2	-.1
1939	52.7	52.4	-.6	-.3
1940	51.0	50.7	-.6	-.3
1941	50.3	50.2	-.2	-.1
1942	49.5	49.4	-.2	-.1
1943	51.8	51.3	-1.0	-.5
1944	49.4	49.5	.2	.1
1945	49.0	48.8	-.4	-.2
1946	49.1	48.7	-.8	-.4
1947	47.6	47.6	.0	.0
1948	48.4	48.2	-.4	-.2
1949	50.4	49.9	-1.0	-.5
1950	48.8	48.8	.0	.0
1951	49.4	49.1	-.6	-.3
1952	51.0	50.8	-.4	-.2
1953	52.0	51.9	-.2	-.1
1954	47.7	47.4	-.6	-.3
1955	48.4	48.3	-.2	-.1
1956	52.2	52.1	-.2	-.1
1957	50.8	50.3	-1.0	-.5
1958	55.8	55.7	-.2	-.1
1959	53.0	52.8	-.4	-.2
1960	49.8	49.7	-.2	-.1
1961	48.8	48.6	-.4	-.2
1962	51.1	51.1	.0	.0
1963	47.4	47.4	.0	.0
1964	47.4	47.3	-.2	-.1
1965	49.3	49.2	-.2	-.1
1966	49.2	49.1	-.2	-.1
1967	51.7	51.6	-.2	-.1
1968	49.0	48.7	-.6	-.3
1969	52.4	52.2	-.4	-.2
1970	49.3	49.0	-.6	-.3
1971	48.9	48.8	-.2	-.1
1972	45.5	45.3	-.4	-.2
1973	49.5	49.4	-.2	-.1
1974	50.6	50.4	-.4	-.2
1975	50.2	50.2	.0	.0
1976	52.6	52.6	.0	.0
1977	50.7	50.8	.2	.1
1978	49.4	49.1	-.6	-.3
1979	52.3	52.0	-.6	-.3
1980	53.3	53.1	-.4	-.2
1981	50.3	50.3	.0	.0
1982	49.2	49.2	.0	.0
1983	48.7	48.6	-.2	-.1
1984	50.1	50.0	-.2	-.1
1985	46.4	46.3	-.2	-.1
1986	52.2	51.7	-1.0	-.5
1987	50.0	49.6	-.8	-.4
1988	50.4	50.1	-.6	-.3
1989	50.4	50.0	-.8	-.4
1990	47.6	47.1	-1.1	-.5
Mean:	50.0	49.8	-.4	-.2
Median:	49.9	49.6	-.4	-.2
Min:	45.5	45.3	-1.1	-.5
Max:	55.8	55.7	.2	.1
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0		2		
X < 0.0		57		
0.0 < X <= .5		2		
.5 < X <= 1.0		0		
X > 1.0		0		
0.0 > X >= -.5		33		
-.5 > X > -1.0		23		
X < -1.0		1		

RETURN TO TABLE OF CONTENTS

Section 5

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM
5.2 Fisheries

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

January

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	43.5	43.5	.0	.0
1923.	44.3	44.2	-.2	-.1
1924.	46.6	46.5	-.2	-.1
1925.	46.7	47.3	1.3	.6
1926.	44.7	44.7	.0	.0
1927.	47.9	47.7	-.4	-.2
1928.	47.4	47.3	-.2	-.1
1929.	43.9	43.7	-.5	-.2
1930.	46.5	46.3	-.4	-.2
1931.	48.1	47.9	-.4	-.2
1932.	45.7	45.6	-.2	-.1
1933.	44.5	44.4	-.2	-.1
1934.	47.2	47.1	-.2	-.1
1935.	47.5	47.7	.4	.2
1936.	48.1	47.9	-.4	-.2
1937.	42.9	42.8	-.2	-.1
1938.	47.0	47.0	.0	.0
1939.	47.7	47.6	-.2	-.1
1940.	48.1	47.9	-.4	-.2
1941.	48.8	48.8	.0	.0
1942.	46.3	46.3	.0	.0
1943.	46.4	46.4	.0	.0
1944.	48.2	47.9	-.6	-.3
1945.	46.1	46.2	.2	.1
1946.	45.7	45.6	-.2	-.1
1947.	45.2	45.0	-.4	-.2
1948.	48.2	48.2	.0	.0
1949.	42.4	42.2	-.5	-.2
1950.	44.7	44.4	-.7	-.3
1951.	45.0	45.0	.0	.0
1952.	45.3	45.3	.0	.0
1953.	48.9	48.8	-.2	-.1
1954.	48.2	48.1	-.2	-.1
1955.	44.0	43.8	-.5	-.2
1956.	46.0	46.0	.0	.0
1957.	47.8	47.7	-.2	-.1
1958.	47.7	47.4	-.6	-.3
1959.	51.3	51.1	-.4	-.2
1960.	48.2	48.0	-.4	-.2
1961.	45.4	45.3	-.2	-.1
1962.	44.7	44.6	-.2	-.1
1963.	45.8	45.8	.0	.0
1964.	44.9	44.9	.0	.0
1965.	44.8	44.8	.0	.0
1966.	46.5	46.4	-.2	-.1
1967.	46.7	46.7	.0	.0
1968.	46.8	46.7	-.2	-.1
1969.	45.1	45.0	-.2	-.1
1970.	47.2	47.2	.0	.0
1971.	45.9	45.8	-.2	-.1
1972.	44.6	44.5	-.2	-.1
1973.	44.8	44.8	.0	.0
1974.	46.7	46.7	.0	.0
1975.	45.9	45.8	-.2	-.1
1976.	48.7	48.7	.0	.0
1977.	46.1	46.1	.0	.0
1978.	48.2	48.2	.0	.0
1979.	46.6	46.4	-.4	-.2
1980.	46.8	46.2	-1.3	-.6
1981.	49.6	49.4	-.4	-.2
1982.	45.3	45.3	.0	.0
1983.	45.5	45.5	.0	.0
1984.	46.2	46.2	.0	.0
1985.	46.0	45.9	-.2	-.1
1986.	47.3	47.2	-.2	-.1
1987.	47.9	47.5	-.8	-.4
1988.	48.1	48.0	-.2	-.1
1989.	46.8	46.9	.2	.1
1990.	47.8	47.7	-.2	-.1
Mean:	46.5	46.4	-.2	-.1
Median:	46.5	46.3	-.2	-.1
Min:	42.4	42.2	-1.3	-.6
Max:	51.3	51.1	1.3	.6
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	14	10		
No. Years inc (avg):		4	(	.3)
No. Years dec (avg):		42	(	-.2)
No. Years no change		23		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

February

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	45.9	46.0	.2	.1
1923.	46.3	46.3	.0	.0
1924.	50.3	50.7	.8	.4
1925.	48.2	48.1	-.2	-.1
1926.	49.3	49.5	.4	.2
1927.	48.7	48.7	.0	.0
1928.	48.5	48.6	.2	.1
1929.	46.7	46.8	.2	.1
1930.	52.1	52.5	.8	.4
1931.	50.9	51.1	.4	.2
1932.	46.9	46.9	.0	.0
1933.	46.2	45.8	-.9	-.4
1934.	49.8	49.9	.2	.1
1935.	48.4	48.3	-.2	-.1
1936.	47.7	47.7	.0	.0
1937.	45.7	46.0	.7	.3
1938.	48.2	48.2	.0	.0
1939.	47.7	47.7	.0	.0
1940.	49.1	49.2	.2	.1
1941.	49.7	49.7	.0	.0
1942.	46.6	46.6	.0	.0
1943.	49.3	49.3	.0	.0
1944.	48.3	47.9	-.8	-.4
1945.	47.4	47.4	.0	.0
1946.	46.1	46.1	.0	.0
1947.	48.7	49.0	.6	.3
1948.	47.5	47.5	.0	.0
1949.	45.0	45.5	1.1	.5
1950.	47.2	47.2	.0	.0
1951.	46.4	46.4	.0	.0
1952.	47.3	47.3	.0	.0
1953.	50.3	50.3	.0	.0
1954.	48.2	47.9	-.6	-.3
1955.	46.4	46.6	.4	.2
1956.	46.6	46.6	.0	.0
1957.	49.3	49.3	.0	.0
1958.	51.2	49.8	-2.7	-1.4
1959.	49.9	49.7	-.4	-.2
1960.	48.9	48.9	.0	.0
1961.	49.5	49.8	.6	.3
1962.	47.1	47.0	-.2	-.1
1963.	49.5	49.5	.0	.0
1964.	47.3	47.3	.0	.0
1965.	47.1	47.2	.2	.1
1966.	47.5	47.5	.0	.0
1967.	48.2	48.2	.0	.0
1968.	50.2	49.2	-2.0	-1.0
1969.	46.3	46.3	.0	.0
1970.	48.2	48.1	-.2	-.1
1971.	47.2	47.2	.0	.0
1972.	47.9	46.8	-2.3	-1.1
1973.	49.4	49.4	.0	.0
1974.	46.7	46.7	.0	.0
1975.	47.4	47.4	.0	.0
1976.	50.5	50.7	.4	.2
1977.	52.5	52.8	.6	.3
1978.	50.9	50.8	-.2	-.1
1979.	47.6	47.5	-.2	-.1
1980.	47.3	47.5	.4	.2
1981.	50.8	51.0	.4	.2
1982.	46.6	46.6	.0	.0
1983.	49.0	49.0	.0	.0
1984.	47.9	47.9	.0	.0
1985.	47.6	47.8	.4	.2
1986.	48.0	48.0	.0	.0
1987.	51.7	50.2	-2.9	-1.5
1988.	53.4	53.2	-.4	-.2
1989.	47.6	47.5	-.2	-.1
1990.	48.2	48.2	.0	.0
Mean:	48.3	48.3	-.1	.0
Median:	48.0	47.9	.0	.0
Min:	45.0	45.5	-2.9	-1.5
Max:	53.4	53.2	1.1	.5

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	36	34		

No. Years inc (avg):		20	(.2)
No. Years dec (avg):		16	(-.5)
No. Years no change		33	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

March

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	50.9	50.9	.0	.0
1923.	52.2	48.3	-7.5	-3.9
1924.	53.3	53.5	.4	.2
1925.	54.0	54.0	.0	.0
1926.	55.1	55.2	.2	.1
1927.	51.5	51.5	.0	.0
1928.	52.0	52.1	.2	.1
1929.	53.2	51.9	-2.4	-1.3
1930.	52.8	52.8	.0	.0
1931.	54.6	54.7	.2	.1
1932.	53.7	53.7	.0	.0
1933.	53.3	51.6	-3.2	-1.7
1934.	55.8	56.2	.7	.4
1935.	50.0	49.9	-.2	-.1
1936.	52.7	52.7	.0	.0
1937.	51.9	52.3	.8	.4
1938.	49.8	49.8	.0	.0
1939.	52.2	52.5	.6	.3
1940.	51.8	51.8	.0	.0
1941.	53.0	53.0	.0	.0
1942.	49.4	49.2	-.4	-.2
1943.	51.1	51.1	.0	.0
1944.	51.7	52.5	1.5	.8
1945.	50.0	50.0	.0	.0
1946.	51.3	51.4	.2	.1
1947.	52.4	52.6	.4	.2
1948.	49.9	49.9	.0	.0
1949.	50.1	50.3	.4	.2
1950.	51.6	51.6	.0	.0
1951.	50.6	50.6	.0	.0
1952.	49.5	49.5	.0	.0
1953.	52.7	52.7	.0	.0
1954.	50.6	50.7	.2	.1
1955.	51.6	51.9	.6	.3
1956.	51.3	51.3	.0	.0
1957.	53.7	53.4	-.6	-.3
1958.	50.7	50.8	.2	.1
1959.	53.4	53.3	-.2	-.1
1960.	53.4	53.4	.0	.0
1961.	53.5	53.3	-.4	-.2
1962.	51.4	51.0	-.8	-.4
1963.	50.9	50.9	.0	.0
1964.	50.6	50.5	-.2	-.1
1965.	51.3	51.3	.0	.0
1966.	51.4	51.3	-.2	-.1
1967.	51.0	51.0	.0	.0
1968.	54.9	53.0	-3.5	-1.9
1969.	51.8	51.4	-.8	-.4
1970.	52.6	52.6	.0	.0
1971.	50.7	50.7	.0	.0
1972.	55.0	55.5	.9	.5
1973.	50.5	50.5	.0	.0
1974.	51.6	51.6	.0	.0
1975.	50.6	50.6	.0	.0
1976.	53.1	53.3	.4	.2
1977.	53.5	53.6	.2	.1
1978.	54.3	54.2	-.2	-.1
1979.	53.3	52.8	-.9	-.5
1980.	51.4	51.4	.0	.0
1981.	52.5	52.5	.0	.0
1982.	50.4	50.4	.0	.0
1983.	50.5	50.5	.0	.0
1984.	53.2	53.3	.2	.1
1985.	50.2	50.4	.4	.2
1986.	52.2	52.2	.0	.0
1987.	52.8	52.9	.2	.1
1988.	57.3	57.2	-.2	-.1
1989.	51.5	51.4	-.2	-.1
1990.	54.1	54.8	1.3	.7
Mean:	52.1	52.0	-.2	-.1
Median:	51.8	51.6	.0	.0
Min:	49.4	48.3	-7.5	-3.9
Max:	57.3	57.2	1.5	.8
X > 56.0	1	2		
Mean X > 56.0	57.3	56.7	-1.0	-.6
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		21	(	.3)
No. Years dec (avg):		17	(	-.7)
No. Years no change		31		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

April

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	54.1	54.2	.2	.1
1923.	55.3	55.6	.5	.3
1924.	61.4	61.6	.3	.2
1925.	55.3	55.5	.4	.2
1926.	59.2	59.1	-.2	-.1
1927.	53.8	53.8	.0	.0
1928.	54.5	54.5	.0	.0
1929.	55.7	56.4	1.3	.7
1930.	58.6	57.6	-1.7	-1.0
1931.	63.1	63.0	-.2	-.1
1932.	55.9	56.1	.4	.2
1933.	57.2	58.1	1.6	.9
1934.	59.5	59.8	.5	.3
1935.	54.7	54.7	.0	.0
1936.	55.3	55.3	.0	.0
1937.	54.1	54.1	.0	.0
1938.	53.8	53.8	.0	.0
1939.	59.2	61.2	3.4	2.0
1940.	55.0	55.0	.0	.0
1941.	54.6	54.6	.0	.0
1942.	54.4	54.5	.2	.1
1943.	54.6	54.6	.0	.0
1944.	54.2	54.9	1.3	.7
1945.	55.9	56.1	.4	.2
1946.	55.3	55.4	.2	.1
1947.	57.2	55.9	-2.3	-1.3
1948.	53.3	53.1	-.4	-.2
1949.	57.9	57.3	-1.0	-.6
1950.	55.5	55.5	.0	.0
1951.	55.9	56.0	.2	.1
1952.	54.0	54.0	.0	.0
1953.	55.9	56.0	.2	.1
1954.	56.1	56.2	.2	.1
1955.	53.6	53.7	.2	.1
1956.	56.3	56.1	-.4	-.2
1957.	57.7	57.7	.0	.0
1958.	54.1	54.1	.0	.0
1959.	62.7	59.0	-5.9	-3.7
1960.	57.3	57.5	.3	.2
1961.	60.4	60.5	.2	.1
1962.	57.0	57.6	1.1	.6
1963.	53.2	53.2	.0	.0
1964.	54.5	54.5	.0	.0
1965.	54.9	55.0	.2	.1
1966.	60.6	60.0	-1.0	-.6
1967.	51.6	51.6	.0	.0
1968.	58.3	57.1	-2.1	-1.2
1969.	54.2	54.3	.2	.1
1970.	56.2	56.2	.0	.0
1971.	54.1	54.2	.2	.1
1972.	56.7	56.9	.4	.2
1973.	56.4	56.4	.0	.0
1974.	53.8	53.8	.0	.0
1975.	52.9	52.9	.0	.0
1976.	57.6	57.7	.2	.1
1977.	64.7	64.9	.3	.2
1978.	54.8	54.9	.2	.1
1979.	56.2	56.5	.5	.3
1980.	56.2	56.4	.4	.2
1981.	56.4	56.2	-.4	-.2
1982.	53.1	53.1	.0	.0
1983.	53.5	53.5	.0	.0
1984.	56.7	56.7	.0	.0
1985.	59.5	59.5	.0	.0
1986.	56.7	56.7	.0	.0
1987.	63.2	63.8	.9	.6
1988.	62.3	62.2	-.2	-.1
1989.	57.2	57.4	.3	.2
1990.	58.9	59.8	1.5	.9
Mean:	56.4	56.5	.0	.0
Median:	55.9	56.0	.0	.0
Min:	51.6	51.6	-5.9	-3.7
Max:	64.7	64.9	3.4	2.0
X > 56.0	33	35		
Mean X > 56.0	58.6	58.4	-.3	-.2
X > 60.0	8	7		
Mean X > 60.0	62.3	62.5	.3	.2
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	8	8		
61.0 <= X <= 73.0	6	6		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		32	(.3)	
No. Years dec (avg):		12	(-.8)	
No. Years no change		25		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

May

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	58.1	58.2	.2	.1
1923.	58.3	58.4	.2	.1
1924.	69.8	70.2	.6	.4
1925.	58.9	59.0	.2	.1
1926.	65.0	65.2	.3	.2
1927.	58.1	58.0	-.2	-.1
1928.	60.2	60.1	-.2	-.1
1929.	61.9	62.3	.6	.4
1930.	61.1	61.5	.7	.4
1931.	70.6	70.6	.0	.0
1932.	59.9	60.0	.2	.1
1933.	59.1	59.5	.7	.4
1934.	68.2	68.1	-.1	-.1
1935.	58.4	58.4	.0	.0
1936.	59.4	59.4	.0	.0
1937.	58.7	58.6	-.2	-.1
1938.	58.4	58.3	-.2	-.1
1939.	62.6	62.7	.2	.1
1940.	60.0	60.0	.0	.0
1941.	58.2	58.1	-.2	-.1
1942.	57.1	57.2	.2	.1
1943.	59.5	59.4	-.2	-.1
1944.	60.0	60.6	1.0	.6
1945.	58.5	58.7	.3	.2
1946.	58.7	58.6	-.2	-.1
1947.	63.0	61.4	-2.5	-1.6
1948.	58.1	58.3	.3	.2
1949.	60.7	61.3	1.0	.6
1950.	59.3	59.3	.0	.0
1951.	59.5	59.4	-.2	-.1
1952.	58.4	58.4	.0	.0
1953.	58.2	58.2	.0	.0
1954.	60.8	60.7	-.2	-.1
1955.	58.7	59.6	1.5	.9
1956.	59.6	59.8	.3	.2
1957.	59.5	59.5	.0	.0
1958.	58.8	58.7	-.2	-.1
1959.	61.9	60.8	-1.8	-1.1
1960.	61.0	61.4	.7	.4
1961.	60.6	60.6	.0	.0
1962.	59.5	59.6	.2	.1
1963.	56.9	56.9	.0	.0
1964.	58.7	57.8	-1.5	-.9
1965.	58.5	58.5	.0	.0
1966.	64.2	65.2	1.6	1.0
1967.	57.3	57.3	.0	.0
1968.	62.2	59.6	-4.2	-2.6
1969.	58.4	58.4	.0	.0
1970.	62.5	62.6	.2	.1
1971.	57.0	56.9	-.2	-.1
1972.	61.4	61.6	.3	.2
1973.	60.4	60.5	.2	.1
1974.	58.2	58.1	-.2	-.1
1975.	58.9	59.1	.3	.2
1976.	64.7	66.7	3.1	2.0
1977.	63.0	63.0	.0	.0
1978.	59.0	59.0	.0	.0
1979.	59.8	60.3	.8	.5
1980.	58.9	58.9	.0	.0
1981.	61.4	60.6	-1.3	-.8
1982.	58.3	58.2	-.2	-.1
1983.	57.7	57.7	.0	.0
1984.	61.6	61.7	.2	.1
1985.	63.0	63.2	.3	.2
1986.	60.1	60.2	.2	.1
1987.	64.7	67.6	4.5	2.9
1988.	65.2	65.1	-.2	-.1
1989.	61.2	61.3	.2	.1
1990.	63.7	63.9	.3	.2
Mean:	60.5	60.6	.1	.1
Median:	59.5	59.5	.0	.0
Min:	56.9	56.9	-4.2	-2.6
Max:	70.6	70.6	4.5	2.9
X > 56.0	69	69		
Mean X > 56.0	60.5	60.6	.2	.1
X > 60.0	29	30		
Mean X > 60.0	63.0	63.0	.0	.0
X > 65.0	4	8		
Mean X > 65.0	68.4	67.3	-1.6	-1.1
X > 68.0	3	3		
Mean X > 68.0	69.5	69.6	.1	.1
X > 70.0	1	2		
Mean X > 70.0	70.6	70.4	-.3	-.2
60.0 <= X <= 70.0	30	30		
61.0 <= X <= 73.0	23	21		
48.0 <= X <= 68.0	66	66		
No. Years inc (avg):		32	(.4)	
No. Years dec (avg):		20	(-.4)	
No. Years no change		17		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

June

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	62.5	61.0	-2.4	-1.5
1923.	61.6	61.5	-.2	-.1
1924.	69.4	69.3	-.1	-.1
1925.	63.5	62.1	-2.2	-1.4
1926.	65.8	64.3	-2.3	-1.5
1927.	61.8	60.3	-2.4	-1.5
1928.	64.9	65.8	1.4	.9
1929.	67.6	65.8	-2.7	-1.8
1930.	65.2	62.4	-4.3	-2.8
1931.	68.2	64.6	-5.3	-3.6
1932.	64.4	64.1	-.5	-.3
1933.	65.8	66.0	.3	.2
1934.	68.7	65.1	-5.2	-3.6
1935.	62.7	61.3	-2.2	-1.4
1936.	63.3	63.0	-.5	-.3
1937.	62.6	62.2	-.6	-.4
1938.	63.3	62.1	-1.9	-1.2
1939.	66.2	65.4	-1.2	-.8
1940.	64.7	65.1	.6	.4
1941.	61.4	59.3	-3.4	-2.1
1942.	61.4	61.2	-.3	-.2
1943.	62.9	62.1	-1.3	-.8
1944.	63.4	64.6	1.9	1.2
1945.	63.6	64.4	1.3	.8
1946.	62.5	63.4	1.4	.9
1947.	66.9	67.4	.7	.5
1948.	63.6	61.6	-3.1	-2.0
1949.	64.5	62.0	-3.9	-2.5
1950.	62.5	61.8	-1.1	-.7
1951.	63.3	63.0	-.5	-.3
1952.	61.7	61.6	-.2	-.1
1953.	62.2	62.4	.3	.2
1954.	63.7	63.0	-1.1	-.7
1955.	63.8	64.3	.8	.5
1956.	63.3	63.0	-.5	-.3
1957.	64.1	64.5	.6	.4
1958.	62.6	62.4	-.3	-.2
1959.	65.4	62.3	-4.7	-3.1
1960.	66.4	63.6	-4.2	-2.8
1961.	64.1	66.8	4.2	2.7
1962.	64.1	64.0	-.2	-.1
1963.	61.1	60.1	-1.6	-1.0
1964.	65.7	62.3	-5.2	-3.4
1965.	61.6	61.6	.0	.0
1966.	67.6	62.9	-7.0	-4.7
1967.	61.9	61.8	-.2	-.1
1968.	65.1	65.2	.2	.1
1969.	62.0	61.8	-.3	-.2
1970.	65.5	66.0	.8	.5
1971.	60.7	59.6	-1.8	-1.1
1972.	64.0	65.4	2.2	1.4
1973.	63.8	61.8	-3.1	-2.0
1974.	62.6	62.1	-.8	-.5
1975.	61.8	60.1	-2.8	-1.7
1976.	67.8	65.2	-3.8	-2.6
1977.	70.4	70.4	.0	.0
1978.	62.7	62.6	-.2	-.1
1979.	64.5	64.5	.0	.0
1980.	62.0	62.0	.0	.0
1981.	67.0	62.8	-6.3	-4.2
1982.	61.9	60.5	-2.3	-1.4
1983.	62.6	62.5	-.2	-.1
1984.	66.0	64.5	-2.3	-1.5
1985.	67.0	64.2	-4.2	-2.8
1986.	64.5	64.7	.3	.2
1987.	66.0	65.8	-.3	-.2
1988.	67.5	64.3	-4.7	-3.2
1989.	65.0	65.1	.2	.1
1990.	67.7	64.5	-4.7	-3.2
Mean:	64.3	63.4	-1.4	-.9
Median:	63.8	63.0	-.7	-.4
Min:	60.7	59.3	-7.0	-4.7
Max:	70.4	70.4	4.2	2.7
X > 56.0	69	69		
Mean X > 56.0	64.3	63.4	-1.4	-.9
X > 60.0	69	67		
Mean X > 60.0	64.3	63.5	-1.2	-.8
X > 65.0	23	16		
Mean X > 65.0	66.9	66.2	-1.0	-.7
X > 68.0	4	2		
Mean X > 68.0	69.2	69.9	1.0	.7
X > 70.0	1	1		
Mean X > 70.0	70.4	70.4	.0	.0
60.0 <= X <= 70.0	68	66		
61.0 <= X <= 73.0	68	63		
48.0 <= X <= 68.0	65	67		
No. Years inc (avg):		16		(.7)
No. Years dec (avg):		49		(-1.5)
No. Years no change		4		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

July

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	65.5	63.0	-3.8	-2.5
1923.	68.1	66.2	-2.8	-1.9
1924.	69.6	69.8	.3	.2
1925.	66.2	64.3	-2.9	-1.9
1926.	70.0	68.5	-2.1	-1.5
1927.	64.7	62.7	-3.1	-2.0
1928.	65.1	64.9	-.3	-.2
1929.	69.4	66.7	-3.9	-2.7
1930.	68.8	69.2	.6	.4
1931.	68.6	67.2	-2.0	-1.4
1932.	67.7	65.6	-3.1	-2.1
1933.	69.0	66.0	-4.3	-3.0
1934.	68.4	65.7	-3.9	-2.7
1935.	67.0	64.3	-4.0	-2.7
1936.	67.3	64.0	-4.9	-3.3
1937.	66.0	62.7	-5.0	-3.3
1938.	66.2	64.0	-3.3	-2.2
1939.	68.8	66.6	-3.2	-2.2
1940.	68.0	68.7	1.0	.7
1941.	63.5	61.2	-3.6	-2.3
1942.	66.2	63.2	-4.5	-3.0
1943.	67.0	65.3	-2.5	-1.7
1944.	68.3	69.2	1.3	.9
1945.	66.9	67.3	.6	.4
1946.	65.4	65.2	-.3	-.2
1947.	70.6	68.8	-2.5	-1.8
1948.	66.7	64.0	-4.0	-2.7
1949.	67.4	64.4	-4.5	-3.0
1950.	66.9	64.7	-3.3	-2.2
1951.	67.9	66.6	-1.9	-1.3
1952.	66.1	65.0	-1.7	-1.1
1953.	65.8	62.8	-4.6	-3.0
1954.	65.9	65.1	-1.2	-.8
1955.	68.8	69.1	.4	.3
1956.	67.6	64.8	-4.1	-2.8
1957.	66.8	68.7	2.8	1.9
1958.	66.9	65.6	-1.9	-1.3
1959.	66.9	70.1	4.8	3.2
1960.	68.4	66.2	-3.2	-2.2
1961.	71.2	69.9	-1.8	-1.3
1962.	67.8	66.7	-1.6	-1.1
1963.	65.1	62.5	-4.0	-2.6
1964.	67.4	68.8	2.1	1.4
1965.	66.2	65.3	-1.4	-.9
1966.	66.7	62.0	-7.0	-4.7
1967.	67.2	65.5	-2.5	-1.7
1968.	65.2	63.4	-2.8	-1.8
1969.	65.9	63.3	-3.9	-2.6
1970.	65.6	65.5	-.2	-.1
1971.	64.9	61.4	-5.4	-3.5
1972.	63.3	64.6	2.1	1.3
1973.	66.0	64.0	-3.0	-2.0
1974.	66.5	64.3	-3.3	-2.2
1975.	64.1	62.0	-3.3	-2.1
1976.	67.9	65.3	-3.8	-2.6
1977.	73.2	72.8	-.5	-.4
1978.	67.0	65.5	-2.2	-1.5
1979.	66.9	65.3	-2.4	-1.6
1980.	66.4	63.9	-3.8	-2.5
1981.	68.8	68.9	.1	.1
1982.	65.6	63.3	-3.5	-2.3
1983.	66.4	65.9	-.8	-.5
1984.	66.9	65.0	-2.8	-1.9
1985.	69.7	70.1	.6	.4
1986.	69.7	68.8	-1.3	-.9
1987.	70.6	67.1	-5.0	-3.5
1988.	66.0	66.4	.6	.4
1989.	65.9	65.6	-.5	-.3
1990.	67.1	64.2	-4.3	-2.9
Mean:	67.2	65.7	-2.2	-1.5
Median:	66.9	65.3	-2.8	-1.9
Min:	63.3	61.2	-7.0	-4.7
Max:	73.2	72.8	4.8	3.2
X > 56.0	69	69		
Mean X > 56.0	67.2	65.7	-2.2	-1.5
X > 60.0	69	69		
Mean X > 60.0	67.2	65.7	-2.2	-1.5
X > 65.0	64	40		
Mean X > 65.0	67.4	67.3	-.1	-.1
X > 68.0	19	15		
Mean X > 68.0	69.5	69.4	-.1	-.1
X > 70.0	4	3		
Mean X > 70.0	71.4	71.0	-.6	-.4
60.0 <= X <= 70.0	65	66		
61.0 <= X <= 73.0	68	69		
48.0 <= X <= 68.0	50	54		
No. Years inc (avg):		13		(.9)
No. Years dec (avg):		56		(-2.0)
No. Years no change		0		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

August

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	65.4	64.3	-1.7	-1.1
1923.	67.4	66.2	-1.8	-1.2
1924.	72.9	71.7	-1.6	-1.2
1925.	66.9	65.6	-1.9	-1.3
1926.	66.2	64.0	-3.3	-2.2
1927.	65.7	64.3	-2.1	-1.4
1928.	69.1	68.8	-.4	-.3
1929.	70.1	68.9	-1.7	-1.2
1930.	65.6	63.8	-2.7	-1.8
1931.	74.5	74.5	.0	.0
1932.	67.3	65.5	-2.7	-1.8
1933.	65.7	69.5	5.8	3.8
1934.	70.3	69.6	-1.0	-.7
1935.	65.8	64.5	-2.0	-1.3
1936.	66.9	65.9	-1.5	-1.0
1937.	65.5	63.2	-3.5	-2.3
1938.	66.0	64.7	-2.0	-1.3
1939.	68.2	67.9	-.4	-.3
1940.	68.6	67.1	-2.2	-1.5
1941.	65.6	64.1	-2.3	-1.5
1942.	66.3	64.8	-2.3	-1.5
1943.	66.2	64.7	-2.3	-1.5
1944.	69.1	69.7	.9	.6
1945.	65.7	66.7	1.5	1.0
1946.	64.7	65.9	1.9	1.2
1947.	68.1	65.7	-3.5	-2.4
1948.	66.5	65.4	-1.7	-1.1
1949.	67.3	66.3	-1.5	-1.0
1950.	66.0	64.1	-2.9	-1.9
1951.	67.1	67.1	.0	.0
1952.	66.7	65.1	-2.4	-1.6
1953.	67.0	65.8	-1.8	-1.2
1954.	67.8	67.4	-.6	-.4
1955.	69.2	70.0	1.2	.8
1956.	67.1	65.6	-2.2	-1.5
1957.	65.7	66.9	1.8	1.2
1958.	67.2	65.9	-1.9	-1.3
1959.	68.6	66.2	-3.5	-2.4
1960.	70.7	71.2	.7	.5
1961.	66.8	66.9	.1	.1
1962.	66.8	66.9	.1	.1
1963.	65.9	63.8	-3.2	-2.1
1964.	69.4	71.0	2.3	1.6
1965.	65.0	63.2	-2.8	-1.8
1966.	70.9	65.8	-7.2	-5.1
1967.	67.3	65.7	-2.4	-1.6
1968.	66.2	65.5	-1.1	-.7
1969.	66.0	64.6	-2.1	-1.4
1970.	68.5	68.9	.6	.4
1971.	65.3	63.6	-2.6	-1.7
1972.	68.4	69.8	2.0	1.4
1973.	65.1	63.5	-2.5	-1.6
1974.	66.7	65.4	-1.9	-1.3
1975.	65.0	63.9	-1.7	-1.1
1976.	68.0	66.2	-2.6	-1.8
1977.	74.5	74.0	-.7	-.5
1978.	64.9	63.4	-2.3	-1.5
1979.	66.2	67.4	1.8	1.2
1980.	66.6	65.0	-2.4	-1.6
1981.	68.0	65.8	-3.2	-2.2
1982.	65.9	64.5	-2.1	-1.4
1983.	66.4	65.2	-1.8	-1.2
1984.	65.8	64.3	-2.3	-1.5
1985.	71.1	69.9	-1.7	-1.2
1986.	68.7	66.3	-3.5	-2.4
1987.	67.7	66.3	-2.1	-1.4
1988.	70.4	70.1	-.4	-.3
1989.	70.0	70.3	.4	.3
1990.	69.4	69.7	.4	.3
Mean:	67.5	66.6	-1.3	-.9
Median:	66.9	65.8	-1.9	-1.3
Min:	64.7	63.2	-7.2	-5.1
Max:	74.5	74.5	5.8	3.8
X > 56.0	69	69		
Mean X > 56.0	67.5	66.6	-1.3	-.9
X > 60.0	69	69		
Mean X > 60.0	67.5	66.6	-1.3	-.9
X > 65.0	65	48		
Mean X > 65.0	67.7	67.7	.0	.0
X > 68.0	22	17		
Mean X > 68.0	70.0	70.4	.6	.4
X > 70.0	9	7		
Mean X > 70.0	71.7	71.8	.1	.1
60.0 <= X <= 70.0	60	62		
61.0 <= X <= 73.0	67	67		
48.0 <= X <= 68.0	47	52		
No. Years inc (avg):		15		(1.0)
No. Years dec (avg):		52		(-1.5)
No. Years no change		2		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

September

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	65.7	64.5	-1.8	-1.2
1923.	67.9	66.7	-1.8	-1.2
1924.	70.3	69.4	-1.3	-.9
1925.	67.6	66.8	-1.2	-.8
1926.	69.6	69.2	-.6	-.4
1927.	66.5	65.3	-1.8	-1.2
1928.	67.1	69.2	3.1	2.1
1929.	69.7	68.1	-2.3	-1.6
1930.	68.8	68.3	-.7	-.5
1931.	70.5	70.0	-.7	-.5
1932.	67.9	66.4	-2.2	-1.5
1933.	69.5	68.9	-.9	-.6
1934.	68.9	67.9	-1.5	-1.0
1935.	67.1	65.9	-1.8	-1.2
1936.	68.1	66.9	-1.8	-1.2
1937.	67.2	65.9	-1.9	-1.3
1938.	66.4	65.2	-1.8	-1.2
1939.	68.8	67.4	-2.0	-1.4
1940.	68.2	67.9	-.4	-.3
1941.	66.3	65.0	-2.0	-1.3
1942.	67.0	65.7	-1.9	-1.3
1943.	66.6	65.0	-2.4	-1.6
1944.	67.3	67.1	-.3	-.2
1945.	66.7	68.5	2.7	1.8
1946.	66.2	67.9	2.6	1.7
1947.	68.8	67.1	-2.5	-1.7
1948.	67.1	66.1	-1.5	-1.0
1949.	67.7	66.7	-1.5	-1.0
1950.	67.1	65.5	-2.4	-1.6
1951.	69.8	69.5	-.4	-.3
1952.	67.1	65.5	-2.4	-1.6
1953.	67.1	65.8	-1.9	-1.3
1954.	67.7	67.5	-.3	-.2
1955.	68.0	68.1	.1	.1
1956.	67.5	66.0	-2.2	-1.5
1957.	67.0	68.2	1.8	1.2
1958.	68.1	66.8	-1.9	-1.3
1959.	70.1	68.7	-2.0	-1.4
1960.	70.4	69.5	-1.3	-.9
1961.	69.9	68.4	-2.1	-1.5
1962.	68.5	68.7	.3	.2
1963.	66.4	64.9	-2.3	-1.5
1964.	68.5	68.4	-.1	-.1
1965.	67.7	66.5	-1.8	-1.2
1966.	70.1	67.8	-3.3	-2.3
1967.	68.2	66.7	-2.2	-1.5
1968.	68.1	68.1	.0	.0
1969.	66.9	65.7	-1.8	-1.2
1970.	67.0	69.3	3.4	2.3
1971.	66.3	64.7	-2.4	-1.6
1972.	67.3	68.1	1.2	.8
1973.	67.1	65.2	-2.8	-1.9
1974.	67.1	66.0	-1.6	-1.1
1975.	65.3	64.2	-1.7	-1.1
1976.	68.8	68.6	-.3	-.2
1977.	70.3	70.0	-.4	-.3
1978.	67.4	66.1	-1.9	-1.3
1979.	66.6	70.1	5.3	3.5
1980.	67.5	66.3	-1.8	-1.2
1981.	70.0	68.7	-1.9	-1.3
1982.	66.5	65.3	-1.8	-1.2
1983.	66.9	65.7	-1.8	-1.2
1984.	67.1	65.9	-1.8	-1.2
1985.	67.7	67.8	.1	.1
1986.	65.5	66.2	1.1	.7
1987.	69.4	67.9	-2.2	-1.5
1988.	71.5	70.3	-1.7	-1.2
1989.	67.3	67.9	.9	.6
1990.	71.0	71.1	.1	.1
Mean:	67.9	67.3	-1.0	-.7
Median:	67.5	67.0	-1.8	-1.2
Min:	65.3	64.2	-3.3	-2.3
Max:	71.5	71.1	5.3	3.5
X > 56.0	69	69		
Mean X > 56.0	67.9	67.3	-.9	-.6
X > 60.0	69	69		
Mean X > 60.0	67.9	67.3	-.9	-.6
X > 65.0	69	63		
Mean X > 65.0	67.9	67.5	-.6	-.4
X > 68.0	27	25		
Mean X > 68.0	69.4	69.0	-.6	-.4
X > 70.0	8	3		
Mean X > 70.0	70.5	70.5	.0	.0
60.0 <= X <= 70.0	61	66		
61.0 <= X <= 73.0	69	69		
48.0 <= X <= 68.0	42	44		
No. Years inc (avg):		13		(1.2)
No. Years dec (avg):		55		(-1.1)
No. Years no change		1		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

October"

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	56.9	56.9	.0	.0
1923.	61.5	59.8	-2.8	-1.7
1924.	63.4	62.9	-.8	-.5
1925.	58.2	57.9	-.5	-.3
1926.	62.1	62.6	.8	.5
1927.	57.2	57.0	-.3	-.2
1928.	58.5	55.3	-5.5	-3.2
1929.	64.3	64.5	.3	.2
1930.	60.3	59.7	-1.0	-.6
1931.	64.5	64.4	-.2	-.1
1932.	60.6	59.7	-1.5	-.9
1933.	65.6	64.9	-1.1	-.7
1934.	65.1	64.8	-.5	-.3
1935.	58.3	58.4	.2	.1
1936.	60.3	58.9	-2.3	-1.4
1937.	58.8	58.4	-.7	-.4
1938.	57.7	57.8	.2	.1
1939.	65.2	64.8	-.6	-.4
1940.	55.9	54.8	-2.0	-1.1
1941.	57.4	57.0	-.7	-.4
1942.	56.5	56.1	-.7	-.4
1943.	57.9	58.2	.5	.3
1944.	61.4	58.3	-5.0	-3.1
1945.	60.2	54.5	-9.5	-5.7
1946.	57.6	54.7	-5.0	-2.9
1947.	59.2	58.3	-1.5	-.9
1948.	57.3	58.6	2.3	1.3
1949.	59.3	59.9	1.0	.6
1950.	57.1	56.7	-.7	-.4
1951.	57.4	54.5	-5.1	-2.9
1952.	57.7	56.8	-1.6	-.9
1953.	58.9	57.8	-1.9	-1.1
1954.	56.3	55.5	-1.4	-.8
1955.	60.1	56.6	-5.8	-3.5
1956.	59.8	59.4	-.7	-.4
1957.	59.6	56.1	-5.9	-3.5
1958.	60.6	60.0	-1.0	-.6
1959.	64.9	64.9	.0	.0
1960.	56.7	55.6	-1.9	-1.1
1961.	66.3	64.7	-2.4	-1.6
1962.	57.7	55.2	-4.3	-2.5
1963.	57.3	56.6	-1.2	-.7
1964.	59.5	56.0	-5.9	-3.5
1965.	58.0	57.5	-.9	-.5
1966.	61.1	61.6	.8	.5
1967.	61.1	60.8	-.5	-.3
1968.	60.3	62.0	2.8	1.7
1969.	59.1	58.4	-1.2	-.7
1970.	59.2	55.0	-7.1	-4.2
1971.	57.2	57.6	.7	.4
1972.	58.0	54.4	-6.2	-3.6
1973.	57.9	57.5	-.7	-.4
1974.	58.5	57.6	-1.5	-.9
1975.	56.8	56.9	.2	.1
1976.	65.0	66.1	1.7	1.1
1977.	65.2	65.4	.3	.2
1978.	58.8	58.3	-.9	-.5
1979.	60.0	55.5	-7.5	-4.5
1980.	58.8	58.1	-1.2	-.7
1981.	63.5	64.1	.9	.6
1982.	57.3	57.3	.0	.0
1983.	57.7	56.8	-1.6	-.9
1984.	61.1	60.4	-1.1	-.7
1985.	57.2	55.1	-3.7	-2.1
1986.	61.0	57.6	-5.6	-3.4
1987.	65.2	66.4	1.8	1.2
1988.	67.3	67.0	-.4	-.3
1989.	58.6	55.8	-4.8	-2.8
1990.	67.6	67.4	-.3	-.2
Mean:	60.0	59.1	-1.6	-1.0
Median:	59.0	57.8	-1.0	-.6
Min:	55.9	54.4	-9.5	-5.7
Max:	67.6	67.4	2.8	1.7
X > 56.0	68	55		
Mean X > 56.0	60.1	60.1	.0	.0
X > 60.0	28	19		
Mean X > 60.0	63.0	64.2	1.9	1.2
X > 65.0	8	5		
Mean X > 65.0	65.9	66.5	.9	.6
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	29	20		
61.0 <= X <= 73.0	21	17		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		15		(.6)
No. Years dec (avg):		51		(-1.5)
No. Years no change		3		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

November

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	54.5	54.5	.0	.0
1923.	57.3	57.0	-.5	-.3
1924.	55.6	55.3	-.5	-.3
1925.	56.6	56.5	-.2	-.1
1926.	58.9	57.9	-1.7	-1.0
1927.	56.3	56.3	.0	.0
1928.	57.1	55.7	-2.5	-1.4
1929.	59.4	59.0	-.7	-.4
1930.	58.0	57.4	-1.0	-.6
1931.	55.6	55.5	-.2	-.1
1932.	57.0	57.1	.2	.1
1933.	59.6	59.0	-1.0	-.6
1934.	57.3	56.9	-.7	-.4
1935.	56.4	56.4	.0	.0
1936.	58.0	57.8	-.3	-.2
1937.	57.7	56.8	-1.6	-.9
1938.	56.7	56.7	.0	.0
1939.	59.2	58.8	-.7	-.4
1940.	56.2	54.2	-3.6	-2.0
1941.	56.3	56.4	.2	.1
1942.	56.5	56.5	.0	.0
1943.	56.9	56.6	-.5	-.3
1944.	54.7	54.8	.2	.1
1945.	56.5	55.0	-2.7	-1.5
1946.	55.1	52.9	-4.0	-2.2
1947.	53.4	53.4	.0	.0
1948.	56.7	56.7	.0	.0
1949.	57.9	57.6	-.5	-.3
1950.	56.4	56.1	-.5	-.3
1951.	56.5	55.7	-1.4	-.8
1952.	57.1	56.9	-.4	-.2
1953.	57.4	57.6	.3	.2
1954.	56.0	54.8	-2.1	-1.2
1955.	56.1	55.7	-.7	-.4
1956.	58.1	58.2	.2	.1
1957.	58.5	56.8	-2.9	-1.7
1958.	58.6	57.4	-2.0	-1.2
1959.	61.0	60.9	-.2	-.1
1960.	56.6	56.2	-.7	-.4
1961.	58.0	57.8	-.3	-.2
1962.	56.4	56.1	-.5	-.3
1963.	56.4	56.5	.2	.1
1964.	55.4	54.8	-1.1	-.6
1965.	57.3	56.4	-1.6	-.9
1966.	56.4	58.1	3.0	1.7
1967.	58.0	57.5	-.9	-.5
1968.	56.9	56.4	-.9	-.5
1969.	57.6	56.6	-1.7	-1.0
1970.	57.0	55.5	-2.6	-1.5
1971.	57.1	57.0	-.2	-.1
1972.	54.4	52.8	-2.9	-1.6
1973.	55.7	55.2	-.9	-.5
1974.	57.6	57.2	-.7	-.4
1975.	56.0	55.8	-.4	-.2
1976.	59.5	59.6	.2	.1
1977.	56.9	57.0	.2	.1
1978.	58.1	57.7	-.7	-.4
1979.	57.9	56.4	-2.6	-1.5
1980.	57.8	56.9	-1.6	-.9
1981.	56.6	56.4	-.4	-.2
1982.	56.4	56.4	.0	.0
1983.	57.1	56.5	-1.1	-.6
1984.	56.5	56.1	-.7	-.4
1985.	54.8	54.2	-1.1	-.6
1986.	56.0	56.1	.2	.1
1987.	58.6	58.4	-.3	-.2
1988.	57.6	57.2	-.7	-.4
1989.	57.8	56.4	-2.4	-1.4
1990.	58.1	57.7	-.7	-.4
Mean:	57.0	56.5	-.8	-.5
Median:	56.9	56.5	-.7	-.4
Min:	53.4	52.8	-4.0	-2.2
Max:	61.0	60.9	3.0	1.7
X > 56.0	56	51		
Mean X > 56.0	57.4	57.2	-.3	-.2
X > 60.0	1	1		
Mean X > 60.0	61.0	60.9	-.2	-.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	1	1		
61.0 <= X <= 73.0	1	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		10	(	.3)
No. Years dec (avg):		51	(	-.7)
No. Years no change		8		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

December

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	47.8	47.7	-.2	-.1
1923.	51.4	51.3	-.2	-.1
1924.	47.0	46.7	-.6	-.3
1925.	49.5	49.4	-.2	-.1
1926.	50.9	50.6	-.6	-.3
1927.	49.7	49.6	-.2	-.1
1928.	48.9	48.5	-.8	-.4
1929.	51.3	50.9	-.8	-.4
1930.	50.4	50.1	-.6	-.3
1931.	47.9	47.9	.0	.0
1932.	50.0	49.8	-.4	-.2
1933.	49.6	49.1	-1.0	-.5
1934.	50.1	49.6	-1.0	-.5
1935.	50.3	50.3	.0	.0
1936.	50.4	50.2	-.4	-.2
1937.	51.6	51.4	-.4	-.2
1938.	50.7	50.6	-.2	-.1
1939.	52.7	52.4	-.6	-.3
1940.	51.0	50.7	-.6	-.3
1941.	50.3	50.2	-.2	-.1
1942.	49.5	49.4	-.2	-.1
1943.	51.8	51.3	-1.0	-.5
1944.	49.4	49.5	.2	.1
1945.	49.0	48.8	-.4	-.2
1946.	49.1	48.7	-.8	-.4
1947.	47.6	47.6	.0	.0
1948.	48.4	48.2	-.4	-.2
1949.	50.4	49.9	-1.0	-.5
1950.	48.8	48.8	.0	.0
1951.	49.4	49.1	-.6	-.3
1952.	51.0	50.8	-.4	-.2
1953.	52.0	51.9	-.2	-.1
1954.	47.7	47.4	-.6	-.3
1955.	48.4	48.3	-.2	-.1
1956.	52.2	52.1	-.2	-.1
1957.	50.8	50.3	-1.0	-.5
1958.	55.8	55.7	-.2	-.1
1959.	53.0	52.8	-.4	-.2
1960.	49.8	49.7	-.2	-.1
1961.	48.8	48.6	-.4	-.2
1962.	51.1	51.1	.0	.0
1963.	47.4	47.4	.0	.0
1964.	47.4	47.3	-.2	-.1
1965.	49.3	49.2	-.2	-.1
1966.	49.2	49.1	-.2	-.1
1967.	51.7	51.6	-.2	-.1
1968.	49.0	48.7	-.6	-.3
1969.	52.4	52.2	-.4	-.2
1970.	49.3	49.0	-.6	-.3
1971.	48.9	48.8	-.2	-.1
1972.	45.5	45.3	-.4	-.2
1973.	49.5	49.4	-.2	-.1
1974.	50.6	50.4	-.4	-.2
1975.	50.2	50.2	.0	.0
1976.	52.6	52.6	.0	.0
1977.	50.7	50.8	.2	.1
1978.	49.4	49.1	-.6	-.3
1979.	52.3	52.0	-.6	-.3
1980.	53.3	53.1	-.4	-.2
1981.	50.3	50.3	.0	.0
1982.	49.2	49.2	.0	.0
1983.	48.7	48.6	-.2	-.1
1984.	50.1	50.0	-.2	-.1
1985.	46.4	46.3	-.2	-.1
1986.	52.2	51.7	-1.0	-.5
1987.	50.0	49.6	-.8	-.4
1988.	50.4	50.1	-.6	-.3
1989.	50.4	50.0	-.8	-.4
1990.	47.6	47.1	-1.1	-.5
Mean:	50.0	49.8	-.4	-.2
Median:	49.9	49.6	-.4	-.2
Min:	45.5	45.3	-1.1	-.5
Max:	55.8	55.7	.2	.1
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	59	59		
No. Years inc (avg):		2	(	.1)
No. Years dec (avg):		57	(	-.2)
No. Years no change		10		

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.1 Recreation and Fisheries

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2250.0	-10.0	-250.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	2000.0	-11.1	-250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1500.0	-14.3	-250.0
	1935	1250.0	750.0	-40.0	-500.0
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	1750.0	-12.5	-250.0
	1942	2500.0	2500.0	.0	.0
	1943	2500.0	2500.0	.0	.0
	1944	2500.0	2500.0	.0	.0
	1945	1500.0	1500.0	.0	.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2500.0	.0	.0
	1951	2500.0	2500.0	.0	.0
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2500.0	.0	.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	1750.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	2155.5	2115.3	-1.9	-40.2
	1964	2500.0	2500.0	.0	.0
	1965	1750.0	1750.0	.0	.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	2500.0	2500.0	.0	.0
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	524.6	555.5	5.9	30.9
	1978	521.4	516.5	-.9	-4.9
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	2000.0	-20.0	-500.0
	1981	2500.0	2500.0	.0	.0
	1982	1750.0	1750.0	.0	.0
	1983	3387.7	3173.4	-6.3	-214.3
	1984	3545.6	2509.0	-29.2	-1036.6
	1985	2500.0	2500.0	.0	.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1617.9	1442.7	-10.8	-175.2
	1989	1000.0	750.0	-25.0	-250.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	750.0	-25.0	-250.0
	Mean	2139.3	2040.2	-5.0	-99.1
	Median	2500.0	2182.6	.0	.0
	Min	521.4	516.5	-40.0	-1036.6
	Max	3545.6	3173.4	5.9	30.9
X <	1500.0	7	8		
X <	1750.0	9	13		
X <	1765.0	24	27		
X <	2000.0	24	27		
X <	3000.0	68	69		
X >=	2500.0	37	33		
2500.0 > X >=	2000.0	9	10		
2000.0 > X >=	1750.0	15	14		
1750.0 > X >=	800.0	7	8		
800.0 > X		2	5		
X <	3450.0	69	70		
Mean of X >=	3450.0	3545.6	.0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2250.0	-10.0	-250.0
	1927	1750.0	1750.0	.0	.0
	1928	2875.8	2500.0	-13.1	-375.8
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	2000.0	-11.1	-250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1500.0	-14.3	-250.0
	1935	1250.0	750.0	-40.0	-500.0
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	1750.0	-12.5	-250.0
	1942	2500.0	2500.0	.0	.0
	1943	3699.3	3396.1	-8.2	-303.2
	1944	2500.0	2500.0	.0	.0
	1945	1500.0	1500.0	.0	.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2500.0	.0	.0
	1951	16968.6	16083.7	-5.2	-884.9
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2500.0	.0	.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	1750.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3138.8	3022.9	-3.7	-115.9
	1964	4151.3	3866.4	-6.9	-284.9
	1965	1750.0	1750.0	.0	.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	6087.9	4829.5	-20.7	-1258.4
	1975	2500.0	2500.0	.0	.0
	1976	3028.0	2699.5	-10.8	-328.5
	1977	516.2	543.0	5.2	26.8
	1978	500.0	500.0	.0	.0
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	2000.0	-20.0	-500.0
	1981	2500.0	2500.0	.0	.0
	1982	4649.4	4208.9	-9.5	-440.5
	1983	6809.2	6710.3	-1.5	-98.9
	1984	14312.9	14353.5	.3	40.6
	1985	3113.9	2500.0	-19.7	-613.9
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1294.3	1154.1	-10.8	-140.2
	1989	1000.0	750.0	-25.0	-250.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	750.0	-25.0	-250.0
	Mean	2712.8	2566.0	-5.9	-146.8
	Median	2500.0	2375.0	.0	.0
	Min	500.0	500.0	-40.0	-1258.4
	Max	16968.6	16083.7	5.2	40.6
X <	1500.0	8	8		
X <	1750.0	9	13		
X <	1765.0	23	26		
X <	2000.0	23	26		
X <	3000.0	60	62		
X >=	2500.0	39	35		
2500.0 > X >=	2000.0	8	9		
2000.0 > X >=	1750.0	14	13		
1750.0 > X >=	1200.0	5	6		
1200.0 > X		4	7		
X <	3450.0	63	64		
Mean of X >=	3450.0	8096.9	8342.0	3.0	245.1

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	6439.4	6042.1	-6.2	-397.3
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2250.0	-10.0	-250.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	2000.0	-11.1	-250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1500.0	-14.3	-250.0
	1935	1250.0	750.0	-40.0	-500.0
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	6197.2	5797.5	-6.4	-399.7
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	1750.0	-12.5	-250.0
	1942	4941.6	4487.5	-9.2	-454.1
	1943	4771.1	4644.5	-2.7	-126.6
	1944	2500.0	2500.0	.0	.0
	1945	1500.0	1500.0	.0	.0
	1946	7851.5	7450.2	-5.1	-401.3
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2500.0	.0	.0
	1951	16431.8	16297.0	-.8	-134.8
	1952	4213.0	3533.3	-16.1	-679.7
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	14566.6	14324.1	-1.7	-242.5
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2500.0	.0	.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	1750.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3476.5	3414.7	-1.8	-61.8
	1964	3321.0	3093.1	-6.9	-227.9
	1965	19334.4	19049.3	-1.5	-285.1
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	5316.9	4871.0	-8.4	-445.9
	1971	4901.6	4363.3	-11.0	-538.3
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	7527.8	7406.0	-1.6	-121.8
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	638.2	644.7	1.0	6.5
	1978	574.8	540.7	-5.9	-34.1
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	2000.0	-20.0	-500.0
	1981	2500.0	2500.0	.0	.0
	1982	14208.7	14210.6	.0	1.9
	1983	9173.6	9016.1	-1.7	-157.5
	1984	15350.2	15132.5	-1.4	-217.7
	1985	2556.0	2500.0	-2.2	-56.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1250.0	923.3	-26.1	-326.7
	1989	1000.0	750.0	-25.0	-250.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	750.0	-25.0	-250.0
	Mean	3664.9	3521.3	-5.6	-143.6
	Median	2500.0	2500.0	-.4	-17.0
	Min	574.8	540.7	-40.0	-679.7
	Max	19334.4	19049.3	1.0	6.5
X <	1500.0	8	8		
X <	1750.0	9	13		
X <	1765.0	21	24		
X <	2000.0	21	24		
X <	3000.0	53	53		
X >=	2500.0	43	40		
2500.0 > X >=	2000.0	6	6		
2000.0 > X >=	1750.0	12	11		
1750.0 > X >=	1200.0	5	6		
1200.0 > X		4	7		
X <	3450.0	54	55		
Mean of X >=	3450.0	9043.9	9108.3	.7	64.5

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2000.0	2000.0	.0	.0
	1923	4580.8	4424.9	-3.4	-155.9
	1924	2000.0	2000.0	.0	.0
	1925	1750.0	1750.0	.0	.0
	1926	2000.0	1800.0	-10.0	-200.0
	1927	3164.1	2562.6	-19.0	-601.5
	1928	2500.0	2500.0	.0	.0
	1929	1600.0	1400.0	-12.5	-200.0
	1930	1750.0	1750.0	.0	.0
	1931	1800.0	1600.0	-11.1	-200.0
	1932	2000.0	1750.0	-12.5	-250.0
	1933	2000.0	2000.0	.0	.0
	1934	2000.0	1750.0	-12.5	-250.0
	1935	1750.0	2000.0	14.3	250.0
	1936	4350.9	3803.9	-12.6	-547.0
	1937	2000.0	2000.0	.0	.0
	1938	2883.0	2739.9	-5.0	-143.1
	1939	2250.0	2000.0	-11.1	-250.0
	1940	2494.4	2128.3	-14.7	-366.1
	1941	5538.3	5205.2	-6.0	-333.1
	1942	9376.9	9209.6	-1.8	-167.3
	1943	10957.7	10792.1	-1.5	-165.6
	1944	2000.0	2000.0	.0	.0
	1945	2000.0	2250.0	12.5	250.0
	1946	5270.4	5106.3	-3.1	-164.1
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2000.0	2000.0	.0	.0
	1950	2000.0	2000.0	.0	.0
	1951	10172.8	10024.9	-1.5	-147.9
	1952	9038.6	8889.3	-1.7	-149.3
	1953	6806.0	6217.4	-8.6	-588.6
	1954	2250.0	2250.0	.0	.0
	1955	2000.0	1750.0	-12.5	-250.0
	1956	16384.9	16313.5	-.4	-71.4
	1957	2250.0	2250.0	.0	.0
	1958	2250.0	2000.0	-11.1	-250.0
	1959	2250.0	2000.0	-11.1	-250.0
	1960	1400.0	1400.0	.0	.0
	1961	1500.0	1400.0	-6.7	-100.0
	1962	1400.0	1400.0	.0	.0
	1963	3961.2	3842.5	-3.0	-118.7
	1964	2656.8	2500.0	-5.9	-156.8
	1965	13252.0	13180.5	-.5	-71.5
	1966	2500.0	2500.0	.0	.0
	1967	6737.8	6130.9	-9.0	-606.9
	1968	2500.0	2500.0	.0	.0
	1969	14755.2	14313.8	-3.0	-441.4
	1970	21000.4	20839.7	-.8	-160.7
	1971	4798.8	4699.6	-2.1	-99.2
	1972	2500.0	2500.0	.0	.0
	1973	8920.5	8524.8	-4.4	-395.7
	1974	11390.4	11276.8	-1.0	-113.6
	1975	2250.0	2250.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	510.6	515.7	1.0	5.1
	1978	3351.3	3309.9	-1.2	-41.4
	1979	2250.0	2000.0	-11.1	-250.0
	1980	14953.9	15407.5	3.0	453.6
	1981	2250.0	2000.0	-11.1	-250.0
	1982	8291.7	8160.2	-1.6	-131.5
	1983	7631.9	7482.5	-2.0	-149.4
	1984	6644.9	6513.4	-2.0	-131.5
	1985	2500.0	2500.0	.0	.0
	1986	2214.7	2506.9	13.2	292.2
	1987	2000.0	1800.0	-10.0	-200.0
	1988	1000.0	738.7	-26.1	-261.3
	1989	2000.0	2000.0	.0	.0
	1990	1750.0	1500.0	-14.3	-250.0
	1991	800.0	600.0	-25.0	-200.0
	Mean	4337.0	4210.9	-4.2	-126.1
	Median	2250.0	2250.0	-1.7	-131.5
	Min	510.6	515.7	-26.1	-606.9
	Max	21000.4	20839.7	14.3	453.6
X <	1500.0	5	7		
X <	1750.0	7	9		
X <	1765.0	12	15		
X <	2000.0	13	17		
X <	3000.0	46	47		
X >=	2500.0	32	33		
2500.0 > X >=	2000.0	25	20		
2000.0 > X >=	1750.0	6	8		
1750.0 > X >=	1200.0	4	6		
1200.0 > X		3	3		
X <	3450.0	48	48		
Mean of X >=	3450.0	9309.8	9107.2	-2.2	-202.6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	3299.3	2483.4	-24.7	-815.9
	1923	3547.7	3376.9	-4.8	-170.8
	1924	1600.0	1600.0	.0	.0
	1925	3646.8	3925.8	7.7	279.0
	1926	1600.0	1440.0	-10.0	-160.0
	1927	13432.9	13364.6	-.5	-68.3
	1928	2000.0	2000.0	.0	.0
	1929	1280.0	1250.0	-2.3	-30.0
	1930	2000.0	2000.0	.0	.0
	1931	1440.0	1280.0	-11.1	-160.0
	1932	2278.2	2109.6	-7.4	-168.6
	1933	1750.0	1600.0	-8.6	-150.0
	1934	2000.0	2000.0	.0	.0
	1935	2000.0	2000.0	.0	.0
	1936	13433.0	13289.1	-1.1	-143.9
	1937	2000.0	1750.0	-12.5	-250.0
	1938	9824.8	9668.1	-1.6	-156.7
	1939	2000.0	2000.0	.0	.0
	1940	10595.2	10481.8	-1.1	-113.4
	1941	8043.8	7876.6	-2.1	-167.2
	1942	10042.6	9859.2	-1.8	-183.4
	1943	6947.5	6782.1	-2.4	-165.4
	1944	1750.0	1600.0	-8.6	-150.0
	1945	6184.7	6131.8	-.9	-52.9
	1946	2764.6	2617.1	-5.3	-147.5
	1947	2000.0	1750.0	-12.5	-250.0
	1948	2000.0	1750.0	-12.5	-250.0
	1949	2000.0	1600.0	-20.0	-400.0
	1950	4142.0	2575.0	-37.8	-1567.0
	1951	8208.4	8062.7	-1.8	-145.7
	1952	9586.9	9423.3	-1.7	-163.6
	1953	2328.7	2150.7	-7.6	-178.0
	1954	2052.3	2000.0	-2.5	-52.3
	1955	2000.0	2000.0	.0	.0
	1956	6239.2	6142.0	-1.6	-97.2
	1957	2000.0	2000.0	.0	.0
	1958	9139.8	7696.8	-15.8	-1443.0
	1959	2000.0	2000.0	.0	.0
	1960	1250.0	1120.0	-10.4	-130.0
	1961	1250.0	1120.0	-10.4	-130.0
	1962	1259.4	1250.0	-.7	-9.4
	1963	12081.0	11949.6	-1.1	-131.4
	1964	2125.4	2000.0	-5.9	-125.4
	1965	5501.4	5420.5	-1.5	-80.9
	1966	2000.0	2000.0	.0	.0
	1967	4473.3	4341.9	-2.9	-131.4
	1968	5766.3	4915.7	-14.8	-850.6
	1969	9286.5	9192.9	-1.0	-93.6
	1970	6352.2	6244.3	-1.7	-107.9
	1971	3436.1	3308.2	-3.7	-127.9
	1972	2239.2	2000.0	-10.7	-239.2
	1973	7194.1	7086.0	-1.5	-108.1
	1974	4409.4	4065.9	-7.8	-343.5
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	500.0	500.0	.0	.0
	1978	4754.0	4624.4	-2.7	-129.6
	1979	2000.0	2000.0	.0	.0
	1980	14140.1	13581.0	-4.0	-559.1
	1981	2000.0	2000.0	.0	.0
	1982	15555.5	15321.5	-1.5	-234.0
	1983	12410.4	12264.9	-1.2	-145.5
	1984	5698.0	5572.2	-2.2	-125.8
	1985	2000.0	2000.0	.0	.0
	1986	33196.4	33122.7	-.2	-73.7
	1987	1600.0	1440.0	-10.0	-160.0
	1988	2000.0	2000.0	.0	.0
	1989	1750.0	2000.0	14.3	250.0
	1990	1750.0	1750.0	.0	.0
	1991	640.0	500.0	-21.9	-140.0
	Mean	4882.5	4719.0	-4.5	-163.6
	Median	2182.3	2000.0	-1.7	-128.8
	Min	500.0	500.0	-37.8	-1567.0
	Max	33196.4	33122.7	14.3	279.0
X < 1500.0		7	9		
X < 1750.0		10	13		
X < 1765.0		14	17		
X < 2000.0		14	17		
X < 3000.0		39	41		
X >= 2500.0		32	31		
2500.0 > X >= 2000.0		24	22		
2000.0 > X >= 1750.0		4	4		
1750.0 > X >= 1200.0		8	9		
1200.0 > X		2	4		
X < 3450.0		41	43		
Mean of X >= 3450.0		9097.7	9274.3	1.9	176.6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	2838.2	2750.0	-3.1	-88.2
	1924	1280.0	1280.0	.0	.0
	1925	3251.2	3174.0	-2.4	-77.2
	1926	2000.0	1750.0	-12.5	-250.0
	1927	4600.3	4399.1	-4.4	-201.2
	1928	12207.3	11673.0	-4.4	-534.3
	1929	1500.0	1500.0	.0	.0
	1930	2000.0	2000.0	.0	.0
	1931	1152.0	1024.0	-11.1	-128.0
	1932	2750.0	2750.0	.0	.0
	1933	2000.0	1750.0	-12.5	-250.0
	1934	1600.0	1600.0	.0	.0
	1935	3250.0	3250.0	.0	.0
	1936	4222.1	4065.0	-3.7	-157.1
	1937	4381.7	3727.2	-14.9	-654.5
	1938	10863.5	10681.7	-1.7	-181.8
	1939	1600.0	1600.0	.0	.0
	1940	10956.2	10642.6	-2.9	-313.6
	1941	4870.0	4686.5	-3.8	-183.5
	1942	4500.0	4500.0	.0	.0
	1943	12491.8	12327.9	-1.3	-163.9
	1944	2250.0	2000.0	-11.1	-250.0
	1945	2750.0	2750.0	.0	.0
	1946	2808.5	2750.0	-2.1	-58.5
	1947	2000.0	1750.0	-12.5	-250.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	3313.6	3000.0	-9.5	-313.6
	1951	3802.0	3652.6	-3.9	-149.4
	1952	6187.3	6023.4	-2.6	-163.9
	1953	3000.0	3000.0	.0	.0
	1954	4435.8	3673.5	-17.2	-762.3
	1955	2000.0	2000.0	.0	.0
	1956	3500.0	3500.0	.0	.0
	1957	4181.0	3300.5	-21.1	-880.5
	1958	6699.9	6537.5	-2.4	-162.4
	1959	1750.0	1750.0	.0	.0
	1960	2626.1	2250.0	-14.3	-376.1
	1961	1250.0	1000.0	-20.0	-250.0
	1962	2500.0	2500.0	.0	.0
	1963	3500.0	3500.0	.0	.0
	1964	2000.0	2000.0	.0	.0
	1965	3000.0	3000.0	.0	.0
	1966	2000.0	2000.0	.0	.0
	1967	5978.1	5749.1	-3.8	-229.0
	1968	2170.7	3932.5	81.2	1761.8
	1969	4500.0	4500.0	.0	.0
	1970	2500.0	2268.6	-9.3	-231.4
	1971	4087.9	3941.8	-3.6	-146.1
	1972	4239.0	3542.9	-16.4	-696.1
	1973	3424.6	3229.7	-5.7	-194.9
	1974	9627.4	9531.6	-1.0	-95.8
	1975	4432.8	3579.8	-19.2	-853.0
	1976	1600.0	1600.0	.0	.0
	1977	400.0	400.0	.0	.0
	1978	5512.7	5556.6	.8	43.9
	1979	3151.4	2500.0	-20.7	-651.4
	1980	3509.6	3230.7	-7.9	-278.9
	1981	1750.0	1600.0	-8.6	-150.0
	1982	7605.1	7506.0	-1.3	-99.1
	1983	16237.2	16107.4	-.8	-129.8
	1984	2750.0	2515.2	-8.5	-234.8
	1985	2250.0	2000.0	-11.1	-250.0
	1986	11231.6	11023.8	-1.9	-207.8
	1987	1280.0	1152.0	-10.0	-128.0
	1988	1600.0	1600.0	.0	.0
	1989	6394.2	6018.3	-5.9	-375.9
	1990	1500.0	1500.0	.0	.0
	1991	2000.0	2000.0	.0	.0
	Mean	3990.7	3848.6	-3.6	-142.1
	Median	3000.0	3000.0	-2.0	-128.0
	Min	400.0	400.0	-21.1	-880.5
	Max	16237.2	16107.4	81.2	1761.8
X <	1500.0	5	5		
X <	1750.0	11	12		
X <	1765.0	13	16		
X <	2000.0	13	16		
X <	3000.0	34	34		
X >=	4500.0	18	17		
4500.0 > X >=	3000.0	18	19		
3000.0 > X >=	2000.0	21	18		
2000.0 > X >=	1500.0	8	11		
1500.0 > X		5	5		
X <	3450.0	41	42		
Mean of X >=	3450.0	6526.0	6395.7	-2.0	-130.3

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	3251.2	3000.0	-7.7	-251.2
	1924	335.9	320.8	-4.5	-15.1
	1925	4138.4	3439.4	-16.9	-699.0
	1926	2000.0	2000.0	.0	.0
	1927	7967.2	7814.6	-1.9	-152.6
	1928	4914.2	4645.9	-5.5	-268.3
	1929	1500.0	1000.0	-33.3	-500.0
	1930	2250.0	2000.0	-11.1	-250.0
	1931	500.0	500.0	.0	.0
	1932	3000.0	2750.0	-8.3	-250.0
	1933	2000.0	1750.0	-12.5	-250.0
	1934	3232.0	2726.8	-15.6	-505.2
	1935	4411.1	4708.5	6.7	297.4
	1936	5894.3	5659.5	-4.0	-234.8
	1937	4469.5	4220.7	-5.6	-248.8
	1938	8020.7	7772.3	-3.1	-248.4
	1939	1250.0	750.0	-40.0	-500.0
	1940	6207.8	6073.4	-2.2	-134.4
	1941	3825.9	3626.3	-5.2	-199.6
	1942	4500.0	4500.0	.0	.0
	1943	5280.0	5048.4	-4.4	-231.6
	1944	2250.0	2000.0	-11.1	-250.0
	1945	2750.0	2750.0	.0	.0
	1946	4059.9	3650.7	-10.1	-409.2
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	5073.2	4967.2	-2.1	-106.0
	1951	3170.7	2905.5	-8.4	-265.2
	1952	9104.4	8844.3	-2.9	-260.1
	1953	3500.0	3250.0	-7.1	-250.0
	1954	4572.1	4407.4	-3.6	-164.7
	1955	2000.0	2000.0	.0	.0
	1956	4000.0	4000.0	.0	.0
	1957	2750.0	2750.0	.0	.0
	1958	10433.9	10224.2	-2.0	-209.7
	1959	2000.0	1750.0	-12.5	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	500.0	500.0	.0	.0
	1962	3825.7	3023.0	-21.0	-802.7
	1963	4666.0	4332.6	-7.1	-333.4
	1964	2000.0	2000.0	.0	.0
	1965	3803.4	3401.5	-10.6	-401.9
	1966	2000.0	2000.0	.0	.0
	1967	4500.0	4500.0	.0	.0
	1968	2000.0	2000.0	.0	.0
	1969	5973.2	5574.4	-6.7	-398.8
	1970	2500.0	2250.0	-10.0	-250.0
	1971	3500.0	3250.0	-7.1	-250.0
	1972	2500.0	2500.0	.0	.0
	1973	2750.0	2750.0	.0	.0
	1974	6280.5	6102.7	-2.8	-177.8
	1975	4000.0	4000.0	.0	.0
	1976	500.0	500.0	.0	.0
	1977	346.0	325.8	-5.8	-20.2
	1978	4703.6	4031.7	-14.3	-671.9
	1979	2750.0	2750.0	.0	.0
	1980	3000.0	2750.0	-8.3	-250.0
	1981	1750.0	1500.0	-14.3	-250.0
	1982	14373.5	14180.6	-1.3	-192.9
	1983	6684.4	6471.4	-3.2	-213.0
	1984	2750.0	2750.0	.0	.0
	1985	2250.0	2000.0	-11.1	-250.0
	1986	2750.0	2750.0	.0	.0
	1987	500.0	500.0	.0	.0
	1988	500.0	500.0	.0	.0
	1989	4623.6	4069.9	-12.0	-553.7
	1990	2726.0	1816.0	-33.4	-910.0
	1991	2000.0	2000.0	.0	.0
	Mean	3594.5	3412.7	-5.8	-181.9
	Median	3000.0	2750.0	-3.0	-185.4
	Min	335.9	320.8	-40.0	-910.0
	Max	14373.5	14180.6	6.7	297.4
X <	1500.0	8	9		
X <	1750.0	9	10		
X <	1765.0	10	12		
X <	2000.0	10	13		
X <	3000.0	34	38		
X >=	4500.0	20	17		
4500.0 > X >=	3000.0	16	15		
3000.0 > X >=	2000.0	24	25		
2000.0 > X >=	1500.0	2	4		
1500.0 > X		8	9		
X <	3450.0	39	44		
Mean of X >=	3450.0	5542.1	5689.5	2.7	147.3

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	9140.3	8375.6	-8.4	-764.7
	1923	5004.5	4655.8	-7.0	-348.7
	1924	353.9	352.3	-.5	-1.6
	1925	4680.6	4088.9	-12.6	-591.7
	1926	2500.0	2500.0	.0	.0
	1927	4957.4	4525.2	-8.7	-432.2
	1928	3000.0	3000.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	2750.0	2500.0	-9.1	-250.0
	1931	500.0	500.0	.0	.0
	1932	4000.0	3750.0	-6.3	-250.0
	1933	2500.0	2500.0	.0	.0
	1934	500.0	500.0	.0	.0
	1935	4992.9	4992.9	.0	.0
	1936	4250.0	4250.0	.0	.0
	1937	4650.0	4324.7	-7.0	-325.3
	1938	10029.9	9682.4	-3.5	-347.5
	1939	1750.0	1750.0	.0	.0
	1940	3750.0	3500.0	-6.7	-250.0
	1941	5533.1	5201.8	-6.0	-331.3
	1942	6303.1	5697.5	-9.6	-605.6
	1943	3750.0	3750.0	.0	.0
	1944	2750.0	2500.0	-9.1	-250.0
	1945	3750.0	3750.0	.0	.0
	1946	3770.1	3750.0	-.5	-20.1
	1947	2500.0	2500.0	.0	.0
	1948	3750.0	3750.0	.0	.0
	1949	3250.0	3000.0	-7.7	-250.0
	1950	4000.0	4000.0	.0	.0
	1951	3750.0	3500.0	-6.7	-250.0
	1952	11376.6	11032.2	-3.0	-344.4
	1953	4250.0	4250.0	.0	.0
	1954	3000.0	3000.0	.0	.0
	1955	2750.0	2500.0	-9.1	-250.0
	1956	4500.0	4500.0	.0	.0
	1957	3750.0	3500.0	-6.7	-250.0
	1958	10304.8	9963.7	-3.3	-341.1
	1959	2500.0	2250.0	-10.0	-250.0
	1960	2750.0	2750.0	.0	.0
	1961	1500.0	1500.0	.0	.0
	1962	3250.0	3250.0	.0	.0
	1963	7367.6	6958.3	-5.6	-409.3
	1964	2500.0	2500.0	.0	.0
	1965	4250.0	4000.0	-5.9	-250.0
	1966	2500.0	2500.0	.0	.0
	1967	8246.3	7698.1	-6.6	-548.2
	1968	2500.0	2500.0	.0	.0
	1969	9403.8	9028.6	-4.0	-375.2
	1970	3000.0	2750.0	-8.3	-250.0
	1971	4250.0	4250.0	.0	.0
	1972	3000.0	2750.0	-8.3	-250.0
	1973	4533.3	3921.9	-13.5	-611.4
	1974	5124.9	4733.4	-7.6	-391.5
	1975	4500.0	4500.0	.0	.0
	1976	1000.0	500.0	-50.0	-500.0
	1977	337.6	329.5	-2.4	-8.1
	1978	4508.5	4000.0	-11.3	-508.5
	1979	4167.7	3500.0	-16.0	-667.7
	1980	4000.0	4000.0	.0	.0
	1981	2250.0	2000.0	-11.1	-250.0
	1982	9423.3	9145.7	-2.9	-277.6
	1983	10683.7	10357.3	-3.1	-326.4
	1984	3750.0	3500.0	-6.7	-250.0
	1985	2750.0	2500.0	-9.1	-250.0
	1986	3750.0	3750.0	.0	.0
	1987	1500.0	750.0	-50.0	-750.0
	1988	500.0	500.0	.0	.0
	1989	3538.0	3000.0	-15.2	-538.0
	1990	1750.0	1500.0	-14.3	-250.0
	1991	2500.0	2500.0	.0	.0
	Mean	4027.6	3818.8	-5.8	-208.8
	Median	3750.0	3500.0	-3.4	-250.0
	Min	337.6	329.5	-50.0	-764.7
	Max	11376.6	11032.2	.0	.0
X <	1500.0	6	7		
X <	1750.0	8	9		
X <	1765.0	10	11		
X <	2000.0	10	11		
X <	3000.0	25	27		
X >=	4500.0	21	17		
4500.0 > X >=	3000.0	24	26		
3000.0 > X >=	2000.0	15	16		
2000.0 > X >=	1500.0	4	4		
1500.0 > X		6	7		
X <	3450.0	31	32		
Mean of X >=	3450.0	5531.8	5319.3	-3.8	-212.5

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	9160.4	8698.9	-5.0	-461.5
	1923	4770.6	4618.9	-3.2	-151.7
	1924	377.9	374.5	-.9	-3.4
	1925	6486.9	6486.9	.0	.0
	1926	1928.5	1500.0	-22.2	-428.5
	1927	5528.7	5119.3	-7.4	-409.4
	1928	5914.0	5296.2	-10.4	-617.8
	1929	2336.3	2381.8	1.9	45.5
	1930	2250.0	2000.0	-11.1	-250.0
	1931	1255.3	1184.6	-5.6	-70.7
	1932	5010.1	5041.9	.6	31.8
	1933	2546.1	2493.3	-2.1	-52.8
	1934	1806.6	1711.2	-5.3	-95.4
	1935	4131.4	3500.0	-15.3	-631.4
	1936	4645.9	3893.8	-16.2	-752.1
	1937	3500.0	3500.0	.0	.0
	1938	8792.4	8351.0	-5.0	-441.4
	1939	1000.0	512.2	-48.8	-487.8
	1940	3630.2	3442.0	-5.2	-188.2
	1941	3750.0	3500.0	-6.7	-250.0
	1942	7550.5	7093.9	-6.0	-456.6
	1943	3500.0	3500.0	.0	.0
	1944	2250.0	1750.0	-22.2	-500.0
	1945	6030.8	5840.7	-3.2	-190.1
	1946	6461.8	6301.0	-2.5	-160.8
	1947	1750.0	1500.0	-14.3	-250.0
	1948	3500.0	3250.0	-7.1	-250.0
	1949	3000.0	2500.0	-16.7	-500.0
	1950	4155.4	3750.0	-9.8	-405.4
	1951	3250.0	3250.0	.0	.0
	1952	10693.1	10238.3	-4.3	-454.8
	1953	4000.0	3750.0	-6.3	-250.0
	1954	2886.0	2500.0	-13.4	-386.0
	1955	2250.0	2000.0	-11.1	-250.0
	1956	5726.0	4552.8	-20.5	-1173.2
	1957	3986.7	3501.9	-12.2	-484.8
	1958	7918.5	7498.9	-5.3	-419.6
	1959	1500.0	1250.0	-16.7	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	750.0	508.8	-32.2	-241.2
	1962	3000.0	3000.0	.0	.0
	1963	3500.0	3500.0	.0	.0
	1964	2250.0	2000.0	-11.1	-250.0
	1965	3750.0	3750.0	.0	.0
	1966	2000.0	1500.0	-25.0	-500.0
	1967	10609.1	10219.8	-3.7	-389.3
	1968	2250.0	1500.0	-33.3	-750.0
	1969	6794.2	6389.8	-6.0	-404.4
	1970	3420.1	3322.6	-2.9	-97.5
	1971	4071.1	3750.0	-7.9	-321.1
	1972	4604.0	4448.6	-3.4	-155.4
	1973	5752.3	5449.0	-5.3	-303.3
	1974	4443.1	4006.8	-9.8	-436.3
	1975	5954.3	4908.3	-17.6	-1046.0
	1976	2022.0	2116.1	4.7	94.1
	1977	386.3	376.2	-2.6	-10.1
	1978	4661.6	3750.0	-19.6	-911.6
	1979	6486.9	6486.9	.0	.0
	1980	3750.0	3500.0	-6.7	-250.0
	1981	1500.0	1000.0	-33.3	-500.0
	1982	6448.0	5991.5	-7.1	-456.5
	1983	14729.8	14274.9	-3.1	-454.9
	1984	4892.4	4727.0	-3.4	-165.4
	1985	2986.2	2582.1	-13.5	-404.1
	1986	3500.0	3250.0	-7.1	-250.0
	1987	500.0	500.0	.0	.0
	1988	1646.8	1729.1	5.0	82.3
	1989	4069.9	3864.9	-5.0	-205.0
	1990	1824.0	1737.2	-4.8	-86.8
	1991	3041.6	3130.2	2.9	88.6
	Mean	4101.1	3816.5	-8.4	-284.6
	Median	3565.1	3500.0	-5.4	-250.0
	Min	377.9	374.5	-48.8	-1173.2
	Max	14729.8	14274.9	5.0	94.1
X <	1500.0	6	8		
X <	1750.0	9	15		
X <	1765.0	10	16		
X <	2000.0	13	16		
X <	3000.0	25	26		
X >=	4500.0	24	21		
4500.0 > X >=	3000.0	21	23		
3000.0 > X >=	2000.0	12	10		
2000.0 > X >=	500.0	11	14		
500.0 > X		2	2		
X <	3450.0	30	33		
Mean of X >=	3450.0	5671.5	5487.9	-3.2	-183.6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

		Base	WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4236.9	3260.3	-23.0	-976.6
	1923	5838.6	3888.3	-33.4	-1950.3
	1924	727.0	586.4	-19.3	-140.6
	1925	4211.4	3808.3	-9.6	-403.1
	1926	2639.6	2224.1	-15.7	-415.5
	1927	3094.9	2939.8	-5.0	-155.1
	1928	1500.0	1500.0	.0	.0
	1929	1663.7	1376.9	-17.2	-286.8
	1930	2878.7	2415.4	-16.1	-463.3
	1931	1928.2	1849.5	-4.1	-78.7
	1932	3177.2	3221.0	1.4	43.8
	1933	2240.6	1969.6	-12.1	-271.0
	1934	1507.7	1329.8	-11.8	-177.9
	1935	5066.6	3548.4	-30.0	-1518.2
	1936	4129.1	2662.2	-35.5	-1466.9
	1937	2608.9	2377.8	-8.9	-231.1
	1938	3748.1	3286.8	-12.3	-461.3
	1939	1967.3	1870.6	-4.9	-96.7
	1940	6056.4	5303.8	-12.4	-752.6
	1941	2369.7	2250.0	-5.1	-119.7
	1942	3731.8	3255.9	-12.8	-475.9
	1943	5747.2	5312.2	-7.6	-435.0
	1944	2314.8	1288.5	-44.3	-1026.3
	1945	4359.7	3267.6	-25.0	-1092.1
	1946	3854.3	3144.4	-18.4	-709.9
	1947	1978.2	1339.4	-32.3	-638.8
	1948	3864.0	2566.2	-33.6	-1297.8
	1949	3270.8	1921.0	-41.3	-1349.8
	1950	5381.5	4644.3	-13.7	-737.2
	1951	5978.6	5229.3	-12.5	-749.3
	1952	4852.4	4394.4	-9.4	-458.0
	1953	3363.0	2295.7	-31.7	-1067.3
	1954	3393.9	3092.4	-8.9	-301.5
	1955	1811.3	1500.0	-17.2	-311.3
	1956	3404.9	2930.7	-13.9	-474.2
	1957	4856.0	4633.2	-4.6	-222.8
	1958	3387.0	2930.7	-13.5	-456.3
	1959	750.0	503.7	-32.8	-246.3
	1960	2950.8	1929.1	-34.6	-1021.7
	1961	500.0	513.5	2.7	13.5
	1962	5401.2	4600.7	-14.8	-800.5
	1963	2351.7	2250.0	-4.3	-101.7
	1964	2347.3	1557.1	-33.7	-790.2
	1965	5645.6	5475.6	-3.0	-170.0
	1966	1500.0	750.0	-50.0	-750.0
	1967	4536.9	4080.5	-10.1	-456.4
	1968	1500.0	750.0	-50.0	-750.0
	1969	3191.9	2717.6	-14.9	-474.3
	1970	1961.2	1587.1	-19.1	-374.1
	1971	3208.1	2251.5	-29.8	-956.6
	1972	1500.0	1500.0	.0	.0
	1973	4209.3	3771.2	-10.4	-438.1
	1974	3648.9	3194.1	-12.5	-454.8
	1975	3136.6	2681.8	-14.5	-454.8
	1976	1562.8	1466.4	-6.2	-96.4
	1977	401.1	389.7	-2.8	-11.4
	1978	6325.7	5549.3	-12.3	-776.4
	1979	3048.4	1967.0	-35.5	-1081.4
	1980	3858.1	2907.9	-24.6	-950.2
	1981	500.0	511.8	2.4	11.8
	1982	3601.7	3127.4	-13.2	-474.3
	1983	6414.3	6043.5	-5.8	-370.8
	1984	4386.1	3880.6	-11.5	-505.5
	1985	2315.4	2035.2	-12.1	-280.2
	1986	5556.0	5421.6	-2.4	-134.4
	1987	1900.7	1195.7	-37.1	-705.0
	1988	1094.4	923.2	-15.6	-171.2
	1989	3765.7	3206.2	-14.9	-559.5
	1990	1447.3	1178.5	-18.6	-268.8
	1991	2436.4	2604.0	6.9	167.6
	Mean	3201.3	2684.8	-16.4	-516.5
	Median	3184.5	2585.1	-13.4	-455.5
	Min	401.1	389.7	-50.0	-1950.3
	Max	6414.3	6043.5	6.9	167.6
X <	1500.0	7	15		
X <	1750.0	14	20		
X <	1765.0	14	20		
X <	2000.0	20	26		
X <	3000.0	31	43		
X >=	2500.0	43	36		
2500.0 > X >=	1500.0	20	19		
1500.0 > X >=	500.0	6	14		
500.0 > X >=	.0	1	1		
.0 > X		0	0		
X <	3450.0	42	53		
Mean of X >=	3450.0	4759.4	4681.5	-1.6	-77.9

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2922.7	2937.8	.5	15.1
	1923	2556.6	2687.1	5.1	130.5
	1924	389.7	459.5	17.9	69.8
	1925	3786.9	3263.5	-13.8	-523.4
	1926	750.0	750.0	.0	.0
	1927	3884.9	3098.9	-20.2	-786.0
	1928	3282.1	2344.5	-28.6	-937.6
	1929	392.9	451.5	14.9	58.6
	1930	1000.0	1000.0	.0	.0
	1931	399.4	459.6	15.1	60.2
	1932	2338.0	1750.0	-25.1	-588.0
	1933	750.0	464.5	-38.1	-285.5
	1934	402.7	462.9	14.9	60.2
	1935	3108.1	3042.8	-2.1	-65.3
	1936	3115.5	3619.2	16.2	503.7
	1937	2800.9	2000.0	-28.6	-800.9
	1938	4414.5	3937.0	-10.8	-477.5
	1939	500.0	513.5	2.7	13.5
	1940	3989.6	3661.8	-8.2	-327.8
	1941	4266.5	3266.2	-23.4	-1000.3
	1942	4494.2	4018.3	-10.6	-475.9
	1943	2632.4	2464.3	-6.4	-168.1
	1944	3996.6	2655.7	-33.6	-1340.9
	1945	2063.1	2072.6	.5	9.5
	1946	2103.7	1937.8	-7.9	-165.9
	1947	1295.2	1000.0	-22.8	-295.2
	1948	3214.9	3160.7	-1.7	-54.2
	1949	2505.1	2334.4	-6.8	-170.7
	1950	3011.3	2755.2	-8.5	-256.1
	1951	3354.5	3175.4	-5.3	-179.1
	1952	4913.2	4441.1	-9.6	-472.1
	1953	4523.4	4052.4	-10.4	-471.0
	1954	3530.2	3753.3	6.3	223.1
	1955	3398.2	2193.3	-35.5	-1204.9
	1956	4460.0	3987.4	-10.6	-472.6
	1957	1720.7	1551.0	-9.9	-169.7
	1958	4556.0	4099.6	-10.0	-456.4
	1959	2542.2	1438.5	-43.4	-1103.7
	1960	3318.6	3157.4	-4.9	-161.2
	1961	1506.2	750.0	-50.2	-756.2
	1962	4634.7	3741.8	-19.3	-892.9
	1963	4095.7	2848.7	-30.4	-1247.0
	1964	3466.3	3173.3	-8.5	-293.0
	1965	2000.0	1750.0	-12.5	-250.0
	1966	2991.9	1971.9	-34.1	-1020.0
	1967	4536.4	4062.2	-10.5	-474.2
	1968	1250.0	1000.0	-20.0	-250.0
	1969	4344.5	3886.5	-10.5	-458.0
	1970	4112.5	3798.6	-7.6	-313.9
	1971	4281.1	3808.5	-11.0	-472.6
	1972	4396.1	3160.5	-28.1	-1235.6
	1973	1697.2	1903.3	12.1	206.1
	1974	4541.3	4068.7	-10.4	-472.6
	1975	4323.4	3868.6	-10.5	-454.8
	1976	1496.9	1221.5	-18.4	-275.4
	1977	396.2	384.8	-2.9	-11.4
	1978	1750.0	1750.0	.0	.0
	1979	2311.3	2345.2	1.5	33.9
	1980	2538.0	2033.1	-19.9	-504.9
	1981	1769.9	1357.4	-23.3	-412.5
	1982	4526.7	4052.4	-10.5	-474.3
	1983	4919.7	4805.4	-2.3	-114.3
	1984	1500.0	1500.0	.0	.0
	1985	3291.7	2823.4	-14.2	-468.3
	1986	3859.6	3691.4	-4.4	-168.2
	1987	1678.9	1757.8	4.7	78.9
	1988	898.4	645.8	-28.1	-252.6
	1989	3655.9	3114.2	-14.8	-541.7
	1990	2210.9	1746.8	-21.0	-464.1
	1991	1529.5	754.7	-50.7	-774.8
	Mean	2817.1	2459.9	-11.4	-357.1
	Median	3001.6	2560.0	-10.4	-294.1
	Min	389.7	384.8	-50.7	-1340.9
	Max	4919.7	4805.4	17.9	503.7
X <	1500.0	13	17		
X <	1750.0	19	20		
X <	1765.0	20	24		
X <	2000.0	21	27		
X <	3000.0	35	41		
X >=	2500.0	43	35		
2500.0 > X >=	2000.0	6	8		
2000.0 > X >=	1000.0	12	16		
1000.0 > X >=	500.0	4	5		
500.0 > X		5	6		
X <	3450.0	44	51		
Mean of X >=	3450.0	4250.4	3966.0	-6.7	-284.4

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	3927.9	3535.2	-10.0	-392.7
	1923	2000.0	2250.0	12.5	250.0
	1924	1000.0	1000.0	.0	.0
	1925	1779.4	1500.0	-15.7	-279.4
	1926	1500.0	1250.0	-16.7	-250.0
	1927	4087.5	3662.9	-10.4	-424.6
	1928	1500.0	1500.0	.0	.0
	1929	1250.0	1000.0	-20.0	-250.0
	1930	1500.0	1500.0	.0	.0
	1931	1000.0	750.0	-25.0	-250.0
	1932	3960.5	2500.0	-36.9	-1460.5
	1933	1500.0	1250.0	-16.7	-250.0
	1934	1000.0	750.0	-25.0	-250.0
	1935	2915.4	2742.2	-5.9	-173.2
	1936	4028.2	3722.9	-7.6	-305.3
	1937	4022.0	3493.9	-13.1	-528.1
	1938	4211.9	3805.8	-9.6	-406.1
	1939	1250.0	1250.0	.0	.0
	1940	1727.1	1500.0	-13.1	-227.1
	1941	4159.8	3755.3	-9.7	-404.5
	1942	4193.4	3789.0	-9.6	-404.4
	1943	2250.0	1750.0	-22.2	-500.0
	1944	1911.8	1750.0	-8.5	-161.8
	1945	2469.5	2237.8	-9.4	-231.7
	1946	2978.3	2752.9	-7.6	-225.4
	1947	2148.1	1500.0	-30.2	-648.1
	1948	2872.5	2474.1	-13.9	-398.4
	1949	2061.9	1801.8	-12.6	-260.1
	1950	2596.5	2500.0	-3.7	-96.5
	1951	1816.7	1670.1	-8.1	-146.6
	1952	4412.5	3990.6	-9.6	-421.9
	1953	4158.1	3757.0	-9.6	-401.1
	1954	2202.9	1500.0	-31.9	-702.9
	1955	1534.6	1500.0	-2.3	-34.6
	1956	4126.2	3723.4	-9.8	-402.8
	1957	2250.0	2000.0	-11.1	-250.0
	1958	4223.7	3822.6	-9.5	-401.1
	1959	1250.0	1500.0	20.0	250.0
	1960	2076.0	1796.3	-13.5	-279.7
	1961	1500.0	1250.0	-16.7	-250.0
	1962	1500.0	1500.0	.0	.0
	1963	4153.1	3750.3	-9.7	-402.8
	1964	1628.1	1349.8	-17.1	-278.3
	1965	3950.9	2500.0	-36.7	-1450.9
	1966	1504.1	1500.0	-.3	-4.1
	1967	4438.8	4069.6	-8.3	-369.2
	1968	2194.9	1970.2	-10.2	-224.7
	1969	4173.2	3787.3	-9.2	-385.9
	1970	1500.0	1500.0	.0	.0
	1971	3990.1	3605.8	-9.6	-384.3
	1972	1500.0	1563.1	4.2	63.1
	1973	2000.0	1750.0	-12.5	-250.0
	1974	4292.6	3891.5	-9.3	-401.1
	1975	4084.2	3668.0	-10.2	-416.2
	1976	500.0	500.0	.0	.0
	1977	454.1	444.0	-2.2	-10.1
	1978	3072.7	2250.0	-26.8	-822.7
	1979	2036.0	1807.0	-11.2	-229.0
	1980	4084.2	3698.2	-9.5	-386.0
	1981	1545.9	1500.0	-3.0	-45.9
	1982	4578.3	4207.4	-8.1	-370.9
	1983	4920.7	4826.7	-1.9	-94.0
	1984	2000.0	2000.0	.0	.0
	1985	1250.0	1250.0	.0	.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	1356.8	1400.5	3.2	43.7
	1988	750.0	750.0	.0	.0
	1989	1250.0	1500.0	20.0	250.0
	1990	750.0	750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2479.4	2222.5	-8.9	-257.0
	Median	2048.9	1773.2	-9.6	-250.0
	Min	454.1	444.0	-36.9	-1460.5
	Max	4920.7	4826.7	20.0	250.0
X <	1500.0	14	16		
X <	1750.0	27	32		
X <	1765.0	28	35		
X <	2000.0	31	39		
X <	3000.0	47	50		
X >=	2500.0	27	25		
2500.0 > X >=	1500.0	29	29		
1500.0 > X >=	500.0	13	15		
500.0 > X >=	.0	1	1		
.0 > X		0	0		
X <	3450.0	48	50		
Mean of X >=	3450.0	4189.9	3828.2	-8.6	-361.7

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.2 Terrestrial

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2500.0	2500.0	.0	.0
1923	2500.0	2500.0	.0	.0
1924	2500.0	2500.0	.0	.0
1925	1250.0	1000.0	-20.0	-250.0
1926	2500.0	2250.0	-10.0	-250.0
1927	1750.0	1750.0	.0	.0
1928	2500.0	2500.0	.0	.0
1929	2000.0	1750.0	-12.5	-250.0
1930	1750.0	1500.0	-14.3	-250.0
1931	2250.0	2000.0	-11.1	-250.0
1932	1250.0	1250.0	.0	.0
1933	2500.0	2500.0	.0	.0
1934	1750.0	1500.0	-14.3	-250.0
1935	1250.0	750.0	-40.0	-500.0
1936	2500.0	2500.0	.0	.0
1937	2500.0	2500.0	.0	.0
1938	2500.0	2500.0	.0	.0
1939	2500.0	2500.0	.0	.0
1940	1750.0	1500.0	-14.3	-250.0
1941	2000.0	1750.0	-12.5	-250.0
1942	2500.0	2500.0	.0	.0
1943	2500.0	2500.0	.0	.0
1944	2500.0	2500.0	.0	.0
1945	1500.0	1500.0	.0	.0
1946	2500.0	2000.0	-20.0	-500.0
1947	2250.0	2000.0	-11.1	-250.0
1948	1750.0	1750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	2500.0	2500.0	.0	.0
1951	2500.0	2500.0	.0	.0
1952	2250.0	2000.0	-11.1	-250.0
1953	2500.0	2500.0	.0	.0
1954	2500.0	2500.0	.0	.0
1955	2000.0	2000.0	.0	.0
1956	1750.0	1750.0	.0	.0
1957	2500.0	2500.0	.0	.0
1958	2500.0	2500.0	.0	.0
1959	2500.0	2500.0	.0	.0
1960	1750.0	1750.0	.0	.0
1961	1750.0	1750.0	.0	.0
1962	1750.0	1750.0	.0	.0
1963	2155.5	2115.3	-1.9	-40.2
1964	2500.0	2500.0	.0	.0
1965	1750.0	1750.0	.0	.0
1966	2500.0	2500.0	.0	.0
1967	1750.0	1750.0	.0	.0
1968	2500.0	2500.0	.0	.0
1969	2250.0	1750.0	-22.2	-500.0
1970	2500.0	2500.0	.0	.0
1971	2000.0	2000.0	.0	.0
1972	2500.0	2500.0	.0	.0
1973	1750.0	1750.0	.0	.0
1974	2500.0	2500.0	.0	.0
1975	2500.0	2500.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	524.6	555.5	5.9	30.9
1978	521.4	516.5	-.9	-4.9
1979	2500.0	2500.0	.0	.0
1980	2500.0	2000.0	-20.0	-500.0
1981	2500.0	2500.0	.0	.0
1982	1750.0	1750.0	.0	.0
1983	3387.7	3173.4	-6.3	-214.3
1984	3545.6	2509.0	-29.2	-1036.6
1985	2500.0	2500.0	.0	.0
1986	1750.0	1500.0	-14.3	-250.0
1987	2500.0	2250.0	-10.0	-250.0
1988	1617.9	1442.7	-10.8	-175.2
1989	1000.0	750.0	-25.0	-250.0
1990	1750.0	1750.0	.0	.0
1991	1000.0	750.0	-25.0	-250.0
Mean	2139.3	2040.2	-5.0	-99.1
Median	2500.0	2182.6	.0	.0
Min	521.4	516.5	-40.0	-1036.6
Max	3545.6	3173.4	5.9	30.9
X < 1300.0	7	7		
X < 1765.0	24	27		
X < 2000.0	24	27		
X < 2700.0	68	69		
X < 3000.0	68	69		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2500.0	2500.0	.0	.0
1923	2500.0	2500.0	.0	.0
1924	2500.0	2500.0	.0	.0
1925	1250.0	1000.0	-20.0	-250.0
1926	2500.0	2250.0	-10.0	-250.0
1927	1750.0	1750.0	.0	.0
1928	2875.8	2500.0	-13.1	-375.8
1929	2000.0	1750.0	-12.5	-250.0
1930	1750.0	1500.0	-14.3	-250.0
1931	2250.0	2000.0	-11.1	-250.0
1932	1250.0	1250.0	.0	.0
1933	2500.0	2500.0	.0	.0
1934	1750.0	1500.0	-14.3	-250.0
1935	1250.0	750.0	-40.0	-500.0
1936	2500.0	2500.0	.0	.0
1937	2500.0	2500.0	.0	.0
1938	2500.0	2500.0	.0	.0
1939	2500.0	2500.0	.0	.0
1940	1750.0	1500.0	-14.3	-250.0
1941	2000.0	1750.0	-12.5	-250.0
1942	2500.0	2500.0	.0	.0
1943	3699.3	3396.1	-8.2	-303.2
1944	2500.0	2500.0	.0	.0
1945	1500.0	1500.0	.0	.0
1946	2500.0	2000.0	-20.0	-500.0
1947	2250.0	2000.0	-11.1	-250.0
1948	1750.0	1750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	2500.0	2500.0	.0	.0
1951	16968.6	16083.7	-5.2	-884.9
1952	2250.0	2000.0	-11.1	-250.0
1953	2500.0	2500.0	.0	.0
1954	2500.0	2500.0	.0	.0
1955	2000.0	2000.0	.0	.0
1956	1750.0	1750.0	.0	.0
1957	2500.0	2500.0	.0	.0
1958	2500.0	2500.0	.0	.0
1959	2500.0	2500.0	.0	.0
1960	1750.0	1750.0	.0	.0
1961	1750.0	1750.0	.0	.0
1962	1750.0	1750.0	.0	.0
1963	3138.8	3022.9	-3.7	-115.9
1964	4151.3	3866.4	-6.9	-284.9
1965	1750.0	1750.0	.0	.0
1966	2500.0	2500.0	.0	.0
1967	1750.0	1750.0	.0	.0
1968	2500.0	2500.0	.0	.0
1969	2250.0	1750.0	-22.2	-500.0
1970	2500.0	2500.0	.0	.0
1971	2000.0	2000.0	.0	.0
1972	2500.0	2500.0	.0	.0
1973	1750.0	1750.0	.0	.0
1974	6087.9	4829.5	-20.7	-1258.4
1975	2500.0	2500.0	.0	.0
1976	3028.0	2699.5	-10.8	-328.5
1977	516.2	543.0	5.2	26.8
1978	500.0	500.0	.0	.0
1979	2500.0	2500.0	.0	.0
1980	2500.0	2000.0	-20.0	-500.0
1981	2500.0	2500.0	.0	.0
1982	4649.4	4208.9	-9.5	-440.5
1983	6809.2	6710.3	-1.5	-98.9
1984	14312.9	14353.5	.3	40.6
1985	3113.9	2500.0	-19.7	-613.9
1986	1750.0	1500.0	-14.3	-250.0
1987	2500.0	2250.0	-10.0	-250.0
1988	1294.3	1154.1	-10.8	-140.2
1989	1000.0	750.0	-25.0	-250.0
1990	1750.0	1750.0	.0	.0
1991	1000.0	750.0	-25.0	-250.0
Mean	2712.8	2566.0	-5.9	-146.8
Median	2500.0	2375.0	.0	.0
Min	500.0	500.0	-40.0	-1258.4
Max	16968.6	16083.7	5.2	40.6

X < 1300.0	8	8	
X < 1765.0	23	26	
X < 2000.0	23	26	
X < 2700.0	59	62	
X < 3000.0	60	62	

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2500.0	2500.0	.0	.0
1923	6439.4	6042.1	-6.2	-397.3
1924	2500.0	2500.0	.0	.0
1925	1250.0	1000.0	-20.0	-250.0
1926	2500.0	2250.0	-10.0	-250.0
1927	1750.0	1750.0	.0	.0
1928	2500.0	2500.0	.0	.0
1929	2000.0	1750.0	-12.5	-250.0
1930	1750.0	1500.0	-14.3	-250.0
1931	2250.0	2000.0	-11.1	-250.0
1932	1250.0	1250.0	.0	.0
1933	2500.0	2500.0	.0	.0
1934	1750.0	1500.0	-14.3	-250.0
1935	1250.0	750.0	-40.0	-500.0
1936	2500.0	2500.0	.0	.0
1937	2500.0	2500.0	.0	.0
1938	6197.2	5797.5	-6.4	-399.7
1939	2500.0	2500.0	.0	.0
1940	1750.0	1500.0	-14.3	-250.0
1941	2000.0	1750.0	-12.5	-250.0
1942	4941.6	4487.5	-9.2	-454.1
1943	4771.1	4644.5	-2.7	-126.6
1944	2500.0	2500.0	.0	.0
1945	1500.0	1500.0	.0	.0
1946	7851.5	7450.2	-5.1	-401.3
1947	2250.0	2000.0	-11.1	-250.0
1948	1750.0	1750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	2500.0	2500.0	.0	.0
1951	16431.8	16297.0	-.8	-134.8
1952	4213.0	3533.3	-16.1	-679.7
1953	2500.0	2500.0	.0	.0
1954	2500.0	2500.0	.0	.0
1955	2000.0	2000.0	.0	.0
1956	14566.6	14324.1	-1.7	-242.5
1957	2500.0	2500.0	.0	.0
1958	2500.0	2500.0	.0	.0
1959	2500.0	2500.0	.0	.0
1960	1750.0	1750.0	.0	.0
1961	1750.0	1750.0	.0	.0
1962	1750.0	1750.0	.0	.0
1963	3476.5	3414.7	-1.8	-61.8
1964	3321.0	3093.1	-6.9	-227.9
1965	19334.4	19049.3	-1.5	-285.1
1966	2500.0	2500.0	.0	.0
1967	1750.0	1750.0	.0	.0
1968	2500.0	2500.0	.0	.0
1969	2250.0	1750.0	-22.2	-500.0
1970	5316.9	4871.0	-8.4	-445.9
1971	4901.6	4363.3	-11.0	-538.3
1972	2500.0	2500.0	.0	.0
1973	1750.0	1750.0	.0	.0
1974	7527.8	7406.0	-1.6	-121.8
1975	2500.0	2500.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	638.2	644.7	1.0	6.5
1978	574.8	540.7	-5.9	-34.1
1979	2500.0	2500.0	.0	.0
1980	2500.0	2000.0	-20.0	-500.0
1981	2500.0	2500.0	.0	.0
1982	14208.7	14210.6	.0	1.9
1983	9173.6	9016.1	-1.7	-157.5
1984	15350.2	15132.5	-1.4	-217.7
1985	2556.0	2500.0	-2.2	-56.0
1986	1750.0	1500.0	-14.3	-250.0
1987	2500.0	2250.0	-10.0	-250.0
1988	1250.0	923.3	-26.1	-326.7
1989	1000.0	750.0	-25.0	-250.0
1990	1750.0	1750.0	.0	.0
1991	1000.0	750.0	-25.0	-250.0
Mean	3664.9	3521.3	-5.6	-143.6
Median	2500.0	2500.0	-.4	-17.0
Min	574.8	540.7	-40.0	-679.7
Max	19334.4	19049.3	1.0	6.5

X < 1300.0	8	8
X < 1765.0	21	24
X < 2000.0	21	24
X < 2700.0	53	53
X < 3000.0	53	53

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2000.0	2000.0	.0	.0
1923	4580.8	4424.9	-3.4	-155.9
1924	2000.0	2000.0	.0	.0
1925	1750.0	1750.0	.0	.0
1926	2000.0	1800.0	-10.0	-200.0
1927	3164.1	2562.6	-19.0	-601.5
1928	2500.0	2500.0	.0	.0
1929	1600.0	1400.0	-12.5	-200.0
1930	1750.0	1750.0	.0	.0
1931	1800.0	1600.0	-11.1	-200.0
1932	2000.0	1750.0	-12.5	-250.0
1933	2000.0	2000.0	.0	.0
1934	2000.0	1750.0	-12.5	-250.0
1935	1750.0	2000.0	14.3	250.0
1936	4350.9	3803.9	-12.6	-547.0
1937	2000.0	2000.0	.0	.0
1938	2883.0	2739.9	-5.0	-143.1
1939	2250.0	2000.0	-11.1	-250.0
1940	2494.4	2128.3	-14.7	-366.1
1941	5538.3	5205.2	-6.0	-333.1
1942	9376.9	9209.6	-1.8	-167.3
1943	10957.7	10792.1	-1.5	-165.6
1944	2000.0	2000.0	.0	.0
1945	2000.0	2250.0	12.5	250.0
1946	5270.4	5106.3	-3.1	-164.1
1947	2250.0	2000.0	-11.1	-250.0
1948	1750.0	1750.0	.0	.0
1949	2000.0	2000.0	.0	.0
1950	2000.0	2000.0	.0	.0
1951	10172.8	10024.9	-1.5	-147.9
1952	9038.6	8889.3	-1.7	-149.3
1953	6806.0	6217.4	-8.6	-588.6
1954	2250.0	2250.0	.0	.0
1955	2000.0	1750.0	-12.5	-250.0
1956	16384.9	16313.5	-.4	-71.4
1957	2250.0	2250.0	.0	.0
1958	2250.0	2000.0	-11.1	-250.0
1959	2250.0	2000.0	-11.1	-250.0
1960	1400.0	1400.0	.0	.0
1961	1500.0	1400.0	-6.7	-100.0
1962	1400.0	1400.0	.0	.0
1963	3961.2	3842.5	-3.0	-118.7
1964	2656.8	2500.0	-5.9	-156.8
1965	13252.0	13180.5	-.5	-71.5
1966	2500.0	2500.0	.0	.0
1967	6737.8	6130.9	-9.0	-606.9
1968	2500.0	2500.0	.0	.0
1969	14755.2	14313.8	-3.0	-441.4
1970	21000.4	20839.7	-.8	-160.7
1971	4798.8	4699.6	-2.1	-99.2
1972	2500.0	2500.0	.0	.0
1973	8920.5	8524.8	-4.4	-395.7
1974	11390.4	11276.8	-1.0	-113.6
1975	2250.0	2250.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	510.6	515.7	1.0	5.1
1978	3351.3	3309.9	-1.2	-41.4
1979	2250.0	2000.0	-11.1	-250.0
1980	14953.9	15407.5	3.0	453.6
1981	2250.0	2000.0	-11.1	-250.0
1982	8291.7	8160.2	-1.6	-131.5
1983	7631.9	7482.5	-2.0	-149.4
1984	6644.9	6513.4	-2.0	-131.5
1985	2500.0	2500.0	.0	.0
1986	2214.7	2506.9	13.2	292.2
1987	2000.0	1800.0	-10.0	-200.0
1988	1000.0	738.7	-26.1	-261.3
1989	2000.0	2000.0	.0	.0
1990	1750.0	1500.0	-14.3	-250.0
1991	800.0	600.0	-25.0	-200.0
Mean	4337.0	4210.9	-4.2	-126.1
Median	2250.0	2250.0	-1.7	-131.5
Min	510.6	515.7	-26.1	-606.9
Max	21000.4	20839.7	14.3	453.6

X < 1300.0	3	3	
X < 1765.0	12	15	
X < 2000.0	13	17	
X < 2700.0	45	46	
X < 3000.0	46	47	

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	3299.3	2483.4	-24.7	-815.9
	1923	3547.7	3376.9	-4.8	-170.8
	1924	1600.0	1600.0	.0	.0
	1925	3646.8	3925.8	7.7	279.0
	1926	1600.0	1440.0	-10.0	-160.0
	1927	13432.9	13364.6	-.5	-68.3
	1928	2000.0	2000.0	.0	.0
	1929	1280.0	1250.0	-2.3	-30.0
	1930	2000.0	2000.0	.0	.0
	1931	1440.0	1280.0	-11.1	-160.0
	1932	2278.2	2109.6	-7.4	-168.6
	1933	1750.0	1600.0	-8.6	-150.0
	1934	2000.0	2000.0	.0	.0
	1935	2000.0	2000.0	.0	.0
	1936	13433.0	13289.1	-1.1	-143.9
	1937	2000.0	1750.0	-12.5	-250.0
	1938	9824.8	9668.1	-1.6	-156.7
	1939	2000.0	2000.0	.0	.0
	1940	10595.2	10481.8	-1.1	-113.4
	1941	8043.8	7876.6	-2.1	-167.2
	1942	10042.6	9859.2	-1.8	-183.4
	1943	6947.5	6782.1	-2.4	-165.4
	1944	1750.0	1600.0	-8.6	-150.0
	1945	6184.7	6131.8	-.9	-52.9
	1946	2764.6	2617.1	-5.3	-147.5
	1947	2000.0	1750.0	-12.5	-250.0
	1948	2000.0	1750.0	-12.5	-250.0
	1949	2000.0	1600.0	-20.0	-400.0
	1950	4142.0	2575.0	-37.8	-1567.0
	1951	8208.4	8062.7	-1.8	-145.7
	1952	9586.9	9423.3	-1.7	-163.6
	1953	2328.7	2150.7	-7.6	-178.0
	1954	2052.3	2000.0	-2.5	-52.3
	1955	2000.0	2000.0	.0	.0
	1956	6239.2	6142.0	-1.6	-97.2
	1957	2000.0	2000.0	.0	.0
	1958	9139.8	7696.8	-15.8	-1443.0
	1959	2000.0	2000.0	.0	.0
	1960	1250.0	1120.0	-10.4	-130.0
	1961	1250.0	1120.0	-10.4	-130.0
	1962	1259.4	1250.0	-.7	-9.4
	1963	12081.0	11949.6	-1.1	-131.4
	1964	2125.4	2000.0	-5.9	-125.4
	1965	5501.4	5420.5	-1.5	-80.9
	1966	2000.0	2000.0	.0	.0
	1967	4473.3	4341.9	-2.9	-131.4
	1968	5766.3	4915.7	-14.8	-850.6
	1969	9286.5	9192.9	-1.0	-93.6
	1970	6352.2	6244.3	-1.7	-107.9
	1971	3436.1	3308.2	-3.7	-127.9
	1972	2239.2	2000.0	-10.7	-239.2
	1973	7194.1	7086.0	-1.5	-108.1
	1974	4409.4	4065.9	-7.8	-343.5
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	500.0	500.0	.0	.0
	1978	4754.0	4624.4	-2.7	-129.6
	1979	2000.0	2000.0	.0	.0
	1980	14140.1	13581.0	-4.0	-559.1
	1981	2000.0	2000.0	.0	.0
	1982	15555.5	15321.5	-1.5	-234.0
	1983	12410.4	12264.9	-1.2	-145.5
	1984	5698.0	5572.2	-2.2	-125.8
	1985	2000.0	2000.0	.0	.0
	1986	33196.4	33122.7	-.2	-73.7
	1987	1600.0	1440.0	-10.0	-160.0
	1988	2000.0	2000.0	.0	.0
	1989	1750.0	2000.0	14.3	250.0
	1990	1750.0	1750.0	.0	.0
	1991	640.0	500.0	-21.9	-140.0
	Mean	4882.5	4719.0	-4.5	-163.6
	Median	2182.3	2000.0	-1.7	-128.8
	Min	500.0	500.0	-37.8	-1567.0
	Max	33196.4	33122.7	14.3	279.0
X <	1300.0	6	7		
X <	1765.0	14	17		
X <	2000.0	14	17		
X <	2700.0	38	41		
X <	3000.0	39	41		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	2838.2	2750.0	-3.1	-88.2
1924	1280.0	1280.0	.0	.0
1925	3251.2	3174.0	-2.4	-77.2
1926	2000.0	1750.0	-12.5	-250.0
1927	4600.3	4399.1	-4.4	-201.2
1928	12207.3	11673.0	-4.4	-534.3
1929	1500.0	1500.0	.0	.0
1930	2000.0	2000.0	.0	.0
1931	1152.0	1024.0	-11.1	-128.0
1932	2750.0	2750.0	.0	.0
1933	2000.0	1750.0	-12.5	-250.0
1934	1600.0	1600.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	4222.1	4065.0	-3.7	-157.1
1937	4381.7	3727.2	-14.9	-654.5
1938	10863.5	10681.7	-1.7	-181.8
1939	1600.0	1600.0	.0	.0
1940	10956.2	10642.6	-2.9	-313.6
1941	4870.0	4686.5	-3.8	-183.5
1942	4500.0	4500.0	.0	.0
1943	12491.8	12327.9	-1.3	-163.9
1944	2250.0	2000.0	-11.1	-250.0
1945	2750.0	2750.0	.0	.0
1946	2808.5	2750.0	-2.1	-58.5
1947	2000.0	1750.0	-12.5	-250.0
1948	2750.0	2750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	3313.6	3000.0	-9.5	-313.6
1951	3802.0	3652.6	-3.9	-149.4
1952	6187.3	6023.4	-2.6	-163.9
1953	3000.0	3000.0	.0	.0
1954	4435.8	3673.5	-17.2	-762.3
1955	2000.0	2000.0	.0	.0
1956	3500.0	3500.0	.0	.0
1957	4181.0	3300.5	-21.1	-880.5
1958	6699.9	6537.5	-2.4	-162.4
1959	1750.0	1750.0	.0	.0
1960	2626.1	2250.0	-14.3	-376.1
1961	1250.0	1000.0	-20.0	-250.0
1962	2500.0	2500.0	.0	.0
1963	3500.0	3500.0	.0	.0
1964	2000.0	2000.0	.0	.0
1965	3000.0	3000.0	.0	.0
1966	2000.0	2000.0	.0	.0
1967	5978.1	5749.1	-3.8	-229.0
1968	2170.7	3932.5	81.2	1761.8
1969	4500.0	4500.0	.0	.0
1970	2500.0	2268.6	-9.3	-231.4
1971	4087.9	3941.8	-3.6	-146.1
1972	4239.0	3542.9	-16.4	-696.1
1973	3424.6	3229.7	-5.7	-194.9
1974	9627.4	9531.6	-1.0	-95.8
1975	4432.8	3579.8	-19.2	-853.0
1976	1600.0	1600.0	.0	.0
1977	400.0	400.0	.0	.0
1978	5512.7	5556.6	.8	43.9
1979	3151.4	2500.0	-20.7	-651.4
1980	3509.6	3230.7	-7.9	-278.9
1981	1750.0	1600.0	-8.6	-150.0
1982	7605.1	7506.0	-1.3	-99.1
1983	16237.2	16107.4	-.8	-129.8
1984	2750.0	2515.2	-8.5	-234.8
1985	2250.0	2000.0	-11.1	-250.0
1986	11231.6	11023.8	-1.9	-207.8
1987	1280.0	1152.0	-10.0	-128.0
1988	1600.0	1600.0	.0	.0
1989	6394.2	6018.3	-5.9	-375.9
1990	1500.0	1500.0	.0	.0
1991	2000.0	2000.0	.0	.0
Mean	3990.7	3848.6	-3.6	-142.1
Median	3000.0	3000.0	-2.0	-128.0
Min	400.0	400.0	-21.1	-880.5
Max	16237.2	16107.4	81.2	1761.8

X < 1300.0	5	5
X < 1765.0	13	16
X < 2000.0	13	16
X < 2700.0	28	29
X < 3000.0	34	34

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	3251.2	3000.0	-7.7	-251.2
1924	335.9	320.8	-4.5	-15.1
1925	4138.4	3439.4	-16.9	-699.0
1926	2000.0	2000.0	.0	.0
1927	7967.2	7814.6	-1.9	-152.6
1928	4914.2	4645.9	-5.5	-268.3
1929	1500.0	1000.0	-33.3	-500.0
1930	2250.0	2000.0	-11.1	-250.0
1931	500.0	500.0	.0	.0
1932	3000.0	2750.0	-8.3	-250.0
1933	2000.0	1750.0	-12.5	-250.0
1934	3232.0	2726.8	-15.6	-505.2
1935	4411.1	4708.5	6.7	297.4
1936	5894.3	5659.5	-4.0	-234.8
1937	4469.5	4220.7	-5.6	-248.8
1938	8020.7	7772.3	-3.1	-248.4
1939	1250.0	750.0	-40.0	-500.0
1940	6207.8	6073.4	-2.2	-134.4
1941	3825.9	3626.3	-5.2	-199.6
1942	4500.0	4500.0	.0	.0
1943	5280.0	5048.4	-4.4	-231.6
1944	2250.0	2000.0	-11.1	-250.0
1945	2750.0	2750.0	.0	.0
1946	4059.9	3650.7	-10.1	-409.2
1947	2000.0	2000.0	.0	.0
1948	2750.0	2750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	5073.2	4967.2	-2.1	-106.0
1951	3170.7	2905.5	-8.4	-265.2
1952	9104.4	8844.3	-2.9	-260.1
1953	3500.0	3250.0	-7.1	-250.0
1954	4572.1	4407.4	-3.6	-164.7
1955	2000.0	2000.0	.0	.0
1956	4000.0	4000.0	.0	.0
1957	2750.0	2750.0	.0	.0
1958	10433.9	10224.2	-2.0	-209.7
1959	2000.0	1750.0	-12.5	-250.0
1960	2250.0	2250.0	.0	.0
1961	500.0	500.0	.0	.0
1962	3825.7	3023.0	-21.0	-802.7
1963	4666.0	4332.6	-7.1	-333.4
1964	2000.0	2000.0	.0	.0
1965	3803.4	3401.5	-10.6	-401.9
1966	2000.0	2000.0	.0	.0
1967	4500.0	4500.0	.0	.0
1968	2000.0	2000.0	.0	.0
1969	5973.2	5574.4	-6.7	-398.8
1970	2500.0	2250.0	-10.0	-250.0
1971	3500.0	3250.0	-7.1	-250.0
1972	2500.0	2500.0	.0	.0
1973	2750.0	2750.0	.0	.0
1974	6280.5	6102.7	-2.8	-177.8
1975	4000.0	4000.0	.0	.0
1976	500.0	500.0	.0	.0
1977	346.0	325.8	-5.8	-20.2
1978	4703.6	4031.7	-14.3	-671.9
1979	2750.0	2750.0	.0	.0
1980	3000.0	2750.0	-8.3	-250.0
1981	1750.0	1500.0	-14.3	-250.0
1982	14373.5	14180.6	-1.3	-192.9
1983	6684.4	6471.4	-3.2	-213.0
1984	2750.0	2750.0	.0	.0
1985	2250.0	2000.0	-11.1	-250.0
1986	2750.0	2750.0	.0	.0
1987	500.0	500.0	.0	.0
1988	500.0	500.0	.0	.0
1989	4623.6	4069.9	-12.0	-553.7
1990	2726.0	1816.0	-33.4	-910.0
1991	2000.0	2000.0	.0	.0
Mean	3594.5	3412.7	-5.8	-181.9
Median	3000.0	2750.0	-3.0	-185.4
Min	335.9	320.8	-40.0	-910.0
Max	14373.5	14180.6	6.7	297.4
X < 1300.0	8	9		
X < 1765.0	10	12		
X < 2000.0	10	13		
X < 2700.0	26	27		
X < 3000.0	34	38		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	9140.3	8375.6	-8.4	-764.7
	1923	5004.5	4655.8	-7.0	-348.7
	1924	353.9	352.3	-.5	-1.6
	1925	4680.6	4088.9	-12.6	-591.7
	1926	2500.0	2500.0	.0	.0
	1927	4957.4	4525.2	-8.7	-432.2
	1928	3000.0	3000.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	2750.0	2500.0	-9.1	-250.0
	1931	500.0	500.0	.0	.0
	1932	4000.0	3750.0	-6.3	-250.0
	1933	2500.0	2500.0	.0	.0
	1934	500.0	500.0	.0	.0
	1935	4992.9	4992.9	.0	.0
	1936	4250.0	4250.0	.0	.0
	1937	4650.0	4324.7	-7.0	-325.3
	1938	10029.9	9682.4	-3.5	-347.5
	1939	1750.0	1750.0	.0	.0
	1940	3750.0	3500.0	-6.7	-250.0
	1941	5533.1	5201.8	-6.0	-331.3
	1942	6303.1	5697.5	-9.6	-605.6
	1943	3750.0	3750.0	.0	.0
	1944	2750.0	2500.0	-9.1	-250.0
	1945	3750.0	3750.0	.0	.0
	1946	3770.1	3750.0	-.5	-20.1
	1947	2500.0	2500.0	.0	.0
	1948	3750.0	3750.0	.0	.0
	1949	3250.0	3000.0	-7.7	-250.0
	1950	4000.0	4000.0	.0	.0
	1951	3750.0	3500.0	-6.7	-250.0
	1952	11376.6	11032.2	-3.0	-344.4
	1953	4250.0	4250.0	.0	.0
	1954	3000.0	3000.0	.0	.0
	1955	2750.0	2500.0	-9.1	-250.0
	1956	4500.0	4500.0	.0	.0
	1957	3750.0	3500.0	-6.7	-250.0
	1958	10304.8	9963.7	-3.3	-341.1
	1959	2500.0	2250.0	-10.0	-250.0
	1960	2750.0	2750.0	.0	.0
	1961	1500.0	1500.0	.0	.0
	1962	3250.0	3250.0	.0	.0
	1963	7367.6	6958.3	-5.6	-409.3
	1964	2500.0	2500.0	.0	.0
	1965	4250.0	4000.0	-5.9	-250.0
	1966	2500.0	2500.0	.0	.0
	1967	8246.3	7698.1	-6.6	-548.2
	1968	2500.0	2500.0	.0	.0
	1969	9403.8	9028.6	-4.0	-375.2
	1970	3000.0	2750.0	-8.3	-250.0
	1971	4250.0	4250.0	.0	.0
	1972	3000.0	2750.0	-8.3	-250.0
	1973	4533.3	3921.9	-13.5	-611.4
	1974	5124.9	4733.4	-7.6	-391.5
	1975	4500.0	4500.0	.0	.0
	1976	1000.0	500.0	-50.0	-500.0
	1977	337.6	329.5	-2.4	-8.1
	1978	4508.5	4000.0	-11.3	-508.5
	1979	4167.7	3500.0	-16.0	-667.7
	1980	4000.0	4000.0	.0	.0
	1981	2250.0	2000.0	-11.1	-250.0
	1982	9423.3	9145.7	-2.9	-277.6
	1983	10683.7	10357.3	-3.1	-326.4
	1984	3750.0	3500.0	-6.7	-250.0
	1985	2750.0	2500.0	-9.1	-250.0
	1986	3750.0	3750.0	.0	.0
	1987	1500.0	750.0	-50.0	-750.0
	1988	500.0	500.0	.0	.0
	1989	3538.0	3000.0	-15.2	-538.0
	1990	1750.0	1500.0	-14.3	-250.0
	1991	2500.0	2500.0	.0	.0
	Mean	4027.6	3818.8	-5.8	-208.8
	Median	3750.0	3500.0	-3.4	-250.0
	Min	337.6	329.5	-50.0	-764.7
	Max	11376.6	11032.2	.0	.0
X <	1300.0	6	7		
X <	1765.0	10	11		
X <	2000.0	10	11		
X <	2700.0	20	24		
X <	3000.0	25	27		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	9160.4	8698.9	-5.0	-461.5
1923	4770.6	4618.9	-3.2	-151.7
1924	377.9	374.5	-.9	-3.4
1925	6486.9	6486.9	.0	.0
1926	1928.5	1500.0	-22.2	-428.5
1927	5528.7	5119.3	-7.4	-409.4
1928	5914.0	5296.2	-10.4	-617.8
1929	2336.3	2381.8	1.9	45.5
1930	2250.0	2000.0	-11.1	-250.0
1931	1255.3	1184.6	-5.6	-70.7
1932	5010.1	5041.9	.6	31.8
1933	2546.1	2493.3	-2.1	-52.8
1934	1806.6	1711.2	-5.3	-95.4
1935	4131.4	3500.0	-15.3	-631.4
1936	4645.9	3893.8	-16.2	-752.1
1937	3500.0	3500.0	.0	.0
1938	8792.4	8351.0	-5.0	-441.4
1939	1000.0	512.2	-48.8	-487.8
1940	3630.2	3442.0	-5.2	-188.2
1941	3750.0	3500.0	-6.7	-250.0
1942	7550.5	7093.9	-6.0	-456.6
1943	3500.0	3500.0	.0	.0
1944	2250.0	1750.0	-22.2	-500.0
1945	6030.8	5840.7	-3.2	-190.1
1946	6461.8	6301.0	-2.5	-160.8
1947	1750.0	1500.0	-14.3	-250.0
1948	3500.0	3250.0	-7.1	-250.0
1949	3000.0	2500.0	-16.7	-500.0
1950	4155.4	3750.0	-9.8	-405.4
1951	3250.0	3250.0	.0	.0
1952	10693.1	10238.3	-4.3	-454.8
1953	4000.0	3750.0	-6.3	-250.0
1954	2886.0	2500.0	-13.4	-386.0
1955	2250.0	2000.0	-11.1	-250.0
1956	5726.0	4552.8	-20.5	-1173.2
1957	3986.7	3501.9	-12.2	-484.8
1958	7918.5	7498.9	-5.3	-419.6
1959	1500.0	1250.0	-16.7	-250.0
1960	2250.0	2250.0	.0	.0
1961	750.0	508.8	-32.2	-241.2
1962	3000.0	3000.0	.0	.0
1963	3500.0	3500.0	.0	.0
1964	2250.0	2000.0	-11.1	-250.0
1965	3750.0	3750.0	.0	.0
1966	2000.0	1500.0	-25.0	-500.0
1967	10609.1	10219.8	-3.7	-389.3
1968	2250.0	1500.0	-33.3	-750.0
1969	6794.2	6389.8	-6.0	-404.4
1970	3420.1	3322.6	-2.9	-97.5
1971	4071.1	3750.0	-7.9	-321.1
1972	4604.0	4448.6	-3.4	-155.4
1973	5752.3	5449.0	-5.3	-303.3
1974	4443.1	4006.8	-9.8	-436.3
1975	5954.3	4908.3	-17.6	-1046.0
1976	2022.0	2116.1	4.7	94.1
1977	386.3	376.2	-2.6	-10.1
1978	4661.6	3750.0	-19.6	-911.6
1979	6486.9	6486.9	.0	.0
1980	3750.0	3500.0	-6.7	-250.0
1981	1500.0	1000.0	-33.3	-500.0
1982	6448.0	5991.5	-7.1	-456.5
1983	14729.8	14274.9	-3.1	-454.9
1984	4892.4	4727.0	-3.4	-165.4
1985	2986.2	2582.1	-13.5	-404.1
1986	3500.0	3250.0	-7.1	-250.0
1987	500.0	500.0	.0	.0
1988	1646.8	1729.1	5.0	82.3
1989	4069.9	3864.9	-5.0	-205.0
1990	1824.0	1737.2	-4.8	-86.8
1991	3041.6	3130.2	2.9	88.6
Mean	4101.1	3816.5	-8.4	-284.6
Median	3565.1	3500.0	-5.4	-250.0
Min	377.9	374.5	-48.8	-1173.2
Max	14729.8	14274.9	5.0	94.1
X < 1300.0	6	8		
X < 1765.0	10	16		
X < 2000.0	13	16		
X < 2700.0	23	26		
X < 3000.0	25	26		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4236.9	3260.3	-23.0	-976.6
	1923	5838.6	3888.3	-33.4	-1950.3
	1924	727.0	586.4	-19.3	-140.6
	1925	4211.4	3808.3	-9.6	-403.1
	1926	2639.6	2224.1	-15.7	-415.5
	1927	3094.9	2939.8	-5.0	-155.1
	1928	1500.0	1500.0	.0	.0
	1929	1663.7	1376.9	-17.2	-286.8
	1930	2878.7	2415.4	-16.1	-463.3
	1931	1928.2	1849.5	-4.1	-78.7
	1932	3177.2	3221.0	1.4	43.8
	1933	2240.6	1969.6	-12.1	-271.0
	1934	1507.7	1329.8	-11.8	-177.9
	1935	5066.6	3548.4	-30.0	-1518.2
	1936	4129.1	2662.2	-35.5	-1466.9
	1937	2608.9	2377.8	-8.9	-231.1
	1938	3748.1	3286.8	-12.3	-461.3
	1939	1967.3	1870.6	-4.9	-96.7
	1940	6056.4	5303.8	-12.4	-752.6
	1941	2369.7	2250.0	-5.1	-119.7
	1942	3731.8	3255.9	-12.8	-475.9
	1943	5747.2	5312.2	-7.6	-435.0
	1944	2314.8	1288.5	-44.3	-1026.3
	1945	4359.7	3267.6	-25.0	-1092.1
	1946	3854.3	3144.4	-18.4	-709.9
	1947	1978.2	1339.4	-32.3	-638.8
	1948	3864.0	2566.2	-33.6	-1297.8
	1949	3270.8	1921.0	-41.3	-1349.8
	1950	5381.5	4644.3	-13.7	-737.2
	1951	5978.6	5229.3	-12.5	-749.3
	1952	4852.4	4394.4	-9.4	-458.0
	1953	3363.0	2295.7	-31.7	-1067.3
	1954	3393.9	3092.4	-8.9	-301.5
	1955	1811.3	1500.0	-17.2	-311.3
	1956	3404.9	2930.7	-13.9	-474.2
	1957	4856.0	4633.2	-4.6	-222.8
	1958	3387.0	2930.7	-13.5	-456.3
	1959	750.0	503.7	-32.8	-246.3
	1960	2950.8	1929.1	-34.6	-1021.7
	1961	500.0	513.5	2.7	13.5
	1962	5401.2	4600.7	-14.8	-800.5
	1963	2351.7	2250.0	-4.3	-101.7
	1964	2347.3	1557.1	-33.7	-790.2
	1965	5645.6	5475.6	-3.0	-170.0
	1966	1500.0	750.0	-50.0	-750.0
	1967	4536.9	4080.5	-10.1	-456.4
	1968	1500.0	750.0	-50.0	-750.0
	1969	3191.9	2717.6	-14.9	-474.3
	1970	1961.2	1587.1	-19.1	-374.1
	1971	3208.1	2251.5	-29.8	-956.6
	1972	1500.0	1500.0	.0	.0
	1973	4209.3	3771.2	-10.4	-438.1
	1974	3648.9	3194.1	-12.5	-454.8
	1975	3136.6	2681.8	-14.5	-454.8
	1976	1562.8	1466.4	-6.2	-96.4
	1977	401.1	389.7	-2.8	-11.4
	1978	6325.7	5549.3	-12.3	-776.4
	1979	3048.4	1967.0	-35.5	-1081.4
	1980	3858.1	2907.9	-24.6	-950.2
	1981	500.0	511.8	2.4	11.8
	1982	3601.7	3127.4	-13.2	-474.3
	1983	6414.3	6043.5	-5.8	-370.8
	1984	4386.1	3880.6	-11.5	-505.5
	1985	2315.4	2035.2	-12.1	-280.2
	1986	5556.0	5421.6	-2.4	-134.4
	1987	1900.7	1195.7	-37.1	-705.0
	1988	1094.4	923.2	-15.6	-171.2
	1989	3765.7	3206.2	-14.9	-559.5
	1990	1447.3	1178.5	-18.6	-268.8
	1991	2436.4	2604.0	6.9	167.6
	Mean	3201.3	2684.8	-16.4	-516.5
	Median	3184.5	2585.1	-13.4	-455.5
	Min	401.1	389.7	-50.0	-1950.3
	Max	6414.3	6043.5	6.9	167.6
X <	1300.0	6	11		
X <	1765.0	14	20		
X <	2000.0	20	26		
X <	2700.0	29	38		
X <	3000.0	31	43		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2922.7	2937.8	.5	15.1
	1923	2556.6	2687.1	5.1	130.5
	1924	389.7	459.5	17.9	69.8
	1925	3786.9	3263.5	-13.8	-523.4
	1926	750.0	750.0	.0	.0
	1927	3884.9	3098.9	-20.2	-786.0
	1928	3282.1	2344.5	-28.6	-937.6
	1929	392.9	451.5	14.9	58.6
	1930	1000.0	1000.0	.0	.0
	1931	399.4	459.6	15.1	60.2
	1932	2338.0	1750.0	-25.1	-588.0
	1933	750.0	464.5	-38.1	-285.5
	1934	402.7	462.9	14.9	60.2
	1935	3108.1	3042.8	-2.1	-65.3
	1936	3115.5	3619.2	16.2	503.7
	1937	2800.9	2000.0	-28.6	-800.9
	1938	4414.5	3937.0	-10.8	-477.5
	1939	500.0	513.5	2.7	13.5
	1940	3989.6	3661.8	-8.2	-327.8
	1941	4266.5	3266.2	-23.4	-1000.3
	1942	4494.2	4018.3	-10.6	-475.9
	1943	2632.4	2464.3	-6.4	-168.1
	1944	3996.6	2655.7	-33.6	-1340.9
	1945	2063.1	2072.6	.5	9.5
	1946	2103.7	1937.8	-7.9	-165.9
	1947	1295.2	1000.0	-22.8	-295.2
	1948	3214.9	3160.7	-1.7	-54.2
	1949	2505.1	2334.4	-6.8	-170.7
	1950	3011.3	2755.2	-8.5	-256.1
	1951	3354.5	3175.4	-5.3	-179.1
	1952	4913.2	4441.1	-9.6	-472.1
	1953	4523.4	4052.4	-10.4	-471.0
	1954	3530.2	3753.3	6.3	223.1
	1955	3398.2	2193.3	-35.5	-1204.9
	1956	4460.0	3987.4	-10.6	-472.6
	1957	1720.7	1551.0	-9.9	-169.7
	1958	4556.0	4099.6	-10.0	-456.4
	1959	2542.2	1438.5	-43.4	-1103.7
	1960	3318.6	3157.4	-4.9	-161.2
	1961	1506.2	750.0	-50.2	-756.2
	1962	4634.7	3741.8	-19.3	-892.9
	1963	4095.7	2848.7	-30.4	-1247.0
	1964	3466.3	3173.3	-8.5	-293.0
	1965	2000.0	1750.0	-12.5	-250.0
	1966	2991.9	1971.9	-34.1	-1020.0
	1967	4536.4	4062.2	-10.5	-474.2
	1968	1250.0	1000.0	-20.0	-250.0
	1969	4344.5	3886.5	-10.5	-458.0
	1970	4112.5	3798.6	-7.6	-313.9
	1971	4281.1	3808.5	-11.0	-472.6
	1972	4396.1	3160.5	-28.1	-1235.6
	1973	1697.2	1903.3	12.1	206.1
	1974	4541.3	4068.7	-10.4	-472.6
	1975	4323.4	3868.6	-10.5	-454.8
	1976	1496.9	1221.5	-18.4	-275.4
	1977	396.2	384.8	-2.9	-11.4
	1978	1750.0	1750.0	.0	.0
	1979	2311.3	2345.2	1.5	33.9
	1980	2538.0	2033.1	-19.9	-504.9
	1981	1769.9	1357.4	-23.3	-412.5
	1982	4526.7	4052.4	-10.5	-474.3
	1983	4919.7	4805.4	-2.3	-114.3
	1984	1500.0	1500.0	.0	.0
	1985	3291.7	2823.4	-14.2	-468.3
	1986	3859.6	3691.4	-4.4	-168.2
	1987	1678.9	1757.8	4.7	78.9
	1988	898.4	645.8	-28.1	-252.6
	1989	3655.9	3114.2	-14.8	-541.7
	1990	2210.9	1746.8	-21.0	-464.1
	1991	1529.5	754.7	-50.7	-774.8
	Mean	2817.1	2459.9	-11.4	-357.1
	Median	3001.6	2560.0	-10.4	-294.1
	Min	389.7	384.8	-50.7	-1340.9
	Max	4919.7	4805.4	17.9	503.7
X <	1300.0	12	15		
X <	1765.0	20	24		
X <	2000.0	21	27		
X <	2700.0	32	37		
X <	3000.0	35	41		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	3927.9	3535.2	-10.0	-392.7
	1923	2000.0	2250.0	12.5	250.0
	1924	1000.0	1000.0	.0	.0
	1925	1779.4	1500.0	-15.7	-279.4
	1926	1500.0	1250.0	-16.7	-250.0
	1927	4087.5	3662.9	-10.4	-424.6
	1928	1500.0	1500.0	.0	.0
	1929	1250.0	1000.0	-20.0	-250.0
	1930	1500.0	1500.0	.0	.0
	1931	1000.0	750.0	-25.0	-250.0
	1932	3960.5	2500.0	-36.9	-1460.5
	1933	1500.0	1250.0	-16.7	-250.0
	1934	1000.0	750.0	-25.0	-250.0
	1935	2915.4	2742.2	-5.9	-173.2
	1936	4028.2	3722.9	-7.6	-305.3
	1937	4022.0	3493.9	-13.1	-528.1
	1938	4211.9	3805.8	-9.6	-406.1
	1939	1250.0	1250.0	.0	.0
	1940	1727.1	1500.0	-13.1	-227.1
	1941	4159.8	3755.3	-9.7	-404.5
	1942	4193.4	3789.0	-9.6	-404.4
	1943	2250.0	1750.0	-22.2	-500.0
	1944	1911.8	1750.0	-8.5	-161.8
	1945	2469.5	2237.8	-9.4	-231.7
	1946	2978.3	2752.9	-7.6	-225.4
	1947	2148.1	1500.0	-30.2	-648.1
	1948	2872.5	2474.1	-13.9	-398.4
	1949	2061.9	1801.8	-12.6	-260.1
	1950	2596.5	2500.0	-3.7	-96.5
	1951	1816.7	1670.1	-8.1	-146.6
	1952	4412.5	3990.6	-9.6	-421.9
	1953	4158.1	3757.0	-9.6	-401.1
	1954	2202.9	1500.0	-31.9	-702.9
	1955	1534.6	1500.0	-2.3	-34.6
	1956	4126.2	3723.4	-9.8	-402.8
	1957	2250.0	2000.0	-11.1	-250.0
	1958	4223.7	3822.6	-9.5	-401.1
	1959	1250.0	1500.0	20.0	250.0
	1960	2076.0	1796.3	-13.5	-279.7
	1961	1500.0	1250.0	-16.7	-250.0
	1962	1500.0	1500.0	.0	.0
	1963	4153.1	3750.3	-9.7	-402.8
	1964	1628.1	1349.8	-17.1	-278.3
	1965	3950.9	2500.0	-36.7	-1450.9
	1966	1504.1	1500.0	-.3	-4.1
	1967	4438.8	4069.6	-8.3	-369.2
	1968	2194.9	1970.2	-10.2	-224.7
	1969	4173.2	3787.3	-9.2	-385.9
	1970	1500.0	1500.0	.0	.0
	1971	3990.1	3605.8	-9.6	-384.3
	1972	1500.0	1563.1	4.2	63.1
	1973	2000.0	1750.0	-12.5	-250.0
	1974	4292.6	3891.5	-9.3	-401.1
	1975	4084.2	3668.0	-10.2	-416.2
	1976	500.0	500.0	.0	.0
	1977	454.1	444.0	-2.2	-10.1
	1978	3072.7	2250.0	-26.8	-822.7
	1979	2036.0	1807.0	-11.2	-229.0
	1980	4084.2	3698.2	-9.5	-386.0
	1981	1545.9	1500.0	-3.0	-45.9
	1982	4578.3	4207.4	-8.1	-370.9
	1983	4920.7	4826.7	-1.9	-94.0
	1984	2000.0	2000.0	.0	.0
	1985	1250.0	1250.0	.0	.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	1356.8	1400.5	3.2	43.7
	1988	750.0	750.0	.0	.0
	1989	1250.0	1500.0	20.0	250.0
	1990	750.0	750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2479.4	2222.5	-8.9	-257.0
	Median	2048.9	1773.2	-9.6	-250.0
	Min	454.1	444.0	-36.9	-1460.5
	Max	4920.7	4826.7	20.0	250.0
X <	1300.0	13	14		
X <	1765.0	28	35		
X <	2000.0	31	39		
X <	2700.0	44	48		
X <	3000.0	47	50		

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.3 Terrestrial

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2250.0	-10.0	-250.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	2000.0	-11.1	-250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1500.0	-14.3	-250.0
	1935	1250.0	750.0	-40.0	-500.0
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	1750.0	-12.5	-250.0
	1942	2500.0	2500.0	.0	.0
	1943	2500.0	2500.0	.0	.0
	1944	2500.0	2500.0	.0	.0
	1945	1500.0	1500.0	.0	.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2500.0	.0	.0
	1951	2500.0	2500.0	.0	.0
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2500.0	.0	.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	1750.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	2155.5	2115.3	-1.9	-40.2
	1964	2500.0	2500.0	.0	.0
	1965	1750.0	1750.0	.0	.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	2500.0	2500.0	.0	.0
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	524.6	555.5	5.9	30.9
	1978	521.4	516.5	-.9	-4.9
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	2000.0	-20.0	-500.0
	1981	2500.0	2500.0	.0	.0
	1982	1750.0	1750.0	.0	.0
	1983	3387.7	3173.4	-6.3	-214.3
	1984	3545.6	2509.0	-29.2	-1036.6
	1985	2500.0	2500.0	.0	.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1617.9	1442.7	-10.8	-175.2
	1989	1000.0	750.0	-25.0	-250.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	750.0	-25.0	-250.0
	Mean	2139.3	2040.2	-5.0	-99.1
	Median	2500.0	2182.6	.0	.0
	Min	521.4	516.5	-40.0	-1036.6
	Max	3545.6	3173.4	5.9	30.9
X <	4000.0	70	70		
X <	4500.0	70	70		
X <	5000.0	70	70		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2250.0	-10.0	-250.0
	1927	1750.0	1750.0	.0	.0
	1928	2875.8	2500.0	-13.1	-375.8
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	2000.0	-11.1	-250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1500.0	-14.3	-250.0
	1935	1250.0	750.0	-40.0	-500.0
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	1750.0	-12.5	-250.0
	1942	2500.0	2500.0	.0	.0
	1943	3699.3	3396.1	-8.2	-303.2
	1944	2500.0	2500.0	.0	.0
	1945	1500.0	1500.0	.0	.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2500.0	.0	.0
	1951	16968.6	16083.7	-5.2	-884.9
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2500.0	.0	.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	1750.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3138.8	3022.9	-3.7	-115.9
	1964	4151.3	3866.4	-6.9	-284.9
	1965	1750.0	1750.0	.0	.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	6087.9	4829.5	-20.7	-1258.4
	1975	2500.0	2500.0	.0	.0
	1976	3028.0	2699.5	-10.8	-328.5
	1977	516.2	543.0	5.2	26.8
	1978	500.0	500.0	.0	.0
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	2000.0	-20.0	-500.0
	1981	2500.0	2500.0	.0	.0
	1982	4649.4	4208.9	-9.5	-440.5
	1983	6809.2	6710.3	-1.5	-98.9
	1984	14312.9	14353.5	.3	40.6
	1985	3113.9	2500.0	-19.7	-613.9
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1294.3	1154.1	-10.8	-140.2
	1989	1000.0	750.0	-25.0	-250.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	750.0	-25.0	-250.0
	Mean	2712.8	2566.0	-5.9	-146.8
	Median	2500.0	2375.0	.0	.0
	Min	500.0	500.0	-40.0	-1258.4
	Max	16968.6	16083.7	5.2	40.6
X <	4000.0	64	65		
X <	4500.0	65	66		
X <	5000.0	66	67		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	6439.4	6042.1	-6.2	-397.3
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2250.0	-10.0	-250.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	2000.0	-11.1	-250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1500.0	-14.3	-250.0
	1935	1250.0	750.0	-40.0	-500.0
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	6197.2	5797.5	-6.4	-399.7
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	1750.0	-12.5	-250.0
	1942	4941.6	4487.5	-9.2	-454.1
	1943	4771.1	4644.5	-2.7	-126.6
	1944	2500.0	2500.0	.0	.0
	1945	1500.0	1500.0	.0	.0
	1946	7851.5	7450.2	-5.1	-401.3
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2500.0	.0	.0
	1951	16431.8	16297.0	-.8	-134.8
	1952	4213.0	3533.3	-16.1	-679.7
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	14566.6	14324.1	-1.7	-242.5
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2500.0	.0	.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	1750.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3476.5	3414.7	-1.8	-61.8
	1964	3321.0	3093.1	-6.9	-227.9
	1965	19334.4	19049.3	-1.5	-285.1
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	5316.9	4871.0	-8.4	-445.9
	1971	4901.6	4363.3	-11.0	-538.3
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	7527.8	7406.0	-1.6	-121.8
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	638.2	644.7	1.0	6.5
	1978	574.8	540.7	-5.9	-34.1
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	2000.0	-20.0	-500.0
	1981	2500.0	2500.0	.0	.0
	1982	14208.7	14210.6	.0	1.9
	1983	9173.6	9016.1	-1.7	-157.5
	1984	15350.2	15132.5	-1.4	-217.7
	1985	2556.0	2500.0	-2.2	-56.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1250.0	923.3	-26.1	-326.7
	1989	1000.0	750.0	-25.0	-250.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	750.0	-25.0	-250.0
	Mean	3664.9	3521.3	-5.6	-143.6
	Median	2500.0	2500.0	-.4	-17.0
	Min	574.8	540.7	-40.0	-679.7
	Max	19334.4	19049.3	1.0	6.5
X <	4000.0	55	56		
X <	4500.0	56	58		
X <	5000.0	59	60		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2000.0	2000.0	.0	.0
	1923	4580.8	4424.9	-3.4	-155.9
	1924	2000.0	2000.0	.0	.0
	1925	1750.0	1750.0	.0	.0
	1926	2000.0	1800.0	-10.0	-200.0
	1927	3164.1	2562.6	-19.0	-601.5
	1928	2500.0	2500.0	.0	.0
	1929	1600.0	1400.0	-12.5	-200.0
	1930	1750.0	1750.0	.0	.0
	1931	1800.0	1600.0	-11.1	-200.0
	1932	2000.0	1750.0	-12.5	-250.0
	1933	2000.0	2000.0	.0	.0
	1934	2000.0	1750.0	-12.5	-250.0
	1935	1750.0	2000.0	14.3	250.0
	1936	4350.9	3803.9	-12.6	-547.0
	1937	2000.0	2000.0	.0	.0
	1938	2883.0	2739.9	-5.0	-143.1
	1939	2250.0	2000.0	-11.1	-250.0
	1940	2494.4	2128.3	-14.7	-366.1
	1941	5538.3	5205.2	-6.0	-333.1
	1942	9376.9	9209.6	-1.8	-167.3
	1943	10957.7	10792.1	-1.5	-165.6
	1944	2000.0	2000.0	.0	.0
	1945	2000.0	2250.0	12.5	250.0
	1946	5270.4	5106.3	-3.1	-164.1
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2000.0	2000.0	.0	.0
	1950	2000.0	2000.0	.0	.0
	1951	10172.8	10024.9	-1.5	-147.9
	1952	9038.6	8889.3	-1.7	-149.3
	1953	6806.0	6217.4	-8.6	-588.6
	1954	2250.0	2250.0	.0	.0
	1955	2000.0	1750.0	-12.5	-250.0
	1956	16384.9	16313.5	-.4	-71.4
	1957	2250.0	2250.0	.0	.0
	1958	2250.0	2000.0	-11.1	-250.0
	1959	2250.0	2000.0	-11.1	-250.0
	1960	1400.0	1400.0	.0	.0
	1961	1500.0	1400.0	-6.7	-100.0
	1962	1400.0	1400.0	.0	.0
	1963	3961.2	3842.5	-3.0	-118.7
	1964	2656.8	2500.0	-5.9	-156.8
	1965	13252.0	13180.5	-.5	-71.5
	1966	2500.0	2500.0	.0	.0
	1967	6737.8	6130.9	-9.0	-606.9
	1968	2500.0	2500.0	.0	.0
	1969	14755.2	14313.8	-3.0	-441.4
	1970	21000.4	20839.7	-.8	-160.7
	1971	4798.8	4699.6	-2.1	-99.2
	1972	2500.0	2500.0	.0	.0
	1973	8920.5	8524.8	-4.4	-395.7
	1974	11390.4	11276.8	-1.0	-113.6
	1975	2250.0	2250.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	510.6	515.7	1.0	5.1
	1978	3351.3	3309.9	-1.2	-41.4
	1979	2250.0	2000.0	-11.1	-250.0
	1980	14953.9	15407.5	3.0	453.6
	1981	2250.0	2000.0	-11.1	-250.0
	1982	8291.7	8160.2	-1.6	-131.5
	1983	7631.9	7482.5	-2.0	-149.4
	1984	6644.9	6513.4	-2.0	-131.5
	1985	2500.0	2500.0	.0	.0
	1986	2214.7	2506.9	13.2	292.2
	1987	2000.0	1800.0	-10.0	-200.0
	1988	1000.0	738.7	-26.1	-261.3
	1989	2000.0	2000.0	.0	.0
	1990	1750.0	1500.0	-14.3	-250.0
	1991	800.0	600.0	-25.0	-200.0
	Mean	4337.0	4210.9	-4.2	-126.1
	Median	2250.0	2250.0	-1.7	-131.5
	Min	510.6	515.7	-26.1	-606.9
	Max	21000.4	20839.7	14.3	453.6
X <	4000.0	49	50		
X <	4500.0	50	51		
X <	5000.0	52	52		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	3299.3	2483.4	-24.7	-815.9
	1923	3547.7	3376.9	-4.8	-170.8
	1924	1600.0	1600.0	.0	.0
	1925	3646.8	3925.8	7.7	279.0
	1926	1600.0	1440.0	-10.0	-160.0
	1927	13432.9	13364.6	-.5	-68.3
	1928	2000.0	2000.0	.0	.0
	1929	1280.0	1250.0	-2.3	-30.0
	1930	2000.0	2000.0	.0	.0
	1931	1440.0	1280.0	-11.1	-160.0
	1932	2278.2	2109.6	-7.4	-168.6
	1933	1750.0	1600.0	-8.6	-150.0
	1934	2000.0	2000.0	.0	.0
	1935	2000.0	2000.0	.0	.0
	1936	13433.0	13289.1	-1.1	-143.9
	1937	2000.0	1750.0	-12.5	-250.0
	1938	9824.8	9668.1	-1.6	-156.7
	1939	2000.0	2000.0	.0	.0
	1940	10595.2	10481.8	-1.1	-113.4
	1941	8043.8	7876.6	-2.1	-167.2
	1942	10042.6	9859.2	-1.8	-183.4
	1943	6947.5	6782.1	-2.4	-165.4
	1944	1750.0	1600.0	-8.6	-150.0
	1945	6184.7	6131.8	-.9	-52.9
	1946	2764.6	2617.1	-5.3	-147.5
	1947	2000.0	1750.0	-12.5	-250.0
	1948	2000.0	1750.0	-12.5	-250.0
	1949	2000.0	1600.0	-20.0	-400.0
	1950	4142.0	2575.0	-37.8	-1567.0
	1951	8208.4	8062.7	-1.8	-145.7
	1952	9586.9	9423.3	-1.7	-163.6
	1953	2328.7	2150.7	-7.6	-178.0
	1954	2052.3	2000.0	-2.5	-52.3
	1955	2000.0	2000.0	.0	.0
	1956	6239.2	6142.0	-1.6	-97.2
	1957	2000.0	2000.0	.0	.0
	1958	9139.8	7696.8	-15.8	-1443.0
	1959	2000.0	2000.0	.0	.0
	1960	1250.0	1120.0	-10.4	-130.0
	1961	1250.0	1120.0	-10.4	-130.0
	1962	1259.4	1250.0	-.7	-9.4
	1963	12081.0	11949.6	-1.1	-131.4
	1964	2125.4	2000.0	-5.9	-125.4
	1965	5501.4	5420.5	-1.5	-80.9
	1966	2000.0	2000.0	.0	.0
	1967	4473.3	4341.9	-2.9	-131.4
	1968	5766.3	4915.7	-14.8	-850.6
	1969	9286.5	9192.9	-1.0	-93.6
	1970	6352.2	6244.3	-1.7	-107.9
	1971	3436.1	3308.2	-3.7	-127.9
	1972	2239.2	2000.0	-10.7	-239.2
	1973	7194.1	7086.0	-1.5	-108.1
	1974	4409.4	4065.9	-7.8	-343.5
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	500.0	500.0	.0	.0
	1978	4754.0	4624.4	-2.7	-129.6
	1979	2000.0	2000.0	.0	.0
	1980	14140.1	13581.0	-4.0	-559.1
	1981	2000.0	2000.0	.0	.0
	1982	15555.5	15321.5	-1.5	-234.0
	1983	12410.4	12264.9	-1.2	-145.5
	1984	5698.0	5572.2	-2.2	-125.8
	1985	2000.0	2000.0	.0	.0
	1986	33196.4	33122.7	-.2	-73.7
	1987	1600.0	1440.0	-10.0	-160.0
	1988	2000.0	2000.0	.0	.0
	1989	1750.0	2000.0	14.3	250.0
	1990	1750.0	1750.0	.0	.0
	1991	640.0	500.0	-21.9	-140.0
	Mean	4882.5	4719.0	-4.5	-163.6
	Median	2182.3	2000.0	-1.7	-128.8
	Min	500.0	500.0	-37.8	-1567.0
	Max	33196.4	33122.7	14.3	279.0
X <	4000.0	43	44		
X <	4500.0	46	46		
X <	5000.0	47	48		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	2838.2	2750.0	-3.1	-88.2
1924	1280.0	1280.0	.0	.0
1925	3251.2	3174.0	-2.4	-77.2
1926	2000.0	1750.0	-12.5	-250.0
1927	4600.3	4399.1	-4.4	-201.2
1928	12207.3	11673.0	-4.4	-534.3
1929	1500.0	1500.0	.0	.0
1930	2000.0	2000.0	.0	.0
1931	1152.0	1024.0	-11.1	-128.0
1932	2750.0	2750.0	.0	.0
1933	2000.0	1750.0	-12.5	-250.0
1934	1600.0	1600.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	4222.1	4065.0	-3.7	-157.1
1937	4381.7	3727.2	-14.9	-654.5
1938	10863.5	10681.7	-1.7	-181.8
1939	1600.0	1600.0	.0	.0
1940	10956.2	10642.6	-2.9	-313.6
1941	4870.0	4686.5	-3.8	-183.5
1942	4500.0	4500.0	.0	.0
1943	12491.8	12327.9	-1.3	-163.9
1944	2250.0	2000.0	-11.1	-250.0
1945	2750.0	2750.0	.0	.0
1946	2808.5	2750.0	-2.1	-58.5
1947	2000.0	1750.0	-12.5	-250.0
1948	2750.0	2750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	3313.6	3000.0	-9.5	-313.6
1951	3802.0	3652.6	-3.9	-149.4
1952	6187.3	6023.4	-2.6	-163.9
1953	3000.0	3000.0	.0	.0
1954	4435.8	3673.5	-17.2	-762.3
1955	2000.0	2000.0	.0	.0
1956	3500.0	3500.0	.0	.0
1957	4181.0	3300.5	-21.1	-880.5
1958	6699.9	6537.5	-2.4	-162.4
1959	1750.0	1750.0	.0	.0
1960	2626.1	2250.0	-14.3	-376.1
1961	1250.0	1000.0	-20.0	-250.0
1962	2500.0	2500.0	.0	.0
1963	3500.0	3500.0	.0	.0
1964	2000.0	2000.0	.0	.0
1965	3000.0	3000.0	.0	.0
1966	2000.0	2000.0	.0	.0
1967	5978.1	5749.1	-3.8	-229.0
1968	2170.7	3932.5	81.2	1761.8
1969	4500.0	4500.0	.0	.0
1970	2500.0	2268.6	-9.3	-231.4
1971	4087.9	3941.8	-3.6	-146.1
1972	4239.0	3542.9	-16.4	-696.1
1973	3424.6	3229.7	-5.7	-194.9
1974	9627.4	9531.6	-1.0	-95.8
1975	4432.8	3579.8	-19.2	-853.0
1976	1600.0	1600.0	.0	.0
1977	400.0	400.0	.0	.0
1978	5512.7	5556.6	.8	43.9
1979	3151.4	2500.0	-20.7	-651.4
1980	3509.6	3230.7	-7.9	-278.9
1981	1750.0	1600.0	-8.6	-150.0
1982	7605.1	7506.0	-1.3	-99.1
1983	16237.2	16107.4	-.8	-129.8
1984	2750.0	2515.2	-8.5	-234.8
1985	2250.0	2000.0	-11.1	-250.0
1986	11231.6	11023.8	-1.9	-207.8
1987	1280.0	1152.0	-10.0	-128.0
1988	1600.0	1600.0	.0	.0
1989	6394.2	6018.3	-5.9	-375.9
1990	1500.0	1500.0	.0	.0
1991	2000.0	2000.0	.0	.0
Mean	3990.7	3848.6	-3.6	-142.1
Median	3000.0	3000.0	-2.0	-128.0
Min	400.0	400.0	-21.1	-880.5
Max	16237.2	16107.4	81.2	1761.8
X < 4000.0	45	51		
X < 4500.0	52	53		
X < 5000.0	57	57		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	3251.2	3000.0	-7.7	-251.2
	1924	335.9	320.8	-4.5	-15.1
	1925	4138.4	3439.4	-16.9	-699.0
	1926	2000.0	2000.0	.0	.0
	1927	7967.2	7814.6	-1.9	-152.6
	1928	4914.2	4645.9	-5.5	-268.3
	1929	1500.0	1000.0	-33.3	-500.0
	1930	2250.0	2000.0	-11.1	-250.0
	1931	500.0	500.0	.0	.0
	1932	3000.0	2750.0	-8.3	-250.0
	1933	2000.0	1750.0	-12.5	-250.0
	1934	3232.0	2726.8	-15.6	-505.2
	1935	4411.1	4708.5	6.7	297.4
	1936	5894.3	5659.5	-4.0	-234.8
	1937	4469.5	4220.7	-5.6	-248.8
	1938	8020.7	7772.3	-3.1	-248.4
	1939	1250.0	750.0	-40.0	-500.0
	1940	6207.8	6073.4	-2.2	-134.4
	1941	3825.9	3626.3	-5.2	-199.6
	1942	4500.0	4500.0	.0	.0
	1943	5280.0	5048.4	-4.4	-231.6
	1944	2250.0	2000.0	-11.1	-250.0
	1945	2750.0	2750.0	.0	.0
	1946	4059.9	3650.7	-10.1	-409.2
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	5073.2	4967.2	-2.1	-106.0
	1951	3170.7	2905.5	-8.4	-265.2
	1952	9104.4	8844.3	-2.9	-260.1
	1953	3500.0	3250.0	-7.1	-250.0
	1954	4572.1	4407.4	-3.6	-164.7
	1955	2000.0	2000.0	.0	.0
	1956	4000.0	4000.0	.0	.0
	1957	2750.0	2750.0	.0	.0
	1958	10433.9	10224.2	-2.0	-209.7
	1959	2000.0	1750.0	-12.5	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	500.0	500.0	.0	.0
	1962	3825.7	3023.0	-21.0	-802.7
	1963	4666.0	4332.6	-7.1	-333.4
	1964	2000.0	2000.0	.0	.0
	1965	3803.4	3401.5	-10.6	-401.9
	1966	2000.0	2000.0	.0	.0
	1967	4500.0	4500.0	.0	.0
	1968	2000.0	2000.0	.0	.0
	1969	5973.2	5574.4	-6.7	-398.8
	1970	2500.0	2250.0	-10.0	-250.0
	1971	3500.0	3250.0	-7.1	-250.0
	1972	2500.0	2500.0	.0	.0
	1973	2750.0	2750.0	.0	.0
	1974	6280.5	6102.7	-2.8	-177.8
	1975	4000.0	4000.0	.0	.0
	1976	500.0	500.0	.0	.0
	1977	346.0	325.8	-5.8	-20.2
	1978	4703.6	4031.7	-14.3	-671.9
	1979	2750.0	2750.0	.0	.0
	1980	3000.0	2750.0	-8.3	-250.0
	1981	1750.0	1500.0	-14.3	-250.0
	1982	14373.5	14180.6	-1.3	-192.9
	1983	6684.4	6471.4	-3.2	-213.0
	1984	2750.0	2750.0	.0	.0
	1985	2250.0	2000.0	-11.1	-250.0
	1986	2750.0	2750.0	.0	.0
	1987	500.0	500.0	.0	.0
	1988	500.0	500.0	.0	.0
	1989	4623.6	4069.9	-12.0	-553.7
	1990	2726.0	1816.0	-33.4	-910.0
	1991	2000.0	2000.0	.0	.0
	Mean	3594.5	3412.7	-5.8	-181.9
	Median	3000.0	2750.0	-3.0	-185.4
	Min	335.9	320.8	-40.0	-910.0
	Max	14373.5	14180.6	6.7	297.4
X <	4000.0	44	46		
X <	4500.0	50	53		
X <	5000.0	58	59		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	9140.3	8375.6	-8.4	-764.7
	1923	5004.5	4655.8	-7.0	-348.7
	1924	353.9	352.3	-.5	-1.6
	1925	4680.6	4088.9	-12.6	-591.7
	1926	2500.0	2500.0	.0	.0
	1927	4957.4	4525.2	-8.7	-432.2
	1928	3000.0	3000.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	2750.0	2500.0	-9.1	-250.0
	1931	500.0	500.0	.0	.0
	1932	4000.0	3750.0	-6.3	-250.0
	1933	2500.0	2500.0	.0	.0
	1934	500.0	500.0	.0	.0
	1935	4992.9	4992.9	.0	.0
	1936	4250.0	4250.0	.0	.0
	1937	4650.0	4324.7	-7.0	-325.3
	1938	10029.9	9682.4	-3.5	-347.5
	1939	1750.0	1750.0	.0	.0
	1940	3750.0	3500.0	-6.7	-250.0
	1941	5533.1	5201.8	-6.0	-331.3
	1942	6303.1	5697.5	-9.6	-605.6
	1943	3750.0	3750.0	.0	.0
	1944	2750.0	2500.0	-9.1	-250.0
	1945	3750.0	3750.0	.0	.0
	1946	3770.1	3750.0	-.5	-20.1
	1947	2500.0	2500.0	.0	.0
	1948	3750.0	3750.0	.0	.0
	1949	3250.0	3000.0	-7.7	-250.0
	1950	4000.0	4000.0	.0	.0
	1951	3750.0	3500.0	-6.7	-250.0
	1952	11376.6	11032.2	-3.0	-344.4
	1953	4250.0	4250.0	.0	.0
	1954	3000.0	3000.0	.0	.0
	1955	2750.0	2500.0	-9.1	-250.0
	1956	4500.0	4500.0	.0	.0
	1957	3750.0	3500.0	-6.7	-250.0
	1958	10304.8	9963.7	-3.3	-341.1
	1959	2500.0	2250.0	-10.0	-250.0
	1960	2750.0	2750.0	.0	.0
	1961	1500.0	1500.0	.0	.0
	1962	3250.0	3250.0	.0	.0
	1963	7367.6	6958.3	-5.6	-409.3
	1964	2500.0	2500.0	.0	.0
	1965	4250.0	4000.0	-5.9	-250.0
	1966	2500.0	2500.0	.0	.0
	1967	8246.3	7698.1	-6.6	-548.2
	1968	2500.0	2500.0	.0	.0
	1969	9403.8	9028.6	-4.0	-375.2
	1970	3000.0	2750.0	-8.3	-250.0
	1971	4250.0	4250.0	.0	.0
	1972	3000.0	2750.0	-8.3	-250.0
	1973	4533.3	3921.9	-13.5	-611.4
	1974	5124.9	4733.4	-7.6	-391.5
	1975	4500.0	4500.0	.0	.0
	1976	1000.0	500.0	-50.0	-500.0
	1977	337.6	329.5	-2.4	-8.1
	1978	4508.5	4000.0	-11.3	-508.5
	1979	4167.7	3500.0	-16.0	-667.7
	1980	4000.0	4000.0	.0	.0
	1981	2250.0	2000.0	-11.1	-250.0
	1982	9423.3	9145.7	-2.9	-277.6
	1983	10683.7	10357.3	-3.1	-326.4
	1984	3750.0	3500.0	-6.7	-250.0
	1985	2750.0	2500.0	-9.1	-250.0
	1986	3750.0	3750.0	.0	.0
	1987	1500.0	750.0	-50.0	-750.0
	1988	500.0	500.0	.0	.0
	1989	3538.0	3000.0	-15.2	-538.0
	1990	1750.0	1500.0	-14.3	-250.0
	1991	2500.0	2500.0	.0	.0
	Mean	4027.6	3818.8	-5.8	-208.8
	Median	3750.0	3500.0	-3.4	-250.0
	Min	337.6	329.5	-50.0	-764.7
	Max	11376.6	11032.2	.0	.0
X <	4000.0	41	44		
X <	4500.0	49	53		
X <	5000.0	57	59		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	9160.4	8698.9	-5.0	-461.5
	1923	4770.6	4618.9	-3.2	-151.7
	1924	377.9	374.5	-.9	-3.4
	1925	6486.9	6486.9	.0	.0
	1926	1928.5	1500.0	-22.2	-428.5
	1927	5528.7	5119.3	-7.4	-409.4
	1928	5914.0	5296.2	-10.4	-617.8
	1929	2336.3	2381.8	1.9	45.5
	1930	2250.0	2000.0	-11.1	-250.0
	1931	1255.3	1184.6	-5.6	-70.7
	1932	5010.1	5041.9	.6	31.8
	1933	2546.1	2493.3	-2.1	-52.8
	1934	1806.6	1711.2	-5.3	-95.4
	1935	4131.4	3500.0	-15.3	-631.4
	1936	4645.9	3893.8	-16.2	-752.1
	1937	3500.0	3500.0	.0	.0
	1938	8792.4	8351.0	-5.0	-441.4
	1939	1000.0	512.2	-48.8	-487.8
	1940	3630.2	3442.0	-5.2	-188.2
	1941	3750.0	3500.0	-6.7	-250.0
	1942	7550.5	7093.9	-6.0	-456.6
	1943	3500.0	3500.0	.0	.0
	1944	2250.0	1750.0	-22.2	-500.0
	1945	6030.8	5840.7	-3.2	-190.1
	1946	6461.8	6301.0	-2.5	-160.8
	1947	1750.0	1500.0	-14.3	-250.0
	1948	3500.0	3250.0	-7.1	-250.0
	1949	3000.0	2500.0	-16.7	-500.0
	1950	4155.4	3750.0	-9.8	-405.4
	1951	3250.0	3250.0	.0	.0
	1952	10693.1	10238.3	-4.3	-454.8
	1953	4000.0	3750.0	-6.3	-250.0
	1954	2886.0	2500.0	-13.4	-386.0
	1955	2250.0	2000.0	-11.1	-250.0
	1956	5726.0	4552.8	-20.5	-1173.2
	1957	3986.7	3501.9	-12.2	-484.8
	1958	7918.5	7498.9	-5.3	-419.6
	1959	1500.0	1250.0	-16.7	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	750.0	508.8	-32.2	-241.2
	1962	3000.0	3000.0	.0	.0
	1963	3500.0	3500.0	.0	.0
	1964	2250.0	2000.0	-11.1	-250.0
	1965	3750.0	3750.0	.0	.0
	1966	2000.0	1500.0	-25.0	-500.0
	1967	10609.1	10219.8	-3.7	-389.3
	1968	2250.0	1500.0	-33.3	-750.0
	1969	6794.2	6389.8	-6.0	-404.4
	1970	3420.1	3322.6	-2.9	-97.5
	1971	4071.1	3750.0	-7.9	-321.1
	1972	4604.0	4448.6	-3.4	-155.4
	1973	5752.3	5449.0	-5.3	-303.3
	1974	4443.1	4006.8	-9.8	-436.3
	1975	5954.3	4908.3	-17.6	-1046.0
	1976	2022.0	2116.1	4.7	94.1
	1977	386.3	376.2	-2.6	-10.1
	1978	4661.6	3750.0	-19.6	-911.6
	1979	6486.9	6486.9	.0	.0
	1980	3750.0	3500.0	-6.7	-250.0
	1981	1500.0	1000.0	-33.3	-500.0
	1982	6448.0	5991.5	-7.1	-456.5
	1983	14729.8	14274.9	-3.1	-454.9
	1984	4892.4	4727.0	-3.4	-165.4
	1985	2986.2	2582.1	-13.5	-404.1
	1986	3500.0	3250.0	-7.1	-250.0
	1987	500.0	500.0	.0	.0
	1988	1646.8	1729.1	5.0	82.3
	1989	4069.9	3864.9	-5.0	-205.0
	1990	1824.0	1737.2	-4.8	-86.8
	1991	3041.6	3130.2	2.9	88.6
	Mean	4101.1	3816.5	-8.4	-284.6
	Median	3565.1	3500.0	-5.4	-250.0
	Min	377.9	374.5	-48.8	-1173.2
	Max	14729.8	14274.9	5.0	94.1
X <	4000.0	40	47		
X <	4500.0	46	49		
X <	5000.0	51	53		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4236.9	3260.3	-23.0	-976.6
	1923	5838.6	3888.3	-33.4	-1950.3
	1924	727.0	586.4	-19.3	-140.6
	1925	4211.4	3808.3	-9.6	-403.1
	1926	2639.6	2224.1	-15.7	-415.5
	1927	3094.9	2939.8	-5.0	-155.1
	1928	1500.0	1500.0	.0	.0
	1929	1663.7	1376.9	-17.2	-286.8
	1930	2878.7	2415.4	-16.1	-463.3
	1931	1928.2	1849.5	-4.1	-78.7
	1932	3177.2	3221.0	1.4	43.8
	1933	2240.6	1969.6	-12.1	-271.0
	1934	1507.7	1329.8	-11.8	-177.9
	1935	5066.6	3548.4	-30.0	-1518.2
	1936	4129.1	2662.2	-35.5	-1466.9
	1937	2608.9	2377.8	-8.9	-231.1
	1938	3748.1	3286.8	-12.3	-461.3
	1939	1967.3	1870.6	-4.9	-96.7
	1940	6056.4	5303.8	-12.4	-752.6
	1941	2369.7	2250.0	-5.1	-119.7
	1942	3731.8	3255.9	-12.8	-475.9
	1943	5747.2	5312.2	-7.6	-435.0
	1944	2314.8	1288.5	-44.3	-1026.3
	1945	4359.7	3267.6	-25.0	-1092.1
	1946	3854.3	3144.4	-18.4	-709.9
	1947	1978.2	1339.4	-32.3	-638.8
	1948	3864.0	2566.2	-33.6	-1297.8
	1949	3270.8	1921.0	-41.3	-1349.8
	1950	5381.5	4644.3	-13.7	-737.2
	1951	5978.6	5229.3	-12.5	-749.3
	1952	4852.4	4394.4	-9.4	-458.0
	1953	3363.0	2295.7	-31.7	-1067.3
	1954	3393.9	3092.4	-8.9	-301.5
	1955	1811.3	1500.0	-17.2	-311.3
	1956	3404.9	2930.7	-13.9	-474.2
	1957	4856.0	4633.2	-4.6	-222.8
	1958	3387.0	2930.7	-13.5	-456.3
	1959	750.0	503.7	-32.8	-246.3
	1960	2950.8	1929.1	-34.6	-1021.7
	1961	500.0	513.5	2.7	13.5
	1962	5401.2	4600.7	-14.8	-800.5
	1963	2351.7	2250.0	-4.3	-101.7
	1964	2347.3	1557.1	-33.7	-790.2
	1965	5645.6	5475.6	-3.0	-170.0
	1966	1500.0	750.0	-50.0	-750.0
	1967	4536.9	4080.5	-10.1	-456.4
	1968	1500.0	750.0	-50.0	-750.0
	1969	3191.9	2717.6	-14.9	-474.3
	1970	1961.2	1587.1	-19.1	-374.1
	1971	3208.1	2251.5	-29.8	-956.6
	1972	1500.0	1500.0	.0	.0
	1973	4209.3	3771.2	-10.4	-438.1
	1974	3648.9	3194.1	-12.5	-454.8
	1975	3136.6	2681.8	-14.5	-454.8
	1976	1562.8	1466.4	-6.2	-96.4
	1977	401.1	389.7	-2.8	-11.4
	1978	6325.7	5549.3	-12.3	-776.4
	1979	3048.4	1967.0	-35.5	-1081.4
	1980	3858.1	2907.9	-24.6	-950.2
	1981	500.0	511.8	2.4	11.8
	1982	3601.7	3127.4	-13.2	-474.3
	1983	6414.3	6043.5	-5.8	-370.8
	1984	4386.1	3880.6	-11.5	-505.5
	1985	2315.4	2035.2	-12.1	-280.2
	1986	5556.0	5421.6	-2.4	-134.4
	1987	1900.7	1195.7	-37.1	-705.0
	1988	1094.4	923.2	-15.6	-171.2
	1989	3765.7	3206.2	-14.9	-559.5
	1990	1447.3	1178.5	-18.6	-268.8
	1991	2436.4	2604.0	6.9	167.6
	Mean	3201.3	2684.8	-16.4	-516.5
	Median	3184.5	2585.1	-13.4	-455.5
	Min	401.1	389.7	-50.0	-1950.3
	Max	6414.3	6043.5	6.9	167.6
X <	4000.0	50	58		
X <	4500.0	56	60		
X <	5000.0	59	63		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2922.7	2937.8	.5	15.1
	1923	2556.6	2687.1	5.1	130.5
	1924	389.7	459.5	17.9	69.8
	1925	3786.9	3263.5	-13.8	-523.4
	1926	750.0	750.0	.0	.0
	1927	3884.9	3098.9	-20.2	-786.0
	1928	3282.1	2344.5	-28.6	-937.6
	1929	392.9	451.5	14.9	58.6
	1930	1000.0	1000.0	.0	.0
	1931	399.4	459.6	15.1	60.2
	1932	2338.0	1750.0	-25.1	-588.0
	1933	750.0	464.5	-38.1	-285.5
	1934	402.7	462.9	14.9	60.2
	1935	3108.1	3042.8	-2.1	-65.3
	1936	3115.5	3619.2	16.2	503.7
	1937	2800.9	2000.0	-28.6	-800.9
	1938	4414.5	3937.0	-10.8	-477.5
	1939	500.0	513.5	2.7	13.5
	1940	3989.6	3661.8	-8.2	-327.8
	1941	4266.5	3266.2	-23.4	-1000.3
	1942	4494.2	4018.3	-10.6	-475.9
	1943	2632.4	2464.3	-6.4	-168.1
	1944	3996.6	2655.7	-33.6	-1340.9
	1945	2063.1	2072.6	.5	9.5
	1946	2103.7	1937.8	-7.9	-165.9
	1947	1295.2	1000.0	-22.8	-295.2
	1948	3214.9	3160.7	-1.7	-54.2
	1949	2505.1	2334.4	-6.8	-170.7
	1950	3011.3	2755.2	-8.5	-256.1
	1951	3354.5	3175.4	-5.3	-179.1
	1952	4913.2	4441.1	-9.6	-472.1
	1953	4523.4	4052.4	-10.4	-471.0
	1954	3530.2	3753.3	6.3	223.1
	1955	3398.2	2193.3	-35.5	-1204.9
	1956	4460.0	3987.4	-10.6	-472.6
	1957	1720.7	1551.0	-9.9	-169.7
	1958	4556.0	4099.6	-10.0	-456.4
	1959	2542.2	1438.5	-43.4	-1103.7
	1960	3318.6	3157.4	-4.9	-161.2
	1961	1506.2	750.0	-50.2	-756.2
	1962	4634.7	3741.8	-19.3	-892.9
	1963	4095.7	2848.7	-30.4	-1247.0
	1964	3466.3	3173.3	-8.5	-293.0
	1965	2000.0	1750.0	-12.5	-250.0
	1966	2991.9	1971.9	-34.1	-1020.0
	1967	4536.4	4062.2	-10.5	-474.2
	1968	1250.0	1000.0	-20.0	-250.0
	1969	4344.5	3886.5	-10.5	-458.0
	1970	4112.5	3798.6	-7.6	-313.9
	1971	4281.1	3808.5	-11.0	-472.6
	1972	4396.1	3160.5	-28.1	-1235.6
	1973	1697.2	1903.3	12.1	206.1
	1974	4541.3	4068.7	-10.4	-472.6
	1975	4323.4	3868.6	-10.5	-454.8
	1976	1496.9	1221.5	-18.4	-275.4
	1977	396.2	384.8	-2.9	-11.4
	1978	1750.0	1750.0	.0	.0
	1979	2311.3	2345.2	1.5	33.9
	1980	2538.0	2033.1	-19.9	-504.9
	1981	1769.9	1357.4	-23.3	-412.5
	1982	4526.7	4052.4	-10.5	-474.3
	1983	4919.7	4805.4	-2.3	-114.3
	1984	1500.0	1500.0	.0	.0
	1985	3291.7	2823.4	-14.2	-468.3
	1986	3859.6	3691.4	-4.4	-168.2
	1987	1678.9	1757.8	4.7	78.9
	1988	898.4	645.8	-28.1	-252.6
	1989	3655.9	3114.2	-14.8	-541.7
	1990	2210.9	1746.8	-21.0	-464.1
	1991	1529.5	754.7	-50.7	-774.8
	Mean	2817.1	2459.9	-11.4	-357.1
	Median	3001.6	2560.0	-10.4	-294.1
	Min	389.7	384.8	-50.7	-1340.9
	Max	4919.7	4805.4	17.9	503.7
X <	4000.0	52	62		
X <	4500.0	62	69		
X <	5000.0	70	70		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	3927.9	3535.2	-10.0	-392.7
1923	2000.0	2250.0	12.5	250.0
1924	1000.0	1000.0	.0	.0
1925	1779.4	1500.0	-15.7	-279.4
1926	1500.0	1250.0	-16.7	-250.0
1927	4087.5	3662.9	-10.4	-424.6
1928	1500.0	1500.0	.0	.0
1929	1250.0	1000.0	-20.0	-250.0
1930	1500.0	1500.0	.0	.0
1931	1000.0	750.0	-25.0	-250.0
1932	3960.5	2500.0	-36.9	-1460.5
1933	1500.0	1250.0	-16.7	-250.0
1934	1000.0	750.0	-25.0	-250.0
1935	2915.4	2742.2	-5.9	-173.2
1936	4028.2	3722.9	-7.6	-305.3
1937	4022.0	3493.9	-13.1	-528.1
1938	4211.9	3805.8	-9.6	-406.1
1939	1250.0	1250.0	.0	.0
1940	1727.1	1500.0	-13.1	-227.1
1941	4159.8	3755.3	-9.7	-404.5
1942	4193.4	3789.0	-9.6	-404.4
1943	2250.0	1750.0	-22.2	-500.0
1944	1911.8	1750.0	-8.5	-161.8
1945	2469.5	2237.8	-9.4	-231.7
1946	2978.3	2752.9	-7.6	-225.4
1947	2148.1	1500.0	-30.2	-648.1
1948	2872.5	2474.1	-13.9	-398.4
1949	2061.9	1801.8	-12.6	-260.1
1950	2596.5	2500.0	-3.7	-96.5
1951	1816.7	1670.1	-8.1	-146.6
1952	4412.5	3990.6	-9.6	-421.9
1953	4158.1	3757.0	-9.6	-401.1
1954	2202.9	1500.0	-31.9	-702.9
1955	1534.6	1500.0	-2.3	-34.6
1956	4126.2	3723.4	-9.8	-402.8
1957	2250.0	2000.0	-11.1	-250.0
1958	4223.7	3822.6	-9.5	-401.1
1959	1250.0	1500.0	20.0	250.0
1960	2076.0	1796.3	-13.5	-279.7
1961	1500.0	1250.0	-16.7	-250.0
1962	1500.0	1500.0	.0	.0
1963	4153.1	3750.3	-9.7	-402.8
1964	1628.1	1349.8	-17.1	-278.3
1965	3950.9	2500.0	-36.7	-1450.9
1966	1504.1	1500.0	-.3	-4.1
1967	4438.8	4069.6	-8.3	-369.2
1968	2194.9	1970.2	-10.2	-224.7
1969	4173.2	3787.3	-9.2	-385.9
1970	1500.0	1500.0	.0	.0
1971	3990.1	3605.8	-9.6	-384.3
1972	1500.0	1563.1	4.2	63.1
1973	2000.0	1750.0	-12.5	-250.0
1974	4292.6	3891.5	-9.3	-401.1
1975	4084.2	3668.0	-10.2	-416.2
1976	500.0	500.0	.0	.0
1977	454.1	444.0	-2.2	-10.1
1978	3072.7	2250.0	-26.8	-822.7
1979	2036.0	1807.0	-11.2	-229.0
1980	4084.2	3698.2	-9.5	-386.0
1981	1545.9	1500.0	-3.0	-45.9
1982	4578.3	4207.4	-8.1	-370.9
1983	4920.7	4826.7	-1.9	-94.0
1984	2000.0	2000.0	.0	.0
1985	1250.0	1250.0	.0	.0
1986	1750.0	1500.0	-14.3	-250.0
1987	1356.8	1400.5	3.2	43.7
1988	750.0	750.0	.0	.0
1989	1250.0	1500.0	20.0	250.0
1990	750.0	750.0	.0	.0
1991	1000.0	1000.0	.0	.0
Mean	2479.4	2222.5	-8.9	-257.0
Median	2048.9	1773.2	-9.6	-250.0
Min	454.1	444.0	-36.9	-1460.5
Max	4920.7	4826.7	20.0	250.0
X < 4000.0	52	67		
X < 4500.0	68	69		
X < 5000.0	70	70		
X < .0	0	0		
X < .0	0	0		

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.4 Recreation and Fisheries

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2500.0	2500.0	.0	.0
1923	2500.0	2500.0	.0	.0
1924	2500.0	2500.0	.0	.0
1925	1250.0	1000.0	-20.0	-250.0
1926	2500.0	2250.0	-10.0	-250.0
1927	1750.0	1750.0	.0	.0
1928	2500.0	2500.0	.0	.0
1929	2000.0	1750.0	-12.5	-250.0
1930	1750.0	1500.0	-14.3	-250.0
1931	2250.0	2000.0	-11.1	-250.0
1932	1250.0	1250.0	.0	.0
1933	2500.0	2500.0	.0	.0
1934	1750.0	1500.0	-14.3	-250.0
1935	1250.0	750.0	-40.0	-500.0
1936	2500.0	2500.0	.0	.0
1937	2500.0	2500.0	.0	.0
1938	2500.0	2500.0	.0	.0
1939	2500.0	2500.0	.0	.0
1940	1750.0	1500.0	-14.3	-250.0
1941	2000.0	1750.0	-12.5	-250.0
1942	2500.0	2500.0	.0	.0
1943	2500.0	2500.0	.0	.0
1944	2500.0	2500.0	.0	.0
1945	1500.0	1500.0	.0	.0
1946	2500.0	2000.0	-20.0	-500.0
1947	2250.0	2000.0	-11.1	-250.0
1948	1750.0	1750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	2500.0	2500.0	.0	.0
1951	2500.0	2500.0	.0	.0
1952	2250.0	2000.0	-11.1	-250.0
1953	2500.0	2500.0	.0	.0
1954	2500.0	2500.0	.0	.0
1955	2000.0	2000.0	.0	.0
1956	1750.0	1750.0	.0	.0
1957	2500.0	2500.0	.0	.0
1958	2500.0	2500.0	.0	.0
1959	2500.0	2500.0	.0	.0
1960	1750.0	1750.0	.0	.0
1961	1750.0	1750.0	.0	.0
1962	1750.0	1750.0	.0	.0
1963	2155.5	2115.3	-1.9	-40.2
1964	2500.0	2500.0	.0	.0
1965	1750.0	1750.0	.0	.0
1966	2500.0	2500.0	.0	.0
1967	1750.0	1750.0	.0	.0
1968	2500.0	2500.0	.0	.0
1969	2250.0	1750.0	-22.2	-500.0
1970	2500.0	2500.0	.0	.0
1971	2000.0	2000.0	.0	.0
1972	2500.0	2500.0	.0	.0
1973	1750.0	1750.0	.0	.0
1974	2500.0	2500.0	.0	.0
1975	2500.0	2500.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	524.6	555.5	5.9	30.9
1978	521.4	516.5	-.9	-4.9
1979	2500.0	2500.0	.0	.0
1980	2500.0	2000.0	-20.0	-500.0
1981	2500.0	2500.0	.0	.0
1982	1750.0	1750.0	.0	.0
1983	3387.7	3173.4	-6.3	-214.3
1984	3545.6	2509.0	-29.2	-1036.6
1985	2500.0	2500.0	.0	.0
1986	1750.0	1500.0	-14.3	-250.0
1987	2500.0	2250.0	-10.0	-250.0
1988	1617.9	1442.7	-10.8	-175.2
1989	1000.0	750.0	-25.0	-250.0
1990	1750.0	1750.0	.0	.0
1991	1000.0	750.0	-25.0	-250.0
Mean	2139.3	2040.2	-5.0	-99.1
Median	2500.0	2182.6	.0	.0
Min	521.4	516.5	-40.0	-1036.6
Max	3545.6	3173.4	5.9	30.9
X > 6000.0	0	0		
X < 3000.0	68	69		
X < 2000.0	24	27		
X < 1750.0	9	13		
X < 1500.0	7	8		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2250.0	-10.0	-250.0
	1927	1750.0	1750.0	.0	.0
	1928	2875.8	2500.0	-13.1	-375.8
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	2000.0	-11.1	-250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1500.0	-14.3	-250.0
	1935	1250.0	750.0	-40.0	-500.0
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	1750.0	-12.5	-250.0
	1942	2500.0	2500.0	.0	.0
	1943	3699.3	3396.1	-8.2	-303.2
	1944	2500.0	2500.0	.0	.0
	1945	1500.0	1500.0	.0	.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2500.0	.0	.0
	1951	16968.6	16083.7	-5.2	-884.9
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2500.0	.0	.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	1750.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3138.8	3022.9	-3.7	-115.9
	1964	4151.3	3866.4	-6.9	-284.9
	1965	1750.0	1750.0	.0	.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	6087.9	4829.5	-20.7	-1258.4
	1975	2500.0	2500.0	.0	.0
	1976	3028.0	2699.5	-10.8	-328.5
	1977	516.2	543.0	5.2	26.8
	1978	500.0	500.0	.0	.0
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	2000.0	-20.0	-500.0
	1981	2500.0	2500.0	.0	.0
	1982	4649.4	4208.9	-9.5	-440.5
	1983	6809.2	6710.3	-1.5	-98.9
	1984	14312.9	14353.5	.3	40.6
	1985	3113.9	2500.0	-19.7	-613.9
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1294.3	1154.1	-10.8	-140.2
	1989	1000.0	750.0	-25.0	-250.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	750.0	-25.0	-250.0
	Mean	2712.8	2566.0	-5.9	-146.8
	Median	2500.0	2375.0	.0	.0
	Min	500.0	500.0	-40.0	-1258.4
	Max	16968.6	16083.7	5.2	40.6
X >	6000.0	4	3		
X <	3000.0	60	62		
X <	2000.0	23	26		
X <	1750.0	9	13		
X <	1500.0	8	8		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	6439.4	6042.1	-6.2	-397.3
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2250.0	-10.0	-250.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	2000.0	-11.1	-250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1500.0	-14.3	-250.0
	1935	1250.0	750.0	-40.0	-500.0
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	6197.2	5797.5	-6.4	-399.7
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	1750.0	-12.5	-250.0
	1942	4941.6	4487.5	-9.2	-454.1
	1943	4771.1	4644.5	-2.7	-126.6
	1944	2500.0	2500.0	.0	.0
	1945	1500.0	1500.0	.0	.0
	1946	7851.5	7450.2	-5.1	-401.3
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2500.0	.0	.0
	1951	16431.8	16297.0	-.8	-134.8
	1952	4213.0	3533.3	-16.1	-679.7
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	14566.6	14324.1	-1.7	-242.5
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2500.0	.0	.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	1750.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3476.5	3414.7	-1.8	-61.8
	1964	3321.0	3093.1	-6.9	-227.9
	1965	19334.4	19049.3	-1.5	-285.1
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	5316.9	4871.0	-8.4	-445.9
	1971	4901.6	4363.3	-11.0	-538.3
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	7527.8	7406.0	-1.6	-121.8
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	638.2	644.7	1.0	6.5
	1978	574.8	540.7	-5.9	-34.1
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	2000.0	-20.0	-500.0
	1981	2500.0	2500.0	.0	.0
	1982	14208.7	14210.6	.0	1.9
	1983	9173.6	9016.1	-1.7	-157.5
	1984	15350.2	15132.5	-1.4	-217.7
	1985	2556.0	2500.0	-2.2	-56.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1250.0	923.3	-26.1	-326.7
	1989	1000.0	750.0	-25.0	-250.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	750.0	-25.0	-250.0
	Mean	3664.9	3521.3	-5.6	-143.6
	Median	2500.0	2500.0	-.4	-17.0
	Min	574.8	540.7	-40.0	-679.7
	Max	19334.4	19049.3	1.0	6.5
X >	6000.0	10	9		
X <	3000.0	53	53		
X <	2000.0	21	24		
X <	1750.0	9	13		
X <	1500.0	8	8		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2000.0	2000.0	.0	.0
1923	4580.8	4424.9	-3.4	-155.9
1924	2000.0	2000.0	.0	.0
1925	1750.0	1750.0	.0	.0
1926	2000.0	1800.0	-10.0	-200.0
1927	3164.1	2562.6	-19.0	-601.5
1928	2500.0	2500.0	.0	.0
1929	1600.0	1400.0	-12.5	-200.0
1930	1750.0	1750.0	.0	.0
1931	1800.0	1600.0	-11.1	-200.0
1932	2000.0	1750.0	-12.5	-250.0
1933	2000.0	2000.0	.0	.0
1934	2000.0	1750.0	-12.5	-250.0
1935	1750.0	2000.0	14.3	250.0
1936	4350.9	3803.9	-12.6	-547.0
1937	2000.0	2000.0	.0	.0
1938	2883.0	2739.9	-5.0	-143.1
1939	2250.0	2000.0	-11.1	-250.0
1940	2494.4	2128.3	-14.7	-366.1
1941	5538.3	5205.2	-6.0	-333.1
1942	9376.9	9209.6	-1.8	-167.3
1943	10957.7	10792.1	-1.5	-165.6
1944	2000.0	2000.0	.0	.0
1945	2000.0	2250.0	12.5	250.0
1946	5270.4	5106.3	-3.1	-164.1
1947	2250.0	2000.0	-11.1	-250.0
1948	1750.0	1750.0	.0	.0
1949	2000.0	2000.0	.0	.0
1950	2000.0	2000.0	.0	.0
1951	10172.8	10024.9	-1.5	-147.9
1952	9038.6	8889.3	-1.7	-149.3
1953	6806.0	6217.4	-8.6	-588.6
1954	2250.0	2250.0	.0	.0
1955	2000.0	1750.0	-12.5	-250.0
1956	16384.9	16313.5	-.4	-71.4
1957	2250.0	2250.0	.0	.0
1958	2250.0	2000.0	-11.1	-250.0
1959	2250.0	2000.0	-11.1	-250.0
1960	1400.0	1400.0	.0	.0
1961	1500.0	1400.0	-6.7	-100.0
1962	1400.0	1400.0	.0	.0
1963	3961.2	3842.5	-3.0	-118.7
1964	2656.8	2500.0	-5.9	-156.8
1965	13252.0	13180.5	-.5	-71.5
1966	2500.0	2500.0	.0	.0
1967	6737.8	6130.9	-9.0	-606.9
1968	2500.0	2500.0	.0	.0
1969	14755.2	14313.8	-3.0	-441.4
1970	21000.4	20839.7	-.8	-160.7
1971	4798.8	4699.6	-2.1	-99.2
1972	2500.0	2500.0	.0	.0
1973	8920.5	8524.8	-4.4	-395.7
1974	11390.4	11276.8	-1.0	-113.6
1975	2250.0	2250.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	510.6	515.7	1.0	5.1
1978	3351.3	3309.9	-1.2	-41.4
1979	2250.0	2000.0	-11.1	-250.0
1980	14953.9	15407.5	3.0	453.6
1981	2250.0	2000.0	-11.1	-250.0
1982	8291.7	8160.2	-1.6	-131.5
1983	7631.9	7482.5	-2.0	-149.4
1984	6644.9	6513.4	-2.0	-131.5
1985	2500.0	2500.0	.0	.0
1986	2214.7	2506.9	13.2	292.2
1987	2000.0	1800.0	-10.0	-200.0
1988	1000.0	738.7	-26.1	-261.3
1989	2000.0	2000.0	.0	.0
1990	1750.0	1500.0	-14.3	-250.0
1991	800.0	600.0	-25.0	-200.0
Mean	4337.0	4210.9	-4.2	-126.1
Median	2250.0	2250.0	-1.7	-131.5
Min	510.6	515.7	-26.1	-606.9
Max	21000.4	20839.7	14.3	453.6

X >	6000.0	16	16
X <	3000.0	46	47
X <	2000.0	13	17
X <	1750.0	7	9
X <	1500.0	5	7

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	3299.3	2483.4	-24.7	-815.9
	1923	3547.7	3376.9	-4.8	-170.8
	1924	1600.0	1600.0	.0	.0
	1925	3646.8	3925.8	7.7	279.0
	1926	1600.0	1440.0	-10.0	-160.0
	1927	13432.9	13364.6	-.5	-68.3
	1928	2000.0	2000.0	.0	.0
	1929	1280.0	1250.0	-2.3	-30.0
	1930	2000.0	2000.0	.0	.0
	1931	1440.0	1280.0	-11.1	-160.0
	1932	2278.2	2109.6	-7.4	-168.6
	1933	1750.0	1600.0	-8.6	-150.0
	1934	2000.0	2000.0	.0	.0
	1935	2000.0	2000.0	.0	.0
	1936	13433.0	13289.1	-1.1	-143.9
	1937	2000.0	1750.0	-12.5	-250.0
	1938	9824.8	9668.1	-1.6	-156.7
	1939	2000.0	2000.0	.0	.0
	1940	10595.2	10481.8	-1.1	-113.4
	1941	8043.8	7876.6	-2.1	-167.2
	1942	10042.6	9859.2	-1.8	-183.4
	1943	6947.5	6782.1	-2.4	-165.4
	1944	1750.0	1600.0	-8.6	-150.0
	1945	6184.7	6131.8	-.9	-52.9
	1946	2764.6	2617.1	-5.3	-147.5
	1947	2000.0	1750.0	-12.5	-250.0
	1948	2000.0	1750.0	-12.5	-250.0
	1949	2000.0	1600.0	-20.0	-400.0
	1950	4142.0	2575.0	-37.8	-1567.0
	1951	8208.4	8062.7	-1.8	-145.7
	1952	9586.9	9423.3	-1.7	-163.6
	1953	2328.7	2150.7	-7.6	-178.0
	1954	2052.3	2000.0	-2.5	-52.3
	1955	2000.0	2000.0	.0	.0
	1956	6239.2	6142.0	-1.6	-97.2
	1957	2000.0	2000.0	.0	.0
	1958	9139.8	7696.8	-15.8	-1443.0
	1959	2000.0	2000.0	.0	.0
	1960	1250.0	1120.0	-10.4	-130.0
	1961	1250.0	1120.0	-10.4	-130.0
	1962	1259.4	1250.0	-.7	-9.4
	1963	12081.0	11949.6	-1.1	-131.4
	1964	2125.4	2000.0	-5.9	-125.4
	1965	5501.4	5420.5	-1.5	-80.9
	1966	2000.0	2000.0	.0	.0
	1967	4473.3	4341.9	-2.9	-131.4
	1968	5766.3	4915.7	-14.8	-850.6
	1969	9286.5	9192.9	-1.0	-93.6
	1970	6352.2	6244.3	-1.7	-107.9
	1971	3436.1	3308.2	-3.7	-127.9
	1972	2239.2	2000.0	-10.7	-239.2
	1973	7194.1	7086.0	-1.5	-108.1
	1974	4409.4	4065.9	-7.8	-343.5
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	500.0	500.0	.0	.0
	1978	4754.0	4624.4	-2.7	-129.6
	1979	2000.0	2000.0	.0	.0
	1980	14140.1	13581.0	-4.0	-559.1
	1981	2000.0	2000.0	.0	.0
	1982	15555.5	15321.5	-1.5	-234.0
	1983	12410.4	12264.9	-1.2	-145.5
	1984	5698.0	5572.2	-2.2	-125.8
	1985	2000.0	2000.0	.0	.0
	1986	33196.4	33122.7	-.2	-73.7
	1987	1600.0	1440.0	-10.0	-160.0
	1988	2000.0	2000.0	.0	.0
	1989	1750.0	2000.0	14.3	250.0
	1990	1750.0	1750.0	.0	.0
	1991	640.0	500.0	-21.9	-140.0
	Mean	4882.5	4719.0	-4.5	-163.6
	Median	2182.3	2000.0	-1.7	-128.8
	Min	500.0	500.0	-37.8	-1567.0
	Max	33196.4	33122.7	14.3	279.0
X >	6000.0	20	20		
X <	3000.0	39	41		
X <	2000.0	14	17		
X <	1750.0	10	13		
X <	1500.0	7	9		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	2838.2	2750.0	-3.1	-88.2
	1924	1280.0	1280.0	.0	.0
	1925	3251.2	3174.0	-2.4	-77.2
	1926	2000.0	1750.0	-12.5	-250.0
	1927	4600.3	4399.1	-4.4	-201.2
	1928	12207.3	11673.0	-4.4	-534.3
	1929	1500.0	1500.0	.0	.0
	1930	2000.0	2000.0	.0	.0
	1931	1152.0	1024.0	-11.1	-128.0
	1932	2750.0	2750.0	.0	.0
	1933	2000.0	1750.0	-12.5	-250.0
	1934	1600.0	1600.0	.0	.0
	1935	3250.0	3250.0	.0	.0
	1936	4222.1	4065.0	-3.7	-157.1
	1937	4381.7	3727.2	-14.9	-654.5
	1938	10863.5	10681.7	-1.7	-181.8
	1939	1600.0	1600.0	.0	.0
	1940	10956.2	10642.6	-2.9	-313.6
	1941	4870.0	4686.5	-3.8	-183.5
	1942	4500.0	4500.0	.0	.0
	1943	12491.8	12327.9	-1.3	-163.9
	1944	2250.0	2000.0	-11.1	-250.0
	1945	2750.0	2750.0	.0	.0
	1946	2808.5	2750.0	-2.1	-58.5
	1947	2000.0	1750.0	-12.5	-250.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	3313.6	3000.0	-9.5	-313.6
	1951	3802.0	3652.6	-3.9	-149.4
	1952	6187.3	6023.4	-2.6	-163.9
	1953	3000.0	3000.0	.0	.0
	1954	4435.8	3673.5	-17.2	-762.3
	1955	2000.0	2000.0	.0	.0
	1956	3500.0	3500.0	.0	.0
	1957	4181.0	3300.5	-21.1	-880.5
	1958	6699.9	6537.5	-2.4	-162.4
	1959	1750.0	1750.0	.0	.0
	1960	2626.1	2250.0	-14.3	-376.1
	1961	1250.0	1000.0	-20.0	-250.0
	1962	2500.0	2500.0	.0	.0
	1963	3500.0	3500.0	.0	.0
	1964	2000.0	2000.0	.0	.0
	1965	3000.0	3000.0	.0	.0
	1966	2000.0	2000.0	.0	.0
	1967	5978.1	5749.1	-3.8	-229.0
	1968	2170.7	3932.5	81.2	1761.8
	1969	4500.0	4500.0	.0	.0
	1970	2500.0	2268.6	-9.3	-231.4
	1971	4087.9	3941.8	-3.6	-146.1
	1972	4239.0	3542.9	-16.4	-696.1
	1973	3424.6	3229.7	-5.7	-194.9
	1974	9627.4	9531.6	-1.0	-95.8
	1975	4432.8	3579.8	-19.2	-853.0
	1976	1600.0	1600.0	.0	.0
	1977	400.0	400.0	.0	.0
	1978	5512.7	5556.6	.8	43.9
	1979	3151.4	2500.0	-20.7	-651.4
	1980	3509.6	3230.7	-7.9	-278.9
	1981	1750.0	1600.0	-8.6	-150.0
	1982	7605.1	7506.0	-1.3	-99.1
	1983	16237.2	16107.4	-.8	-129.8
	1984	2750.0	2515.2	-8.5	-234.8
	1985	2250.0	2000.0	-11.1	-250.0
	1986	11231.6	11023.8	-1.9	-207.8
	1987	1280.0	1152.0	-10.0	-128.0
	1988	1600.0	1600.0	.0	.0
	1989	6394.2	6018.3	-5.9	-375.9
	1990	1500.0	1500.0	.0	.0
	1991	2000.0	2000.0	.0	.0
	Mean	3990.7	3848.6	-3.6	-142.1
	Median	3000.0	3000.0	-2.0	-128.0
	Min	400.0	400.0	-21.1	-880.5
	Max	16237.2	16107.4	81.2	1761.8
X >	6000.0	11	11		
X <	3000.0	34	34		
X <	2000.0	13	16		
X <	1750.0	11	12		
X <	1500.0	5	5		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	3251.2	3000.0	-7.7	-251.2
	1924	335.9	320.8	-4.5	-15.1
	1925	4138.4	3439.4	-16.9	-699.0
	1926	2000.0	2000.0	.0	.0
	1927	7967.2	7814.6	-1.9	-152.6
	1928	4914.2	4645.9	-5.5	-268.3
	1929	1500.0	1000.0	-33.3	-500.0
	1930	2250.0	2000.0	-11.1	-250.0
	1931	500.0	500.0	.0	.0
	1932	3000.0	2750.0	-8.3	-250.0
	1933	2000.0	1750.0	-12.5	-250.0
	1934	3232.0	2726.8	-15.6	-505.2
	1935	4411.1	4708.5	6.7	297.4
	1936	5894.3	5659.5	-4.0	-234.8
	1937	4469.5	4220.7	-5.6	-248.8
	1938	8020.7	7772.3	-3.1	-248.4
	1939	1250.0	750.0	-40.0	-500.0
	1940	6207.8	6073.4	-2.2	-134.4
	1941	3825.9	3626.3	-5.2	-199.6
	1942	4500.0	4500.0	.0	.0
	1943	5280.0	5048.4	-4.4	-231.6
	1944	2250.0	2000.0	-11.1	-250.0
	1945	2750.0	2750.0	.0	.0
	1946	4059.9	3650.7	-10.1	-409.2
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	5073.2	4967.2	-2.1	-106.0
	1951	3170.7	2905.5	-8.4	-265.2
	1952	9104.4	8844.3	-2.9	-260.1
	1953	3500.0	3250.0	-7.1	-250.0
	1954	4572.1	4407.4	-3.6	-164.7
	1955	2000.0	2000.0	.0	.0
	1956	4000.0	4000.0	.0	.0
	1957	2750.0	2750.0	.0	.0
	1958	10433.9	10224.2	-2.0	-209.7
	1959	2000.0	1750.0	-12.5	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	500.0	500.0	.0	.0
	1962	3825.7	3023.0	-21.0	-802.7
	1963	4666.0	4332.6	-7.1	-333.4
	1964	2000.0	2000.0	.0	.0
	1965	3803.4	3401.5	-10.6	-401.9
	1966	2000.0	2000.0	.0	.0
	1967	4500.0	4500.0	.0	.0
	1968	2000.0	2000.0	.0	.0
	1969	5973.2	5574.4	-6.7	-398.8
	1970	2500.0	2250.0	-10.0	-250.0
	1971	3500.0	3250.0	-7.1	-250.0
	1972	2500.0	2500.0	.0	.0
	1973	2750.0	2750.0	.0	.0
	1974	6280.5	6102.7	-2.8	-177.8
	1975	4000.0	4000.0	.0	.0
	1976	500.0	500.0	.0	.0
	1977	346.0	325.8	-5.8	-20.2
	1978	4703.6	4031.7	-14.3	-671.9
	1979	2750.0	2750.0	.0	.0
	1980	3000.0	2750.0	-8.3	-250.0
	1981	1750.0	1500.0	-14.3	-250.0
	1982	14373.5	14180.6	-1.3	-192.9
	1983	6684.4	6471.4	-3.2	-213.0
	1984	2750.0	2750.0	.0	.0
	1985	2250.0	2000.0	-11.1	-250.0
	1986	2750.0	2750.0	.0	.0
	1987	500.0	500.0	.0	.0
	1988	500.0	500.0	.0	.0
	1989	4623.6	4069.9	-12.0	-553.7
	1990	2726.0	1816.0	-33.4	-910.0
	1991	2000.0	2000.0	.0	.0
	Mean	3594.5	3412.7	-5.8	-181.9
	Median	3000.0	2750.0	-3.0	-185.4
	Min	335.9	320.8	-40.0	-910.0
	Max	14373.5	14180.6	6.7	297.4
X >	6000.0	8	8		
X <	3000.0	34	38		
X <	2000.0	10	13		
X <	1750.0	9	10		
X <	1500.0	8	9		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	9140.3	8375.6	-8.4	-764.7
	1923	5004.5	4655.8	-7.0	-348.7
	1924	353.9	352.3	-.5	-1.6
	1925	4680.6	4088.9	-12.6	-591.7
	1926	2500.0	2500.0	.0	.0
	1927	4957.4	4525.2	-8.7	-432.2
	1928	3000.0	3000.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	2750.0	2500.0	-9.1	-250.0
	1931	500.0	500.0	.0	.0
	1932	4000.0	3750.0	-6.3	-250.0
	1933	2500.0	2500.0	.0	.0
	1934	500.0	500.0	.0	.0
	1935	4992.9	4992.9	.0	.0
	1936	4250.0	4250.0	.0	.0
	1937	4650.0	4324.7	-7.0	-325.3
	1938	10029.9	9682.4	-3.5	-347.5
	1939	1750.0	1750.0	.0	.0
	1940	3750.0	3500.0	-6.7	-250.0
	1941	5533.1	5201.8	-6.0	-331.3
	1942	6303.1	5697.5	-9.6	-605.6
	1943	3750.0	3750.0	.0	.0
	1944	2750.0	2500.0	-9.1	-250.0
	1945	3750.0	3750.0	.0	.0
	1946	3770.1	3750.0	-.5	-20.1
	1947	2500.0	2500.0	.0	.0
	1948	3750.0	3750.0	.0	.0
	1949	3250.0	3000.0	-7.7	-250.0
	1950	4000.0	4000.0	.0	.0
	1951	3750.0	3500.0	-6.7	-250.0
	1952	11376.6	11032.2	-3.0	-344.4
	1953	4250.0	4250.0	.0	.0
	1954	3000.0	3000.0	.0	.0
	1955	2750.0	2500.0	-9.1	-250.0
	1956	4500.0	4500.0	.0	.0
	1957	3750.0	3500.0	-6.7	-250.0
	1958	10304.8	9963.7	-3.3	-341.1
	1959	2500.0	2250.0	-10.0	-250.0
	1960	2750.0	2750.0	.0	.0
	1961	1500.0	1500.0	.0	.0
	1962	3250.0	3250.0	.0	.0
	1963	7367.6	6958.3	-5.6	-409.3
	1964	2500.0	2500.0	.0	.0
	1965	4250.0	4000.0	-5.9	-250.0
	1966	2500.0	2500.0	.0	.0
	1967	8246.3	7698.1	-6.6	-548.2
	1968	2500.0	2500.0	.0	.0
	1969	9403.8	9028.6	-4.0	-375.2
	1970	3000.0	2750.0	-8.3	-250.0
	1971	4250.0	4250.0	.0	.0
	1972	3000.0	2750.0	-8.3	-250.0
	1973	4533.3	3921.9	-13.5	-611.4
	1974	5124.9	4733.4	-7.6	-391.5
	1975	4500.0	4500.0	.0	.0
	1976	1000.0	500.0	-50.0	-500.0
	1977	337.6	329.5	-2.4	-8.1
	1978	4508.5	4000.0	-11.3	-508.5
	1979	4167.7	3500.0	-16.0	-667.7
	1980	4000.0	4000.0	.0	.0
	1981	2250.0	2000.0	-11.1	-250.0
	1982	9423.3	9145.7	-2.9	-277.6
	1983	10683.7	10357.3	-3.1	-326.4
	1984	3750.0	3500.0	-6.7	-250.0
	1985	2750.0	2500.0	-9.1	-250.0
	1986	3750.0	3750.0	.0	.0
	1987	1500.0	750.0	-50.0	-750.0
	1988	500.0	500.0	.0	.0
	1989	3538.0	3000.0	-15.2	-538.0
	1990	1750.0	1500.0	-14.3	-250.0
	1991	2500.0	2500.0	.0	.0
	Mean	4027.6	3818.8	-5.8	-208.8
	Median	3750.0	3500.0	-3.4	-250.0
	Min	337.6	329.5	-50.0	-764.7
	Max	11376.6	11032.2	.0	.0
X >	6000.0	10	9		
X <	3000.0	25	27		
X <	2000.0	10	11		
X <	1750.0	8	9		
X <	1500.0	6	7		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	9160.4	8698.9	-5.0	-461.5
	1923	4770.6	4618.9	-3.2	-151.7
	1924	377.9	374.5	-.9	-3.4
	1925	6486.9	6486.9	.0	.0
	1926	1928.5	1500.0	-22.2	-428.5
	1927	5528.7	5119.3	-7.4	-409.4
	1928	5914.0	5296.2	-10.4	-617.8
	1929	2336.3	2381.8	1.9	45.5
	1930	2250.0	2000.0	-11.1	-250.0
	1931	1255.3	1184.6	-5.6	-70.7
	1932	5010.1	5041.9	.6	31.8
	1933	2546.1	2493.3	-2.1	-52.8
	1934	1806.6	1711.2	-5.3	-95.4
	1935	4131.4	3500.0	-15.3	-631.4
	1936	4645.9	3893.8	-16.2	-752.1
	1937	3500.0	3500.0	.0	.0
	1938	8792.4	8351.0	-5.0	-441.4
	1939	1000.0	512.2	-48.8	-487.8
	1940	3630.2	3442.0	-5.2	-188.2
	1941	3750.0	3500.0	-6.7	-250.0
	1942	7550.5	7093.9	-6.0	-456.6
	1943	3500.0	3500.0	.0	.0
	1944	2250.0	1750.0	-22.2	-500.0
	1945	6030.8	5840.7	-3.2	-190.1
	1946	6461.8	6301.0	-2.5	-160.8
	1947	1750.0	1500.0	-14.3	-250.0
	1948	3500.0	3250.0	-7.1	-250.0
	1949	3000.0	2500.0	-16.7	-500.0
	1950	4155.4	3750.0	-9.8	-405.4
	1951	3250.0	3250.0	.0	.0
	1952	10693.1	10238.3	-4.3	-454.8
	1953	4000.0	3750.0	-6.3	-250.0
	1954	2886.0	2500.0	-13.4	-386.0
	1955	2250.0	2000.0	-11.1	-250.0
	1956	5726.0	4552.8	-20.5	-1173.2
	1957	3986.7	3501.9	-12.2	-484.8
	1958	7918.5	7498.9	-5.3	-419.6
	1959	1500.0	1250.0	-16.7	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	750.0	508.8	-32.2	-241.2
	1962	3000.0	3000.0	.0	.0
	1963	3500.0	3500.0	.0	.0
	1964	2250.0	2000.0	-11.1	-250.0
	1965	3750.0	3750.0	.0	.0
	1966	2000.0	1500.0	-25.0	-500.0
	1967	10609.1	10219.8	-3.7	-389.3
	1968	2250.0	1500.0	-33.3	-750.0
	1969	6794.2	6389.8	-6.0	-404.4
	1970	3420.1	3322.6	-2.9	-97.5
	1971	4071.1	3750.0	-7.9	-321.1
	1972	4604.0	4448.6	-3.4	-155.4
	1973	5752.3	5449.0	-5.3	-303.3
	1974	4443.1	4006.8	-9.8	-436.3
	1975	5954.3	4908.3	-17.6	-1046.0
	1976	2022.0	2116.1	4.7	94.1
	1977	386.3	376.2	-2.6	-10.1
	1978	4661.6	3750.0	-19.6	-911.6
	1979	6486.9	6486.9	.0	.0
	1980	3750.0	3500.0	-6.7	-250.0
	1981	1500.0	1000.0	-33.3	-500.0
	1982	6448.0	5991.5	-7.1	-456.5
	1983	14729.8	14274.9	-3.1	-454.9
	1984	4892.4	4727.0	-3.4	-165.4
	1985	2986.2	2582.1	-13.5	-404.1
	1986	3500.0	3250.0	-7.1	-250.0
	1987	500.0	500.0	.0	.0
	1988	1646.8	1729.1	5.0	82.3
	1989	4069.9	3864.9	-5.0	-205.0
	1990	1824.0	1737.2	-4.8	-86.8
	1991	3041.6	3130.2	2.9	88.6
	Mean	4101.1	3816.5	-8.4	-284.6
	Median	3565.1	3500.0	-5.4	-250.0
	Min	377.9	374.5	-48.8	-1173.2
	Max	14729.8	14274.9	5.0	94.1
X >	6000.0	13	11		
X <	3000.0	25	26		
X <	2000.0	13	16		
X <	1750.0	9	15		
X <	1500.0	6	8		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4236.9	3260.3	-23.0	-976.6
	1923	5838.6	3888.3	-33.4	-1950.3
	1924	727.0	586.4	-19.3	-140.6
	1925	4211.4	3808.3	-9.6	-403.1
	1926	2639.6	2224.1	-15.7	-415.5
	1927	3094.9	2939.8	-5.0	-155.1
	1928	1500.0	1500.0	.0	.0
	1929	1663.7	1376.9	-17.2	-286.8
	1930	2878.7	2415.4	-16.1	-463.3
	1931	1928.2	1849.5	-4.1	-78.7
	1932	3177.2	3221.0	1.4	43.8
	1933	2240.6	1969.6	-12.1	-271.0
	1934	1507.7	1329.8	-11.8	-177.9
	1935	5066.6	3548.4	-30.0	-1518.2
	1936	4129.1	2662.2	-35.5	-1466.9
	1937	2608.9	2377.8	-8.9	-231.1
	1938	3748.1	3286.8	-12.3	-461.3
	1939	1967.3	1870.6	-4.9	-96.7
	1940	6056.4	5303.8	-12.4	-752.6
	1941	2369.7	2250.0	-5.1	-119.7
	1942	3731.8	3255.9	-12.8	-475.9
	1943	5747.2	5312.2	-7.6	-435.0
	1944	2314.8	1288.5	-44.3	-1026.3
	1945	4359.7	3267.6	-25.0	-1092.1
	1946	3854.3	3144.4	-18.4	-709.9
	1947	1978.2	1339.4	-32.3	-638.8
	1948	3864.0	2566.2	-33.6	-1297.8
	1949	3270.8	1921.0	-41.3	-1349.8
	1950	5381.5	4644.3	-13.7	-737.2
	1951	5978.6	5229.3	-12.5	-749.3
	1952	4852.4	4394.4	-9.4	-458.0
	1953	3363.0	2295.7	-31.7	-1067.3
	1954	3393.9	3092.4	-8.9	-301.5
	1955	1811.3	1500.0	-17.2	-311.3
	1956	3404.9	2930.7	-13.9	-474.2
	1957	4856.0	4633.2	-4.6	-222.8
	1958	3387.0	2930.7	-13.5	-456.3
	1959	750.0	503.7	-32.8	-246.3
	1960	2950.8	1929.1	-34.6	-1021.7
	1961	500.0	513.5	2.7	13.5
	1962	5401.2	4600.7	-14.8	-800.5
	1963	2351.7	2250.0	-4.3	-101.7
	1964	2347.3	1557.1	-33.7	-790.2
	1965	5645.6	5475.6	-3.0	-170.0
	1966	1500.0	750.0	-50.0	-750.0
	1967	4536.9	4080.5	-10.1	-456.4
	1968	1500.0	750.0	-50.0	-750.0
	1969	3191.9	2717.6	-14.9	-474.3
	1970	1961.2	1587.1	-19.1	-374.1
	1971	3208.1	2251.5	-29.8	-956.6
	1972	1500.0	1500.0	.0	.0
	1973	4209.3	3771.2	-10.4	-438.1
	1974	3648.9	3194.1	-12.5	-454.8
	1975	3136.6	2681.8	-14.5	-454.8
	1976	1562.8	1466.4	-6.2	-96.4
	1977	401.1	389.7	-2.8	-11.4
	1978	6325.7	5549.3	-12.3	-776.4
	1979	3048.4	1967.0	-35.5	-1081.4
	1980	3858.1	2907.9	-24.6	-950.2
	1981	500.0	511.8	2.4	11.8
	1982	3601.7	3127.4	-13.2	-474.3
	1983	6414.3	6043.5	-5.8	-370.8
	1984	4386.1	3880.6	-11.5	-505.5
	1985	2315.4	2035.2	-12.1	-280.2
	1986	5556.0	5421.6	-2.4	-134.4
	1987	1900.7	1195.7	-37.1	-705.0
	1988	1094.4	923.2	-15.6	-171.2
	1989	3765.7	3206.2	-14.9	-559.5
	1990	1447.3	1178.5	-18.6	-268.8
	1991	2436.4	2604.0	6.9	167.6
	Mean	3201.3	2684.8	-16.4	-516.5
	Median	3184.5	2585.1	-13.4	-455.5
	Min	401.1	389.7	-50.0	-1950.3
	Max	6414.3	6043.5	6.9	167.6
X >	6000.0	3	1		
X <	3000.0	31	43		
X <	2000.0	20	26		
X <	1750.0	14	20		
X <	1500.0	7	15		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2922.7	2937.8	.5	15.1
1923	2556.6	2687.1	5.1	130.5
1924	389.7	459.5	17.9	69.8
1925	3786.9	3263.5	-13.8	-523.4
1926	750.0	750.0	.0	.0
1927	3884.9	3098.9	-20.2	-786.0
1928	3282.1	2344.5	-28.6	-937.6
1929	392.9	451.5	14.9	58.6
1930	1000.0	1000.0	.0	.0
1931	399.4	459.6	15.1	60.2
1932	2338.0	1750.0	-25.1	-588.0
1933	750.0	464.5	-38.1	-285.5
1934	402.7	462.9	14.9	60.2
1935	3108.1	3042.8	-2.1	-65.3
1936	3115.5	3619.2	16.2	503.7
1937	2800.9	2000.0	-28.6	-800.9
1938	4414.5	3937.0	-10.8	-477.5
1939	500.0	513.5	2.7	13.5
1940	3989.6	3661.8	-8.2	-327.8
1941	4266.5	3266.2	-23.4	-1000.3
1942	4494.2	4018.3	-10.6	-475.9
1943	2632.4	2464.3	-6.4	-168.1
1944	3996.6	2655.7	-33.6	-1340.9
1945	2063.1	2072.6	.5	9.5
1946	2103.7	1937.8	-7.9	-165.9
1947	1295.2	1000.0	-22.8	-295.2
1948	3214.9	3160.7	-1.7	-54.2
1949	2505.1	2334.4	-6.8	-170.7
1950	3011.3	2755.2	-8.5	-256.1
1951	3354.5	3175.4	-5.3	-179.1
1952	4913.2	4441.1	-9.6	-472.1
1953	4523.4	4052.4	-10.4	-471.0
1954	3530.2	3753.3	6.3	223.1
1955	3398.2	2193.3	-35.5	-1204.9
1956	4460.0	3987.4	-10.6	-472.6
1957	1720.7	1551.0	-9.9	-169.7
1958	4556.0	4099.6	-10.0	-456.4
1959	2542.2	1438.5	-43.4	-1103.7
1960	3318.6	3157.4	-4.9	-161.2
1961	1506.2	750.0	-50.2	-756.2
1962	4634.7	3741.8	-19.3	-892.9
1963	4095.7	2848.7	-30.4	-1247.0
1964	3466.3	3173.3	-8.5	-293.0
1965	2000.0	1750.0	-12.5	-250.0
1966	2991.9	1971.9	-34.1	-1020.0
1967	4536.4	4062.2	-10.5	-474.2
1968	1250.0	1000.0	-20.0	-250.0
1969	4344.5	3886.5	-10.5	-458.0
1970	4112.5	3798.6	-7.6	-313.9
1971	4281.1	3808.5	-11.0	-472.6
1972	4396.1	3160.5	-28.1	-1235.6
1973	1697.2	1903.3	12.1	206.1
1974	4541.3	4068.7	-10.4	-472.6
1975	4323.4	3868.6	-10.5	-454.8
1976	1496.9	1221.5	-18.4	-275.4
1977	396.2	384.8	-2.9	-11.4
1978	1750.0	1750.0	.0	.0
1979	2311.3	2345.2	1.5	33.9
1980	2538.0	2033.1	-19.9	-504.9
1981	1769.9	1357.4	-23.3	-412.5
1982	4526.7	4052.4	-10.5	-474.3
1983	4919.7	4805.4	-2.3	-114.3
1984	1500.0	1500.0	.0	.0
1985	3291.7	2823.4	-14.2	-468.3
1986	3859.6	3691.4	-4.4	-168.2
1987	1678.9	1757.8	4.7	78.9
1988	898.4	645.8	-28.1	-252.6
1989	3655.9	3114.2	-14.8	-541.7
1990	2210.9	1746.8	-21.0	-464.1
1991	1529.5	754.7	-50.7	-774.8
Mean	2817.1	2459.9	-11.4	-357.1
Median	3001.6	2560.0	-10.4	-294.1
Min	389.7	384.8	-50.7	-1340.9
Max	4919.7	4805.4	17.9	503.7
X > 6000.0	0	0		
X < 3000.0	35	41		
X < 2000.0	21	27		
X < 1750.0	19	20		
X < 1500.0	13	17		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	3927.9	3535.2	-10.0	-392.7
	1923	2000.0	2250.0	12.5	250.0
	1924	1000.0	1000.0	.0	.0
	1925	1779.4	1500.0	-15.7	-279.4
	1926	1500.0	1250.0	-16.7	-250.0
	1927	4087.5	3662.9	-10.4	-424.6
	1928	1500.0	1500.0	.0	.0
	1929	1250.0	1000.0	-20.0	-250.0
	1930	1500.0	1500.0	.0	.0
	1931	1000.0	750.0	-25.0	-250.0
	1932	3960.5	2500.0	-36.9	-1460.5
	1933	1500.0	1250.0	-16.7	-250.0
	1934	1000.0	750.0	-25.0	-250.0
	1935	2915.4	2742.2	-5.9	-173.2
	1936	4028.2	3722.9	-7.6	-305.3
	1937	4022.0	3493.9	-13.1	-528.1
	1938	4211.9	3805.8	-9.6	-406.1
	1939	1250.0	1250.0	.0	.0
	1940	1727.1	1500.0	-13.1	-227.1
	1941	4159.8	3755.3	-9.7	-404.5
	1942	4193.4	3789.0	-9.6	-404.4
	1943	2250.0	1750.0	-22.2	-500.0
	1944	1911.8	1750.0	-8.5	-161.8
	1945	2469.5	2237.8	-9.4	-231.7
	1946	2978.3	2752.9	-7.6	-225.4
	1947	2148.1	1500.0	-30.2	-648.1
	1948	2872.5	2474.1	-13.9	-398.4
	1949	2061.9	1801.8	-12.6	-260.1
	1950	2596.5	2500.0	-3.7	-96.5
	1951	1816.7	1670.1	-8.1	-146.6
	1952	4412.5	3990.6	-9.6	-421.9
	1953	4158.1	3757.0	-9.6	-401.1
	1954	2202.9	1500.0	-31.9	-702.9
	1955	1534.6	1500.0	-2.3	-34.6
	1956	4126.2	3723.4	-9.8	-402.8
	1957	2250.0	2000.0	-11.1	-250.0
	1958	4223.7	3822.6	-9.5	-401.1
	1959	1250.0	1500.0	20.0	250.0
	1960	2076.0	1796.3	-13.5	-279.7
	1961	1500.0	1250.0	-16.7	-250.0
	1962	1500.0	1500.0	.0	.0
	1963	4153.1	3750.3	-9.7	-402.8
	1964	1628.1	1349.8	-17.1	-278.3
	1965	3950.9	2500.0	-36.7	-1450.9
	1966	1504.1	1500.0	-.3	-4.1
	1967	4438.8	4069.6	-8.3	-369.2
	1968	2194.9	1970.2	-10.2	-224.7
	1969	4173.2	3787.3	-9.2	-385.9
	1970	1500.0	1500.0	.0	.0
	1971	3990.1	3605.8	-9.6	-384.3
	1972	1500.0	1563.1	4.2	63.1
	1973	2000.0	1750.0	-12.5	-250.0
	1974	4292.6	3891.5	-9.3	-401.1
	1975	4084.2	3668.0	-10.2	-416.2
	1976	500.0	500.0	.0	.0
	1977	454.1	444.0	-2.2	-10.1
	1978	3072.7	2250.0	-26.8	-822.7
	1979	2036.0	1807.0	-11.2	-229.0
	1980	4084.2	3698.2	-9.5	-386.0
	1981	1545.9	1500.0	-3.0	-45.9
	1982	4578.3	4207.4	-8.1	-370.9
	1983	4920.7	4826.7	-1.9	-94.0
	1984	2000.0	2000.0	.0	.0
	1985	1250.0	1250.0	.0	.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	1356.8	1400.5	3.2	43.7
	1988	750.0	750.0	.0	.0
	1989	1250.0	1500.0	20.0	250.0
	1990	750.0	750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2479.4	2222.5	-8.9	-257.0
	Median	2048.9	1773.2	-9.6	-250.0
	Min	454.1	444.0	-36.9	-1460.5
	Max	4920.7	4826.7	20.0	250.0
X >	6000.0	0	0		
X <	3000.0	47	50		
X <	2000.0	31	39		
X <	1750.0	27	32		
X <	1500.0	14	16		

RETURN TO TABLE OF CONTENTS

Section 7

LOWER AMERICAN RIVER FLOW AT WATT AVENUE

LOWER AMERICAN RIVER FLOWS AT WATT AVE

October

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2436.3	2419.6	-.7	-16.7
	1923	2454.2	2437.5	-.7	-16.7
	1924	2433.1	2418.0	-.6	-15.1
	1925	1253.0	993.0	-20.8	-260.0
	1926	2431.5	2164.7	-11.0	-266.8
	1927	1722.1	1707.0	-.9	-15.1
	1928	2444.5	2431.0	-.6	-13.5
	1929	1924.9	1661.5	-13.7	-263.4
	1930	1681.5	1416.3	-15.8	-265.2
	1931	2179.8	1914.7	-12.2	-265.1
	1932	1192.8	1174.5	-1.5	-18.3
	1933	2421.7	2406.6	-.6	-15.1
	1934	1692.8	1426.1	-15.8	-266.7
	1935	1186.3	671.2	-43.4	-515.1
	1936	2452.6	2437.5	-.6	-15.1
	1937	2424.9	2411.5	-.6	-13.4
	1938	2441.2	2429.3	-.5	-11.9
	1939	2429.8	2421.2	-.4	-8.6
	1940	1702.6	1439.1	-15.5	-263.5
	1941	1947.7	1685.8	-13.4	-261.9
	1942	2457.5	2447.2	-.4	-10.3
	1943	2434.7	2424.5	-.4	-10.2
	1944	2426.6	2418.0	-.4	-8.6
	1945	1457.5	1447.2	-.7	-10.3
	1946	2472.1	1961.9	-20.6	-510.2
	1947	2176.6	1919.6	-11.8	-257.0
	1948	1715.6	1707.0	-.5	-8.6
	1949	2436.3	2424.5	-.5	-11.8
	1950	2426.6	2418.0	-.4	-8.6
	1951	2478.6	2470.0	-.3	-8.6
	1952	2222.1	1961.9	-11.7	-260.2
	1953	2426.6	2421.2	-.2	-5.4
	1954	2433.1	2427.7	-.2	-5.4
	1955	1929.8	1922.8	-.4	-7.0
	1956	1707.5	1697.2	-.6	-10.3
	1957	2449.3	2445.6	-.2	-3.7
	1958	2475.4	2465.1	-.4	-10.3
	1959	2428.2	2422.8	-.2	-5.4
	1960	1679.8	1671.2	-.5	-8.6
	1961	1678.2	1668.0	-.6	-10.2
	1962	1684.7	1672.8	-.7	-11.9
	1963	2241.4	2192.7	-2.2	-48.7
	1964	2447.7	2439.1	-.4	-8.6
	1965	1723.7	1711.9	-.7	-11.8
	1966	2421.7	2413.1	-.4	-8.6
	1967	1691.2	1679.3	-.7	-11.9
	1968	2421.7	2418.0	-.2	-3.7
	1969	2205.8	1694.0	-23.2	-511.8
	1970	2444.5	2437.5	-.3	-7.0
	1971	1955.8	1948.9	-.4	-6.9
	1972	2429.8	2424.5	-.2	-5.3
	1973	1723.7	1715.1	-.5	-8.6
	1974	2470.5	2463.5	-.3	-7.0
	1975	2452.6	2445.6	-.3	-7.0
	1976	2468.9	2465.1	-.2	-3.8
	1977	457.7	478.4	4.5	20.7
	1978	457.7	447.7	-2.2	-10.0
	1979	2434.7	2421.2	-.6	-13.5
	1980	2481.9	1970.0	-20.6	-511.9
	1981	2424.9	2414.7	-.4	-10.2
	1982	1741.6	1728.1	-.8	-13.5
	1983	3395.6	3171.1	-6.6	-224.5
	1984	3495.0	2451.4	-29.9	-1043.6
	1985	2464.0	2457.0	-.3	-7.0
	1986	1717.2	1455.4	-15.2	-261.8
	1987	2433.1	2176.1	-10.6	-257.0
	1988	1567.3	1380.2	-11.9	-187.1
	1989	938.0	674.5	-28.1	-263.5
	1990	1715.6	1702.1	-.8	-13.5
	1991	939.6	674.5	-28.2	-265.1
	Mean	2088.8	1979.0	-5.8	-109.7
	Median	2421.7	2170.4	-.6	-11.9
	Min	457.7	447.7	-43.4	-1043.6
	Max	3495.0	3171.1	4.5	20.7
X <	1500.0	8	13		
X <	1750.0	24	27		
X <	1765.0	24	27		
X <	2000.0	28	34		
X <	3000.0	68	69		
X >=	2500.0	2	1		
2500.0 > X >=	2000.0	40	35		
2000.0 > X >=	1750.0	4	7		
1750.0 > X >=	800.0	22	22		
800.0 > X		2	5		
X <	3450.0	69	70		
Mean of X >=	3450.0	3495.0	.0	-100.0	-3495.0

LOWER AMERICAN RIVER FLOWS AT WATT AVE

November

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2454.7	2448.1	-.3	-6.6
	1923	2508.5	2503.5	-.2	-5.0
	1924	2427.8	2424.5	-.1	-3.3
	1925	1199.7	939.7	-21.7	-260.0
	1926	2442.9	2186.3	-10.5	-256.6
	1927	1795.5	1790.5	-.3	-5.0
	1928	2842.3	2463.2	-13.3	-379.1
	1929	1968.2	1716.6	-12.8	-251.6
	1930	1669.4	1414.5	-15.3	-254.9
	1931	2192.9	1938.0	-11.6	-254.9
	1932	1209.8	1203.1	-.6	-6.7
	1933	2422.8	2417.8	-.2	-5.0
	1934	1661.0	1406.1	-15.3	-254.9
	1935	1246.7	740.1	-40.6	-506.6
	1936	2442.9	2438.0	-.2	-4.9
	1937	2419.4	2417.8	-.1	-1.6
	1938	2498.4	2495.1	-.1	-3.3
	1939	2426.1	2426.2	.0	.1
	1940	1674.5	1421.2	-15.1	-253.3
	1941	1968.2	1714.9	-12.9	-253.3
	1942	2466.5	2464.9	-.1	-1.6
	1943	3670.8	3369.3	-8.2	-301.5
	1944	2439.6	2441.3	.1	1.7
	1945	1496.7	1496.8	.0	.1
	1946	2464.8	1966.6	-20.2	-498.2
	1947	2218.2	1971.6	-11.1	-246.6
	1948	1696.3	1698.1	.1	1.8
	1949	2436.2	2438.0	.1	1.8
	1950	2439.6	2443.0	.1	3.4
	1951	16950.2	16073.8	-5.2	-876.4
	1952	2229.9	1980.0	-11.2	-249.9
	1953	2464.8	2469.9	.2	5.1
	1954	2459.8	2464.9	.2	5.1
	1955	1979.9	1983.4	.2	3.5
	1956	1721.5	1721.6	.0	.1
	1957	2424.5	2429.6	.2	5.1
	1958	2448.0	2449.8	.1	1.8
	1959	2429.5	2434.6	.2	5.1
	1960	1674.5	1674.5	.0	.0
	1961	1746.7	1748.5	.1	1.8
	1962	1723.2	1723.3	.0	.1
	1963	3081.8	2965.9	-3.8	-115.9
	1964	4156.4	3873.3	-6.8	-283.1
	1965	1746.7	1746.8	.0	.1
	1966	2485.0	2488.4	.1	3.4
	1967	1803.9	1803.9	.0	.0
	1968	2444.6	2449.8	.2	5.2
	1969	2253.4	1753.5	-22.2	-499.9
	1970	2449.7	2451.4	.1	1.7
	1971	2058.9	2062.3	.2	3.4
	1972	2444.6	2448.1	.1	3.5
	1973	1777.0	1780.4	.2	3.4
	1974	6131.7	4880.1	-20.4	-1251.6
	1975	2463.1	2464.9	.1	1.8
	1976	2962.6	2637.5	-11.0	-325.1
	1977	452.4	479.3	5.9	26.9
	1978	466.5	461.5	-1.1	-5.0
	1979	2493.4	2491.8	-.1	-1.6
	1980	2473.2	1971.6	-20.3	-501.6
	1981	2427.8	2426.2	-.1	-1.6
	1982	4718.4	4276.3	-9.4	-442.1
	1983	6861.4	6764.3	-1.4	-97.1
	1984	14373.4	14420.9	.3	47.5
	1985	3161.0	2550.6	-19.3	-610.4
	1986	1802.2	1552.3	-13.9	-249.9
	1987	2437.9	2191.3	-10.1	-246.6
	1988	1262.5	1122.4	-11.1	-140.1
	1989	971.5	718.2	-26.1	-253.3
	1990	1706.4	1703.1	-.2	-3.3
	1991	941.3	686.3	-27.1	-255.0
	Mean	2683.7	2536.7	-6.0	-147.0
	Median	2427.0	2304.6	-.2	-4.9
	Min	452.4	461.5	-40.6	-1251.6
	Max	16950.2	16073.8	5.9	47.5
X < 1500.0		9	12		
X < 1750.0		19	22		
X < 1765.0		19	23		
X < 2000.0		26	32		
X < 3000.0		61	63		
X >= 2500.0		12	11		
2500.0 > X >= 2000.0		32	27		
2000.0 > X >= 1750.0		7	10		
1750.0 > X >= 1200.0		14	15		
1200.0 > X		5	7		
X < 3450.0		63	64		
Mean of X >= 3450.0		8123.2	8381.5	3.2	258.3

LOWER AMERICAN RIVER FLOWS AT WATT AVE

December

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2538.8	2533.7	-.2	-5.1
	1923	6525.4	6121.4	-6.2	-404.0
	1924	2436.3	2431.2	-.2	-5.1
	1925	1266.0	1016.0	-19.7	-250.0
	1926	2457.5	2202.4	-10.4	-255.1
	1927	1704.2	1699.1	-.3	-5.1
	1928	2460.7	2457.2	-.1	-3.5
	1929	1968.9	1717.0	-12.8	-251.9
	1930	1756.3	1501.1	-14.5	-255.2
	1931	2171.7	1916.6	-11.7	-255.1
	1932	1321.3	1312.9	-.6	-8.4
	1933	2464.0	2458.9	-.2	-5.1
	1934	1767.6	1510.9	-14.5	-256.7
	1935	1215.6	710.5	-41.6	-505.1
	1936	2457.5	2452.4	-.2	-5.1
	1937	2480.2	2478.4	-.1	-1.8
	1938	6179.1	5779.1	-6.5	-400.0
	1939	2441.2	2441.0	.0	-.2
	1940	1694.5	1441.0	-15.0	-253.5
	1941	2089.2	1837.3	-12.1	-251.9
	1942	4998.3	4544.0	-9.1	-454.3
	1943	4766.0	4640.8	-2.6	-125.2
	1944	2462.4	2463.7	.1	1.3
	1945	1470.5	1468.6	-.1	-1.9
	1946	7864.3	7467.6	-5.0	-396.7
	1947	2218.9	1970.2	-11.2	-248.7
	1948	1688.0	1689.3	.1	1.3
	1949	2493.3	2493.0	.0	-.3
	1950	2452.6	2455.6	.1	3.0
	1951	16412.1	16285.1	-.8	-127.0
	1952	4243.7	3565.3	-16.0	-678.4
	1953	2551.8	2554.8	.1	3.0
	1954	2438.0	2442.6	.2	4.6
	1955	2009.5	2014.2	.2	4.7
	1956	14677.0	14437.5	-1.6	-239.5
	1957	2433.1	2436.1	.1	3.0
	1958	2494.9	2494.6	.0	-.3
	1959	2444.5	2449.1	.2	4.6
	1960	1699.3	1700.7	.1	1.4
	1961	1691.2	1692.6	.1	1.4
	1962	1720.5	1720.2	.0	-.3
	1963	3451.9	3389.9	-1.8	-62.0
	1964	3254.1	3026.0	-7.0	-228.1
	1965	19356.9	19076.5	-1.4	-280.4
	1966	2477.0	2478.4	.1	1.4
	1967	1754.6	1754.4	.0	-.2
	1968	2444.5	2447.5	.1	3.0
	1969	2251.4	1751.1	-22.2	-500.3
	1970	5344.3	4899.7	-8.3	-444.6
	1971	4911.2	4375.8	-10.9	-535.4
	1972	2506.3	2509.3	.1	3.0
	1973	1735.1	1736.5	.1	1.4
	1974	7535.7	7420.2	-1.5	-115.5
	1975	2496.5	2497.9	.1	1.4
	1976	2441.2	2444.2	.1	3.0
	1977	576.2	582.4	1.1	6.2
	1978	576.2	546.9	-5.1	-29.3
	1979	2451.0	2449.1	-.1	-1.9
	1980	2514.4	2012.5	-20.0	-501.9
	1981	2470.5	2470.2	.0	-.3
	1982	14227.9	14228.0	.0	.1
	1983	9181.5	9025.4	-1.7	-156.1
	1984	15390.6	15180.8	-1.4	-209.8
	1985	2523.3	2468.6	-2.2	-54.7
	1986	1751.4	1501.1	-14.3	-250.3
	1987	2455.8	2207.2	-10.1	-248.6
	1988	1269.3	942.3	-25.8	-327.0
	1989	985.1	731.6	-25.7	-253.5
	1990	1681.5	1678.0	-.2	-3.5
	1991	954.2	700.7	-26.6	-253.5
	Mean	3651.4	3507.7	-5.7	-143.7
	Median	2451.8	2445.9	-.7	-18.8
	Min	576.2	546.9	-41.6	-678.4
	Max	19356.9	19076.5	1.1	6.2
X < 1500.0		9	10		
X < 1750.0		17	21		
X < 1765.0		20	23		
X < 2000.0		22	26		
X < 3000.0		53	53		
X >= 2500.0		22	20		
2500.0 > X >= 2000.0		26	24		
2000.0 > X >= 1750.0		5	5		
1750.0 > X >= 1200.0		13	14		
1200.0 > X		4	7		
X < 3450.0		54	55		
Mean of X >= 3450.0		9066.6	9136.5	.8	69.9

LOWER AMERICAN RIVER FLOWS AT WATT AVE

January

		Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
		1922	1983.5	1976.7	-.3	-6.8
		1923	4566.0	4404.9	-3.5	-161.1
		1924	1973.7	1967.0	-.3	-6.7
		1925	1702.6	1702.6	.0	.0
		1926	1980.2	1773.5	-10.4	-206.7
		1927	3152.4	2545.8	-19.2	-606.6
		1928	2459.1	2455.6	-.1	-3.5
		1929	1546.1	1342.6	-13.2	-203.5
		1930	1754.6	1749.5	-.3	-5.1
		1931	1781.9	1578.4	-11.4	-203.5
		1932	1954.2	1695.8	-13.2	-258.4
		1933	1991.6	1986.5	-.3	-5.1
		1934	1946.1	1691.0	-13.1	-255.1
		1935	1764.4	2009.3	13.9	244.9
		1936	4345.8	3793.7	-12.7	-552.1
		1937	1993.3	1989.8	-.2	-3.5
		1938	2877.9	2731.3	-5.1	-146.6
		1939	2209.1	1958.9	-11.3	-250.2
		1940	2565.8	2196.1	-14.4	-369.7
		1941	5567.3	5234.0	-6.0	-333.3
		1942	9363.7	9199.4	-1.8	-164.3
		1943	10978.6	10816.0	-1.5	-162.6
		1944	1978.6	1978.4	.0	-.2
		1945	1951.0	2200.7	12.8	249.7
		1946	5206.7	5045.6	-3.1	-161.1
		1947	2188.0	1937.7	-11.4	-250.3
		1948	1689.6	1691.0	.1	1.4
		1949	1957.5	1957.2	.0	-.3
		1950	2007.9	2009.3	.1	1.4
		1951	10138.4	9993.5	-1.4	-144.9
		1952	9127.8	8981.5	-1.6	-146.3
		1953	6805.7	6220.1	-8.6	-585.6
		1954	2236.7	2241.4	.2	4.7
		1955	1994.9	1747.9	-12.4	-247.0
		1956	16418.8	16355.3	-.4	-63.5
		1957	2225.4	2228.4	.1	3.0
		1958	2279.0	2028.8	-11.0	-250.2
		1959	2279.0	2032.0	-10.8	-247.0
		1960	1399.8	1401.1	.1	1.3
		1961	1472.1	1373.5	-6.7	-98.6
		1962	1354.2	1352.4	-.1	-1.8
		1963	3962.6	3843.6	-3.0	-119.0
		1964	2656.6	2499.5	-5.9	-157.1
		1965	13237.1	13170.3	-.5	-66.8
		1966	2462.4	2463.7	.1	1.3
		1967	6814.0	6206.9	-8.9	-607.1
		1968	2501.4	2504.4	.1	3.0
		1969	14863.9	14425.5	-2.9	-438.4
		1970	21014.8	20863.6	-.7	-151.2
		1971	4743.2	4647.0	-2.0	-96.2
		1972	2447.7	2450.7	.1	3.0
		1973	9013.0	8620.3	-4.4	-392.7
		1974	11377.1	11269.8	-.9	-107.3
		1975	2201.0	2202.4	.1	1.4
		1976	2439.6	2442.6	.1	3.0
		1977	463.2	468.1	1.1	4.9
		1978	3447.0	3412.2	-1.0	-34.8
		1979	2277.4	2025.5	-11.1	-251.9
		1980	14996.0	15449.3	3.0	453.3
		1981	2269.3	2017.4	-11.1	-251.9
		1982	8317.5	8189.0	-1.5	-128.5
		1983	7678.8	7530.8	-1.9	-148.0
		1984	6584.5	6457.6	-1.9	-126.9
		1985	2459.1	2460.5	.1	1.4
		1986	2232.4	2522.6	13.0	290.2
		1987	1983.5	1784.9	-10.0	-198.6
		1988	1001.4	739.8	-26.1	-261.6
		1989	1949.3	1945.8	-.2	-3.5
		1990	1754.6	1501.1	-14.4	-253.5
		1991	742.8	537.7	-27.6	-205.1
		Mean	4329.4	4203.2	-4.2	-126.2
		Median	2278.2	2215.4	-1.5	-127.7
		Min	463.2	468.1	-27.6	-607.1
		Max	21014.8	20863.6	13.9	453.3
	X <	1500.0	6	7		
	X <	1750.0	9	15		
	X <	1765.0	12	15		
	X <	2000.0	26	26		
	X <	3000.0	46	47		
	X >=	2500.0	28	27		
2500.0 >	X >=	2000.0	16	17		
2000.0 >	X >=	1750.0	17	11		
1750.0 >	X >=	1200.0	6	12		
1200.0 >	X		3	3		
	X <	3450.0	48	48		
Mean of	X >=	3450.0	9323.7	9123.5	-2.1	-200.2

LOWER AMERICAN RIVER FLOWS AT WATT AVE

February

		Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
		1922	3339.7	2517.5	-24.6	-822.2
		1923	3492.7	3315.5	-5.1	-177.2
		1924	1591.8	1587.2	-.3	-4.6
		1925	3671.0	3950.0	7.6	279.0
		1926	1654.8	1488.4	-10.1	-166.4
		1927	13475.1	13402.2	-.5	-72.9
		1928	1963.0	1960.2	-.1	-2.8
		1929	1230.4	1199.4	-2.5	-31.0
		1930	1945.0	1940.4	-.2	-4.6
		1931	1397.6	1233.0	-11.8	-164.6
		1932	2241.2	2066.2	-7.8	-175.0
		1933	1687.8	1533.2	-9.2	-154.6
		1934	1972.0	1967.4	-.2	-4.6
		1935	1943.2	1936.8	-.3	-6.4
		1936	13511.2	13366.3	-1.1	-144.9
		1937	2047.6	1796.6	-12.3	-251.0
		1938	9899.4	9743.5	-1.6	-155.9
		1939	1941.4	1940.4	-.1	-1.0
		1940	10666.2	10551.9	-1.1	-114.3
		1941	8071.6	7907.0	-2.0	-164.6
		1942	10030.8	9850.0	-1.8	-180.8
		1943	6901.5	6740.5	-2.3	-161.0
		1944	1815.6	1668.2	-8.1	-147.4
		1945	6201.7	6147.8	-.9	-53.9
		1946	2718.6	2571.9	-5.4	-146.7
		1947	1966.6	1719.2	-12.6	-247.4
		1948	1948.6	1699.4	-12.8	-249.2
		1949	1955.8	1556.6	-20.4	-399.2
		1950	4133.8	2569.4	-37.8	-1564.4
		1951	8160.6	8017.5	-1.8	-143.1
		1952	9540.9	9381.7	-1.7	-159.2
		1953	2239.5	2069.5	-7.6	-170.0
		1954	2045.9	1999.8	-2.3	-46.1
		1955	1955.8	1958.4	.1	2.6
		1956	6207.6	6114.8	-1.5	-92.8
		1957	2008.0	2012.4	.2	4.4
		1958	9192.8	7756.0	-15.6	-1436.8
		1959	2018.8	2023.2	.2	4.4
		1960	1243.6	1116.2	-10.2	-127.4
		1961	1204.0	1076.6	-10.6	-127.4
		1962	1341.2	1332.6	-.6	-8.6
		1963	12067.4	11936.8	-1.1	-130.6
		1964	2056.0	1931.4	-6.1	-124.6
		1965	5432.0	5353.7	-1.4	-78.3
		1966	1963.0	1965.6	.1	2.6
		1967	4409.3	4278.7	-3.0	-130.6
		1968	5736.5	4890.3	-14.8	-846.2
		1969	9321.5	9234.1	-.9	-87.4
		1970	6289.9	6188.3	-1.6	-101.6
		1971	3363.0	3237.8	-3.7	-125.2
		1972	2198.5	1962.0	-10.8	-236.5
		1973	7227.3	7127.3	-1.4	-100.0
		1974	4363.4	4022.5	-7.8	-340.9
		1975	2063.8	2066.4	.1	2.6
		1976	1945.0	1949.4	.2	4.4
		1977	445.0	444.0	-.2	-1.0
		1978	4749.4	4627.0	-2.6	-122.4
		1979	1999.0	1999.8	.0	.8
		1980	14187.7	13633.0	-3.9	-554.7
		1981	1946.8	1945.8	-.1	-1.0
		1982	15523.9	15296.1	-1.5	-227.8
		1983	12465.3	12324.1	-1.1	-141.2
		1984	5641.1	5519.8	-2.2	-121.3
		1985	1977.4	1978.2	.0	.8
		1986	33301.6	33239.5	-.2	-62.1
		1987	1600.8	1441.6	-9.9	-159.2
		1988	1941.4	1942.2	.0	.8
		1989	1700.4	1947.6	14.5	247.2
		1990	1747.2	1744.4	-.2	-2.8
		1991	622.8	480.0	-22.9	-142.8
		Mean	4869.4	4707.0	-4.6	-162.4
		Median	2131.1	2044.7	-1.7	-124.9
		Min	445.0	444.0	-37.8	-1564.4
		Max	33301.6	33239.5	14.5	279.0
	X < 1500.0		7	9		
	X < 1750.0		13	16		
	X < 1765.0		13	16		
	X < 2000.0		29	33		
	X < 3000.0		39	41		
	X >= 2500.0		32	32		
2500.0 >	X >= 2000.0		9	5		
2000.0 >	X >= 1750.0		16	17		
1750.0 >	X >= 1200.0		11	11		
1200.0 >	X		2	5		
	X < 3450.0		41	43		
Mean of	X >= 3450.0		9099.1	9281.5	2.0	182.4

LOWER AMERICAN RIVER FLOWS AT WATT AVE

March

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4478.6	4471.9	-.1	-6.7
	1923	2774.5	2681.2	-3.4	-93.3
	1924	1229.3	1234.2	.4	4.9
	1925	3213.6	3126.4	-2.7	-87.2
	1926	1933.1	1676.3	-13.3	-256.8
	1927	4557.8	4351.4	-4.5	-206.4
	1928	12182.6	11646.5	-4.4	-536.1
	1929	1462.4	1458.9	-.2	-3.5
	1930	1978.6	1975.1	-.2	-3.5
	1931	1098.1	965.0	-12.1	-133.1
	1932	2681.5	2674.7	-.3	-6.8
	1933	1964.0	1708.9	-13.0	-255.1
	1934	1521.7	1516.6	-.3	-5.1
	1935	3238.4	3233.3	-.2	-5.1
	1936	4163.3	4002.7	-3.9	-160.6
	1937	4407.5	3751.1	-14.9	-656.4
	1938	10858.4	10676.3	-1.7	-182.1
	1939	1573.7	1573.5	.0	-.2
	1940	10954.3	10638.9	-2.9	-315.4
	1941	4853.5	4669.8	-3.8	-183.7
	1942	4490.0	4488.1	.0	-1.9
	1943	12460.7	12301.4	-1.3	-159.3
	1944	2204.2	1954.0	-11.4	-250.2
	1945	2738.4	2738.1	.0	-.3
	1946	2782.2	2723.5	-2.1	-58.7
	1947	1991.6	1743.0	-12.5	-248.6
	1948	2738.4	2739.8	.1	1.4
	1949	2527.4	2527.2	.0	-.2
	1950	3282.5	2970.2	-9.5	-312.3
	1951	3749.7	3600.1	-4.0	-149.6
	1952	6183.8	6021.3	-2.6	-162.5
	1953	2970.5	2971.9	.0	1.4
	1954	4430.6	3671.4	-17.1	-759.2
	1955	1934.7	1937.7	.2	3.0
	1956	3442.8	3442.6	.0	-.2
	1957	4156.3	3278.9	-21.1	-877.4
	1958	6709.4	6551.7	-2.4	-157.7
	1959	1694.5	1697.5	.2	3.0
	1960	2583.6	2208.9	-14.5	-374.7
	1961	1218.9	968.6	-20.5	-250.3
	1962	2462.4	2460.5	-.1	-1.9
	1963	3494.9	3496.3	.0	1.4
	1964	1951.0	1950.7	.0	-.3
	1965	2964.0	2962.1	-.1	-1.9
	1966	1936.3	1936.1	.0	-.2
	1967	5971.3	5745.4	-3.8	-225.9
	1968	2144.5	3909.3	82.3	1764.8
	1969	4454.2	4457.2	.1	3.0
	1970	2464.0	2234.0	-9.3	-230.0
	1971	4056.8	3913.7	-3.5	-143.1
	1972	4175.3	3480.6	-16.6	-694.7
	1973	3403.2	3213.0	-5.6	-190.2
	1974	9636.9	9547.4	-.9	-89.5
	1975	4453.7	3602.1	-19.1	-851.6
	1976	1552.6	1555.6	.2	3.0
	1977	354.2	364.0	2.8	9.8
	1978	5528.7	5569.1	.7	40.4
	1979	3126.8	2473.5	-20.9	-653.3
	1980	3483.3	3205.8	-8.0	-277.5
	1981	1749.8	1597.9	-8.7	-151.9
	1982	7653.6	7557.6	-1.3	-96.0
	1983	16332.9	16207.7	-.8	-125.2
	1984	2723.7	2490.3	-8.6	-233.4
	1985	2248.1	1997.9	-11.1	-250.2
	1986	11239.4	11037.9	-1.8	-201.5
	1987	1291.1	1164.5	-9.8	-126.6
	1988	1539.6	1539.3	.0	-.3
	1989	6436.2	6058.5	-5.9	-377.7
	1990	1447.7	1444.2	-.2	-3.5
	1991	2086.0	2084.1	-.1	-1.9
	Mean	3968.2	3826.1	-3.6	-142.2
	Median	2967.3	2966.1	-1.9	-125.9
	Min	354.2	364.0	-21.1	-877.4
	Max	16332.9	16207.7	82.3	1764.8
X < 1500.0		7	7		
X < 1750.0		13	16		
X < 1765.0		13	16		
X < 2000.0		20	22		
X < 3000.0		36	37		
X >= 4500.0		15	14		
4500.0 > X >= 3000.0		19	19		
3000.0 > X >= 2000.0		16	15		
2000.0 > X >= 1500.0		13	15		
1500.0 > X		7	7		
X < 3450.0		42	43		
Mean of X >= 3450.0		6626.9	6497.2	-2.0	-129.7

LOWER AMERICAN RIVER FLOWS AT WATT AVE

April

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4442.9	4426.3	-.4	-16.6
	1923	3256.3	2990.2	-8.2	-266.1
	1924	267.1	247.0	-7.5	-20.1
	1925	4091.4	3372.4	-17.6	-719.0
	1926	2013.5	1996.9	-.8	-16.6
	1927	7935.3	7767.8	-2.1	-167.5
	1928	4852.1	4570.5	-5.8	-281.6
	1929	1434.5	922.9	-35.7	-511.6
	1930	2189.6	1926.3	-12.0	-263.3
	1931	416.1	401.1	-3.6	-15.0
	1932	2932.9	2666.2	-9.1	-266.7
	1933	1914.4	1649.4	-13.8	-265.0
	1934	3149.7	2627.9	-16.6	-521.8
	1935	4419.5	4702.1	6.4	282.6
	1936	5833.9	5585.8	-4.3	-248.1
	1937	4409.0	4147.0	-5.9	-262.0
	1938	7945.1	7688.5	-3.2	-256.6
	1939	1169.4	659.5	-43.6	-509.9
	1940	6137.3	5989.6	-2.4	-147.7
	1941	3831.0	3619.8	-5.5	-211.2
	1942	4518.6	4508.7	-.2	-9.9
	1943	5241.4	5003.3	-4.5	-238.1
	1944	2209.8	1949.8	-11.8	-260.0
	1945	2681.2	2671.3	-.4	-9.9
	1946	3992.7	3573.6	-10.5	-419.1
	1947	1927.8	1919.6	-.4	-8.2
	1948	2735.0	2728.4	-.2	-6.6
	1949	2417.7	2409.5	-.3	-8.2
	1950	5014.5	4900.2	-2.3	-114.3
	1951	3117.0	2841.9	-8.8	-275.1
	1952	9025.5	8762.2	-2.9	-263.3
	1953	3478.2	3221.7	-7.4	-256.5
	1954	4533.6	4364.0	-3.7	-169.6
	1955	1963.1	1958.2	-.2	-4.9
	1956	3973.2	3963.3	-.2	-9.9
	1957	2709.8	2704.9	-.2	-4.9
	1958	10428.9	10216.0	-2.0	-212.9
	1959	1951.3	1694.8	-13.1	-256.5
	1960	2191.3	2183.0	-.4	-8.3
	1961	434.5	426.3	-1.9	-8.2
	1962	3750.2	2937.5	-21.7	-812.7
	1963	4652.7	4312.7	-7.3	-340.0
	1964	1929.5	1919.6	-.5	-9.9
	1965	3800.2	3388.3	-10.8	-411.9
	1966	1936.2	1928.0	-.4	-8.2
	1967	4491.7	4485.1	-.1	-6.6
	1968	1929.5	1922.9	-.3	-6.6
	1969	5906.1	5502.4	-6.8	-403.7
	1970	2436.2	2176.3	-10.7	-259.9
	1971	3444.6	3186.4	-7.5	-258.2
	1972	2454.7	2448.2	-.3	-6.5
	1973	2687.9	2681.3	-.2	-6.6
	1974	6235.3	6052.5	-2.9	-182.8
	1975	3956.4	3948.2	-.2	-8.2
	1976	449.7	443.1	-1.5	-6.6
	1977	267.1	247.0	-7.5	-20.1
	1978	4673.4	3988.3	-14.7	-685.1
	1979	2691.3	2681.3	-.4	-10.0
	1980	2949.7	2689.8	-8.8	-259.9
	1981	1686.2	1426.3	-15.4	-259.9
	1982	14375.3	14177.5	-1.4	-197.8
	1983	6694.5	6473.3	-3.3	-221.2
	1984	2709.8	2699.8	-.4	-10.0
	1985	2191.3	1933.0	-11.8	-258.3
	1986	2713.1	2704.9	-.3	-8.2
	1987	436.2	428.0	-1.9	-8.2
	1988	473.2	463.3	-2.1	-9.9
	1989	4551.5	3986.2	-12.4	-565.3
	1990	2662.2	1738.9	-34.7	-923.3
	1991	1929.5	1917.9	-.6	-11.6
	Mean	3546.4	3354.9	-6.4	-191.5
	Median	2941.3	2704.9	-3.3	-190.3
	Min	267.1	247.0	-43.6	-923.3
	Max	14375.3	14177.5	6.4	282.6
X < 1500.0		9	10		
X < 1765.0		10	13		
X < 2000.0		18	23		
X < 3000.0		36	40		
X < .0		0	0		
X >= 4500.0		18	15		
4500.0 > X >= 3000.0		16	15		
3000.0 > X >= 2000.0		18	17		
2000.0 > X >= 1500.0		9	13		
1500.0 > X		9	10		
X < 3450.0		40	44		
Mean of X >= 3450.0		5573.0	5642.9	1.3	69.8

LOWER AMERICAN RIVER FLOWS AT WATT AVE

May

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	9037.4	8259.2	-8.6	-778.2
	1923	4916.2	4552.3	-7.4	-363.9
	1924	268.8	272.1	1.2	3.3
	1925	4603.7	3990.4	-13.3	-613.3
	1926	2411.7	2394.9	-.7	-16.8
	1927	4860.9	4415.3	-9.2	-445.6
	1928	2905.2	2893.3	-.4	-11.9
	1929	1901.9	1640.1	-13.8	-261.8
	1930	2655.2	2391.7	-9.9	-263.5
	1931	424.7	409.6	-3.6	-15.1
	1932	3898.7	3631.9	-6.8	-266.8
	1933	2410.1	2394.9	-.6	-15.2
	1934	411.7	394.9	-4.1	-16.8
	1935	4883.4	4868.3	-.3	-15.1
	1936	4145.4	4135.2	-.2	-10.2
	1937	4545.4	4208.3	-7.4	-337.1
	1938	9925.4	9569.2	-3.6	-356.2
	1939	1673.1	1664.5	-.5	-8.6
	1940	3642.2	3383.6	-7.1	-258.6
	1941	5465.9	5126.0	-6.2	-339.9
	1942	6229.5	5616.8	-9.8	-612.7
	1943	3651.9	3644.9	-.2	-7.0
	1944	2671.5	2414.5	-9.6	-257.0
	1945	3664.9	3656.3	-.2	-8.6
	1946	3686.7	3659.6	-.7	-27.1
	1947	2406.8	2401.5	-.2	-5.3
	1948	3684.5	3679.1	-.1	-5.4
	1949	3163.3	2904.7	-8.2	-258.6
	1950	3901.9	3896.6	-.1	-5.3
	1951	3682.8	3424.2	-7.0	-258.6
	1952	11270.4	10922.3	-3.1	-348.1
	1953	4168.2	4164.5	-.1	-3.7
	1954	2913.3	2909.6	-.1	-3.7
	1955	2666.6	2411.2	-9.6	-255.4
	1956	4424.7	4421.0	-.1	-3.7
	1957	3694.2	3440.5	-6.9	-253.7
	1958	10218.1	9874.9	-3.4	-343.2
	1959	2413.3	2158.0	-10.6	-255.3
	1960	2664.9	2658.0	-.3	-6.9
	1961	1414.9	1406.3	-.6	-8.6
	1962	3147.1	3138.4	-.3	-8.7
	1963	7279.3	6864.6	-5.7	-414.7
	1964	2414.9	2406.3	-.4	-8.6
	1965	4158.4	3901.5	-6.2	-256.9
	1966	2410.1	2403.1	-.3	-7.0
	1967	8130.4	7578.4	-6.8	-552.0
	1968	2411.7	2408.0	-.2	-3.7
	1969	9287.9	8910.5	-4.1	-377.4
	1970	2914.9	2658.0	-8.8	-256.9
	1971	4181.2	4175.8	-.1	-5.4
	1972	2914.9	2659.6	-8.8	-255.3
	1973	4445.0	3828.2	-13.9	-616.8
	1974	5036.6	4641.4	-7.8	-395.2
	1975	4410.1	4406.3	-.1	-3.8
	1976	919.8	412.8	-55.1	-507.0
	1977	268.8	272.1	1.2	3.3
	1978	4417.0	3894.9	-11.8	-522.1
	1979	4076.1	3398.2	-16.6	-677.9
	1980	3905.2	3898.2	-.2	-7.0
	1981	2163.3	1904.7	-12.0	-258.6
	1982	9328.5	9045.5	-3.0	-283.0
	1983	10603.6	10273.4	-3.1	-330.2
	1984	3679.6	3422.6	-7.0	-257.0
	1985	2673.1	2416.1	-9.6	-257.0
	1986	3673.1	3667.7	-.1	-5.4
	1987	1419.8	662.8	-53.3	-757.0
	1988	432.8	422.6	-2.4	-10.2
	1989	3448.1	2898.2	-15.9	-549.9
	1990	1707.2	1445.4	-15.3	-261.8
	1991	2413.3	2401.5	-.5	-11.8
	Mean	3940.7	3724.0	-6.3	-216.8
	Median	3669.0	3423.4	-3.8	-256.1
	Min	268.8	272.1	-55.1	-778.2
	Max	11270.4	10922.3	1.2	3.3
X <	1500.0	8	9		
X <	1765.0	10	11		
X <	2000.0	11	12		
X <	3000.0	29	31		
X <	.0	0	0		
X >=	4500.0	17	14		
4500.0 > X >=	3000.0	24	25		
3000.0 > X >=	2000.0	18	19		
2000.0 > X >=	1500.0	3	3		
1500.0 > X		8	9		
X <	3450.0	32	37		
Mean of X >=	3450.0	5495.1	5496.3	.0	1.2

LOWER AMERICAN RIVER FLOWS AT WATT AVE

June

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	9044.6	8568.1	-5.3	-476.5
	1923	4675.0	4510.0	-3.5	-165.0
	1924	290.7	282.4	-2.9	-8.3
	1925	6384.6	6364.6	-.3	-20.0
	1926	1839.6	1394.5	-24.2	-445.1
	1927	5431.4	5007.0	-7.8	-424.4
	1928	5811.7	5182.2	-10.8	-629.5
	1929	2264.2	2296.4	1.4	32.2
	1930	2154.4	1889.4	-12.3	-265.0
	1931	1176.5	1092.5	-7.1	-84.0
	1932	4906.0	4921.3	.3	15.3
	1933	2445.4	2377.7	-2.8	-67.7
	1934	1712.7	1602.3	-6.4	-110.4
	1935	4010.5	3365.9	-16.1	-644.6
	1936	4538.5	3773.2	-16.9	-765.3
	1937	3392.6	3381.0	-.3	-11.6
	1938	8685.0	8235.4	-5.2	-449.6
	1939	907.7	408.3	-55.0	-499.4
	1940	3517.8	3319.7	-5.6	-198.1
	1941	3647.7	3389.4	-7.1	-258.3
	1942	7448.1	6985.0	-6.2	-463.1
	1943	3407.7	3401.2	-.2	-6.5
	1944	2157.7	1651.2	-23.5	-506.5
	1945	5938.5	5740.2	-3.3	-198.3
	1946	6361.2	6193.7	-2.6	-167.5
	1947	1671.2	1412.9	-15.5	-258.3
	1948	3399.3	3144.5	-7.5	-254.8
	1949	2894.3	2386.1	-17.6	-508.2
	1950	4044.6	3634.4	-10.1	-410.2
	1951	3156.1	3149.5	-.2	-6.6
	1952	10605.9	10144.5	-4.4	-461.4
	1953	3916.1	3662.9	-6.5	-253.2
	1954	2790.4	2402.9	-13.9	-387.5
	1955	2162.8	1906.2	-11.9	-256.6
	1956	5632.1	4454.0	-20.9	-1178.1
	1957	3887.7	3401.4	-12.5	-486.3
	1958	7829.6	7406.9	-5.4	-422.7
	1959	1417.8	1161.3	-18.1	-256.5
	1960	2159.4	2151.2	-.4	-8.2
	1961	659.4	408.3	-38.1	-251.1
	1962	2902.7	2892.8	-.3	-9.9
	1963	3392.6	3389.4	-.1	-3.2
	1964	2169.5	1909.6	-12.0	-259.9
	1965	3652.7	3646.1	-.2	-6.6
	1966	1912.8	1404.5	-26.6	-508.3
	1967	10521.8	10126.0	-3.8	-395.8
	1968	2166.1	1411.3	-34.8	-754.8
	1969	6696.9	6287.6	-6.1	-409.3
	1970	3336.2	3233.8	-3.1	-102.4
	1971	3978.8	3652.9	-8.2	-325.9
	1972	4510.1	4349.8	-3.6	-160.3
	1973	5658.4	5351.9	-5.4	-306.5
	1974	4359.2	3919.7	-10.1	-439.5
	1975	5860.4	4811.2	-17.9	-1049.2
	1976	1941.5	2029.0	4.5	87.5
	1977	290.7	282.4	-2.9	-8.3
	1978	4566.0	3641.1	-20.3	-924.9
	1979	6391.3	6381.4	-.2	-9.9
	1980	3644.3	3389.4	-7.0	-254.9
	1981	1412.8	902.9	-36.1	-509.9
	1982	6365.8	5902.8	-7.3	-463.0
	1983	14645.9	14186.2	-3.1	-459.7
	1984	4827.1	4655.1	-3.6	-172.0
	1985	2905.7	2496.7	-14.1	-409.0
	1986	3422.9	3166.3	-7.5	-256.6
	1987	424.5	416.3	-1.9	-8.2
	1988	1574.7	1647.1	4.6	72.4
	1989	3984.3	3766.0	-5.5	-218.3
	1990	1733.4	1635.0	-5.7	-98.4
	1991	2954.4	3029.7	2.5	75.3
	Mean	4008.3	3715.3	-9.2	-292.9
	Median	3470.4	3385.2	-6.1	-256.6
	Min	290.7	282.4	-55.0	-1178.1
	Max	14645.9	14186.2	4.6	87.5
X <	1500.0	8	12		
X <	1765.0	12	16		
X <	2000.0	15	19		
X <	3000.0	28	27		
X <	.0	0	0		
X >=	4500.0	24	20		
4500.0 > X >=	3000.0	18	23		
3000.0 > X >=	2000.0	13	8		
2000.0 > X >=	500.0	12	14		
500.0 > X		3	5		
X <	3450.0	35	40		
Mean of X >=	3450.0	5885.1	5848.7	-.6	-36.4

LOWER AMERICAN RIVER FLOWS AT WATT AVE

July

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4143.7	3142.0	-24.2	-1001.7
	1923	5750.3	3774.8	-34.4	-1975.5
	1924	641.9	496.2	-22.7	-145.7
	1925	4114.9	3681.9	-10.5	-433.0
	1926	2549.7	2107.4	-17.3	-442.3
	1927	2998.4	2818.3	-6.0	-180.1
	1928	1408.4	1384.9	-1.7	-23.5
	1929	1573.7	1265.1	-19.6	-308.6
	1930	2782.2	2295.5	-17.5	-486.7
	1931	1833.4	1729.6	-5.7	-103.8
	1932	3072.7	3089.7	.6	17.0
	1933	2139.3	1844.8	-13.8	-294.5
	1934	1408.0	1204.9	-14.4	-203.1
	1935	4960.4	3418.7	-31.1	-1541.7
	1936	4027.7	2537.4	-37.0	-1490.3
	1937	2507.6	2254.6	-10.1	-253.0
	1938	3658.1	3175.0	-13.2	-483.1
	1939	1875.7	1758.8	-6.2	-116.9
	1940	5956.7	5182.2	-13.0	-774.5
	1941	2278.2	2138.2	-6.1	-140.0
	1942	3643.5	3149.0	-13.6	-494.5
	1943	5658.9	5205.3	-8.0	-453.6
	1944	2229.7	1184.8	-46.9	-1044.9
	1945	4266.6	3155.8	-26.0	-1110.8
	1946	3764.3	3035.8	-19.4	-728.5
	1947	1886.7	1230.8	-34.8	-655.9
	1948	3765.9	2451.1	-34.9	-1314.8
	1949	3177.6	1809.2	-43.1	-1368.4
	1950	5280.2	4527.6	-14.3	-752.6
	1951	5895.2	5127.2	-13.0	-768.0
	1952	4765.7	4290.7	-10.0	-475.0
	1953	3279.6	2196.9	-33.0	-1082.7
	1954	3305.5	2990.4	-9.5	-315.1
	1955	1723.0	1396.3	-19.0	-326.7
	1956	3323.1	2830.2	-14.8	-492.9
	1957	4767.6	4531.2	-5.0	-236.4
	1958	3305.2	2831.9	-14.3	-473.3
	1959	668.2	404.9	-39.4	-263.3
	1960	2860.8	1820.5	-36.4	-1040.3
	1961	410.1	404.9	-1.3	-5.2
	1962	5303.1	4484.1	-15.4	-819.0
	1963	2253.6	2136.6	-5.2	-117.0
	1964	2259.0	1450.1	-35.8	-808.9
	1965	5555.6	5367.1	-3.4	-188.5
	1966	1413.3	646.3	-54.3	-767.0
	1967	4442.0	3968.7	-10.7	-473.3
	1968	1411.7	646.3	-54.2	-765.4
	1969	3101.9	2610.7	-15.8	-491.2
	1970	1879.4	1486.6	-20.9	-392.8
	1971	3123.1	2151.1	-31.1	-972.0
	1972	1413.3	1398.0	-1.1	-15.3
	1973	4124.3	3670.8	-11.0	-453.5
	1974	3586.6	3116.5	-13.1	-470.1
	1975	3048.3	2579.8	-15.4	-468.5
	1976	1481.0	1367.6	-7.7	-113.4
	1977	307.9	297.9	-3.2	-10.0
	1978	6232.5	5432.6	-12.8	-799.9
	1979	2955.2	1853.6	-37.3	-1101.6
	1980	3766.5	2800.9	-25.6	-965.6
	1981	413.3	404.9	-2.0	-8.4
	1982	3521.5	3028.7	-14.0	-492.8
	1983	6342.3	5954.5	-6.1	-387.8
	1984	4317.3	3793.2	-12.1	-524.1
	1985	2241.8	1944.5	-13.3	-297.3
	1986	5485.6	5332.6	-2.8	-153.0
	1987	1827.0	1103.4	-39.6	-723.6
	1988	1014.2	822.8	-18.9	-191.4
	1989	3672.5	3091.2	-15.8	-581.3
	1990	1357.4	1066.7	-21.4	-290.7
	1991	2343.2	2487.3	6.1	144.1
	Mean	3112.2	2576.7	-17.9	-535.5
	Median	3087.3	2469.2	-14.3	-471.7
	Min	307.9	297.9	-54.3	-1975.5
	Max	6342.3	5954.5	6.1	144.1
X <	1500.0	13	20		
X <	1765.0	15	22		
X <	2000.0	20	27		
X <	3000.0	33	44		
X <	.0	0	0		
X >=	2500.0	43	34		
2500.0 > X >=	1500.0	14	16		
1500.0 > X >=	500.0	10	15		
500.0 > X >=	.0	3	5		
.0 > X		0	0		
X <	3450.0	42	54		
Mean of X >=	3450.0	4670.3	4645.3	-.5	-25.1

LOWER AMERICAN RIVER FLOWS AT WATT AVE

August

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2832.8	2821.1	-.4	-11.7
	1923	2471.6	2575.3	4.2	103.7
	1924	306.2	371.0	21.2	64.8
	1925	3695.3	3140.3	-15.0	-555.0
	1926	663.3	636.6	-4.0	-26.7
	1927	3790.1	2980.6	-21.4	-809.5
	1928	3193.8	2232.7	-30.1	-961.1
	1929	306.2	341.3	11.5	35.1
	1930	910.1	884.9	-2.8	-25.2
	1931	306.2	341.3	11.5	35.1
	1932	2235.0	1620.3	-27.5	-614.7
	1933	651.9	341.3	-47.6	-310.6
	1934	306.2	341.3	11.5	35.1
	1935	3006.8	2916.4	-3.0	-90.4
	1936	3015.8	3497.6	16.0	481.8
	1937	2702.8	1880.1	-30.4	-822.7
	1938	4326.2	3826.8	-11.5	-499.4
	1939	411.7	403.3	-2.0	-8.4
	1940	3891.5	3543.5	-8.9	-348.0
	1941	4178.2	3156.0	-24.5	-1022.2
	1942	4407.5	3913.0	-11.2	-494.5
	1943	2545.7	2359.0	-7.3	-186.7
	1944	3914.8	2553.7	-34.8	-1361.1
	1945	1971.5	1962.4	-.5	-9.1
	1946	2015.4	1830.9	-9.2	-184.5
	1947	1206.9	893.1	-26.0	-313.8
	1948	3121.7	3048.9	-2.3	-72.8
	1949	2415.2	2225.9	-7.8	-189.3
	1950	2913.2	2640.2	-9.4	-273.0
	1951	3272.7	3075.0	-6.0	-197.7
	1952	4828.1	4337.5	-10.2	-490.6
	1953	4448.1	3961.8	-10.9	-486.3
	1954	3448.4	3656.1	6.0	207.7
	1955	3313.2	2092.9	-36.8	-1220.3
	1956	4378.2	3888.6	-11.2	-489.6
	1957	1635.6	1450.6	-11.3	-185.0
	1958	4474.2	4002.4	-10.5	-471.8
	1959	2462.0	1341.4	-45.5	-1120.6
	1960	3230.3	3052.1	-5.5	-178.2
	1961	1417.9	643.1	-54.6	-774.8
	1962	4541.5	3628.3	-20.1	-913.2
	1963	3999.3	2736.9	-31.6	-1262.4
	1964	3381.2	3068.0	-9.3	-313.2
	1965	1919.8	1652.8	-13.9	-267.0
	1966	2906.8	1868.2	-35.7	-1038.6
	1967	4441.6	3950.4	-11.1	-491.2
	1968	1168.2	901.2	-22.9	-267.0
	1969	4254.6	3779.6	-11.2	-475.0
	1970	4032.3	3699.8	-8.2	-332.5
	1971	4199.3	3709.7	-11.7	-489.6
	1972	4312.7	3060.1	-29.0	-1252.6
	1973	1613.8	1804.5	11.8	190.7
	1974	4457.9	3969.9	-10.9	-488.0
	1975	4238.3	3769.9	-11.1	-468.4
	1976	1421.6	1129.2	-20.6	-292.4
	1977	306.2	294.6	-3.8	-11.6
	1978	1660.1	1636.6	-1.4	-23.5
	1979	2218.1	2231.8	.6	13.7
	1980	2440.0	1918.0	-21.4	-522.0
	1981	1686.4	1252.1	-25.8	-434.3
	1982	4448.1	3955.3	-11.1	-492.8
	1983	4850.9	4718.0	-2.7	-132.9
	1984	1436.1	1417.5	-1.3	-18.6
	1985	3221.3	2736.0	-15.1	-485.3
	1986	3789.2	3604.0	-4.9	-185.2
	1987	1606.8	1667.1	3.8	60.3
	1988	819.9	547.0	-33.3	-272.9
	1989	3569.2	3005.6	-15.8	-563.6
	1990	2124.2	1638.3	-22.9	-485.9
	1991	1441.2	642.9	-55.4	-798.3
	Mean	2730.4	2353.9	-12.9	-376.5
	Median	2910.0	2456.4	-11.0	-313.5
	Min	306.2	294.6	-55.4	-1361.1
	Max	4850.9	4718.0	21.2	481.8
X <	1500.0	16	19		
X <	1765.0	21	24		
X <	2000.0	23	30		
X <	3000.0	36	43		
X <	.0	0	0		
X >=	2500.0	39	35		
2500.0 > X >=	2000.0	8	5		
2000.0 > X >=	1000.0	13	16		
1000.0 > X >=	500.0	4	7		
500.0 > X		6	7		
X <	3450.0	46	51		
Mean of X >=	3450.0	4227.8	3863.8	-8.6	-364.0

LOWER AMERICAN RIVER FLOWS AT WATT AVE

September

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3839.0	3429.6	-10.7	-409.4
	1923	1929.6	2164.6	12.2	235.0
	1924	919.5	912.9	-.7	-6.6
	1925	1693.8	1394.5	-17.7	-299.3
	1926	1416.1	1149.5	-18.8	-266.6
	1927	3993.6	3555.7	-11.0	-437.9
	1928	1414.5	1401.2	-.9	-13.3
	1929	1164.5	902.9	-22.5	-261.6
	1930	1414.5	1399.5	-1.1	-15.0
	1931	909.4	644.5	-29.1	-264.9
	1932	3861.6	2384.4	-38.3	-1477.2
	1933	1406.1	1141.1	-18.8	-265.0
	1934	907.7	641.1	-29.4	-266.6
	1935	2818.1	2628.2	-6.7	-189.9
	1936	3930.9	3612.3	-8.1	-318.6
	1937	3924.7	3384.9	-13.8	-539.8
	1938	4129.7	3712.0	-10.1	-417.7
	1939	1174.5	1162.9	-1.0	-11.6
	1940	1631.5	1392.8	-14.6	-238.7
	1941	4072.6	3656.5	-10.2	-416.1
	1942	4109.5	3695.2	-10.1	-414.3
	1943	2164.5	1656.2	-23.5	-508.3
	1944	1831.3	1661.3	-9.3	-170.0
	1945	2378.9	2139.0	-10.1	-239.9
	1946	2896.1	2662.5	-8.1	-233.6
	1947	2062.5	1406.2	-31.8	-656.3
	1948	2783.6	2377.0	-14.6	-406.6
	1949	1976.3	1706.4	-13.7	-269.9
	1950	2507.6	2404.5	-4.1	-103.1
	1951	1736.2	1581.3	-8.9	-154.9
	1952	4330.3	3901.9	-9.9	-428.4
	1953	4077.6	3670.0	-10.0	-407.6
	1954	2120.7	1412.9	-33.4	-707.8
	1955	1464.2	1423.0	-2.8	-41.2
	1956	4057.4	3646.4	-10.1	-411.0
	1957	2188.0	1931.4	-11.7	-256.6
	1958	4144.8	3737.2	-9.8	-407.6
	1959	1206.5	1449.9	20.2	243.4
	1960	1992.1	1702.5	-14.5	-289.6
	1961	1417.8	1157.9	-18.3	-259.9
	1962	1409.4	1399.5	-.7	-9.9
	1963	4060.8	3653.2	-10.0	-407.6
	1964	1545.9	1257.7	-18.6	-288.2
	1965	3862.0	2402.9	-37.8	-1459.1
	1966	1421.9	1407.9	-1.0	-14.0
	1967	4344.8	3969.1	-8.6	-375.7
	1968	2111.0	1879.8	-11.0	-231.2
	1969	4084.3	3691.8	-9.6	-392.5
	1970	1421.2	1412.9	-.6	-8.3
	1971	3909.6	3518.7	-10.0	-390.9
	1972	1436.3	1492.8	3.9	56.5
	1973	1924.5	1668.0	-13.3	-256.5
	1974	4210.4	3804.4	-9.6	-406.0
	1975	3996.9	3577.5	-10.5	-419.4
	1976	426.2	418.0	-1.9	-8.2
	1977	377.0	367.0	-2.7	-10.0
	1978	2992.2	2156.2	-27.9	-836.0
	1979	1947.1	1706.5	-12.4	-240.6
	1980	3986.9	3594.3	-9.8	-392.6
	1981	1472.1	1414.6	-3.9	-57.5
	1982	4536.4	4157.3	-8.4	-379.1
	1983	4860.3	4758.2	-2.1	-102.1
	1984	1934.6	1926.4	-.4	-8.2
	1985	1189.7	1181.4	-.7	-8.3
	1986	1698.1	1439.8	-15.2	-258.3
	1987	1286.3	1320.2	2.6	33.9
	1988	672.9	662.9	-1.5	-10.0
	1989	1204.8	1443.2	19.8	238.4
	1990	666.1	654.5	-1.7	-11.6
	1991	911.1	897.8	-1.5	-13.3
	Mean	2398.6	2131.8	-9.9	-266.7
	Median	1961.7	1685.3	-9.9	-260.8
	Min	377.0	367.0	-38.3	-1477.2
	Max	4860.3	4758.2	20.2	243.4
X <	1500.0	25	31		
X <	1765.0	30	38		
X <	2000.0	37	41		
X <	3000.0	48	50		
X <	.0	0	0		
X >=	2500.0	27	22		
2500.0 > X >=	1500.0	18	17		
1500.0 > X >=	500.0	23	29		
500.0 > X >=	.0	2	2		
.0 > X		0	0		
X <	3450.0	48	52		
Mean of X >=	3450.0	4105.6	3772.9	-8.1	-332.8

RETURN TO TABLE OF CONTENTS

Section 8

LOWER AMERICAN RIVER FLOW AT H STREET
8.1 Fisheries

LOWER AMERICAN RIVER FLOW AT HST.

October

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2353.6	2280.4	-3.1	-73.2
	1923	2371.5	2298.5	-3.1	-73.0
	1924	2350.4	2279.0	-3.0	-71.4
	1925	1170.3	920.3	-21.4	-250.0
	1926	2348.8	2025.7	-13.8	-323.1
	1927	1639.4	1603.6	-2.2	-35.8
	1928	2361.8	2292.0	-3.0	-69.8
	1929	1842.2	1558.1	-15.4	-284.1
	1930	1598.8	1313.0	-17.9	-285.8
	1931	2097.1	1811.3	-13.6	-285.8
	1932	1110.1	1071.1	-3.5	-39.0
	1933	2339.0	2267.6	-3.1	-71.4
	1934	1610.1	1322.7	-17.8	-287.4
	1935	1103.6	567.8	-48.6	-535.8
	1936	2369.9	2298.5	-3.0	-71.4
	1937	2342.2	2272.5	-3.0	-69.7
	1938	2358.5	2290.3	-2.9	-68.2
	1939	2347.1	2282.2	-2.8	-64.9
	1940	1619.9	1335.7	-17.5	-284.2
	1941	1865.0	1582.5	-15.1	-282.5
	1942	2374.8	2308.2	-2.8	-66.6
	1943	2352.0	2285.5	-2.8	-66.5
	1944	2343.9	2279.0	-2.8	-64.9
	1945	1374.8	1343.9	-2.2	-30.9
	1946	2389.4	1858.5	-22.2	-530.9
	1947	2093.9	1816.2	-13.3	-277.7
	1948	1632.9	1603.6	-1.8	-29.3
	1949	2353.6	2285.5	-2.9	-68.1
	1950	2343.9	2279.0	-2.8	-64.9
	1951	2395.9	2331.0	-2.7	-64.9
	1952	2139.4	1858.5	-13.1	-280.9
	1953	2343.9	2282.2	-2.6	-61.7
	1954	2350.4	2288.7	-2.6	-61.7
	1955	1847.1	1819.5	-1.5	-27.6
	1956	1624.8	1593.9	-1.9	-30.9
	1957	2366.6	2306.6	-2.5	-60.0
	1958	2392.7	2326.1	-2.8	-66.6
	1959	2345.5	2283.8	-2.6	-61.7
	1960	1597.1	1567.8	-1.8	-29.3
	1961	1595.5	1564.6	-1.9	-30.9
	1962	1602.0	1569.5	-2.0	-32.5
	1963	2158.7	2053.7	-4.9	-105.0
	1964	2365.0	2300.1	-2.7	-64.9
	1965	1641.0	1608.5	-2.0	-32.5
	1966	2339.0	2274.1	-2.8	-64.9
	1967	1608.5	1576.0	-2.0	-32.5
	1968	2339.0	2279.0	-2.6	-60.0
	1969	2123.1	1590.6	-25.1	-532.5
	1970	2361.8	2298.5	-2.7	-63.3
	1971	1873.1	1845.5	-1.5	-27.6
	1972	2347.1	2285.5	-2.6	-61.6
	1973	1641.0	1611.8	-1.8	-29.2
	1974	2387.8	2324.5	-2.7	-63.3
	1975	2369.9	2306.6	-2.7	-63.3
	1976	2386.2	2326.1	-2.5	-60.1
	1977	375.0	375.0	.0	.0
	1978	375.0	375.0	.0	.0
	1979	2352.0	2282.2	-3.0	-69.8
	1980	2399.2	1866.6	-22.2	-532.6
	1981	2342.2	2275.7	-2.8	-66.5
	1982	1658.9	1624.8	-2.1	-34.1
	1983	3312.9	3032.1	-8.5	-280.8
	1984	3412.3	2312.4	-32.2	-1099.9
	1985	2381.3	2318.0	-2.7	-63.3
	1986	1634.5	1352.0	-17.3	-282.5
	1987	2350.4	2037.1	-13.3	-313.3
	1988	1484.6	1276.8	-14.0	-207.8
	1989	855.3	571.1	-33.2	-284.2
	1990	1632.9	1598.8	-2.1	-34.1
	1991	856.9	571.1	-33.4	-285.8
	Mean	2006.1	1858.2	-7.9	-147.9
	Median	2339.0	2031.4	-2.8	-66.5
	Min	375.0	375.0	-48.6	-1099.9
	Max	3412.3	3032.1	.0	.0
X < 1500.0		9	13		
X < 1750.0		24	27		
X < 1765.0		24	27		
X < 2000.0		28	34		
X < 3000.0		68	69		
X >= 2500.0		2	1		
2500.0 > X >= 2000.0		40	35		
2000.0 > X >= 1750.0		4	7		
1750.0 > X >= 800.0		22	22		
800.0 > X		2	5		
X < 3450.0		70	70		
Mean of X >= 3450.0		.0	.0	.0	.0

LOWER AMERICAN RIVER FLOW AT HST.

November

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2377.3	2343.7	-1.4	-33.6
	1923	2431.1	2399.3	-1.3	-31.8
	1924	2350.4	2320.3	-1.3	-30.1
	1925	1122.3	890.8	-20.6	-231.5
	1926	2365.6	2082.0	-12.0	-283.6
	1927	1718.1	1686.2	-1.9	-31.9
	1928	2764.9	2358.9	-14.7	-406.0
	1929	1890.8	1612.3	-14.7	-278.5
	1930	1592.0	1310.2	-17.7	-281.8
	1931	2115.6	1833.7	-13.3	-281.9
	1932	1132.4	1098.9	-3.0	-33.5
	1933	2345.4	2313.6	-1.4	-31.8
	1934	1583.6	1301.8	-17.8	-281.8
	1935	1169.3	635.8	-45.6	-533.5
	1936	2365.6	2333.7	-1.3	-31.9
	1937	2342.0	2313.6	-1.2	-28.4
	1938	2421.0	2390.9	-1.2	-30.1
	1939	2348.8	2322.0	-1.1	-26.8
	1940	1597.1	1316.9	-17.5	-280.2
	1941	1890.8	1610.6	-14.8	-280.2
	1942	2389.1	2360.6	-1.2	-28.5
	1943	3593.5	3265.1	-9.1	-328.4
	1944	2362.2	2337.1	-1.1	-25.1
	1945	1419.3	1392.5	-1.9	-26.8
	1946	2387.4	1862.3	-22.0	-525.1
	1947	2140.8	1867.3	-12.8	-273.5
	1948	1618.9	1593.8	-1.6	-25.1
	1949	2358.8	2333.7	-1.1	-25.1
	1950	2362.2	2338.8	-1.0	-23.4
	1951	16872.8	15969.5	-5.4	-903.3
	1952	2152.5	1875.7	-12.9	-276.8
	1953	2387.4	2365.7	-.9	-21.7
	1954	2382.4	2360.6	-.9	-21.8
	1955	1902.5	1879.1	-1.2	-23.4
	1956	1644.1	1617.3	-1.6	-26.8
	1957	2347.1	2325.3	-.9	-21.8
	1958	2370.6	2345.5	-1.1	-25.1
	1959	2352.1	2330.4	-.9	-21.7
	1960	1597.1	1570.3	-1.7	-26.8
	1961	1669.3	1644.2	-1.5	-25.1
	1962	1645.8	1619.0	-1.6	-26.8
	1963	3004.4	2861.7	-4.7	-142.7
	1964	4079.0	3769.1	-7.6	-309.9
	1965	1669.3	1642.5	-1.6	-26.8
	1966	2407.6	2384.1	-1.0	-23.5
	1967	1726.5	1699.7	-1.6	-26.8
	1968	2367.2	2345.5	-.9	-21.7
	1969	2176.1	1649.3	-24.2	-526.8
	1970	2372.3	2347.2	-1.1	-25.1
	1971	1981.5	1958.1	-1.2	-23.4
	1972	2367.2	2343.8	-1.0	-23.4
	1973	1699.6	1676.2	-1.4	-23.4
	1974	6054.3	4775.8	-21.1	-1278.5
	1975	2385.7	2360.6	-1.1	-25.1
	1976	2885.2	2533.2	-12.2	-352.0
	1977	375.0	375.0	.0	.0
	1978	389.1	412.6	6.0	23.5
	1979	2416.0	2387.5	-1.2	-28.5
	1980	2395.8	1867.3	-22.1	-528.5
	1981	2350.4	2322.0	-1.2	-28.4
	1982	4641.0	4172.0	-10.1	-469.0
	1983	6784.0	6660.0	-1.8	-124.0
	1984	14296.1	14316.6	.1	20.5
	1985	3083.6	2446.3	-20.7	-637.3
	1986	1724.8	1448.0	-16.0	-276.8
	1987	2360.5	2087.1	-11.6	-273.4
	1988	1185.1	1018.1	-14.1	-167.0
	1989	894.1	614.0	-31.3	-280.1
	1990	1629.0	1598.9	-1.8	-30.1
	1991	863.9	582.0	-32.6	-281.9
	Mean	2606.3	2434.0	-7.5	-172.3
	Median	2349.6	2200.4	-1.6	-31.0
	Min	375.0	375.0	-45.6	-1278.5
	Max	16872.8	15969.5	6.0	23.5
X <	1500.0	9	13		
X <	1750.0	23	26		
X <	1765.0	23	26		
X <	2000.0	27	33		
X <	3000.0	61	63		
X >=	2500.0	11	9		
2500.0 > X >=	2000.0	32	28		
2000.0 > X >=	1750.0	4	7		
1750.0 > X >=	1200.0	15	18		
1200.0 > X		8	8		
X <	3450.0	63	64		
Mean of X >=	3450.0	8045.8	8277.2	2.9	231.4

LOWER AMERICAN RIVER FLOW AT HST.

December

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2462.6	2451.2	-.5	-11.4
	1923	6449.2	6039.0	-6.4	-410.2
	1924	2360.1	2348.8	-.5	-11.3
	1925	1189.8	969.1	-18.5	-220.7
	1926	2381.3	2120.0	-11.0	-261.3
	1927	1628.0	1616.7	-.7	-11.3
	1928	2384.5	2374.9	-.4	-9.6
	1929	1892.7	1634.6	-13.6	-258.1
	1930	1680.1	1418.8	-15.6	-261.3
	1931	2095.5	1834.2	-12.5	-261.3
	1932	1245.1	1230.6	-1.2	-14.5
	1933	2387.8	2376.5	-.5	-11.3
	1934	1691.5	1428.5	-15.5	-263.0
	1935	1139.4	628.1	-44.9	-511.3
	1936	2381.3	2370.0	-.5	-11.3
	1937	2404.0	2396.0	-.3	-8.0
	1938	6102.9	5696.7	-6.7	-406.2
	1939	2365.0	2358.6	-.3	-6.4
	1940	1618.3	1358.6	-16.0	-259.7
	1941	2013.0	1755.0	-12.8	-258.0
	1942	4922.1	4461.6	-9.4	-460.5
	1943	4689.8	4558.4	-2.8	-131.4
	1944	2386.2	2381.4	-.2	-4.8
	1945	1394.3	1386.2	-.6	-8.1
	1946	7788.1	7385.2	-5.2	-402.9
	1947	2142.7	1887.9	-11.9	-254.8
	1948	1611.8	1607.0	-.3	-4.8
	1949	2417.1	2410.6	-.3	-6.5
	1950	2376.4	2373.2	-.1	-3.2
	1951	16335.9	16202.7	-.8	-133.2
	1952	4167.5	3483.0	-16.4	-684.5
	1953	2475.6	2472.4	-.1	-3.2
	1954	2361.8	2360.2	-.1	-1.6
	1955	1933.3	1931.8	-.1	-1.5
	1956	14600.8	14355.1	-1.7	-245.7
	1957	2356.9	2353.7	-.1	-3.2
	1958	2418.7	2412.3	-.3	-6.4
	1959	2368.3	2366.7	-.1	-1.6
	1960	1623.1	1618.4	-.3	-4.7
	1961	1615.0	1610.2	-.3	-4.8
	1962	1644.3	1637.9	-.4	-6.4
	1963	3375.7	3307.5	-2.0	-68.2
	1964	3177.9	2943.6	-7.4	-234.3
	1965	19280.7	18994.1	-1.5	-286.6
	1966	2400.8	2396.0	-.2	-4.8
	1967	1678.4	1672.0	-.4	-6.4
	1968	2368.3	2365.1	-.1	-3.2
	1969	2175.2	1668.8	-23.3	-506.4
	1970	5268.1	4817.4	-8.6	-450.7
	1971	4835.0	4293.4	-11.2	-541.6
	1972	2430.1	2426.9	-.1	-3.2
	1973	1658.9	1654.1	-.3	-4.8
	1974	7459.5	7337.8	-1.6	-121.7
	1975	2420.3	2415.5	-.2	-4.8
	1976	2365.0	2361.8	-.1	-3.2
	1977	500.0	500.0	.0	.0
	1978	500.0	500.0	.0	.0
	1979	2374.8	2366.7	-.3	-8.1
	1980	2438.2	1930.2	-20.8	-508.0
	1981	2394.3	2387.9	-.3	-6.4
	1982	14151.7	14145.6	.0	-6.1
	1983	9105.3	8943.0	-1.8	-162.3
	1984	15314.4	15098.5	-1.4	-215.9
	1985	2447.1	2386.2	-2.5	-60.9
	1986	1675.2	1418.8	-15.3	-256.4
	1987	2379.7	2124.9	-10.7	-254.8
	1988	1193.1	860.0	-27.9	-333.1
	1989	908.9	649.3	-28.6	-259.6
	1990	1605.3	1595.6	-.6	-9.7
	1991	878.0	618.4	-29.6	-259.6
	Mean	3575.2	3426.3	-6.1	-148.9
	Median	2375.6	2363.5	-.8	-12.9
	Min	500.0	500.0	-44.9	-684.5
	Max	19280.7	18994.1	.0	.0
X < 1500.0		9	13		
X < 1750.0		21	23		
X < 1765.0		21	24		
X < 2000.0		23	28		
X < 3000.0		53	54		
X >= 2500.0		17	17		
2500.0 > X >= 2000.0		30	25		
2000.0 > X >= 1750.0		2	5		
1750.0 > X >= 1200.0		14	16		
1200.0 > X		7	7		
X < 3450.0		55	55		
Mean of X >= 3450.0		9364.7	9054.1	-3.3	-310.6

LOWER AMERICAN RIVER FLOW AT HST.

January

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	1908.9	1899.2	-.5	-9.7
	1923	4491.4	4327.4	-3.7	-164.0
	1924	1899.2	1889.5	-.5	-9.7
	1925	1628.0	1658.9	1.9	30.9
	1926	1905.7	1696.0	-11.0	-209.7
	1927	3077.9	2468.3	-19.8	-609.6
	1928	2384.5	2378.1	-.3	-6.4
	1929	1471.5	1265.1	-14.0	-206.4
	1930	1680.1	1672.0	-.5	-8.1
	1931	1707.3	1500.9	-12.1	-206.4
	1932	1879.7	1618.3	-13.9	-261.4
	1933	1917.1	1909.0	-.4	-8.1
	1934	1871.5	1613.5	-13.8	-258.0
	1935	1689.8	1931.8	14.3	242.0
	1936	4271.2	3716.2	-13.0	-555.0
	1937	1918.7	1912.3	-.3	-6.4
	1938	2803.3	2653.8	-5.3	-149.5
	1939	2134.5	1881.4	-11.9	-253.1
	1940	2491.2	2118.6	-15.0	-372.6
	1941	5492.7	5156.5	-6.1	-336.2
	1942	9289.1	9121.9	-1.8	-167.2
	1943	10904.1	10738.5	-1.5	-165.6
	1944	1904.0	1900.9	-.2	-3.1
	1945	1876.4	2123.2	13.2	246.8
	1946	5132.2	4968.1	-3.2	-164.1
	1947	2113.4	1860.2	-12.0	-253.2
	1948	1615.0	1613.5	-.1	-1.5
	1949	1882.9	1879.7	-.2	-3.2
	1950	1933.3	1931.8	-.1	-1.5
	1951	10063.8	9916.0	-1.5	-147.8
	1952	9053.3	8904.0	-1.6	-149.3
	1953	6731.2	6142.6	-8.7	-588.6
	1954	2162.2	2163.9	.1	1.7
	1955	1920.3	1670.4	-13.0	-249.9
	1956	16344.2	16277.8	-.4	-66.4
	1957	2150.8	2150.9	.0	.1
	1958	2204.5	1951.3	-11.5	-253.2
	1959	2204.5	1954.5	-11.3	-250.0
	1960	1325.2	1323.6	-.1	-1.6
	1961	1397.5	1296.0	-7.3	-101.5
	1962	1279.7	1274.9	-.4	-4.8
	1963	3888.0	3766.1	-3.1	-121.9
	1964	2582.0	2422.0	-6.2	-160.0
	1965	13162.5	13092.8	-.5	-69.7
	1966	2387.8	2386.2	-.1	-1.6
	1967	6739.4	6129.4	-9.1	-610.0
	1968	2426.8	2426.9	.0	.1
	1969	14789.4	14348.0	-3.0	-441.4
	1970	20940.2	20786.1	-.7	-154.1
	1971	4668.7	4569.5	-2.1	-99.2
	1972	2373.1	2373.2	.0	.1
	1973	8938.4	8542.8	-4.4	-395.6
	1974	11302.6	11192.3	-1.0	-110.3
	1975	2126.4	2124.9	-.1	-1.5
	1976	2365.0	2365.1	.0	.1
	1977	388.6	390.6	.5	2.0
	1978	3372.5	3368.5	-.1	-4.0
	1979	2202.8	1948.0	-11.6	-254.8
	1980	14921.4	15371.8	3.0	450.4
	1981	2194.7	1939.9	-11.6	-254.8
	1982	8242.9	8111.5	-1.6	-131.4
	1983	7604.2	7453.3	-2.0	-150.9
	1984	6509.9	6380.1	-2.0	-129.8
	1985	2384.5	2383.0	-.1	-1.5
	1986	2157.8	2445.1	13.3	287.3
	1987	1908.9	1707.4	-10.6	-201.5
	1988	926.8	662.3	-28.5	-264.5
	1989	1874.8	1868.3	-.3	-6.5
	1990	1680.1	1423.6	-15.3	-256.5
	1991	668.3	460.2	-31.1	-208.1
	Mean	4254.9	4126.7	-4.5	-128.2
	Median	2203.6	2137.9	-1.6	-130.6
	Min	388.6	390.6	-31.1	-610.0
	Max	20940.2	20786.1	14.3	450.4
X <	1500.0	7	8		
X <	1750.0	13	17		
X <	1765.0	13	17		
X <	2000.0	27	32		
X <	3000.0	46	47		
X >=	2500.0	26	24		
2500.0 > X >=	2000.0	17	14		
2000.0 > X >=	1750.0	14	15		
1750.0 > X >=	1200.0	10	14		
1200.0 > X		3	3		
X <	3450.0	48	48		
Mean of X >=	3450.0	9249.1	9046.0	-2.2	-203.1

LOWER AMERICAN RIVER FLOW AT HST.

February

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	3279.5	2438.4	-25.6	-841.1
	1923	3432.5	3236.5	-5.7	-196.0
	1924	1531.6	1508.3	-1.5	-23.3
	1925	3610.8	3906.0	8.2	295.2
	1926	1594.6	1409.5	-11.6	-185.1
	1927	13414.9	13323.2	-.7	-91.7
	1928	1902.8	1881.2	-1.1	-21.6
	1929	1170.2	1120.4	-4.3	-49.8
	1930	1884.8	1861.4	-1.2	-23.4
	1931	1337.4	1154.0	-13.7	-183.4
	1932	2181.0	1987.2	-8.9	-193.8
	1933	1627.6	1454.2	-10.7	-173.4
	1934	1911.8	1888.4	-1.2	-23.4
	1935	1883.0	1857.8	-1.3	-25.2
	1936	13451.0	13287.4	-1.2	-163.6
	1937	1987.4	1717.7	-13.6	-269.7
	1938	9839.2	9664.6	-1.8	-174.6
	1939	1881.2	1861.4	-1.1	-19.8
	1940	10606.0	10472.9	-1.3	-133.1
	1941	8011.4	7828.1	-2.3	-183.3
	1942	9970.6	9771.0	-2.0	-199.6
	1943	6841.3	6661.6	-2.6	-179.7
	1944	1755.4	1589.3	-9.5	-166.1
	1945	6141.5	6068.8	-1.2	-72.7
	1946	2658.3	2492.9	-6.2	-165.4
	1947	1906.4	1640.2	-14.0	-266.2
	1948	1888.4	1620.4	-14.2	-268.0
	1949	1895.6	1477.6	-22.1	-418.0
	1950	4073.6	2490.5	-38.9	-1583.1
	1951	8100.3	7938.5	-2.0	-161.8
	1952	9480.7	9302.7	-1.9	-178.0
	1953	2179.3	1990.5	-8.7	-188.8
	1954	1985.7	1920.9	-3.3	-64.8
	1955	1895.6	1879.4	-.9	-16.2
	1956	6147.3	6035.9	-1.8	-111.4
	1957	1947.8	1933.5	-.7	-14.3
	1958	9132.6	7677.0	-15.9	-1455.6
	1959	1958.6	1944.3	-.7	-14.3
	1960	1183.4	1037.3	-12.3	-146.1
	1961	1143.8	997.6	-12.8	-146.2
	1962	1281.0	1253.7	-2.1	-27.3
	1963	12007.2	11857.8	-1.2	-149.4
	1964	1995.8	1852.4	-7.2	-143.4
	1965	5371.7	5274.7	-1.8	-97.0
	1966	1902.8	1886.6	-.9	-16.2
	1967	4349.1	4199.8	-3.4	-149.3
	1968	5676.2	4811.3	-15.2	-864.9
	1969	9261.3	9155.2	-1.1	-106.1
	1970	6229.7	6109.4	-1.9	-120.3
	1971	3302.8	3158.8	-4.4	-144.0
	1972	2138.3	1883.0	-11.9	-255.3
	1973	7167.0	7048.3	-1.7	-118.7
	1974	4303.2	3943.5	-8.4	-359.7
	1975	2003.6	1987.5	-.8	-16.1
	1976	1884.8	1870.4	-.8	-14.4
	1977	384.8	365.0	-5.1	-19.8
	1978	4689.2	4583.0	-2.3	-106.2
	1979	1938.8	1920.9	-.9	-17.9
	1980	14127.5	13554.1	-4.1	-573.4
	1981	1886.6	1866.8	-1.0	-19.8
	1982	15463.6	15217.2	-1.6	-246.4
	1983	12405.0	12245.1	-1.3	-159.9
	1984	5580.9	5440.8	-2.5	-140.1
	1985	1917.2	1899.2	-.9	-18.0
	1986	33241.4	33160.6	-.2	-80.8
	1987	1540.6	1362.7	-11.5	-177.9
	1988	1881.2	1863.2	-1.0	-18.0
	1989	1640.2	1868.6	13.9	228.4
	1990	1687.0	1665.5	-1.3	-21.5
	1991	562.6	401.1	-28.7	-161.5
	Mean	4809.2	4629.1	-5.5	-180.2
	Median	2070.9	1965.8	-2.0	-143.7
	Min	384.8	365.0	-38.9	-1583.1
	Max	33241.4	33160.6	13.9	295.2
X < 1500.0		7	11		
X < 1750.0		13	17		
X < 1765.0		14	17		
X < 2000.0		34	38		
X < 3000.0		39	41		
X >= 2500.0		32	29		
2500.0 > X >= 2000.0		4	3		
2000.0 > X >= 1750.0		21	21		
1750.0 > X >= 1200.0		8	11		
1200.0 > X		5	6		
X < 3450.0		42	43		
Mean of X >= 3450.0		9239.1	9205.1	-.4	-33.9

LOWER AMERICAN RIVER FLOW AT HST.

March

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4402.4	4384.6	-.4	-17.8
	1923	2698.3	2594.0	-3.9	-104.3
	1924	1153.1	1185.7	2.8	32.6
	1925	3137.4	3039.1	-3.1	-98.3
	1926	1856.9	1589.1	-14.4	-267.8
	1927	4481.6	4264.2	-4.9	-217.4
	1928	12106.4	11559.3	-4.5	-547.1
	1929	1386.2	1371.6	-1.1	-14.6
	1930	1902.4	1887.9	-.8	-14.5
	1931	1021.9	877.7	-14.1	-144.2
	1932	2605.3	2587.5	-.7	-17.8
	1933	1887.8	1621.6	-14.1	-266.2
	1934	1445.5	1429.3	-1.1	-16.2
	1935	3162.2	3146.0	-.5	-16.2
	1936	4087.1	3915.5	-4.2	-171.6
	1937	4331.3	3663.8	-15.4	-667.5
	1938	10782.2	10589.0	-1.8	-193.2
	1939	1497.5	1486.2	-.8	-11.3
	1940	10878.1	10551.6	-3.0	-326.5
	1941	4777.3	4582.5	-4.1	-194.8
	1942	4413.8	4400.9	-.3	-12.9
	1943	12384.5	12214.1	-1.4	-170.4
	1944	2128.0	1866.7	-12.3	-261.3
	1945	2662.2	2650.9	-.4	-11.3
	1946	2706.0	2636.2	-2.6	-69.8
	1947	1915.4	1655.8	-13.6	-259.6
	1948	2662.2	2652.5	-.4	-9.7
	1949	2451.2	2439.9	-.5	-11.3
	1950	3206.3	2883.0	-10.1	-323.3
	1951	3673.5	3512.9	-4.4	-160.6
	1952	6107.6	5934.0	-2.8	-173.6
	1953	2894.3	2884.6	-.3	-9.7
	1954	4354.4	3584.2	-17.7	-770.2
	1955	1858.5	1850.5	-.4	-8.0
	1956	3366.6	3355.3	-.3	-11.3
	1957	4080.1	3191.6	-21.8	-888.5
	1958	6633.2	6464.4	-2.5	-168.8
	1959	1618.3	1610.2	-.5	-8.1
	1960	2507.4	2121.6	-15.4	-385.8
	1961	1142.7	881.4	-22.9	-261.3
	1962	2386.2	2373.2	-.5	-13.0
	1963	3418.7	3409.0	-.3	-9.7
	1964	1874.8	1863.5	-.6	-11.3
	1965	2887.8	2874.9	-.4	-12.9
	1966	1860.1	1848.8	-.6	-11.3
	1967	5895.1	5658.1	-4.0	-237.0
	1968	2068.3	3822.0	84.8	1753.7
	1969	4378.0	4370.0	-.2	-8.0
	1970	2387.8	2146.7	-10.1	-241.1
	1971	3980.6	3826.5	-3.9	-154.1
	1972	4099.1	3393.3	-17.2	-705.8
	1973	3327.0	3125.7	-6.1	-201.3
	1974	9560.7	9460.1	-1.1	-100.6
	1975	4377.5	3514.9	-19.7	-862.6
	1976	1476.4	1468.4	-.5	-8.0
	1977	278.0	315.4	13.5	37.4
	1978	5452.6	5481.9	.5	29.3
	1979	3050.6	2386.2	-21.8	-664.4
	1980	3407.1	3118.5	-8.5	-288.6
	1981	1673.6	1510.6	-9.7	-163.0
	1982	7577.4	7470.4	-1.4	-107.0
	1983	16256.7	16120.5	-.8	-136.2
	1984	2647.5	2403.1	-9.2	-244.4
	1985	2171.9	1910.6	-12.0	-261.3
	1986	11163.2	10950.7	-1.9	-212.5
	1987	1214.9	1077.3	-11.3	-137.6
	1988	1463.4	1452.1	-.8	-11.3
	1989	6360.0	5971.3	-6.1	-388.7
	1990	1371.5	1357.0	-1.1	-14.5
	1991	2009.8	1996.7	-.7	-13.1
	Mean	3892.0	3739.9	-3.9	-152.1
	Median	2891.1	2878.9	-2.2	-136.9
	Min	278.0	315.4	-22.9	-888.5
	Max	16256.7	16120.5	84.8	1753.7
X <	1500.0	11	11		
X <	1750.0	13	16		
X <	1765.0	13	16		
X <	2000.0	20	23		
X <	3000.0	36	37		
X >=	4500.0	14	14		
4500.0 > X >=	3000.0	20	19		
3000.0 > X >=	2000.0	16	14		
2000.0 > X >=	1500.0	9	12		
1500.0 > X		11	11		
X <	3450.0	44	45		
Mean of X >=	3450.0	6792.1	6650.7	-2.1	-141.4

LOWER AMERICAN RIVER FLOW AT HST.

April

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4363.9	4311.9	-1.2	-52.0
	1923	3177.2	2875.8	-9.5	-301.4
	1924	188.0	188.0	.0	.0
	1925	4012.4	3258.0	-18.8	-754.4
	1926	1934.5	1882.5	-2.7	-52.0
	1927	7856.2	7653.4	-2.6	-202.8
	1928	4773.1	4456.1	-6.6	-317.0
	1929	1355.5	808.5	-40.4	-547.0
	1930	2110.5	1811.9	-14.1	-298.6
	1931	337.0	286.7	-14.9	-50.3
	1932	2853.8	2551.8	-10.6	-302.0
	1933	1835.3	1535.0	-16.4	-300.3
	1934	3070.6	2513.5	-18.1	-557.1
	1935	4340.5	4587.7	5.7	247.2
	1936	5754.8	5471.4	-4.9	-283.4
	1937	4330.0	4032.6	-6.9	-297.4
	1938	7866.0	7574.1	-3.7	-291.9
	1939	1090.3	545.1	-50.0	-545.2
	1940	6058.2	5875.2	-3.0	-183.0
	1941	3751.9	3505.4	-6.6	-246.5
	1942	4439.5	4394.2	-1.0	-45.3
	1943	5162.3	4888.9	-5.3	-273.4
	1944	2130.7	1835.4	-13.9	-295.3
	1945	2602.1	2556.9	-1.7	-45.2
	1946	3913.7	3459.2	-11.6	-454.5
	1947	1848.8	1805.2	-2.4	-43.6
	1948	2655.9	2614.0	-1.6	-41.9
	1949	2338.7	2295.1	-1.9	-43.6
	1950	4935.4	4785.8	-3.0	-149.6
	1951	3037.9	2727.5	-10.2	-310.4
	1952	8946.5	8647.8	-3.3	-298.7
	1953	3399.2	3107.3	-8.6	-291.9
	1954	4454.5	4249.6	-4.6	-204.9
	1955	1884.0	1843.8	-2.1	-40.2
	1956	3894.1	3848.9	-1.2	-45.2
	1957	2630.7	2590.5	-1.5	-40.2
	1958	10349.8	10101.6	-2.4	-248.2
	1959	1872.3	1580.4	-15.6	-291.9
	1960	2112.2	2068.6	-2.1	-43.6
	1961	355.5	311.9	-12.3	-43.6
	1962	3671.1	2823.1	-23.1	-848.0
	1963	4573.6	4198.3	-8.2	-375.3
	1964	1850.4	1805.2	-2.4	-45.2
	1965	3721.1	3273.9	-12.0	-447.2
	1966	1857.2	1813.6	-2.3	-43.6
	1967	4412.6	4370.7	-.9	-41.9
	1968	1850.4	1808.5	-2.3	-41.9
	1969	5827.0	5388.0	-7.5	-439.0
	1970	2357.2	2061.9	-12.5	-295.3
	1971	3365.6	3072.0	-8.7	-293.6
	1972	2375.6	2333.7	-1.8	-41.9
	1973	2608.8	2566.9	-1.6	-41.9
	1974	6156.2	5938.1	-3.5	-218.1
	1975	3877.3	3833.7	-1.1	-43.6
	1976	370.6	328.7	-11.3	-41.9
	1977	188.0	188.0	.0	.0
	1978	4594.3	3873.9	-15.7	-720.4
	1979	2612.2	2566.9	-1.7	-45.3
	1980	2870.6	2575.3	-10.3	-295.3
	1981	1607.2	1311.9	-18.4	-295.3
	1982	14296.2	14063.1	-1.6	-233.1
	1983	6615.5	6358.9	-3.9	-256.6
	1984	2630.7	2585.4	-1.7	-45.3
	1985	2112.2	1818.6	-13.9	-293.6
	1986	2634.0	2590.5	-1.7	-43.5
	1987	357.2	313.6	-12.2	-43.6
	1988	394.1	348.9	-11.5	-45.2
	1989	4472.4	3871.8	-13.4	-600.6
	1990	2583.2	1624.5	-37.1	-958.7
	1991	1850.4	1803.4	-2.5	-47.0
	Mean	3467.4	3242.1	-8.2	-225.3
	Median	2862.2	2590.5	-4.8	-225.6
	Min	188.0	188.0	-50.0	-958.7
	Max	14296.2	14063.1	5.7	247.2
X <	1500.0	9	10		
X <	1750.0	10	13		
X <	1765.0	10	13		
X <	2000.0	19	23		
X <	3000.0	36	40		
X >=	4500.0	15	13		
4500.0 > X >=	3000.0	19	17		
3000.0 > X >=	2000.0	17	17		
2000.0 > X >=	1500.0	10	13		
1500.0 > X		9	10		
X <	3450.0	41	44		
Mean of X >=	3450.0	5566.2	5528.5	-.7	-37.7

LOWER AMERICAN RIVER FLOW AT HST.

May

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	8956.6	8110.7	-9.4	-845.9
	1923	4835.3	4403.8	-8.9	-431.5
	1924	188.0	188.0	.0	.0
	1925	4522.8	3841.9	-15.1	-680.9
	1926	2330.9	2278.8	-2.2	-52.1
	1927	4780.1	4266.8	-10.7	-513.3
	1928	2824.4	2777.2	-1.7	-47.2
	1929	1821.1	1523.9	-16.3	-297.2
	1930	2574.4	2275.6	-11.6	-298.8
	1931	343.9	293.5	-14.7	-50.4
	1932	3817.8	3483.4	-8.8	-334.4
	1933	2329.2	2278.8	-2.2	-50.4
	1934	330.9	278.8	-15.7	-52.1
	1935	4802.6	4719.8	-1.7	-82.8
	1936	4064.6	3986.7	-1.9	-77.9
	1937	4464.6	4059.8	-9.1	-404.8
	1938	9844.5	9420.7	-4.3	-423.8
	1939	1592.2	1548.3	-2.8	-43.9
	1940	3561.3	3235.1	-9.2	-326.2
	1941	5385.1	4977.5	-7.6	-407.6
	1942	6148.6	5468.3	-11.1	-680.3
	1943	3571.1	3496.4	-2.1	-74.7
	1944	2590.6	2298.3	-11.3	-292.3
	1945	3584.1	3507.8	-2.1	-76.3
	1946	3605.9	3511.1	-2.6	-94.8
	1947	2326.0	2285.3	-1.7	-40.7
	1948	3603.6	3530.6	-2.0	-73.0
	1949	3082.5	2788.6	-9.5	-293.9
	1950	3821.1	3748.1	-1.9	-73.0
	1951	3602.0	3275.7	-9.1	-326.3
	1952	11189.5	10773.8	-3.7	-415.7
	1953	4087.4	4016.0	-1.7	-71.4
	1954	2832.5	2793.5	-1.4	-39.0
	1955	2585.7	2295.1	-11.2	-290.6
	1956	4343.9	4272.5	-1.6	-71.4
	1957	3613.4	3292.0	-8.9	-321.4
	1958	10137.3	9726.4	-4.1	-410.9
	1959	2332.5	2041.8	-12.5	-290.7
	1960	2584.1	2541.8	-1.6	-42.3
	1961	1334.1	1290.2	-3.3	-43.9
	1962	3066.2	3000.6	-2.1	-65.6
	1963	7198.5	6716.1	-6.7	-482.4
	1964	2334.1	2290.2	-1.9	-43.9
	1965	4077.6	3753.0	-8.0	-324.6
	1966	2329.2	2286.9	-1.8	-42.3
	1967	8049.5	7429.9	-7.7	-619.6
	1968	2330.9	2291.8	-1.7	-39.1
	1969	9207.0	8762.0	-4.8	-445.0
	1970	2834.1	2541.8	-10.3	-292.3
	1971	4100.4	4027.3	-1.8	-73.1
	1972	2834.1	2543.5	-10.3	-290.6
	1973	4364.2	3679.7	-15.7	-684.5
	1974	4955.8	4492.9	-9.3	-462.9
	1975	4329.2	4257.8	-1.6	-71.4
	1976	839.0	296.7	-64.6	-542.3
	1977	188.0	188.0	.0	.0
	1978	4336.1	3746.4	-13.6	-589.7
	1979	3995.3	3249.7	-18.7	-745.6
	1980	3824.4	3749.7	-2.0	-74.7
	1981	2082.5	1788.6	-14.1	-293.9
	1982	9247.7	8897.0	-3.8	-350.7
	1983	10522.7	10124.9	-3.8	-397.8
	1984	3598.8	3274.1	-9.0	-324.7
	1985	2592.2	2300.0	-11.3	-292.2
	1986	3592.2	3519.2	-2.0	-73.0
	1987	1339.0	546.7	-59.2	-792.3
	1988	352.0	306.5	-12.9	-45.5
	1989	3367.2	2782.1	-17.4	-585.1
	1990	1626.4	1329.2	-18.3	-297.2
	1991	2332.5	2285.3	-2.0	-47.2
	Mean	3859.9	3590.9	-8.5	-269.0
	Median	3588.1	3274.9	-7.1	-292.3
	Min	188.0	188.0	-64.6	-845.9
	Max	11189.5	10773.8	.0	.0
X <	1500.0	8	9		
X <	1750.0	10	11		
X <	1765.0	10	11		
X <	2000.0	11	12		
X <	3000.0	29	31		
X >=	4500.0	16	12		
4500.0 > X >=	3000.0	25	27		
3000.0 > X >=	2000.0	18	19		
2000.0 > X >=	1500.0	3	3		
1500.0 > X		8	9		
X <	3450.0	32	37		
Mean of X >=	3450.0	5414.3	5347.8	-1.2	-66.5

LOWER AMERICAN RIVER FLOW AT HST.

June

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	8942.0	8381.4	-6.3	-560.6
	1923	4572.3	4323.3	-5.4	-249.0
	1924	188.0	188.0	.0	.0
	1925	6281.9	6177.9	-1.7	-104.0
	1926	1737.0	1236.2	-28.8	-500.8
	1927	5328.8	4820.3	-9.5	-508.5
	1928	5709.0	4995.6	-12.5	-713.4
	1929	2161.5	2138.1	-1.1	-23.4
	1930	2051.7	1731.1	-15.6	-320.6
	1931	1073.8	934.2	-13.0	-139.6
	1932	4803.4	4734.6	-1.4	-68.8
	1933	2342.7	2219.4	-5.3	-123.3
	1934	1610.0	1444.0	-10.3	-166.0
	1935	3907.9	3179.2	-18.6	-728.7
	1936	4435.8	3586.5	-19.1	-849.3
	1937	3289.9	3194.3	-2.9	-95.6
	1938	8582.3	8048.7	-6.2	-533.6
	1939	805.1	250.0	-68.9	-555.1
	1940	3415.1	3133.0	-8.3	-282.1
	1941	3545.0	3202.7	-9.7	-342.3
	1942	7345.4	6798.3	-7.4	-547.1
	1943	3305.1	3214.5	-2.7	-90.6
	1944	2055.1	1492.9	-27.4	-562.2
	1945	5835.8	5553.5	-4.8	-282.3
	1946	6258.5	6007.1	-4.0	-251.4
	1947	1568.5	1254.6	-20.0	-313.9
	1948	3296.7	2986.2	-9.4	-310.5
	1949	2791.6	2227.8	-20.2	-563.8
	1950	3941.9	3447.7	-12.5	-494.2
	1951	3053.4	2991.2	-2.0	-62.2
	1952	10503.2	9957.8	-5.2	-545.4
	1953	3813.5	3476.3	-8.8	-337.2
	1954	2687.7	2244.6	-16.5	-443.1
	1955	2060.1	1747.9	-15.2	-312.2
	1956	5529.4	4267.3	-22.8	-1262.1
	1957	3785.0	3214.7	-15.1	-570.3
	1958	7726.9	7220.2	-6.6	-506.7
	1959	1315.1	1003.0	-23.7	-312.1
	1960	2056.7	1992.9	-3.1	-63.8
	1961	556.7	250.0	-55.1	-306.7
	1962	2800.0	2734.5	-2.3	-65.5
	1963	3289.9	3202.7	-2.7	-87.2
	1964	2066.8	1751.3	-15.3	-315.5
	1965	3550.0	3459.5	-2.5	-90.5
	1966	1810.1	1246.2	-31.2	-563.9
	1967	10419.2	9939.3	-4.6	-479.9
	1968	2063.5	1253.0	-39.3	-810.5
	1969	6594.2	6100.9	-7.5	-493.3
	1970	3233.6	3047.1	-5.8	-186.5
	1971	3876.1	3466.2	-10.6	-409.9
	1972	4407.4	4163.1	-5.5	-244.3
	1973	5555.7	5165.2	-7.0	-390.5
	1974	4256.6	3733.0	-12.3	-523.6
	1975	5757.7	4624.5	-19.7	-1133.2
	1976	1838.8	1870.7	1.7	31.9
	1977	188.0	188.0	.0	.0
	1978	4463.3	3454.4	-22.6	-1008.9
	1979	6288.6	6194.7	-1.5	-93.9
	1980	3541.6	3202.7	-9.6	-338.9
	1981	1310.1	744.6	-43.2	-565.5
	1982	6263.1	5716.1	-8.7	-547.0
	1983	14543.2	13999.5	-3.7	-543.7
	1984	4724.4	4468.4	-5.4	-256.0
	1985	2803.0	2338.4	-16.6	-464.6
	1986	3320.2	2999.8	-9.7	-320.4
	1987	321.9	258.0	-19.9	-63.9
	1988	1472.0	1488.8	1.1	16.8
	1989	3881.7	3579.3	-7.8	-302.4
	1990	1630.7	1476.7	-9.4	-154.0
	1991	2851.7	2871.4	.7	19.7
	Mean	3905.6	3542.9	-12.1	-362.7
	Median	3367.6	3198.5	-8.8	-318.0
	Min	188.0	188.0	-68.9	-1262.1
	Max	14543.2	13999.5	1.7	31.9
X <	1500.0	9	16		
X <	1750.0	13	18		
X <	1765.0	13	19		
X <	2000.0	15	21		
X <	3000.0	28	31		
X >=	4500.0	21	18		
4500.0 > X >=	3000.0	21	21		
3000.0 > X >=	2000.0	13	10		
2000.0 > X >=	500.0	12	16		
500.0 > X		3	5		
X <	3450.0	36	41		
Mean of X >=	3450.0	5852.1	5738.4	-1.9	-113.7

LOWER AMERICAN RIVER FLOW AT HST.

July

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4023.9	2936.8	-27.0	-1087.1
	1923	5630.4	3569.7	-36.6	-2060.7
	1924	522.0	386.4	-26.0	-135.6
	1925	3995.1	3476.8	-13.0	-518.3
	1926	2429.8	1902.3	-21.7	-527.5
	1927	2878.6	2613.2	-9.2	-265.4
	1928	1288.6	1230.0	-4.5	-58.6
	1929	1453.9	1110.2	-23.6	-343.7
	1930	2662.4	2090.4	-21.5	-572.0
	1931	1713.5	1574.7	-8.1	-138.8
	1932	2952.8	2884.6	-2.3	-68.2
	1933	2019.4	1689.9	-16.3	-329.5
	1934	1288.1	1050.0	-18.5	-238.1
	1935	4840.5	3213.6	-33.6	-1626.9
	1936	3907.9	2332.2	-40.3	-1575.7
	1937	2387.8	2049.5	-14.2	-338.3
	1938	3538.3	2969.9	-16.1	-568.4
	1939	1755.8	1603.9	-8.7	-151.9
	1940	5836.8	4977.1	-14.7	-859.7
	1941	2158.3	1933.1	-10.4	-225.2
	1942	3523.6	2943.9	-16.5	-579.7
	1943	5539.0	5000.2	-9.7	-538.8
	1944	2109.9	1029.9	-51.2	-1080.0
	1945	4146.7	2950.6	-28.8	-1196.1
	1946	3644.5	2830.7	-22.3	-813.8
	1947	1766.8	1075.9	-39.1	-690.9
	1948	3646.1	2246.0	-38.4	-1400.1
	1949	3057.8	1654.2	-45.9	-1403.6
	1950	5160.3	4322.5	-16.2	-837.8
	1951	5775.3	4922.1	-14.8	-853.2
	1952	4645.8	4085.6	-12.1	-560.2
	1953	3159.8	1991.8	-37.0	-1168.0
	1954	3185.7	2785.2	-12.6	-400.5
	1955	1603.2	1241.4	-22.6	-361.8
	1956	3203.3	2625.1	-18.1	-578.2
	1957	4647.8	4326.0	-6.9	-321.8
	1958	3185.4	2626.7	-17.5	-558.7
	1959	548.3	250.0	-54.4	-298.3
	1960	2741.0	1665.6	-39.2	-1075.4
	1961	290.2	250.0	-13.9	-40.2
	1962	5183.2	4278.9	-17.4	-904.3
	1963	2133.8	1931.5	-9.5	-202.3
	1964	2139.1	1295.2	-39.5	-843.9
	1965	5435.8	5162.0	-5.0	-273.8
	1966	1293.5	491.4	-62.0	-802.1
	1967	4322.2	3763.6	-12.9	-558.6
	1968	1291.8	491.4	-62.0	-800.4
	1969	2982.1	2405.6	-19.3	-576.5
	1970	1759.6	1331.7	-24.3	-427.9
	1971	3003.2	1946.0	-35.2	-1057.2
	1972	1293.5	1243.0	-3.9	-50.5
	1973	4004.4	3465.7	-13.5	-538.7
	1974	3466.7	2911.4	-16.0	-555.3
	1975	2928.4	2374.7	-18.9	-553.7
	1976	1361.1	1212.7	-10.9	-148.4
	1977	188.0	188.0	.0	.0
	1978	6112.6	5227.5	-14.5	-885.1
	1979	2835.4	1698.7	-40.1	-1136.7
	1980	3646.6	2595.8	-28.8	-1050.8
	1981	293.5	250.0	-14.8	-43.5
	1982	3401.7	2823.5	-17.0	-578.2
	1983	6222.4	5749.3	-7.6	-473.1
	1984	4197.4	3588.0	-14.5	-609.4
	1985	2121.9	1789.6	-15.7	-332.3
	1986	5365.7	5127.5	-4.4	-238.2
	1987	1707.1	948.5	-44.4	-758.6
	1988	894.3	667.8	-25.3	-226.5
	1989	3552.7	2886.0	-18.8	-666.7
	1990	1237.5	911.8	-26.3	-325.7
	1991	2223.4	2282.0	2.6	58.6
	Mean	2992.3	2392.2	-21.5	-600.1
	Median	2967.5	2264.0	-17.2	-556.9
	Min	188.0	188.0	-62.0	-2060.7
	Max	6222.4	5749.3	2.6	58.6
X <	1500.0	14	20		
X <	1750.0	17	26		
X <	1765.0	19	26		
X <	2000.0	20	32		
X <	3000.0	36	53		
X >=	2500.0	41	31		
2500.0 > X >=	1500.0	15	19		
1500.0 > X >=	500.0	11	13		
500.0 > X >=	.0	3	7		
.0 > X		0	0		
X <	3450.0	43	54		
Mean of X >=	3450.0	4593.0	4440.2	-3.3	-152.9

LOWER AMERICAN RIVER FLOW AT HST.

August

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2714.5	2622.5	-3.4	-92.0
	1923	2353.3	2376.7	1.0	23.4
	1924	188.0	264.4	40.6	76.4
	1925	3577.1	2941.7	-17.8	-635.4
	1926	545.1	483.3	-11.3	-61.8
	1927	3671.8	2782.0	-24.2	-889.8
	1928	3075.5	2034.1	-33.9	-1041.4
	1929	188.0	188.0	.0	.0
	1930	791.8	731.7	-7.6	-60.1
	1931	188.0	188.0	.0	.0
	1932	2116.8	1467.0	-30.7	-649.8
	1933	533.7	188.0	-64.8	-345.7
	1934	188.0	188.0	.0	.0
	1935	2888.6	2717.8	-5.9	-170.8
	1936	2897.6	3299.0	13.9	401.4
	1937	2584.6	1726.8	-33.2	-857.8
	1938	4207.9	3628.2	-13.8	-579.7
	1939	293.5	250.0	-14.8	-43.5
	1940	3773.3	3344.9	-11.4	-428.4
	1941	4059.9	2957.4	-27.2	-1102.5
	1942	4289.2	3714.4	-13.4	-574.8
	1943	2427.5	2160.4	-11.0	-267.1
	1944	3796.6	2355.1	-38.0	-1441.5
	1945	1853.3	1795.3	-3.1	-58.0
	1946	1897.2	1677.6	-11.6	-219.6
	1947	1088.6	739.8	-32.0	-348.8
	1948	3003.5	2850.3	-5.1	-153.2
	1949	2296.9	2027.2	-11.7	-269.7
	1950	2795.0	2441.6	-12.6	-353.4
	1951	3154.5	2876.4	-8.8	-278.1
	1952	4709.9	4138.8	-12.1	-571.1
	1953	4329.9	3763.1	-13.1	-566.8
	1954	3330.2	3457.5	3.8	127.3
	1955	3194.9	1894.3	-40.7	-1300.6
	1956	4260.0	3690.0	-13.4	-570.0
	1957	1517.4	1297.3	-14.5	-220.1
	1958	4355.9	3803.8	-12.7	-552.1
	1959	2343.8	1188.1	-49.3	-1155.7
	1960	3112.1	2853.5	-8.3	-258.6
	1961	1299.7	489.8	-62.3	-809.9
	1962	4423.2	3429.7	-22.5	-993.5
	1963	3881.0	2538.2	-34.6	-1342.8
	1964	3263.0	2869.4	-12.1	-393.6
	1965	1801.6	1499.5	-16.8	-302.1
	1966	2788.6	1714.9	-38.5	-1073.7
	1967	4323.4	3751.8	-13.2	-571.6
	1968	1050.0	747.9	-28.8	-302.1
	1969	4136.4	3581.0	-13.4	-555.4
	1970	3914.1	3501.2	-10.5	-412.9
	1971	4081.1	3511.1	-14.0	-570.0
	1972	4194.4	2861.4	-31.8	-1333.0
	1973	1495.5	1651.2	10.4	155.7
	1974	4339.7	3771.3	-13.1	-568.4
	1975	4120.1	3571.2	-13.3	-548.9
	1976	1303.4	975.9	-25.1	-327.5
	1977	188.0	188.0	.0	.0
	1978	1541.8	1483.3	-3.8	-58.5
	1979	2099.9	2033.2	-3.2	-66.7
	1980	2321.7	1749.9	-24.6	-571.8
	1981	1568.2	1098.9	-29.9	-469.3
	1982	4329.9	3756.6	-13.2	-573.3
	1983	4732.7	4519.4	-4.5	-213.3
	1984	1317.8	1264.2	-4.1	-53.6
	1985	3103.1	2537.3	-18.2	-565.8
	1986	3671.0	3405.3	-7.2	-265.7
	1987	1488.6	1513.8	1.7	25.2
	1988	701.6	393.7	-43.9	-307.9
	1989	3450.9	2807.0	-18.7	-643.9
	1990	2005.9	1485.0	-26.0	-520.9
	1991	1322.9	489.6	-63.0	-833.3
	Mean	2612.2	2175.6	-16.4	-436.5
	Median	2791.8	2257.8	-13.2	-373.5
	Min	188.0	188.0	-64.8	-1441.5
	Max	4732.7	4519.4	40.6	401.4
X < 1500.0		18	23		
X < 1750.0		21	29		
X < 1765.0		21	29		
X < 2000.0		24	31		
X < 3000.0		38	51		
X >= 2500.0		38	32		
2500.0 > X >= 2000.0		8	7		
2000.0 > X >= 1000.0		14	16		
1000.0 > X >= 500.0		4	4		
500.0 > X		6	11		
X < 3450.0		46	55		
Mean of X >= 3450.0		4109.6	3744.0	-8.9	-365.6

LOWER AMERICAN RIVER FLOW AT HST.

September

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3743.0	3256.4	-13.0	-486.6
	1923	1833.6	1991.4	8.6	157.8
	1924	823.5	826.9	.4	3.4
	1925	1597.9	1273.1	-20.3	-324.8
	1926	1320.2	1028.2	-22.1	-292.0
	1927	3897.6	3382.4	-13.2	-515.2
	1928	1318.5	1279.8	-2.9	-38.7
	1929	1068.5	781.5	-26.9	-287.0
	1930	1318.5	1278.2	-3.1	-40.3
	1931	813.5	523.1	-35.7	-290.4
	1932	3765.6	2211.1	-41.3	-1554.5
	1933	1310.1	1019.8	-22.2	-290.3
	1934	811.8	519.8	-36.0	-292.0
	1935	2722.1	2455.0	-9.8	-267.1
	1936	3834.9	3439.0	-10.3	-395.9
	1937	3828.7	3211.7	-16.1	-617.0
	1938	4033.8	3538.7	-12.3	-495.1
	1939	1078.6	1041.6	-3.4	-37.0
	1940	1535.6	1271.4	-17.2	-264.2
	1941	3976.6	3483.3	-12.4	-493.3
	1942	4013.6	3521.9	-12.3	-491.7
	1943	2068.5	1534.9	-25.8	-533.6
	1944	1735.4	1539.9	-11.3	-195.5
	1945	2282.9	1965.7	-13.9	-317.2
	1946	2800.1	2489.2	-11.1	-310.9
	1947	1966.6	1284.9	-34.7	-681.7
	1948	2687.6	2203.7	-18.0	-483.9
	1949	1880.4	1585.1	-15.7	-295.3
	1950	2411.7	2231.3	-7.5	-180.4
	1951	1640.2	1460.0	-11.0	-180.2
	1952	4234.3	3728.6	-11.9	-505.7
	1953	3981.7	3496.7	-12.2	-485.0
	1954	2024.8	1291.6	-36.2	-733.2
	1955	1368.2	1301.7	-4.9	-66.5
	1956	3961.5	3473.2	-12.3	-488.3
	1957	2092.0	1758.2	-16.0	-333.8
	1958	4048.9	3563.9	-12.0	-485.0
	1959	1110.5	1328.6	19.6	218.1
	1960	1896.2	1581.2	-16.6	-315.0
	1961	1321.9	1036.6	-21.6	-285.3
	1962	1313.5	1278.2	-2.7	-35.3
	1963	3964.8	3479.9	-12.2	-484.9
	1964	1449.9	1136.4	-21.6	-313.5
	1965	3766.0	2229.6	-40.8	-1536.4
	1966	1325.9	1286.6	-3.0	-39.3
	1967	4248.9	3795.9	-10.7	-453.0
	1968	2015.0	1758.5	-12.7	-256.5
	1969	3988.4	3518.6	-11.8	-469.8
	1970	1325.2	1291.6	-2.5	-33.6
	1971	3813.6	3345.5	-12.3	-468.1
	1972	1340.3	1371.5	2.3	31.2
	1973	1828.6	1546.7	-15.4	-281.9
	1974	4114.4	3631.2	-11.7	-483.2
	1975	3901.0	3404.3	-12.7	-496.7
	1976	330.3	296.7	-10.2	-33.6
	1977	281.0	281.0	.0	.0
	1978	2896.2	1983.0	-31.5	-913.2
	1979	1851.1	1585.2	-14.4	-265.9
	1980	3890.9	3421.1	-12.1	-469.8
	1981	1376.2	1293.3	-6.0	-82.9
	1982	4440.4	3984.1	-10.3	-456.3
	1983	4764.4	4584.9	-3.8	-179.5
	1984	1838.7	1753.1	-4.7	-85.6
	1985	1093.7	1060.1	-3.1	-33.6
	1986	1602.1	1318.5	-17.7	-283.6
	1987	1190.4	1198.9	.7	8.5
	1988	576.9	541.6	-6.1	-35.3
	1989	1108.8	1321.9	19.2	213.1
	1990	570.2	533.2	-6.5	-37.0
	1991	815.1	776.5	-4.7	-38.6
	Mean	2302.6	1988.5	-12.5	-314.1
	Median	1865.8	1563.9	-12.1	-291.2
	Min	281.0	281.0	-41.3	-1554.5
	Max	4764.4	4584.9	19.6	218.1
X <	1500.0	26	32		
X <	1750.0	31	38		
X <	1765.0	31	41		
X <	2000.0	38	44		
X <	3000.0	48	50		
X >=	2500.0	26	20		
2500.0 > X >=	1500.0	18	18		
1500.0 > X >=	500.0	24	30		
500.0 > X >=	.0	2	2		
.0 > X		0	0		
X <	3450.0	48	57		
Mean of X >=	3450.0	4009.7	3677.0	-8.3	-332.7

RETURN TO TABLE OF CONTENTS

Section 8

LOWER AMERICAN RIVER FLOW AT H STREET
8.2 Terrestrial

LOWER AMERICAN RIVER FLOW AT H ST.

October

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2353.6	2280.4	-3.1	-73.2
1923	2371.5	2298.5	-3.1	-73.0
1924	2350.4	2279.0	-3.0	-71.4
1925	1170.3	920.3	-21.4	-250.0
1926	2348.8	2025.7	-13.8	-323.1
1927	1639.4	1603.6	-2.2	-35.8
1928	2361.8	2292.0	-3.0	-69.8
1929	1842.2	1558.1	-15.4	-284.1
1930	1598.8	1313.0	-17.9	-285.8
1931	2097.1	1811.3	-13.6	-285.8
1932	1110.1	1071.1	-3.5	-39.0
1933	2339.0	2267.6	-3.1	-71.4
1934	1610.1	1322.7	-17.8	-287.4
1935	1103.6	567.8	-48.6	-535.8
1936	2369.9	2298.5	-3.0	-71.4
1937	2342.2	2272.5	-3.0	-69.7
1938	2358.5	2290.3	-2.9	-68.2
1939	2347.1	2282.2	-2.8	-64.9
1940	1619.9	1335.7	-17.5	-284.2
1941	1865.0	1582.5	-15.1	-282.5
1942	2374.8	2308.2	-2.8	-66.6
1943	2352.0	2285.5	-2.8	-66.5
1944	2343.9	2279.0	-2.8	-64.9
1945	1374.8	1343.9	-2.2	-30.9
1946	2389.4	1858.5	-22.2	-530.9
1947	2093.9	1816.2	-13.3	-277.7
1948	1632.9	1603.6	-1.8	-29.3
1949	2353.6	2285.5	-2.9	-68.1
1950	2343.9	2279.0	-2.8	-64.9
1951	2395.9	2331.0	-2.7	-64.9
1952	2139.4	1858.5	-13.1	-280.9
1953	2343.9	2282.2	-2.6	-61.7
1954	2350.4	2288.7	-2.6	-61.7
1955	1847.1	1819.5	-1.5	-27.6
1956	1624.8	1593.9	-1.9	-30.9
1957	2366.6	2306.6	-2.5	-60.0
1958	2392.7	2326.1	-2.8	-66.6
1959	2345.5	2283.8	-2.6	-61.7
1960	1597.1	1567.8	-1.8	-29.3
1961	1595.5	1564.6	-1.9	-30.9
1962	1602.0	1569.5	-2.0	-32.5
1963	2158.7	2053.7	-4.9	-105.0
1964	2365.0	2300.1	-2.7	-64.9
1965	1641.0	1608.5	-2.0	-32.5
1966	2339.0	2274.1	-2.8	-64.9
1967	1608.5	1576.0	-2.0	-32.5
1968	2339.0	2279.0	-2.6	-60.0
1969	2123.1	1590.6	-25.1	-532.5
1970	2361.8	2298.5	-2.7	-63.3
1971	1873.1	1845.5	-1.5	-27.6
1972	2347.1	2285.5	-2.6	-61.6
1973	1641.0	1611.8	-1.8	-29.2
1974	2387.8	2324.5	-2.7	-63.3
1975	2369.9	2306.6	-2.7	-63.3
1976	2386.2	2326.1	-2.5	-60.1
1977	375.0	375.0	.0	.0
1978	375.0	375.0	.0	.0
1979	2352.0	2282.2	-3.0	-69.8
1980	2399.2	1866.6	-22.2	-532.6
1981	2342.2	2275.7	-2.8	-66.5
1982	1658.9	1624.8	-2.1	-34.1
1983	3312.9	3032.1	-8.5	-280.8
1984	3412.3	2312.4	-32.2	-1099.9
1985	2381.3	2318.0	-2.7	-63.3
1986	1634.5	1352.0	-17.3	-282.5
1987	2350.4	2037.1	-13.3	-313.3
1988	1484.6	1276.8	-14.0	-207.8
1989	855.3	571.1	-33.2	-284.2
1990	1632.9	1598.8	-2.1	-34.1
1991	856.9	571.1	-33.4	-285.8
Mean	2006.1	1858.2	-7.9	-147.9
Median	2339.0	2031.4	-2.8	-66.5
Min	375.0	375.0	-48.6	-1099.9
Max	3412.3	3032.1	.0	.0
X < 1300.0	7	8		
X < 1765.0	24	27		
X < 2000.0	28	34		
X < 2700.0	68	69		
X < 3000.0	68	69		

LOWER AMERICAN RIVER FLOW AT H ST.

November

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2377.3	2343.7	-1.4	-33.6
1923	2431.1	2399.3	-1.3	-31.8
1924	2350.4	2320.3	-1.3	-30.1
1925	1122.3	890.8	-20.6	-231.5
1926	2365.6	2082.0	-12.0	-283.6
1927	1718.1	1686.2	-1.9	-31.9
1928	2764.9	2358.9	-14.7	-406.0
1929	1890.8	1612.3	-14.7	-278.5
1930	1592.0	1310.2	-17.7	-281.8
1931	2115.6	1833.7	-13.3	-281.9
1932	1132.4	1098.9	-3.0	-33.5
1933	2345.4	2313.6	-1.4	-31.8
1934	1583.6	1301.8	-17.8	-281.8
1935	1169.3	635.8	-45.6	-533.5
1936	2365.6	2333.7	-1.3	-31.9
1937	2342.0	2313.6	-1.2	-28.4
1938	2421.0	2390.9	-1.2	-30.1
1939	2348.8	2322.0	-1.1	-26.8
1940	1597.1	1316.9	-17.5	-280.2
1941	1890.8	1610.6	-14.8	-280.2
1942	2389.1	2360.6	-1.2	-28.5
1943	3593.5	3265.1	-9.1	-328.4
1944	2362.2	2337.1	-1.1	-25.1
1945	1419.3	1392.5	-1.9	-26.8
1946	2387.4	1862.3	-22.0	-525.1
1947	2140.8	1867.3	-12.8	-273.5
1948	1618.9	1593.8	-1.6	-25.1
1949	2358.8	2333.7	-1.1	-25.1
1950	2362.2	2338.8	-1.0	-23.4
1951	16872.8	15969.5	-5.4	-903.3
1952	2152.5	1875.7	-12.9	-276.8
1953	2387.4	2365.7	-.9	-21.7
1954	2382.4	2360.6	-.9	-21.8
1955	1902.5	1879.1	-1.2	-23.4
1956	1644.1	1617.3	-1.6	-26.8
1957	2347.1	2325.3	-.9	-21.8
1958	2370.6	2345.5	-1.1	-25.1
1959	2352.1	2330.4	-.9	-21.7
1960	1597.1	1570.3	-1.7	-26.8
1961	1669.3	1644.2	-1.5	-25.1
1962	1645.8	1619.0	-1.6	-26.8
1963	3004.4	2861.7	-4.7	-142.7
1964	4079.0	3769.1	-7.6	-309.9
1965	1669.3	1642.5	-1.6	-26.8
1966	2407.6	2384.1	-1.0	-23.5
1967	1726.5	1699.7	-1.6	-26.8
1968	2367.2	2345.5	-.9	-21.7
1969	2176.1	1649.3	-24.2	-526.8
1970	2372.3	2347.2	-1.1	-25.1
1971	1981.5	1958.1	-1.2	-23.4
1972	2367.2	2343.8	-1.0	-23.4
1973	1699.6	1676.2	-1.4	-23.4
1974	6054.3	4775.8	-21.1	-1278.5
1975	2385.7	2360.6	-1.1	-25.1
1976	2885.2	2533.2	-12.2	-352.0
1977	375.0	375.0	.0	.0
1978	389.1	412.6	6.0	23.5
1979	2416.0	2387.5	-1.2	-28.5
1980	2395.8	1867.3	-22.1	-528.5
1981	2350.4	2322.0	-1.2	-28.4
1982	4641.0	4172.0	-10.1	-469.0
1983	6784.0	6660.0	-1.8	-124.0
1984	14296.1	14316.6	.1	20.5
1985	3083.6	2446.3	-20.7	-637.3
1986	1724.8	1448.0	-16.0	-276.8
1987	2360.5	2087.1	-11.6	-273.4
1988	1185.1	1018.1	-14.1	-167.0
1989	894.1	614.0	-31.3	-280.1
1990	1629.0	1598.9	-1.8	-30.1
1991	863.9	582.0	-32.6	-281.9
Mean	2606.3	2434.0	-7.5	-172.3
Median	2349.6	2200.4	-1.6	-31.0
Min	375.0	375.0	-45.6	-1278.5
Max	16872.8	15969.5	6.0	23.5

X < 1300.0	8	8
X < 1765.0	23	26
X < 2000.0	27	33
X < 2700.0	59	62
X < 3000.0	61	63

LOWER AMERICAN RIVER FLOW AT H ST.

December

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2462.6	2451.2	-.5	-11.4
1923	6449.2	6039.0	-6.4	-410.2
1924	2360.1	2348.8	-.5	-11.3
1925	1189.8	969.1	-18.5	-220.7
1926	2381.3	2120.0	-11.0	-261.3
1927	1628.0	1616.7	-.7	-11.3
1928	2384.5	2374.9	-.4	-9.6
1929	1892.7	1634.6	-13.6	-258.1
1930	1680.1	1418.8	-15.6	-261.3
1931	2095.5	1834.2	-12.5	-261.3
1932	1245.1	1230.6	-1.2	-14.5
1933	2387.8	2376.5	-.5	-11.3
1934	1691.5	1428.5	-15.5	-263.0
1935	1139.4	628.1	-44.9	-511.3
1936	2381.3	2370.0	-.5	-11.3
1937	2404.0	2396.0	-.3	-8.0
1938	6102.9	5696.7	-6.7	-406.2
1939	2365.0	2358.6	-.3	-6.4
1940	1618.3	1358.6	-16.0	-259.7
1941	2013.0	1755.0	-12.8	-258.0
1942	4922.1	4461.6	-9.4	-460.5
1943	4689.8	4558.4	-2.8	-131.4
1944	2386.2	2381.4	-.2	-4.8
1945	1394.3	1386.2	-.6	-8.1
1946	7788.1	7385.2	-5.2	-402.9
1947	2142.7	1887.9	-11.9	-254.8
1948	1611.8	1607.0	-.3	-4.8
1949	2417.1	2410.6	-.3	-6.5
1950	2376.4	2373.2	-.1	-3.2
1951	16335.9	16202.7	-.8	-133.2
1952	4167.5	3483.0	-16.4	-684.5
1953	2475.6	2472.4	-.1	-3.2
1954	2361.8	2360.2	-.1	-1.6
1955	1933.3	1931.8	-.1	-1.5
1956	14600.8	14355.1	-1.7	-245.7
1957	2356.9	2353.7	-.1	-3.2
1958	2418.7	2412.3	-.3	-6.4
1959	2368.3	2366.7	-.1	-1.6
1960	1623.1	1618.4	-.3	-4.7
1961	1615.0	1610.2	-.3	-4.8
1962	1644.3	1637.9	-.4	-6.4
1963	3375.7	3307.5	-2.0	-68.2
1964	3177.9	2943.6	-7.4	-234.3
1965	19280.7	18994.1	-1.5	-286.6
1966	2400.8	2396.0	-.2	-4.8
1967	1678.4	1672.0	-.4	-6.4
1968	2368.3	2365.1	-.1	-3.2
1969	2175.2	1668.8	-23.3	-506.4
1970	5268.1	4817.4	-8.6	-450.7
1971	4835.0	4293.4	-11.2	-541.6
1972	2430.1	2426.9	-.1	-3.2
1973	1658.9	1654.1	-.3	-4.8
1974	7459.5	7337.8	-1.6	-121.7
1975	2420.3	2415.5	-.2	-4.8
1976	2365.0	2361.8	-.1	-3.2
1977	500.0	500.0	.0	.0
1978	500.0	500.0	.0	.0
1979	2374.8	2366.7	-.3	-8.1
1980	2438.2	1930.2	-20.8	-508.0
1981	2394.3	2387.9	-.3	-6.4
1982	14151.7	14145.6	.0	-6.1
1983	9105.3	8943.0	-1.8	-162.3
1984	15314.4	15098.5	-1.4	-215.9
1985	2447.1	2386.2	-2.5	-60.9
1986	1675.2	1418.8	-15.3	-256.4
1987	2379.7	2124.9	-10.7	-254.8
1988	1193.1	860.0	-27.9	-333.1
1989	908.9	649.3	-28.6	-259.6
1990	1605.3	1595.6	-.6	-9.7
1991	878.0	618.4	-29.6	-259.6
Mean	3575.2	3426.3	-6.1	-148.9
Median	2375.6	2363.5	-.8	-12.9
Min	500.0	500.0	-44.9	-684.5
Max	19280.7	18994.1	.0	.0
X < 1300.0	8	8		
X < 1765.0	21	24		
X < 2000.0	23	28		
X < 2700.0	53	53		
X < 3000.0	53	54		

LOWER AMERICAN RIVER FLOW AT H ST.

January

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	1908.9	1899.2	-.5	-9.7
1923	4491.4	4327.4	-3.7	-164.0
1924	1899.2	1889.5	-.5	-9.7
1925	1628.0	1658.9	1.9	30.9
1926	1905.7	1696.0	-11.0	-209.7
1927	3077.9	2468.3	-19.8	-609.6
1928	2384.5	2378.1	-.3	-6.4
1929	1471.5	1265.1	-14.0	-206.4
1930	1680.1	1672.0	-.5	-8.1
1931	1707.3	1500.9	-12.1	-206.4
1932	1879.7	1618.3	-13.9	-261.4
1933	1917.1	1909.0	-.4	-8.1
1934	1871.5	1613.5	-13.8	-258.0
1935	1689.8	1931.8	14.3	242.0
1936	4271.2	3716.2	-13.0	-555.0
1937	1918.7	1912.3	-.3	-6.4
1938	2803.3	2653.8	-5.3	-149.5
1939	2134.5	1881.4	-11.9	-253.1
1940	2491.2	2118.6	-15.0	-372.6
1941	5492.7	5156.5	-6.1	-336.2
1942	9289.1	9121.9	-1.8	-167.2
1943	10904.1	10738.5	-1.5	-165.6
1944	1904.0	1900.9	-.2	-3.1
1945	1876.4	2123.2	13.2	246.8
1946	5132.2	4968.1	-3.2	-164.1
1947	2113.4	1860.2	-12.0	-253.2
1948	1615.0	1613.5	-.1	-1.5
1949	1882.9	1879.7	-.2	-3.2
1950	1933.3	1931.8	-.1	-1.5
1951	10063.8	9916.0	-1.5	-147.8
1952	9053.3	8904.0	-1.6	-149.3
1953	6731.2	6142.6	-8.7	-588.6
1954	2162.2	2163.9	.1	1.7
1955	1920.3	1670.4	-13.0	-249.9
1956	16344.2	16277.8	-.4	-66.4
1957	2150.8	2150.9	.0	.1
1958	2204.5	1951.3	-11.5	-253.2
1959	2204.5	1954.5	-11.3	-250.0
1960	1325.2	1323.6	-.1	-1.6
1961	1397.5	1296.0	-7.3	-101.5
1962	1279.7	1274.9	-.4	-4.8
1963	3888.0	3766.1	-3.1	-121.9
1964	2582.0	2422.0	-6.2	-160.0
1965	13162.5	13092.8	-.5	-69.7
1966	2387.8	2386.2	-.1	-1.6
1967	6739.4	6129.4	-9.1	-610.0
1968	2426.8	2426.9	.0	.1
1969	14789.4	14348.0	-3.0	-441.4
1970	20940.2	20786.1	-.7	-154.1
1971	4668.7	4569.5	-2.1	-99.2
1972	2373.1	2373.2	.0	.1
1973	8938.4	8542.8	-4.4	-395.6
1974	11302.6	11192.3	-1.0	-110.3
1975	2126.4	2124.9	-.1	-1.5
1976	2365.0	2365.1	.0	.1
1977	388.6	390.6	.5	2.0
1978	3372.5	3368.5	-.1	-4.0
1979	2202.8	1948.0	-11.6	-254.8
1980	14921.4	15371.8	3.0	450.4
1981	2194.7	1939.9	-11.6	-254.8
1982	8242.9	8111.5	-1.6	-131.4
1983	7604.2	7453.3	-2.0	-150.9
1984	6509.9	6380.1	-2.0	-129.8
1985	2384.5	2383.0	-.1	-1.5
1986	2157.8	2445.1	13.3	287.3
1987	1908.9	1707.4	-10.6	-201.5
1988	926.8	662.3	-28.5	-264.5
1989	1874.8	1868.3	-.3	-6.5
1990	1680.1	1423.6	-15.3	-256.5
1991	668.3	460.2	-31.1	-208.1
Mean	4254.9	4126.7	-4.5	-128.2
Median	2203.6	2137.9	-1.6	-130.6
Min	388.6	390.6	-31.1	-610.0
Max	20940.2	20786.1	14.3	450.4
X < 1300.0	4	6		
X < 1765.0	13	17		
X < 2000.0	27	32		
X < 2700.0	45	47		
X < 3000.0	46	47		

LOWER AMERICAN RIVER FLOW AT H ST.

February

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	3279.5	2438.4	-25.6	-841.1
1923	3432.5	3236.5	-5.7	-196.0
1924	1531.6	1508.3	-1.5	-23.3
1925	3610.8	3906.0	8.2	295.2
1926	1594.6	1409.5	-11.6	-185.1
1927	13414.9	13323.2	-.7	-91.7
1928	1902.8	1881.2	-1.1	-21.6
1929	1170.2	1120.4	-4.3	-49.8
1930	1884.8	1861.4	-1.2	-23.4
1931	1337.4	1154.0	-13.7	-183.4
1932	2181.0	1987.2	-8.9	-193.8
1933	1627.6	1454.2	-10.7	-173.4
1934	1911.8	1888.4	-1.2	-23.4
1935	1883.0	1857.8	-1.3	-25.2
1936	13451.0	13287.4	-1.2	-163.6
1937	1987.4	1717.7	-13.6	-269.7
1938	9839.2	9664.6	-1.8	-174.6
1939	1881.2	1861.4	-1.1	-19.8
1940	10606.0	10472.9	-1.3	-133.1
1941	8011.4	7828.1	-2.3	-183.3
1942	9970.6	9771.0	-2.0	-199.6
1943	6841.3	6661.6	-2.6	-179.7
1944	1755.4	1589.3	-9.5	-166.1
1945	6141.5	6068.8	-1.2	-72.7
1946	2658.3	2492.9	-6.2	-165.4
1947	1906.4	1640.2	-14.0	-266.2
1948	1888.4	1620.4	-14.2	-268.0
1949	1895.6	1477.6	-22.1	-418.0
1950	4073.6	2490.5	-38.9	-1583.1
1951	8100.3	7938.5	-2.0	-161.8
1952	9480.7	9302.7	-1.9	-178.0
1953	2179.3	1990.5	-8.7	-188.8
1954	1985.7	1920.9	-3.3	-64.8
1955	1895.6	1879.4	-.9	-16.2
1956	6147.3	6035.9	-1.8	-111.4
1957	1947.8	1933.5	-.7	-14.3
1958	9132.6	7677.0	-15.9	-1455.6
1959	1958.6	1944.3	-.7	-14.3
1960	1183.4	1037.3	-12.3	-146.1
1961	1143.8	997.6	-12.8	-146.2
1962	1281.0	1253.7	-2.1	-27.3
1963	12007.2	11857.8	-1.2	-149.4
1964	1995.8	1852.4	-7.2	-143.4
1965	5371.7	5274.7	-1.8	-97.0
1966	1902.8	1886.6	-.9	-16.2
1967	4349.1	4199.8	-3.4	-149.3
1968	5676.2	4811.3	-15.2	-864.9
1969	9261.3	9155.2	-1.1	-106.1
1970	6229.7	6109.4	-1.9	-120.3
1971	3302.8	3158.8	-4.4	-144.0
1972	2138.3	1883.0	-11.9	-255.3
1973	7167.0	7048.3	-1.7	-118.7
1974	4303.2	3943.5	-8.4	-359.7
1975	2003.6	1987.5	-.8	-16.1
1976	1884.8	1870.4	-.8	-14.4
1977	384.8	365.0	-5.1	-19.8
1978	4689.2	4583.0	-2.3	-106.2
1979	1938.8	1920.9	-.9	-17.9
1980	14127.5	13554.1	-4.1	-573.4
1981	1886.6	1866.8	-1.0	-19.8
1982	15463.6	15217.2	-1.6	-246.4
1983	12405.0	12245.1	-1.3	-159.9
1984	5580.9	5440.8	-2.5	-140.1
1985	1917.2	1899.2	-.9	-18.0
1986	33241.4	33160.6	-.2	-80.8
1987	1540.6	1362.7	-11.5	-177.9
1988	1881.2	1863.2	-1.0	-18.0
1989	1640.2	1868.6	13.9	228.4
1990	1687.0	1665.5	-1.3	-21.5
1991	562.6	401.1	-28.7	-161.5
Mean	4809.2	4629.1	-5.5	-180.2
Median	2070.9	1965.8	-2.0	-143.7
Min	384.8	365.0	-38.9	-1583.1
Max	33241.4	33160.6	13.9	295.2
X < 1300.0	6	7		
X < 1765.0	14	17		
X < 2000.0	34	38		
X < 2700.0	39	41		
X < 3000.0	39	41		

LOWER AMERICAN RIVER FLOW AT H ST.

March

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4402.4	4384.6	-.4	-17.8
1923	2698.3	2594.0	-3.9	-104.3
1924	1153.1	1185.7	2.8	32.6
1925	3137.4	3039.1	-3.1	-98.3
1926	1856.9	1589.1	-14.4	-267.8
1927	4481.6	4264.2	-4.9	-217.4
1928	12106.4	11559.3	-4.5	-547.1
1929	1386.2	1371.6	-1.1	-14.6
1930	1902.4	1887.9	-.8	-14.5
1931	1021.9	877.7	-14.1	-144.2
1932	2605.3	2587.5	-.7	-17.8
1933	1887.8	1621.6	-14.1	-266.2
1934	1445.5	1429.3	-1.1	-16.2
1935	3162.2	3146.0	-.5	-16.2
1936	4087.1	3915.5	-4.2	-171.6
1937	4331.3	3663.8	-15.4	-667.5
1938	10782.2	10589.0	-1.8	-193.2
1939	1497.5	1486.2	-.8	-11.3
1940	10878.1	10551.6	-3.0	-326.5
1941	4777.3	4582.5	-4.1	-194.8
1942	4413.8	4400.9	-.3	-12.9
1943	12384.5	12214.1	-1.4	-170.4
1944	2128.0	1866.7	-12.3	-261.3
1945	2662.2	2650.9	-.4	-11.3
1946	2706.0	2636.2	-2.6	-69.8
1947	1915.4	1655.8	-13.6	-259.6
1948	2662.2	2652.5	-.4	-9.7
1949	2451.2	2439.9	-.5	-11.3
1950	3206.3	2883.0	-10.1	-323.3
1951	3673.5	3512.9	-4.4	-160.6
1952	6107.6	5934.0	-2.8	-173.6
1953	2894.3	2884.6	-.3	-9.7
1954	4354.4	3584.2	-17.7	-770.2
1955	1858.5	1850.5	-.4	-8.0
1956	3366.6	3355.3	-.3	-11.3
1957	4080.1	3191.6	-21.8	-888.5
1958	6633.2	6464.4	-2.5	-168.8
1959	1618.3	1610.2	-.5	-8.1
1960	2507.4	2121.6	-15.4	-385.8
1961	1142.7	881.4	-22.9	-261.3
1962	2386.2	2373.2	-.5	-13.0
1963	3418.7	3409.0	-.3	-9.7
1964	1874.8	1863.5	-.6	-11.3
1965	2887.8	2874.9	-.4	-12.9
1966	1860.1	1848.8	-.6	-11.3
1967	5895.1	5658.1	-4.0	-237.0
1968	2068.3	3822.0	84.8	1753.7
1969	4378.0	4370.0	-.2	-8.0
1970	2387.8	2146.7	-10.1	-241.1
1971	3980.6	3826.5	-3.9	-154.1
1972	4099.1	3393.3	-17.2	-705.8
1973	3327.0	3125.7	-6.1	-201.3
1974	9560.7	9460.1	-1.1	-100.6
1975	4377.5	3514.9	-19.7	-862.6
1976	1476.4	1468.4	-.5	-8.0
1977	278.0	315.4	13.5	37.4
1978	5452.6	5481.9	.5	29.3
1979	3050.6	2386.2	-21.8	-664.4
1980	3407.1	3118.5	-8.5	-288.6
1981	1673.6	1510.6	-9.7	-163.0
1982	7577.4	7470.4	-1.4	-107.0
1983	16256.7	16120.5	-.8	-136.2
1984	2647.5	2403.1	-9.2	-244.4
1985	2171.9	1910.6	-12.0	-261.3
1986	11163.2	10950.7	-1.9	-212.5
1987	1214.9	1077.3	-11.3	-137.6
1988	1463.4	1452.1	-.8	-11.3
1989	6360.0	5971.3	-6.1	-388.7
1990	1371.5	1357.0	-1.1	-14.5
1991	2009.8	1996.7	-.7	-13.1
Mean	3892.0	3739.9	-3.9	-152.1
Median	2891.1	2878.9	-2.2	-136.9
Min	278.0	315.4	-22.9	-888.5
Max	16256.7	16120.5	84.8	1753.7
X < 1300.0	5	5		
X < 1765.0	13	16		
X < 2000.0	20	23		
X < 2700.0	33	34		
X < 3000.0	36	37		

LOWER AMERICAN RIVER FLOW AT H ST.

April

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4363.9	4311.9	-1.2	-52.0
1923	3177.2	2875.8	-9.5	-301.4
1924	188.0	188.0	.0	.0
1925	4012.4	3258.0	-18.8	-754.4
1926	1934.5	1882.5	-2.7	-52.0
1927	7856.2	7653.4	-2.6	-202.8
1928	4773.1	4456.1	-6.6	-317.0
1929	1355.5	808.5	-40.4	-547.0
1930	2110.5	1811.9	-14.1	-298.6
1931	337.0	286.7	-14.9	-50.3
1932	2853.8	2551.8	-10.6	-302.0
1933	1835.3	1535.0	-16.4	-300.3
1934	3070.6	2513.5	-18.1	-557.1
1935	4340.5	4587.7	5.7	247.2
1936	5754.8	5471.4	-4.9	-283.4
1937	4330.0	4032.6	-6.9	-297.4
1938	7866.0	7574.1	-3.7	-291.9
1939	1090.3	545.1	-50.0	-545.2
1940	6058.2	5875.2	-3.0	-183.0
1941	3751.9	3505.4	-6.6	-246.5
1942	4439.5	4394.2	-1.0	-45.3
1943	5162.3	4888.9	-5.3	-273.4
1944	2130.7	1835.4	-13.9	-295.3
1945	2602.1	2556.9	-1.7	-45.2
1946	3913.7	3459.2	-11.6	-454.5
1947	1848.8	1805.2	-2.4	-43.6
1948	2655.9	2614.0	-1.6	-41.9
1949	2338.7	2295.1	-1.9	-43.6
1950	4935.4	4785.8	-3.0	-149.6
1951	3037.9	2727.5	-10.2	-310.4
1952	8946.5	8647.8	-3.3	-298.7
1953	3399.2	3107.3	-8.6	-291.9
1954	4454.5	4249.6	-4.6	-204.9
1955	1884.0	1843.8	-2.1	-40.2
1956	3894.1	3848.9	-1.2	-45.2
1957	2630.7	2590.5	-1.5	-40.2
1958	10349.8	10101.6	-2.4	-248.2
1959	1872.3	1580.4	-15.6	-291.9
1960	2112.2	2068.6	-2.1	-43.6
1961	355.5	311.9	-12.3	-43.6
1962	3671.1	2823.1	-23.1	-848.0
1963	4573.6	4198.3	-8.2	-375.3
1964	1850.4	1805.2	-2.4	-45.2
1965	3721.1	3273.9	-12.0	-447.2
1966	1857.2	1813.6	-2.3	-43.6
1967	4412.6	4370.7	-.9	-41.9
1968	1850.4	1808.5	-2.3	-41.9
1969	5827.0	5388.0	-7.5	-439.0
1970	2357.2	2061.9	-12.5	-295.3
1971	3365.6	3072.0	-8.7	-293.6
1972	2375.6	2333.7	-1.8	-41.9
1973	2608.8	2566.9	-1.6	-41.9
1974	6156.2	5938.1	-3.5	-218.1
1975	3877.3	3833.7	-1.1	-43.6
1976	370.6	328.7	-11.3	-41.9
1977	188.0	188.0	.0	.0
1978	4594.3	3873.9	-15.7	-720.4
1979	2612.2	2566.9	-1.7	-45.3
1980	2870.6	2575.3	-10.3	-295.3
1981	1607.2	1311.9	-18.4	-295.3
1982	14296.2	14063.1	-1.6	-233.1
1983	6615.5	6358.9	-3.9	-256.6
1984	2630.7	2585.4	-1.7	-45.3
1985	2112.2	1818.6	-13.9	-293.6
1986	2634.0	2590.5	-1.7	-43.5
1987	357.2	313.6	-12.2	-43.6
1988	394.1	348.9	-11.5	-45.2
1989	4472.4	3871.8	-13.4	-600.6
1990	2583.2	1624.5	-37.1	-958.7
1991	1850.4	1803.4	-2.5	-47.0
Mean	3467.4	3242.1	-8.2	-225.3
Median	2862.2	2590.5	-4.8	-225.6
Min	188.0	188.0	-50.0	-958.7
Max	14296.2	14063.1	5.7	247.2
X < 1300.0	8	9		
X < 1765.0	10	13		
X < 2000.0	19	23		
X < 2700.0	34	37		
X < 3000.0	36	40		

LOWER AMERICAN RIVER FLOW AT H ST.

May

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	8956.6	8110.7	-9.4	-845.9
	1923	4835.3	4403.8	-8.9	-431.5
	1924	188.0	188.0	.0	.0
	1925	4522.8	3841.9	-15.1	-680.9
	1926	2330.9	2278.8	-2.2	-52.1
	1927	4780.1	4266.8	-10.7	-513.3
	1928	2824.4	2777.2	-1.7	-47.2
	1929	1821.1	1523.9	-16.3	-297.2
	1930	2574.4	2275.6	-11.6	-298.8
	1931	343.9	293.5	-14.7	-50.4
	1932	3817.8	3483.4	-8.8	-334.4
	1933	2329.2	2278.8	-2.2	-50.4
	1934	330.9	278.8	-15.7	-52.1
	1935	4802.6	4719.8	-1.7	-82.8
	1936	4064.6	3986.7	-1.9	-77.9
	1937	4464.6	4059.8	-9.1	-404.8
	1938	9844.5	9420.7	-4.3	-423.8
	1939	1592.2	1548.3	-2.8	-43.9
	1940	3561.3	3235.1	-9.2	-326.2
	1941	5385.1	4977.5	-7.6	-407.6
	1942	6148.6	5468.3	-11.1	-680.3
	1943	3571.1	3496.4	-2.1	-74.7
	1944	2590.6	2298.3	-11.3	-292.3
	1945	3584.1	3507.8	-2.1	-76.3
	1946	3605.9	3511.1	-2.6	-94.8
	1947	2326.0	2285.3	-1.7	-40.7
	1948	3603.6	3530.6	-2.0	-73.0
	1949	3082.5	2788.6	-9.5	-293.9
	1950	3821.1	3748.1	-1.9	-73.0
	1951	3602.0	3275.7	-9.1	-326.3
	1952	11189.5	10773.8	-3.7	-415.7
	1953	4087.4	4016.0	-1.7	-71.4
	1954	2832.5	2793.5	-1.4	-39.0
	1955	2585.7	2295.1	-11.2	-290.6
	1956	4343.9	4272.5	-1.6	-71.4
	1957	3613.4	3292.0	-8.9	-321.4
	1958	10137.3	9726.4	-4.1	-410.9
	1959	2332.5	2041.8	-12.5	-290.7
	1960	2584.1	2541.8	-1.6	-42.3
	1961	1334.1	1290.2	-3.3	-43.9
	1962	3066.2	3000.6	-2.1	-65.6
	1963	7198.5	6716.1	-6.7	-482.4
	1964	2334.1	2290.2	-1.9	-43.9
	1965	4077.6	3753.0	-8.0	-324.6
	1966	2329.2	2286.9	-1.8	-42.3
	1967	8049.5	7429.9	-7.7	-619.6
	1968	2330.9	2291.8	-1.7	-39.1
	1969	9207.0	8762.0	-4.8	-445.0
	1970	2834.1	2541.8	-10.3	-292.3
	1971	4100.4	4027.3	-1.8	-73.1
	1972	2834.1	2543.5	-10.3	-290.6
	1973	4364.2	3679.7	-15.7	-684.5
	1974	4955.8	4492.9	-9.3	-462.9
	1975	4329.2	4257.8	-1.6	-71.4
	1976	839.0	296.7	-64.6	-542.3
	1977	188.0	188.0	.0	.0
	1978	4336.1	3746.4	-13.6	-589.7
	1979	3995.3	3249.7	-18.7	-745.6
	1980	3824.4	3749.7	-2.0	-74.7
	1981	2082.5	1788.6	-14.1	-293.9
	1982	9247.7	8897.0	-3.8	-350.7
	1983	10522.7	10124.9	-3.8	-397.8
	1984	3598.8	3274.1	-9.0	-324.7
	1985	2592.2	2300.0	-11.3	-292.2
	1986	3592.2	3519.2	-2.0	-73.0
	1987	1339.0	546.7	-59.2	-792.3
	1988	352.0	306.5	-12.9	-45.5
	1989	3367.2	2782.1	-17.4	-585.1
	1990	1626.4	1329.2	-18.3	-297.2
	1991	2332.5	2285.3	-2.0	-47.2
	Mean	3859.9	3590.9	-8.5	-269.0
	Median	3588.1	3274.9	-7.1	-292.3
	Min	188.0	188.0	-64.6	-845.9
	Max	11189.5	10773.8	.0	.0
X <	1300.0	6	8		
X <	1765.0	10	11		
X <	2000.0	11	12		
X <	2700.0	25	27		
X <	3000.0	29	31		

LOWER AMERICAN RIVER FLOW AT H ST.

June

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	8942.0	8381.4	-6.3	-560.6
1923	4572.3	4323.3	-5.4	-249.0
1924	188.0	188.0	.0	.0
1925	6281.9	6177.9	-1.7	-104.0
1926	1737.0	1236.2	-28.8	-500.8
1927	5328.8	4820.3	-9.5	-508.5
1928	5709.0	4995.6	-12.5	-713.4
1929	2161.5	2138.1	-1.1	-23.4
1930	2051.7	1731.1	-15.6	-320.6
1931	1073.8	934.2	-13.0	-139.6
1932	4803.4	4734.6	-1.4	-68.8
1933	2342.7	2219.4	-5.3	-123.3
1934	1610.0	1444.0	-10.3	-166.0
1935	3907.9	3179.2	-18.6	-728.7
1936	4435.8	3586.5	-19.1	-849.3
1937	3289.9	3194.3	-2.9	-95.6
1938	8582.3	8048.7	-6.2	-533.6
1939	805.1	250.0	-68.9	-555.1
1940	3415.1	3133.0	-8.3	-282.1
1941	3545.0	3202.7	-9.7	-342.3
1942	7345.4	6798.3	-7.4	-547.1
1943	3305.1	3214.5	-2.7	-90.6
1944	2055.1	1492.9	-27.4	-562.2
1945	5835.8	5553.5	-4.8	-282.3
1946	6258.5	6007.1	-4.0	-251.4
1947	1568.5	1254.6	-20.0	-313.9
1948	3296.7	2986.2	-9.4	-310.5
1949	2791.6	2227.8	-20.2	-563.8
1950	3941.9	3447.7	-12.5	-494.2
1951	3053.4	2991.2	-2.0	-62.2
1952	10503.2	9957.8	-5.2	-545.4
1953	3813.5	3476.3	-8.8	-337.2
1954	2687.7	2244.6	-16.5	-443.1
1955	2060.1	1747.9	-15.2	-312.2
1956	5529.4	4267.3	-22.8	-1262.1
1957	3785.0	3214.7	-15.1	-570.3
1958	7726.9	7220.2	-6.6	-506.7
1959	1315.1	1003.0	-23.7	-312.1
1960	2056.7	1992.9	-3.1	-63.8
1961	556.7	250.0	-55.1	-306.7
1962	2800.0	2734.5	-2.3	-65.5
1963	3289.9	3202.7	-2.7	-87.2
1964	2066.8	1751.3	-15.3	-315.5
1965	3550.0	3459.5	-2.5	-90.5
1966	1810.1	1246.2	-31.2	-563.9
1967	10419.2	9939.3	-4.6	-479.9
1968	2063.5	1253.0	-39.3	-810.5
1969	6594.2	6100.9	-7.5	-493.3
1970	3233.6	3047.1	-5.8	-186.5
1971	3876.1	3466.2	-10.6	-409.9
1972	4407.4	4163.1	-5.5	-244.3
1973	5555.7	5165.2	-7.0	-390.5
1974	4256.6	3733.0	-12.3	-523.6
1975	5757.7	4624.5	-19.7	-1133.2
1976	1838.8	1870.7	1.7	31.9
1977	188.0	188.0	.0	.0
1978	4463.3	3454.4	-22.6	-1008.9
1979	6288.6	6194.7	-1.5	-93.9
1980	3541.6	3202.7	-9.6	-338.9
1981	1310.1	744.6	-43.2	-565.5
1982	6263.1	5716.1	-8.7	-547.0
1983	14543.2	13999.5	-3.7	-543.7
1984	4724.4	4468.4	-5.4	-256.0
1985	2803.0	2338.4	-16.6	-464.6
1986	3320.2	2999.8	-9.7	-320.4
1987	321.9	258.0	-19.9	-63.9
1988	1472.0	1488.8	1.1	16.8
1989	3881.7	3579.3	-7.8	-302.4
1990	1630.7	1476.7	-9.4	-154.0
1991	2851.7	2871.4	.7	19.7
Mean	3905.6	3542.9	-12.1	-362.7
Median	3367.6	3198.5	-8.8	-318.0
Min	188.0	188.0	-68.9	-1262.1
Max	14543.2	13999.5	1.7	31.9
X < 1300.0	6	12		
X < 1765.0	13	19		
X < 2000.0	15	21		
X < 2700.0	24	26		
X < 3000.0	28	31		

LOWER AMERICAN RIVER FLOW AT H ST.

July

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4023.9	2936.8	-27.0	-1087.1
	1923	5630.4	3569.7	-36.6	-2060.7
	1924	522.0	386.4	-26.0	-135.6
	1925	3995.1	3476.8	-13.0	-518.3
	1926	2429.8	1902.3	-21.7	-527.5
	1927	2878.6	2613.2	-9.2	-265.4
	1928	1288.6	1230.0	-4.5	-58.6
	1929	1453.9	1110.2	-23.6	-343.7
	1930	2662.4	2090.4	-21.5	-572.0
	1931	1713.5	1574.7	-8.1	-138.8
	1932	2952.8	2884.6	-2.3	-68.2
	1933	2019.4	1689.9	-16.3	-329.5
	1934	1288.1	1050.0	-18.5	-238.1
	1935	4840.5	3213.6	-33.6	-1626.9
	1936	3907.9	2332.2	-40.3	-1575.7
	1937	2387.8	2049.5	-14.2	-338.3
	1938	3538.3	2969.9	-16.1	-568.4
	1939	1755.8	1603.9	-8.7	-151.9
	1940	5836.8	4977.1	-14.7	-859.7
	1941	2158.3	1933.1	-10.4	-225.2
	1942	3523.6	2943.9	-16.5	-579.7
	1943	5539.0	5000.2	-9.7	-538.8
	1944	2109.9	1029.9	-51.2	-1080.0
	1945	4146.7	2950.6	-28.8	-1196.1
	1946	3644.5	2830.7	-22.3	-813.8
	1947	1766.8	1075.9	-39.1	-690.9
	1948	3646.1	2246.0	-38.4	-1400.1
	1949	3057.8	1654.2	-45.9	-1403.6
	1950	5160.3	4322.5	-16.2	-837.8
	1951	5775.3	4922.1	-14.8	-853.2
	1952	4645.8	4085.6	-12.1	-560.2
	1953	3159.8	1991.8	-37.0	-1168.0
	1954	3185.7	2785.2	-12.6	-400.5
	1955	1603.2	1241.4	-22.6	-361.8
	1956	3203.3	2625.1	-18.1	-578.2
	1957	4647.8	4326.0	-6.9	-321.8
	1958	3185.4	2626.7	-17.5	-558.7
	1959	548.3	250.0	-54.4	-298.3
	1960	2741.0	1665.6	-39.2	-1075.4
	1961	290.2	250.0	-13.9	-40.2
	1962	5183.2	4278.9	-17.4	-904.3
	1963	2133.8	1931.5	-9.5	-202.3
	1964	2139.1	1295.2	-39.5	-843.9
	1965	5435.8	5162.0	-5.0	-273.8
	1966	1293.5	491.4	-62.0	-802.1
	1967	4322.2	3763.6	-12.9	-558.6
	1968	1291.8	491.4	-62.0	-800.4
	1969	2982.1	2405.6	-19.3	-576.5
	1970	1759.6	1331.7	-24.3	-427.9
	1971	3003.2	1946.0	-35.2	-1057.2
	1972	1293.5	1243.0	-3.9	-50.5
	1973	4004.4	3465.7	-13.5	-538.7
	1974	3466.7	2911.4	-16.0	-555.3
	1975	2928.4	2374.7	-18.9	-553.7
	1976	1361.1	1212.7	-10.9	-148.4
	1977	188.0	188.0	.0	.0
	1978	6112.6	5227.5	-14.5	-885.1
	1979	2835.4	1698.7	-40.1	-1136.7
	1980	3646.6	2595.8	-28.8	-1050.8
	1981	293.5	250.0	-14.8	-43.5
	1982	3401.7	2823.5	-17.0	-578.2
	1983	6222.4	5749.3	-7.6	-473.1
	1984	4197.4	3588.0	-14.5	-609.4
	1985	2121.9	1789.6	-15.7	-332.3
	1986	5365.7	5127.5	-4.4	-238.2
	1987	1707.1	948.5	-44.4	-758.6
	1988	894.3	667.8	-25.3	-226.5
	1989	3552.7	2886.0	-18.8	-666.7
	1990	1237.5	911.8	-26.3	-325.7
	1991	2223.4	2282.0	2.6	58.6
	Mean	2992.3	2392.2	-21.5	-600.1
	Median	2967.5	2264.0	-17.2	-556.9
	Min	188.0	188.0	-62.0	-2060.7
	Max	6222.4	5749.3	2.6	58.6
X <	1300.0	12	19		
X <	1765.0	19	26		
X <	2000.0	20	32		
X <	2700.0	30	43		
X <	3000.0	36	53		

LOWER AMERICAN RIVER FLOW AT H ST.

August

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2714.5	2622.5	-3.4	-92.0
1923	2353.3	2376.7	1.0	23.4
1924	188.0	264.4	40.6	76.4
1925	3577.1	2941.7	-17.8	-635.4
1926	545.1	483.3	-11.3	-61.8
1927	3671.8	2782.0	-24.2	-889.8
1928	3075.5	2034.1	-33.9	-1041.4
1929	188.0	188.0	.0	.0
1930	791.8	731.7	-7.6	-60.1
1931	188.0	188.0	.0	.0
1932	2116.8	1467.0	-30.7	-649.8
1933	533.7	188.0	-64.8	-345.7
1934	188.0	188.0	.0	.0
1935	2888.6	2717.8	-5.9	-170.8
1936	2897.6	3299.0	13.9	401.4
1937	2584.6	1726.8	-33.2	-857.8
1938	4207.9	3628.2	-13.8	-579.7
1939	293.5	250.0	-14.8	-43.5
1940	3773.3	3344.9	-11.4	-428.4
1941	4059.9	2957.4	-27.2	-1102.5
1942	4289.2	3714.4	-13.4	-574.8
1943	2427.5	2160.4	-11.0	-267.1
1944	3796.6	2355.1	-38.0	-1441.5
1945	1853.3	1795.3	-3.1	-58.0
1946	1897.2	1677.6	-11.6	-219.6
1947	1088.6	739.8	-32.0	-348.8
1948	3003.5	2850.3	-5.1	-153.2
1949	2296.9	2027.2	-11.7	-269.7
1950	2795.0	2441.6	-12.6	-353.4
1951	3154.5	2876.4	-8.8	-278.1
1952	4709.9	4138.8	-12.1	-571.1
1953	4329.9	3763.1	-13.1	-566.8
1954	3330.2	3457.5	3.8	127.3
1955	3194.9	1894.3	-40.7	-1300.6
1956	4260.0	3690.0	-13.4	-570.0
1957	1517.4	1297.3	-14.5	-220.1
1958	4355.9	3803.8	-12.7	-552.1
1959	2343.8	1188.1	-49.3	-1155.7
1960	3112.1	2853.5	-8.3	-258.6
1961	1299.7	489.8	-62.3	-809.9
1962	4423.2	3429.7	-22.5	-993.5
1963	3881.0	2538.2	-34.6	-1342.8
1964	3263.0	2869.4	-12.1	-393.6
1965	1801.6	1499.5	-16.8	-302.1
1966	2788.6	1714.9	-38.5	-1073.7
1967	4323.4	3751.8	-13.2	-571.6
1968	1050.0	747.9	-28.8	-302.1
1969	4136.4	3581.0	-13.4	-555.4
1970	3914.1	3501.2	-10.5	-412.9
1971	4081.1	3511.1	-14.0	-570.0
1972	4194.4	2861.4	-31.8	-1333.0
1973	1495.5	1651.2	10.4	155.7
1974	4339.7	3771.3	-13.1	-568.4
1975	4120.1	3571.2	-13.3	-548.9
1976	1303.4	975.9	-25.1	-327.5
1977	188.0	188.0	.0	.0
1978	1541.8	1483.3	-3.8	-58.5
1979	2099.9	2033.2	-3.2	-66.7
1980	2321.7	1749.9	-24.6	-571.8
1981	1568.2	1098.9	-29.9	-469.3
1982	4329.9	3756.6	-13.2	-573.3
1983	4732.7	4519.4	-4.5	-213.3
1984	1317.8	1264.2	-4.1	-53.6
1985	3103.1	2537.3	-18.2	-565.8
1986	3671.0	3405.3	-7.2	-265.7
1987	1488.6	1513.8	1.7	25.2
1988	701.6	393.7	-43.9	-307.9
1989	3450.9	2807.0	-18.7	-643.9
1990	2005.9	1485.0	-26.0	-520.9
1991	1322.9	489.6	-63.0	-833.3
Mean	2612.2	2175.6	-16.4	-436.5
Median	2791.8	2257.8	-13.2	-373.5
Min	188.0	188.0	-64.8	-1441.5
Max	4732.7	4519.4	40.6	401.4

X < 1300.0	13	19
X < 1765.0	21	29
X < 2000.0	24	31
X < 2700.0	33	41
X < 3000.0	38	51

LOWER AMERICAN RIVER FLOW AT H ST.

September

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	3743.0	3256.4	-13.0	-486.6
1923	1833.6	1991.4	8.6	157.8
1924	823.5	826.9	.4	3.4
1925	1597.9	1273.1	-20.3	-324.8
1926	1320.2	1028.2	-22.1	-292.0
1927	3897.6	3382.4	-13.2	-515.2
1928	1318.5	1279.8	-2.9	-38.7
1929	1068.5	781.5	-26.9	-287.0
1930	1318.5	1278.2	-3.1	-40.3
1931	813.5	523.1	-35.7	-290.4
1932	3765.6	2211.1	-41.3	-1554.5
1933	1310.1	1019.8	-22.2	-290.3
1934	811.8	519.8	-36.0	-292.0
1935	2722.1	2455.0	-9.8	-267.1
1936	3834.9	3439.0	-10.3	-395.9
1937	3828.7	3211.7	-16.1	-617.0
1938	4033.8	3538.7	-12.3	-495.1
1939	1078.6	1041.6	-3.4	-37.0
1940	1535.6	1271.4	-17.2	-264.2
1941	3976.6	3483.3	-12.4	-493.3
1942	4013.6	3521.9	-12.3	-491.7
1943	2068.5	1534.9	-25.8	-533.6
1944	1735.4	1539.9	-11.3	-195.5
1945	2282.9	1965.7	-13.9	-317.2
1946	2800.1	2489.2	-11.1	-310.9
1947	1966.6	1284.9	-34.7	-681.7
1948	2687.6	2203.7	-18.0	-483.9
1949	1880.4	1585.1	-15.7	-295.3
1950	2411.7	2231.3	-7.5	-180.4
1951	1640.2	1460.0	-11.0	-180.2
1952	4234.3	3728.6	-11.9	-505.7
1953	3981.7	3496.7	-12.2	-485.0
1954	2024.8	1291.6	-36.2	-733.2
1955	1368.2	1301.7	-4.9	-66.5
1956	3961.5	3473.2	-12.3	-488.3
1957	2092.0	1758.2	-16.0	-333.8
1958	4048.9	3563.9	-12.0	-485.0
1959	1110.5	1328.6	19.6	218.1
1960	1896.2	1581.2	-16.6	-315.0
1961	1321.9	1036.6	-21.6	-285.3
1962	1313.5	1278.2	-2.7	-35.3
1963	3964.8	3479.9	-12.2	-484.9
1964	1449.9	1136.4	-21.6	-313.5
1965	3766.0	2229.6	-40.8	-1536.4
1966	1325.9	1286.6	-3.0	-39.3
1967	4248.9	3795.9	-10.7	-453.0
1968	2015.0	1758.5	-12.7	-256.5
1969	3988.4	3518.6	-11.8	-469.8
1970	1325.2	1291.6	-2.5	-33.6
1971	3813.6	3345.5	-12.3	-468.1
1972	1340.3	1371.5	2.3	31.2
1973	1828.6	1546.7	-15.4	-281.9
1974	4114.4	3631.2	-11.7	-483.2
1975	3901.0	3404.3	-12.7	-496.7
1976	330.3	296.7	-10.2	-33.6
1977	281.0	281.0	.0	.0
1978	2896.2	1983.0	-31.5	-913.2
1979	1851.1	1585.2	-14.4	-265.9
1980	3890.9	3421.1	-12.1	-469.8
1981	1376.2	1293.3	-6.0	-82.9
1982	4440.4	3984.1	-10.3	-456.3
1983	4764.4	4584.9	-3.8	-179.5
1984	1838.7	1753.1	-4.7	-85.6
1985	1093.7	1060.1	-3.1	-33.6
1986	1602.1	1318.5	-17.7	-283.6
1987	1190.4	1198.9	.7	8.5
1988	576.9	541.6	-6.1	-35.3
1989	1108.8	1321.9	19.2	213.1
1990	570.2	533.2	-6.5	-37.0
1991	815.1	776.5	-4.7	-38.6
Mean	2302.6	1988.5	-12.5	-314.1
Median	1865.8	1563.9	-12.1	-291.2
Min	281.0	281.0	-41.3	-1554.5
Max	4764.4	4584.9	19.6	218.1

X < 1300.0	14	26	
X < 1765.0	31	41	
X < 2000.0	38	44	
X < 2700.0	45	50	
X < 3000.0	48	50	

RETURN TO TABLE OF CONTENTS

Section 8

LOWER AMERICAN RIVER FLOW AT H STREET
8.3 Terrestrial

LOWER AMERICAN RIVER FLOW AT H ST.

October

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2353.6	2280.4	-3.1	-73.2
	1923	2371.5	2298.5	-3.1	-73.0
	1924	2350.4	2279.0	-3.0	-71.4
	1925	1170.3	920.3	-21.4	-250.0
	1926	2348.8	2025.7	-13.8	-323.1
	1927	1639.4	1603.6	-2.2	-35.8
	1928	2361.8	2292.0	-3.0	-69.8
	1929	1842.2	1558.1	-15.4	-284.1
	1930	1598.8	1313.0	-17.9	-285.8
	1931	2097.1	1811.3	-13.6	-285.8
	1932	1110.1	1071.1	-3.5	-39.0
	1933	2339.0	2267.6	-3.1	-71.4
	1934	1610.1	1322.7	-17.8	-287.4
	1935	1103.6	567.8	-48.6	-535.8
	1936	2369.9	2298.5	-3.0	-71.4
	1937	2342.2	2272.5	-3.0	-69.7
	1938	2358.5	2290.3	-2.9	-68.2
	1939	2347.1	2282.2	-2.8	-64.9
	1940	1619.9	1335.7	-17.5	-284.2
	1941	1865.0	1582.5	-15.1	-282.5
	1942	2374.8	2308.2	-2.8	-66.6
	1943	2352.0	2285.5	-2.8	-66.5
	1944	2343.9	2279.0	-2.8	-64.9
	1945	1374.8	1343.9	-2.2	-30.9
	1946	2389.4	1858.5	-22.2	-530.9
	1947	2093.9	1816.2	-13.3	-277.7
	1948	1632.9	1603.6	-1.8	-29.3
	1949	2353.6	2285.5	-2.9	-68.1
	1950	2343.9	2279.0	-2.8	-64.9
	1951	2395.9	2331.0	-2.7	-64.9
	1952	2139.4	1858.5	-13.1	-280.9
	1953	2343.9	2282.2	-2.6	-61.7
	1954	2350.4	2288.7	-2.6	-61.7
	1955	1847.1	1819.5	-1.5	-27.6
	1956	1624.8	1593.9	-1.9	-30.9
	1957	2366.6	2306.6	-2.5	-60.0
	1958	2392.7	2326.1	-2.8	-66.6
	1959	2345.5	2283.8	-2.6	-61.7
	1960	1597.1	1567.8	-1.8	-29.3
	1961	1595.5	1564.6	-1.9	-30.9
	1962	1602.0	1569.5	-2.0	-32.5
	1963	2158.7	2053.7	-4.9	-105.0
	1964	2365.0	2300.1	-2.7	-64.9
	1965	1641.0	1608.5	-2.0	-32.5
	1966	2339.0	2274.1	-2.8	-64.9
	1967	1608.5	1576.0	-2.0	-32.5
	1968	2339.0	2279.0	-2.6	-60.0
	1969	2123.1	1590.6	-25.1	-532.5
	1970	2361.8	2298.5	-2.7	-63.3
	1971	1873.1	1845.5	-1.5	-27.6
	1972	2347.1	2285.5	-2.6	-61.6
	1973	1641.0	1611.8	-1.8	-29.2
	1974	2387.8	2324.5	-2.7	-63.3
	1975	2369.9	2306.6	-2.7	-63.3
	1976	2386.2	2326.1	-2.5	-60.1
	1977	375.0	375.0	.0	.0
	1978	375.0	375.0	.0	.0
	1979	2352.0	2282.2	-3.0	-69.8
	1980	2399.2	1866.6	-22.2	-532.6
	1981	2342.2	2275.7	-2.8	-66.5
	1982	1658.9	1624.8	-2.1	-34.1
	1983	3312.9	3032.1	-8.5	-280.8
	1984	3412.3	2312.4	-32.2	-1099.9
	1985	2381.3	2318.0	-2.7	-63.3
	1986	1634.5	1352.0	-17.3	-282.5
	1987	2350.4	2037.1	-13.3	-313.3
	1988	1484.6	1276.8	-14.0	-207.8
	1989	855.3	571.1	-33.2	-284.2
	1990	1632.9	1598.8	-2.1	-34.1
	1991	856.9	571.1	-33.4	-285.8
	Mean	2006.1	1858.2	-7.9	-147.9
	Median	2339.0	2031.4	-2.8	-66.5
	Min	375.0	375.0	-48.6	-1099.9
	Max	3412.3	3032.1	.0	.0
X <	4000.0	70	70		
X <	4500.0	70	70		
X <	5000.0	70	70		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

November

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2377.3	2343.7	-1.4	-33.6
	1923	2431.1	2399.3	-1.3	-31.8
	1924	2350.4	2320.3	-1.3	-30.1
	1925	1122.3	890.8	-20.6	-231.5
	1926	2365.6	2082.0	-12.0	-283.6
	1927	1718.1	1686.2	-1.9	-31.9
	1928	2764.9	2358.9	-14.7	-406.0
	1929	1890.8	1612.3	-14.7	-278.5
	1930	1592.0	1310.2	-17.7	-281.8
	1931	2115.6	1833.7	-13.3	-281.9
	1932	1132.4	1098.9	-3.0	-33.5
	1933	2345.4	2313.6	-1.4	-31.8
	1934	1583.6	1301.8	-17.8	-281.8
	1935	1169.3	635.8	-45.6	-533.5
	1936	2365.6	2333.7	-1.3	-31.9
	1937	2342.0	2313.6	-1.2	-28.4
	1938	2421.0	2390.9	-1.2	-30.1
	1939	2348.8	2322.0	-1.1	-26.8
	1940	1597.1	1316.9	-17.5	-280.2
	1941	1890.8	1610.6	-14.8	-280.2
	1942	2389.1	2360.6	-1.2	-28.5
	1943	3593.5	3265.1	-9.1	-328.4
	1944	2362.2	2337.1	-1.1	-25.1
	1945	1419.3	1392.5	-1.9	-26.8
	1946	2387.4	1862.3	-22.0	-525.1
	1947	2140.8	1867.3	-12.8	-273.5
	1948	1618.9	1593.8	-1.6	-25.1
	1949	2358.8	2333.7	-1.1	-25.1
	1950	2362.2	2338.8	-1.0	-23.4
	1951	16872.8	15969.5	-5.4	-903.3
	1952	2152.5	1875.7	-12.9	-276.8
	1953	2387.4	2365.7	-.9	-21.7
	1954	2382.4	2360.6	-.9	-21.8
	1955	1902.5	1879.1	-1.2	-23.4
	1956	1644.1	1617.3	-1.6	-26.8
	1957	2347.1	2325.3	-.9	-21.8
	1958	2370.6	2345.5	-1.1	-25.1
	1959	2352.1	2330.4	-.9	-21.7
	1960	1597.1	1570.3	-1.7	-26.8
	1961	1669.3	1644.2	-1.5	-25.1
	1962	1645.8	1619.0	-1.6	-26.8
	1963	3004.4	2861.7	-4.7	-142.7
	1964	4079.0	3769.1	-7.6	-309.9
	1965	1669.3	1642.5	-1.6	-26.8
	1966	2407.6	2384.1	-1.0	-23.5
	1967	1726.5	1699.7	-1.6	-26.8
	1968	2367.2	2345.5	-.9	-21.7
	1969	2176.1	1649.3	-24.2	-526.8
	1970	2372.3	2347.2	-1.1	-25.1
	1971	1981.5	1958.1	-1.2	-23.4
	1972	2367.2	2343.8	-1.0	-23.4
	1973	1699.6	1676.2	-1.4	-23.4
	1974	6054.3	4775.8	-21.1	-1278.5
	1975	2385.7	2360.6	-1.1	-25.1
	1976	2885.2	2533.2	-12.2	-352.0
	1977	375.0	375.0	.0	.0
	1978	389.1	412.6	6.0	23.5
	1979	2416.0	2387.5	-1.2	-28.5
	1980	2395.8	1867.3	-22.1	-528.5
	1981	2350.4	2322.0	-1.2	-28.4
	1982	4641.0	4172.0	-10.1	-469.0
	1983	6784.0	6660.0	-1.8	-124.0
	1984	14296.1	14316.6	.1	20.5
	1985	3083.6	2446.3	-20.7	-637.3
	1986	1724.8	1448.0	-16.0	-276.8
	1987	2360.5	2087.1	-11.6	-273.4
	1988	1185.1	1018.1	-14.1	-167.0
	1989	894.1	614.0	-31.3	-280.1
	1990	1629.0	1598.9	-1.8	-30.1
	1991	863.9	582.0	-32.6	-281.9
	Mean	2606.3	2434.0	-7.5	-172.3
	Median	2349.6	2200.4	-1.6	-31.0
	Min	375.0	375.0	-45.6	-1278.5
	Max	16872.8	15969.5	6.0	23.5
X <	4000.0	64	65		
X <	4500.0	65	66		
X <	5000.0	66	67		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

December

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2462.6	2451.2	-.5	-11.4
	1923	6449.2	6039.0	-6.4	-410.2
	1924	2360.1	2348.8	-.5	-11.3
	1925	1189.8	969.1	-18.5	-220.7
	1926	2381.3	2120.0	-11.0	-261.3
	1927	1628.0	1616.7	-.7	-11.3
	1928	2384.5	2374.9	-.4	-9.6
	1929	1892.7	1634.6	-13.6	-258.1
	1930	1680.1	1418.8	-15.6	-261.3
	1931	2095.5	1834.2	-12.5	-261.3
	1932	1245.1	1230.6	-1.2	-14.5
	1933	2387.8	2376.5	-.5	-11.3
	1934	1691.5	1428.5	-15.5	-263.0
	1935	1139.4	628.1	-44.9	-511.3
	1936	2381.3	2370.0	-.5	-11.3
	1937	2404.0	2396.0	-.3	-8.0
	1938	6102.9	5696.7	-6.7	-406.2
	1939	2365.0	2358.6	-.3	-6.4
	1940	1618.3	1358.6	-16.0	-259.7
	1941	2013.0	1755.0	-12.8	-258.0
	1942	4922.1	4461.6	-9.4	-460.5
	1943	4689.8	4558.4	-2.8	-131.4
	1944	2386.2	2381.4	-.2	-4.8
	1945	1394.3	1386.2	-.6	-8.1
	1946	7788.1	7385.2	-5.2	-402.9
	1947	2142.7	1887.9	-11.9	-254.8
	1948	1611.8	1607.0	-.3	-4.8
	1949	2417.1	2410.6	-.3	-6.5
	1950	2376.4	2373.2	-.1	-3.2
	1951	16335.9	16202.7	-.8	-133.2
	1952	4167.5	3483.0	-16.4	-684.5
	1953	2475.6	2472.4	-.1	-3.2
	1954	2361.8	2360.2	-.1	-1.6
	1955	1933.3	1931.8	-.1	-1.5
	1956	14600.8	14355.1	-1.7	-245.7
	1957	2356.9	2353.7	-.1	-3.2
	1958	2418.7	2412.3	-.3	-6.4
	1959	2368.3	2366.7	-.1	-1.6
	1960	1623.1	1618.4	-.3	-4.7
	1961	1615.0	1610.2	-.3	-4.8
	1962	1644.3	1637.9	-.4	-6.4
	1963	3375.7	3307.5	-2.0	-68.2
	1964	3177.9	2943.6	-7.4	-234.3
	1965	19280.7	18994.1	-1.5	-286.6
	1966	2400.8	2396.0	-.2	-4.8
	1967	1678.4	1672.0	-.4	-6.4
	1968	2368.3	2365.1	-.1	-3.2
	1969	2175.2	1668.8	-23.3	-506.4
	1970	5268.1	4817.4	-8.6	-450.7
	1971	4835.0	4293.4	-11.2	-541.6
	1972	2430.1	2426.9	-.1	-3.2
	1973	1658.9	1654.1	-.3	-4.8
	1974	7459.5	7337.8	-1.6	-121.7
	1975	2420.3	2415.5	-.2	-4.8
	1976	2365.0	2361.8	-.1	-3.2
	1977	500.0	500.0	.0	.0
	1978	500.0	500.0	.0	.0
	1979	2374.8	2366.7	-.3	-8.1
	1980	2438.2	1930.2	-20.8	-508.0
	1981	2394.3	2387.9	-.3	-6.4
	1982	14151.7	14145.6	.0	-6.1
	1983	9105.3	8943.0	-1.8	-162.3
	1984	15314.4	15098.5	-1.4	-215.9
	1985	2447.1	2386.2	-2.5	-60.9
	1986	1675.2	1418.8	-15.3	-256.4
	1987	2379.7	2124.9	-10.7	-254.8
	1988	1193.1	860.0	-27.9	-333.1
	1989	908.9	649.3	-28.6	-259.6
	1990	1605.3	1595.6	-.6	-9.7
	1991	878.0	618.4	-29.6	-259.6
	Mean	3575.2	3426.3	-6.1	-148.9
	Median	2375.6	2363.5	-.8	-12.9
	Min	500.0	500.0	-44.9	-684.5
	Max	19280.7	18994.1	.0	.0
X <	4000.0	55	56		
X <	4500.0	56	58		
X <	5000.0	59	60		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

January

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	1908.9	1899.2	-.5	-9.7
1923	4491.4	4327.4	-3.7	-164.0
1924	1899.2	1889.5	-.5	-9.7
1925	1628.0	1658.9	1.9	30.9
1926	1905.7	1696.0	-11.0	-209.7
1927	3077.9	2468.3	-19.8	-609.6
1928	2384.5	2378.1	-.3	-6.4
1929	1471.5	1265.1	-14.0	-206.4
1930	1680.1	1672.0	-.5	-8.1
1931	1707.3	1500.9	-12.1	-206.4
1932	1879.7	1618.3	-13.9	-261.4
1933	1917.1	1909.0	-.4	-8.1
1934	1871.5	1613.5	-13.8	-258.0
1935	1689.8	1931.8	14.3	242.0
1936	4271.2	3716.2	-13.0	-555.0
1937	1918.7	1912.3	-.3	-6.4
1938	2803.3	2653.8	-5.3	-149.5
1939	2134.5	1881.4	-11.9	-253.1
1940	2491.2	2118.6	-15.0	-372.6
1941	5492.7	5156.5	-6.1	-336.2
1942	9289.1	9121.9	-1.8	-167.2
1943	10904.1	10738.5	-1.5	-165.6
1944	1904.0	1900.9	-.2	-3.1
1945	1876.4	2123.2	13.2	246.8
1946	5132.2	4968.1	-3.2	-164.1
1947	2113.4	1860.2	-12.0	-253.2
1948	1615.0	1613.5	-.1	-1.5
1949	1882.9	1879.7	-.2	-3.2
1950	1933.3	1931.8	-.1	-1.5
1951	10063.8	9916.0	-1.5	-147.8
1952	9053.3	8904.0	-1.6	-149.3
1953	6731.2	6142.6	-8.7	-588.6
1954	2162.2	2163.9	.1	1.7
1955	1920.3	1670.4	-13.0	-249.9
1956	16344.2	16277.8	-.4	-66.4
1957	2150.8	2150.9	.0	.1
1958	2204.5	1951.3	-11.5	-253.2
1959	2204.5	1954.5	-11.3	-250.0
1960	1325.2	1323.6	-.1	-1.6
1961	1397.5	1296.0	-7.3	-101.5
1962	1279.7	1274.9	-.4	-4.8
1963	3888.0	3766.1	-3.1	-121.9
1964	2582.0	2422.0	-6.2	-160.0
1965	13162.5	13092.8	-.5	-69.7
1966	2387.8	2386.2	-.1	-1.6
1967	6739.4	6129.4	-9.1	-610.0
1968	2426.8	2426.9	.0	.1
1969	14789.4	14348.0	-3.0	-441.4
1970	20940.2	20786.1	-.7	-154.1
1971	4668.7	4569.5	-2.1	-99.2
1972	2373.1	2373.2	.0	.1
1973	8938.4	8542.8	-4.4	-395.6
1974	11302.6	11192.3	-1.0	-110.3
1975	2126.4	2124.9	-.1	-1.5
1976	2365.0	2365.1	.0	.1
1977	388.6	390.6	.5	2.0
1978	3372.5	3368.5	-.1	-4.0
1979	2202.8	1948.0	-11.6	-254.8
1980	14921.4	15371.8	3.0	450.4
1981	2194.7	1939.9	-11.6	-254.8
1982	8242.9	8111.5	-1.6	-131.4
1983	7604.2	7453.3	-2.0	-150.9
1984	6509.9	6380.1	-2.0	-129.8
1985	2384.5	2383.0	-.1	-1.5
1986	2157.8	2445.1	13.3	287.3
1987	1908.9	1707.4	-10.6	-201.5
1988	926.8	662.3	-28.5	-264.5
1989	1874.8	1868.3	-.3	-6.5
1990	1680.1	1423.6	-15.3	-256.5
1991	668.3	460.2	-31.1	-208.1
Mean	4254.9	4126.7	-4.5	-128.2
Median	2203.6	2137.9	-1.6	-130.6
Min	388.6	390.6	-31.1	-610.0
Max	20940.2	20786.1	14.3	450.4
X < 4000.0	49	50		
X < 4500.0	51	51		
X < 5000.0	52	53		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

February

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	3279.5	2438.4	-25.6	-841.1
1923	3432.5	3236.5	-5.7	-196.0
1924	1531.6	1508.3	-1.5	-23.3
1925	3610.8	3906.0	8.2	295.2
1926	1594.6	1409.5	-11.6	-185.1
1927	13414.9	13323.2	-.7	-91.7
1928	1902.8	1881.2	-1.1	-21.6
1929	1170.2	1120.4	-4.3	-49.8
1930	1884.8	1861.4	-1.2	-23.4
1931	1337.4	1154.0	-13.7	-183.4
1932	2181.0	1987.2	-8.9	-193.8
1933	1627.6	1454.2	-10.7	-173.4
1934	1911.8	1888.4	-1.2	-23.4
1935	1883.0	1857.8	-1.3	-25.2
1936	13451.0	13287.4	-1.2	-163.6
1937	1987.4	1717.7	-13.6	-269.7
1938	9839.2	9664.6	-1.8	-174.6
1939	1881.2	1861.4	-1.1	-19.8
1940	10606.0	10472.9	-1.3	-133.1
1941	8011.4	7828.1	-2.3	-183.3
1942	9970.6	9771.0	-2.0	-199.6
1943	6841.3	6661.6	-2.6	-179.7
1944	1755.4	1589.3	-9.5	-166.1
1945	6141.5	6068.8	-1.2	-72.7
1946	2658.3	2492.9	-6.2	-165.4
1947	1906.4	1640.2	-14.0	-266.2
1948	1888.4	1620.4	-14.2	-268.0
1949	1895.6	1477.6	-22.1	-418.0
1950	4073.6	2490.5	-38.9	-1583.1
1951	8100.3	7938.5	-2.0	-161.8
1952	9480.7	9302.7	-1.9	-178.0
1953	2179.3	1990.5	-8.7	-188.8
1954	1985.7	1920.9	-3.3	-64.8
1955	1895.6	1879.4	-.9	-16.2
1956	6147.3	6035.9	-1.8	-111.4
1957	1947.8	1933.5	-.7	-14.3
1958	9132.6	7677.0	-15.9	-1455.6
1959	1958.6	1944.3	-.7	-14.3
1960	1183.4	1037.3	-12.3	-146.1
1961	1143.8	997.6	-12.8	-146.2
1962	1281.0	1253.7	-2.1	-27.3
1963	12007.2	11857.8	-1.2	-149.4
1964	1995.8	1852.4	-7.2	-143.4
1965	5371.7	5274.7	-1.8	-97.0
1966	1902.8	1886.6	-.9	-16.2
1967	4349.1	4199.8	-3.4	-149.3
1968	5676.2	4811.3	-15.2	-864.9
1969	9261.3	9155.2	-1.1	-106.1
1970	6229.7	6109.4	-1.9	-120.3
1971	3302.8	3158.8	-4.4	-144.0
1972	2138.3	1883.0	-11.9	-255.3
1973	7167.0	7048.3	-1.7	-118.7
1974	4303.2	3943.5	-8.4	-359.7
1975	2003.6	1987.5	-.8	-16.1
1976	1884.8	1870.4	-.8	-14.4
1977	384.8	365.0	-5.1	-19.8
1978	4689.2	4583.0	-2.3	-106.2
1979	1938.8	1920.9	-.9	-17.9
1980	14127.5	13554.1	-4.1	-573.4
1981	1886.6	1866.8	-1.0	-19.8
1982	15463.6	15217.2	-1.6	-246.4
1983	12405.0	12245.1	-1.3	-159.9
1984	5580.9	5440.8	-2.5	-140.1
1985	1917.2	1899.2	-.9	-18.0
1986	33241.4	33160.6	-.2	-80.8
1987	1540.6	1362.7	-11.5	-177.9
1988	1881.2	1863.2	-1.0	-18.0
1989	1640.2	1868.6	13.9	228.4
1990	1687.0	1665.5	-1.3	-21.5
1991	562.6	401.1	-28.7	-161.5
Mean	4809.2	4629.1	-5.5	-180.2
Median	2070.9	1965.8	-2.0	-143.7
Min	384.8	365.0	-38.9	-1583.1
Max	33241.4	33160.6	13.9	295.2
X < 4000.0	43	45		
X < 4500.0	46	46		
X < 5000.0	47	48		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

March

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4402.4	4384.6	-.4	-17.8
1923	2698.3	2594.0	-3.9	-104.3
1924	1153.1	1185.7	2.8	32.6
1925	3137.4	3039.1	-3.1	-98.3
1926	1856.9	1589.1	-14.4	-267.8
1927	4481.6	4264.2	-4.9	-217.4
1928	12106.4	11559.3	-4.5	-547.1
1929	1386.2	1371.6	-1.1	-14.6
1930	1902.4	1887.9	-.8	-14.5
1931	1021.9	877.7	-14.1	-144.2
1932	2605.3	2587.5	-.7	-17.8
1933	1887.8	1621.6	-14.1	-266.2
1934	1445.5	1429.3	-1.1	-16.2
1935	3162.2	3146.0	-.5	-16.2
1936	4087.1	3915.5	-4.2	-171.6
1937	4331.3	3663.8	-15.4	-667.5
1938	10782.2	10589.0	-1.8	-193.2
1939	1497.5	1486.2	-.8	-11.3
1940	10878.1	10551.6	-3.0	-326.5
1941	4777.3	4582.5	-4.1	-194.8
1942	4413.8	4400.9	-.3	-12.9
1943	12384.5	12214.1	-1.4	-170.4
1944	2128.0	1866.7	-12.3	-261.3
1945	2662.2	2650.9	-.4	-11.3
1946	2706.0	2636.2	-2.6	-69.8
1947	1915.4	1655.8	-13.6	-259.6
1948	2662.2	2652.5	-.4	-9.7
1949	2451.2	2439.9	-.5	-11.3
1950	3206.3	2883.0	-10.1	-323.3
1951	3673.5	3512.9	-4.4	-160.6
1952	6107.6	5934.0	-2.8	-173.6
1953	2894.3	2884.6	-.3	-9.7
1954	4354.4	3584.2	-17.7	-770.2
1955	1858.5	1850.5	-.4	-8.0
1956	3366.6	3355.3	-.3	-11.3
1957	4080.1	3191.6	-21.8	-888.5
1958	6633.2	6464.4	-2.5	-168.8
1959	1618.3	1610.2	-.5	-8.1
1960	2507.4	2121.6	-15.4	-385.8
1961	1142.7	881.4	-22.9	-261.3
1962	2386.2	2373.2	-.5	-13.0
1963	3418.7	3409.0	-.3	-9.7
1964	1874.8	1863.5	-.6	-11.3
1965	2887.8	2874.9	-.4	-12.9
1966	1860.1	1848.8	-.6	-11.3
1967	5895.1	5658.1	-4.0	-237.0
1968	2068.3	3822.0	84.8	1753.7
1969	4378.0	4370.0	-.2	-8.0
1970	2387.8	2146.7	-10.1	-241.1
1971	3980.6	3826.5	-3.9	-154.1
1972	4099.1	3393.3	-17.2	-705.8
1973	3327.0	3125.7	-6.1	-201.3
1974	9560.7	9460.1	-1.1	-100.6
1975	4377.5	3514.9	-19.7	-862.6
1976	1476.4	1468.4	-.5	-8.0
1977	278.0	315.4	13.5	37.4
1978	5452.6	5481.9	.5	29.3
1979	3050.6	2386.2	-21.8	-664.4
1980	3407.1	3118.5	-8.5	-288.6
1981	1673.6	1510.6	-9.7	-163.0
1982	7577.4	7470.4	-1.4	-107.0
1983	16256.7	16120.5	-.8	-136.2
1984	2647.5	2403.1	-9.2	-244.4
1985	2171.9	1910.6	-12.0	-261.3
1986	11163.2	10950.7	-1.9	-212.5
1987	1214.9	1077.3	-11.3	-137.6
1988	1463.4	1452.1	-.8	-11.3
1989	6360.0	5971.3	-6.1	-388.7
1990	1371.5	1357.0	-1.1	-14.5
1991	2009.8	1996.7	-.7	-13.1
Mean	3892.0	3739.9	-3.9	-152.1
Median	2891.1	2878.9	-2.2	-136.9
Min	278.0	315.4	-22.9	-888.5
Max	16256.7	16120.5	84.8	1753.7
X < 4000.0	46	52		
X < 4500.0	56	56		
X < 5000.0	57	57		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

April

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4363.9	4311.9	-1.2	-52.0
1923	3177.2	2875.8	-9.5	-301.4
1924	188.0	188.0	.0	.0
1925	4012.4	3258.0	-18.8	-754.4
1926	1934.5	1882.5	-2.7	-52.0
1927	7856.2	7653.4	-2.6	-202.8
1928	4773.1	4456.1	-6.6	-317.0
1929	1355.5	808.5	-40.4	-547.0
1930	2110.5	1811.9	-14.1	-298.6
1931	337.0	286.7	-14.9	-50.3
1932	2853.8	2551.8	-10.6	-302.0
1933	1835.3	1535.0	-16.4	-300.3
1934	3070.6	2513.5	-18.1	-557.1
1935	4340.5	4587.7	5.7	247.2
1936	5754.8	5471.4	-4.9	-283.4
1937	4330.0	4032.6	-6.9	-297.4
1938	7866.0	7574.1	-3.7	-291.9
1939	1090.3	545.1	-50.0	-545.2
1940	6058.2	5875.2	-3.0	-183.0
1941	3751.9	3505.4	-6.6	-246.5
1942	4439.5	4394.2	-1.0	-45.3
1943	5162.3	4888.9	-5.3	-273.4
1944	2130.7	1835.4	-13.9	-295.3
1945	2602.1	2556.9	-1.7	-45.2
1946	3913.7	3459.2	-11.6	-454.5
1947	1848.8	1805.2	-2.4	-43.6
1948	2655.9	2614.0	-1.6	-41.9
1949	2338.7	2295.1	-1.9	-43.6
1950	4935.4	4785.8	-3.0	-149.6
1951	3037.9	2727.5	-10.2	-310.4
1952	8946.5	8647.8	-3.3	-298.7
1953	3399.2	3107.3	-8.6	-291.9
1954	4454.5	4249.6	-4.6	-204.9
1955	1884.0	1843.8	-2.1	-40.2
1956	3894.1	3848.9	-1.2	-45.2
1957	2630.7	2590.5	-1.5	-40.2
1958	10349.8	10101.6	-2.4	-248.2
1959	1872.3	1580.4	-15.6	-291.9
1960	2112.2	2068.6	-2.1	-43.6
1961	355.5	311.9	-12.3	-43.6
1962	3671.1	2823.1	-23.1	-848.0
1963	4573.6	4198.3	-8.2	-375.3
1964	1850.4	1805.2	-2.4	-45.2
1965	3721.1	3273.9	-12.0	-447.2
1966	1857.2	1813.6	-2.3	-43.6
1967	4412.6	4370.7	-.9	-41.9
1968	1850.4	1808.5	-2.3	-41.9
1969	5827.0	5388.0	-7.5	-439.0
1970	2357.2	2061.9	-12.5	-295.3
1971	3365.6	3072.0	-8.7	-293.6
1972	2375.6	2333.7	-1.8	-41.9
1973	2608.8	2566.9	-1.6	-41.9
1974	6156.2	5938.1	-3.5	-218.1
1975	3877.3	3833.7	-1.1	-43.6
1976	370.6	328.7	-11.3	-41.9
1977	188.0	188.0	.0	.0
1978	4594.3	3873.9	-15.7	-720.4
1979	2612.2	2566.9	-1.7	-45.3
1980	2870.6	2575.3	-10.3	-295.3
1981	1607.2	1311.9	-18.4	-295.3
1982	14296.2	14063.1	-1.6	-233.1
1983	6615.5	6358.9	-3.9	-256.6
1984	2630.7	2585.4	-1.7	-45.3
1985	2112.2	1818.6	-13.9	-293.6
1986	2634.0	2590.5	-1.7	-43.5
1987	357.2	313.6	-12.2	-43.6
1988	394.1	348.9	-11.5	-45.2
1989	4472.4	3871.8	-13.4	-600.6
1990	2583.2	1624.5	-37.1	-958.7
1991	1850.4	1803.4	-2.5	-47.0
Mean	3467.4	3242.1	-8.2	-225.3
Median	2862.2	2590.5	-4.8	-225.6
Min	188.0	188.0	-50.0	-958.7
Max	14296.2	14063.1	5.7	247.2
X < 4000.0	47	50		
X < 4500.0	55	57		
X < 5000.0	59	60		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

May

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	8956.6	8110.7	-9.4	-845.9
	1923	4835.3	4403.8	-8.9	-431.5
	1924	188.0	188.0	.0	.0
	1925	4522.8	3841.9	-15.1	-680.9
	1926	2330.9	2278.8	-2.2	-52.1
	1927	4780.1	4266.8	-10.7	-513.3
	1928	2824.4	2777.2	-1.7	-47.2
	1929	1821.1	1523.9	-16.3	-297.2
	1930	2574.4	2275.6	-11.6	-298.8
	1931	343.9	293.5	-14.7	-50.4
	1932	3817.8	3483.4	-8.8	-334.4
	1933	2329.2	2278.8	-2.2	-50.4
	1934	330.9	278.8	-15.7	-52.1
	1935	4802.6	4719.8	-1.7	-82.8
	1936	4064.6	3986.7	-1.9	-77.9
	1937	4464.6	4059.8	-9.1	-404.8
	1938	9844.5	9420.7	-4.3	-423.8
	1939	1592.2	1548.3	-2.8	-43.9
	1940	3561.3	3235.1	-9.2	-326.2
	1941	5385.1	4977.5	-7.6	-407.6
	1942	6148.6	5468.3	-11.1	-680.3
	1943	3571.1	3496.4	-2.1	-74.7
	1944	2590.6	2298.3	-11.3	-292.3
	1945	3584.1	3507.8	-2.1	-76.3
	1946	3605.9	3511.1	-2.6	-94.8
	1947	2326.0	2285.3	-1.7	-40.7
	1948	3603.6	3530.6	-2.0	-73.0
	1949	3082.5	2788.6	-9.5	-293.9
	1950	3821.1	3748.1	-1.9	-73.0
	1951	3602.0	3275.7	-9.1	-326.3
	1952	11189.5	10773.8	-3.7	-415.7
	1953	4087.4	4016.0	-1.7	-71.4
	1954	2832.5	2793.5	-1.4	-39.0
	1955	2585.7	2295.1	-11.2	-290.6
	1956	4343.9	4272.5	-1.6	-71.4
	1957	3613.4	3292.0	-8.9	-321.4
	1958	10137.3	9726.4	-4.1	-410.9
	1959	2332.5	2041.8	-12.5	-290.7
	1960	2584.1	2541.8	-1.6	-42.3
	1961	1334.1	1290.2	-3.3	-43.9
	1962	3066.2	3000.6	-2.1	-65.6
	1963	7198.5	6716.1	-6.7	-482.4
	1964	2334.1	2290.2	-1.9	-43.9
	1965	4077.6	3753.0	-8.0	-324.6
	1966	2329.2	2286.9	-1.8	-42.3
	1967	8049.5	7429.9	-7.7	-619.6
	1968	2330.9	2291.8	-1.7	-39.1
	1969	9207.0	8762.0	-4.8	-445.0
	1970	2834.1	2541.8	-10.3	-292.3
	1971	4100.4	4027.3	-1.8	-73.1
	1972	2834.1	2543.5	-10.3	-290.6
	1973	4364.2	3679.7	-15.7	-684.5
	1974	4955.8	4492.9	-9.3	-462.9
	1975	4329.2	4257.8	-1.6	-71.4
	1976	839.0	296.7	-64.6	-542.3
	1977	188.0	188.0	.0	.0
	1978	4336.1	3746.4	-13.6	-589.7
	1979	3995.3	3249.7	-18.7	-745.6
	1980	3824.4	3749.7	-2.0	-74.7
	1981	2082.5	1788.6	-14.1	-293.9
	1982	9247.7	8897.0	-3.8	-350.7
	1983	10522.7	10124.9	-3.8	-397.8
	1984	3598.8	3274.1	-9.0	-324.7
	1985	2592.2	2300.0	-11.3	-292.2
	1986	3592.2	3519.2	-2.0	-73.0
	1987	1339.0	546.7	-59.2	-792.3
	1988	352.0	306.5	-12.9	-45.5
	1989	3367.2	2782.1	-17.4	-585.1
	1990	1626.4	1329.2	-18.3	-297.2
	1991	2332.5	2285.3	-2.0	-47.2
	Mean	3859.9	3590.9	-8.5	-269.0
	Median	3588.1	3274.9	-7.1	-292.3
	Min	188.0	188.0	-64.6	-845.9
	Max	11189.5	10773.8	.0	.0
X <	4000.0	45	50		
X <	4500.0	54	58		
X <	5000.0	59	60		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

June

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	8942.0	8381.4	-6.3	-560.6
1923	4572.3	4323.3	-5.4	-249.0
1924	188.0	188.0	.0	.0
1925	6281.9	6177.9	-1.7	-104.0
1926	1737.0	1236.2	-28.8	-500.8
1927	5328.8	4820.3	-9.5	-508.5
1928	5709.0	4995.6	-12.5	-713.4
1929	2161.5	2138.1	-1.1	-23.4
1930	2051.7	1731.1	-15.6	-320.6
1931	1073.8	934.2	-13.0	-139.6
1932	4803.4	4734.6	-1.4	-68.8
1933	2342.7	2219.4	-5.3	-123.3
1934	1610.0	1444.0	-10.3	-166.0
1935	3907.9	3179.2	-18.6	-728.7
1936	4435.8	3586.5	-19.1	-849.3
1937	3289.9	3194.3	-2.9	-95.6
1938	8582.3	8048.7	-6.2	-533.6
1939	805.1	250.0	-68.9	-555.1
1940	3415.1	3133.0	-8.3	-282.1
1941	3545.0	3202.7	-9.7	-342.3
1942	7345.4	6798.3	-7.4	-547.1
1943	3305.1	3214.5	-2.7	-90.6
1944	2055.1	1492.9	-27.4	-562.2
1945	5835.8	5553.5	-4.8	-282.3
1946	6258.5	6007.1	-4.0	-251.4
1947	1568.5	1254.6	-20.0	-313.9
1948	3296.7	2986.2	-9.4	-310.5
1949	2791.6	2227.8	-20.2	-563.8
1950	3941.9	3447.7	-12.5	-494.2
1951	3053.4	2991.2	-2.0	-62.2
1952	10503.2	9957.8	-5.2	-545.4
1953	3813.5	3476.3	-8.8	-337.2
1954	2687.7	2244.6	-16.5	-443.1
1955	2060.1	1747.9	-15.2	-312.2
1956	5529.4	4267.3	-22.8	-1262.1
1957	3785.0	3214.7	-15.1	-570.3
1958	7726.9	7220.2	-6.6	-506.7
1959	1315.1	1003.0	-23.7	-312.1
1960	2056.7	1992.9	-3.1	-63.8
1961	556.7	250.0	-55.1	-306.7
1962	2800.0	2734.5	-2.3	-65.5
1963	3289.9	3202.7	-2.7	-87.2
1964	2066.8	1751.3	-15.3	-315.5
1965	3550.0	3459.5	-2.5	-90.5
1966	1810.1	1246.2	-31.2	-563.9
1967	10419.2	9939.3	-4.6	-479.9
1968	2063.5	1253.0	-39.3	-810.5
1969	6594.2	6100.9	-7.5	-493.3
1970	3233.6	3047.1	-5.8	-186.5
1971	3876.1	3466.2	-10.6	-409.9
1972	4407.4	4163.1	-5.5	-244.3
1973	5555.7	5165.2	-7.0	-390.5
1974	4256.6	3733.0	-12.3	-523.6
1975	5757.7	4624.5	-19.7	-1133.2
1976	1838.8	1870.7	1.7	31.9
1977	188.0	188.0	.0	.0
1978	4463.3	3454.4	-22.6	-1008.9
1979	6288.6	6194.7	-1.5	-93.9
1980	3541.6	3202.7	-9.6	-338.9
1981	1310.1	744.6	-43.2	-565.5
1982	6263.1	5716.1	-8.7	-547.0
1983	14543.2	13999.5	-3.7	-543.7
1984	4724.4	4468.4	-5.4	-256.0
1985	2803.0	2338.4	-16.6	-464.6
1986	3320.2	2999.8	-9.7	-320.4
1987	321.9	258.0	-19.9	-63.9
1988	1472.0	1488.8	1.1	16.8
1989	3881.7	3579.3	-7.8	-302.4
1990	1630.7	1476.7	-9.4	-154.0
1991	2851.7	2871.4	.7	19.7
Mean	3905.6	3542.9	-12.1	-362.7
Median	3367.6	3198.5	-8.8	-318.0
Min	188.0	188.0	-68.9	-1262.1
Max	14543.2	13999.5	1.7	31.9
X < 4000.0	45	48		
X < 4500.0	49	52		
X < 5000.0	52	56		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

July

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4023.9	2936.8	-27.0	-1087.1
	1923	5630.4	3569.7	-36.6	-2060.7
	1924	522.0	386.4	-26.0	-135.6
	1925	3995.1	3476.8	-13.0	-518.3
	1926	2429.8	1902.3	-21.7	-527.5
	1927	2878.6	2613.2	-9.2	-265.4
	1928	1288.6	1230.0	-4.5	-58.6
	1929	1453.9	1110.2	-23.6	-343.7
	1930	2662.4	2090.4	-21.5	-572.0
	1931	1713.5	1574.7	-8.1	-138.8
	1932	2952.8	2884.6	-2.3	-68.2
	1933	2019.4	1689.9	-16.3	-329.5
	1934	1288.1	1050.0	-18.5	-238.1
	1935	4840.5	3213.6	-33.6	-1626.9
	1936	3907.9	2332.2	-40.3	-1575.7
	1937	2387.8	2049.5	-14.2	-338.3
	1938	3538.3	2969.9	-16.1	-568.4
	1939	1755.8	1603.9	-8.7	-151.9
	1940	5836.8	4977.1	-14.7	-859.7
	1941	2158.3	1933.1	-10.4	-225.2
	1942	3523.6	2943.9	-16.5	-579.7
	1943	5539.0	5000.2	-9.7	-538.8
	1944	2109.9	1029.9	-51.2	-1080.0
	1945	4146.7	2950.6	-28.8	-1196.1
	1946	3644.5	2830.7	-22.3	-813.8
	1947	1766.8	1075.9	-39.1	-690.9
	1948	3646.1	2246.0	-38.4	-1400.1
	1949	3057.8	1654.2	-45.9	-1403.6
	1950	5160.3	4322.5	-16.2	-837.8
	1951	5775.3	4922.1	-14.8	-853.2
	1952	4645.8	4085.6	-12.1	-560.2
	1953	3159.8	1991.8	-37.0	-1168.0
	1954	3185.7	2785.2	-12.6	-400.5
	1955	1603.2	1241.4	-22.6	-361.8
	1956	3203.3	2625.1	-18.1	-578.2
	1957	4647.8	4326.0	-6.9	-321.8
	1958	3185.4	2626.7	-17.5	-558.7
	1959	548.3	250.0	-54.4	-298.3
	1960	2741.0	1665.6	-39.2	-1075.4
	1961	290.2	250.0	-13.9	-40.2
	1962	5183.2	4278.9	-17.4	-904.3
	1963	2133.8	1931.5	-9.5	-202.3
	1964	2139.1	1295.2	-39.5	-843.9
	1965	5435.8	5162.0	-5.0	-273.8
	1966	1293.5	491.4	-62.0	-802.1
	1967	4322.2	3763.6	-12.9	-558.6
	1968	1291.8	491.4	-62.0	-800.4
	1969	2982.1	2405.6	-19.3	-576.5
	1970	1759.6	1331.7	-24.3	-427.9
	1971	3003.2	1946.0	-35.2	-1057.2
	1972	1293.5	1243.0	-3.9	-50.5
	1973	4004.4	3465.7	-13.5	-538.7
	1974	3466.7	2911.4	-16.0	-555.3
	1975	2928.4	2374.7	-18.9	-553.7
	1976	1361.1	1212.7	-10.9	-148.4
	1977	188.0	188.0	.0	.0
	1978	6112.6	5227.5	-14.5	-885.1
	1979	2835.4	1698.7	-40.1	-1136.7
	1980	3646.6	2595.8	-28.8	-1050.8
	1981	293.5	250.0	-14.8	-43.5
	1982	3401.7	2823.5	-17.0	-578.2
	1983	6222.4	5749.3	-7.6	-473.1
	1984	4197.4	3588.0	-14.5	-609.4
	1985	2121.9	1789.6	-15.7	-332.3
	1986	5365.7	5127.5	-4.4	-238.2
	1987	1707.1	948.5	-44.4	-758.6
	1988	894.3	667.8	-25.3	-226.5
	1989	3552.7	2886.0	-18.8	-666.7
	1990	1237.5	911.8	-26.3	-325.7
	1991	2223.4	2282.0	2.6	58.6
	Mean	2992.3	2392.2	-21.5	-600.1
	Median	2967.5	2264.0	-17.2	-556.9
	Min	188.0	188.0	-62.0	-2060.7
	Max	6222.4	5749.3	2.6	58.6
X <	4000.0	52	59		
X <	4500.0	57	63		
X <	5000.0	60	65		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

August

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	2714.5	2622.5	-3.4	-92.0
1923	2353.3	2376.7	1.0	23.4
1924	188.0	264.4	40.6	76.4
1925	3577.1	2941.7	-17.8	-635.4
1926	545.1	483.3	-11.3	-61.8
1927	3671.8	2782.0	-24.2	-889.8
1928	3075.5	2034.1	-33.9	-1041.4
1929	188.0	188.0	.0	.0
1930	791.8	731.7	-7.6	-60.1
1931	188.0	188.0	.0	.0
1932	2116.8	1467.0	-30.7	-649.8
1933	533.7	188.0	-64.8	-345.7
1934	188.0	188.0	.0	.0
1935	2888.6	2717.8	-5.9	-170.8
1936	2897.6	3299.0	13.9	401.4
1937	2584.6	1726.8	-33.2	-857.8
1938	4207.9	3628.2	-13.8	-579.7
1939	293.5	250.0	-14.8	-43.5
1940	3773.3	3344.9	-11.4	-428.4
1941	4059.9	2957.4	-27.2	-1102.5
1942	4289.2	3714.4	-13.4	-574.8
1943	2427.5	2160.4	-11.0	-267.1
1944	3796.6	2355.1	-38.0	-1441.5
1945	1853.3	1795.3	-3.1	-58.0
1946	1897.2	1677.6	-11.6	-219.6
1947	1088.6	739.8	-32.0	-348.8
1948	3003.5	2850.3	-5.1	-153.2
1949	2296.9	2027.2	-11.7	-269.7
1950	2795.0	2441.6	-12.6	-353.4
1951	3154.5	2876.4	-8.8	-278.1
1952	4709.9	4138.8	-12.1	-571.1
1953	4329.9	3763.1	-13.1	-566.8
1954	3330.2	3457.5	3.8	127.3
1955	3194.9	1894.3	-40.7	-1300.6
1956	4260.0	3690.0	-13.4	-570.0
1957	1517.4	1297.3	-14.5	-220.1
1958	4355.9	3803.8	-12.7	-552.1
1959	2343.8	1188.1	-49.3	-1155.7
1960	3112.1	2853.5	-8.3	-258.6
1961	1299.7	489.8	-62.3	-809.9
1962	4423.2	3429.7	-22.5	-993.5
1963	3881.0	2538.2	-34.6	-1342.8
1964	3263.0	2869.4	-12.1	-393.6
1965	1801.6	1499.5	-16.8	-302.1
1966	2788.6	1714.9	-38.5	-1073.7
1967	4323.4	3751.8	-13.2	-571.6
1968	1050.0	747.9	-28.8	-302.1
1969	4136.4	3581.0	-13.4	-555.4
1970	3914.1	3501.2	-10.5	-412.9
1971	4081.1	3511.1	-14.0	-570.0
1972	4194.4	2861.4	-31.8	-1333.0
1973	1495.5	1651.2	10.4	155.7
1974	4339.7	3771.3	-13.1	-568.4
1975	4120.1	3571.2	-13.3	-548.9
1976	1303.4	975.9	-25.1	-327.5
1977	188.0	188.0	.0	.0
1978	1541.8	1483.3	-3.8	-58.5
1979	2099.9	2033.2	-3.2	-66.7
1980	2321.7	1749.9	-24.6	-571.8
1981	1568.2	1098.9	-29.9	-469.3
1982	4329.9	3756.6	-13.2	-573.3
1983	4732.7	4519.4	-4.5	-213.3
1984	1317.8	1264.2	-4.1	-53.6
1985	3103.1	2537.3	-18.2	-565.8
1986	3671.0	3405.3	-7.2	-265.7
1987	1488.6	1513.8	1.7	25.2
1988	701.6	393.7	-43.9	-307.9
1989	3450.9	2807.0	-18.7	-643.9
1990	2005.9	1485.0	-26.0	-520.9
1991	1322.9	489.6	-63.0	-833.3
Mean	2612.2	2175.6	-16.4	-436.5
Median	2791.8	2257.8	-13.2	-373.5
Min	188.0	188.0	-64.8	-1441.5
Max	4732.7	4519.4	40.6	401.4
X < 4000.0	54	68		
X < 4500.0	68	69		
X < 5000.0	70	70		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

September

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	3743.0	3256.4	-13.0	-486.6
1923	1833.6	1991.4	8.6	157.8
1924	823.5	826.9	.4	3.4
1925	1597.9	1273.1	-20.3	-324.8
1926	1320.2	1028.2	-22.1	-292.0
1927	3897.6	3382.4	-13.2	-515.2
1928	1318.5	1279.8	-2.9	-38.7
1929	1068.5	781.5	-26.9	-287.0
1930	1318.5	1278.2	-3.1	-40.3
1931	813.5	523.1	-35.7	-290.4
1932	3765.6	2211.1	-41.3	-1554.5
1933	1310.1	1019.8	-22.2	-290.3
1934	811.8	519.8	-36.0	-292.0
1935	2722.1	2455.0	-9.8	-267.1
1936	3834.9	3439.0	-10.3	-395.9
1937	3828.7	3211.7	-16.1	-617.0
1938	4033.8	3538.7	-12.3	-495.1
1939	1078.6	1041.6	-3.4	-37.0
1940	1535.6	1271.4	-17.2	-264.2
1941	3976.6	3483.3	-12.4	-493.3
1942	4013.6	3521.9	-12.3	-491.7
1943	2068.5	1534.9	-25.8	-533.6
1944	1735.4	1539.9	-11.3	-195.5
1945	2282.9	1965.7	-13.9	-317.2
1946	2800.1	2489.2	-11.1	-310.9
1947	1966.6	1284.9	-34.7	-681.7
1948	2687.6	2203.7	-18.0	-483.9
1949	1880.4	1585.1	-15.7	-295.3
1950	2411.7	2231.3	-7.5	-180.4
1951	1640.2	1460.0	-11.0	-180.2
1952	4234.3	3728.6	-11.9	-505.7
1953	3981.7	3496.7	-12.2	-485.0
1954	2024.8	1291.6	-36.2	-733.2
1955	1368.2	1301.7	-4.9	-66.5
1956	3961.5	3473.2	-12.3	-488.3
1957	2092.0	1758.2	-16.0	-333.8
1958	4048.9	3563.9	-12.0	-485.0
1959	1110.5	1328.6	19.6	218.1
1960	1896.2	1581.2	-16.6	-315.0
1961	1321.9	1036.6	-21.6	-285.3
1962	1313.5	1278.2	-2.7	-35.3
1963	3964.8	3479.9	-12.2	-484.9
1964	1449.9	1136.4	-21.6	-313.5
1965	3766.0	2229.6	-40.8	-1536.4
1966	1325.9	1286.6	-3.0	-39.3
1967	4248.9	3795.9	-10.7	-453.0
1968	2015.0	1758.5	-12.7	-256.5
1969	3988.4	3518.6	-11.8	-469.8
1970	1325.2	1291.6	-2.5	-33.6
1971	3813.6	3345.5	-12.3	-468.1
1972	1340.3	1371.5	2.3	31.2
1973	1828.6	1546.7	-15.4	-281.9
1974	4114.4	3631.2	-11.7	-483.2
1975	3901.0	3404.3	-12.7	-496.7
1976	330.3	296.7	-10.2	-33.6
1977	281.0	281.0	.0	.0
1978	2896.2	1983.0	-31.5	-913.2
1979	1851.1	1585.2	-14.4	-265.9
1980	3890.9	3421.1	-12.1	-469.8
1981	1376.2	1293.3	-6.0	-82.9
1982	4440.4	3984.1	-10.3	-456.3
1983	4764.4	4584.9	-3.8	-179.5
1984	1838.7	1753.1	-4.7	-85.6
1985	1093.7	1060.1	-3.1	-33.6
1986	1602.1	1318.5	-17.7	-283.6
1987	1190.4	1198.9	.7	8.5
1988	576.9	541.6	-6.1	-35.3
1989	1108.8	1321.9	19.2	213.1
1990	570.2	533.2	-6.5	-37.0
1991	815.1	776.5	-4.7	-38.6
Mean	2302.6	1988.5	-12.5	-314.1
Median	1865.8	1563.9	-12.1	-291.2
Min	281.0	281.0	-41.3	-1554.5
Max	4764.4	4584.9	19.6	218.1
X < 4000.0	62	69		
X < 4500.0	69	69		
X < 5000.0	70	70		
X < .0	0	0		
X < .0	0	0		

RETURN TO TABLE OF CONTENTS

Section 9

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVENUE

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

January

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	43.0	42.9	-.2	-.1
1923.	44.2	44.1	-.2	-.1
1924.	46.2	46.2	.0	.0
1925.	46.6	47.1	1.1	.5
1926.	44.2	44.1	-.2	-.1
1927.	47.7	47.6	-.2	-.1
1928.	47.2	47.2	.0	.0
1929.	43.3	43.1	-.5	-.2
1930.	46.0	45.9	-.2	-.1
1931.	47.8	47.6	-.4	-.2
1932.	45.3	45.2	-.2	-.1
1933.	44.0	43.9	-.2	-.1
1934.	47.2	47.1	-.2	-.1
1935.	47.2	47.4	.4	.2
1936.	48.2	48.0	-.4	-.2
1937.	42.2	42.1	-.2	-.1
1938.	46.7	46.7	.0	.0
1939.	47.4	47.3	-.2	-.1
1940.	48.1	47.9	-.4	-.2
1941.	48.8	48.8	.0	.0
1942.	46.3	46.3	.0	.0
1943.	46.4	46.4	.0	.0
1944.	47.9	47.6	-.6	-.3
1945.	45.8	45.9	.2	.1
1946.	45.6	45.6	.0	.0
1947.	44.8	44.6	-.4	-.2
1948.	48.0	48.0	.0	.0
1949.	41.7	41.6	-.2	-.1
1950.	44.2	43.9	-.7	-.3
1951.	45.0	45.0	.0	.0
1952.	45.2	45.2	.0	.0
1953.	48.9	48.9	.0	.0
1954.	47.8	47.7	-.2	-.1
1955.	43.6	43.4	-.5	-.2
1956.	46.0	46.0	.0	.0
1957.	47.1	47.0	-.2	-.1
1958.	47.3	47.0	-.6	-.3
1959.	50.8	50.6	-.4	-.2
1960.	47.6	47.5	-.2	-.1
1961.	44.7	44.6	-.2	-.1
1962.	43.9	43.9	.0	.0
1963.	45.3	45.3	.0	.0
1964.	44.8	44.8	.0	.0
1965.	44.8	44.8	.0	.0
1966.	46.3	46.2	-.2	-.1
1967.	46.6	46.6	.0	.0
1968.	46.3	46.2	-.2	-.1
1969.	45.0	44.9	-.2	-.1
1970.	47.2	47.2	.0	.0
1971.	45.8	45.7	-.2	-.1
1972.	44.0	44.0	.0	.0
1973.	44.8	44.7	-.2	-.1
1974.	46.7	46.7	.0	.0
1975.	45.5	45.4	-.2	-.1
1976.	48.3	48.3	.0	.0
1977.	44.7	44.8	.2	.1
1978.	48.3	48.3	.0	.0
1979.	46.3	46.1	-.4	-.2
1980.	46.8	46.2	-1.3	-.6
1981.	49.0	48.8	-.4	-.2
1982.	45.1	45.1	.0	.0
1983.	45.3	45.3	.0	.0
1984.	46.3	46.3	.0	.0
1985.	45.4	45.4	.0	.0
1986.	47.8	47.6	-.4	-.2
1987.	47.3	46.9	-.8	-.4
1988.	47.8	47.7	-.2	-.1
1989.	46.3	46.4	.2	.1
1990.	47.6	47.5	-.2	-.1
Mean:	46.2	46.1	-.2	-.1
Median:	46.3	46.2	-.2	-.1
Min:	41.7	41.6	-1.3	-.6
Max:	50.8	50.6	1.1	.5
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	9	8		
No. Years inc (avg):		5	(	.2)
No. Years dec (avg):		38	(	-.2)
No. Years no change		26		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

February

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	46.2	46.3	.2	.1
1923.	46.8	46.8	.0	.0
1924.	51.5	51.8	.6	.3
1925.	48.7	48.5	-.4	-.2
1926.	50.2	50.4	.4	.2
1927.	48.8	48.8	.0	.0
1928.	49.3	49.4	.2	.1
1929.	47.7	47.9	.4	.2
1930.	52.4	52.8	.8	.4
1931.	51.6	51.8	.4	.2
1932.	47.3	47.4	.2	.1
1933.	46.6	46.3	-.6	-.3
1934.	50.5	50.6	.2	.1
1935.	48.9	48.8	-.2	-.1
1936.	47.9	47.9	.0	.0
1937.	46.3	46.6	.6	.3
1938.	48.3	48.3	.0	.0
1939.	47.9	47.9	.0	.0
1940.	49.3	49.3	.0	.0
1941.	49.9	49.9	.0	.0
1942.	46.8	46.8	.0	.0
1943.	49.5	49.5	.0	.0
1944.	48.6	48.3	-.6	-.3
1945.	47.8	47.8	.0	.0
1946.	46.5	46.5	.0	.0
1947.	49.2	49.5	.6	.3
1948.	47.7	47.7	.0	.0
1949.	45.3	45.7	.9	.4
1950.	47.6	47.7	.2	.1
1951.	46.6	46.6	.0	.0
1952.	47.4	47.4	.0	.0
1953.	50.5	50.5	.0	.0
1954.	48.5	48.2	-.6	-.3
1955.	46.8	47.0	.4	.2
1956.	46.7	46.7	.0	.0
1957.	49.9	49.9	.0	.0
1958.	51.4	50.1	-2.5	-1.3
1959.	50.0	49.8	-.4	-.2
1960.	49.6	49.6	.0	.0
1961.	50.2	50.6	.8	.4
1962.	47.5	47.4	-.2	-.1
1963.	49.8	49.8	.0	.0
1964.	47.8	47.8	.0	.0
1965.	47.4	47.4	.0	.0
1966.	47.7	47.7	.0	.0
1967.	48.3	48.4	.2	.1
1968.	50.5	49.7	-1.6	-.8
1969.	46.4	46.4	.0	.0
1970.	48.5	48.4	-.2	-.1
1971.	47.4	47.4	.0	.0
1972.	48.6	47.8	-1.6	-.8
1973.	49.6	49.7	.2	.1
1974.	46.9	46.9	.0	.0
1975.	47.9	47.9	.0	.0
1976.	50.9	51.0	.2	.1
1977.	52.8	52.9	.2	.1
1978.	51.1	51.0	-.2	-.1
1979.	48.0	47.9	-.2	-.1
1980.	47.4	47.6	.4	.2
1981.	50.9	51.1	.4	.2
1982.	46.7	46.7	.0	.0
1983.	49.1	49.1	.0	.0
1984.	48.1	48.1	.0	.0
1985.	48.4	48.5	.2	.1
1986.	48.1	48.1	.0	.0
1987.	51.8	50.6	-2.3	-1.2
1988.	53.7	53.5	-.4	-.2
1989.	47.8	47.7	-.2	-.1
1990.	48.5	48.5	.0	.0
Mean:	48.7	48.7	-.1	.0
Median:	48.3	48.2	.0	.0
Min:	45.3	45.7	-2.5	-1.3
Max:	53.7	53.5	.9	.4

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	40	38		

No. Years inc (avg):		22	(.2)
No. Years dec (avg):		16	(-.4)
No. Years no change		31	

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

March

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	51.1	51.2	.2	.1
1923.	53.2	49.9	-6.2	-3.3
1924.	53.8	54.0	.4	.2
1925.	54.4	54.4	.0	.0
1926.	56.5	56.8	.5	.3
1927.	51.9	52.0	.2	.1
1928.	52.3	52.4	.2	.1
1929.	54.0	53.1	-1.7	-.9
1930.	54.0	53.9	-.2	-.1
1931.	56.1	56.4	.5	.3
1932.	54.6	54.6	.0	.0
1933.	53.9	52.8	-2.0	-1.1
1934.	57.6	57.9	.5	.3
1935.	50.4	50.3	-.2	-.1
1936.	53.3	53.3	.0	.0
1937.	52.5	52.9	.8	.4
1938.	50.1	50.1	.0	.0
1939.	53.2	53.4	.4	.2
1940.	52.1	52.1	.0	.0
1941.	53.6	53.6	.0	.0
1942.	50.1	49.9	-.4	-.2
1943.	51.4	51.4	.0	.0
1944.	52.8	53.6	1.5	.8
1945.	50.5	50.5	.0	.0
1946.	52.0	52.1	.2	.1
1947.	53.6	53.9	.6	.3
1948.	50.3	50.2	-.2	-.1
1949.	50.9	51.1	.4	.2
1950.	51.9	52.0	.2	.1
1951.	51.2	51.2	.0	.0
1952.	49.8	49.8	.0	.0
1953.	53.0	53.0	.0	.0
1954.	50.9	51.0	.2	.1
1955.	52.5	52.7	.4	.2
1956.	52.0	52.0	.0	.0
1957.	54.0	53.8	-.4	-.2
1958.	50.9	51.0	.2	.1
1959.	54.7	54.6	-.2	-.1
1960.	54.2	54.3	.2	.1
1961.	54.1	54.0	-.2	-.1
1962.	51.8	51.5	-.6	-.3
1963.	51.2	51.2	.0	.0
1964.	51.4	51.4	.0	.0
1965.	51.9	51.8	-.2	-.1
1966.	52.4	52.4	.0	.0
1967.	51.2	51.2	.0	.0
1968.	55.3	53.5	-3.3	-1.8
1969.	52.1	51.8	-.6	-.3
1970.	53.4	53.4	.0	.0
1971.	51.2	51.2	.0	.0
1972.	55.6	56.2	1.1	.6
1973.	50.9	50.9	.0	.0
1974.	51.8	51.8	.0	.0
1975.	50.9	50.9	.0	.0
1976.	54.0	54.1	.2	.1
1977.	53.6	53.6	.0	.0
1978.	54.7	54.6	-.2	-.1
1979.	53.8	53.5	-.6	-.3
1980.	51.7	51.8	.2	.1
1981.	52.8	52.8	.0	.0
1982.	50.6	50.6	.0	.0
1983.	50.6	50.6	.0	.0
1984.	54.3	54.4	.2	.1
1985.	50.8	51.0	.4	.2
1986.	52.6	52.6	.0	.0
1987.	53.7	53.8	.2	.1
1988.	57.9	57.8	-.2	-.1
1989.	52.0	51.9	-.2	-.1
1990.	55.0	55.5	.9	.5
Mean:	52.7	52.7	-.1	-.1
Median:	52.3	52.3	.0	.0
Min:	49.8	49.8	-6.2	-3.3
Max:	57.9	57.9	1.5	.8
X > 56.0	4	5		
Mean X > 56.0	57.0	57.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		25	(	.2)
No. Years dec (avg):		18	(	-.5)
No. Years no change		26		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

April

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	54.8	54.9	.2	.1
1923.	56.1	56.4	.5	.3
1924.	63.0	63.1	.2	.1
1925.	56.1	56.4	.5	.3
1926.	60.6	60.6	.0	.0
1927.	54.4	54.4	.0	.0
1928.	55.2	55.3	.2	.1
1929.	56.7	57.5	1.4	.8
1930.	59.4	58.8	-1.0	-.6
1931.	64.9	64.9	.0	.0
1932.	56.7	56.9	.4	.2
1933.	58.3	59.1	1.4	.8
1934.	60.7	61.1	.7	.4
1935.	55.6	55.5	-.2	-.1
1936.	56.0	56.0	.0	.0
1937.	54.9	55.0	.2	.1
1938.	54.4	54.4	.0	.0
1939.	61.8	63.9	3.4	2.1
1940.	55.7	55.7	.0	.0
1941.	55.5	55.5	.0	.0
1942.	55.2	55.3	.2	.1
1943.	55.4	55.5	.2	.1
1944.	55.4	56.1	1.3	.7
1945.	57.3	57.4	.2	.1
1946.	56.3	56.5	.4	.2
1947.	59.0	58.0	-1.7	-1.0
1948.	54.1	54.0	-.2	-.1
1949.	59.1	58.6	-.8	-.5
1950.	56.3	56.3	.0	.0
1951.	56.8	57.0	.4	.2
1952.	54.5	54.5	.0	.0
1953.	56.7	56.8	.2	.1
1954.	57.1	57.2	.2	.1
1955.	54.6	54.7	.2	.1
1956.	57.1	56.9	-.4	-.2
1957.	58.7	58.7	.0	.0
1958.	54.6	54.6	.0	.0
1959.	63.5	60.9	-4.1	-2.6
1960.	58.5	58.6	.2	.1
1961.	61.9	61.9	.0	.0
1962.	58.0	58.7	1.2	.7
1963.	53.7	53.8	.2	.1
1964.	56.3	56.3	.0	.0
1965.	55.7	55.9	.4	.2
1966.	61.7	61.3	-.6	-.4
1967.	52.0	52.0	.0	.0
1968.	59.3	58.4	-1.5	-.9
1969.	54.8	54.9	.2	.1
1970.	57.0	57.0	.0	.0
1971.	55.0	55.1	.2	.1
1972.	57.7	57.9	.3	.2
1973.	57.7	57.7	.0	.0
1974.	54.4	54.4	.0	.0
1975.	53.3	53.3	.0	.0
1976.	60.0	60.0	.0	.0
1977.	64.8	64.8	.0	.0
1978.	55.3	55.5	.4	.2
1979.	57.0	57.2	.4	.2
1980.	57.3	57.5	.3	.2
1981.	57.7	57.7	.0	.0
1982.	53.3	53.4	.2	.1
1983.	54.0	54.0	.0	.0
1984.	57.7	57.7	.0	.0
1985.	60.5	60.6	.2	.1
1986.	57.6	57.6	.0	.0
1987.	64.5	64.7	.3	.2
1988.	63.2	63.2	.0	.0
1989.	58.2	58.5	.5	.3
1990.	60.2	61.4	2.0	1.2
Mean:	57.4	57.5	.1	.1
Median:	56.7	56.9	.0	.0
Min:	52.0	52.0	-4.1	-2.6
Max:	64.9	64.9	3.4	2.1
X > 56.0	43	44		
Mean X > 56.0	59.0	59.0	.0	.0
X > 60.0	13	13		
Mean X > 60.0	62.4	62.5	.2	.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	14	14		
61.0 <= X <= 73.0	9	10		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		35	(	.3)
No. Years dec (avg):		9	(	-.7)
No. Years no change		25		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

May

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	58.9	59.0	.2	.1
1923.	59.3	59.4	.2	.1
1924.	70.2	70.3	.1	.1
1925.	59.9	60.1	.3	.2
1926.	65.8	66.0	.3	.2
1927.	59.1	59.1	.0	.0
1928.	61.9	61.9	.0	.0
1929.	63.3	63.7	.6	.4
1930.	61.7	62.0	.5	.3
1931.	70.9	70.9	.0	.0
1932.	60.9	61.1	.3	.2
1933.	60.0	60.4	.7	.4
1934.	69.5	69.5	.0	.0
1935.	59.4	59.4	.0	.0
1936.	60.8	60.7	-.2	-.1
1937.	60.0	60.1	.2	.1
1938.	59.1	59.1	.0	.0
1939.	64.5	64.5	.0	.0
1940.	61.4	61.5	.2	.1
1941.	59.3	59.3	.0	.0
1942.	57.8	58.0	.3	.2
1943.	61.1	61.1	.0	.0
1944.	61.5	62.1	1.0	.6
1945.	59.5	59.6	.2	.1
1946.	60.0	59.9	-.2	-.1
1947.	64.8	63.6	-1.9	-1.2
1948.	59.0	59.1	.2	.1
1949.	61.8	62.4	1.0	.6
1950.	60.5	60.4	-.2	-.1
1951.	60.8	60.8	.0	.0
1952.	59.0	59.0	.0	.0
1953.	58.9	58.9	.0	.0
1954.	62.2	62.1	-.2	-.1
1955.	60.5	61.4	1.5	.9
1956.	60.7	60.8	.2	.1
1957.	60.7	60.8	.2	.1
1958.	59.4	59.4	.0	.0
1959.	63.1	62.4	-1.1	-.7
1960.	62.3	62.6	.5	.3
1961.	62.2	62.2	.0	.0
1962.	60.8	60.8	.0	.0
1963.	57.6	57.7	.2	.1
1964.	60.3	59.6	-1.2	-.7
1965.	59.8	59.8	.0	.0
1966.	65.2	66.0	1.2	.8
1967.	58.1	58.2	.2	.1
1968.	63.4	61.3	-3.3	-2.1
1969.	59.2	59.2	.0	.0
1970.	63.9	64.1	.3	.2
1971.	58.1	58.0	-.2	-.1
1972.	62.9	63.2	.5	.3
1973.	61.9	62.1	.3	.2
1974.	59.2	59.2	.0	.0
1975.	60.4	60.6	.3	.2
1976.	67.8	70.1	3.4	2.3
1977.	63.3	63.3	.0	.0
1978.	60.3	60.5	.3	.2
1979.	61.1	61.8	1.1	.7
1980.	59.9	59.9	.0	.0
1981.	62.8	62.4	-.6	-.4
1982.	58.9	58.9	.0	.0
1983.	58.3	58.3	.0	.0
1984.	63.2	63.4	.3	.2
1985.	63.6	63.9	.5	.3
1986.	61.4	61.5	.2	.1
1987.	66.7	69.3	3.9	2.6
1988.	66.7	66.7	.0	.0
1989.	62.4	62.7	.5	.3
1990.	65.0	65.3	.5	.3
Mean:	61.7	61.8	.2	.1
Median:	60.8	60.8	.1	.0
Min:	57.6	57.7	-3.3	-2.1
Max:	70.9	70.9	3.9	2.6
X > 56.0	69	69		
Mean X > 56.0	61.7	61.8	.2	.1
X > 60.0	44	46		
Mean X > 60.0	63.1	63.1	.0	.0
X > 65.0	8	9		
Mean X > 65.0	67.8	68.2	.6	.4
X > 68.0	3	5		
Mean X > 68.0	70.2	70.0	-.3	-.2
X > 70.0	2	3		
Mean X > 70.0	70.6	70.4	-.3	-.2
60.0 <= X <= 70.0	45	43		
61.0 <= X <= 73.0	33	35		
48.0 <= X <= 68.0	66	64		
No. Years inc (avg):		36	(.4)	
No. Years dec (avg):		10	(-.6)	
No. Years no change		23		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

June

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	63.3	61.9	-2.2	-1.4
1923.	62.5	62.5	.0	.0
1924.	71.4	71.4	.0	.0
1925.	64.5	63.3	-1.9	-1.2
1926.	68.2	67.8	-.6	-.4
1927.	63.0	61.8	-1.9	-1.2
1928.	65.7	66.6	1.4	.9
1929.	68.7	67.4	-1.9	-1.3
1930.	67.1	65.3	-2.7	-1.8
1931.	69.3	67.3	-2.9	-2.0
1932.	65.5	65.2	-.5	-.3
1933.	66.8	67.0	.3	.2
1934.	69.8	67.4	-3.4	-2.4
1935.	64.6	63.8	-1.2	-.8
1936.	64.7	64.7	.0	.0
1937.	64.4	64.1	-.5	-.3
1938.	64.0	63.0	-1.6	-1.0
1939.	69.6	71.0	2.0	1.4
1940.	66.6	67.0	.6	.4
1941.	63.1	61.5	-2.5	-1.6
1942.	62.5	62.4	-.2	-.1
1943.	64.1	63.4	-1.1	-.7
1944.	65.0	66.1	1.7	1.1
1945.	64.8	65.5	1.1	.7
1946.	63.4	64.2	1.3	.8
1947.	68.7	69.3	.9	.6
1948.	64.8	63.3	-2.3	-1.5
1949.	66.3	64.7	-2.4	-1.6
1950.	63.7	63.2	-.8	-.5
1951.	64.7	64.4	-.5	-.3
1952.	62.1	62.0	-.2	-.1
1953.	63.3	63.5	.3	.2
1954.	65.2	64.8	-.6	-.4
1955.	65.5	66.0	.8	.5
1956.	64.5	64.4	-.2	-.1
1957.	66.0	66.5	.8	.5
1958.	63.4	63.3	-.2	-.1
1959.	68.7	67.3	-2.0	-1.4
1960.	69.2	67.2	-2.9	-2.0
1961.	71.2	73.6	3.4	2.4
1962.	65.8	65.8	.0	.0
1963.	63.0	62.1	-1.4	-.9
1964.	67.1	64.8	-3.4	-2.3
1965.	62.9	62.8	-.2	-.1
1966.	69.2	66.7	-3.6	-2.5
1967.	62.6	62.4	-.3	-.2
1968.	67.5	68.5	1.5	1.0
1969.	62.9	62.7	-.3	-.2
1970.	66.8	67.2	.6	.4
1971.	62.5	61.7	-1.3	-.8
1972.	65.3	66.5	1.8	1.2
1973.	65.2	63.5	-2.6	-1.7
1974.	63.9	63.6	-.5	-.3
1975.	63.2	62.0	-1.9	-1.2
1976.	69.6	67.7	-2.7	-1.9
1977.	72.4	72.4	.0	.0
1978.	63.9	64.0	.2	.1
1979.	65.4	65.4	.0	.0
1980.	63.1	63.2	.2	.1
1981.	69.9	68.7	-1.7	-1.2
1982.	62.6	61.4	-1.9	-1.2
1983.	63.1	63.0	-.2	-.1
1984.	66.9	65.6	-1.9	-1.3
1985.	68.7	66.8	-2.8	-1.9
1986.	66.0	66.2	.3	.2
1987.	71.0	70.9	-.1	-.1
1988.	69.5	67.3	-3.2	-2.2
1989.	66.2	66.4	.3	.2
1990.	69.3	67.3	-2.9	-2.0
Mean:	65.9	65.4	-.7	-.5
Median:	65.2	64.8	-.5	-.3
Min:	62.1	61.4	-3.6	-2.5
Max:	72.4	73.6	3.4	2.4
X > 56.0	69	69		
Mean X > 56.0	65.9	65.4	-.8	-.5
X > 60.0	69	69		
Mean X > 60.0	65.9	65.4	-.8	-.5
X > 65.0	37	35		
Mean X > 65.0	67.9	67.6	-.4	-.3
X > 68.0	18	8		
Mean X > 68.0	69.7	70.7	1.4	1.0
X > 70.0	4	5		
Mean X > 70.0	71.5	71.9	.6	.4
60.0 <= X <= 70.0	65	64		
61.0 <= X <= 73.0	69	68		
48.0 <= X <= 68.0	51	61		
No. Years inc (avg):		19	(.7)	
No. Years dec (avg):		44	(-1.1)	
No. Years no change		6		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

July

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	67.1	65.5	-2.4	-1.6
1923.	68.8	67.5	-1.9	-1.3
1924.	71.5	71.8	.4	.3
1925.	67.6	66.2	-2.1	-1.4
1926.	71.5	70.7	-1.1	-.8
1927.	66.7	65.2	-2.2	-1.5
1928.	67.8	67.8	.0	.0
1929.	70.8	69.3	-2.1	-1.5
1930.	69.8	70.3	.7	.5
1931.	71.6	70.8	-1.1	-.8
1932.	68.9	67.2	-2.5	-1.7
1933.	71.2	69.3	-2.7	-1.9
1934.	70.8	69.3	-2.1	-1.5
1935.	68.0	66.1	-2.8	-1.9
1936.	69.0	67.2	-2.6	-1.8
1937.	68.4	66.2	-3.2	-2.2
1938.	67.7	66.2	-2.2	-1.5
1939.	70.8	69.3	-2.1	-1.5
1940.	68.8	69.5	1.0	.7
1941.	66.7	65.2	-2.2	-1.5
1942.	67.9	65.7	-3.2	-2.2
1943.	68.0	66.6	-2.1	-1.4
1944.	69.5	70.8	1.9	1.3
1945.	68.4	69.2	1.2	.8
1946.	67.0	67.1	.1	.1
1947.	71.5	70.6	-1.3	-.9
1948.	67.8	66.2	-2.4	-1.6
1949.	68.6	67.2	-2.0	-1.4
1950.	68.0	66.2	-2.6	-1.8
1951.	68.5	67.4	-1.6	-1.1
1952.	67.3	66.4	-1.3	-.9
1953.	67.7	66.2	-2.2	-1.5
1954.	67.7	67.2	-.7	-.5
1955.	70.1	70.5	.6	.4
1956.	68.9	66.8	-3.0	-2.1
1957.	68.0	69.7	2.5	1.7
1958.	68.3	67.5	-1.2	-.8
1959.	72.8	75.1	3.2	2.3
1960.	70.5	69.8	-1.0	-.7
1961.	76.3	75.9	-.5	-.4
1962.	68.7	67.9	-1.2	-.8
1963.	67.3	65.5	-2.7	-1.8
1964.	69.5	71.2	2.4	1.7
1965.	67.2	66.4	-1.2	-.8
1966.	69.0	68.4	-.9	-.6
1967.	68.7	67.4	-1.9	-1.3
1968.	69.0	70.6	2.3	1.6
1969.	67.9	66.2	-2.5	-1.7
1970.	68.7	69.3	.9	.6
1971.	67.1	65.2	-2.8	-1.9
1972.	67.8	68.6	1.2	.8
1973.	67.7	66.2	-2.2	-1.5
1974.	67.9	66.3	-2.4	-1.6
1975.	66.6	65.4	-1.8	-1.2
1976.	70.8	69.3	-2.1	-1.5
1977.	74.2	74.1	-.1	-.1
1978.	67.9	66.7	-1.8	-1.2
1979.	68.7	68.3	-.6	-.4
1980.	67.8	66.2	-2.4	-1.6
1981.	73.2	73.2	.0	.0
1982.	66.9	65.2	-2.5	-1.7
1983.	67.1	66.7	-.6	-.4
1984.	68.6	67.2	-2.0	-1.4
1985.	71.5	71.9	.6	.4
1986.	70.4	69.6	-1.1	-.8
1987.	71.2	69.3	-2.7	-1.9
1988.	72.1	73.1	1.4	1.0
1989.	67.7	67.7	.0	.0
1990.	70.8	69.8	-1.4	-1.0
Mean:	69.1	68.3	-1.1	-.8
Median:	68.6	67.4	-1.8	-1.2
Min:	66.6	65.2	-3.2	-2.2
Max:	76.3	75.9	3.2	2.3
X > 56.0	69	69		
Mean X > 56.0	69.1	68.3	-1.2	-.8
X > 60.0	69	69		
Mean X > 60.0	69.1	68.3	-1.2	-.8
X > 65.0	69	69		
Mean X > 65.0	69.1	68.3	-1.2	-.8
X > 68.0	40	31		
Mean X > 68.0	70.3	70.6	.4	.3
X > 70.0	20	15		
Mean X > 70.0	71.7	72.0	.4	.3
60.0 <= X <= 70.0	49	54		
61.0 <= X <= 73.0	66	64		
48.0 <= X <= 68.0	29	38		
No. Years inc (avg):		15	(.9)	
No. Years dec (avg):		51	(-1.3)	
No. Years no change		3		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

August

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	66.9	65.9	-1.5	-1.0
1923.	68.7	67.7	-1.5	-1.0
1924.	72.5	72.2	-.4	-.3
1925.	67.6	66.6	-1.5	-1.0
1926.	69.9	68.9	-1.4	-1.0
1927.	66.6	65.7	-1.4	-.9
1928.	69.8	69.8	.0	.0
1929.	73.5	73.0	-.7	-.5
1930.	68.8	67.9	-1.3	-.9
1931.	74.2	74.2	.0	.0
1932.	68.7	67.8	-1.3	-.9
1933.	70.7	73.3	3.7	2.6
1934.	73.7	73.4	-.4	-.3
1935.	67.7	66.7	-1.5	-1.0
1936.	68.7	67.6	-1.6	-1.1
1937.	67.7	66.8	-1.3	-.9
1938.	67.1	66.1	-1.5	-1.0
1939.	72.5	72.4	-.1	-.1
1940.	69.4	68.2	-1.7	-1.2
1941.	66.6	65.7	-1.4	-.9
1942.	67.3	66.1	-1.8	-1.2
1943.	67.7	66.7	-1.5	-1.0
1944.	69.9	70.6	1.0	.7
1945.	67.7	68.5	1.2	.8
1946.	67.0	68.1	1.6	1.1
1947.	69.8	68.8	-1.4	-1.0
1948.	67.5	66.7	-1.2	-.8
1949.	68.3	67.6	-1.0	-.7
1950.	67.7	66.4	-1.9	-1.3
1951.	68.1	68.1	.0	.0
1952.	67.6	66.3	-1.9	-1.3
1953.	67.6	66.6	-1.5	-1.0
1954.	68.3	67.9	-.6	-.4
1955.	70.1	71.1	1.4	1.0
1956.	67.8	66.6	-1.8	-1.2
1957.	67.8	68.8	1.5	1.0
1958.	68.6	67.7	-1.3	-.9
1959.	69.7	68.8	-1.3	-.9
1960.	71.5	71.8	.4	.3
1961.	70.1	72.1	2.9	2.0
1962.	67.8	68.1	.4	.3
1963.	67.2	66.0	-1.8	-1.2
1964.	70.4	71.8	2.0	1.4
1965.	67.7	66.7	-1.5	-1.0
1966.	71.9	68.7	-4.5	-3.2
1967.	68.8	67.6	-1.7	-1.2
1968.	68.8	68.8	.0	.0
1969.	67.6	66.6	-1.5	-1.0
1970.	69.3	69.7	.6	.4
1971.	66.9	65.6	-1.9	-1.3
1972.	69.3	70.8	2.2	1.5
1973.	67.7	66.4	-1.9	-1.3
1974.	67.6	66.6	-1.5	-1.0
1975.	66.6	65.8	-1.2	-.8
1976.	69.8	68.9	-1.3	-.9
1977.	73.8	73.7	-.1	-.1
1978.	67.8	66.7	-1.6	-1.1
1979.	67.8	68.7	1.3	.9
1980.	67.7	66.7	-1.5	-1.0
1981.	69.8	68.8	-1.4	-1.0
1982.	66.7	65.6	-1.6	-1.1
1983.	67.6	66.6	-1.5	-1.0
1984.	68.8	67.8	-1.5	-1.0
1985.	71.4	70.5	-1.3	-.9
1986.	69.6	67.6	-2.9	-2.0
1987.	69.8	68.7	-1.6	-1.1
1988.	72.7	73.1	.6	.4
1989.	70.6	70.9	.4	.3
1990.	71.0	71.5	.7	.5
Mean:	69.0	68.6	-.7	-.5
Median:	68.4	67.9	-1.3	-.9
Min:	66.6	65.6	-4.5	-3.2
Max:	74.2	74.2	3.7	2.6
X > 56.0	69	69		
Mean X > 56.0	69.0	68.6	-.6	-.4
X > 60.0	69	69		
Mean X > 60.0	69.0	68.6	-.6	-.4
X > 65.0	69	69		
Mean X > 65.0	69.0	68.6	-.6	-.4
X > 68.0	39	34		
Mean X > 68.0	70.3	70.4	.1	.1
X > 70.0	16	17		
Mean X > 70.0	71.9	72.1	.3	.2
60.0 <= X <= 70.0	53	52		
61.0 <= X <= 73.0	65	64		
48.0 <= X <= 68.0	30	35		
No. Years inc (avg):		16		(.9)
No. Years dec (avg):		49		(-1.0)
No. Years no change		4		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

September

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	66.8	65.9	-1.3	-.9
1923.	68.7	67.7	-1.5	-1.0
1924.	70.1	69.6	-.7	-.5
1925.	67.4	66.7	-1.0	-.7
1926.	68.9	68.5	-.6	-.4
1927.	66.6	65.6	-1.5	-1.0
1928.	68.0	69.5	2.2	1.5
1929.	69.8	68.8	-1.4	-1.0
1930.	68.0	67.6	-.6	-.4
1931.	69.3	68.7	-.9	-.6
1932.	68.6	67.7	-1.3	-.9
1933.	69.0	68.6	-.6	-.4
1934.	69.8	69.5	-.4	-.3
1935.	67.6	66.6	-1.5	-1.0
1936.	68.6	67.7	-1.3	-.9
1937.	67.6	66.6	-1.5	-1.0
1938.	67.1	66.1	-1.5	-1.0
1939.	69.8	68.9	-1.3	-.9
1940.	68.4	68.1	-.4	-.3
1941.	66.6	65.6	-1.5	-1.0
1942.	67.2	66.1	-1.6	-1.1
1943.	67.7	66.7	-1.5	-1.0
1944.	68.7	68.7	.0	.0
1945.	67.7	69.2	2.2	1.5
1946.	66.9	68.3	2.1	1.4
1947.	69.7	68.8	-1.3	-.9
1948.	67.5	66.7	-1.2	-.8
1949.	68.3	67.6	-1.0	-.7
1950.	67.7	66.4	-1.9	-1.3
1951.	69.8	69.7	-.1	-.1
1952.	67.6	66.3	-1.9	-1.3
1953.	67.6	66.6	-1.5	-1.0
1954.	67.8	67.7	-.1	-.1
1955.	68.7	68.7	.0	.0
1956.	67.8	66.6	-1.8	-1.2
1957.	67.7	68.7	1.5	1.0
1958.	68.6	67.6	-1.5	-1.0
1959.	69.7	68.7	-1.4	-1.0
1960.	70.6	69.9	-1.0	-.7
1961.	69.8	68.7	-1.6	-1.1
1962.	68.9	69.0	.1	.1
1963.	67.2	65.9	-1.9	-1.3
1964.	68.8	68.7	-.1	-.1
1965.	67.6	66.6	-1.5	-1.0
1966.	70.3	68.7	-2.3	-1.6
1967.	68.8	67.6	-1.7	-1.2
1968.	68.7	68.7	.0	.0
1969.	67.6	66.6	-1.5	-1.0
1970.	68.3	69.9	2.3	1.6
1971.	66.9	65.6	-1.9	-1.3
1972.	67.7	68.3	.9	.6
1973.	67.7	66.4	-1.9	-1.3
1974.	67.6	66.6	-1.5	-1.0
1975.	66.6	65.8	-1.2	-.8
1976.	69.9	69.8	-.1	-.1
1977.	68.9	68.8	-.1	-.1
1978.	67.7	66.7	-1.5	-1.0
1979.	68.1	70.8	4.0	2.7
1980.	67.6	66.6	-1.5	-1.0
1981.	69.7	68.7	-1.4	-1.0
1982.	66.7	65.6	-1.6	-1.1
1983.	67.6	66.6	-1.5	-1.0
1984.	68.7	67.7	-1.5	-1.0
1985.	67.8	67.8	.0	.0
1986.	65.6	66.2	.9	.6
1987.	69.8	68.7	-1.6	-1.1
1988.	71.4	70.7	-1.0	-.7
1989.	67.8	68.1	.4	.3
1990.	71.7	71.7	.0	.0
Mean:	68.3	67.8	-.7	-.5
Median:	67.9	67.7	-1.3	-.9
Min:	65.6	65.6	-2.3	-1.6
Max:	71.7	71.7	4.0	2.7
X > 56.0	69	69		
Mean X > 56.0	68.3	67.8	-.7	-.5
X > 60.0	69	69		
Mean X > 60.0	68.3	67.8	-.7	-.5
X > 65.0	69	69		
Mean X > 65.0	68.3	67.8	-.7	-.5
X > 68.0	34	33		
Mean X > 68.0	69.3	69.1	-.3	-.2
X > 70.0	5	3		
Mean X > 70.0	70.8	71.1	.4	.3
60.0 <= X <= 70.0	64	66		
61.0 <= X <= 73.0	69	69		
48.0 <= X <= 68.0	35	36		
No. Years inc (avg):		10		(1.1)
No. Years dec (avg):		54		(-.9)
No. Years no change		5		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

October"

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	57.4	57.5	.2	.1
1923.	61.5	60.1	-2.3	-1.4
1924.	62.2	61.7	-.8	-.5
1925.	58.6	58.5	-.2	-.1
1926.	62.3	62.7	.6	.4
1927.	58.2	58.0	-.3	-.2
1928.	59.0	56.6	-4.1	-2.4
1929.	64.4	64.5	.2	.1
1930.	60.5	60.0	-.8	-.5
1931.	63.5	63.5	.0	.0
1932.	60.9	60.1	-1.3	-.8
1933.	65.7	65.2	-.8	-.5
1934.	64.5	64.1	-.6	-.4
1935.	58.8	58.8	.0	.0
1936.	60.9	59.7	-2.0	-1.2
1937.	59.5	59.2	-.5	-.3
1938.	58.2	58.3	.2	.1
1939.	64.7	64.4	-.5	-.3
1940.	57.2	56.5	-1.2	-.7
1941.	58.0	57.6	-.7	-.4
1942.	57.6	57.3	-.5	-.3
1943.	58.5	58.7	.3	.2
1944.	62.0	59.6	-3.9	-2.4
1945.	60.8	56.3	-7.4	-4.5
1946.	58.0	55.7	-4.0	-2.3
1947.	59.6	58.9	-1.2	-.7
1948.	57.9	59.0	1.9	1.1
1949.	59.5	60.0	.8	.5
1950.	57.8	57.6	-.3	-.2
1951.	58.0	55.7	-4.0	-2.3
1952.	58.7	57.9	-1.4	-.8
1953.	59.2	58.3	-1.5	-.9
1954.	57.1	56.5	-1.1	-.6
1955.	60.5	57.7	-4.6	-2.8
1956.	59.8	59.5	-.5	-.3
1957.	59.6	56.7	-4.9	-2.9
1958.	61.4	60.8	-1.0	-.6
1959.	64.8	64.8	.0	.0
1960.	58.2	57.4	-1.4	-.8
1961.	65.5	64.2	-2.0	-1.3
1962.	58.3	56.2	-3.6	-2.1
1963.	58.2	57.5	-1.2	-.7
1964.	60.6	57.8	-4.6	-2.8
1965.	59.0	58.5	-.8	-.5
1966.	61.5	61.8	.5	.3
1967.	61.5	61.2	-.5	-.3
1968.	60.4	61.7	2.2	1.3
1969.	59.2	58.6	-1.0	-.6
1970.	59.5	56.1	-5.7	-3.4
1971.	57.6	57.9	.5	.3
1972.	58.6	55.7	-4.9	-2.9
1973.	58.5	58.2	-.5	-.3
1974.	59.5	58.6	-1.5	-.9
1975.	57.8	57.9	.2	.1
1976.	64.6	65.1	.8	.5
1977.	63.8	63.9	.2	.1
1978.	59.7	59.2	-.8	-.5
1979.	60.4	56.8	-6.0	-3.6
1980.	59.3	58.7	-1.0	-.6
1981.	63.2	63.7	.8	.5
1982.	57.6	57.6	.0	.0
1983.	58.6	58.1	-.9	-.5
1984.	61.2	60.6	-1.0	-.6
1985.	58.2	56.7	-2.6	-1.5
1986.	61.4	58.5	-4.7	-2.9
1987.	65.3	66.1	1.2	.8
1988.	66.4	66.0	-.6	-.4
1989.	59.1	56.9	-3.7	-2.2
1990.	66.6	66.2	-.6	-.4
Mean:	60.4	59.6	-1.3	-.8
Median:	59.5	58.5	-.8	-.5
Min:	57.1	55.7	-7.4	-4.5
Max:	66.6	66.2	2.2	1.3
X > 56.0	69	66		
Mean X > 56.0	60.4	59.8	-1.0	-.6
X > 60.0	30	22		
Mean X > 60.0	62.8	63.3	.8	.5
X > 65.0	5	5		
Mean X > 65.0	65.9	65.7	-.3	-.2
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	30	24		
61.0 <= X <= 73.0	22	18		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		15		(.4)
No. Years dec (avg):		50		(-1.2)
No. Years no change		4		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

November

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	53.9	53.9	.0	.0
1923.	57.3	57.0	-.5	-.3
1924.	54.6	54.2	-.7	-.4
1925.	56.1	55.9	-.4	-.2
1926.	58.6	57.8	-1.4	-.8
1927.	56.0	56.0	.0	.0
1928.	56.5	55.2	-2.3	-1.3
1929.	58.8	58.4	-.7	-.4
1930.	57.4	56.8	-1.0	-.6
1931.	54.4	54.3	-.2	-.1
1932.	57.1	57.2	.2	.1
1933.	58.8	58.3	-.9	-.5
1934.	56.6	56.0	-1.1	-.6
1935.	55.6	55.6	.0	.0
1936.	57.5	57.3	-.3	-.2
1937.	57.3	56.5	-1.4	-.8
1938.	56.1	56.0	-.2	-.1
1939.	58.5	58.0	-.9	-.5
1940.	55.5	53.8	-3.1	-1.7
1941.	56.1	56.2	.2	.1
1942.	56.1	56.1	.0	.0
1943.	56.6	56.3	-.5	-.3
1944.	54.0	54.1	.2	.1
1945.	56.0	54.6	-2.5	-1.4
1946.	54.5	52.5	-3.7	-2.0
1947.	52.9	52.9	.0	.0
1948.	56.0	56.0	.0	.0
1949.	57.4	57.2	-.3	-.2
1950.	56.4	56.1	-.5	-.3
1951.	56.1	55.3	-1.4	-.8
1952.	56.2	56.0	-.4	-.2
1953.	56.9	57.0	.2	.1
1954.	55.2	54.2	-1.8	-1.0
1955.	55.3	54.9	-.7	-.4
1956.	57.4	57.5	.2	.1
1957.	57.6	56.1	-2.6	-1.5
1958.	57.9	56.9	-1.7	-1.0
1959.	59.7	59.6	-.2	-.1
1960.	55.9	55.6	-.5	-.3
1961.	56.9	56.8	-.2	-.1
1962.	56.1	55.8	-.5	-.3
1963.	55.9	56.0	.2	.1
1964.	54.5	54.0	-.9	-.5
1965.	56.9	56.1	-1.4	-.8
1966.	55.9	57.4	2.7	1.5
1967.	57.6	57.2	-.7	-.4
1968.	56.2	55.6	-1.1	-.6
1969.	57.1	56.2	-1.6	-.9
1970.	56.6	55.4	-2.1	-1.2
1971.	56.5	56.4	-.2	-.1
1972.	53.5	52.3	-2.2	-1.2
1973.	55.4	54.9	-.9	-.5
1974.	56.9	56.6	-.5	-.3
1975.	55.7	55.6	-.2	-.1
1976.	57.7	57.8	.2	.1
1977.	55.4	55.5	.2	.1
1978.	57.0	56.7	-.5	-.3
1979.	57.1	55.6	-2.6	-1.5
1980.	57.2	56.4	-1.4	-.8
1981.	56.8	56.6	-.4	-.2
1982.	56.0	55.9	-.2	-.1
1983.	57.0	56.4	-1.1	-.6
1984.	56.1	55.7	-.7	-.4
1985.	54.0	53.3	-1.3	-.7
1986.	55.8	55.9	.2	.1
1987.	57.3	57.0	-.5	-.3
1988.	56.4	55.8	-1.1	-.6
1989.	57.0	55.9	-1.9	-1.1
1990.	56.5	55.9	-1.1	-.6
Mean:	56.4	55.9	-.8	-.4
Median:	56.3	56.0	-.6	-.4
Min:	52.9	52.3	-3.7	-2.0
Max:	59.7	59.6	2.7	1.5
X > 56.0	45	32		
Mean X > 56.0	57.1	57.0	-.2	-.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		10	(	.2)
No. Years dec (avg):		53	(	-.6)
No. Years no change		6		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

December

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	47.7	47.6	-.2	-.1
1923.	50.5	50.4	-.2	-.1
1924.	45.7	45.3	-.9	-.4
1925.	48.9	48.7	-.4	-.2
1926.	49.9	49.6	-.6	-.3
1927.	49.1	49.0	-.2	-.1
1928.	47.9	47.4	-1.0	-.5
1929.	50.7	50.4	-.6	-.3
1930.	49.6	49.2	-.8	-.4
1931.	47.0	47.0	.0	.0
1932.	48.9	48.7	-.4	-.2
1933.	48.7	48.2	-1.0	-.5
1934.	49.2	48.5	-1.4	-.7
1935.	49.8	49.7	-.2	-.1
1936.	49.6	49.4	-.4	-.2
1937.	51.3	51.2	-.2	-.1
1938.	50.1	50.0	-.2	-.1
1939.	51.9	51.5	-.8	-.4
1940.	50.7	50.4	-.6	-.3
1941.	50.1	50.0	-.2	-.1
1942.	49.1	49.1	.0	.0
1943.	51.1	50.7	-.8	-.4
1944.	48.8	48.9	.2	.1
1945.	48.9	48.7	-.4	-.2
1946.	48.4	48.0	-.8	-.4
1947.	47.1	47.1	.0	.0
1948.	47.5	47.3	-.4	-.2
1949.	49.4	49.0	-.8	-.4
1950.	48.8	48.8	.0	.0
1951.	49.0	48.6	-.8	-.4
1952.	50.3	50.1	-.4	-.2
1953.	51.2	51.1	-.2	-.1
1954.	46.9	46.6	-.6	-.3
1955.	48.4	48.3	-.2	-.1
1956.	51.0	51.0	.0	.0
1957.	50.0	49.5	-1.0	-.5
1958.	54.9	54.8	-.2	-.1
1959.	51.7	51.5	-.4	-.2
1960.	48.9	48.8	-.2	-.1
1961.	47.8	47.6	-.4	-.2
1962.	50.5	50.5	.0	.0
1963.	46.7	46.6	-.2	-.1
1964.	47.4	47.3	-.2	-.1
1965.	48.2	48.1	-.2	-.1
1966.	48.4	48.4	.0	.0
1967.	50.6	50.5	-.2	-.1
1968.	48.1	47.6	-1.0	-.5
1969.	52.0	51.8	-.4	-.2
1970.	49.0	48.7	-.6	-.3
1971.	48.1	48.0	-.2	-.1
1972.	44.5	44.3	-.4	-.2
1973.	49.3	49.2	-.2	-.1
1974.	49.9	49.7	-.4	-.2
1975.	49.7	49.7	.0	.0
1976.	49.7	49.8	.2	.1
1977.	49.6	49.6	.0	.0
1978.	48.4	48.1	-.6	-.3
1979.	51.4	51.0	-.8	-.4
1980.	52.1	52.0	-.2	-.1
1981.	50.2	50.2	.0	.0
1982.	48.9	48.9	.0	.0
1983.	48.7	48.6	-.2	-.1
1984.	49.3	49.2	-.2	-.1
1985.	45.6	45.3	-.7	-.3
1986.	51.3	50.7	-1.2	-.6
1987.	49.0	48.5	-1.0	-.5
1988.	48.9	48.3	-1.2	-.6
1989.	49.1	48.9	-.4	-.2
1990.	45.6	44.8	-1.8	-.8
Mean:	49.2	49.0	-.4	-.2
Median:	49.0	48.9	-.4	-.2
Min:	44.5	44.3	-1.8	-.8
Max:	54.9	54.8	.2	.1
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	56	55		
No. Years inc (avg):		2	(.1)	
No. Years dec (avg):		56	(-.3)	
No. Years no change		11		

RETURN TO TABLE OF CONTENTS

Section 10

LOWER AMERICAN RIVER SALMON SURVIVAL

LOWER AMERICAN RIVER SALMON SURVIVAL

Water Year	Base Survival (%)	WFP Survival (%)	WFP Rel Change (%)	WFP Abs Diff (%)
1922	92.4	92.7	.3	.3
1923	80.7	83.4	3.3	2.7
1924	83.0	83.9	1.1	.9
1925	88.0	88.8	.9	.8
1926	75.2	77.9	3.6	2.7
1927	89.9	90.6	.8	.7
1928	86.5	92.5	6.9	6.0
1929	72.7	74.1	1.9	1.4
1930	80.3	83.2	3.6	2.9
1931	81.8	82.1	.4	.3
1932	82.6	83.3	.8	.7
1933	72.0	74.4	3.3	2.4
1934	78.3	79.4	1.4	1.1
1935	88.3	88.4	.1	.1
1936	80.4	83.6	4.0	3.2
1937	83.8	86.9	3.7	3.1
1938	88.7	88.9	.2	.2
1939	72.7	74.6	2.6	1.9
1940	91.8	93.3	1.6	1.5
1941	89.7	90.5	.9	.8
1942	90.6	91.5	1.0	.9
1943	87.5	88.0	.6	.5
1944	85.4	89.6	4.9	4.2
1945	84.4	93.1	10.3	8.7
1946	91.1	93.8	3.0	2.7
1947	89.3	90.6	1.5	1.3
1948	89.3	87.4	-2.1	-1.9
1949	82.7	82.0	-.8	-.7
1950	89.8	91.2	1.6	1.4
1951	88.9	92.8	4.4	3.9
1952	87.7	89.9	2.5	2.2
1953	84.8	86.7	2.2	1.9
1954	91.9	93.1	1.3	1.2
1955	85.4	91.4	7.0	6.0
1956	80.8	81.5	.9	.7
1957	80.3	90.9	13.2	10.6
1958	74.5	80.6	8.2	6.1
1959	66.2	66.6	.6	.4
1960	89.5	91.7	2.5	2.2
1961	76.6	77.9	1.7	1.3
1962	88.7	92.5	4.3	3.8
1963	89.8	91.1	1.4	1.3
1964	87.2	92.3	5.8	5.1
1965	86.5	89.2	3.1	2.7
1966	83.7	79.2	-5.4	-4.5
1967	79.1	81.3	2.8	2.2
1968	83.7	83.1	-.7	-.6
1969	84.0	87.8	4.5	3.8
1970	85.4	92.6	8.4	7.2
1971	89.1	89.0	-.1	-.1
1972	90.7	93.9	3.5	3.2
1973	89.8	91.1	1.4	1.3
1974	84.9	87.8	3.4	2.9
1975	91.3	91.5	.2	.2
1976	73.4	72.4	-1.4	-1.0
1977	79.6	79.4	-.3	-.2
1978	83.6	86.0	2.9	2.4
1979	80.7	91.6	13.5	10.9
1980	83.6	87.5	4.7	3.9
1981	80.0	80.0	.0	.0
1982	90.0	90.4	.4	.4
1983	87.4	90.1	3.1	2.7
1984	83.5	85.1	1.9	1.6
1985	91.4	93.3	2.1	1.9
1986	84.3	89.5	6.2	5.2
1987	75.8	75.9	.1	.1
1988	77.0	77.9	1.2	.9
1989	84.7	91.7	8.3	7.0
1990	76.4	77.3	1.2	.9
Mean	84.1	86.3	2.6	2.2
Median	84.4	88.0	1.7	1.4
Min	66.2	66.6	-5.4	-4.5
Max	92.4	93.9	13.5	10.9
Abs Diff < -1.0 &Rel Diff < signif				2
Abs Diff > 1.0 &Rel Diff > signif				46
No measurable Change				21
Check				69

RETURN TO TABLE OF CONTENTS

Section 11

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

October

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2353.6	2280.4	-3.1	-73.2
	1923	2371.5	2298.5	-3.1	-73.0
	1924	2350.4	2279.0	-3.0	-71.4
	1925	1170.3	920.3	-21.4	-250.0
	1926	2348.8	2025.7	-13.8	-323.1
	1927	1639.4	1603.6	-2.2	-35.8
	1928	2361.8	2292.0	-3.0	-69.8
	1929	1842.2	1558.1	-15.4	-284.1
	1930	1598.8	1313.0	-17.9	-285.8
	1931	2097.1	1811.3	-13.6	-285.8
	1932	1110.1	1071.1	-3.5	-39.0
	1933	2339.0	2267.6	-3.1	-71.4
	1934	1610.1	1322.7	-17.8	-287.4
	1935	1103.6	567.8	-48.6	-535.8
	1936	2369.9	2298.5	-3.0	-71.4
	1937	2342.2	2272.5	-3.0	-69.7
	1938	2358.5	2290.3	-2.9	-68.2
	1939	2347.1	2282.2	-2.8	-64.9
	1940	1619.9	1335.7	-17.5	-284.2
	1941	1865.0	1582.5	-15.1	-282.5
	1942	2374.8	2308.2	-2.8	-66.6
	1943	2352.0	2285.5	-2.8	-66.5
	1944	2343.9	2279.0	-2.8	-64.9
	1945	1374.8	1343.9	-2.2	-30.9
	1946	2389.4	1858.5	-22.2	-530.9
	1947	2093.9	1816.2	-13.3	-277.7
	1948	1632.9	1603.6	-1.8	-29.3
	1949	2353.6	2285.5	-2.9	-68.1
	1950	2343.9	2279.0	-2.8	-64.9
	1951	2395.9	2331.0	-2.7	-64.9
	1952	2139.4	1858.5	-13.1	-280.9
	1953	2343.9	2282.2	-2.6	-61.7
	1954	2350.4	2288.7	-2.6	-61.7
	1955	1847.1	1819.5	-1.5	-27.6
	1956	1624.8	1593.9	-1.9	-30.9
	1957	2366.6	2306.6	-2.5	-60.0
	1958	2392.7	2326.1	-2.8	-66.6
	1959	2345.5	2283.8	-2.6	-61.7
	1960	1597.1	1567.8	-1.8	-29.3
	1961	1595.5	1564.6	-1.9	-30.9
	1962	1602.0	1569.5	-2.0	-32.5
	1963	2158.7	2053.7	-4.9	-105.0
	1964	2365.0	2300.1	-2.7	-64.9
	1965	1641.0	1608.5	-2.0	-32.5
	1966	2339.0	2274.1	-2.8	-64.9
	1967	1608.5	1576.0	-2.0	-32.5
	1968	2339.0	2279.0	-2.6	-60.0
	1969	2123.1	1590.6	-25.1	-532.5
	1970	2361.8	2298.5	-2.7	-63.3
	1971	1873.1	1845.5	-1.5	-27.6
	1972	2347.1	2285.5	-2.6	-61.6
	1973	1641.0	1611.8	-1.8	-29.2
	1974	2387.8	2324.5	-2.7	-63.3
	1975	2369.9	2306.6	-2.7	-63.3
	1976	2386.2	2326.1	-2.5	-60.1
	1977	375.0	375.0	.0	.0
	1978	375.0	375.0	.0	.0
	1979	2352.0	2282.2	-3.0	-69.8
	1980	2399.2	1866.6	-22.2	-532.6
	1981	2342.2	2275.7	-2.8	-66.5
	1982	1658.9	1624.8	-2.1	-34.1
	1983	3312.9	3032.1	-8.5	-280.8
	1984	3412.3	2312.4	-32.2	-1099.9
	1985	2381.3	2318.0	-2.7	-63.3
	1986	1634.5	1352.0	-17.3	-282.5
	1987	2350.4	2037.1	-13.3	-313.3
	1988	1484.6	1276.8	-14.0	-207.8
	1989	855.3	571.1	-33.2	-284.2
	1990	1632.9	1598.8	-2.1	-34.1
	1991	856.9	571.1	-33.4	-285.8
	Mean	2006.1	1858.2	-7.9	-147.9
	Median	2339.0	2031.4	-2.8	-66.5
	Min	375.0	375.0	-48.6	-1099.9
	Max	3412.3	3032.1	.0	.0
X <	1500.0	9	13		
X <	1750.0	24	27		
X <	1765.0	24	27		
X <	2000.0	28	34		
X <	3000.0	68	69		
X >=	2500.0	2	1		
2500.0 > X >=	2000.0	40	35		
2000.0 > X >=	1750.0	4	7		
1750.0 > X >=	800.0	22	22		
800.0 > X		2	5		
X <	3450.0	70	70		
Mean of X >=	3450.0	.0	.0	.0	.0

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

November

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2377.3	2343.7	-1.4	-33.6
	1923	2431.1	2399.3	-1.3	-31.8
	1924	2350.4	2320.3	-1.3	-30.1
	1925	1122.3	890.8	-20.6	-231.5
	1926	2365.6	2082.0	-12.0	-283.6
	1927	1718.1	1686.2	-1.9	-31.9
	1928	2764.9	2358.9	-14.7	-406.0
	1929	1890.8	1612.3	-14.7	-278.5
	1930	1592.0	1310.2	-17.7	-281.8
	1931	2115.6	1833.7	-13.3	-281.9
	1932	1132.4	1098.9	-3.0	-33.5
	1933	2345.4	2313.6	-1.4	-31.8
	1934	1583.6	1301.8	-17.8	-281.8
	1935	1169.3	635.8	-45.6	-533.5
	1936	2365.6	2333.7	-1.3	-31.9
	1937	2342.0	2313.6	-1.2	-28.4
	1938	2421.0	2390.9	-1.2	-30.1
	1939	2348.8	2322.0	-1.1	-26.8
	1940	1597.1	1316.9	-17.5	-280.2
	1941	1890.8	1610.6	-14.8	-280.2
	1942	2389.1	2360.6	-1.2	-28.5
	1943	3593.5	3265.1	-9.1	-328.4
	1944	2362.2	2337.1	-1.1	-25.1
	1945	1419.3	1392.5	-1.9	-26.8
	1946	2387.4	1862.3	-22.0	-525.1
	1947	2140.8	1867.3	-12.8	-273.5
	1948	1618.9	1593.8	-1.6	-25.1
	1949	2358.8	2333.7	-1.1	-25.1
	1950	2362.2	2338.8	-1.0	-23.4
	1951	16872.8	15969.5	-5.4	-903.3
	1952	2152.5	1875.7	-12.9	-276.8
	1953	2387.4	2365.7	-.9	-21.7
	1954	2382.4	2360.6	-.9	-21.8
	1955	1902.5	1879.1	-1.2	-23.4
	1956	1644.1	1617.3	-1.6	-26.8
	1957	2347.1	2325.3	-.9	-21.8
	1958	2370.6	2345.5	-1.1	-25.1
	1959	2352.1	2330.4	-.9	-21.7
	1960	1597.1	1570.3	-1.7	-26.8
	1961	1669.3	1644.2	-1.5	-25.1
	1962	1645.8	1619.0	-1.6	-26.8
	1963	3004.4	2861.7	-4.7	-142.7
	1964	4079.0	3769.1	-7.6	-309.9
	1965	1669.3	1642.5	-1.6	-26.8
	1966	2407.6	2384.1	-1.0	-23.5
	1967	1726.5	1699.7	-1.6	-26.8
	1968	2367.2	2345.5	-.9	-21.7
	1969	2176.1	1649.3	-24.2	-526.8
	1970	2372.3	2347.2	-1.1	-25.1
	1971	1981.5	1958.1	-1.2	-23.4
	1972	2367.2	2343.8	-1.0	-23.4
	1973	1699.6	1676.2	-1.4	-23.4
	1974	6054.3	4775.8	-21.1	-1278.5
	1975	2385.7	2360.6	-1.1	-25.1
	1976	2885.2	2533.2	-12.2	-352.0
	1977	375.0	375.0	.0	.0
	1978	389.1	412.6	6.0	23.5
	1979	2416.0	2387.5	-1.2	-28.5
	1980	2395.8	1867.3	-22.1	-528.5
	1981	2350.4	2322.0	-1.2	-28.4
	1982	4641.0	4172.0	-10.1	-469.0
	1983	6784.0	6660.0	-1.8	-124.0
	1984	14296.1	14316.6	.1	20.5
	1985	3083.6	2446.3	-20.7	-637.3
	1986	1724.8	1448.0	-16.0	-276.8
	1987	2360.5	2087.1	-11.6	-273.4
	1988	1185.1	1018.1	-14.1	-167.0
	1989	894.1	614.0	-31.3	-280.1
	1990	1629.0	1598.9	-1.8	-30.1
	1991	863.9	582.0	-32.6	-281.9
	Mean	2606.3	2434.0	-7.5	-172.3
	Median	2349.6	2200.4	-1.6	-31.0
	Min	375.0	375.0	-45.6	-1278.5
	Max	16872.8	15969.5	6.0	23.5
X < 1500.0		9	13		
X < 1750.0		23	26		
X < 2000.0		27	33		
X < 3000.0		61	63		
X < .0		0	0		
X >= 2500.0		11	9		
2500.0 > X >= 2000.0		32	28		
2000.0 > X >= 1750.0		4	7		
1750.0 > X >= 1200.0		15	18		
1200.0 > X		8	8		
X < 3450.0		63	64		
Mean of X >= 3450.0		8045.8	8277.2	2.9	231.4

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

December

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2462.6	2451.2	-.5	-11.4
	1923	6449.2	6039.0	-6.4	-410.2
	1924	2360.1	2348.8	-.5	-11.3
	1925	1189.8	969.1	-18.5	-220.7
	1926	2381.3	2120.0	-11.0	-261.3
	1927	1628.0	1616.7	-.7	-11.3
	1928	2384.5	2374.9	-.4	-9.6
	1929	1892.7	1634.6	-13.6	-258.1
	1930	1680.1	1418.8	-15.6	-261.3
	1931	2095.5	1834.2	-12.5	-261.3
	1932	1245.1	1230.6	-1.2	-14.5
	1933	2387.8	2376.5	-.5	-11.3
	1934	1691.5	1428.5	-15.5	-263.0
	1935	1139.4	628.1	-44.9	-511.3
	1936	2381.3	2370.0	-.5	-11.3
	1937	2404.0	2396.0	-.3	-8.0
	1938	6102.9	5696.7	-6.7	-406.2
	1939	2365.0	2358.6	-.3	-6.4
	1940	1618.3	1358.6	-16.0	-259.7
	1941	2013.0	1755.0	-12.8	-258.0
	1942	4922.1	4461.6	-9.4	-460.5
	1943	4689.8	4558.4	-2.8	-131.4
	1944	2386.2	2381.4	-.2	-4.8
	1945	1394.3	1386.2	-.6	-8.1
	1946	7788.1	7385.2	-5.2	-402.9
	1947	2142.7	1887.9	-11.9	-254.8
	1948	1611.8	1607.0	-.3	-4.8
	1949	2417.1	2410.6	-.3	-6.5
	1950	2376.4	2373.2	-.1	-3.2
	1951	16335.9	16202.7	-.8	-133.2
	1952	4167.5	3483.0	-16.4	-684.5
	1953	2475.6	2472.4	-.1	-3.2
	1954	2361.8	2360.2	-.1	-1.6
	1955	1933.3	1931.8	-.1	-1.5
	1956	14600.8	14355.1	-1.7	-245.7
	1957	2356.9	2353.7	-.1	-3.2
	1958	2418.7	2412.3	-.3	-6.4
	1959	2368.3	2366.7	-.1	-1.6
	1960	1623.1	1618.4	-.3	-4.7
	1961	1615.0	1610.2	-.3	-4.8
	1962	1644.3	1637.9	-.4	-6.4
	1963	3375.7	3307.5	-2.0	-68.2
	1964	3177.9	2943.6	-7.4	-234.3
	1965	19280.7	18994.1	-1.5	-286.6
	1966	2400.8	2396.0	-.2	-4.8
	1967	1678.4	1672.0	-.4	-6.4
	1968	2368.3	2365.1	-.1	-3.2
	1969	2175.2	1668.8	-23.3	-506.4
	1970	5268.1	4817.4	-8.6	-450.7
	1971	4835.0	4293.4	-11.2	-541.6
	1972	2430.1	2426.9	-.1	-3.2
	1973	1658.9	1654.1	-.3	-4.8
	1974	7459.5	7337.8	-1.6	-121.7
	1975	2420.3	2415.5	-.2	-4.8
	1976	2365.0	2361.8	-.1	-3.2
	1977	500.0	500.0	.0	.0
	1978	500.0	500.0	.0	.0
	1979	2374.8	2366.7	-.3	-8.1
	1980	2438.2	1930.2	-20.8	-508.0
	1981	2394.3	2387.9	-.3	-6.4
	1982	14151.7	14145.6	.0	-6.1
	1983	9105.3	8943.0	-1.8	-162.3
	1984	15314.4	15098.5	-1.4	-215.9
	1985	2447.1	2386.2	-2.5	-60.9
	1986	1675.2	1418.8	-15.3	-256.4
	1987	2379.7	2124.9	-10.7	-254.8
	1988	1193.1	860.0	-27.9	-333.1
	1989	908.9	649.3	-28.6	-259.6
	1990	1605.3	1595.6	-.6	-9.7
	1991	878.0	618.4	-29.6	-259.6
	Mean	3575.2	3426.3	-6.1	-148.9
	Median	2375.6	2363.5	-.8	-12.9
	Min	500.0	500.0	-44.9	-684.5
	Max	19280.7	18994.1	.0	.0
X < 1500.0		9	13		
X < 1750.0		21	23		
X < 2000.0		23	28		
X < 3000.0		53	54		
X < .0		0	0		
X >= 2500.0		17	17		
2500.0 > X >= 2000.0		30	25		
2000.0 > X >= 1750.0		2	5		
1750.0 > X >= 1200.0		14	16		
1200.0 > X		7	7		
X < 3450.0		55	55		
Mean of X >= 3450.0		9364.7	9054.1	-3.3	-310.6

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

January

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	1908.9	1899.2	-.5	-9.7
	1923	4491.4	4327.4	-3.7	-164.0
	1924	1899.2	1889.5	-.5	-9.7
	1925	1628.0	1658.9	1.9	30.9
	1926	1905.7	1696.0	-11.0	-209.7
	1927	3077.9	2468.3	-19.8	-609.6
	1928	2384.5	2378.1	-.3	-6.4
	1929	1471.5	1265.1	-14.0	-206.4
	1930	1680.1	1672.0	-.5	-8.1
	1931	1707.3	1500.9	-12.1	-206.4
	1932	1879.7	1618.3	-13.9	-261.4
	1933	1917.1	1909.0	-.4	-8.1
	1934	1871.5	1613.5	-13.8	-258.0
	1935	1689.8	1931.8	14.3	242.0
	1936	4271.2	3716.2	-13.0	-555.0
	1937	1918.7	1912.3	-.3	-6.4
	1938	2803.3	2653.8	-5.3	-149.5
	1939	2134.5	1881.4	-11.9	-253.1
	1940	2491.2	2118.6	-15.0	-372.6
	1941	5492.7	5156.5	-6.1	-336.2
	1942	9289.1	9121.9	-1.8	-167.2
	1943	10904.1	10738.5	-1.5	-165.6
	1944	1904.0	1900.9	-.2	-3.1
	1945	1876.4	2123.2	13.2	246.8
	1946	5132.2	4968.1	-3.2	-164.1
	1947	2113.4	1860.2	-12.0	-253.2
	1948	1615.0	1613.5	-.1	-1.5
	1949	1882.9	1879.7	-.2	-3.2
	1950	1933.3	1931.8	-.1	-1.5
	1951	10063.8	9916.0	-1.5	-147.8
	1952	9053.3	8904.0	-1.6	-149.3
	1953	6731.2	6142.6	-8.7	-588.6
	1954	2162.2	2163.9	.1	1.7
	1955	1920.3	1670.4	-13.0	-249.9
	1956	16344.2	16277.8	-.4	-66.4
	1957	2150.8	2150.9	.0	.1
	1958	2204.5	1951.3	-11.5	-253.2
	1959	2204.5	1954.5	-11.3	-250.0
	1960	1325.2	1323.6	-.1	-1.6
	1961	1397.5	1296.0	-7.3	-101.5
	1962	1279.7	1274.9	-.4	-4.8
	1963	3888.0	3766.1	-3.1	-121.9
	1964	2582.0	2422.0	-6.2	-160.0
	1965	13162.5	13092.8	-.5	-69.7
	1966	2387.8	2386.2	-.1	-1.6
	1967	6739.4	6129.4	-9.1	-610.0
	1968	2426.8	2426.9	.0	.1
	1969	14789.4	14348.0	-3.0	-441.4
	1970	20940.2	20786.1	-.7	-154.1
	1971	4668.7	4569.5	-2.1	-99.2
	1972	2373.1	2373.2	.0	.1
	1973	8938.4	8542.8	-4.4	-395.6
	1974	11302.6	11192.3	-1.0	-110.3
	1975	2126.4	2124.9	-.1	-1.5
	1976	2365.0	2365.1	.0	.1
	1977	388.6	390.6	.5	2.0
	1978	3372.5	3368.5	-.1	-4.0
	1979	2202.8	1948.0	-11.6	-254.8
	1980	14921.4	15371.8	3.0	450.4
	1981	2194.7	1939.9	-11.6	-254.8
	1982	8242.9	8111.5	-1.6	-131.4
	1983	7604.2	7453.3	-2.0	-150.9
	1984	6509.9	6380.1	-2.0	-129.8
	1985	2384.5	2383.0	-.1	-1.5
	1986	2157.8	2445.1	13.3	287.3
	1987	1908.9	1707.4	-10.6	-201.5
	1988	926.8	662.3	-28.5	-264.5
	1989	1874.8	1868.3	-.3	-6.5
	1990	1680.1	1423.6	-15.3	-256.5
	1991	668.3	460.2	-31.1	-208.1
	Mean	4254.9	4126.7	-4.5	-128.2
	Median	2203.6	2137.9	-1.6	-130.6
	Min	388.6	390.6	-31.1	-610.0
	Max	20940.2	20786.1	14.3	450.4
X <	1500.0	7	8		
X <	1750.0	13	17		
X <	2000.0	27	32		
X <	3000.0	46	47		
X <	.0	0	0		
X >=	2500.0	26	24		
2500.0 > X >=	2000.0	17	14		
2000.0 > X >=	1750.0	14	15		
1750.0 > X >=	1200.0	10	14		
1200.0 > X		3	3		
X <	3450.0	48	48		
Mean of X >=	3450.0	9249.1	9046.0	-2.2	-203.1

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

February

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	3279.5	2438.4	-25.6	-841.1
	1923	3432.5	3236.5	-5.7	-196.0
	1924	1531.6	1508.3	-1.5	-23.3
	1925	3610.8	3906.0	8.2	295.2
	1926	1594.6	1409.5	-11.6	-185.1
	1927	13414.9	13323.2	-.7	-91.7
	1928	1902.8	1881.2	-1.1	-21.6
	1929	1170.2	1120.4	-4.3	-49.8
	1930	1884.8	1861.4	-1.2	-23.4
	1931	1337.4	1154.0	-13.7	-183.4
	1932	2181.0	1987.2	-8.9	-193.8
	1933	1627.6	1454.2	-10.7	-173.4
	1934	1911.8	1888.4	-1.2	-23.4
	1935	1883.0	1857.8	-1.3	-25.2
	1936	13451.0	13287.4	-1.2	-163.6
	1937	1987.4	1717.7	-13.6	-269.7
	1938	9839.2	9664.6	-1.8	-174.6
	1939	1881.2	1861.4	-1.1	-19.8
	1940	10606.0	10472.9	-1.3	-133.1
	1941	8011.4	7828.1	-2.3	-183.3
	1942	9970.6	9771.0	-2.0	-199.6
	1943	6841.3	6661.6	-2.6	-179.7
	1944	1755.4	1589.3	-9.5	-166.1
	1945	6141.5	6068.8	-1.2	-72.7
	1946	2658.3	2492.9	-6.2	-165.4
	1947	1906.4	1640.2	-14.0	-266.2
	1948	1888.4	1620.4	-14.2	-268.0
	1949	1895.6	1477.6	-22.1	-418.0
	1950	4073.6	2490.5	-38.9	-1583.1
	1951	8100.3	7938.5	-2.0	-161.8
	1952	9480.7	9302.7	-1.9	-178.0
	1953	2179.3	1990.5	-8.7	-188.8
	1954	1985.7	1920.9	-3.3	-64.8
	1955	1895.6	1879.4	-.9	-16.2
	1956	6147.3	6035.9	-1.8	-111.4
	1957	1947.8	1933.5	-.7	-14.3
	1958	9132.6	7677.0	-15.9	-1455.6
	1959	1958.6	1944.3	-.7	-14.3
	1960	1183.4	1037.3	-12.3	-146.1
	1961	1143.8	997.6	-12.8	-146.2
	1962	1281.0	1253.7	-2.1	-27.3
	1963	12007.2	11857.8	-1.2	-149.4
	1964	1995.8	1852.4	-7.2	-143.4
	1965	5371.7	5274.7	-1.8	-97.0
	1966	1902.8	1886.6	-.9	-16.2
	1967	4349.1	4199.8	-3.4	-149.3
	1968	5676.2	4811.3	-15.2	-864.9
	1969	9261.3	9155.2	-1.1	-106.1
	1970	6229.7	6109.4	-1.9	-120.3
	1971	3302.8	3158.8	-4.4	-144.0
	1972	2138.3	1883.0	-11.9	-255.3
	1973	7167.0	7048.3	-1.7	-118.7
	1974	4303.2	3943.5	-8.4	-359.7
	1975	2003.6	1987.5	-.8	-16.1
	1976	1884.8	1870.4	-.8	-14.4
	1977	384.8	365.0	-5.1	-19.8
	1978	4689.2	4583.0	-2.3	-106.2
	1979	1938.8	1920.9	-.9	-17.9
	1980	14127.5	13554.1	-4.1	-573.4
	1981	1886.6	1866.8	-1.0	-19.8
	1982	15463.6	15217.2	-1.6	-246.4
	1983	12405.0	12245.1	-1.3	-159.9
	1984	5580.9	5440.8	-2.5	-140.1
	1985	1917.2	1899.2	-.9	-18.0
	1986	33241.4	33160.6	-.2	-80.8
	1987	1540.6	1362.7	-11.5	-177.9
	1988	1881.2	1863.2	-1.0	-18.0
	1989	1640.2	1868.6	13.9	228.4
	1990	1687.0	1665.5	-1.3	-21.5
	1991	562.6	401.1	-28.7	-161.5
	Mean	4809.2	4629.1	-5.5	-180.2
	Median	2070.9	1965.8	-2.0	-143.7
	Min	384.8	365.0	-38.9	-1583.1
	Max	33241.4	33160.6	13.9	295.2
X < 1500.0		7	11		
X < 1750.0		13	17		
X < 2000.0		34	38		
X < 3000.0		39	41		
X < .0		0	0		
X >= 2500.0		32	29		
2500.0 > X >= 2000.0		4	3		
2000.0 > X >= 1750.0		21	21		
1750.0 > X >= 1200.0		8	11		
1200.0 > X		5	6		
X < 3450.0		42	43		
Mean of X >= 3450.0		9239.1	9205.1	-.4	-33.9

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

March

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4402.4	4384.6	-.4	-17.8
	1923	2698.3	2594.0	-3.9	-104.3
	1924	1153.1	1185.7	2.8	32.6
	1925	3137.4	3039.1	-3.1	-98.3
	1926	1856.9	1589.1	-14.4	-267.8
	1927	4481.6	4264.2	-4.9	-217.4
	1928	12106.4	11559.3	-4.5	-547.1
	1929	1386.2	1371.6	-1.1	-14.6
	1930	1902.4	1887.9	-.8	-14.5
	1931	1021.9	877.7	-14.1	-144.2
	1932	2605.3	2587.5	-.7	-17.8
	1933	1887.8	1621.6	-14.1	-266.2
	1934	1445.5	1429.3	-1.1	-16.2
	1935	3162.2	3146.0	-.5	-16.2
	1936	4087.1	3915.5	-4.2	-171.6
	1937	4331.3	3663.8	-15.4	-667.5
	1938	10782.2	10589.0	-1.8	-193.2
	1939	1497.5	1486.2	-.8	-11.3
	1940	10878.1	10551.6	-3.0	-326.5
	1941	4777.3	4582.5	-4.1	-194.8
	1942	4413.8	4400.9	-.3	-12.9
	1943	12384.5	12214.1	-1.4	-170.4
	1944	2128.0	1866.7	-12.3	-261.3
	1945	2662.2	2650.9	-.4	-11.3
	1946	2706.0	2636.2	-2.6	-69.8
	1947	1915.4	1655.8	-13.6	-259.6
	1948	2662.2	2652.5	-.4	-9.7
	1949	2451.2	2439.9	-.5	-11.3
	1950	3206.3	2883.0	-10.1	-323.3
	1951	3673.5	3512.9	-4.4	-160.6
	1952	6107.6	5934.0	-2.8	-173.6
	1953	2894.3	2884.6	-.3	-9.7
	1954	4354.4	3584.2	-17.7	-770.2
	1955	1858.5	1850.5	-.4	-8.0
	1956	3366.6	3355.3	-.3	-11.3
	1957	4080.1	3191.6	-21.8	-888.5
	1958	6633.2	6464.4	-2.5	-168.8
	1959	1618.3	1610.2	-.5	-8.1
	1960	2507.4	2121.6	-15.4	-385.8
	1961	1142.7	881.4	-22.9	-261.3
	1962	2386.2	2373.2	-.5	-13.0
	1963	3418.7	3409.0	-.3	-9.7
	1964	1874.8	1863.5	-.6	-11.3
	1965	2887.8	2874.9	-.4	-12.9
	1966	1860.1	1848.8	-.6	-11.3
	1967	5895.1	5658.1	-4.0	-237.0
	1968	2068.3	3822.0	84.8	1753.7
	1969	4378.0	4370.0	-.2	-8.0
	1970	2387.8	2146.7	-10.1	-241.1
	1971	3980.6	3826.5	-3.9	-154.1
	1972	4099.1	3393.3	-17.2	-705.8
	1973	3327.0	3125.7	-6.1	-201.3
	1974	9560.7	9460.1	-1.1	-100.6
	1975	4377.5	3514.9	-19.7	-862.6
	1976	1476.4	1468.4	-.5	-8.0
	1977	278.0	315.4	13.5	37.4
	1978	5452.6	5481.9	.5	29.3
	1979	3050.6	2386.2	-21.8	-664.4
	1980	3407.1	3118.5	-8.5	-288.6
	1981	1673.6	1510.6	-9.7	-163.0
	1982	7577.4	7470.4	-1.4	-107.0
	1983	16256.7	16120.5	-.8	-136.2
	1984	2647.5	2403.1	-9.2	-244.4
	1985	2171.9	1910.6	-12.0	-261.3
	1986	11163.2	10950.7	-1.9	-212.5
	1987	1214.9	1077.3	-11.3	-137.6
	1988	1463.4	1452.1	-.8	-11.3
	1989	6360.0	5971.3	-6.1	-388.7
	1990	1371.5	1357.0	-1.1	-14.5
	1991	2009.8	1996.7	-.7	-13.1
	Mean	3892.0	3739.9	-3.9	-152.1
	Median	2891.1	2878.9	-2.2	-136.9
	Min	278.0	315.4	-22.9	-888.5
	Max	16256.7	16120.5	84.8	1753.7
X <	1500.0	11	11		
X <	1750.0	13	16		
X <	2000.0	20	23		
X <	3000.0	36	37		
X <	.0	0	0		
X >=	4500.0	14	14		
4500.0 > X >=	3000.0	20	19		
3000.0 > X >=	2000.0	16	14		
2000.0 > X >=	1500.0	9	12		
1500.0 > X		11	11		
X <	3450.0	44	45		
Mean of X >=	3450.0	6792.1	6650.7	-2.1	-141.4

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

April

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4363.9	4311.9	-1.2	-52.0
	1923	3177.2	2875.8	-9.5	-301.4
	1924	188.0	188.0	.0	.0
	1925	4012.4	3258.0	-18.8	-754.4
	1926	1934.5	1882.5	-2.7	-52.0
	1927	7856.2	7653.4	-2.6	-202.8
	1928	4773.1	4456.1	-6.6	-317.0
	1929	1355.5	808.5	-40.4	-547.0
	1930	2110.5	1811.9	-14.1	-298.6
	1931	337.0	286.7	-14.9	-50.3
	1932	2853.8	2551.8	-10.6	-302.0
	1933	1835.3	1535.0	-16.4	-300.3
	1934	3070.6	2513.5	-18.1	-557.1
	1935	4340.5	4587.7	5.7	247.2
	1936	5754.8	5471.4	-4.9	-283.4
	1937	4330.0	4032.6	-6.9	-297.4
	1938	7866.0	7574.1	-3.7	-291.9
	1939	1090.3	545.1	-50.0	-545.2
	1940	6058.2	5875.2	-3.0	-183.0
	1941	3751.9	3505.4	-6.6	-246.5
	1942	4439.5	4394.2	-1.0	-45.3
	1943	5162.3	4888.9	-5.3	-273.4
	1944	2130.7	1835.4	-13.9	-295.3
	1945	2602.1	2556.9	-1.7	-45.2
	1946	3913.7	3459.2	-11.6	-454.5
	1947	1848.8	1805.2	-2.4	-43.6
	1948	2655.9	2614.0	-1.6	-41.9
	1949	2338.7	2295.1	-1.9	-43.6
	1950	4935.4	4785.8	-3.0	-149.6
	1951	3037.9	2727.5	-10.2	-310.4
	1952	8946.5	8647.8	-3.3	-298.7
	1953	3399.2	3107.3	-8.6	-291.9
	1954	4454.5	4249.6	-4.6	-204.9
	1955	1884.0	1843.8	-2.1	-40.2
	1956	3894.1	3848.9	-1.2	-45.2
	1957	2630.7	2590.5	-1.5	-40.2
	1958	10349.8	10101.6	-2.4	-248.2
	1959	1872.3	1580.4	-15.6	-291.9
	1960	2112.2	2068.6	-2.1	-43.6
	1961	355.5	311.9	-12.3	-43.6
	1962	3671.1	2823.1	-23.1	-848.0
	1963	4573.6	4198.3	-8.2	-375.3
	1964	1850.4	1805.2	-2.4	-45.2
	1965	3721.1	3273.9	-12.0	-447.2
	1966	1857.2	1813.6	-2.3	-43.6
	1967	4412.6	4370.7	-.9	-41.9
	1968	1850.4	1808.5	-2.3	-41.9
	1969	5827.0	5388.0	-7.5	-439.0
	1970	2357.2	2061.9	-12.5	-295.3
	1971	3365.6	3072.0	-8.7	-293.6
	1972	2375.6	2333.7	-1.8	-41.9
	1973	2608.8	2566.9	-1.6	-41.9
	1974	6156.2	5938.1	-3.5	-218.1
	1975	3877.3	3833.7	-1.1	-43.6
	1976	370.6	328.7	-11.3	-41.9
	1977	188.0	188.0	.0	.0
	1978	4594.3	3873.9	-15.7	-720.4
	1979	2612.2	2566.9	-1.7	-45.3
	1980	2870.6	2575.3	-10.3	-295.3
	1981	1607.2	1311.9	-18.4	-295.3
	1982	14296.2	14063.1	-1.6	-233.1
	1983	6615.5	6358.9	-3.9	-256.6
	1984	2630.7	2585.4	-1.7	-45.3
	1985	2112.2	1818.6	-13.9	-293.6
	1986	2634.0	2590.5	-1.7	-43.5
	1987	357.2	313.6	-12.2	-43.6
	1988	394.1	348.9	-11.5	-45.2
	1989	4472.4	3871.8	-13.4	-600.6
	1990	2583.2	1624.5	-37.1	-958.7
	1991	1850.4	1803.4	-2.5	-47.0
	Mean	3467.4	3242.1	-8.2	-225.3
	Median	2862.2	2590.5	-4.8	-225.6
	Min	188.0	188.0	-50.0	-958.7
	Max	14296.2	14063.1	5.7	247.2
X <	1500.0	9	10		
X <	1750.0	10	13		
X <	2000.0	19	23		
X <	3000.0	36	40		
X <	.0	0	0		
X >=	4500.0	15	13		
4500.0 > X >=	3000.0	19	17		
3000.0 > X >=	2000.0	17	17		
2000.0 > X >=	1500.0	10	13		
1500.0 > X		9	10		
X <	3450.0	41	44		
Mean of X >=	3450.0	5566.2	5528.5	-.7	-37.7

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

May

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	8956.6	8110.7	-9.4	-845.9
	1923	4835.3	4403.8	-8.9	-431.5
	1924	188.0	188.0	.0	.0
	1925	4522.8	3841.9	-15.1	-680.9
	1926	2330.9	2278.8	-2.2	-52.1
	1927	4780.1	4266.8	-10.7	-513.3
	1928	2824.4	2777.2	-1.7	-47.2
	1929	1821.1	1523.9	-16.3	-297.2
	1930	2574.4	2275.6	-11.6	-298.8
	1931	343.9	293.5	-14.7	-50.4
	1932	3817.8	3483.4	-8.8	-334.4
	1933	2329.2	2278.8	-2.2	-50.4
	1934	330.9	278.8	-15.7	-52.1
	1935	4802.6	4719.8	-1.7	-82.8
	1936	4064.6	3986.7	-1.9	-77.9
	1937	4464.6	4059.8	-9.1	-404.8
	1938	9844.5	9420.7	-4.3	-423.8
	1939	1592.2	1548.3	-2.8	-43.9
	1940	3561.3	3235.1	-9.2	-326.2
	1941	5385.1	4977.5	-7.6	-407.6
	1942	6148.6	5468.3	-11.1	-680.3
	1943	3571.1	3496.4	-2.1	-74.7
	1944	2590.6	2298.3	-11.3	-292.3
	1945	3584.1	3507.8	-2.1	-76.3
	1946	3605.9	3511.1	-2.6	-94.8
	1947	2326.0	2285.3	-1.7	-40.7
	1948	3603.6	3530.6	-2.0	-73.0
	1949	3082.5	2788.6	-9.5	-293.9
	1950	3821.1	3748.1	-1.9	-73.0
	1951	3602.0	3275.7	-9.1	-326.3
	1952	11189.5	10773.8	-3.7	-415.7
	1953	4087.4	4016.0	-1.7	-71.4
	1954	2832.5	2793.5	-1.4	-39.0
	1955	2585.7	2295.1	-11.2	-290.6
	1956	4343.9	4272.5	-1.6	-71.4
	1957	3613.4	3292.0	-8.9	-321.4
	1958	10137.3	9726.4	-4.1	-410.9
	1959	2332.5	2041.8	-12.5	-290.7
	1960	2584.1	2541.8	-1.6	-42.3
	1961	1334.1	1290.2	-3.3	-43.9
	1962	3066.2	3000.6	-2.1	-65.6
	1963	7198.5	6716.1	-6.7	-482.4
	1964	2334.1	2290.2	-1.9	-43.9
	1965	4077.6	3753.0	-8.0	-324.6
	1966	2329.2	2286.9	-1.8	-42.3
	1967	8049.5	7429.9	-7.7	-619.6
	1968	2330.9	2291.8	-1.7	-39.1
	1969	9207.0	8762.0	-4.8	-445.0
	1970	2834.1	2541.8	-10.3	-292.3
	1971	4100.4	4027.3	-1.8	-73.1
	1972	2834.1	2543.5	-10.3	-290.6
	1973	4364.2	3679.7	-15.7	-684.5
	1974	4955.8	4492.9	-9.3	-462.9
	1975	4329.2	4257.8	-1.6	-71.4
	1976	839.0	296.7	-64.6	-542.3
	1977	188.0	188.0	.0	.0
	1978	4336.1	3746.4	-13.6	-589.7
	1979	3995.3	3249.7	-18.7	-745.6
	1980	3824.4	3749.7	-2.0	-74.7
	1981	2082.5	1788.6	-14.1	-293.9
	1982	9247.7	8897.0	-3.8	-350.7
	1983	10522.7	10124.9	-3.8	-397.8
	1984	3598.8	3274.1	-9.0	-324.7
	1985	2592.2	2300.0	-11.3	-292.2
	1986	3592.2	3519.2	-2.0	-73.0
	1987	1339.0	546.7	-59.2	-792.3
	1988	352.0	306.5	-12.9	-45.5
	1989	3367.2	2782.1	-17.4	-585.1
	1990	1626.4	1329.2	-18.3	-297.2
	1991	2332.5	2285.3	-2.0	-47.2
	Mean	3859.9	3590.9	-8.5	-269.0
	Median	3588.1	3274.9	-7.1	-292.3
	Min	188.0	188.0	-64.6	-845.9
	Max	11189.5	10773.8	.0	.0
X <	1500.0	8	9		
X <	1750.0	10	11		
X <	2000.0	11	12		
X <	3000.0	29	31		
X <	.0	0	0		
X >=	4500.0	16	12		
4500.0 > X >=	3000.0	25	27		
3000.0 > X >=	2000.0	18	19		
2000.0 > X >=	1500.0	3	3		
1500.0 > X		8	9		
X <	3450.0	32	37		
Mean of X >=	3450.0	5414.3	5347.8	-1.2	-66.5

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

June

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	8942.0	8381.4	-6.3	-560.6
	1923	4572.3	4323.3	-5.4	-249.0
	1924	188.0	188.0	.0	.0
	1925	6281.9	6177.9	-1.7	-104.0
	1926	1737.0	1236.2	-28.8	-500.8
	1927	5328.8	4820.3	-9.5	-508.5
	1928	5709.0	4995.6	-12.5	-713.4
	1929	2161.5	2138.1	-1.1	-23.4
	1930	2051.7	1731.1	-15.6	-320.6
	1931	1073.8	934.2	-13.0	-139.6
	1932	4803.4	4734.6	-1.4	-68.8
	1933	2342.7	2219.4	-5.3	-123.3
	1934	1610.0	1444.0	-10.3	-166.0
	1935	3907.9	3179.2	-18.6	-728.7
	1936	4435.8	3586.5	-19.1	-849.3
	1937	3289.9	3194.3	-2.9	-95.6
	1938	8582.3	8048.7	-6.2	-533.6
	1939	805.1	250.0	-68.9	-555.1
	1940	3415.1	3133.0	-8.3	-282.1
	1941	3545.0	3202.7	-9.7	-342.3
	1942	7345.4	6798.3	-7.4	-547.1
	1943	3305.1	3214.5	-2.7	-90.6
	1944	2055.1	1492.9	-27.4	-562.2
	1945	5835.8	5553.5	-4.8	-282.3
	1946	6258.5	6007.1	-4.0	-251.4
	1947	1568.5	1254.6	-20.0	-313.9
	1948	3296.7	2986.2	-9.4	-310.5
	1949	2791.6	2227.8	-20.2	-563.8
	1950	3941.9	3447.7	-12.5	-494.2
	1951	3053.4	2991.2	-2.0	-62.2
	1952	10503.2	9957.8	-5.2	-545.4
	1953	3813.5	3476.3	-8.8	-337.2
	1954	2687.7	2244.6	-16.5	-443.1
	1955	2060.1	1747.9	-15.2	-312.2
	1956	5529.4	4267.3	-22.8	-1262.1
	1957	3785.0	3214.7	-15.1	-570.3
	1958	7726.9	7220.2	-6.6	-506.7
	1959	1315.1	1003.0	-23.7	-312.1
	1960	2056.7	1992.9	-3.1	-63.8
	1961	556.7	250.0	-55.1	-306.7
	1962	2800.0	2734.5	-2.3	-65.5
	1963	3289.9	3202.7	-2.7	-87.2
	1964	2066.8	1751.3	-15.3	-315.5
	1965	3550.0	3459.5	-2.5	-90.5
	1966	1810.1	1246.2	-31.2	-563.9
	1967	10419.2	9939.3	-4.6	-479.9
	1968	2063.5	1253.0	-39.3	-810.5
	1969	6594.2	6100.9	-7.5	-493.3
	1970	3233.6	3047.1	-5.8	-186.5
	1971	3876.1	3466.2	-10.6	-409.9
	1972	4407.4	4163.1	-5.5	-244.3
	1973	5555.7	5165.2	-7.0	-390.5
	1974	4256.6	3733.0	-12.3	-523.6
	1975	5757.7	4624.5	-19.7	-1133.2
	1976	1838.8	1870.7	1.7	31.9
	1977	188.0	188.0	.0	.0
	1978	4463.3	3454.4	-22.6	-1008.9
	1979	6288.6	6194.7	-1.5	-93.9
	1980	3541.6	3202.7	-9.6	-338.9
	1981	1310.1	744.6	-43.2	-565.5
	1982	6263.1	5716.1	-8.7	-547.0
	1983	14543.2	13999.5	-3.7	-543.7
	1984	4724.4	4468.4	-5.4	-256.0
	1985	2803.0	2338.4	-16.6	-464.6
	1986	3320.2	2999.8	-9.7	-320.4
	1987	321.9	258.0	-19.9	-63.9
	1988	1472.0	1488.8	1.1	16.8
	1989	3881.7	3579.3	-7.8	-302.4
	1990	1630.7	1476.7	-9.4	-154.0
	1991	2851.7	2871.4	.7	19.7
	Mean	3905.6	3542.9	-12.1	-362.7
	Median	3367.6	3198.5	-8.8	-318.0
	Min	188.0	188.0	-68.9	-1262.1
	Max	14543.2	13999.5	1.7	31.9
X <	1500.0	9	16		
X <	1750.0	13	18		
X <	2000.0	15	21		
X <	3000.0	28	31		
X <	.0	0	0		
X >=	4500.0	21	18		
4500.0 > X >=	3000.0	21	21		
3000.0 > X >=	2000.0	13	10		
2000.0 > X >=	500.0	12	16		
500.0 > X		3	5		
X <	3450.0	36	41		
Mean of X >=	3450.0	5852.1	5738.4	-1.9	-113.7

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

July

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	4023.9	2936.8	-27.0	-1087.1
	1923	5630.4	3569.7	-36.6	-2060.7
	1924	522.0	386.4	-26.0	-135.6
	1925	3995.1	3476.8	-13.0	-518.3
	1926	2429.8	1902.3	-21.7	-527.5
	1927	2878.6	2613.2	-9.2	-265.4
	1928	1288.6	1230.0	-4.5	-58.6
	1929	1453.9	1110.2	-23.6	-343.7
	1930	2662.4	2090.4	-21.5	-572.0
	1931	1713.5	1574.7	-8.1	-138.8
	1932	2952.8	2884.6	-2.3	-68.2
	1933	2019.4	1689.9	-16.3	-329.5
	1934	1288.1	1050.0	-18.5	-238.1
	1935	4840.5	3213.6	-33.6	-1626.9
	1936	3907.9	2332.2	-40.3	-1575.7
	1937	2387.8	2049.5	-14.2	-338.3
	1938	3538.3	2969.9	-16.1	-568.4
	1939	1755.8	1603.9	-8.7	-151.9
	1940	5836.8	4977.1	-14.7	-859.7
	1941	2158.3	1933.1	-10.4	-225.2
	1942	3523.6	2943.9	-16.5	-579.7
	1943	5539.0	5000.2	-9.7	-538.8
	1944	2109.9	1029.9	-51.2	-1080.0
	1945	4146.7	2950.6	-28.8	-1196.1
	1946	3644.5	2830.7	-22.3	-813.8
	1947	1766.8	1075.9	-39.1	-690.9
	1948	3646.1	2246.0	-38.4	-1400.1
	1949	3057.8	1654.2	-45.9	-1403.6
	1950	5160.3	4322.5	-16.2	-837.8
	1951	5775.3	4922.1	-14.8	-853.2
	1952	4645.8	4085.6	-12.1	-560.2
	1953	3159.8	1991.8	-37.0	-1168.0
	1954	3185.7	2785.2	-12.6	-400.5
	1955	1603.2	1241.4	-22.6	-361.8
	1956	3203.3	2625.1	-18.1	-578.2
	1957	4647.8	4326.0	-6.9	-321.8
	1958	3185.4	2626.7	-17.5	-558.7
	1959	548.3	250.0	-54.4	-298.3
	1960	2741.0	1665.6	-39.2	-1075.4
	1961	290.2	250.0	-13.9	-40.2
	1962	5183.2	4278.9	-17.4	-904.3
	1963	2133.8	1931.5	-9.5	-202.3
	1964	2139.1	1295.2	-39.5	-843.9
	1965	5435.8	5162.0	-5.0	-273.8
	1966	1293.5	491.4	-62.0	-802.1
	1967	4322.2	3763.6	-12.9	-558.6
	1968	1291.8	491.4	-62.0	-800.4
	1969	2982.1	2405.6	-19.3	-576.5
	1970	1759.6	1331.7	-24.3	-427.9
	1971	3003.2	1946.0	-35.2	-1057.2
	1972	1293.5	1243.0	-3.9	-50.5
	1973	4004.4	3465.7	-13.5	-538.7
	1974	3466.7	2911.4	-16.0	-555.3
	1975	2928.4	2374.7	-18.9	-553.7
	1976	1361.1	1212.7	-10.9	-148.4
	1977	188.0	188.0	.0	.0
	1978	6112.6	5227.5	-14.5	-885.1
	1979	2835.4	1698.7	-40.1	-1136.7
	1980	3646.6	2595.8	-28.8	-1050.8
	1981	293.5	250.0	-14.8	-43.5
	1982	3401.7	2823.5	-17.0	-578.2
	1983	6222.4	5749.3	-7.6	-473.1
	1984	4197.4	3588.0	-14.5	-609.4
	1985	2121.9	1789.6	-15.7	-332.3
	1986	5365.7	5127.5	-4.4	-238.2
	1987	1707.1	948.5	-44.4	-758.6
	1988	894.3	667.8	-25.3	-226.5
	1989	3552.7	2886.0	-18.8	-666.7
	1990	1237.5	911.8	-26.3	-325.7
	1991	2223.4	2282.0	2.6	58.6
	Mean	2992.3	2392.2	-21.5	-600.1
	Median	2967.5	2264.0	-17.2	-556.9
	Min	188.0	188.0	-62.0	-2060.7
	Max	6222.4	5749.3	2.6	58.6
X <	1500.0	14	20		
X <	1750.0	17	26		
X <	2000.0	20	32		
X <	3000.0	36	53		
X <	.0	0	0		
X >=	2500.0	41	31		
2500.0 > X >=	1500.0	15	19		
1500.0 > X >=	500.0	11	13		
500.0 > X >=	.0	3	7		
.0 > X		0	0		
X <	3450.0	43	54		
Mean of X >=	3450.0	4593.0	4440.2	-3.3	-152.9

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

August

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	2714.5	2622.5	-3.4	-92.0
	1923	2353.3	2376.7	1.0	23.4
	1924	188.0	264.4	40.6	76.4
	1925	3577.1	2941.7	-17.8	-635.4
	1926	545.1	483.3	-11.3	-61.8
	1927	3671.8	2782.0	-24.2	-889.8
	1928	3075.5	2034.1	-33.9	-1041.4
	1929	188.0	188.0	.0	.0
	1930	791.8	731.7	-7.6	-60.1
	1931	188.0	188.0	.0	.0
	1932	2116.8	1467.0	-30.7	-649.8
	1933	533.7	188.0	-64.8	-345.7
	1934	188.0	188.0	.0	.0
	1935	2888.6	2717.8	-5.9	-170.8
	1936	2897.6	3299.0	13.9	401.4
	1937	2584.6	1726.8	-33.2	-857.8
	1938	4207.9	3628.2	-13.8	-579.7
	1939	293.5	250.0	-14.8	-43.5
	1940	3773.3	3344.9	-11.4	-428.4
	1941	4059.9	2957.4	-27.2	-1102.5
	1942	4289.2	3714.4	-13.4	-574.8
	1943	2427.5	2160.4	-11.0	-267.1
	1944	3796.6	2355.1	-38.0	-1441.5
	1945	1853.3	1795.3	-3.1	-58.0
	1946	1897.2	1677.6	-11.6	-219.6
	1947	1088.6	739.8	-32.0	-348.8
	1948	3003.5	2850.3	-5.1	-153.2
	1949	2296.9	2027.2	-11.7	-269.7
	1950	2795.0	2441.6	-12.6	-353.4
	1951	3154.5	2876.4	-8.8	-278.1
	1952	4709.9	4138.8	-12.1	-571.1
	1953	4329.9	3763.1	-13.1	-566.8
	1954	3330.2	3457.5	3.8	127.3
	1955	3194.9	1894.3	-40.7	-1300.6
	1956	4260.0	3690.0	-13.4	-570.0
	1957	1517.4	1297.3	-14.5	-220.1
	1958	4355.9	3803.8	-12.7	-552.1
	1959	2343.8	1188.1	-49.3	-1155.7
	1960	3112.1	2853.5	-8.3	-258.6
	1961	1299.7	489.8	-62.3	-809.9
	1962	4423.2	3429.7	-22.5	-993.5
	1963	3881.0	2538.2	-34.6	-1342.8
	1964	3263.0	2869.4	-12.1	-393.6
	1965	1801.6	1499.5	-16.8	-302.1
	1966	2788.6	1714.9	-38.5	-1073.7
	1967	4323.4	3751.8	-13.2	-571.6
	1968	1050.0	747.9	-28.8	-302.1
	1969	4136.4	3581.0	-13.4	-555.4
	1970	3914.1	3501.2	-10.5	-412.9
	1971	4081.1	3511.1	-14.0	-570.0
	1972	4194.4	2861.4	-31.8	-1333.0
	1973	1495.5	1651.2	10.4	155.7
	1974	4339.7	3771.3	-13.1	-568.4
	1975	4120.1	3571.2	-13.3	-548.9
	1976	1303.4	975.9	-25.1	-327.5
	1977	188.0	188.0	.0	.0
	1978	1541.8	1483.3	-3.8	-58.5
	1979	2099.9	2033.2	-3.2	-66.7
	1980	2321.7	1749.9	-24.6	-571.8
	1981	1568.2	1098.9	-29.9	-469.3
	1982	4329.9	3756.6	-13.2	-573.3
	1983	4732.7	4519.4	-4.5	-213.3
	1984	1317.8	1264.2	-4.1	-53.6
	1985	3103.1	2537.3	-18.2	-565.8
	1986	3671.0	3405.3	-7.2	-265.7
	1987	1488.6	1513.8	1.7	25.2
	1988	701.6	393.7	-43.9	-307.9
	1989	3450.9	2807.0	-18.7	-643.9
	1990	2005.9	1485.0	-26.0	-520.9
	1991	1322.9	489.6	-63.0	-833.3
	Mean	2612.2	2175.6	-16.4	-436.5
	Median	2791.8	2257.8	-13.2	-373.5
	Min	188.0	188.0	-64.8	-1441.5
	Max	4732.7	4519.4	40.6	401.4
X <	1500.0	18	23		
X <	1750.0	21	29		
X <	2000.0	24	31		
X <	3000.0	38	51		
X <	.0	0	0		
X >=	2500.0	38	32		
2500.0 > X >=	2000.0	8	7		
2000.0 > X >=	1000.0	14	16		
1000.0 > X >=	500.0	4	4		
500.0 > X		6	11		
X <	3450.0	46	55		
Mean of X >=	3450.0	4109.6	3744.0	-8.9	-365.6

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

September

	Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
	1922	3743.0	3256.4	-13.0	-486.6
	1923	1833.6	1991.4	8.6	157.8
	1924	823.5	826.9	.4	3.4
	1925	1597.9	1273.1	-20.3	-324.8
	1926	1320.2	1028.2	-22.1	-292.0
	1927	3897.6	3382.4	-13.2	-515.2
	1928	1318.5	1279.8	-2.9	-38.7
	1929	1068.5	781.5	-26.9	-287.0
	1930	1318.5	1278.2	-3.1	-40.3
	1931	813.5	523.1	-35.7	-290.4
	1932	3765.6	2211.1	-41.3	-1554.5
	1933	1310.1	1019.8	-22.2	-290.3
	1934	811.8	519.8	-36.0	-292.0
	1935	2722.1	2455.0	-9.8	-267.1
	1936	3834.9	3439.0	-10.3	-395.9
	1937	3828.7	3211.7	-16.1	-617.0
	1938	4033.8	3538.7	-12.3	-495.1
	1939	1078.6	1041.6	-3.4	-37.0
	1940	1535.6	1271.4	-17.2	-264.2
	1941	3976.6	3483.3	-12.4	-493.3
	1942	4013.6	3521.9	-12.3	-491.7
	1943	2068.5	1534.9	-25.8	-533.6
	1944	1735.4	1539.9	-11.3	-195.5
	1945	2282.9	1965.7	-13.9	-317.2
	1946	2800.1	2489.2	-11.1	-310.9
	1947	1966.6	1284.9	-34.7	-681.7
	1948	2687.6	2203.7	-18.0	-483.9
	1949	1880.4	1585.1	-15.7	-295.3
	1950	2411.7	2231.3	-7.5	-180.4
	1951	1640.2	1460.0	-11.0	-180.2
	1952	4234.3	3728.6	-11.9	-505.7
	1953	3981.7	3496.7	-12.2	-485.0
	1954	2024.8	1291.6	-36.2	-733.2
	1955	1368.2	1301.7	-4.9	-66.5
	1956	3961.5	3473.2	-12.3	-488.3
	1957	2092.0	1758.2	-16.0	-333.8
	1958	4048.9	3563.9	-12.0	-485.0
	1959	1110.5	1328.6	19.6	218.1
	1960	1896.2	1581.2	-16.6	-315.0
	1961	1321.9	1036.6	-21.6	-285.3
	1962	1313.5	1278.2	-2.7	-35.3
	1963	3964.8	3479.9	-12.2	-484.9
	1964	1449.9	1136.4	-21.6	-313.5
	1965	3766.0	2229.6	-40.8	-1536.4
	1966	1325.9	1286.6	-3.0	-39.3
	1967	4248.9	3795.9	-10.7	-453.0
	1968	2015.0	1758.5	-12.7	-256.5
	1969	3988.4	3518.6	-11.8	-469.8
	1970	1325.2	1291.6	-2.5	-33.6
	1971	3813.6	3345.5	-12.3	-468.1
	1972	1340.3	1371.5	2.3	31.2
	1973	1828.6	1546.7	-15.4	-281.9
	1974	4114.4	3631.2	-11.7	-483.2
	1975	3901.0	3404.3	-12.7	-496.7
	1976	330.3	296.7	-10.2	-33.6
	1977	281.0	281.0	.0	.0
	1978	2896.2	1983.0	-31.5	-913.2
	1979	1851.1	1585.2	-14.4	-265.9
	1980	3890.9	3421.1	-12.1	-469.8
	1981	1376.2	1293.3	-6.0	-82.9
	1982	4440.4	3984.1	-10.3	-456.3
	1983	4764.4	4584.9	-3.8	-179.5
	1984	1838.7	1753.1	-4.7	-85.6
	1985	1093.7	1060.1	-3.1	-33.6
	1986	1602.1	1318.5	-17.7	-283.6
	1987	1190.4	1198.9	.7	8.5
	1988	576.9	541.6	-6.1	-35.3
	1989	1108.8	1321.9	19.2	213.1
	1990	570.2	533.2	-6.5	-37.0
	1991	815.1	776.5	-4.7	-38.6
	Mean	2302.6	1988.5	-12.5	-314.1
	Median	1865.8	1563.9	-12.1	-291.2
	Min	281.0	281.0	-41.3	-1554.5
	Max	4764.4	4584.9	19.6	218.1
X <	1500.0	26	32		
X <	1750.0	31	38		
X <	2000.0	38	44		
X <	3000.0	48	50		
X <	.0	0	0		
X >=	2500.0	26	20		
2500.0 > X >=	1500.0	18	18		
1500.0 > X >=	500.0	24	30		
500.0 > X >=	.0	2	2		
.0 > X		0	0		
X <	3450.0	48	57		
Mean of X >=	3450.0	4009.7	3677.0	-8.3	-332.7

RETURN TO TABLE OF CONTENTS

Section 12

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

January

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	42.7	42.6	-.2	-.1
1923.	44.1	44.1	.0	.0
1924.	46.0	46.0	.0	.0
1925.	46.6	46.9	.6	.3
1926.	44.0	43.8	-.5	-.2
1927.	47.7	47.5	-.4	-.2
1928.	47.1	47.1	.0	.0
1929.	43.0	42.8	-.5	-.2
1930.	45.7	45.6	-.2	-.1
1931.	47.6	47.5	-.2	-.1
1932.	45.1	45.0	-.2	-.1
1933.	43.8	43.7	-.2	-.1
1934.	47.1	47.1	.0	.0
1935.	47.0	47.2	.4	.2
1936.	48.2	48.0	-.4	-.2
1937.	41.8	41.7	-.2	-.1
1938.	46.6	46.5	-.2	-.1
1939.	47.3	47.1	-.4	-.2
1940.	48.1	47.9	-.4	-.2
1941.	48.8	48.8	.0	.0
1942.	46.3	46.3	.0	.0
1943.	46.4	46.4	.0	.0
1944.	47.7	47.4	-.6	-.3
1945.	45.6	45.7	.2	.1
1946.	45.6	45.6	.0	.0
1947.	44.5	44.3	-.4	-.2
1948.	47.9	47.9	.0	.0
1949.	41.4	41.2	-.5	-.2
1950.	43.9	43.7	-.5	-.2
1951.	45.0	45.0	.0	.0
1952.	45.2	45.1	-.2	-.1
1953.	49.0	48.9	-.2	-.1
1954.	47.6	47.5	-.2	-.1
1955.	43.4	43.2	-.5	-.2
1956.	46.0	46.0	.0	.0
1957.	46.7	46.7	.0	.0
1958.	47.1	46.8	-.6	-.3
1959.	50.6	50.3	-.6	-.3
1960.	47.3	47.2	-.2	-.1
1961.	44.3	44.2	-.2	-.1
1962.	43.5	43.5	.0	.0
1963.	45.1	45.1	.0	.0
1964.	44.7	44.7	.0	.0
1965.	44.8	44.8	.0	.0
1966.	46.1	46.0	-.2	-.1
1967.	46.5	46.5	.0	.0
1968.	46.0	45.9	-.2	-.1
1969.	45.0	44.9	-.2	-.1
1970.	47.3	47.2	-.2	-.1
1971.	45.7	45.7	.0	.0
1972.	43.7	43.7	.0	.0
1973.	44.7	44.7	.0	.0
1974.	46.7	46.7	.0	.0
1975.	45.2	45.1	-.2	-.1
1976.	48.2	48.2	.0	.0
1977.	44.1	44.1	.0	.0
1978.	48.4	48.4	.0	.0
1979.	46.1	45.9	-.4	-.2
1980.	46.8	46.2	-1.3	-.6
1981.	48.7	48.5	-.4	-.2
1982.	45.0	45.0	.0	.0
1983.	45.3	45.3	.0	.0
1984.	46.3	46.3	.0	.0
1985.	45.1	45.1	.0	.0
1986.	48.0	47.9	-.2	-.1
1987.	47.0	46.6	-.9	-.4
1988.	47.6	47.5	-.2	-.1
1989.	46.0	46.0	.0	.0
1990.	47.5	47.3	-.4	-.2
Mean:	46.0	45.9	-.2	-.1
Median:	46.0	46.0	-.2	-.1
Min:	41.4	41.2	-1.3	-.6
Max:	50.6	50.3	.6	.3
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	9	7		
No. Years inc (avg):		3	(	.2)
No. Years dec (avg):		37	(	-.2)
No. Years no change		29		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

February

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	46.3	46.5	.4	.2
1923.	47.1	47.1	.0	.0
1924.	52.1	52.4	.6	.3
1925.	49.0	48.8	-.4	-.2
1926.	50.7	50.9	.4	.2
1927.	48.9	48.9	.0	.0
1928.	49.7	49.8	.2	.1
1929.	48.3	48.5	.4	.2
1930.	52.6	52.9	.6	.3
1931.	52.0	52.2	.4	.2
1932.	47.6	47.6	.0	.0
1933.	46.9	46.6	-.6	-.3
1934.	50.8	50.9	.2	.1
1935.	49.1	49.0	-.2	-.1
1936.	47.9	47.9	.0	.0
1937.	46.7	46.9	.4	.2
1938.	48.4	48.4	.0	.0
1939.	48.1	48.1	.0	.0
1940.	49.4	49.4	.0	.0
1941.	50.0	50.0	.0	.0
1942.	46.9	46.9	.0	.0
1943.	49.6	49.6	.0	.0
1944.	48.8	48.5	-.6	-.3
1945.	48.0	48.0	.0	.0
1946.	46.6	46.7	.2	.1
1947.	49.5	49.8	.6	.3
1948.	47.8	47.8	.0	.0
1949.	45.4	45.9	1.1	.5
1950.	47.8	48.0	.4	.2
1951.	46.7	46.7	.0	.0
1952.	47.5	47.5	.0	.0
1953.	50.5	50.6	.2	.1
1954.	48.6	48.4	-.4	-.2
1955.	47.1	47.2	.2	.1
1956.	46.7	46.7	.0	.0
1957.	50.3	50.3	.0	.0
1958.	51.5	50.2	-2.5	-1.3
1959.	50.0	49.9	-.2	-.1
1960.	49.9	50.0	.2	.1
1961.	50.6	51.0	.8	.4
1962.	47.7	47.6	-.2	-.1
1963.	49.9	49.9	.0	.0
1964.	48.1	48.1	.0	.0
1965.	47.5	47.5	.0	.0
1966.	47.8	47.8	.0	.0
1967.	48.4	48.4	.0	.0
1968.	50.7	50.0	-1.4	-.7
1969.	46.5	46.5	.0	.0
1970.	48.6	48.6	.0	.0
1971.	47.5	47.5	.0	.0
1972.	49.0	48.3	-1.4	-.7
1973.	49.8	49.8	.0	.0
1974.	47.1	47.1	.0	.0
1975.	48.1	48.1	.0	.0
1976.	51.1	51.2	.2	.1
1977.	52.9	53.0	.2	.1
1978.	51.1	51.1	.0	.0
1979.	48.2	48.2	.0	.0
1980.	47.5	47.7	.4	.2
1981.	50.9	51.1	.4	.2
1982.	46.8	46.8	.0	.0
1983.	49.2	49.2	.0	.0
1984.	48.2	48.2	.0	.0
1985.	48.8	49.0	.4	.2
1986.	48.1	48.1	.0	.0
1987.	51.8	50.8	-1.9	-1.0
1988.	53.8	53.6	-.4	-.2
1989.	47.9	47.8	-.2	-.1
1990.	48.6	48.6	.0	.0
Mean:	48.9	48.9	.0	.0
Median:	48.4	48.4	.0	.0
Min:	45.4	45.9	-2.5	-1.3
Max:	53.8	53.6	1.1	.5

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	45	46		

No. Years inc (avg):		22	(.2)
No. Years dec (avg):		13	(-.4)
No. Years no change		34	

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

March

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	51.3	51.3	.0	.0
1923.	53.7	50.8	-5.4	-2.9
1924.	54.1	54.2	.2	.1
1925.	54.6	54.6	.0	.0
1926.	57.3	57.6	.5	.3
1927.	52.2	52.2	.0	.0
1928.	52.4	52.6	.4	.2
1929.	54.5	53.7	-1.5	-.8
1930.	54.6	54.6	.0	.0
1931.	56.9	57.2	.5	.3
1932.	55.0	55.1	.2	.1
1933.	54.3	53.4	-1.7	-.9
1934.	58.6	58.8	.3	.2
1935.	50.6	50.5	-.2	-.1
1936.	53.6	53.7	.2	.1
1937.	52.9	53.3	.8	.4
1938.	50.2	50.2	.0	.0
1939.	53.7	53.8	.2	.1
1940.	52.3	52.3	.0	.0
1941.	53.9	54.0	.2	.1
1942.	50.5	50.2	-.6	-.3
1943.	51.5	51.5	.0	.0
1944.	53.5	54.1	1.1	.6
1945.	50.8	50.8	.0	.0
1946.	52.4	52.4	.0	.0
1947.	54.2	54.5	.6	.3
1948.	50.5	50.5	.0	.0
1949.	51.3	51.5	.4	.2
1950.	52.1	52.2	.2	.1
1951.	51.5	51.5	.0	.0
1952.	50.0	50.0	.0	.0
1953.	53.2	53.2	.0	.0
1954.	51.1	51.2	.2	.1
1955.	53.0	53.2	.4	.2
1956.	52.3	52.3	.0	.0
1957.	54.2	54.0	-.4	-.2
1958.	51.0	51.1	.2	.1
1959.	55.4	55.3	-.2	-.1
1960.	54.7	54.8	.2	.1
1961.	54.3	54.3	.0	.0
1962.	52.0	51.7	-.6	-.3
1963.	51.4	51.4	.0	.0
1964.	51.9	51.8	-.2	-.1
1965.	52.2	52.2	.0	.0
1966.	53.0	53.0	.0	.0
1967.	51.3	51.3	.0	.0
1968.	55.6	53.8	-3.2	-1.8
1969.	52.2	52.0	-.4	-.2
1970.	53.8	53.9	.2	.1
1971.	51.4	51.4	.0	.0
1972.	55.9	56.5	1.1	.6
1973.	51.1	51.2	.2	.1
1974.	52.0	52.0	.0	.0
1975.	51.0	51.1	.2	.1
1976.	54.5	54.6	.2	.1
1977.	53.6	53.6	.0	.0
1978.	55.0	54.8	-.4	-.2
1979.	54.0	53.8	-.4	-.2
1980.	51.9	52.0	.2	.1
1981.	52.9	53.0	.2	.1
1982.	50.7	50.7	.0	.0
1983.	50.7	50.7	.0	.0
1984.	54.9	55.0	.2	.1
1985.	51.1	51.3	.4	.2
1986.	52.9	52.9	.0	.0
1987.	54.2	54.3	.2	.1
1988.	58.2	58.1	-.2	-.1
1989.	52.3	52.2	-.2	-.1
1990.	55.4	55.9	.9	.5
Mean:	53.1	53.0	-.1	.0
Median:	52.7	52.5	.0	.0
Min:	50.0	50.0	-5.4	-2.9
Max:	58.6	58.8	1.1	.6
X > 56.0	4	5		
Mean X > 56.0	57.7	57.6	-.2	-.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		29	(	.2)
No. Years dec (avg):		15	(	-.6)
No. Years no change		25		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

April

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	55.2	55.3	.2	.1
1923.	56.6	56.9	.5	.3
1924.	63.4	63.4	.0	.0
1925.	56.5	56.9	.7	.4
1926.	61.4	61.4	.0	.0
1927.	54.7	54.7	.0	.0
1928.	55.6	55.7	.2	.1
1929.	57.2	58.0	1.4	.8
1930.	59.9	59.4	-.8	-.5
1931.	65.5	65.5	.0	.0
1932.	57.2	57.4	.3	.2
1933.	58.8	59.6	1.4	.8
1934.	61.4	61.8	.7	.4
1935.	56.0	56.0	.0	.0
1936.	56.4	56.5	.2	.1
1937.	55.4	55.5	.2	.1
1938.	54.7	54.7	.0	.0
1939.	63.1	65.1	3.2	2.0
1940.	56.1	56.2	.2	.1
1941.	56.0	56.0	.0	.0
1942.	55.6	55.7	.2	.1
1943.	55.9	55.9	.0	.0
1944.	56.0	56.7	1.3	.7
1945.	58.1	58.2	.2	.1
1946.	56.9	57.2	.5	.3
1947.	59.9	59.2	-1.2	-.7
1948.	54.5	54.4	-.2	-.1
1949.	59.7	59.4	-.5	-.3
1950.	56.8	56.8	.0	.0
1951.	57.3	57.5	.3	.2
1952.	54.8	54.8	.0	.0
1953.	57.1	57.2	.2	.1
1954.	57.6	57.7	.2	.1
1955.	55.2	55.2	.0	.0
1956.	57.5	57.3	-.3	-.2
1957.	59.3	59.3	.0	.0
1958.	54.9	54.9	.0	.0
1959.	63.9	61.9	-3.1	-2.0
1960.	59.1	59.3	.3	.2
1961.	62.4	62.4	.0	.0
1962.	58.6	59.3	1.2	.7
1963.	54.0	54.1	.2	.1
1964.	57.2	57.2	.0	.0
1965.	56.2	56.4	.4	.2
1966.	62.3	61.9	-.6	-.4
1967.	52.2	52.2	.0	.0
1968.	59.9	59.1	-1.3	-.8
1969.	55.2	55.3	.2	.1
1970.	57.4	57.5	.2	.1
1971.	55.5	55.6	.2	.1
1972.	58.3	58.4	.2	.1
1973.	58.4	58.4	.0	.0
1974.	54.7	54.8	.2	.1
1975.	53.6	53.6	.0	.0
1976.	60.8	60.9	.2	.1
1977.	64.8	64.8	.0	.0
1978.	55.7	55.9	.4	.2
1979.	57.4	57.7	.5	.3
1980.	57.9	58.1	.3	.2
1981.	58.4	58.5	.2	.1
1982.	53.5	53.5	.0	.0
1983.	54.2	54.2	.0	.0
1984.	58.2	58.2	.0	.0
1985.	61.1	61.2	.2	.1
1986.	58.1	58.1	.0	.0
1987.	64.9	65.0	.2	.1
1988.	63.5	63.5	.0	.0
1989.	58.8	59.1	.5	.3
1990.	60.9	62.2	2.1	1.3
Mean:	57.9	58.0	.2	.1
Median:	57.2	57.3	.2	.1
Min:	52.2	52.2	-3.1	-2.0
Max:	65.5	65.5	3.2	2.0
X > 56.0	46	47		
Mean X > 56.0	59.4	59.4	.0	.0
X > 60.0	14	14		
Mean X > 60.0	62.8	62.9	.2	.1
X > 65.0	1	2		
Mean X > 65.0	65.5	65.3	-.3	-.2
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	14	14		
61.0 <= X <= 73.0	12	13		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		37	(	.3)
No. Years dec (avg):		8	(	-.6)
No. Years no change		24		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

May

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	59.3	59.5	.3	.2
1923.	59.8	60.0	.3	.2
1924.	70.3	70.3	.0	.0
1925.	60.5	60.7	.3	.2
1926.	66.3	66.4	.2	.1
1927.	59.7	59.8	.2	.1
1928.	62.9	62.9	.0	.0
1929.	64.0	64.4	.6	.4
1930.	62.0	62.3	.5	.3
1931.	71.0	71.0	.0	.0
1932.	61.5	61.7	.3	.2
1933.	60.5	60.8	.5	.3
1934.	69.9	69.9	.0	.0
1935.	59.9	60.0	.2	.1
1936.	61.5	61.5	.0	.0
1937.	60.8	60.9	.2	.1
1938.	59.5	59.5	.0	.0
1939.	65.4	65.5	.2	.1
1940.	62.2	62.4	.3	.2
1941.	59.9	59.9	.0	.0
1942.	58.2	58.4	.3	.2
1943.	62.0	61.9	-.2	-.1
1944.	62.3	62.9	1.0	.6
1945.	60.0	60.2	.3	.2
1946.	60.7	60.7	.0	.0
1947.	65.7	64.7	-1.5	-1.0
1948.	59.4	59.6	.3	.2
1949.	62.4	63.0	1.0	.6
1950.	61.1	61.1	.0	.0
1951.	61.4	61.5	.2	.1
1952.	59.3	59.3	.0	.0
1953.	59.3	59.3	.0	.0
1954.	62.9	62.9	.0	.0
1955.	61.5	62.3	1.3	.8
1956.	61.3	61.4	.2	.1
1957.	61.3	61.4	.2	.1
1958.	59.8	59.8	.0	.0
1959.	63.7	63.2	-.8	-.5
1960.	63.1	63.3	.3	.2
1961.	63.0	63.0	.0	.0
1962.	61.4	61.5	.2	.1
1963.	58.0	58.1	.2	.1
1964.	61.1	60.5	-1.0	-.6
1965.	60.4	60.5	.2	.1
1966.	65.7	66.4	1.1	.7
1967.	58.6	58.7	.2	.1
1968.	64.0	62.2	-2.8	-1.8
1969.	59.6	59.6	.0	.0
1970.	64.7	64.9	.3	.2
1971.	58.7	58.6	-.2	-.1
1972.	63.7	64.0	.5	.3
1973.	62.7	63.0	.5	.3
1974.	59.8	59.8	.0	.0
1975.	61.3	61.4	.2	.1
1976.	69.1	71.0	2.7	1.9
1977.	63.4	63.4	.0	.0
1978.	61.0	61.3	.5	.3
1979.	61.8	62.6	1.3	.8
1980.	60.5	60.5	.0	.0
1981.	63.6	63.3	-.5	-.3
1982.	59.3	59.3	.0	.0
1983.	58.6	58.6	.0	.0
1984.	64.1	64.3	.3	.2
1985.	64.0	64.2	.3	.2
1986.	62.0	62.1	.2	.1
1987.	67.7	70.0	3.4	2.3
1988.	67.2	67.2	.0	.0
1989.	63.0	63.4	.6	.4
1990.	65.6	65.9	.5	.3
Mean:	62.3	62.4	.2	.1
Median:	61.5	61.5	.2	.1
Min:	58.0	58.1	-2.8	-1.8
Max:	71.0	71.0	3.4	2.3
X > 56.0	69	69		
Mean X > 56.0	62.3	62.4	.2	.1
X > 60.0	50	51		
Mean X > 60.0	63.4	63.5	.2	.1
X > 65.0	11	10		
Mean X > 65.0	67.6	68.4	1.2	.8
X > 68.0	4	5		
Mean X > 68.0	70.1	70.4	.4	.3
X > 70.0	2	3		
Mean X > 70.0	70.7	70.8	.1	.1
60.0 <= X <= 70.0	49	50		
61.0 <= X <= 73.0	44	43		
48.0 <= X <= 68.0	65	64		
No. Years inc (avg):		41		(.3)
No. Years dec (avg):		7		(-.6)
No. Years no change		21		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

June

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	63.7	62.4	-2.0	-1.3
1923.	63.0	63.0	.0	.0
1924.	71.8	71.8	.0	.0
1925.	65.1	63.9	-1.8	-1.2
1926.	69.4	69.4	.0	.0
1927.	63.7	62.7	-1.6	-1.0
1928.	66.2	67.0	1.2	.8
1929.	69.3	68.2	-1.6	-1.1
1930.	68.1	66.7	-2.1	-1.4
1931.	69.8	68.5	-1.9	-1.3
1932.	66.1	65.8	-.5	-.3
1933.	67.4	67.5	.1	.1
1934.	70.3	68.6	-2.4	-1.7
1935.	65.6	65.1	-.8	-.5
1936.	65.5	65.6	.2	.1
1937.	65.3	65.1	-.3	-.2
1938.	64.5	63.5	-1.6	-1.0
1939.	70.9	72.6	2.4	1.7
1940.	67.6	68.0	.6	.4
1941.	64.0	62.6	-2.2	-1.4
1942.	63.0	63.0	.0	.0
1943.	64.7	64.1	-.9	-.6
1944.	65.8	66.9	1.7	1.1
1945.	65.4	66.1	1.1	.7
1946.	63.8	64.7	1.4	.9
1947.	69.6	70.2	.9	.6
1948.	65.5	64.2	-2.0	-1.3
1949.	67.2	66.1	-1.6	-1.1
1950.	64.4	64.0	-.6	-.4
1951.	65.4	65.2	-.3	-.2
1952.	62.4	62.3	-.2	-.1
1953.	63.9	64.2	.5	.3
1954.	66.0	65.8	-.3	-.2
1955.	66.4	67.0	.9	.6
1956.	65.1	65.2	.2	.1
1957.	66.9	67.5	.9	.6
1958.	63.9	63.8	-.2	-.1
1959.	70.2	69.6	-.9	-.6
1960.	70.6	69.1	-2.1	-1.5
1961.	73.6	75.4	2.4	1.8
1962.	66.7	66.7	.0	.0
1963.	63.9	63.2	-1.1	-.7
1964.	67.8	66.1	-2.5	-1.7
1965.	63.5	63.5	.0	.0
1966.	70.0	68.4	-2.3	-1.6
1967.	62.9	62.8	-.2	-.1
1968.	68.7	70.0	1.9	1.3
1969.	63.3	63.3	.0	.0
1970.	67.4	67.9	.7	.5
1971.	63.4	62.8	-.9	-.6
1972.	66.0	67.2	1.8	1.2
1973.	65.9	64.4	-2.3	-1.5
1974.	64.6	64.4	-.3	-.2
1975.	64.0	63.1	-1.4	-.9
1976.	70.5	69.0	-2.1	-1.5
1977.	72.7	72.7	.0	.0
1978.	64.6	64.8	.3	.2
1979.	65.9	65.9	.0	.0
1980.	63.8	63.9	.2	.1
1981.	71.2	71.1	-.1	-.1
1982.	63.0	61.9	-1.7	-1.1
1983.	63.3	63.3	.0	.0
1984.	67.3	66.3	-1.5	-1.0
1985.	69.6	68.2	-2.0	-1.4
1986.	66.7	67.0	.4	.3
1987.	72.3	72.4	.1	.1
1988.	70.4	68.7	-2.4	-1.7
1989.	66.9	67.1	.3	.2
1990.	70.1	68.6	-2.1	-1.5
Mean:	66.6	66.3	-.4	-.3
Median:	65.9	65.9	-.3	-.1
Min:	62.4	61.9	-2.5	-1.7
Max:	73.6	75.4	2.4	1.8
X > 56.0	69	69		
Mean X > 56.0	66.6	66.3	-.5	-.3
X > 60.0	69	69		
Mean X > 60.0	66.6	66.3	-.5	-.3
X > 65.0	46	43		
Mean X > 65.0	68.1	68.1	.0	.0
X > 68.0	20	19		
Mean X > 68.0	70.5	70.1	-.6	-.4
X > 70.0	12	7		
Mean X > 70.0	71.2	72.3	1.5	1.1
60.0 <= X <= 70.0	57	62		
61.0 <= X <= 73.0	68	68		
48.0 <= X <= 68.0	49	50		
No. Years inc (avg):		22	(.6)	
No. Years dec (avg):		37	(-.9)	
No. Years no change		10		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

July

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	68.0	66.8	-1.8	-1.2
1923.	69.2	68.1	-1.6	-1.1
1924.	72.2	72.4	.3	.2
1925.	68.4	67.2	-1.8	-1.2
1926.	72.3	71.8	-.7	-.5
1927.	67.7	66.5	-1.8	-1.2
1928.	69.2	69.2	.0	.0
1929.	71.5	70.6	-1.3	-.9
1930.	70.3	70.9	.9	.6
1931.	73.1	72.5	-.8	-.6
1932.	69.5	68.0	-2.2	-1.5
1933.	72.2	70.9	-1.8	-1.3
1934.	71.9	71.0	-1.3	-.9
1935.	68.5	67.1	-2.0	-1.4
1936.	69.9	68.9	-1.4	-1.0
1937.	69.7	68.0	-2.4	-1.7
1938.	68.6	67.3	-1.9	-1.3
1939.	71.7	70.6	-1.5	-1.1
1940.	69.2	69.9	1.0	.7
1941.	68.4	67.3	-1.6	-1.1
1942.	68.8	67.0	-2.6	-1.8
1943.	68.5	67.3	-1.8	-1.2
1944.	70.1	71.5	2.0	1.4
1945.	69.2	70.2	1.4	1.0
1946.	67.8	68.2	.6	.4
1947.	71.9	71.5	-.6	-.4
1948.	68.4	67.4	-1.5	-1.0
1949.	69.3	68.7	-.9	-.6
1950.	68.6	67.1	-2.2	-1.5
1951.	68.8	67.9	-1.3	-.9
1952.	67.9	67.2	-1.0	-.7
1953.	68.8	68.1	-1.0	-.7
1954.	68.6	68.3	-.4	-.3
1955.	70.8	71.2	.6	.4
1956.	69.5	67.9	-2.3	-1.6
1957.	68.6	70.2	2.3	1.6
1958.	69.1	68.5	-.9	-.6
1959.	74.9	76.5	2.1	1.6
1960.	71.6	71.6	.0	.0
1961.	77.6	77.6	.0	.0
1962.	69.2	68.5	-1.0	-.7
1963.	68.4	67.1	-1.9	-1.3
1964.	70.5	72.3	2.6	1.8
1965.	67.8	67.1	-1.0	-.7
1966.	70.1	70.9	1.1	.8
1967.	69.6	68.5	-1.6	-1.1
1968.	70.8	73.4	3.7	2.6
1969.	68.9	67.7	-1.7	-1.2
1970.	70.3	71.1	1.1	.8
1971.	68.3	67.2	-1.6	-1.1
1972.	69.9	70.5	.9	.6
1973.	68.5	67.3	-1.8	-1.2
1974.	68.6	67.3	-1.9	-1.3
1975.	68.0	67.2	-1.2	-.8
1976.	72.1	71.2	-1.2	-.9
1977.	74.4	74.3	-.1	-.1
1978.	68.4	67.3	-1.6	-1.1
1979.	69.6	69.8	.3	.2
1980.	68.6	67.4	-1.7	-1.2
1981.	74.5	74.5	.0	.0
1982.	67.5	66.2	-1.9	-1.3
1983.	67.5	67.1	-.6	-.4
1984.	69.5	68.4	-1.6	-1.1
1985.	72.4	72.9	.7	.5
1986.	70.7	70.0	-1.0	-.7
1987.	71.5	70.4	-1.5	-1.1
1988.	74.7	75.7	1.3	1.0
1989.	68.6	68.8	.3	.2
1990.	72.5	72.3	-.3	-.2
Mean:	70.0	69.6	-.6	-.4
Median:	69.2	68.5	-1.1	-.8
Min:	67.5	66.2	-2.6	-1.8
Max:	77.6	77.6	3.7	2.6
X > 56.0	69	69		
Mean X > 56.0	70.0	69.6	-.6	-.4
X > 60.0	69	69		
Mean X > 60.0	70.0	69.6	-.6	-.4
X > 65.0	69	69		
Mean X > 65.0	70.0	69.6	-.6	-.4
X > 68.0	61	43		
Mean X > 68.0	70.3	71.0	1.0	.7
X > 70.0	26	28		
Mean X > 70.0	72.2	72.2	.0	.0
60.0 <= X <= 70.0	43	41		
61.0 <= X <= 73.0	63	63		
48.0 <= X <= 68.0	8	26		
No. Years inc (avg):		18		(.9)
No. Years dec (avg):		47		(-1.0)
No. Years no change		4		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

August

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	67.6	66.9	-1.0	-.7
1923.	69.4	68.5	-1.3	-.9
1924.	72.4	72.3	-.1	-.1
1925.	68.0	67.1	-1.3	-.9
1926.	71.3	70.9	-.6	-.4
1927.	67.1	66.4	-1.0	-.7
1928.	70.2	70.3	.1	.1
1929.	74.2	74.1	-.1	-.1
1930.	70.3	69.7	-.9	-.6
1931.	74.1	74.1	.0	.0
1932.	69.4	69.0	-.6	-.4
1933.	72.6	74.4	2.5	1.8
1934.	74.5	74.4	-.1	-.1
1935.	68.7	67.9	-1.2	-.8
1936.	69.6	68.6	-1.4	-1.0
1937.	68.9	68.6	-.4	-.3
1938.	67.7	66.9	-1.2	-.8
1939.	73.8	73.8	.0	.0
1940.	69.8	68.8	-1.4	-1.0
1941.	67.2	66.5	-1.0	-.7
1942.	67.8	66.8	-1.5	-1.0
1943.	68.5	67.7	-1.2	-.8
1944.	70.3	71.2	1.3	.9
1945.	68.8	69.4	.9	.6
1946.	68.2	69.2	1.5	1.0
1947.	70.6	70.3	-.4	-.3
1948.	68.0	67.3	-1.0	-.7
1949.	68.8	68.3	-.7	-.5
1950.	68.6	67.6	-1.5	-1.0
1951.	68.6	68.7	.1	.1
1952.	68.1	67.0	-1.6	-1.1
1953.	67.9	67.1	-1.2	-.8
1954.	68.5	68.2	-.4	-.3
1955.	70.6	71.7	1.6	1.1
1956.	68.2	67.2	-1.5	-1.0
1957.	68.8	69.7	1.3	.9
1958.	69.4	68.6	-1.2	-.8
1959.	70.3	70.0	-.4	-.3
1960.	71.9	72.2	.4	.3
1961.	71.6	74.2	3.6	2.6
1962.	68.4	68.8	.6	.4
1963.	67.9	67.2	-1.0	-.7
1964.	70.9	72.2	1.8	1.3
1965.	69.1	68.5	-.9	-.6
1966.	72.4	70.1	-3.2	-2.3
1967.	69.6	68.7	-1.3	-.9
1968.	70.0	70.4	.6	.4
1969.	68.5	67.7	-1.2	-.8
1970.	69.8	70.2	.6	.4
1971.	67.8	66.7	-1.6	-1.1
1972.	69.9	71.3	2.0	1.4
1973.	69.1	67.9	-1.7	-1.2
1974.	68.1	67.3	-1.2	-.8
1975.	67.5	66.9	-.9	-.6
1976.	70.6	70.2	-.6	-.4
1977.	73.6	73.6	.0	.0
1978.	69.2	68.4	-1.2	-.8
1979.	68.7	69.4	1.0	.7
1980.	68.3	67.6	-1.0	-.7
1981.	70.7	70.3	-.6	-.4
1982.	67.2	66.2	-1.5	-1.0
1983.	68.3	67.4	-1.3	-.9
1984.	70.2	69.5	-1.0	-.7
1985.	71.6	70.9	-1.0	-.7
1986.	70.1	68.4	-2.4	-1.7
1987.	70.8	69.9	-1.3	-.9
1988.	73.6	74.2	.8	.6
1989.	70.9	71.2	.4	.3
1990.	71.8	72.4	.8	.6
Mean:	69.8	69.5	-.4	-.3
Median:	69.3	68.8	-.9	-.6
Min:	67.1	66.2	-3.2	-2.3
Max:	74.5	74.4	3.6	2.6
X > 56.0	69	69		
Mean X > 56.0	69.8	69.5	-.4	-.3
X > 60.0	69	69		
Mean X > 60.0	69.8	69.5	-.4	-.3
X > 65.0	69	69		
Mean X > 65.0	69.8	69.5	-.4	-.3
X > 68.0	57	47		
Mean X > 68.0	70.2	70.6	.6	.4
X > 70.0	27	25		
Mean X > 70.0	71.7	72.0	.4	.3
60.0 <= X <= 70.0	42	44		
61.0 <= X <= 73.0	63	61		
48.0 <= X <= 68.0	12	22		
No. Years inc (avg):		19	(.8)	
No. Years dec (avg):		47	(-.8)	
No. Years no change		3		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

September

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	67.4	66.7	-1.0	-.7
1923.	69.1	68.2	-1.3	-.9
1924.	70.0	69.6	-.6	-.4
1925.	67.2	66.6	-.9	-.6
1926.	68.6	68.2	-.6	-.4
1927.	66.7	65.8	-1.3	-.9
1928.	68.5	69.6	1.6	1.1
1929.	69.8	69.1	-1.0	-.7
1930.	67.5	67.2	-.4	-.3
1931.	68.7	68.1	-.9	-.6
1932.	69.0	68.4	-.9	-.6
1933.	68.8	68.4	-.6	-.4
1934.	70.2	70.3	.1	.1
1935.	67.9	67.0	-1.3	-.9
1936.	69.0	68.1	-1.3	-.9
1937.	67.9	67.0	-1.3	-.9
1938.	67.5	66.6	-1.3	-.9
1939.	70.2	69.6	-.9	-.6
1940.	68.4	68.2	-.3	-.2
1941.	66.8	65.9	-1.3	-.9
1942.	67.4	66.4	-1.5	-1.0
1943.	68.3	67.7	-.9	-.6
1944.	69.5	69.5	.0	.0
1945.	68.2	69.5	1.9	1.3
1946.	67.3	68.6	1.9	1.3
1947.	70.1	69.6	-.7	-.5
1948.	67.6	67.0	-.9	-.6
1949.	68.6	68.1	-.7	-.5
1950.	68.0	66.8	-1.8	-1.2
1951.	69.9	69.7	-.3	-.2
1952.	68.0	66.8	-1.8	-1.2
1953.	67.9	67.0	-1.3	-.9
1954.	67.8	67.8	.0	.0
1955.	69.1	69.1	.0	.0
1956.	68.0	66.9	-1.6	-1.1
1957.	68.0	69.0	1.5	1.0
1958.	68.9	68.0	-1.3	-.9
1959.	69.5	68.8	-1.0	-.7
1960.	70.7	70.1	-.8	-.6
1961.	69.7	68.9	-1.1	-.8
1962.	69.1	69.2	.1	.1
1963.	67.6	66.5	-1.6	-1.1
1964.	68.9	68.9	.0	.0
1965.	67.6	66.7	-1.3	-.9
1966.	70.4	69.1	-1.8	-1.3
1967.	69.1	68.1	-1.4	-1.0
1968.	69.0	69.1	.1	.1
1969.	68.0	67.2	-1.2	-.8
1970.	69.0	70.2	1.7	1.2
1971.	67.3	66.1	-1.8	-1.2
1972.	68.0	68.4	.6	.4
1973.	68.0	67.0	-1.5	-1.0
1974.	67.9	67.0	-1.3	-.9
1975.	67.3	66.7	-.9	-.6
1976.	70.3	70.3	.0	.0
1977.	68.5	68.5	.0	.0
1978.	67.8	67.0	-1.2	-.8
1979.	68.9	71.2	3.3	2.3
1980.	67.7	66.8	-1.3	-.9
1981.	69.6	68.8	-1.1	-.8
1982.	66.8	65.8	-1.5	-1.0
1983.	68.0	67.0	-1.5	-1.0
1984.	69.5	68.7	-1.2	-.8
1985.	67.9	67.9	.0	.0
1986.	65.7	66.2	.8	.5
1987.	69.9	69.2	-1.0	-.7
1988.	71.3	70.9	-.6	-.4
1989.	68.0	68.3	.4	.3
1990.	72.0	72.0	.0	.0
Mean:	68.6	68.2	-.6	-.4
Median:	68.3	68.1	-.9	-.6
Min:	65.7	65.8	-1.8	-1.3
Max:	72.0	72.0	3.3	2.3
X > 56.0	69	69		
Mean X > 56.0	68.6	68.2	-.6	-.4
X > 60.0	69	69		
Mean X > 60.0	68.6	68.2	-.6	-.4
X > 65.0	69	69		
Mean X > 65.0	68.6	68.2	-.6	-.4
X > 68.0	37	39		
Mean X > 68.0	69.4	69.2	-.3	-.2
X > 70.0	8	7		
Mean X > 70.0	70.7	70.7	.0	.0
60.0 <= X <= 70.0	61	62		
61.0 <= X <= 73.0	69	69		
48.0 <= X <= 68.0	32	30		
No. Years inc (avg):		12	(.8)	
No. Years dec (avg):		49	(-.8)	
No. Years no change		8		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

October"

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	57.8	57.8	.0	.0
1923.	61.5	60.3	-2.0	-1.2
1924.	61.6	61.1	-.8	-.5
1925.	58.9	58.8	-.2	-.1
1926.	62.4	62.7	.5	.3
1927.	58.7	58.6	-.2	-.1
1928.	59.4	57.3	-3.5	-2.1
1929.	64.4	64.5	.2	.1
1930.	60.7	60.3	-.7	-.4
1931.	63.0	63.0	.0	.0
1932.	61.1	60.4	-1.1	-.7
1933.	65.8	65.4	-.6	-.4
1934.	64.3	63.8	-.8	-.5
1935.	59.0	59.0	.0	.0
1936.	61.2	60.2	-1.6	-1.0
1937.	60.0	59.7	-.5	-.3
1938.	58.5	58.6	.2	.1
1939.	64.5	64.1	-.6	-.4
1940.	58.0	57.4	-1.0	-.6
1941.	58.3	58.0	-.5	-.3
1942.	58.2	58.0	-.3	-.2
1943.	58.9	59.1	.3	.2
1944.	62.4	60.3	-3.4	-2.1
1945.	61.1	57.2	-6.4	-3.9
1946.	58.2	56.2	-3.4	-2.0
1947.	59.8	59.2	-1.0	-.6
1948.	58.3	59.3	1.7	1.0
1949.	59.5	60.0	.8	.5
1950.	58.3	58.0	-.5	-.3
1951.	58.3	56.3	-3.4	-2.0
1952.	59.2	58.5	-1.2	-.7
1953.	59.4	58.5	-1.5	-.9
1954.	57.6	57.0	-1.0	-.6
1955.	60.8	58.4	-3.9	-2.4
1956.	59.8	59.6	-.3	-.2
1957.	59.7	57.0	-4.5	-2.7
1958.	61.8	61.3	-.8	-.5
1959.	64.7	64.7	.0	.0
1960.	59.0	58.3	-1.2	-.7
1961.	65.1	64.0	-1.7	-1.1
1962.	58.6	56.7	-3.2	-1.9
1963.	58.6	58.1	-.9	-.5
1964.	61.2	58.8	-3.9	-2.4
1965.	59.5	59.1	-.7	-.4
1966.	61.6	61.9	.5	.3
1967.	61.8	61.5	-.5	-.3
1968.	60.5	61.6	1.8	1.1
1969.	59.3	58.7	-1.0	-.6
1970.	59.7	56.7	-5.0	-3.0
1971.	57.9	58.2	.5	.3
1972.	58.9	56.4	-4.2	-2.5
1973.	58.9	58.6	-.5	-.3
1974.	60.0	59.2	-1.3	-.8
1975.	58.4	58.5	.2	.1
1976.	64.4	64.7	.5	.3
1977.	63.2	63.3	.2	.1
1978.	60.1	59.7	-.7	-.4
1979.	60.6	57.5	-5.1	-3.1
1980.	59.6	59.1	-.8	-.5
1981.	63.1	63.5	.6	.4
1982.	57.8	57.8	.0	.0
1983.	59.1	58.9	-.3	-.2
1984.	61.2	60.7	-.8	-.5
1985.	58.7	57.5	-2.0	-1.2
1986.	61.5	59.1	-3.9	-2.4
1987.	65.3	66.0	1.1	.7
1988.	66.0	65.5	-.8	-.5
1989.	59.4	57.5	-3.2	-1.9
1990.	66.1	65.7	-.6	-.4
Mean:	60.6	59.9	-1.1	-.7
Median:	59.7	59.0	-.8	-.5
Min:	57.6	56.2	-6.4	-3.9
Max:	66.1	66.0	1.8	1.1
X > 56.0	69	69		
Mean X > 56.0	60.6	59.9	-1.2	-.7
X > 60.0	31	25		
Mean X > 60.0	62.7	62.8	.2	.1
X > 65.0	5	4		
Mean X > 65.0	65.7	65.6	-.2	-.1
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	33	26		
61.0 <= X <= 73.0	26	19		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		14		(.4)
No. Years dec (avg):		50		(-1.1)
No. Years no change		5		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

November

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	53.6	53.5	-.2	-.1
1923.	57.3	57.0	-.5	-.3
1924.	54.1	53.7	-.7	-.4
1925.	55.8	55.6	-.4	-.2
1926.	58.5	57.7	-1.4	-.8
1927.	55.9	55.8	-.2	-.1
1928.	56.1	54.9	-2.1	-1.2
1929.	58.4	58.0	-.7	-.4
1930.	57.1	56.5	-1.1	-.6
1931.	53.7	53.7	.0	.0
1932.	57.1	57.3	.4	.2
1933.	58.4	57.8	-1.0	-.6
1934.	56.3	55.5	-1.4	-.8
1935.	55.2	55.2	.0	.0
1936.	57.2	57.0	-.3	-.2
1937.	57.1	56.3	-1.4	-.8
1938.	55.7	55.6	-.2	-.1
1939.	58.0	57.6	-.7	-.4
1940.	55.1	53.6	-2.7	-1.5
1941.	56.0	56.1	.2	.1
1942.	55.9	55.9	.0	.0
1943.	56.4	56.1	-.5	-.3
1944.	53.7	53.7	.0	.0
1945.	55.7	54.4	-2.3	-1.3
1946.	54.1	52.3	-3.3	-1.8
1947.	52.7	52.7	.0	.0
1948.	55.7	55.6	-.2	-.1
1949.	57.2	56.9	-.5	-.3
1950.	56.3	56.1	-.4	-.2
1951.	55.8	55.0	-1.4	-.8
1952.	55.7	55.6	-.2	-.1
1953.	56.6	56.7	.2	.1
1954.	54.7	53.8	-1.6	-.9
1955.	54.8	54.4	-.7	-.4
1956.	56.9	57.1	.4	.2
1957.	57.0	55.6	-2.5	-1.4
1958.	57.6	56.7	-1.6	-.9
1959.	59.0	58.9	-.2	-.1
1960.	55.5	55.2	-.5	-.3
1961.	56.3	56.2	-.2	-.1
1962.	55.9	55.7	-.4	-.2
1963.	55.7	55.8	.2	.1
1964.	54.0	53.5	-.9	-.5
1965.	56.6	55.9	-1.2	-.7
1966.	55.7	57.0	2.3	1.3
1967.	57.4	57.0	-.7	-.4
1968.	55.8	55.2	-1.1	-.6
1969.	56.7	55.9	-1.4	-.8
1970.	56.4	55.3	-2.0	-1.1
1971.	56.1	56.0	-.2	-.1
1972.	53.1	51.9	-2.3	-1.2
1973.	55.3	54.7	-1.1	-.6
1974.	56.6	56.2	-.7	-.4
1975.	55.6	55.4	-.4	-.2
1976.	56.8	56.9	.2	.1
1977.	54.8	54.8	.0	.0
1978.	56.4	56.1	-.5	-.3
1979.	56.6	55.2	-2.5	-1.4
1980.	56.8	56.1	-1.2	-.7
1981.	56.9	56.7	-.4	-.2
1982.	55.7	55.6	-.2	-.1
1983.	56.9	56.3	-1.1	-.6
1984.	55.9	55.5	-.7	-.4
1985.	53.5	52.8	-1.3	-.7
1986.	55.6	55.7	.2	.1
1987.	56.6	56.3	-.5	-.3
1988.	55.7	55.1	-1.1	-.6
1989.	56.6	55.6	-1.8	-1.0
1990.	55.7	54.9	-1.4	-.8
Mean:	56.0	55.6	-.8	-.4
Median:	55.9	55.6	-.7	-.4
Min:	52.7	51.9	-3.3	-1.8
Max:	59.0	58.9	2.3	1.3
X > 56.0	34	27		
Mean X > 56.0	57.0	56.8	-.4	-.2
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		8		(.3)
No. Years dec (avg):		55		(-.6)
No. Years no change		6		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

December

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	47.6	47.5	-.2	-.1
1923.	50.0	49.9	-.2	-.1
1924.	45.0	44.5	-1.1	-.5
1925.	48.5	48.3	-.4	-.2
1926.	49.3	49.1	-.4	-.2
1927.	48.7	48.7	.0	.0
1928.	47.3	46.8	-1.1	-.5
1929.	50.4	50.0	-.8	-.4
1930.	49.1	48.7	-.8	-.4
1931.	46.6	46.5	-.2	-.1
1932.	48.2	48.0	-.4	-.2
1933.	48.2	47.7	-1.0	-.5
1934.	48.7	47.8	-1.8	-.9
1935.	49.5	49.4	-.2	-.1
1936.	49.1	49.0	-.2	-.1
1937.	51.2	51.0	-.4	-.2
1938.	49.8	49.7	-.2	-.1
1939.	51.5	51.0	-1.0	-.5
1940.	50.5	50.2	-.6	-.3
1941.	50.0	49.9	-.2	-.1
1942.	48.9	48.9	.0	.0
1943.	50.8	50.4	-.8	-.4
1944.	48.4	48.5	.2	.1
1945.	48.8	48.6	-.4	-.2
1946.	48.1	47.7	-.8	-.4
1947.	46.7	46.7	.0	.0
1948.	47.0	46.8	-.4	-.2
1949.	48.8	48.4	-.8	-.4
1950.	48.8	48.8	.0	.0
1951.	48.7	48.3	-.8	-.4
1952.	49.9	49.8	-.2	-.1
1953.	50.8	50.7	-.2	-.1
1954.	46.4	46.2	-.4	-.2
1955.	48.4	48.3	-.2	-.1
1956.	50.4	50.3	-.2	-.1
1957.	49.5	49.1	-.8	-.4
1958.	54.3	54.2	-.2	-.1
1959.	50.9	50.8	-.2	-.1
1960.	48.4	48.3	-.2	-.1
1961.	47.2	47.1	-.2	-.1
1962.	50.2	50.1	-.2	-.1
1963.	46.3	46.2	-.2	-.1
1964.	47.4	47.3	-.2	-.1
1965.	47.6	47.4	-.4	-.2
1966.	48.0	47.9	-.2	-.1
1967.	50.0	49.9	-.2	-.1
1968.	47.6	47.0	-1.3	-.6
1969.	51.7	51.6	-.2	-.1
1970.	48.8	48.5	-.6	-.3
1971.	47.6	47.5	-.2	-.1
1972.	43.9	43.8	-.2	-.1
1973.	49.2	49.1	-.2	-.1
1974.	49.5	49.3	-.4	-.2
1975.	49.3	49.3	.0	.0
1976.	48.2	48.3	.2	.1
1977.	49.0	49.0	.0	.0
1978.	47.8	47.5	-.6	-.3
1979.	50.9	50.4	-1.0	-.5
1980.	51.5	51.4	-.2	-.1
1981.	50.2	50.1	-.2	-.1
1982.	48.7	48.7	.0	.0
1983.	48.7	48.6	-.2	-.1
1984.	48.9	48.8	-.2	-.1
1985.	45.1	44.8	-.7	-.3
1986.	50.7	50.1	-1.2	-.6
1987.	48.5	47.9	-1.2	-.6
1988.	48.0	47.4	-1.2	-.6
1989.	48.4	48.2	-.4	-.2
1990.	44.5	43.5	-2.2	-1.0
Mean:	48.8	48.6	-.5	-.2
Median:	48.7	48.5	-.2	-.1
Min:	43.9	43.5	-2.2	-1.0
Max:	54.3	54.2	.2	.1
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	52	46		
No. Years inc (avg):		2	(	.1)
No. Years dec (avg):		60	(	-.3)
No. Years no change		7		

RETURN TO TABLE OF CONTENTS

Section 13

SHASTA RESERVOIR STORAGE

SHASTA RESERVOIR STORAGE
October

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	2835.6	2835.6	.0	.0
1923	3100.7	3100.7	.0	.0
1924	2262.0	2263.1	.0	1.1
1925	923.3	922.5	-.1	-.8
1926	2503.1	2584.2	3.2	81.1
1927	2259.0	2266.1	.3	7.1
1928	3250.0	3250.0	.0	.0
1929	2686.1	2704.7	.7	18.6
1930	1999.6	2019.2	1.0	19.6
1931	2337.6	2314.7	-1.0	-22.9
1932	1006.6	983.5	-2.3	-23.1
1933	1355.6	1425.5	5.2	69.9
1934	1388.8	1417.7	2.1	28.9
1935	1124.0	1111.3	-1.1	-12.7
1936	1841.7	1856.0	.8	14.3
1937	1982.2	1995.5	.7	13.3
1938	2138.7	2180.5	2.0	41.8
1939	3250.0	3250.0	.0	.0
1940	2128.1	2089.4	-1.8	-38.7
1941	2984.8	2930.3	-1.8	-54.5
1942	3250.0	3250.0	.0	.0
1943	3250.0	3250.0	.0	.0
1944	3250.0	3250.0	.0	.0
1945	2486.6	2513.8	1.1	27.2
1946	2806.8	2818.5	.4	11.7
1947	2879.8	2901.3	.7	21.5
1948	2505.1	2517.2	.5	12.1
1949	3238.4	3244.4	.2	6.0
1950	2908.6	2867.9	-1.4	-40.7
1951	2874.5	2875.7	.0	1.2
1952	3089.7	3055.0	-1.1	-34.7
1953	3250.0	3250.0	.0	.0
1954	3250.0	3250.0	.0	.0
1955	3244.6	3207.8	-1.1	-36.8
1956	2616.5	2656.1	1.5	39.6
1957	3250.0	3250.0	.0	.0
1958	3250.0	3250.0	.0	.0
1959	3250.0	3250.0	.0	.0
1960	2657.3	2583.8	-2.8	-73.5
1961	2701.9	2673.9	-1.0	-28.0
1962	2729.5	2805.4	2.8	75.9
1963	3250.0	3250.0	.0	.0
1964	3250.0	3250.0	.0	.0
1965	2538.5	2545.6	.3	7.1
1966	3250.0	3250.0	.0	.0
1967	2963.3	2884.3	-2.7	-79.0
1968	3250.0	3250.0	.0	.0
1969	2922.4	2849.3	-2.5	-73.1
1970	3250.0	3250.0	.0	.0
1971	2885.9	2872.5	-.5	-13.4
1972	3250.0	3250.0	.0	.0
1973	2978.1	2900.2	-2.6	-77.9
1974	3250.0	3250.0	.0	.0
1975	3250.0	3250.0	.0	.0
1976	3250.0	3250.0	.0	.0
1977	2488.3	2493.3	.2	5.0
1978	660.6	722.3	9.3	61.7
1979	3207.8	3207.5	.0	-.3
1980	2889.9	2928.5	1.3	38.6
1981	3135.4	3135.4	.0	.0
1982	2746.1	2703.2	-1.6	-42.9
1983	3250.0	3250.0	.0	.0
1984	3250.0	3250.0	.0	.0
1985	3250.0	3250.0	.0	.0
1986	2541.4	2559.7	.7	18.3
1987	2917.6	2917.6	.0	.0
1988	2359.5	2288.6	-3.0	-70.9
1989	2144.9	2165.4	1.0	20.5
1990	2714.4	2698.5	-.6	-15.9
1991	2112.9	2086.9	-1.2	-26.0
Mean:	2704.3	2702.6	.1	-1.8
Median:	2885.9	2872.5	.0	.0
Min:	660.6	722.3	-3.0	-79.0
Max:	3250.0	3250.0	9.3	81.1
Littoral Habitat(ac)	1025.8	1016.5	-.9	-9.2

SHASTA RESERVOIR STORAGE
November

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	2797.9	2797.9	.0	.0
1923	3039.1	3039.1	.0	.0
1924	2237.7	2238.3	.0	.6
1925	1071.4	1070.6	-.1	-.8
1926	2510.3	2576.5	2.6	66.2
1927	2736.0	2743.1	.3	7.1
1928	3252.0	3252.0	.0	.0
1929	2655.5	2674.0	.7	18.5
1930	1978.2	1998.7	1.0	20.5
1931	2316.7	2293.8	-1.0	-22.9
1932	991.6	968.5	-2.3	-23.1
1933	1315.8	1385.2	5.3	69.4
1934	1369.5	1398.3	2.1	28.8
1935	1252.9	1240.2	-1.0	-12.7
1936	1776.6	1790.5	.8	13.9
1937	1890.4	1903.6	.7	13.2
1938	2708.6	2750.4	1.5	41.8
1939	3206.0	3206.0	.0	.0
1940	2123.8	2085.1	-1.8	-38.7
1941	2920.4	2865.8	-1.9	-54.6
1942	3201.5	3201.5	.0	.0
1943	3252.0	3252.0	.0	.0
1944	3181.9	3181.9	.0	.0
1945	2632.8	2660.0	1.0	27.2
1946	3012.2	3023.9	.4	11.7
1947	2876.2	2897.7	.7	21.5
1948	2517.2	2529.3	.5	12.1
1949	3157.4	3163.4	.2	6.0
1950	2798.1	2772.4	-.9	-25.7
1951	3231.6	3232.8	.0	1.2
1952	3158.3	3138.5	-.6	-19.8
1953	3158.5	3158.5	.0	.0
1954	3252.0	3252.0	.0	.0
1955	3252.0	3252.0	.0	.0
1956	2657.8	2682.4	.9	24.6
1957	3184.9	3184.9	.0	.0
1958	3252.0	3252.0	.0	.0
1959	3181.7	3181.7	.0	.0
1960	2625.5	2567.0	-2.2	-58.5
1961	2754.3	2726.3	-1.0	-28.0
1962	2796.8	2857.8	2.2	61.0
1963	3236.5	3236.5	.0	.0
1964	3252.0	3252.0	.0	.0
1965	2633.7	2640.8	.3	7.1
1966	3252.0	3252.0	.0	.0
1967	3202.0	3152.7	-1.5	-49.3
1968	3185.7	3185.7	.0	.0
1969	2907.9	2834.8	-2.5	-73.1
1970	3189.8	3189.8	.0	.0
1971	3252.0	3252.0	.0	.0
1972	3230.0	3230.0	.0	.0
1973	3136.6	3073.7	-2.0	-62.9
1974	3252.0	3252.0	.0	.0
1975	3223.5	3223.5	.0	.0
1976	3252.0	3252.0	.0	.0
1977	2501.3	2506.3	.2	5.0
1978	610.7	676.5	10.8	65.8
1979	3129.2	3128.9	.0	-.3
1980	2943.3	2982.0	1.3	38.7
1981	3086.8	3086.8	.0	.0
1982	3252.0	3252.0	.0	.0
1983	3252.0	3252.0	.0	.0
1984	3252.0	3252.0	.0	.0
1985	3252.0	3252.0	.0	.0
1986	2556.6	2574.9	.7	18.3
1987	2855.0	2855.0	.0	.0
1988	2378.9	2289.5	-3.8	-89.4
1989	2346.2	2367.2	.9	21.0
1990	2689.6	2676.6	-.5	-13.0
1991	2072.3	2037.9	-1.7	-34.4
Mean:	2738.1	2738.0	.1	-.1
Median:	2920.4	2897.7	.0	.0
Min:	610.7	676.5	-3.8	-89.4
Max:	3252.0	3252.0	10.8	69.4
Littoral Habitat(ac)	1202.2	1201.7	.0	-.4

SHASTA RESERVOIR STORAGE
December

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	2840.8	2840.8	.0	.0
1923	3032.9	3032.9	.0	.0
1924	2231.4	2231.6	.0	.2
1925	1164.2	1163.4	-.1	-.8
1926	2496.9	2547.7	2.0	50.8
1927	3221.4	3228.6	.2	7.2
1928	3270.9	3270.9	.0	.0
1929	2623.4	2642.0	.7	18.6
1930	2499.6	2520.0	.8	20.4
1931	2279.3	2256.5	-1.0	-22.8
1932	1190.8	1167.7	-1.9	-23.1
1933	1295.4	1364.3	5.3	68.9
1934	1492.4	1521.2	1.9	28.8
1935	1291.6	1278.9	-1.0	-12.7
1936	1752.9	1766.4	.8	13.5
1937	1819.6	1832.8	.7	13.2
1938	3310.0	3310.0	.0	.0
1939	3238.8	3238.8	.0	.0
1940	2281.3	2238.2	-1.9	-43.1
1941	3293.0	3293.0	.0	.0
1942	3316.0	3316.0	.0	.0
1943	3356.0	3356.0	.0	.0
1944	3088.6	3088.6	.0	.0
1945	2884.5	2911.7	.9	27.2
1946	3265.0	3265.0	.0	.0
1947	2869.3	2890.8	.7	21.5
1948	2510.3	2522.4	.5	12.1
1949	3084.9	3090.8	.2	5.9
1950	2667.9	2657.5	-.4	-10.4
1951	3322.0	3322.0	.0	.0
1952	3306.0	3306.0	.0	.0
1953	3345.0	3345.0	.0	.0
1954	3331.3	3331.3	.0	.0
1955	3360.0	3360.0	.0	.0
1956	3252.0	3252.0	.0	.0
1957	3105.6	3105.6	.0	.0
1958	3338.0	3338.0	.0	.0
1959	3130.4	3130.4	.0	.0
1960	2597.9	2554.7	-1.7	-43.2
1961	3122.0	3093.9	-.9	-28.1
1962	3044.5	3090.1	1.5	45.6
1963	3349.0	3349.0	.0	.0
1964	3249.1	3249.1	.0	.0
1965	3252.0	3252.0	.0	.0
1966	3305.7	3305.7	.0	.0
1967	3335.0	3335.0	.0	.0
1968	3189.0	3189.0	.0	.0
1969	3136.7	3063.7	-2.3	-73.0
1970	3317.0	3317.0	.0	.0
1971	3319.0	3319.0	.0	.0
1972	3285.2	3285.2	.0	.0
1973	3319.8	3272.3	-1.4	-47.5
1974	3267.0	3267.0	.0	.0
1975	3266.9	3266.9	.0	.0
1976	3241.9	3241.9	.0	.0
1977	2389.7	2422.6	1.4	32.9
1978	994.5	1064.1	7.0	69.6
1979	3019.6	3019.3	.0	-.3
1980	2986.4	3015.8	1.0	29.4
1981	3128.2	3128.2	.0	.0
1982	3276.0	3276.0	.0	.0
1983	3331.0	3331.0	.0	.0
1984	3285.0	3285.0	.0	.0
1985	3362.0	3362.0	.0	.0
1986	2689.3	2707.6	.7	18.3
1987	2794.1	2794.1	.0	.0
1988	2876.6	2787.2	-3.1	-89.4
1989	2445.4	2466.4	.9	21.0
1990	2625.9	2616.0	-.4	-9.9
1991	1973.9	1930.2	-2.2	-43.7
Mean:	2841.9	2842.7	.1	.8
Median:	3122.0	3093.9	.0	.0
Min:	994.5	1064.1	-3.1	-89.4
Max:	3362.0	3362.0	7.0	69.6
Littoral Habitat(ac)	1739.7	1743.9	.2	4.2

SHASTA RESERVOIR STORAGE
January

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	2869.0	2869.0	.0	.0
1923	3125.1	3125.1	.0	.0
1924	2232.2	2232.4	.0	.2
1925	1285.2	1284.3	-.1	-.9
1926	2515.5	2566.2	2.0	50.7
1927	3613.7	3620.8	.2	7.1
1928	3416.2	3416.2	.0	.0
1929	2653.6	2672.1	.7	18.5
1930	2683.2	2703.6	.8	20.4
1931	2332.1	2309.2	-1.0	-22.9
1932	1332.9	1309.8	-1.7	-23.1
1933	1326.4	1395.3	5.2	68.9
1934	1789.2	1802.6	.7	13.4
1935	1590.4	1577.8	-.8	-12.6
1936	2367.9	2381.4	.6	13.5
1937	1793.9	1807.1	.7	13.2
1938	3574.2	3574.2	.0	.0
1939	3227.2	3227.2	.0	.0
1940	3128.7	3085.6	-1.4	-43.1
1941	3317.0	3317.0	.0	.0
1942	3389.0	3389.0	.0	.0
1943	3541.0	3541.0	.0	.0
1944	3062.1	3062.1	.0	.0
1945	3008.8	3011.4	.1	2.6
1946	3622.0	3622.0	.0	.0
1947	2826.6	2848.1	.8	21.5
1948	3041.6	3053.7	.4	12.1
1949	3000.3	3006.2	.2	5.9
1950	2887.4	2889.3	.1	1.9
1951	3624.0	3624.0	.0	.0
1952	3604.0	3604.0	.0	.0
1953	3366.0	3366.0	.0	.0
1954	3552.0	3552.0	.0	.0
1955	3366.3	3366.3	.0	.0
1956	3252.0	3252.0	.0	.0
1957	3096.4	3096.4	.0	.0
1958	3531.0	3531.0	.0	.0
1959	3648.0	3648.0	.0	.0
1960	2776.0	2725.0	-1.8	-51.0
1961	3209.8	3197.1	-.4	-12.7
1962	3060.7	3106.3	1.5	45.6
1963	3398.3	3398.3	.0	.0
1964	3559.5	3559.5	.0	.0
1965	3369.0	3369.0	.0	.0
1966	3725.0	3725.0	.0	.0
1967	3551.0	3551.0	.0	.0
1968	3326.3	3326.3	.0	.0
1969	3358.0	3358.0	.0	.0
1970	3252.0	3252.0	.0	.0
1971	3515.0	3515.0	.0	.0
1972	3564.8	3564.8	.0	.0
1973	3552.0	3552.0	.0	.0
1974	3252.0	3252.0	.0	.0
1975	3277.3	3277.3	.0	.0
1976	3185.3	3185.3	.0	.0
1977	2287.2	2324.4	1.6	37.2
1978	2900.2	2972.8	2.5	72.6
1979	3071.8	3071.5	.0	-.3
1980	3528.0	3528.0	.0	.0
1981	3382.0	3382.0	.0	.0
1982	3616.0	3616.0	.0	.0
1983	3373.0	3373.0	.0	.0
1984	3650.0	3650.0	.0	.0
1985	3345.3	3345.3	.0	.0
1986	3209.2	3212.1	.1	2.9
1987	2871.8	2871.8	.0	.0
1988	3234.6	3160.6	-2.3	-74.0
1989	2529.1	2550.0	.8	20.9
1990	2834.0	2824.1	-.3	-9.9
1991	1874.3	1835.6	-2.1	-38.7
Mean:	3031.9	3033.9	.1	2.0
Median:	3227.2	3212.1	.0	.0
Min:	1285.2	1284.3	-2.3	-74.0
Max:	3725.0	3725.0	5.2	72.6
Littoral Habitat(ac)	2707.1	2717.2	.4	10.1

SHASTA RESERVOIR STORAGE
February

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	3173.8	3173.8	.0	.0
1923	3116.8	3112.4	-.1	-4.4
1924	2357.9	2358.1	.0	.2
1925	2554.5	2553.7	.0	-.8
1926	3207.2	3257.9	1.6	50.7
1927	3462.0	3462.0	.0	.0
1928	3776.1	3776.1	.0	.0
1929	2821.6	2840.1	.7	18.5
1930	3024.1	3030.6	.2	6.5
1931	2390.7	2367.9	-1.0	-22.8
1932	1465.2	1442.2	-1.6	-23.0
1933	1363.4	1432.3	5.1	68.9
1934	2102.8	2116.2	.6	13.4
1935	1921.1	1908.5	-.7	-12.6
1936	3229.8	3243.2	.4	13.4
1937	1882.1	1895.3	.7	13.2
1938	3560.0	3560.0	.0	.0
1939	3231.2	3231.2	.0	.0
1940	3252.0	3252.0	.0	.0
1941	3423.0	3423.0	.0	.0
1942	3516.0	3516.0	.0	.0
1943	3848.0	3848.0	.0	.0
1944	3292.7	3292.7	.0	.0
1945	3702.7	3705.3	.1	2.6
1946	3707.7	3702.9	-.1	-4.8
1947	3032.4	3053.9	.7	21.5
1948	3044.5	3056.6	.4	12.1
1949	3113.2	3119.2	.2	6.0
1950	3241.2	3243.1	.1	1.9
1951	3794.0	3794.0	.0	.0
1952	3739.0	3739.0	.0	.0
1953	3593.9	3593.9	.0	.0
1954	3661.0	3661.0	.0	.0
1955	3391.4	3391.4	.0	.0
1956	3288.0	3288.0	.0	.0
1957	3675.0	3675.0	.0	.0
1958	3252.0	3252.0	.0	.0
1959	3777.0	3777.0	.0	.0
1960	3459.7	3408.7	-1.5	-51.0
1961	3813.3	3814.5	.0	1.2
1962	3675.0	3675.0	.0	.0
1963	3944.0	3944.0	.0	.0
1964	3622.5	3622.5	.0	.0
1965	3658.1	3658.1	.0	.0
1966	4037.0	4037.0	.0	.0
1967	3920.0	3920.0	.0	.0
1968	3659.0	3659.0	.0	.0
1969	3480.0	3480.0	.0	.0
1970	3431.0	3431.0	.0	.0
1971	3830.0	3830.0	.0	.0
1972	3842.7	3842.7	.0	.0
1973	3636.0	3636.0	.0	.0
1974	3694.0	3694.0	.0	.0
1975	3878.7	3878.7	.0	.0
1976	3281.2	3281.2	.0	.0
1977	2119.1	2157.7	1.8	38.6
1978	3650.0	3650.0	.0	.0
1979	3340.7	3340.4	.0	-.3
1980	3292.0	3292.0	.0	.0
1981	3706.2	3706.2	.0	.0
1982	3530.0	3530.0	.0	.0
1983	3252.0	3252.0	.0	.0
1984	3944.4	3944.4	.0	.0
1985	3394.4	3394.4	.0	.0
1986	3252.0	3252.0	.0	.0
1987	3149.6	3149.6	.0	.0
1988	3312.6	3252.6	-1.8	-60.0
1989	2610.6	2631.5	.8	20.9
1990	2881.2	2871.3	-.3	-9.9
1991	1758.6	1711.4	-2.7	-47.2
Mean:	3257.7	3258.5	.1	.8
Median:	3391.4	3391.4	.0	.0
Min:	1363.4	1432.3	-2.7	-60.0
Max:	4037.0	4037.0	5.1	68.9
Littoral Habitat(ac)	3832.4	3836.1	.1	3.7

SHASTA RESERVOIR STORAGE
March

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	3465.0	3465.0	.0	.0
1923	3135.4	3126.6	-.3	-8.8
1924	2348.9	2348.7	.0	-.2
1925	2692.8	2696.2	.1	3.4
1926	3297.0	3347.6	1.5	50.6
1927	3983.6	3975.8	-.2	-7.8
1928	3965.0	3965.0	.0	.0
1929	2969.7	2988.2	.6	18.5
1930	3455.6	3462.1	.2	6.5
1931	2492.8	2462.4	-1.2	-30.4
1932	1890.5	1867.4	-1.2	-23.1
1933	1949.2	2018.0	3.5	68.8
1934	2352.0	2365.4	.6	13.4
1935	2312.8	2300.2	-.5	-12.6
1936	3476.5	3490.0	.4	13.5
1937	2545.0	2558.2	.5	13.2
1938	3416.0	3416.0	.0	.0
1939	3526.9	3526.9	.0	.0
1940	3435.0	3435.0	.0	.0
1941	3940.0	3940.0	.0	.0
1942	3731.7	3731.7	.0	.0
1943	4118.0	4118.0	.0	.0
1944	3498.4	3498.4	.0	.0
1945	3875.3	3877.9	.1	2.6
1946	3958.1	3948.4	-.2	-9.7
1947	3512.8	3518.9	.2	6.1
1948	3307.0	3319.0	.4	12.0
1949	4063.8	4069.7	.1	5.9
1950	3583.9	3585.8	.1	1.9
1951	4127.5	4127.5	.0	.0
1952	4022.0	4022.0	.0	.0
1953	3959.3	3959.3	.0	.0
1954	4106.0	4106.0	.0	.0
1955	3439.2	3439.2	.0	.0
1956	3929.8	3929.8	.0	.0
1957	4129.0	4129.0	.0	.0
1958	3416.0	3416.0	.0	.0
1959	4078.5	4083.0	.1	4.5
1960	4012.5	3961.5	-1.3	-51.0
1961	4213.7	4215.0	.0	1.3
1962	3990.9	3995.7	.1	4.8
1963	4226.0	4226.0	.0	.0
1964	3635.7	3635.7	.0	.0
1965	3757.2	3757.2	.0	.0
1966	4229.0	4229.0	.0	.0
1967	4033.0	4033.0	.0	.0
1968	4119.8	4119.8	.0	.0
1969	4030.0	4030.0	.0	.0
1970	3971.4	3971.4	.0	.0
1971	3873.0	3873.0	.0	.0
1972	4249.0	4249.0	.0	.0
1973	4162.0	4162.0	.0	.0
1974	3416.0	3416.0	.0	.0
1975	3800.0	3800.0	.0	.0
1976	3405.4	3405.4	.0	.0
1977	1874.9	1926.5	2.8	51.6
1978	3960.0	3960.0	.0	.0
1979	3727.0	3726.7	.0	-.3
1980	3947.3	3947.3	.0	.0
1981	4193.1	4193.1	.0	.0
1982	3953.0	3953.0	.0	.0
1983	3416.0	3416.0	.0	.0
1984	4487.6	4487.6	.0	.0
1985	3484.2	3484.2	.0	.0
1986	3534.0	3534.0	.0	.0
1987	3802.1	3802.1	.0	.0
1988	3322.0	3264.7	-1.7	-57.3
1989	3841.0	3841.0	.0	.0
1990	3118.7	3108.8	-.3	-9.9
1991	2191.5	2144.3	-2.2	-47.2
Mean:	3564.0	3564.3	.0	.3
Median:	3731.7	3731.7	.0	.0
Min:	1874.9	1867.4	-2.2	-57.3
Max:	4487.6	4487.6	3.5	68.8
Littoral Habitat(ac)	5319.3	5320.7	.0	1.4

SHASTA RESERVOIR STORAGE
April

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	3946.0	3946.0	.0	.0
1923	3432.7	3420.0	-.4	-12.7
1924	2126.7	2126.5	.0	-.2
1925	3375.6	3379.1	.1	3.5
1926	3580.3	3630.9	1.4	50.6
1927	4552.0	4552.0	.0	.0
1928	4414.8	4414.8	.0	.0
1929	3059.0	3062.6	.1	3.6
1930	3597.6	3604.1	.2	6.5
1931	2208.7	2179.1	-1.3	-29.6
1932	2029.6	2024.1	-.3	-5.5
1933	2042.0	2102.6	3.0	60.6
1934	2355.6	2341.1	-.6	-14.5
1935	3292.2	3279.7	-.4	-12.5
1936	3706.6	3720.1	.4	13.5
1937	3239.1	3252.3	.4	13.2
1938	4058.0	4058.0	.0	.0
1939	3539.7	3522.7	-.5	-17.0
1940	4148.2	4148.2	.0	.0
1941	4456.0	4456.0	.0	.0
1942	4341.9	4341.9	.0	.0
1943	4524.6	4524.6	.0	.0
1944	3618.6	3627.3	.2	8.7
1945	4010.2	4012.8	.1	2.6
1946	4150.5	4155.8	.1	5.3
1947	3665.8	3678.9	.4	13.1
1948	4204.3	4216.4	.3	12.1
1949	4394.6	4400.5	.1	5.9
1950	3912.0	3913.9	.0	1.9
1951	4243.9	4243.9	.0	.0
1952	4290.0	4290.0	.0	.0
1953	4271.6	4271.6	.0	.0
1954	4546.0	4546.0	.0	.0
1955	3742.8	3742.8	.0	.0
1956	4394.9	4394.9	.0	.0
1957	4280.7	4284.6	.1	3.9
1958	4173.0	4173.0	.0	.0
1959	4178.4	4184.0	.1	5.6
1960	4111.8	4066.3	-1.1	-45.5
1961	4228.3	4284.7	1.3	56.4
1962	4252.8	4257.6	.1	4.8
1963	4137.0	4137.0	.0	.0
1964	3575.7	3587.8	.3	12.1
1965	4477.8	4477.8	.0	.0
1966	4552.0	4552.0	.0	.0
1967	4479.0	4479.0	.0	.0
1968	4168.8	4168.8	.0	.0
1969	4434.0	4434.0	.0	.0
1970	4047.6	4047.6	.0	.0
1971	4394.1	4394.1	.0	.0
1972	4492.8	4492.8	.0	.0
1973	4395.7	4395.7	.0	.0
1974	4289.0	4289.0	.0	.0
1975	4328.2	4328.2	.0	.0
1976	3537.5	3537.5	.0	.0
1977	1595.2	1650.7	3.5	55.5
1978	4552.0	4552.0	.0	.0
1979	3875.1	3874.8	.0	-.3
1980	4192.3	4192.3	.0	.0
1981	4301.7	4301.7	.0	.0
1982	4093.0	4093.0	.0	.0
1983	4074.0	4074.0	.0	.0
1984	4552.0	4552.0	.0	.0
1985	3635.8	3635.8	.0	.0
1986	3823.2	3823.2	.0	.0
1987	3688.3	3688.5	.0	.2
1988	3382.1	3339.7	-1.3	-42.4
1989	4171.2	4171.2	.0	.0
1990	3055.6	2993.5	-2.0	-62.1
1991	2340.9	2293.8	-2.0	-47.1
Mean:	3847.7	3848.4	.0	.7
Median:	4111.8	4093.0	.0	.0
Min:	1595.2	1650.7	-2.0	-62.1
Max:	4552.0	4552.0	3.5	60.6
Littoral Habitat(ac)	6660.2	6663.6	.1	3.3

SHASTA RESERVOIR STORAGE
May

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	4255.4	4255.4	.0	.0
1923	3358.1	3348.7	-.3	-9.4
1924	1949.4	1949.2	.0	-.2
1925	3626.5	3651.9	.7	25.4
1926	3515.9	3566.4	1.4	50.5
1927	4552.0	4552.0	.0	.0
1928	4322.4	4322.4	.0	.0
1929	2940.7	2922.2	-.6	-18.5
1930	3583.8	3590.3	.2	6.5
1931	2031.4	2020.8	-.5	-10.6
1932	2179.2	2192.0	.6	12.8
1933	2064.3	2124.8	2.9	60.5
1934	2172.2	2157.7	-.7	-14.5
1935	3446.1	3462.0	.5	15.9
1936	3552.8	3566.1	.4	13.3
1937	3363.9	3380.6	.5	16.7
1938	4552.0	4552.0	.0	.0
1939	3275.5	3254.2	-.7	-21.3
1940	4279.3	4267.2	-.3	-12.1
1941	4552.0	4552.0	.0	.0
1942	4552.0	4552.0	.0	.0
1943	4552.0	4552.0	.0	.0
1944	3635.9	3655.8	.5	19.9
1945	4091.6	4094.1	.1	2.5
1946	4172.5	4189.6	.4	17.1
1947	3382.9	3414.6	.9	31.7
1948	4552.0	4552.0	.0	.0
1949	4421.2	4425.1	.1	3.9
1950	3833.1	3834.3	.0	1.2
1951	4430.3	4430.3	.0	.0
1952	4552.0	4552.0	.0	.0
1953	4552.0	4552.0	.0	.0
1954	4481.5	4484.9	.1	3.4
1955	4022.1	4040.9	.5	18.8
1956	4552.0	4552.0	.0	.0
1957	4552.0	4552.0	.0	.0
1958	4552.0	4552.0	.0	.0
1959	4074.1	4060.8	-.3	-13.3
1960	4247.8	4212.0	-.8	-35.8
1961	4159.0	4198.7	1.0	39.7
1962	4206.9	4211.8	.1	4.9
1963	4552.0	4552.0	.0	.0
1964	3483.7	3514.5	.9	30.8
1965	4496.3	4496.3	.0	.0
1966	4319.1	4314.2	-.1	-4.9
1967	4552.0	4552.0	.0	.0
1968	4099.8	4099.8	.0	.0
1969	4552.0	4552.0	.0	.0
1970	4020.3	4020.3	.0	.0
1971	4552.0	4552.0	.0	.0
1972	4245.6	4225.5	-.5	-20.1
1973	4529.1	4529.1	.0	.0
1974	4552.0	4552.0	.0	.0
1975	4552.0	4552.0	.0	.0
1976	3461.2	3426.4	-1.0	-34.8
1977	1602.7	1665.5	3.9	62.8
1978	4552.0	4552.0	.0	.0
1979	4120.7	4120.5	.0	-.2
1980	4283.6	4283.6	.0	.0
1981	4069.8	4052.2	-.4	-17.6
1982	4549.6	4549.6	.0	.0
1983	4552.0	4552.0	.0	.0
1984	4444.2	4424.0	-.5	-20.2
1985	3550.8	3539.9	-.3	-10.9
1986	3932.4	3932.4	.0	.0
1987	3433.8	3381.5	-1.5	-52.3
1988	3273.8	3239.4	-1.1	-34.4
1989	4027.4	3992.9	-.9	-34.5
1990	3138.4	3061.0	-2.5	-77.4
1991	2350.0	2321.5	-1.2	-28.5
Mean:	3899.9	3899.5	.0	-.5
Median:	4159.0	4189.6	.0	.0
Min:	1602.7	1665.5	-2.5	-77.4
Max:	4552.0	4552.0	3.9	62.8
Littoral Habitat(ac)	6903.8	6901.6	.0	-2.2

SHASTA RESERVOIR STORAGE
June

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	4051.8	4051.8	.0	.0
1923	3126.8	3123.1	-.1	-3.7
1924	1659.7	1658.3	-.1	-1.4
1925	3480.7	3526.7	1.3	46.0
1926	3179.2	3208.9	.9	29.7
1927	4400.0	4400.0	.0	.0
1928	4033.4	4018.0	-.4	-15.4
1929	2801.8	2833.3	1.1	31.5
1930	3306.3	3308.1	.1	1.8
1931	1822.1	1811.5	-.6	-10.6
1932	2100.0	2100.0	.0	.0
1933	1970.9	2008.6	1.9	37.7
1934	1860.8	1859.5	-.1	-1.3
1935	3105.7	3125.8	.6	20.1
1936	3358.9	3372.2	.4	13.3
1937	3203.4	3223.6	.6	20.2
1938	4400.0	4400.0	.0	.0
1939	2958.6	2921.6	-1.3	-37.0
1940	4041.0	4028.9	-.3	-12.1
1941	4400.0	4400.0	.0	.0
1942	4400.0	4400.0	.0	.0
1943	4350.5	4350.5	.0	.0
1944	3399.6	3402.9	.1	3.3
1945	3880.7	3883.3	.1	2.6
1946	3934.0	3951.0	.4	17.0
1947	3289.9	3316.6	.8	26.7
1948	4400.0	4400.0	.0	.0
1949	3996.5	3995.7	.0	-.8
1950	3562.5	3563.7	.0	1.2
1951	4132.7	4132.7	.0	.0
1952	4400.0	4400.0	.0	.0
1953	4400.0	4400.0	.0	.0
1954	4288.9	4279.8	-.2	-9.1
1955	3503.0	3621.3	3.4	118.3
1956	4400.0	4400.0	.0	.0
1957	4400.0	4389.2	-.2	-10.8
1958	4400.0	4400.0	.0	.0
1959	3651.3	3631.6	-.5	-19.7
1960	3787.3	3763.1	-.6	-24.2
1961	3820.6	3909.3	2.3	88.7
1962	3958.8	3955.8	-.1	-3.0
1963	4400.0	4400.0	.0	.0
1964	3410.4	3459.4	1.4	49.0
1965	4336.8	4336.8	.0	.0
1966	3968.5	3938.6	-.8	-29.9
1967	4400.0	4400.0	.0	.0
1968	3775.2	3736.5	-1.0	-38.7
1969	4400.0	4400.0	.0	.0
1970	3855.7	3855.7	.0	.0
1971	4400.0	4400.0	.0	.0
1972	4014.1	3989.7	-.6	-24.4
1973	4297.7	4287.8	-.2	-9.9
1974	4400.0	4400.0	.0	.0
1975	4400.0	4400.0	.0	.0
1976	3224.0	3200.5	-.7	-23.5
1977	1414.6	1475.5	4.3	60.9
1978	4269.6	4269.6	.0	.0
1979	3755.6	3762.2	.2	6.6
1980	4129.7	4129.7	.0	.0
1981	3737.2	3703.7	-.9	-33.5
1982	4400.0	4400.0	.0	.0
1983	4503.2	4503.2	.0	.0
1984	4273.0	4257.9	-.4	-15.1
1985	3283.4	3271.6	-.4	-11.8
1986	3677.0	3677.0	.0	.0
1987	3062.9	3012.4	-1.6	-50.5
1988	2980.1	2989.4	.3	9.3
1989	3658.5	3619.6	-1.1	-38.9
1990	3049.8	2974.6	-2.5	-75.2
1991	2165.6	2155.9	-.4	-9.7
Mean:	3675.1	3676.2	.1	1.1
Median:	3855.7	3883.3	.0	.0
Min:	1414.6	1475.5	-2.5	-75.2
Max:	4503.2	4503.2	4.3	118.3
Littoral Habitat(ac)	5848.4	5853.4	.1	5.0

SHASTA RESERVOIR STORAGE
July

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	3695.0	3695.0	.0	.0
1923	2785.6	2783.3	-.1	-2.3
1924	1350.8	1350.0	-.1	-.8
1925	3107.9	3180.0	2.3	72.1
1926	2821.5	2828.7	.3	7.2
1927	3900.0	3900.0	.0	.0
1928	3368.4	3433.0	1.9	64.6
1929	2492.5	2498.6	.2	6.1
1930	2947.4	2924.3	-.8	-23.1
1931	1488.7	1474.1	-1.0	-14.6
1932	1849.2	1899.3	2.7	50.1
1933	1756.4	1785.5	1.7	29.1
1934	1561.8	1553.8	-.5	-8.0
1935	2653.2	2677.5	.9	24.3
1936	2868.6	2881.9	.5	13.3
1937	2782.0	2803.9	.8	21.9
1938	3946.2	3946.2	.0	.0
1939	2631.7	2591.7	-1.5	-40.0
1940	3626.8	3580.1	-1.3	-46.7
1941	3975.6	3975.6	.0	.0
1942	3954.6	3954.6	.0	.0
1943	3900.0	3900.0	.0	.0
1944	3020.0	3030.4	.3	10.4
1945	3354.5	3366.2	.3	11.7
1946	3484.3	3505.9	.6	21.6
1947	2916.5	2916.0	.0	-.5
1948	3900.0	3900.0	.0	.0
1949	3578.7	3522.3	-1.6	-56.4
1950	3135.3	3136.5	.0	1.2
1951	3698.6	3663.8	-.9	-34.8
1952	3956.6	3956.6	.0	.0
1953	3951.6	3951.6	.0	.0
1954	3746.9	3728.8	-.5	-18.1
1955	3132.3	3225.4	3.0	93.1
1956	3924.2	3924.2	.0	.0
1957	3900.0	3900.0	.0	.0
1958	3999.6	3999.6	.0	.0
1959	3037.0	3009.1	-.9	-27.9
1960	3268.2	3256.4	-.4	-11.8
1961	3300.9	3413.0	3.4	112.1
1962	3595.8	3547.6	-1.3	-48.2
1963	3900.0	3900.0	.0	.0
1964	3076.2	3085.2	.3	9.0
1965	3900.0	3900.0	.0	.0
1966	3485.8	3448.3	-1.1	-37.5
1967	3952.6	3952.6	.0	.0
1968	3233.6	3152.0	-2.5	-81.6
1969	3928.5	3928.5	.0	.0
1970	3285.5	3269.8	-.5	-15.7
1971	3962.3	3962.3	.0	.0
1972	3433.9	3412.8	-.6	-21.1
1973	3865.5	3840.5	-.6	-25.0
1974	3989.6	3989.6	.0	.0
1975	3947.6	3947.6	.0	.0
1976	2908.9	2895.5	-.5	-13.4
1977	1091.0	1151.5	5.5	60.5
1978	3900.0	3900.0	.0	.0
1979	3295.8	3346.2	1.5	50.4
1980	3862.8	3862.8	.0	.0
1981	3348.7	3315.7	-1.0	-33.0
1982	3934.2	3934.2	.0	.0
1983	4143.5	4143.5	.0	.0
1984	3846.0	3803.8	-1.1	-42.2
1985	2985.5	2972.9	-.4	-12.6
1986	3356.5	3356.5	.0	.0
1987	2783.5	2720.3	-2.3	-63.2
1988	2571.0	2592.1	.8	21.1
1989	3176.2	3166.0	-.3	-10.2
1990	2596.1	2569.4	-1.0	-26.7
1991	1926.0	1935.6	.5	9.6
Mean:	3257.9	3257.5	.1	-.4
Median:	3354.5	3366.2	.0	.0
Min:	1091.0	1151.5	-2.5	-81.6
Max:	4143.5	4143.5	5.5	112.1
Littoral Habitat(ac)	3833.1	3831.3	.0	-1.8

SHASTA RESERVOIR STORAGE
August

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	3350.0	3350.0	.0	.0
1923	2436.9	2437.7	.0	.8
1924	1018.5	1017.6	-.1	-.9
1925	2686.1	2782.9	3.6	96.8
1926	2445.9	2453.0	.3	7.1
1927	3350.0	3350.0	.0	.0
1928	2930.8	2949.5	.6	18.7
1929	2185.1	2204.8	.9	19.7
1930	2544.3	2521.3	-.9	-23.0
1931	1148.7	1125.4	-2.0	-23.3
1932	1535.9	1604.6	4.5	68.7
1933	1511.7	1540.6	1.9	28.9
1934	1292.3	1279.6	-1.0	-12.7
1935	2085.2	2113.2	1.3	28.0
1936	2302.9	2316.2	.6	13.3
1937	2339.4	2381.3	1.8	41.9
1938	3350.0	3350.0	.0	.0
1939	2292.6	2253.7	-1.7	-38.9
1940	3242.8	3188.0	-1.7	-54.8
1941	3417.6	3417.6	.0	.0
1942	3363.6	3363.6	.0	.0
1943	3350.0	3350.0	.0	.0
1944	2672.6	2699.9	1.0	27.3
1945	2968.1	2979.8	.4	11.7
1946	3125.9	3147.5	.7	21.6
1947	2605.4	2617.6	.5	12.2
1948	3350.0	3350.0	.0	.0
1949	3219.4	3163.2	-1.7	-56.2
1950	2744.7	2745.8	.0	1.1
1951	3342.0	3307.2	-1.0	-34.8
1952	3350.0	3350.0	.0	.0
1953	3351.9	3351.9	.0	.0
1954	3350.0	3350.0	.0	.0
1955	2819.4	2874.6	2.0	55.2
1956	3350.0	3350.0	.0	.0
1957	3350.0	3350.0	.0	.0
1958	3452.2	3452.2	.0	.0
1959	2774.2	2685.0	-3.2	-89.2
1960	2899.5	2871.4	-1.0	-28.1
1961	2939.2	3030.9	3.1	91.7
1962	3265.3	3185.8	-2.4	-79.5
1963	3350.0	3350.0	.0	.0
1964	2739.7	2746.9	.3	7.2
1965	3350.0	3350.0	.0	.0
1966	3222.2	3127.4	-2.9	-94.8
1967	3382.1	3382.1	.0	.0
1968	3100.6	3027.2	-2.4	-73.4
1969	3350.0	3350.0	.0	.0
1970	3049.8	3021.0	-.9	-28.8
1971	3350.0	3350.0	.0	.0
1972	3120.6	3027.1	-3.0	-93.5
1973	3350.0	3350.0	.0	.0
1974	3437.0	3437.0	.0	.0
1975	3367.8	3367.8	.0	.0
1976	2593.6	2598.6	.2	5.0
1977	761.9	820.1	7.6	58.2
1978	3350.0	3350.0	.0	.0
1979	3073.8	3112.6	1.3	38.8
1980	3350.0	3350.0	.0	.0
1981	2952.8	2909.8	-1.5	-43.0
1982	3350.0	3350.0	.0	.0
1983	3660.3	3660.3	.0	.0
1984	3350.0	3350.0	.0	.0
1985	2655.4	2673.7	.7	18.3
1986	3063.6	3063.6	.0	.0
1987	2530.0	2473.0	-2.3	-57.0
1988	2282.8	2303.4	.9	20.6
1989	2785.2	2766.1	-.7	-19.1
1990	2278.5	2256.4	-1.0	-22.1
1991	1726.4	1736.6	.6	10.2
Mean:	2843.5	2841.1	.0	-2.4
Median:	3063.6	3027.2	.0	.0
Min:	761.9	820.1	-3.2	-94.8
Max:	3660.3	3660.3	7.6	96.8
Littoral Habitat(ac)	1747.8	1735.2	-.7	-12.5

SHASTA RESERVOIR STORAGE
September

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	3190.9	3190.9	.0	.0
1923	2273.8	2274.6	.0	.8
1924	908.8	908.0	-.1	-.8
1925	2517.5	2614.0	3.8	96.5
1926	2257.8	2265.0	.3	7.2
1927	3300.0	3300.0	.0	.0
1928	2765.7	2784.3	.7	18.6
1929	2000.7	2020.4	1.0	19.7
1930	2365.0	2342.0	-1.0	-23.0
1931	1030.2	1007.0	-2.3	-23.2
1932	1416.2	1485.8	4.9	69.6
1933	1409.2	1438.1	2.1	28.9
1934	1149.9	1137.2	-1.1	-12.7
1935	1905.9	1920.1	.7	14.2
1936	2109.2	2122.4	.6	13.2
1937	2146.6	2188.4	1.9	41.8
1938	3300.0	3300.0	.0	.0
1939	2117.9	2079.1	-1.8	-38.8
1940	3084.9	3030.3	-1.8	-54.6
1941	3300.0	3300.0	.0	.0
1942	3300.0	3300.0	.0	.0
1943	3300.0	3300.0	.0	.0
1944	2508.0	2535.3	1.1	27.3
1945	2810.8	2822.5	.4	11.7
1946	2972.3	2993.9	.7	21.6
1947	2440.0	2452.1	.5	12.1
1948	3237.2	3243.2	.2	6.0
1949	3038.6	2982.5	-1.8	-56.1
1950	2568.9	2570.1	.0	1.2
1951	3173.9	3139.2	-1.1	-34.7
1952	3300.0	3300.0	.0	.0
1953	3300.0	3300.0	.0	.0
1954	3247.8	3247.8	.0	.0
1955	2672.5	2727.5	2.1	55.0
1956	3300.0	3300.0	.0	.0
1957	3300.0	3300.0	.0	.0
1958	3300.0	3300.0	.0	.0
1959	2685.3	2596.4	-3.3	-88.9
1960	2750.4	2722.4	-1.0	-28.0
1961	2784.0	2875.5	3.3	91.5
1962	3100.4	3021.0	-2.6	-79.4
1963	3300.0	3300.0	.0	.0
1964	2572.0	2579.1	.3	7.1
1965	3300.0	3300.0	.0	.0
1966	3073.4	2978.8	-3.1	-94.6
1967	3300.0	3300.0	.0	.0
1968	2974.0	2900.8	-2.5	-73.2
1969	3300.0	3300.0	.0	.0
1970	2921.4	2892.6	-1.0	-28.8
1971	3300.0	3300.0	.0	.0
1972	3004.0	2910.7	-3.1	-93.3
1973	3231.8	3231.8	.0	.0
1974	3300.0	3300.0	.0	.0
1975	3300.0	3300.0	.0	.0
1976	2471.2	2476.2	.2	5.0
1977	739.8	797.9	7.9	58.1
1978	3255.8	3255.8	.0	.0
1979	2914.3	2953.1	1.3	38.8
1980	3236.8	3236.8	.0	.0
1981	2782.6	2739.6	-1.5	-43.0
1982	3300.0	3300.0	.0	.0
1983	3300.0	3300.0	.0	.0
1984	3249.8	3249.8	.0	.0
1985	2530.8	2549.2	.7	18.4
1986	2963.1	2963.1	.0	.0
1987	2380.7	2323.9	-2.4	-56.8
1988	2126.2	2146.7	1.0	20.5
1989	2646.4	2627.3	-.7	-19.1
1990	2112.9	2090.7	-1.1	-22.2
1991	1635.4	1645.5	.6	10.1
Mean:	2716.6	2714.1	.0	-2.5
Median:	2921.4	2900.8	.0	.0
Min:	739.8	797.9	-3.3	-94.6
Max:	3300.0	3300.0	7.9	96.5
Littoral Habitat(ac)	1089.9	1076.8	-1.2	-13.2

RETURN TO TABLE OF CONTENTS

Section 14

SHASTA RESERVOIR ELEVATION
14.1 Fisheries

SHASTA RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.6	.0	997.6	.0	.0	.0
1923	1009.3	-3.8	1009.3	-3.8	.0	.0
1924	969.7	-.6	969.7	-.6	.0	.0
1925	877.0	1.4	876.9	1.4	.0	-.1
1926	981.9	-.7	985.9	-1.4	.4	4.0
1927	969.5	.1	969.9	.1	.0	.4
1928	1015.5	-2.1	1015.5	-2.1	.0	.0
1929	990.7	-3.7	991.6	-3.7	.1	.9
1930	955.3	.0	956.4	-.1	.1	1.1
1931	973.6	-1.4	972.4	-1.4	-.1	-1.2
1932	884.8	-2.2	882.7	-2.2	-.2	-2.1
1933	913.5	-4.5	918.6	-4.3	.6	5.1
1934	916.0	-1.5	918.1	-1.4	.2	2.1
1935	895.2	-2.1	894.1	-2.2	-.1	-1.1
1936	946.0	-3.8	946.9	-3.8	.1	.9
1937	954.3	-7.1	955.0	-7.1	.1	.7
1938	963.0	-.5	965.3	-.4	.2	2.3
1939	1015.5	-2.1	1015.5	-2.1	.0	.0
1940	962.5	.6	960.3	.5	-.2	-2.2
1941	1004.2	-4.4	1001.8	-4.4	-.2	-2.4
1942	1015.5	-2.1	1015.5	-2.1	.0	.0
1943	1015.5	-2.1	1015.5	-2.1	.0	.0
1944	1015.5	-2.1	1015.5	-2.1	.0	.0
1945	981.1	-1.1	982.4	-1.1	.1	1.3
1946	996.3	-.2	996.8	-.2	.1	.5
1947	999.6	-4.1	1000.5	-4.1	.1	.9
1948	982.0	3.2	982.6	3.2	.1	.6
1949	1015.1	.1	1015.3	.0	.0	.2
1950	1000.9	-5.7	999.1	-5.0	-.2	-1.8
1951	999.4	14.3	999.4	14.2	.0	.0
1952	1008.8	-3.6	1007.3	-3.6	-.1	-1.5
1953	1015.5	-2.1	1015.5	-2.1	.0	.0
1954	1015.5	-2.1	1015.5	-2.1	.0	.0
1955	1015.3	-.2	1013.8	-1.7	-.1	-1.5
1956	987.4	-2.7	989.3	-3.3	.2	1.9
1957	1015.5	-2.1	1015.5	-2.1	.0	.0
1958	1015.5	-2.1	1015.5	-2.1	.0	.0
1959	1015.5	-2.1	1015.5	-2.1	.0	.0
1960	989.3	-1.4	985.8	-.6	-.4	-3.5
1961	991.4	-2.3	990.1	-2.3	-.1	-1.3
1962	992.7	-2.5	996.2	-3.2	.4	3.5
1963	1015.5	6.3	1015.5	9.7	.0	.0
1964	1015.5	-2.1	1015.5	-2.1	.0	.0
1965	983.6	-1.7	984.0	-1.6	.0	.4
1966	1015.5	-2.1	1015.5	-2.1	.0	.0
1967	1003.3	-4.8	999.8	-4.2	-.3	-3.5
1968	1015.5	-2.1	1015.5	-2.1	.0	.0
1969	1001.5	-2.3	998.2	-2.3	-.3	-3.3
1970	1015.5	-2.1	1015.5	-2.1	.0	.0
1971	999.9	-1.5	999.3	-.9	-.1	-.6
1972	1015.5	-2.1	1015.5	-2.1	.0	.0
1973	1003.9	-1.2	1000.5	-.5	-.3	-3.4
1974	1015.5	.7	1015.5	.7	.0	.0
1975	1015.5	-2.1	1015.5	-2.1	.0	.0
1976	1015.5	-2.1	1015.5	-2.1	.0	.0
1977	981.2	.9	981.4	.8	.0	.2
1978	848.4	-9.3	855.7	-8.5	.9	7.3
1979	1013.8	-2.0	1013.8	-2.0	.0	.0
1980	1000.0	-1.1	1001.8	-1.0	.2	1.8
1981	1010.7	-4.3	1010.7	-4.3	.0	.0
1982	993.5	-1.7	991.5	-1.7	-.2	-2.0
1983	1015.5	-2.1	1015.5	-2.1	.0	.0
1984	1015.5	-2.1	1015.5	-2.1	.0	.0
1985	1015.5	.0	1015.5	.0	.0	.0
1986	983.8	.5	984.7	.5	.1	.9
1987	1001.3	-2.0	1001.3	-2.0	.0	.0
1988	974.7	-1.1	971.0	-1.9	-.4	-3.7
1989	963.4	1.0	964.5	1.0	.1	1.1
1990	992.0	3.2	991.3	3.4	-.1	-.7
1991	961.6	.0	960.2	-.2	-.1	-1.4
Mean:	988.3	-1.4	988.3	-1.4	.0	.0
Median:	999.9	-2.1	999.3	-2.1	.0	.0
Min:	848.4	-9.3	855.7	-8.5	-.4	-3.7
Max:	1015.5	14.3	1015.5	14.2	.9	7.3
X inc > 20.0		0		0		
X dec > 9.0		1		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	995.9	.0	995.9	.0	.0	.0
1923	1006.6	-2.7	1006.6	-2.7	.0	.0
1924	968.4	-1.3	968.4	-1.3	.0	.0
1925	890.6	13.6	890.6	13.7	.0	.0
1926	982.3	.4	985.5	-.4	.3	3.2
1927	993.0	23.5	993.4	23.5	.0	.4
1928	1015.6	.1	1015.6	.1	.0	.0
1929	989.3	-1.4	990.1	-1.5	.1	.8
1930	954.0	-1.3	955.2	-1.2	.1	1.2
1931	972.5	-1.1	971.3	-1.1	-.1	-1.2
1932	883.4	-1.4	881.3	-1.4	-.2	-2.1
1933	910.5	-3.0	915.7	-2.9	.6	5.2
1934	914.6	-1.4	916.7	-1.4	.2	2.1
1935	905.7	10.5	904.7	10.6	-.1	-1.0
1936	942.0	-4.0	942.9	-4.0	.1	.9
1937	948.9	-5.4	949.7	-5.3	.1	.8
1938	991.8	28.8	993.7	28.4	.2	1.9
1939	1013.7	-1.8	1013.7	-1.8	.0	.0
1940	962.2	-.3	960.1	-.2	-.2	-2.1
1941	1001.4	-2.8	999.0	-2.8	-.2	-2.4
1942	1013.5	-2.0	1013.5	-2.0	.0	.0
1943	1015.6	.1	1015.6	.1	.0	.0
1944	1012.7	-2.8	1012.7	-2.8	.0	.0
1945	988.2	7.1	989.5	7.1	.1	1.3
1946	1005.4	9.1	1005.9	9.1	.0	.5
1947	999.4	-.2	1000.4	-.1	.1	1.0
1948	982.6	.6	983.2	.6	.1	.6
1949	1011.7	-3.4	1011.9	-3.4	.0	.2
1950	995.9	-5.0	994.7	-4.4	-.1	-1.2
1951	1014.8	15.4	1014.8	15.4	.0	.0
1952	1011.7	2.9	1010.9	3.6	-.1	-.8
1953	1011.7	-3.8	1011.7	-3.8	.0	.0
1954	1015.6	.1	1015.6	.1	.0	.0
1955	1015.6	.3	1015.6	1.8	.0	.0
1956	989.4	2.0	990.5	1.2	.1	1.1
1957	1012.8	-2.7	1012.8	-2.7	.0	.0
1958	1015.6	.1	1015.6	.1	.0	.0
1959	1012.7	-2.8	1012.7	-2.8	.0	.0
1960	987.8	-1.5	985.0	-.8	-.3	-2.8
1961	993.9	2.5	992.6	2.5	-.1	-1.3
1962	995.8	3.1	998.6	2.4	.3	2.8
1963	1015.0	-.5	1015.0	-.5	.0	.0
1964	1015.6	.1	1015.6	.1	.0	.0
1965	988.2	4.6	988.6	4.6	.0	.4
1966	1015.6	.1	1015.6	.1	.0	.0
1967	1013.5	10.2	1011.5	11.7	-.2	-2.0
1968	1012.9	-2.6	1012.9	-2.6	.0	.0
1969	1000.8	-.7	997.6	-.6	-.3	-3.2
1970	1013.0	-2.5	1013.0	-2.5	.0	.0
1971	1015.6	15.7	1015.6	16.3	.0	.0
1972	1014.7	-.8	1014.7	-.8	.0	.0
1973	1010.8	6.9	1008.1	7.6	-.3	-2.7
1974	1015.6	.1	1015.6	.1	.0	.0
1975	1014.4	-1.1	1014.4	-1.1	.0	.0
1976	1015.6	.1	1015.6	.1	.0	.0
1977	981.8	.6	982.1	.7	.0	.3
1978	842.1	-6.3	850.3	-5.4	1.0	8.2
1979	1010.5	-3.3	1010.5	-3.3	.0	.0
1980	1002.4	2.4	1004.1	2.3	.2	1.7
1981	1008.7	-2.0	1008.7	-2.0	.0	.0
1982	1015.6	22.1	1015.6	24.1	.0	.0
1983	1015.6	.1	1015.6	.1	.0	.0
1984	1015.6	.1	1015.6	.1	.0	.0
1985	1015.6	.1	1015.6	.1	.0	.0
1986	984.5	.7	985.4	.7	.1	.9
1987	998.5	-2.8	998.5	-2.8	.0	.0
1988	975.7	1.0	971.1	.1	-.5	-4.6
1989	974.0	10.6	975.1	10.6	.1	1.1
1990	990.9	-1.1	990.3	-1.0	-.1	-.6
1991	959.4	-2.2	957.4	-2.8	-.2	-2.0
Mean:	990.0	1.7	990.1	1.8	.0	.1
Median:	1001.4	.0	1000.4	-.1	.0	.0
Min:	842.1	-6.3	850.3	-5.4	-.5	-4.6
Max:	1015.6	28.8	1015.6	28.4	1.0	8.2
X inc > 20.0		3		3		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.8	.0	997.8	.0	.0	.0
1923	1006.3	-.3	1006.3	-.3	.0	.0
1924	968.0	-.4	968.0	-.4	.0	.0
1925	898.5	7.9	898.5	7.9	.0	.0
1926	981.6	-.7	984.1	-1.4	.3	2.5
1927	1014.4	21.4	1014.7	21.3	.0	.3
1928	1016.4	.8	1016.4	.8	.0	.0
1929	987.7	-1.6	988.6	-1.5	.1	.9
1930	981.7	27.7	982.7	27.5	.1	1.0
1931	970.6	-1.9	969.4	-1.9	-.1	-1.2
1932	900.7	17.3	898.8	17.5	-.2	-1.9
1933	909.0	-1.5	914.2	-1.5	.6	5.2
1934	923.4	8.8	925.4	8.7	.2	2.0
1935	908.7	3.0	907.7	3.0	-.1	-1.0
1936	940.5	-1.5	941.4	-1.5	.1	.9
1937	944.7	-4.2	945.5	-4.2	.1	.8
1938	1018.0	26.2	1018.0	24.3	.0	.0
1939	1015.1	1.4	1015.1	1.4	.0	.0
1940	970.7	8.5	968.4	8.3	-.2	-2.3
1941	1017.3	15.9	1017.3	18.3	.0	.0
1942	1018.3	4.8	1018.3	4.8	.0	.0
1943	1019.9	4.3	1019.9	4.3	.0	.0
1944	1008.7	-4.0	1008.7	-4.0	.0	.0
1945	999.8	11.6	1001.0	11.5	.1	1.2
1946	1016.2	10.8	1016.2	10.3	.0	.0
1947	999.1	-.3	1000.1	-.3	.1	1.0
1948	982.3	-.3	982.9	-.3	.1	.6
1949	1008.6	-3.1	1008.8	-3.1	.0	.2
1950	989.8	-6.1	989.4	-5.3	.0	-.4
1951	1018.5	3.7	1018.5	3.7	.0	.0
1952	1017.9	6.2	1017.9	7.0	.0	.0
1953	1019.4	7.7	1019.4	7.7	.0	.0
1954	1018.9	3.3	1018.9	3.3	.0	.0
1955	1020.1	4.5	1020.1	4.5	.0	.0
1956	1015.6	26.2	1015.6	25.1	.0	.0
1957	1009.5	-3.3	1009.5	-3.3	.0	.0
1958	1019.2	3.6	1019.2	3.6	.0	.0
1959	1010.5	-2.2	1010.5	-2.2	.0	.0
1960	986.5	-1.3	984.4	-.6	-.2	-2.1
1961	1010.2	16.3	1009.0	16.4	-.1	-1.2
1962	1006.8	11.0	1008.8	10.2	.2	2.0
1963	1019.6	4.6	1019.6	4.6	.0	.0
1964	1015.5	-.1	1015.5	-.1	.0	.0
1965	1015.6	27.4	1015.6	27.0	.0	.0
1966	1017.8	2.2	1017.8	2.2	.0	.0
1967	1019.0	5.5	1019.0	7.5	.0	.0
1968	1013.0	.1	1013.0	.1	.0	.0
1969	1010.8	10.0	1007.7	10.1	-.3	-3.1
1970	1018.3	5.3	1018.3	5.3	.0	.0
1971	1018.4	2.8	1018.4	2.8	.0	.0
1972	1017.0	2.3	1017.0	2.3	.0	.0
1973	1018.4	7.6	1016.5	8.4	-.2	-1.9
1974	1016.2	.6	1016.2	.6	.0	.0
1975	1016.2	1.8	1016.2	1.8	.0	.0
1976	1015.2	-.4	1015.2	-.4	.0	.0
1977	976.2	-5.6	977.9	-4.2	.2	1.7
1978	883.7	41.6	890.0	39.7	.7	6.3
1979	1005.8	-4.7	1005.7	-4.8	.0	-.1
1980	1004.3	1.9	1005.6	1.5	.1	1.3
1981	1010.4	1.7	1010.4	1.7	.0	.0
1982	1016.6	1.0	1016.6	1.0	.0	.0
1983	1018.9	3.3	1018.9	3.3	.0	.0
1984	1017.0	1.4	1017.0	1.4	.0	.0
1985	1020.1	4.5	1020.1	4.5	.0	.0
1986	990.9	6.4	991.7	6.3	.1	.8
1987	995.7	-2.8	995.7	-2.8	.0	.0
1988	999.4	23.7	995.4	24.3	-.4	-4.0
1989	979.1	5.1	980.1	5.0	.1	1.0
1990	987.9	-3.0	987.4	-2.9	-.1	-.5
1991	953.8	-5.6	951.3	-6.1	-.3	-2.5
Mean:	995.1	5.1	995.2	5.1	.0	.1
Median:	1010.2	2.3	1009.0	2.3	.0	.0
Min:	883.7	-6.1	890.0	-6.1	-.4	-4.0
Max:	1020.1	41.6	1020.1	39.7	.7	6.3
X inc > 20.0		7		7		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	999.1	.0	999.1	.0	.0	.0
1923	1010.3	4.0	1010.3	4.0	.0	.0
1924	968.1	.1	968.1	.1	.0	.0
1925	908.2	9.7	908.1	9.6	.0	-.1
1926	982.5	.9	985.0	.9	.3	2.5
1927	1030.1	15.7	1030.4	15.7	.0	.3
1928	1022.3	5.9	1022.3	5.9	.0	.0
1929	989.2	1.5	990.0	1.4	.1	.8
1930	990.6	8.9	991.5	8.8	.1	.9
1931	973.3	2.7	972.1	2.7	-.1	-1.2
1932	911.8	11.1	910.1	11.3	-.2	-1.7
1933	911.3	2.3	916.4	2.2	.6	5.1
1934	942.8	19.4	943.6	18.2	.1	.8
1935	930.1	21.4	929.2	21.5	-.1	-.9
1936	975.1	34.6	975.8	34.4	.1	.7
1937	943.1	-1.6	943.9	-1.6	.1	.8
1938	1028.6	10.6	1028.6	10.6	.0	.0
1939	1014.6	-.5	1014.6	-.5	.0	.0
1940	1010.5	39.8	1008.6	40.2	-.2	-1.9
1941	1018.3	1.0	1018.3	1.0	.0	.0
1942	1021.2	2.9	1021.2	2.9	.0	.0
1943	1027.3	7.4	1027.3	7.4	.0	.0
1944	1007.6	-1.1	1007.6	-1.1	.0	.0
1945	1005.3	5.5	1005.4	4.4	.0	.1
1946	1030.4	14.2	1030.4	14.2	.0	.0
1947	997.2	-1.9	998.2	-1.9	.1	1.0
1948	1006.7	24.4	1007.2	24.3	.0	.5
1949	1004.9	-3.7	1005.2	-3.6	.0	.3
1950	999.9	10.1	1000.0	10.6	.0	.1
1951	1030.5	12.0	1030.5	12.0	.0	.0
1952	1029.7	11.8	1029.7	11.8	.0	.0
1953	1020.3	.9	1020.3	.9	.0	.0
1954	1027.7	8.8	1027.7	8.8	.0	.0
1955	1020.3	.2	1020.3	.2	.0	.0
1956	1015.6	.0	1015.6	.0	.0	.0
1957	1009.1	-.4	1009.1	-.4	.0	.0
1958	1026.9	7.7	1026.9	7.7	.0	.0
1959	1031.4	20.9	1031.4	20.9	.0	.0
1960	994.9	8.4	992.5	8.1	-.2	-2.4
1961	1013.9	3.7	1013.3	4.3	-.1	-.6
1962	1007.5	.7	1009.5	.7	.2	2.0
1963	1021.6	2.0	1021.6	2.0	.0	.0
1964	1028.0	12.5	1028.0	12.5	.0	.0
1965	1020.4	4.8	1020.4	4.8	.0	.0
1966	1034.4	16.6	1034.4	16.6	.0	.0
1967	1027.7	8.7	1027.7	8.7	.0	.0
1968	1018.7	5.7	1018.7	5.7	.0	.0
1969	1020.0	9.2	1020.0	12.3	.0	.0
1970	1015.6	-2.7	1015.6	-2.7	.0	.0
1971	1026.3	7.9	1026.3	7.9	.0	.0
1972	1028.2	11.2	1028.2	11.2	.0	.0
1973	1027.7	9.3	1027.7	11.2	.0	.0
1974	1015.6	-.6	1015.6	-.6	.0	.0
1975	1016.7	.5	1016.7	.5	.0	.0
1976	1012.8	-2.4	1012.8	-2.4	.0	.0
1977	971.0	-5.2	972.9	-5.0	.2	1.9
1978	1000.5	116.8	1003.7	113.7	.3	3.2
1979	1008.0	2.2	1008.0	2.3	.0	.0
1980	1026.8	22.5	1026.8	21.2	.0	.0
1981	1020.9	10.5	1020.9	10.5	.0	.0
1982	1030.2	13.6	1030.2	13.6	.0	.0
1983	1020.6	1.7	1020.6	1.7	.0	.0
1984	1031.5	14.5	1031.5	14.5	.0	.0
1985	1019.5	-.6	1019.5	-.6	.0	.0
1986	1013.8	22.9	1014.0	22.3	.0	.2
1987	999.2	3.5	999.2	3.5	.0	.0
1988	1014.9	15.5	1011.8	16.4	-.3	-3.1
1989	983.2	4.1	984.2	4.1	.1	1.0
1990	997.5	9.6	997.1	9.7	.0	-.4
1991	948.0	-5.8	945.6	-5.7	-.3	-2.4
Mean:	1004.1	9.0	1004.2	9.0	.0	.1
Median:	1014.6	5.7	1014.0	5.7	.0	.0
Min:	908.2	-5.8	908.1	-5.7	-.3	-3.1
Max:	1034.4	116.8	1034.4	113.7	.6	5.1
X inc > 20.0		8		8		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1012.4	.0	1012.4	.0	.0	.0
1923	1009.9	-.4	1009.8	-.5	.0	-.1
1924	974.6	6.5	974.6	6.5	.0	.0
1925	984.4	76.2	984.4	76.3	.0	.0
1926	1013.8	31.3	1015.9	30.9	.2	2.1
1927	1024.2	-5.9	1024.2	-6.2	.0	.0
1928	1036.3	14.0	1036.3	14.0	.0	.0
1929	997.0	7.8	997.8	7.8	.1	.8
1930	1006.0	15.4	1006.2	14.7	.0	.2
1931	976.3	3.0	975.1	3.0	-.1	-1.2
1932	921.5	9.7	919.8	9.7	-.2	-1.7
1933	914.1	2.8	919.1	2.7	.5	5.0
1934	961.1	18.3	961.8	18.2	.1	.7
1935	950.7	20.6	950.0	20.8	-.1	-.7
1936	1014.7	39.6	1015.3	39.5	.1	.6
1937	948.4	5.3	949.2	5.3	.1	.8
1938	1028.0	-.6	1028.0	-.6	.0	.0
1939	1014.8	.2	1014.8	.2	.0	.0
1940	1015.6	5.1	1015.6	7.0	.0	.0
1941	1022.6	4.3	1022.6	4.3	.0	.0
1942	1026.3	5.1	1026.3	5.1	.0	.0
1943	1039.0	11.7	1039.0	11.7	.0	.0
1944	1017.3	9.7	1017.3	9.7	.0	.0
1945	1033.5	28.2	1033.6	28.2	.0	.1
1946	1033.7	3.3	1033.5	3.1	.0	-.2
1947	1006.3	9.1	1007.2	9.0	.1	.9
1948	1006.8	.1	1007.4	.2	.1	.6
1949	1009.8	4.9	1010.0	4.8	.0	.2
1950	1015.2	15.3	1015.3	15.3	.0	.1
1951	1037.0	6.5	1037.0	6.5	.0	.0
1952	1034.9	5.2	1034.9	5.2	.0	.0
1953	1029.3	9.0	1029.3	9.0	.0	.0
1954	1031.9	4.2	1031.9	4.2	.0	.0
1955	1021.3	1.0	1021.3	1.0	.0	.0
1956	1017.1	1.5	1017.1	1.5	.0	.0
1957	1032.5	23.4	1032.5	23.4	.0	.0
1958	1015.6	-11.3	1015.6	-11.3	.0	.0
1959	1036.3	4.9	1036.3	4.9	.0	.0
1960	1024.1	29.2	1022.0	29.5	-.2	-2.1
1961	1037.7	23.8	1037.8	24.5	.0	.1
1962	1032.5	25.0	1032.5	23.0	.0	.0
1963	1042.6	21.0	1042.6	21.0	.0	.0
1964	1030.5	2.5	1030.5	2.5	.0	.0
1965	1031.8	11.4	1031.8	11.4	.0	.0
1966	1045.9	11.5	1045.9	11.5	.0	.0
1967	1041.7	14.0	1041.7	14.0	.0	.0
1968	1031.9	13.2	1031.9	13.2	.0	.0
1969	1024.9	4.9	1024.9	4.9	.0	.0
1970	1022.9	7.3	1022.9	7.3	.0	.0
1971	1038.3	12.0	1038.3	12.0	.0	.0
1972	1038.8	10.6	1038.8	10.6	.0	.0
1973	1031.0	3.3	1031.0	3.3	.0	.0
1974	1033.2	17.6	1033.2	17.6	.0	.0
1975	1040.1	23.4	1040.1	23.4	.0	.0
1976	1016.8	4.0	1016.8	4.0	.0	.0
1977	962.0	-9.0	964.1	-8.8	.2	2.1
1978	1031.5	31.0	1031.5	27.8	.0	.0
1979	1019.3	11.3	1019.3	11.3	.0	.0
1980	1017.3	-9.5	1017.3	-9.5	.0	.0
1981	1033.7	12.8	1033.7	12.8	.0	.0
1982	1026.8	-3.4	1026.8	-3.4	.0	.0
1983	1015.6	-5.0	1015.6	-5.0	.0	.0
1984	1042.6	11.1	1042.6	11.1	.0	.0
1985	1021.4	1.9	1021.4	1.9	.0	.0
1986	1015.6	1.8	1015.6	1.6	.0	.0
1987	1011.3	12.1	1011.3	12.1	.0	.0
1988	1018.1	3.2	1015.7	3.9	-.2	-2.4
1989	987.1	3.9	988.1	3.9	.1	1.0
1990	999.6	2.1	999.2	2.1	.0	-.4
1991	940.9	-7.1	937.9	-7.7	-.3	-3.0
Mean:	1014.0	9.7	1014.0	9.6	.0	.1
Median:	1021.3	6.5	1021.3	6.5	.0	.0
Min:	914.1	-11.3	919.1	-11.3	-.3	-3.0
Max:	1045.9	76.2	1045.9	76.3	.5	5.0
X inc > 20.0		12		12		
X dec > 9.0		2		2		
X dec > 10.0		1		1		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1024.3	.0	1024.3	.0	.0	.0
1923	1010.7	.8	1010.4	.6	.0	-.3
1924	974.2	-.4	974.2	-.4	.0	.0
1925	991.0	6.6	991.2	6.8	.0	.2
1926	1017.5	3.7	1019.6	3.7	.2	2.1
1927	1044.0	19.8	1043.7	19.5	.0	-.3
1928	1043.3	7.0	1043.3	7.0	.0	.0
1929	1003.6	6.6	1004.4	6.6	.1	.8
1930	1023.9	17.9	1024.2	18.0	.0	.3
1931	981.4	5.1	979.9	4.8	-.2	-1.5
1932	948.9	27.4	947.5	27.7	-.1	-1.4
1933	952.4	38.3	956.3	37.2	.4	3.9
1934	974.3	13.2	975.0	13.2	.1	.7
1935	972.3	21.6	971.6	21.6	-.1	-.7
1936	1024.7	10.0	1025.3	10.0	.1	.6
1937	984.0	35.6	984.6	35.4	.1	.6
1938	1022.3	-5.7	1022.3	-5.7	.0	.0
1939	1026.7	11.9	1026.7	11.9	.0	.0
1940	1023.1	7.5	1023.1	7.5	.0	.0
1941	1042.4	19.8	1042.4	19.8	.0	.0
1942	1034.6	8.3	1034.6	8.3	.0	.0
1943	1048.8	9.8	1048.8	9.8	.0	.0
1944	1025.6	8.3	1025.6	8.3	.0	.0
1945	1040.0	6.5	1040.1	6.5	.0	.1
1946	1043.1	9.4	1042.7	9.2	.0	-.4
1947	1026.2	19.9	1026.4	19.2	.0	.2
1948	1017.9	11.1	1018.4	11.0	.0	.5
1949	1046.9	37.1	1047.1	37.1	.0	.2
1950	1029.0	13.8	1029.0	13.7	.0	.0
1951	1049.2	12.2	1049.2	12.2	.0	.0
1952	1045.4	10.5	1045.4	10.5	.0	.0
1953	1043.1	13.8	1043.1	13.8	.0	.0
1954	1048.4	16.5	1048.4	16.5	.0	.0
1955	1023.2	1.9	1023.2	1.9	.0	.0
1956	1042.0	24.9	1042.0	24.9	.0	.0
1957	1049.2	16.7	1049.2	16.7	.0	.0
1958	1022.3	6.7	1022.3	6.7	.0	.0
1959	1047.4	11.1	1047.6	11.3	.0	.2
1960	1045.0	20.9	1043.2	21.2	-.2	-1.8
1961	1052.2	14.5	1052.3	14.5	.0	.1
1962	1044.3	11.8	1044.4	11.9	.0	.1
1963	1052.7	10.1	1052.7	10.1	.0	.0
1964	1031.0	.5	1031.0	.5	.0	.0
1965	1035.6	3.8	1035.6	3.8	.0	.0
1966	1052.8	6.9	1052.8	6.9	.0	.0
1967	1045.8	4.1	1045.8	4.1	.0	.0
1968	1048.9	17.0	1048.9	17.0	.0	.0
1969	1045.7	20.8	1045.7	20.8	.0	.0
1970	1043.6	20.7	1043.6	20.7	.0	.0
1971	1039.9	1.6	1039.9	1.6	.0	.0
1972	1053.5	14.7	1053.5	14.7	.0	.0
1973	1050.4	19.4	1050.4	19.4	.0	.0
1974	1022.3	-10.9	1022.3	-10.9	.0	.0
1975	1037.2	-2.9	1037.2	-2.9	.0	.0
1976	1021.9	5.1	1021.9	5.1	.0	.0
1977	948.0	-14.0	951.0	-13.1	.3	3.0
1978	1043.1	11.6	1043.1	11.6	.0	.0
1979	1034.5	15.2	1034.4	15.1	.0	-.1
1980	1042.7	25.4	1042.7	25.4	.0	.0
1981	1051.5	17.8	1051.5	17.8	.0	.0
1982	1042.9	16.1	1042.9	16.1	.0	.0
1983	1022.3	6.7	1022.3	6.7	.0	.0
1984	1061.7	19.1	1061.7	19.1	.0	.0
1985	1025.0	3.6	1025.0	3.6	.0	.0
1986	1027.0	11.4	1027.0	11.4	.0	.0
1987	1037.3	26.0	1037.3	26.0	.0	.0
1988	1018.5	.4	1016.2	.5	-.2	-2.3
1989	1038.7	51.6	1038.7	50.6	.0	.0
1990	1010.0	10.4	1009.6	10.4	.0	-.4
1991	965.9	25.0	963.3	25.4	-.3	-2.6
Mean:	1026.6	12.4	1026.6	12.4	.0	.0
Median:	1034.6	11.1	1034.6	11.3	.0	.0
Min:	948.0	-14.0	947.5	-13.1	-.3	-2.6
Max:	1061.7	51.6	1061.7	50.6	.4	3.9
X inc > 20.0		13		13		
X dec > 9.0		2		2		
X dec > 10.0		2		2		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1042.6	.0	1042.6	.0	.0	.0
1923	1023.0	12.3	1022.5	12.1	.0	-.5
1924	962.4	-11.8	962.4	-11.8	.0	.0
1925	1020.7	29.7	1020.8	29.6	.0	.1
1926	1028.8	11.3	1030.8	11.2	.2	2.0
1927	1063.8	19.8	1063.8	20.1	.0	.0
1928	1059.2	15.9	1059.2	15.9	.0	.0
1929	1007.5	3.9	1007.6	3.2	.0	.1
1930	1029.5	5.6	1029.7	5.5	.0	.2
1931	966.8	-14.6	965.2	-14.7	-.2	-1.6
1932	957.0	8.1	956.7	9.2	.0	-.3
1933	957.7	5.3	961.1	4.8	.4	3.4
1934	974.5	.2	973.8	-1.2	-.1	-.7
1935	1017.3	45.0	1016.8	45.2	.0	-.5
1936	1033.7	9.0	1034.2	8.9	.0	.5
1937	1015.1	31.1	1015.6	31.0	.0	.5
1938	1046.7	24.4	1046.7	24.4	.0	.0
1939	1027.2	.5	1026.6	-.1	-.1	-.6
1940	1049.9	26.8	1049.9	26.8	.0	.0
1941	1060.6	18.2	1060.6	18.2	.0	.0
1942	1056.7	22.1	1056.7	22.1	.0	.0
1943	1062.9	14.1	1062.9	14.1	.0	.0
1944	1030.3	4.7	1030.6	5.0	.0	.3
1945	1045.0	5.0	1045.1	5.0	.0	.1
1946	1050.0	6.9	1050.2	7.5	.0	.2
1947	1032.1	5.9	1032.6	6.2	.0	.5
1948	1051.9	34.0	1052.3	33.9	.0	.4
1949	1058.5	11.6	1058.7	11.6	.0	.2
1950	1041.4	12.4	1041.4	12.4	.0	.0
1951	1053.3	4.1	1053.3	4.1	.0	.0
1952	1054.9	9.5	1054.9	9.5	.0	.0
1953	1054.3	11.2	1054.3	11.2	.0	.0
1954	1063.6	15.2	1063.6	15.2	.0	.0
1955	1035.1	11.9	1035.1	11.9	.0	.0
1956	1058.5	16.5	1058.5	16.5	.0	.0
1957	1054.6	5.4	1054.7	5.5	.0	.1
1958	1050.8	28.5	1050.8	28.5	.0	.0
1959	1051.0	3.6	1051.2	3.6	.0	.2
1960	1048.6	3.6	1047.0	3.8	-.2	-1.6
1961	1052.7	.5	1054.7	2.4	.2	2.0
1962	1053.6	9.3	1053.8	9.4	.0	.2
1963	1049.5	-3.2	1049.5	-3.2	.0	.0
1964	1028.6	-2.4	1029.1	-1.9	.0	.5
1965	1061.3	25.7	1061.3	25.7	.0	.0
1966	1063.8	11.0	1063.8	11.0	.0	.0
1967	1061.4	15.6	1061.4	15.6	.0	.0
1968	1050.6	1.7	1050.6	1.7	.0	.0
1969	1059.8	14.1	1059.8	14.1	.0	.0
1970	1046.3	2.7	1046.3	2.7	.0	.0
1971	1058.5	18.6	1058.5	18.6	.0	.0
1972	1061.8	8.3	1061.8	8.3	.0	.0
1973	1058.5	8.1	1058.5	8.1	.0	.0
1974	1054.9	32.6	1054.9	32.6	.0	.0
1975	1056.2	19.0	1056.2	19.0	.0	.0
1976	1027.1	5.2	1027.1	5.2	.0	.0
1977	930.4	-17.6	934.0	-17.0	.4	3.6
1978	1063.8	20.7	1063.8	20.7	.0	.0
1979	1040.0	5.5	1040.0	5.6	.0	.0
1980	1051.5	8.8	1051.5	8.8	.0	.0
1981	1055.3	3.8	1055.3	3.8	.0	.0
1982	1047.9	5.0	1047.9	5.0	.0	.0
1983	1047.3	25.0	1047.3	25.0	.0	.0
1984	1063.8	2.1	1063.8	2.1	.0	.0
1985	1031.0	6.0	1031.0	6.0	.0	.0
1986	1038.1	11.1	1038.1	11.1	.0	.0
1987	1033.0	-4.3	1033.0	-4.3	.0	.0
1988	1021.0	2.5	1019.2	3.0	-.2	-1.8
1989	1050.7	12.0	1050.7	12.0	.0	.0
1990	1007.3	-2.7	1004.6	-5.0	-.3	-2.7
1991	973.8	7.9	971.3	8.0	-.3	-2.5
Mean:	1037.1	10.3	1037.1	10.3	.0	.0
Median:	1048.6	8.3	1047.9	8.8	.0	.0
Min:	930.4	-17.6	934.0	-17.0	-.3	-2.7
Max:	1063.8	45.0	1063.8	45.2	.4	3.6
X inc > 20.0		12		13		
X dec > 9.0		3		3		
X dec > 10.0		3		3		
X dec > 15.0		1		1		

SHASTA RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1053.7	.0	1053.7	.0	.0	.0
1923	1020.0	-3.0	1019.6	-2.9	.0	-.4
1924	952.4	-10.0	952.4	-10.0	.0	.0
1925	1030.6	9.9	1031.6	10.8	.1	1.0
1926	1026.3	-2.5	1028.3	-2.5	.2	2.0
1927	1063.8	.0	1063.8	.0	.0	.0
1928	1056.0	-3.2	1056.0	-3.2	.0	.0
1929	1002.3	-5.2	1001.5	-6.1	-.1	-.8
1930	1029.0	-.5	1029.2	-.5	.0	.2
1931	957.1	-9.7	956.5	-8.7	-.1	-.6
1932	965.2	8.2	965.9	9.2	.1	.7
1933	958.9	1.2	962.3	1.2	.4	3.4
1934	964.9	-9.6	964.1	-9.7	-.1	-.8
1935	1023.5	6.2	1024.2	7.4	.1	.7
1936	1027.7	-6.0	1028.3	-5.9	.1	.6
1937	1020.2	5.1	1020.9	5.3	.1	.7
1938	1063.8	17.1	1063.8	17.1	.0	.0
1939	1016.6	-10.6	1015.7	-10.9	-.1	-.9
1940	1054.5	4.6	1054.1	4.2	.0	-.4
1941	1063.8	3.2	1063.8	3.2	.0	.0
1942	1063.8	7.1	1063.8	7.1	.0	.0
1943	1063.8	.9	1063.8	.9	.0	.0
1944	1031.0	.7	1031.7	1.1	.1	.7
1945	1047.9	2.9	1048.0	2.9	.0	.1
1946	1050.8	.8	1051.4	1.2	.1	.6
1947	1021.0	-11.1	1022.3	-10.3	.1	1.3
1948	1063.8	11.9	1063.8	11.5	.0	.0
1949	1059.4	.9	1059.5	.8	.0	.1
1950	1038.5	-2.9	1038.5	-2.9	.0	.0
1951	1059.7	6.4	1059.7	6.4	.0	.0
1952	1063.8	8.9	1063.8	8.9	.0	.0
1953	1063.8	9.5	1063.8	9.5	.0	.0
1954	1061.5	-2.1	1061.6	-2.0	.0	.1
1955	1045.4	10.3	1046.1	11.0	.1	.7
1956	1063.8	5.3	1063.8	5.3	.0	.0
1957	1063.8	9.2	1063.8	9.1	.0	.0
1958	1063.8	13.0	1063.8	13.0	.0	.0
1959	1047.3	-3.7	1046.8	-4.4	.0	-.5
1960	1053.4	4.8	1052.2	5.2	-.1	-1.2
1961	1050.3	-2.4	1051.7	-3.0	.1	1.4
1962	1052.0	-1.6	1052.2	-1.6	.0	.2
1963	1063.8	14.3	1063.8	14.3	.0	.0
1964	1025.0	-3.6	1026.2	-2.9	.1	1.2
1965	1062.0	.7	1062.0	.7	.0	.0
1966	1055.9	-7.9	1055.7	-8.1	.0	-.2
1967	1063.8	2.4	1063.8	2.4	.0	.0
1968	1048.2	-2.4	1048.2	-2.4	.0	.0
1969	1063.8	4.0	1063.8	4.0	.0	.0
1970	1045.3	-1.0	1045.3	-1.0	.0	.0
1971	1063.8	5.3	1063.8	5.3	.0	.0
1972	1053.3	-8.5	1052.6	-9.2	-.1	-.7
1973	1063.1	4.6	1063.1	4.6	.0	.0
1974	1063.8	8.9	1063.8	8.9	.0	.0
1975	1063.8	7.6	1063.8	7.6	.0	.0
1976	1024.1	-3.0	1022.7	-4.4	-.1	-1.4
1977	930.9	.5	935.0	1.0	.4	4.1
1978	1063.8	.0	1063.8	.0	.0	.0
1979	1048.9	8.9	1048.9	8.9	.0	.0
1980	1054.7	3.2	1054.7	3.2	.0	.0
1981	1047.1	-8.2	1046.5	-8.8	-.1	-.6
1982	1063.8	15.9	1063.8	15.9	.0	.0
1983	1063.8	16.5	1063.8	16.5	.0	.0
1984	1060.2	-3.6	1059.5	-4.3	-.1	-.7
1985	1027.7	-3.3	1027.2	-3.8	.0	-.5
1986	1042.1	4.0	1042.1	4.0	.0	.0
1987	1023.0	-10.0	1020.9	-12.1	-.2	-2.1
1988	1016.5	-4.5	1015.1	-4.1	-.1	-1.4
1989	1045.6	-5.1	1044.3	-6.4	-.1	-1.3
1990	1010.9	3.6	1007.6	3.0	-.3	-3.3
1991	974.2	.4	972.8	1.5	-.1	-1.4
Mean:	1038.7	1.5	1038.7	1.5	.0	.0
Median:	1050.3	.7	1051.4	1.0	.0	.0
Min:	930.9	-11.1	935.0	-12.1	-.3	-3.3
Max:	1063.8	17.1	1063.8	17.1	.4	4.1
X inc > 20.0		0		0		
X dec > 9.0		6		6		
X dec > 10.0		2		3		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1046.5	.0	1046.5	.0	.0	.0
1923	1010.4	-9.6	1010.2	-9.4	.0	-.2
1924	934.6	-17.8	934.5	-17.9	.0	-.1
1925	1024.9	-5.7	1026.7	-4.9	.2	1.8
1926	1012.6	-13.7	1013.8	-14.5	.1	1.2
1927	1058.7	-5.1	1058.7	-5.1	.0	.0
1928	1045.8	-10.2	1045.2	-10.8	-.1	-.6
1929	996.1	-6.2	997.5	-4.0	.1	1.4
1930	1017.9	-11.1	1017.9	-11.3	.0	.0
1931	944.8	-12.3	944.2	-12.3	-.1	-.6
1932	960.9	-4.3	960.9	-5.0	.0	.0
1933	953.6	-5.3	955.8	-6.5	.2	2.2
1934	947.1	-17.8	947.1	-17.0	.0	.0
1935	1009.5	-14.0	1010.3	-13.9	.1	.8
1936	1020.0	-7.7	1020.6	-7.7	.1	.6
1937	1013.6	-6.6	1014.4	-6.5	.1	.8
1938	1058.7	-5.1	1058.7	-5.1	.0	.0
1939	1003.1	-13.5	1001.5	-14.2	-.2	-1.6
1940	1046.1	-8.4	1045.6	-8.5	.0	-.5
1941	1058.7	-5.1	1058.7	-5.1	.0	.0
1942	1058.7	-5.1	1058.7	-5.1	.0	.0
1943	1057.0	-6.8	1057.0	-6.8	.0	.0
1944	1021.7	-9.3	1021.8	-9.9	.0	.1
1945	1040.2	-7.7	1040.3	-7.7	.0	.1
1946	1042.2	-8.6	1042.8	-8.6	.1	.6
1947	1017.2	-3.8	1018.3	-4.0	.1	1.1
1948	1058.7	-5.1	1058.7	-5.1	.0	.0
1949	1044.5	-14.9	1044.4	-15.1	.0	-.1
1950	1028.1	-10.4	1028.2	-10.3	.0	.1
1951	1049.4	-10.3	1049.4	-10.3	.0	.0
1952	1058.7	-5.1	1058.7	-5.1	.0	.0
1953	1058.7	-5.1	1058.7	-5.1	.0	.0
1954	1054.9	-6.6	1054.5	-7.1	.0	-.4
1955	1025.8	-19.6	1030.4	-15.7	.4	4.6
1956	1058.7	-5.1	1058.7	-5.1	.0	.0
1957	1058.7	-5.1	1058.3	-5.5	.0	-.4
1958	1058.7	-5.1	1058.7	-5.1	.0	.0
1959	1031.6	-15.7	1030.8	-16.0	-.1	-.8
1960	1036.7	-16.7	1035.8	-16.4	-.1	-.9
1961	1038.0	-12.3	1041.3	-10.4	.3	3.3
1962	1043.1	-8.9	1043.0	-9.2	.0	-.1
1963	1058.7	-5.1	1058.7	-5.1	.0	.0
1964	1022.1	-2.9	1024.1	-2.1	.2	2.0
1965	1056.5	-5.5	1056.5	-5.5	.0	.0
1966	1043.4	-12.5	1042.4	-13.3	-.1	-1.0
1967	1058.7	-5.1	1058.7	-5.1	.0	.0
1968	1036.3	-11.9	1034.8	-13.4	-.1	-1.5
1969	1058.7	-5.1	1058.7	-5.1	.0	.0
1970	1039.3	-6.0	1039.3	-6.0	.0	.0
1971	1058.7	-5.1	1058.7	-5.1	.0	.0
1972	1045.1	-8.2	1044.2	-8.4	-.1	-.9
1973	1055.2	-7.9	1054.8	-8.3	.0	-.4
1974	1058.7	-5.1	1058.7	-5.1	.0	.0
1975	1058.7	-5.1	1058.7	-5.1	.0	.0
1976	1014.5	-9.6	1013.5	-9.2	-.1	-1.0
1977	917.9	-13.0	922.2	-12.8	.5	4.3
1978	1054.2	-9.6	1054.2	-9.6	.0	.0
1979	1035.5	-13.4	1035.8	-13.1	.0	.3
1980	1049.3	-5.4	1049.3	-5.4	.0	.0
1981	1034.8	-12.3	1033.6	-12.9	-.1	-1.2
1982	1058.7	-5.1	1058.7	-5.1	.0	.0
1983	1062.2	-1.6	1062.2	-1.6	.0	.0
1984	1054.3	-5.9	1053.8	-5.7	.0	-.5
1985	1016.9	-10.8	1016.4	-10.8	.0	-.5
1986	1032.5	-9.6	1032.5	-9.6	.0	.0
1987	1007.6	-15.4	1005.4	-15.5	-.2	-2.2
1988	1004.0	-12.5	1004.4	-10.7	.0	.4
1989	1031.8	-13.8	1030.3	-14.0	-.1	-1.5
1990	1007.1	-3.8	1003.8	-3.8	-.3	-3.3
1991	964.5	-9.7	964.0	-8.8	-.1	-.5
Mean:	1030.0	-8.6	1030.1	-8.6	.0	.1
Median:	1039.3	-7.9	1040.3	-8.3	.0	.0
Min:	917.9	-19.6	922.2	-17.9	-.3	-3.3
Max:	1062.2	.0	1062.2	.0	.5	4.6
X inc > 20.0		0		0		
X dec > 9.0		30		30		
X dec > 10.0		24		24		
X dec > 15.0		6		7		

SHASTA RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1033.2	.0	1033.2	.0	.0	.0
1923	995.3	-15.1	995.2	-15.0	.0	-.1
1924	913.2	-21.4	913.1	-21.4	.0	-.1
1925	1009.6	-15.3	1012.6	-14.1	.3	3.0
1926	997.0	-15.6	997.3	-16.5	.0	.3
1927	1040.9	-17.8	1040.9	-17.8	.0	.0
1928	1020.4	-25.4	1023.0	-22.2	.3	2.6
1929	981.4	-14.7	981.7	-15.8	.0	.3
1930	1002.6	-15.3	1001.6	-16.3	-.1	-1.0
1931	923.1	-21.7	922.1	-22.1	-.1	-1.0
1932	946.4	-14.5	949.4	-11.5	.3	3.0
1933	940.8	-12.8	942.6	-13.2	.2	1.8
1934	928.1	-19.0	927.6	-19.5	-.1	-.5
1935	989.1	-20.4	990.3	-20.0	.1	1.2
1936	999.1	-20.9	999.7	-20.9	.1	.6
1937	995.2	-18.4	996.2	-18.2	.1	1.0
1938	1042.6	-16.1	1042.6	-16.1	.0	.0
1939	988.1	-15.0	986.2	-15.3	-.2	-1.9
1940	1030.6	-15.5	1028.8	-16.8	-.2	-1.8
1941	1043.7	-15.0	1043.7	-15.0	.0	.0
1942	1042.9	-15.8	1042.9	-15.8	.0	.0
1943	1040.9	-16.1	1040.9	-16.1	.0	.0
1944	1005.8	-15.9	1006.2	-15.6	.0	.4
1945	1019.8	-20.4	1020.3	-20.0	.0	.5
1946	1025.0	-17.2	1025.9	-16.9	.1	.9
1947	1001.2	-16.0	1001.2	-17.1	.0	.0
1948	1040.9	-17.8	1040.9	-17.8	.0	.0
1949	1028.8	-15.7	1026.5	-17.9	-.2	-2.3
1950	1010.7	-17.4	1010.8	-17.4	.0	.1
1951	1033.4	-16.0	1032.0	-17.4	-.1	-1.4
1952	1043.0	-15.7	1043.0	-15.7	.0	.0
1953	1042.8	-15.9	1042.8	-15.9	.0	.0
1954	1035.2	-19.7	1034.5	-20.0	-.1	-.7
1955	1010.6	-15.2	1014.5	-15.9	.4	3.9
1956	1041.8	-16.9	1041.8	-16.9	.0	.0
1957	1040.9	-17.8	1040.9	-17.4	.0	.0
1958	1044.6	-14.1	1044.6	-14.1	.0	.0
1959	1006.5	-25.1	1005.3	-25.5	-.1	-1.2
1960	1016.3	-20.4	1015.8	-20.0	.0	-.5
1961	1017.6	-20.4	1022.2	-19.1	.5	4.6
1962	1029.4	-13.7	1027.5	-15.5	-.2	-1.9
1963	1040.9	-17.8	1040.9	-17.8	.0	.0
1964	1008.2	-13.9	1008.6	-15.5	.0	.4
1965	1040.9	-15.6	1040.9	-15.6	.0	.0
1966	1025.1	-18.3	1023.6	-18.8	-.1	-1.5
1967	1042.9	-15.8	1042.9	-15.8	.0	.0
1968	1014.9	-21.4	1011.4	-23.4	-.3	-3.5
1969	1042.0	-16.7	1042.0	-16.7	.0	.0
1970	1017.0	-22.3	1016.4	-22.9	-.1	-.6
1971	1043.2	-15.5	1043.2	-15.5	.0	.0
1972	1023.0	-22.1	1022.2	-22.0	-.1	-.8
1973	1039.7	-15.5	1038.7	-16.1	-.1	-1.0
1974	1044.2	-14.5	1044.2	-14.5	.0	.0
1975	1042.7	-16.0	1042.7	-16.0	.0	.0
1976	1000.9	-13.6	1000.3	-13.2	-.1	-.6
1977	892.3	-25.6	897.5	-24.7	.6	5.2
1978	1040.9	-13.3	1040.9	-13.3	.0	.0
1979	1017.4	-18.1	1019.5	-16.3	.2	2.1
1980	1039.6	-9.7	1039.6	-9.7	.0	.0
1981	1019.6	-15.2	1018.3	-15.3	-.1	-1.3
1982	1042.2	-16.5	1042.2	-16.5	.0	.0
1983	1049.8	-12.4	1049.8	-12.4	.0	.0
1984	1038.9	-15.4	1037.4	-16.4	-.1	-1.5
1985	1004.3	-12.6	1003.7	-12.7	-.1	-.6
1986	1019.9	-12.6	1019.9	-12.6	.0	.0
1987	995.2	-12.4	992.3	-13.1	-.3	-2.9
1988	985.2	-18.8	986.2	-18.2	.1	1.0
1989	1012.5	-19.3	1012.0	-18.3	.0	-.5
1990	986.4	-20.7	985.1	-18.7	-.1	-1.3
1991	951.0	-13.5	951.6	-12.4	.1	.6
Mean:	1013.1	-16.7	1013.2	-16.7	.0	.0
Median:	1019.8	-16.0	1020.3	-16.4	.0	.0
Min:	892.3	-25.6	897.5	-25.5	-.3	-3.5
Max:	1049.8	.0	1049.8	.0	.6	5.2
X inc > 20.0		0		0		
X dec > 9.0		69		69		
X dec > 10.0		68		68		
X dec > 15.0		52		54		

SHASTA RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1019.6	.0	1019.6	.0	.0	.0
1923	978.6	-16.7	978.7	-16.5	.0	.1
1924	885.9	-27.3	885.8	-27.3	.0	-.1
1925	990.7	-18.9	995.2	-17.4	.5	4.5
1926	979.1	-17.9	979.4	-17.9	.0	.3
1927	1019.6	-21.3	1019.6	-21.3	.0	.0
1928	1001.9	-18.5	1002.7	-20.3	.1	.8
1929	965.6	-15.8	966.6	-15.1	.1	1.0
1930	983.9	-18.7	982.8	-18.8	-.1	-1.1
1931	897.2	-25.9	895.3	-26.8	-.2	-1.9
1932	926.4	-20.0	931.0	-18.4	.5	4.6
1933	924.7	-16.1	926.7	-15.9	.2	2.0
1934	908.7	-19.4	907.8	-19.8	-.1	-.9
1935	960.1	-29.0	961.6	-28.7	.2	1.5
1936	971.8	-27.3	972.5	-27.2	.1	.7
1937	973.7	-21.5	975.8	-20.4	.2	2.1
1938	1019.6	-23.0	1019.6	-23.0	.0	.0
1939	971.3	-16.8	969.2	-17.0	-.2	-2.1
1940	1015.2	-15.4	1013.0	-15.8	-.2	-2.2
1941	1022.4	-21.3	1022.4	-21.3	.0	.0
1942	1020.2	-22.7	1020.2	-22.7	.0	.0
1943	1019.6	-21.3	1019.6	-21.3	.0	.0
1944	990.1	-15.7	991.3	-14.9	.1	1.2
1945	1003.5	-16.3	1004.0	-16.3	.0	.5
1946	1010.3	-14.7	1011.3	-14.6	.1	1.0
1947	986.9	-14.3	987.5	-13.7	.1	.6
1948	1019.6	-21.3	1019.6	-21.3	.0	.0
1949	1014.3	-14.5	1011.9	-14.6	-.2	-2.4
1950	993.4	-17.3	993.5	-17.3	.0	.1
1951	1019.3	-14.1	1017.9	-14.1	-.1	-1.4
1952	1019.6	-23.4	1019.6	-23.4	.0	.0
1953	1019.7	-23.1	1019.7	-23.1	.0	.0
1954	1019.6	-15.6	1019.6	-14.9	.0	.0
1955	996.9	-13.7	999.4	-15.1	.3	2.5
1956	1019.6	-22.2	1019.6	-22.2	.0	.0
1957	1019.6	-21.3	1019.6	-21.3	.0	.0
1958	1023.8	-20.8	1023.8	-20.8	.0	.0
1959	994.8	-11.7	990.6	-14.7	-.4	-4.2
1960	1000.5	-15.8	999.2	-16.6	-.1	-1.3
1961	1002.2	-15.4	1006.3	-15.9	.4	4.1
1962	1016.2	-13.2	1012.9	-14.6	-.3	-3.3
1963	1019.6	-21.3	1019.6	-21.3	.0	.0
1964	993.2	-15.0	993.5	-15.1	.0	.3
1965	1019.6	-21.3	1019.6	-21.3	.0	.0
1966	1014.4	-10.7	1010.4	-13.2	-.4	-4.0
1967	1021.0	-21.9	1021.0	-21.9	.0	.0
1968	1009.3	-5.6	1006.1	-5.3	-.3	-3.2
1969	1019.6	-22.4	1019.6	-22.4	.0	.0
1970	1007.1	-9.9	1005.8	-10.6	-.1	-1.3
1971	1019.6	-23.6	1019.6	-23.6	.0	.0
1972	1010.1	-12.9	1006.1	-16.1	-.4	-4.0
1973	1019.6	-20.1	1019.6	-19.1	.0	.0
1974	1023.2	-21.0	1023.2	-21.0	.0	.0
1975	1020.4	-22.3	1020.4	-22.3	.0	.0
1976	986.3	-14.6	986.5	-13.8	.0	.2
1977	860.2	-32.1	866.5	-31.0	.7	6.3
1978	1019.6	-21.3	1019.6	-21.3	.0	.0
1979	1008.1	-9.3	1009.8	-9.7	.2	1.7
1980	1019.6	-20.0	1019.6	-20.0	.0	.0
1981	1002.8	-16.8	1000.9	-17.4	-.2	-1.9
1982	1019.6	-22.6	1019.6	-22.6	.0	.0
1983	1031.9	-17.9	1031.9	-17.9	.0	.0
1984	1019.6	-19.3	1019.6	-17.8	.0	.0
1985	989.3	-15.0	990.1	-13.6	.1	.8
1986	1007.7	-12.2	1007.7	-12.2	.0	.0
1987	983.2	-12.0	980.4	-11.9	-.3	-2.8
1988	970.7	-14.5	971.8	-14.4	.1	1.1
1989	995.3	-17.2	994.4	-17.6	-.1	-.9
1990	970.5	-15.9	969.4	-15.7	-.1	-1.1
1991	938.9	-12.1	939.5	-12.1	.1	.6
Mean:	994.9	-18.0	994.9	-18.1	.0	.0
Median:	1007.7	-17.9	1006.1	-17.8	.0	.0
Min:	860.2	-32.1	866.5	-31.0	-.4	-4.2
Max:	1031.9	.0	1031.9	.0	.7	6.3
X inc > 20.0		0		0		
X dec > 9.0		68		68		
X dec > 10.0		66		67		
X dec > 15.0		50		51		

SHASTA RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1013.1	.0	1013.1	.0	.0	.0
1923	970.3	-8.3	970.3	-8.4	.0	.0
1924	875.6	-10.3	875.5	-10.3	.0	-.1
1925	982.6	-8.1	987.3	-7.9	.5	4.7
1926	969.4	-9.7	969.8	-9.6	.0	.4
1927	1017.6	-2.0	1017.6	-2.0	.0	.0
1928	994.4	-7.5	995.3	-7.4	.1	.9
1929	955.3	-10.3	956.5	-10.1	.1	1.2
1930	975.0	-8.9	973.8	-9.0	-.1	-1.2
1931	887.0	-10.2	884.9	-10.4	-.2	-2.1
1932	918.0	-8.4	922.9	-8.1	.5	4.9
1933	917.5	-7.2	919.5	-7.2	.2	2.0
1934	897.3	-11.4	896.3	-11.5	-.1	-1.0
1935	949.8	-10.3	950.7	-10.9	.1	.9
1936	961.4	-10.4	962.1	-10.4	.1	.7
1937	963.5	-10.2	965.7	-10.1	.2	2.2
1938	1017.6	-2.0	1017.6	-2.0	.0	.0
1939	961.9	-9.4	959.8	-9.4	-.2	-2.1
1940	1008.6	-6.6	1006.2	-6.8	-.2	-2.4
1941	1017.6	-4.8	1017.6	-4.8	.0	.0
1942	1017.6	-2.6	1017.6	-2.6	.0	.0
1943	1017.6	-2.0	1017.6	-2.0	.0	.0
1944	982.2	-7.9	983.5	-7.8	.1	1.3
1945	996.5	-7.0	997.0	-7.0	.1	.5
1946	1003.7	-6.6	1004.6	-6.7	.1	.9
1947	978.8	-8.1	979.4	-8.1	.1	.6
1948	1015.0	-4.6	1015.3	-4.3	.0	.3
1949	1006.6	-7.7	1004.1	-7.8	-.2	-2.5
1950	985.1	-8.3	985.2	-8.3	.0	.1
1951	1012.4	-6.9	1010.9	-7.0	-.1	-1.5
1952	1017.6	-2.0	1017.6	-2.0	.0	.0
1953	1017.6	-2.1	1017.6	-2.1	.0	.0
1954	1015.5	-4.1	1015.5	-4.1	.0	.0
1955	990.1	-6.8	992.6	-6.8	.3	2.5
1956	1017.6	-2.0	1017.6	-2.0	.0	.0
1957	1017.6	-2.0	1017.6	-2.0	.0	.0
1958	1017.6	-6.2	1017.6	-6.2	.0	.0
1959	990.7	-4.1	986.4	-4.2	-.4	-4.3
1960	993.7	-6.8	992.4	-6.8	-.1	-1.3
1961	995.2	-7.0	999.4	-6.9	.4	4.2
1962	1009.2	-7.0	1005.8	-7.1	-.3	-3.4
1963	1017.6	-2.0	1017.6	-2.0	.0	.0
1964	985.3	-7.9	985.6	-7.9	.0	.3
1965	1017.6	-2.0	1017.6	-2.0	.0	.0
1966	1008.1	-6.3	1004.0	-6.4	-.4	-4.1
1967	1017.6	-3.4	1017.6	-3.4	.0	0
1968	1003.8	-5.5	1000.5	-5.6	-.3	-3.3
1969	1017.6	-2.0	1017.6	-2.0	.0	.0
1970	1001.4	-5.7	1000.2	-5.6	-.1	-1.2
1971	1017.6	-2.0	1017.6	-2.0	.0	.0
1972	1005.1	-5.0	1001.0	-5.1	-.4	-4.1
1973	1014.8	-4.8	1014.8	-4.8	.0	.0
1974	1017.6	-5.6	1017.6	-5.6	.0	.0
1975	1017.6	-2.8	1017.6	-2.8	.0	.0
1976	980.3	-6.0	980.6	-5.9	.0	.3
1977	857.7	-2.5	864.2	-2.3	.8	6.5
1978	1015.8	-3.8	1015.8	-3.8	.0	.0
1979	1001.1	-7.0	1002.8	-7.0	.2	1.7
1980	1015.0	-4.6	1015.0	-4.6	.0	.0
1981	995.2	-7.6	993.2	-7.7	-.2	-2.0
1982	1017.6	-2.0	1017.6	-2.0	.0	.0
1983	1017.6	-14.3	1017.6	-14.3	.0	.0
1984	1015.5	-4.1	1015.5	-4.1	.0	.0
1985	983.3	-6.0	984.2	-5.9	.1	.9
1986	1003.3	-4.4	1003.3	-4.4	.0	.0
1987	975.8	-7.4	972.9	-7.5	-.3	-2.9
1988	962.4	-8.3	963.5	-8.3	.1	1.1
1989	988.8	-6.5	987.9	-6.5	-.1	-.9
1990	961.6	-8.9	960.4	-9.0	-.1	-1.2
1991	933.0	-5.9	933.7	-5.8	.1	.7
Mean:	988.8	-6.0	988.8	-6.0	.0	.0
Median:	1001.4	-6.5	1000.5	-6.5	.0	.0
Min:	857.7	-14.3	864.2	-14.3	-.4	-4.3
Max:	1017.6	.0	1017.6	.0	.8	6.5
X inc > 20.0		0		0		
X dec > 9.0		10		10		
X dec > 10.0		8		8		
X dec > 15.0		0		0		

RETURN TO TABLE OF CONTENTS

Section 14

SHASTA RESERVOIR ELEVATION
14.2 Recreation

SHASTA RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.6	.0	997.6	.0	.0	.0
1923	1009.3	-3.8	1009.3	-3.8	.0	.0
1924	969.7	-.6	969.7	-.6	.0	.0
1925	877.0	1.4	876.9	1.4	.0	-.1
1926	981.9	-.7	985.9	-1.4	.4	4.0
1927	969.5	.1	969.9	.1	.0	.4
1928	1015.5	-2.1	1015.5	-2.1	.0	.0
1929	990.7	-3.7	991.6	-3.7	.1	.9
1930	955.3	.0	956.4	-.1	.1	1.1
1931	973.6	-1.4	972.4	-1.4	-.1	-1.2
1932	884.8	-2.2	882.7	-2.2	-.2	-2.1
1933	913.5	-4.5	918.6	-4.3	.6	5.1
1934	916.0	-1.5	918.1	-1.4	.2	2.1
1935	895.2	-2.1	894.1	-2.2	-.1	-1.1
1936	946.0	-3.8	946.9	-3.8	.1	.9
1937	954.3	-7.1	955.0	-7.1	.1	.7
1938	963.0	-.5	965.3	-.4	.2	2.3
1939	1015.5	-2.1	1015.5	-2.1	.0	.0
1940	962.5	.6	960.3	.5	-.2	-2.2
1941	1004.2	-4.4	1001.8	-4.4	-.2	-2.4
1942	1015.5	-2.1	1015.5	-2.1	.0	.0
1943	1015.5	-2.1	1015.5	-2.1	.0	.0
1944	1015.5	-2.1	1015.5	-2.1	.0	.0
1945	981.1	-1.1	982.4	-1.1	.1	1.3
1946	996.3	-.2	996.8	-.2	.1	.5
1947	999.6	-4.1	1000.5	-4.1	.1	.9
1948	982.0	3.2	982.6	3.2	.1	.6
1949	1015.1	.1	1015.3	.0	.0	.2
1950	1000.9	-5.7	999.1	-5.0	-.2	-1.8
1951	999.4	14.3	999.4	14.2	.0	.0
1952	1008.8	-3.6	1007.3	-3.6	-.1	-1.5
1953	1015.5	-2.1	1015.5	-2.1	.0	.0
1954	1015.5	-2.1	1015.5	-2.1	.0	.0
1955	1015.3	-.2	1013.8	-1.7	-.1	-1.5
1956	987.4	-2.7	989.3	-3.3	.2	1.9
1957	1015.5	-2.1	1015.5	-2.1	.0	.0
1958	1015.5	-2.1	1015.5	-2.1	.0	.0
1959	1015.5	-2.1	1015.5	-2.1	.0	.0
1960	989.3	-1.4	985.8	-.6	-.4	-3.5
1961	991.4	-2.3	990.1	-2.3	-.1	-1.3
1962	992.7	-2.5	996.2	-3.2	.4	3.5
1963	1015.5	6.3	1015.5	9.7	.0	.0
1964	1015.5	-2.1	1015.5	-2.1	.0	.0
1965	983.6	-1.7	984.0	-1.6	.0	.4
1966	1015.5	-2.1	1015.5	-2.1	.0	.0
1967	1003.3	-4.8	999.8	-4.2	-.3	-3.5
1968	1015.5	-2.1	1015.5	-2.1	.0	.0
1969	1001.5	-2.3	998.2	-2.3	-.3	-3.3
1970	1015.5	-2.1	1015.5	-2.1	.0	.0
1971	999.9	-1.5	999.3	-.9	-.1	-.6
1972	1015.5	-2.1	1015.5	-2.1	.0	.0
1973	1003.9	-1.2	1000.5	-.5	-.3	-3.4
1974	1015.5	.7	1015.5	.7	.0	.0
1975	1015.5	-2.1	1015.5	-2.1	.0	.0
1976	1015.5	-2.1	1015.5	-2.1	.0	.0
1977	981.2	.9	981.4	.8	.0	.2
1978	848.4	-9.3	855.7	-8.5	.9	7.3
1979	1013.8	-2.0	1013.8	-2.0	.0	.0
1980	1000.0	-1.1	1001.8	-1.0	.2	1.8
1981	1010.7	-4.3	1010.7	-4.3	.0	.0
1982	993.5	-1.7	991.5	-1.7	-.2	-2.0
1983	1015.5	-2.1	1015.5	-2.1	.0	.0
1984	1015.5	-2.1	1015.5	-2.1	.0	.0
1985	1015.5	.0	1015.5	.0	.0	.0
1986	983.8	.5	984.7	.5	.1	.9
1987	1001.3	-2.0	1001.3	-2.0	.0	.0
1988	974.7	-1.1	971.0	-1.9	-.4	-3.7
1989	963.4	1.0	964.5	1.0	.1	1.1
1990	992.0	3.2	991.3	3.4	-.1	-.7
1991	961.6	.0	960.2	-.2	-.1	-1.4
Mean:	988.3	-1.4	988.3	-1.4	.0	.0
Median:	999.9	-2.1	999.3	-2.1	.0	.0
Min:	848.4	-9.3	855.7	-8.5	-.4	-3.7
Max:	1015.5	14.3	1015.5	14.2	.9	7.3
X > 1020.0	0		0			
X > 1017.0	0		0			
X > 995.0	40		41			
X > 980.0	53		53			
X > 973.0	55		53			
X > 955.0	62		62			
X > 951.0	63		63			
X > 943.0	64		64			
X > 941.0	64		64			

SHASTA RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	995.9	.0	995.9	.0	.0	.0
1923	1006.6	-2.7	1006.6	-2.7	.0	.0
1924	968.4	-1.3	968.4	-1.3	.0	.0
1925	890.6	13.6	890.6	13.7	.0	.0
1926	982.3	.4	985.5	-.4	.3	3.2
1927	993.0	23.5	993.4	23.5	.0	.4
1928	1015.6	.1	1015.6	.1	.0	.0
1929	989.3	-1.4	990.1	-1.5	.1	.8
1930	954.0	-1.3	955.2	-1.2	.1	1.2
1931	972.5	-1.1	971.3	-1.1	-.1	-1.2
1932	883.4	-1.4	881.3	-1.4	-.2	-2.1
1933	910.5	-3.0	915.7	-2.9	.6	5.2
1934	914.6	-1.4	916.7	-1.4	.2	2.1
1935	905.7	10.5	904.7	10.6	-.1	-1.0
1936	942.0	-4.0	942.9	-4.0	.1	.9
1937	948.9	-5.4	949.7	-5.3	.1	.8
1938	991.8	28.8	993.7	28.4	.2	1.9
1939	1013.7	-1.8	1013.7	-1.8	.0	.0
1940	962.2	-.3	960.1	-.2	-.2	-2.1
1941	1001.4	-2.8	999.0	-2.8	-.2	-2.4
1942	1013.5	-2.0	1013.5	-2.0	.0	.0
1943	1015.6	.1	1015.6	.1	.0	.0
1944	1012.7	-2.8	1012.7	-2.8	.0	.0
1945	988.2	7.1	989.5	7.1	.1	1.3
1946	1005.4	9.1	1005.9	9.1	.0	.5
1947	999.4	-.2	1000.4	-.1	.1	1.0
1948	982.6	.6	983.2	.6	.1	.6
1949	1011.7	-3.4	1011.9	-3.4	.0	.2
1950	995.9	-5.0	994.7	-4.4	-.1	-1.2
1951	1014.8	15.4	1014.8	15.4	.0	.0
1952	1011.7	2.9	1010.9	3.6	-.1	-.8
1953	1011.7	-3.8	1011.7	-3.8	.0	.0
1954	1015.6	.1	1015.6	.1	.0	.0
1955	1015.6	.3	1015.6	1.8	.0	.0
1956	989.4	2.0	990.5	1.2	.1	1.1
1957	1012.8	-2.7	1012.8	-2.7	.0	.0
1958	1015.6	.1	1015.6	.1	.0	.0
1959	1012.7	-2.8	1012.7	-2.8	.0	.0
1960	987.8	-1.5	985.0	-.8	-.3	-2.8
1961	993.9	2.5	992.6	2.5	-.1	-1.3
1962	995.8	3.1	998.6	2.4	.3	2.8
1963	1015.0	-.5	1015.0	-.5	.0	.0
1964	1015.6	.1	1015.6	.1	.0	.0
1965	988.2	4.6	988.6	4.6	.0	.4
1966	1015.6	.1	1015.6	.1	.0	.0
1967	1013.5	10.2	1011.5	11.7	-.2	-2.0
1968	1012.9	-2.6	1012.9	-2.6	.0	.0
1969	1000.8	-.7	997.6	-.6	-.3	-3.2
1970	1013.0	-2.5	1013.0	-2.5	.0	.0
1971	1015.6	15.7	1015.6	16.3	.0	.0
1972	1014.7	-.8	1014.7	-.8	.0	.0
1973	1010.8	6.9	1008.1	7.6	-.3	-2.7
1974	1015.6	.1	1015.6	.1	.0	.0
1975	1014.4	-1.1	1014.4	-1.1	.0	.0
1976	1015.6	.1	1015.6	.1	.0	.0
1977	981.8	.6	982.1	.7	.0	.3
1978	842.1	-6.3	850.3	-5.4	1.0	8.2
1979	1010.5	-3.3	1010.5	-3.3	.0	.0
1980	1002.4	2.4	1004.1	2.3	.2	1.7
1981	1008.7	-2.0	1008.7	-2.0	.0	.0
1982	1015.6	22.1	1015.6	24.1	.0	.0
1983	1015.6	.1	1015.6	.1	.0	.0
1984	1015.6	.1	1015.6	.1	.0	.0
1985	1015.6	.1	1015.6	.1	.0	.0
1986	984.5	.7	985.4	.7	.1	.9
1987	998.5	-2.8	998.5	-2.8	.0	.0
1988	975.7	1.0	971.1	.1	-.5	-4.6
1989	974.0	10.6	975.1	10.6	.1	1.1
1990	990.9	-1.1	990.3	-1.0	-.1	-.6
1991	959.4	-2.2	957.4	-2.8	-.2	-2.0
Mean:	990.0	1.7	990.1	1.8	.0	.1
Median:	1001.4	.0	1000.4	-.1	.0	.0
Min:	842.1	-6.3	850.3	-5.4	-.5	-4.6
Max:	1015.6	28.8	1015.6	28.4	1.0	8.2

X > 1020.0	0	0
X > 1017.0	0	0
X > 995.0	42	41
X > 980.0	55	55
X > 973.0	57	56
X > 955.0	61	62
X > 951.0	62	62
X > 943.0	63	63
X > 941.0	64	64

SHASTA RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.8	.0	997.8	.0	.0	.0
1923	1006.3	-.3	1006.3	-.3	.0	.0
1924	968.0	-.4	968.0	-.4	.0	.0
1925	898.5	7.9	898.5	7.9	.0	.0
1926	981.6	-.7	984.1	-1.4	.3	2.5
1927	1014.4	21.4	1014.7	21.3	.0	.3
1928	1016.4	.8	1016.4	.8	.0	.0
1929	987.7	-1.6	988.6	-1.5	.1	.9
1930	981.7	27.7	982.7	27.5	.1	1.0
1931	970.6	-1.9	969.4	-1.9	-.1	-1.2
1932	900.7	17.3	898.8	17.5	-.2	-1.9
1933	909.0	-1.5	914.2	-1.5	.6	5.2
1934	923.4	8.8	925.4	8.7	.2	2.0
1935	908.7	3.0	907.7	3.0	-.1	-1.0
1936	940.5	-1.5	941.4	-1.5	.1	.9
1937	944.7	-4.2	945.5	-4.2	.1	.8
1938	1018.0	26.2	1018.0	24.3	.0	.0
1939	1015.1	1.4	1015.1	1.4	.0	.0
1940	970.7	8.5	968.4	8.3	-.2	-2.3
1941	1017.3	15.9	1017.3	18.3	.0	.0
1942	1018.3	4.8	1018.3	4.8	.0	.0
1943	1019.9	4.3	1019.9	4.3	.0	.0
1944	1008.7	-4.0	1008.7	-4.0	.0	.0
1945	999.8	11.6	1001.0	11.5	.1	1.2
1946	1016.2	10.8	1016.2	10.3	.0	.0
1947	999.1	-.3	1000.1	-.3	.1	1.0
1948	982.3	-.3	982.9	-.3	.1	.6
1949	1008.6	-3.1	1008.8	-3.1	.0	.2
1950	989.8	-6.1	989.4	-5.3	.0	-.4
1951	1018.5	3.7	1018.5	3.7	.0	.0
1952	1017.9	6.2	1017.9	7.0	.0	.0
1953	1019.4	7.7	1019.4	7.7	.0	.0
1954	1018.9	3.3	1018.9	3.3	.0	.0
1955	1020.1	4.5	1020.1	4.5	.0	.0
1956	1015.6	26.2	1015.6	25.1	.0	.0
1957	1009.5	-3.3	1009.5	-3.3	.0	.0
1958	1019.2	3.6	1019.2	3.6	.0	.0
1959	1010.5	-2.2	1010.5	-2.2	.0	.0
1960	986.5	-1.3	984.4	-.6	-.2	-2.1
1961	1010.2	16.3	1009.0	16.4	-.1	-1.2
1962	1006.8	11.0	1008.8	10.2	.2	2.0
1963	1019.6	4.6	1019.6	4.6	.0	.0
1964	1015.5	-.1	1015.5	-.1	.0	.0
1965	1015.6	27.4	1015.6	27.0	.0	.0
1966	1017.8	2.2	1017.8	2.2	.0	.0
1967	1019.0	5.5	1019.0	7.5	.0	.0
1968	1013.0	.1	1013.0	.1	.0	.0
1969	1010.8	10.0	1007.7	10.1	-.3	-3.1
1970	1018.3	5.3	1018.3	5.3	.0	.0
1971	1018.4	2.8	1018.4	2.8	.0	.0
1972	1017.0	2.3	1017.0	2.3	.0	.0
1973	1018.4	7.6	1016.5	8.4	-.2	-1.9
1974	1016.2	.6	1016.2	.6	.0	.0
1975	1016.2	1.8	1016.2	1.8	.0	.0
1976	1015.2	-.4	1015.2	-.4	.0	.0
1977	976.2	-5.6	977.9	-4.2	.2	1.7
1978	883.7	41.6	890.0	39.7	.7	6.3
1979	1005.8	-4.7	1005.7	-4.8	.0	-.1
1980	1004.3	1.9	1005.6	1.5	.1	1.3
1981	1010.4	1.7	1010.4	1.7	.0	.0
1982	1016.6	1.0	1016.6	1.0	.0	.0
1983	1018.9	3.3	1018.9	3.3	.0	.0
1984	1017.0	1.4	1017.0	1.4	.0	.0
1985	1020.1	4.5	1020.1	4.5	.0	.0
1986	990.9	6.4	991.7	6.3	.1	.8
1987	995.7	-2.8	995.7	-2.8	.0	.0
1988	999.4	23.7	995.4	24.3	-.4	-4.0
1989	979.1	5.1	980.1	5.0	.1	1.0
1990	987.9	-3.0	987.4	-2.9	-.1	-.5
1991	953.8	-5.6	951.3	-6.1	-.3	-2.5
Mean:	995.1	5.1	995.2	5.1	.0	.1
Median:	1010.2	2.3	1009.0	2.3	.0	.0
Min:	883.7	-6.1	890.0	-6.1	-.4	-4.0
Max:	1020.1	41.6	1020.1	39.7	.7	6.3
X > 1020.0	2		2			
X > 1017.0	18		17			
X > 995.0	48		48			
X > 980.0	56		57			
X > 973.0	58		58			
X > 955.0	61		61			
X > 951.0	62		62			
X > 943.0	63		63			
X > 941.0	63		64			

SHASTA RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	999.1	.0	999.1	.0	.0	.0
1923	1010.3	4.0	1010.3	4.0	.0	.0
1924	968.1	.1	968.1	.1	.0	.0
1925	908.2	9.7	908.1	9.6	.0	-.1
1926	982.5	.9	985.0	.9	.3	2.5
1927	1030.1	15.7	1030.4	15.7	.0	.3
1928	1022.3	5.9	1022.3	5.9	.0	.0
1929	989.2	1.5	990.0	1.4	.1	.8
1930	990.6	8.9	991.5	8.8	.1	.9
1931	973.3	2.7	972.1	2.7	-.1	-1.2
1932	911.8	11.1	910.1	11.3	-.2	-1.7
1933	911.3	2.3	916.4	2.2	.6	5.1
1934	942.8	19.4	943.6	18.2	.1	.8
1935	930.1	21.4	929.2	21.5	-.1	-.9
1936	975.1	34.6	975.8	34.4	.1	.7
1937	943.1	-1.6	943.9	-1.6	.1	.8
1938	1028.6	10.6	1028.6	10.6	.0	.0
1939	1014.6	-.5	1014.6	-.5	.0	.0
1940	1010.5	39.8	1008.6	40.2	-.2	-1.9
1941	1018.3	1.0	1018.3	1.0	.0	.0
1942	1021.2	2.9	1021.2	2.9	.0	.0
1943	1027.3	7.4	1027.3	7.4	.0	.0
1944	1007.6	-1.1	1007.6	-1.1	.0	.0
1945	1005.3	5.5	1005.4	4.4	.0	.1
1946	1030.4	14.2	1030.4	14.2	.0	.0
1947	997.2	-1.9	998.2	-1.9	.1	1.0
1948	1006.7	24.4	1007.2	24.3	.0	.5
1949	1004.9	-3.7	1005.2	-3.6	.0	.3
1950	999.9	10.1	1000.0	10.6	.0	.1
1951	1030.5	12.0	1030.5	12.0	.0	.0
1952	1029.7	11.8	1029.7	11.8	.0	.0
1953	1020.3	.9	1020.3	.9	.0	.0
1954	1027.7	8.8	1027.7	8.8	.0	.0
1955	1020.3	.2	1020.3	.2	.0	.0
1956	1015.6	.0	1015.6	.0	.0	.0
1957	1009.1	-.4	1009.1	-.4	.0	.0
1958	1026.9	7.7	1026.9	7.7	.0	.0
1959	1031.4	20.9	1031.4	20.9	.0	.0
1960	994.9	8.4	992.5	8.1	-.2	-2.4
1961	1013.9	3.7	1013.3	4.3	-.1	-.6
1962	1007.5	.7	1009.5	.7	.2	2.0
1963	1021.6	2.0	1021.6	2.0	.0	.0
1964	1028.0	12.5	1028.0	12.5	.0	.0
1965	1020.4	4.8	1020.4	4.8	.0	.0
1966	1034.4	16.6	1034.4	16.6	.0	.0
1967	1027.7	8.7	1027.7	8.7	.0	.0
1968	1018.7	5.7	1018.7	5.7	.0	.0
1969	1020.0	9.2	1020.0	12.3	.0	.0
1970	1015.6	-2.7	1015.6	-2.7	.0	.0
1971	1026.3	7.9	1026.3	7.9	.0	.0
1972	1028.2	11.2	1028.2	11.2	.0	.0
1973	1027.7	9.3	1027.7	11.2	.0	.0
1974	1015.6	-.6	1015.6	-.6	.0	.0
1975	1016.7	.5	1016.7	.5	.0	.0
1976	1012.8	-2.4	1012.8	-2.4	.0	.0
1977	971.0	-5.2	972.9	-5.0	.2	1.9
1978	1000.5	116.8	1003.7	113.7	.3	3.2
1979	1008.0	2.2	1008.0	2.3	.0	.0
1980	1026.8	22.5	1026.8	21.2	.0	.0
1981	1020.9	10.5	1020.9	10.5	.0	.0
1982	1030.2	13.6	1030.2	13.6	.0	.0
1983	1020.6	1.7	1020.6	1.7	.0	.0
1984	1031.5	14.5	1031.5	14.5	.0	.0
1985	1019.5	-.6	1019.5	-.6	.0	.0
1986	1013.8	22.9	1014.0	22.3	.0	.2
1987	999.2	3.5	999.2	3.5	.0	.0
1988	1014.9	15.5	1011.8	16.4	-.3	-3.1
1989	983.2	4.1	984.2	4.1	.1	1.0
1990	997.5	9.6	997.1	9.7	.0	-.4
1991	948.0	-5.8	945.6	-5.7	-.3	-2.4
Mean:	1004.1	9.0	1004.2	9.0	.0	.1
Median:	1014.6	5.7	1014.0	5.7	.0	.0
Min:	908.2	-5.8	908.1	-5.7	-.3	-3.1
Max:	1034.4	116.8	1034.4	113.7	.6	5.1
X > 1020.0	26		26			
X > 1017.0	30		30			
X > 995.0	54		54			
X > 980.0	59		59			
X > 973.0	61		60			
X > 955.0	63		63			
X > 951.0	63		63			
X > 943.0	65		66			
X > 941.0	66		66			

SHASTA RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1012.4	.0	1012.4	.0	.0	.0
1923	1009.9	-.4	1009.8	-.5	.0	-.1
1924	974.6	6.5	974.6	6.5	.0	.0
1925	984.4	76.2	984.4	76.3	.0	.0
1926	1013.8	31.3	1015.9	30.9	.2	2.1
1927	1024.2	-5.9	1024.2	-6.2	.0	.0
1928	1036.3	14.0	1036.3	14.0	.0	.0
1929	997.0	7.8	997.8	7.8	.1	.8
1930	1006.0	15.4	1006.2	14.7	.0	.2
1931	976.3	3.0	975.1	3.0	-.1	-1.2
1932	921.5	9.7	919.8	9.7	-.2	-1.7
1933	914.1	2.8	919.1	2.7	.5	5.0
1934	961.1	18.3	961.8	18.2	.1	.7
1935	950.7	20.6	950.0	20.8	-.1	-.7
1936	1014.7	39.6	1015.3	39.5	.1	.6
1937	948.4	5.3	949.2	5.3	.1	.8
1938	1028.0	-.6	1028.0	-.6	.0	.0
1939	1014.8	.2	1014.8	.2	.0	.0
1940	1015.6	5.1	1015.6	7.0	.0	.0
1941	1022.6	4.3	1022.6	4.3	.0	.0
1942	1026.3	5.1	1026.3	5.1	.0	.0
1943	1039.0	11.7	1039.0	11.7	.0	.0
1944	1017.3	9.7	1017.3	9.7	.0	.0
1945	1033.5	28.2	1033.6	28.2	.0	.1
1946	1033.7	3.3	1033.5	3.1	.0	-.2
1947	1006.3	9.1	1007.2	9.0	.1	.9
1948	1006.8	.1	1007.4	.2	.1	.6
1949	1009.8	4.9	1010.0	4.8	.0	.2
1950	1015.2	15.3	1015.3	15.3	.0	.1
1951	1037.0	6.5	1037.0	6.5	.0	.0
1952	1034.9	5.2	1034.9	5.2	.0	.0
1953	1029.3	9.0	1029.3	9.0	.0	.0
1954	1031.9	4.2	1031.9	4.2	.0	.0
1955	1021.3	1.0	1021.3	1.0	.0	.0
1956	1017.1	1.5	1017.1	1.5	.0	.0
1957	1032.5	23.4	1032.5	23.4	.0	.0
1958	1015.6	-11.3	1015.6	-11.3	.0	.0
1959	1036.3	4.9	1036.3	4.9	.0	.0
1960	1024.1	29.2	1022.0	29.5	-.2	-2.1
1961	1037.7	23.8	1037.8	24.5	.0	.1
1962	1032.5	25.0	1032.5	23.0	.0	.0
1963	1042.6	21.0	1042.6	21.0	.0	.0
1964	1030.5	2.5	1030.5	2.5	.0	.0
1965	1031.8	11.4	1031.8	11.4	.0	.0
1966	1045.9	11.5	1045.9	11.5	.0	.0
1967	1041.7	14.0	1041.7	14.0	.0	.0
1968	1031.9	13.2	1031.9	13.2	.0	.0
1969	1024.9	4.9	1024.9	4.9	.0	.0
1970	1022.9	7.3	1022.9	7.3	.0	.0
1971	1038.3	12.0	1038.3	12.0	.0	.0
1972	1038.8	10.6	1038.8	10.6	.0	.0
1973	1031.0	3.3	1031.0	3.3	.0	.0
1974	1033.2	17.6	1033.2	17.6	.0	.0
1975	1040.1	23.4	1040.1	23.4	.0	.0
1976	1016.8	4.0	1016.8	4.0	.0	.0
1977	962.0	-9.0	964.1	-8.8	.2	2.1
1978	1031.5	31.0	1031.5	27.8	.0	.0
1979	1019.3	11.3	1019.3	11.3	.0	.0
1980	1017.3	-9.5	1017.3	-9.5	.0	.0
1981	1033.7	12.8	1033.7	12.8	.0	.0
1982	1026.8	-3.4	1026.8	-3.4	.0	.0
1983	1015.6	-5.0	1015.6	-5.0	.0	.0
1984	1042.6	11.1	1042.6	11.1	.0	.0
1985	1021.4	1.9	1021.4	1.9	.0	.0
1986	1015.6	1.8	1015.6	1.6	.0	.0
1987	1011.3	12.1	1011.3	12.1	.0	.0
1988	1018.1	3.2	1015.7	3.9	-.2	-2.4
1989	987.1	3.9	988.1	3.9	.1	1.0
1990	999.6	2.1	999.2	2.1	.0	-.4
1991	940.9	-7.1	937.9	-7.7	-.3	-3.0
Mean:	1014.0	9.7	1014.0	9.6	.0	.1
Median:	1021.3	6.5	1021.3	6.5	.0	.0
Min:	914.1	-11.3	919.1	-11.3	-.3	-3.0
Max:	1045.9	76.2	1045.9	76.3	.5	5.0

X > 1020.0	36	36
X > 1017.0	41	40
X > 995.0	59	59
X > 980.0	61	61
X > 973.0	63	63
X > 955.0	65	65
X > 951.0	65	65
X > 943.0	67	67
X > 941.0	67	67

SHASTA RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1024.3	.0	1024.3	.0	.0	.0
1923	1010.7	.8	1010.4	.6	.0	-.3
1924	974.2	-.4	974.2	-.4	.0	.0
1925	991.0	6.6	991.2	6.8	.0	.2
1926	1017.5	3.7	1019.6	3.7	.2	2.1
1927	1044.0	19.8	1043.7	19.5	.0	-.3
1928	1043.3	7.0	1043.3	7.0	.0	.0
1929	1003.6	6.6	1004.4	6.6	.1	.8
1930	1023.9	17.9	1024.2	18.0	.0	.3
1931	981.4	5.1	979.9	4.8	-.2	-1.5
1932	948.9	27.4	947.5	27.7	-.1	-1.4
1933	952.4	38.3	956.3	37.2	.4	3.9
1934	974.3	13.2	975.0	13.2	.1	.7
1935	972.3	21.6	971.6	21.6	-.1	-.7
1936	1024.7	10.0	1025.3	10.0	.1	.6
1937	984.0	35.6	984.6	35.4	.1	.6
1938	1022.3	-5.7	1022.3	-5.7	.0	.0
1939	1026.7	11.9	1026.7	11.9	.0	.0
1940	1023.1	7.5	1023.1	7.5	.0	.0
1941	1042.4	19.8	1042.4	19.8	.0	.0
1942	1034.6	8.3	1034.6	8.3	.0	.0
1943	1048.8	9.8	1048.8	9.8	.0	.0
1944	1025.6	8.3	1025.6	8.3	.0	.0
1945	1040.0	6.5	1040.1	6.5	.0	.1
1946	1043.1	9.4	1042.7	9.2	.0	-.4
1947	1026.2	19.9	1026.4	19.2	.0	.2
1948	1017.9	11.1	1018.4	11.0	.0	.5
1949	1046.9	37.1	1047.1	37.1	.0	.2
1950	1029.0	13.8	1029.0	13.7	.0	.0
1951	1049.2	12.2	1049.2	12.2	.0	.0
1952	1045.4	10.5	1045.4	10.5	.0	.0
1953	1043.1	13.8	1043.1	13.8	.0	.0
1954	1048.4	16.5	1048.4	16.5	.0	.0
1955	1023.2	1.9	1023.2	1.9	.0	.0
1956	1042.0	24.9	1042.0	24.9	.0	.0
1957	1049.2	16.7	1049.2	16.7	.0	.0
1958	1022.3	6.7	1022.3	6.7	.0	.0
1959	1047.4	11.1	1047.6	11.3	.0	.2
1960	1045.0	20.9	1043.2	21.2	-.2	-1.8
1961	1052.2	14.5	1052.3	14.5	.0	.1
1962	1044.3	11.8	1044.4	11.9	.0	.1
1963	1052.7	10.1	1052.7	10.1	.0	.0
1964	1031.0	.5	1031.0	.5	.0	.0
1965	1035.6	3.8	1035.6	3.8	.0	.0
1966	1052.8	6.9	1052.8	6.9	.0	.0
1967	1045.8	4.1	1045.8	4.1	.0	.0
1968	1048.9	17.0	1048.9	17.0	.0	.0
1969	1045.7	20.8	1045.7	20.8	.0	.0
1970	1043.6	20.7	1043.6	20.7	.0	.0
1971	1039.9	1.6	1039.9	1.6	.0	.0
1972	1053.5	14.7	1053.5	14.7	.0	.0
1973	1050.4	19.4	1050.4	19.4	.0	.0
1974	1022.3	-10.9	1022.3	-10.9	.0	.0
1975	1037.2	-2.9	1037.2	-2.9	.0	.0
1976	1021.9	5.1	1021.9	5.1	.0	.0
1977	948.0	-14.0	951.0	-13.1	.3	3.0
1978	1043.1	11.6	1043.1	11.6	.0	.0
1979	1034.5	15.2	1034.4	15.1	.0	-.1
1980	1042.7	25.4	1042.7	25.4	.0	.0
1981	1051.5	17.8	1051.5	17.8	.0	.0
1982	1042.9	16.1	1042.9	16.1	.0	.0
1983	1022.3	6.7	1022.3	6.7	.0	.0
1984	1061.7	19.1	1061.7	19.1	.0	.0
1985	1025.0	3.6	1025.0	3.6	.0	.0
1986	1027.0	11.4	1027.0	11.4	.0	.0
1987	1037.3	26.0	1037.3	26.0	.0	.0
1988	1018.5	.4	1016.2	.5	-.2	-2.3
1989	1038.7	51.6	1038.7	50.6	.0	.0
1990	1010.0	10.4	1009.6	10.4	.0	-.4
1991	965.9	25.0	963.3	25.4	-.3	-2.6
Mean:	1026.6	12.4	1026.6	12.4	.0	.0
Median:	1034.6	11.1	1034.6	11.3	.0	.0
Min:	948.0	-14.0	947.5	-13.1	-.3	-2.6
Max:	1061.7	51.6	1061.7	50.6	.4	3.9
X > 1020.0	54		54			
X > 1017.0	57		56			
X > 995.0	60		60			
X > 980.0	63		62			
X > 973.0	65		65			
X > 955.0	67		68			
X > 951.0	68		68			
X > 943.0	70		70			
X > 941.0	70		70			

SHASTA RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1042.6	.0	1042.6	.0	.0	.0
1923	1023.0	12.3	1022.5	12.1	.0	-.5
1924	962.4	-11.8	962.4	-11.8	.0	.0
1925	1020.7	29.7	1020.8	29.6	.0	.1
1926	1028.8	11.3	1030.8	11.2	.2	2.0
1927	1063.8	19.8	1063.8	20.1	.0	.0
1928	1059.2	15.9	1059.2	15.9	.0	.0
1929	1007.5	3.9	1007.6	3.2	.0	.1
1930	1029.5	5.6	1029.7	5.5	.0	.2
1931	966.8	-14.6	965.2	-14.7	-.2	-1.6
1932	957.0	8.1	956.7	9.2	.0	-.3
1933	957.7	5.3	961.1	4.8	.4	3.4
1934	974.5	.2	973.8	-1.2	-.1	-.7
1935	1017.3	45.0	1016.8	45.2	.0	-.5
1936	1033.7	9.0	1034.2	8.9	.0	.5
1937	1015.1	31.1	1015.6	31.0	.0	.5
1938	1046.7	24.4	1046.7	24.4	.0	.0
1939	1027.2	.5	1026.6	-.1	-.1	-.6
1940	1049.9	26.8	1049.9	26.8	.0	.0
1941	1060.6	18.2	1060.6	18.2	.0	.0
1942	1056.7	22.1	1056.7	22.1	.0	.0
1943	1062.9	14.1	1062.9	14.1	.0	.0
1944	1030.3	4.7	1030.6	5.0	.0	.3
1945	1045.0	5.0	1045.1	5.0	.0	.1
1946	1050.0	6.9	1050.2	7.5	.0	.2
1947	1032.1	5.9	1032.6	6.2	.0	.5
1948	1051.9	34.0	1052.3	33.9	.0	.4
1949	1058.5	11.6	1058.7	11.6	.0	.2
1950	1041.4	12.4	1041.4	12.4	.0	.0
1951	1053.3	4.1	1053.3	4.1	.0	.0
1952	1054.9	9.5	1054.9	9.5	.0	.0
1953	1054.3	11.2	1054.3	11.2	.0	.0
1954	1063.6	15.2	1063.6	15.2	.0	.0
1955	1035.1	11.9	1035.1	11.9	.0	.0
1956	1058.5	16.5	1058.5	16.5	.0	.0
1957	1054.6	5.4	1054.7	5.5	.0	.1
1958	1050.8	28.5	1050.8	28.5	.0	.0
1959	1051.0	3.6	1051.2	3.6	.0	.2
1960	1048.6	3.6	1047.0	3.8	-.2	-1.6
1961	1052.7	.5	1054.7	2.4	.2	2.0
1962	1053.6	9.3	1053.8	9.4	.0	.2
1963	1049.5	-3.2	1049.5	-3.2	.0	.0
1964	1028.6	-2.4	1029.1	-1.9	.0	.5
1965	1061.3	25.7	1061.3	25.7	.0	.0
1966	1063.8	11.0	1063.8	11.0	.0	.0
1967	1061.4	15.6	1061.4	15.6	.0	.0
1968	1050.6	1.7	1050.6	1.7	.0	.0
1969	1059.8	14.1	1059.8	14.1	.0	.0
1970	1046.3	2.7	1046.3	2.7	.0	.0
1971	1058.5	18.6	1058.5	18.6	.0	.0
1972	1061.8	8.3	1061.8	8.3	.0	.0
1973	1058.5	8.1	1058.5	8.1	.0	.0
1974	1054.9	32.6	1054.9	32.6	.0	.0
1975	1056.2	19.0	1056.2	19.0	.0	.0
1976	1027.1	5.2	1027.1	5.2	.0	.0
1977	930.4	-17.6	934.0	-17.0	.4	3.6
1978	1063.8	20.7	1063.8	20.7	.0	.0
1979	1040.0	5.5	1040.0	5.6	.0	.0
1980	1051.5	8.8	1051.5	8.8	.0	.0
1981	1055.3	3.8	1055.3	3.8	.0	.0
1982	1047.9	5.0	1047.9	5.0	.0	.0
1983	1047.3	25.0	1047.3	25.0	.0	.0
1984	1063.8	2.1	1063.8	2.1	.0	.0
1985	1031.0	6.0	1031.0	6.0	.0	.0
1986	1038.1	11.1	1038.1	11.1	.0	.0
1987	1033.0	-4.3	1033.0	-4.3	.0	.0
1988	1021.0	2.5	1019.2	3.0	-.2	-1.8
1989	1050.7	12.0	1050.7	12.0	.0	.0
1990	1007.3	-2.7	1004.6	-5.0	-.3	-2.7
1991	973.8	7.9	971.3	8.0	-.3	-2.5
Mean:	1037.1	10.3	1037.1	10.3	.0	.0
Median:	1048.6	8.3	1047.9	8.8	.0	.0
Min:	930.4	-17.6	934.0	-17.0	-.3	-2.7
Max:	1063.8	45.0	1063.8	45.2	.4	3.6

X > 1020.0	59	58
X > 1017.0	60	59
X > 995.0	63	63
X > 980.0	63	63
X > 973.0	65	64
X > 955.0	69	69
X > 951.0	69	69
X > 943.0	69	69
X > 941.0	69	69

SHASTA RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1053.7	.0	1053.7	.0	.0	.0
1923	1020.0	-3.0	1019.6	-2.9	.0	-.4
1924	952.4	-10.0	952.4	-10.0	.0	.0
1925	1030.6	9.9	1031.6	10.8	.1	1.0
1926	1026.3	-2.5	1028.3	-2.5	.2	2.0
1927	1063.8	.0	1063.8	.0	.0	.0
1928	1056.0	-3.2	1056.0	-3.2	.0	.0
1929	1002.3	-5.2	1001.5	-6.1	-.1	-.8
1930	1029.0	-.5	1029.2	-.5	.0	.2
1931	957.1	-9.7	956.5	-8.7	-.1	-.6
1932	965.2	8.2	965.9	9.2	.1	.7
1933	958.9	1.2	962.3	1.2	.4	3.4
1934	964.9	-9.6	964.1	-9.7	-.1	-.8
1935	1023.5	6.2	1024.2	7.4	.1	.7
1936	1027.7	-6.0	1028.3	-5.9	.1	.6
1937	1020.2	5.1	1020.9	5.3	.1	.7
1938	1063.8	17.1	1063.8	17.1	.0	.0
1939	1016.6	-10.6	1015.7	-10.9	-.1	-.9
1940	1054.5	4.6	1054.1	4.2	.0	-.4
1941	1063.8	3.2	1063.8	3.2	.0	.0
1942	1063.8	7.1	1063.8	7.1	.0	.0
1943	1063.8	.9	1063.8	.9	.0	.0
1944	1031.0	.7	1031.7	1.1	.1	.7
1945	1047.9	2.9	1048.0	2.9	.0	.1
1946	1050.8	.8	1051.4	1.2	.1	.6
1947	1021.0	-11.1	1022.3	-10.3	.1	1.3
1948	1063.8	11.9	1063.8	11.5	.0	.0
1949	1059.4	.9	1059.5	.8	.0	.1
1950	1038.5	-2.9	1038.5	-2.9	.0	.0
1951	1059.7	6.4	1059.7	6.4	.0	.0
1952	1063.8	8.9	1063.8	8.9	.0	.0
1953	1063.8	9.5	1063.8	9.5	.0	.0
1954	1061.5	-2.1	1061.6	-2.0	.0	.1
1955	1045.4	10.3	1046.1	11.0	.1	.7
1956	1063.8	5.3	1063.8	5.3	.0	.0
1957	1063.8	9.2	1063.8	9.1	.0	.0
1958	1063.8	13.0	1063.8	13.0	.0	.0
1959	1047.3	-3.7	1046.8	-4.4	.0	-.5
1960	1053.4	4.8	1052.2	5.2	-.1	-1.2
1961	1050.3	-2.4	1051.7	-3.0	.1	1.4
1962	1052.0	-1.6	1052.2	-1.6	.0	.2
1963	1063.8	14.3	1063.8	14.3	.0	.0
1964	1025.0	-3.6	1026.2	-2.9	.1	1.2
1965	1062.0	.7	1062.0	.7	.0	.0
1966	1055.9	-7.9	1055.7	-8.1	.0	-.2
1967	1063.8	2.4	1063.8	2.4	.0	.0
1968	1048.2	-2.4	1048.2	-2.4	.0	.0
1969	1063.8	4.0	1063.8	4.0	.0	.0
1970	1045.3	-1.0	1045.3	-1.0	.0	.0
1971	1063.8	5.3	1063.8	5.3	.0	.0
1972	1053.3	-8.5	1052.6	-9.2	-.1	-.7
1973	1063.1	4.6	1063.1	4.6	.0	.0
1974	1063.8	8.9	1063.8	8.9	.0	.0
1975	1063.8	7.6	1063.8	7.6	.0	.0
1976	1024.1	-3.0	1022.7	-4.4	-.1	-1.4
1977	930.9	.5	935.0	1.0	.4	4.1
1978	1063.8	.0	1063.8	.0	.0	.0
1979	1048.9	8.9	1048.9	8.9	.0	.0
1980	1054.7	3.2	1054.7	3.2	.0	.0
1981	1047.1	-8.2	1046.5	-8.8	-.1	-.6
1982	1063.8	15.9	1063.8	15.9	.0	.0
1983	1063.8	16.5	1063.8	16.5	.0	.0
1984	1060.2	-3.6	1059.5	-4.3	-.1	-.7
1985	1027.7	-3.3	1027.2	-3.8	.0	-.5
1986	1042.1	4.0	1042.1	4.0	.0	.0
1987	1023.0	-10.0	1020.9	-12.1	-.2	-2.1
1988	1016.5	-4.5	1015.1	-4.1	-.1	-1.4
1989	1045.6	-5.1	1044.3	-6.4	-.1	-1.3
1990	1010.9	3.6	1007.6	3.0	-.3	-3.3
1991	974.2	.4	972.8	1.5	-.1	-1.4
Mean:	1038.7	1.5	1038.7	1.5	.0	.0
Median:	1050.3	.7	1051.4	1.0	.0	.0
Min:	930.9	-11.1	935.0	-12.1	-.3	-3.3
Max:	1063.8	17.1	1063.8	17.1	.4	4.1

X > 1020.0	58	58
X > 1017.0	59	59
X > 995.0	63	63
X > 980.0	63	63
X > 973.0	64	63
X > 955.0	68	68
X > 951.0	69	69
X > 943.0	69	69
X > 941.0	69	69

SHASTA RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1046.5	.0	1046.5	.0	.0	.0
1923	1010.4	-9.6	1010.2	-9.4	.0	-.2
1924	934.6	-17.8	934.5	-17.9	.0	-.1
1925	1024.9	-5.7	1026.7	-4.9	.2	1.8
1926	1012.6	-13.7	1013.8	-14.5	.1	1.2
1927	1058.7	-5.1	1058.7	-5.1	.0	.0
1928	1045.8	-10.2	1045.2	-10.8	-.1	-.6
1929	996.1	-6.2	997.5	-4.0	.1	1.4
1930	1017.9	-11.1	1017.9	-11.3	.0	.0
1931	944.8	-12.3	944.2	-12.3	-.1	-.6
1932	960.9	-4.3	960.9	-5.0	.0	.0
1933	953.6	-5.3	955.8	-6.5	.2	2.2
1934	947.1	-17.8	947.1	-17.0	.0	.0
1935	1009.5	-14.0	1010.3	-13.9	.1	.8
1936	1020.0	-7.7	1020.6	-7.7	.1	.6
1937	1013.6	-6.6	1014.4	-6.5	.1	.8
1938	1058.7	-5.1	1058.7	-5.1	.0	.0
1939	1003.1	-13.5	1001.5	-14.2	-.2	-1.6
1940	1046.1	-8.4	1045.6	-8.5	.0	-.5
1941	1058.7	-5.1	1058.7	-5.1	.0	.0
1942	1058.7	-5.1	1058.7	-5.1	.0	.0
1943	1057.0	-6.8	1057.0	-6.8	.0	.0
1944	1021.7	-9.3	1021.8	-9.9	.0	.1
1945	1040.2	-7.7	1040.3	-7.7	.0	.1
1946	1042.2	-8.6	1042.8	-8.6	.1	.6
1947	1017.2	-3.8	1018.3	-4.0	.1	1.1
1948	1058.7	-5.1	1058.7	-5.1	.0	.0
1949	1044.5	-14.9	1044.4	-15.1	.0	-.1
1950	1028.1	-10.4	1028.2	-10.3	.0	.1
1951	1049.4	-10.3	1049.4	-10.3	.0	.0
1952	1058.7	-5.1	1058.7	-5.1	.0	.0
1953	1058.7	-5.1	1058.7	-5.1	.0	.0
1954	1054.9	-6.6	1054.5	-7.1	.0	-.4
1955	1025.8	-19.6	1030.4	-15.7	.4	4.6
1956	1058.7	-5.1	1058.7	-5.1	.0	.0
1957	1058.7	-5.1	1058.3	-5.5	.0	-.4
1958	1058.7	-5.1	1058.7	-5.1	.0	.0
1959	1031.6	-15.7	1030.8	-16.0	-.1	-.8
1960	1036.7	-16.7	1035.8	-16.4	-.1	-.9
1961	1038.0	-12.3	1041.3	-10.4	.3	3.3
1962	1043.1	-8.9	1043.0	-9.2	.0	-.1
1963	1058.7	-5.1	1058.7	-5.1	.0	.0
1964	1022.1	-2.9	1024.1	-2.1	.2	2.0
1965	1056.5	-5.5	1056.5	-5.5	.0	.0
1966	1043.4	-12.5	1042.4	-13.3	-.1	-1.0
1967	1058.7	-5.1	1058.7	-5.1	.0	.0
1968	1036.3	-11.9	1034.8	-13.4	-.1	-1.5
1969	1058.7	-5.1	1058.7	-5.1	.0	.0
1970	1039.3	-6.0	1039.3	-6.0	.0	.0
1971	1058.7	-5.1	1058.7	-5.1	.0	.0
1972	1045.1	-8.2	1044.2	-8.4	-.1	-.9
1973	1055.2	-7.9	1054.8	-8.3	.0	-.4
1974	1058.7	-5.1	1058.7	-5.1	.0	.0
1975	1058.7	-5.1	1058.7	-5.1	.0	.0
1976	1014.5	-9.6	1013.5	-9.2	-.1	-1.0
1977	917.9	-13.0	922.2	-12.8	.5	4.3
1978	1054.2	-9.6	1054.2	-9.6	.0	.0
1979	1035.5	-13.4	1035.8	-13.1	.0	.3
1980	1049.3	-5.4	1049.3	-5.4	.0	.0
1981	1034.8	-12.3	1033.6	-12.9	-.1	-1.2
1982	1058.7	-5.1	1058.7	-5.1	.0	.0
1983	1062.2	-1.6	1062.2	-1.6	.0	.0
1984	1054.3	-5.9	1053.8	-5.7	.0	-.5
1985	1016.9	-10.8	1016.4	-10.8	.0	-.5
1986	1032.5	-9.6	1032.5	-9.6	.0	.0
1987	1007.6	-15.4	1005.4	-15.5	-.2	-2.2
1988	1004.0	-12.5	1004.4	-10.7	.0	.4
1989	1031.8	-13.8	1030.3	-14.0	-.1	-1.5
1990	1007.1	-3.8	1003.8	-3.8	-.3	-3.3
1991	964.5	-9.7	964.0	-8.8	-.1	-.5
Mean:	1030.0	-8.6	1030.1	-8.6	.0	.1
Median:	1039.3	-7.9	1040.3	-8.3	.0	.0
Min:	917.9	-19.6	922.2	-17.9	-.3	-3.3
Max:	1062.2	.0	1062.2	.0	.5	4.6
X > 1020.0	49		50			
X > 1017.0	52		52			
X > 995.0	63		63			
X > 980.0	63		63			
X > 973.0	63		63			
X > 955.0	65		66			
X > 951.0	66		66			
X > 943.0	68		68			
X > 941.0	68		68			

SHASTA RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1033.2	.0	1033.2	.0	.0	.0
1923	995.3	-15.1	995.2	-15.0	.0	-.1
1924	913.2	-21.4	913.1	-21.4	.0	-.1
1925	1009.6	-15.3	1012.6	-14.1	.3	3.0
1926	997.0	-15.6	997.3	-16.5	.0	.3
1927	1040.9	-17.8	1040.9	-17.8	.0	.0
1928	1020.4	-25.4	1023.0	-22.2	.3	2.6
1929	981.4	-14.7	981.7	-15.8	.0	.3
1930	1002.6	-15.3	1001.6	-16.3	-.1	-1.0
1931	923.1	-21.7	922.1	-22.1	-.1	-1.0
1932	946.4	-14.5	949.4	-11.5	.3	3.0
1933	940.8	-12.8	942.6	-13.2	.2	1.8
1934	928.1	-19.0	927.6	-19.5	-.1	-.5
1935	989.1	-20.4	990.3	-20.0	.1	1.2
1936	999.1	-20.9	999.7	-20.9	.1	.6
1937	995.2	-18.4	996.2	-18.2	.1	1.0
1938	1042.6	-16.1	1042.6	-16.1	.0	.0
1939	988.1	-15.0	986.2	-15.3	-.2	-1.9
1940	1030.6	-15.5	1028.8	-16.8	-.2	-1.8
1941	1043.7	-15.0	1043.7	-15.0	.0	.0
1942	1042.9	-15.8	1042.9	-15.8	.0	.0
1943	1040.9	-16.1	1040.9	-16.1	.0	.0
1944	1005.8	-15.9	1006.2	-15.6	.0	.4
1945	1019.8	-20.4	1020.3	-20.0	.0	.5
1946	1025.0	-17.2	1025.9	-16.9	.1	.9
1947	1001.2	-16.0	1001.2	-17.1	.0	.0
1948	1040.9	-17.8	1040.9	-17.8	.0	.0
1949	1028.8	-15.7	1026.5	-17.9	-.2	-2.3
1950	1010.7	-17.4	1010.8	-17.4	.0	.1
1951	1033.4	-16.0	1032.0	-17.4	-.1	-1.4
1952	1043.0	-15.7	1043.0	-15.7	.0	.0
1953	1042.8	-15.9	1042.8	-15.9	.0	.0
1954	1035.2	-19.7	1034.5	-20.0	-.1	-.7
1955	1010.6	-15.2	1014.5	-15.9	.4	3.9
1956	1041.8	-16.9	1041.8	-16.9	.0	.0
1957	1040.9	-17.8	1040.9	-17.4	.0	.0
1958	1044.6	-14.1	1044.6	-14.1	.0	.0
1959	1006.5	-25.1	1005.3	-25.5	-.1	-1.2
1960	1016.3	-20.4	1015.8	-20.0	.0	-.5
1961	1017.6	-20.4	1022.2	-19.1	.5	4.6
1962	1029.4	-13.7	1027.5	-15.5	-.2	-1.9
1963	1040.9	-17.8	1040.9	-17.8	.0	.0
1964	1008.2	-13.9	1008.6	-15.5	.0	.4
1965	1040.9	-15.6	1040.9	-15.6	.0	.0
1966	1025.1	-18.3	1023.6	-18.8	-.1	-1.5
1967	1042.9	-15.8	1042.9	-15.8	.0	.0
1968	1014.9	-21.4	1011.4	-23.4	-.3	-3.5
1969	1042.0	-16.7	1042.0	-16.7	.0	.0
1970	1017.0	-22.3	1016.4	-22.9	-.1	-.6
1971	1043.2	-15.5	1043.2	-15.5	.0	.0
1972	1023.0	-22.1	1022.2	-22.0	-.1	-.8
1973	1039.7	-15.5	1038.7	-16.1	-.1	-1.0
1974	1044.2	-14.5	1044.2	-14.5	.0	.0
1975	1042.7	-16.0	1042.7	-16.0	.0	.0
1976	1000.9	-13.6	1000.3	-13.2	-.1	-.6
1977	892.3	-25.6	897.5	-24.7	.6	5.2
1978	1040.9	-13.3	1040.9	-13.3	.0	.0
1979	1017.4	-18.1	1019.5	-16.3	.2	2.1
1980	1039.6	-9.7	1039.6	-9.7	.0	.0
1981	1019.6	-15.2	1018.3	-15.3	-.1	-1.3
1982	1042.2	-16.5	1042.2	-16.5	.0	.0
1983	1049.8	-12.4	1049.8	-12.4	.0	.0
1984	1038.9	-15.4	1037.4	-16.4	-.1	-1.5
1985	1004.3	-12.6	1003.7	-12.7	-.1	-.6
1986	1019.9	-12.6	1019.9	-12.6	.0	.0
1987	995.2	-12.4	992.3	-13.1	-.3	-2.9
1988	985.2	-18.8	986.2	-18.2	.1	1.0
1989	1012.5	-19.3	1012.0	-18.3	.0	-.5
1990	986.4	-20.7	985.1	-18.7	-.1	-1.3
1991	951.0	-13.5	951.6	-12.4	.1	.6
Mean:	1013.1	-16.7	1013.2	-16.7	.0	.0
Median:	1019.8	-16.0	1020.3	-16.4	.0	.0
Min:	892.3	-25.6	897.5	-25.5	-.3	-3.5
Max:	1049.8	.0	1049.8	.0	.6	5.2
X > 1020.0	34		36			
X > 1017.0	39		39			
X > 995.0	58		57			
X > 980.0	63		63			
X > 973.0	63		63			
X > 955.0	63		63			
X > 951.0	63		64			
X > 943.0	65		65			
X > 941.0	65		66			

SHASTA RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1019.6	.0	1019.6	.0	.0	.0
1923	978.6	-16.7	978.7	-16.5	.0	.1
1924	885.9	-27.3	885.8	-27.3	.0	-.1
1925	990.7	-18.9	995.2	-17.4	.5	4.5
1926	979.1	-17.9	979.4	-17.9	.0	.3
1927	1019.6	-21.3	1019.6	-21.3	.0	.0
1928	1001.9	-18.5	1002.7	-20.3	.1	.8
1929	965.6	-15.8	966.6	-15.1	.1	1.0
1930	983.9	-18.7	982.8	-18.8	-.1	-1.1
1931	897.2	-25.9	895.3	-26.8	-.2	-1.9
1932	926.4	-20.0	931.0	-18.4	.5	4.6
1933	924.7	-16.1	926.7	-15.9	.2	2.0
1934	908.7	-19.4	907.8	-19.8	-.1	-.9
1935	960.1	-29.0	961.6	-28.7	.2	1.5
1936	971.8	-27.3	972.5	-27.2	.1	.7
1937	973.7	-21.5	975.8	-20.4	.2	2.1
1938	1019.6	-23.0	1019.6	-23.0	.0	.0
1939	971.3	-16.8	969.2	-17.0	-.2	-2.1
1940	1015.2	-15.4	1013.0	-15.8	-.2	-2.2
1941	1022.4	-21.3	1022.4	-21.3	.0	.0
1942	1020.2	-22.7	1020.2	-22.7	.0	.0
1943	1019.6	-21.3	1019.6	-21.3	.0	.0
1944	990.1	-15.7	991.3	-14.9	.1	1.2
1945	1003.5	-16.3	1004.0	-16.3	.0	.5
1946	1010.3	-14.7	1011.3	-14.6	.1	1.0
1947	986.9	-14.3	987.5	-13.7	.1	.6
1948	1019.6	-21.3	1019.6	-21.3	.0	.0
1949	1014.3	-14.5	1011.9	-14.6	-.2	-2.4
1950	993.4	-17.3	993.5	-17.3	.0	.1
1951	1019.3	-14.1	1017.9	-14.1	-.1	-1.4
1952	1019.6	-23.4	1019.6	-23.4	.0	.0
1953	1019.7	-23.1	1019.7	-23.1	.0	.0
1954	1019.6	-15.6	1019.6	-14.9	.0	.0
1955	996.9	-13.7	999.4	-15.1	.3	2.5
1956	1019.6	-22.2	1019.6	-22.2	.0	.0
1957	1019.6	-21.3	1019.6	-21.3	.0	.0
1958	1023.8	-20.8	1023.8	-20.8	.0	.0
1959	994.8	-11.7	990.6	-14.7	-.4	-4.2
1960	1000.5	-15.8	999.2	-16.6	-.1	-1.3
1961	1002.2	-15.4	1006.3	-15.9	.4	4.1
1962	1016.2	-13.2	1012.9	-14.6	-.3	-3.3
1963	1019.6	-21.3	1019.6	-21.3	.0	.0
1964	993.2	-15.0	993.5	-15.1	.0	.3
1965	1019.6	-21.3	1019.6	-21.3	.0	.0
1966	1014.4	-10.7	1010.4	-13.2	-.4	-4.0
1967	1021.0	-21.9	1021.0	-21.9	.0	.0
1968	1009.3	-5.6	1006.1	-5.3	-.3	-3.2
1969	1019.6	-22.4	1019.6	-22.4	.0	.0
1970	1007.1	-9.9	1005.8	-10.6	-.1	-1.3
1971	1019.6	-23.6	1019.6	-23.6	.0	.0
1972	1010.1	-12.9	1006.1	-16.1	-.4	-4.0
1973	1019.6	-20.1	1019.6	-19.1	.0	.0
1974	1023.2	-21.0	1023.2	-21.0	.0	.0
1975	1020.4	-22.3	1020.4	-22.3	.0	.0
1976	986.3	-14.6	986.5	-13.8	.0	.2
1977	860.2	-32.1	866.5	-31.0	.7	6.3
1978	1019.6	-21.3	1019.6	-21.3	.0	.0
1979	1008.1	-9.3	1009.8	-9.7	.2	1.7
1980	1019.6	-20.0	1019.6	-20.0	.0	.0
1981	1002.8	-16.8	1000.9	-17.4	-.2	-1.9
1982	1019.6	-22.6	1019.6	-22.6	.0	.0
1983	1031.9	-17.9	1031.9	-17.9	.0	.0
1984	1019.6	-19.3	1019.6	-17.8	.0	.0
1985	989.3	-15.0	990.1	-13.6	.1	.8
1986	1007.7	-12.2	1007.7	-12.2	.0	.0
1987	983.2	-12.0	980.4	-11.9	-.3	-2.8
1988	970.7	-14.5	971.8	-14.4	.1	1.1
1989	995.3	-17.2	994.4	-17.6	-.1	-.9
1990	970.5	-15.9	969.4	-15.7	-.1	-1.1
1991	938.9	-12.1	939.5	-12.1	.1	.6
Mean:	994.9	-18.0	994.9	-18.1	.0	.0
Median:	1007.7	-17.9	1006.1	-17.8	.0	.0
Min:	860.2	-32.1	866.5	-31.0	-.4	-4.2
Max:	1031.9	.0	1031.9	.0	.7	6.3

X > 1020.0	7	7
X > 1017.0	27	27
X > 995.0	44	44
X > 980.0	54	54
X > 973.0	57	57
X > 955.0	63	63
X > 951.0	63	63
X > 943.0	63	63
X > 941.0	63	63

SHASTA RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1013.1	.0	1013.1	.0	.0	.0
1923	970.3	-8.3	970.3	-8.4	.0	.0
1924	875.6	-10.3	875.5	-10.3	.0	-.1
1925	982.6	-8.1	987.3	-7.9	.5	4.7
1926	969.4	-9.7	969.8	-9.6	.0	.4
1927	1017.6	-2.0	1017.6	-2.0	.0	.0
1928	994.4	-7.5	995.3	-7.4	.1	.9
1929	955.3	-10.3	956.5	-10.1	.1	1.2
1930	975.0	-8.9	973.8	-9.0	-.1	-1.2
1931	887.0	-10.2	884.9	-10.4	-.2	-2.1
1932	918.0	-8.4	922.9	-8.1	.5	4.9
1933	917.5	-7.2	919.5	-7.2	.2	2.0
1934	897.3	-11.4	896.3	-11.5	-.1	-1.0
1935	949.8	-10.3	950.7	-10.9	.1	.9
1936	961.4	-10.4	962.1	-10.4	.1	.7
1937	963.5	-10.2	965.7	-10.1	.2	2.2
1938	1017.6	-2.0	1017.6	-2.0	.0	.0
1939	961.9	-9.4	959.8	-9.4	-.2	-2.1
1940	1008.6	-6.6	1006.2	-6.8	-.2	-2.4
1941	1017.6	-4.8	1017.6	-4.8	.0	.0
1942	1017.6	-2.6	1017.6	-2.6	.0	.0
1943	1017.6	-2.0	1017.6	-2.0	.0	.0
1944	982.2	-7.9	983.5	-7.8	.1	1.3
1945	996.5	-7.0	997.0	-7.0	.1	.5
1946	1003.7	-6.6	1004.6	-6.7	.1	.9
1947	978.8	-8.1	979.4	-8.1	.1	.6
1948	1015.0	-4.6	1015.3	-4.3	.0	.3
1949	1006.6	-7.7	1004.1	-7.8	-.2	-2.5
1950	985.1	-8.3	985.2	-8.3	.0	.1
1951	1012.4	-6.9	1010.9	-7.0	-.1	-1.5
1952	1017.6	-2.0	1017.6	-2.0	.0	.0
1953	1017.6	-2.1	1017.6	-2.1	.0	.0
1954	1015.5	-4.1	1015.5	-4.1	.0	.0
1955	990.1	-6.8	992.6	-6.8	.3	2.5
1956	1017.6	-2.0	1017.6	-2.0	.0	.0
1957	1017.6	-2.0	1017.6	-2.0	.0	.0
1958	1017.6	-6.2	1017.6	-6.2	.0	.0
1959	990.7	-4.1	986.4	-4.2	-.4	-4.3
1960	993.7	-6.8	992.4	-6.8	-.1	-1.3
1961	995.2	-7.0	999.4	-6.9	.4	4.2
1962	1009.2	-7.0	1005.8	-7.1	-.3	-3.4
1963	1017.6	-2.0	1017.6	-2.0	.0	.0
1964	985.3	-7.9	985.6	-7.9	.0	.3
1965	1017.6	-2.0	1017.6	-2.0	.0	.0
1966	1008.1	-6.3	1004.0	-6.4	-.4	-4.1
1967	1017.6	-3.4	1017.6	-3.4	.0	0
1968	1003.8	-5.5	1000.5	-5.6	-.3	-3.3
1969	1017.6	-2.0	1017.6	-2.0	.0	.0
1970	1001.4	-5.7	1000.2	-5.6	-.1	-1.2
1971	1017.6	-2.0	1017.6	-2.0	.0	.0
1972	1005.1	-5.0	1001.0	-5.1	-.4	-4.1
1973	1014.8	-4.8	1014.8	-4.8	.0	.0
1974	1017.6	-5.6	1017.6	-5.6	.0	.0
1975	1017.6	-2.8	1017.6	-2.8	.0	.0
1976	980.3	-6.0	980.6	-5.9	.0	.3
1977	857.7	-2.5	864.2	-2.3	.8	6.5
1978	1015.8	-3.8	1015.8	-3.8	.0	.0
1979	1001.1	-7.0	1002.8	-7.0	.2	1.7
1980	1015.0	-4.6	1015.0	-4.6	.0	.0
1981	995.2	-7.6	993.2	-7.7	-.2	-2.0
1982	1017.6	-2.0	1017.6	-2.0	.0	.0
1983	1017.6	-14.3	1017.6	-14.3	.0	.0
1984	1015.5	-4.1	1015.5	-4.1	.0	.0
1985	983.3	-6.0	984.2	-5.9	.1	.9
1986	1003.3	-4.4	1003.3	-4.4	.0	.0
1987	975.8	-7.4	972.9	-7.5	-.3	-2.9
1988	962.4	-8.3	963.5	-8.3	.1	1.1
1989	988.8	-6.5	987.9	-6.5	-.1	-.9
1990	961.6	-8.9	960.4	-9.0	-.1	-1.2
1991	933.0	-5.9	933.7	-5.8	.1	.7
Mean:	988.8	-6.0	988.8	-6.0	.0	.0
Median:	1001.4	-6.5	1000.5	-6.5	.0	.0
Min:	857.7	-14.3	864.2	-14.3	-.4	-4.3
Max:	1017.6	.0	1017.6	.0	.8	6.5
X > 1020.0	0		0			
X > 1017.0	19		19			
X > 995.0	40		40			
X > 980.0	51		51			
X > 973.0	54		53			
X > 955.0	62		62			
X > 951.0	62		62			
X > 943.0	63		63			
X > 941.0	63		63			

RETURN TO TABLE OF CONTENTS

Section 14

SHASTA RESERVOIR ELEVATION
14.3 Recreation

SHASTA RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.6	.0	997.6	.0	.0	.0
1923	1009.3	-3.8	1009.3	-3.8	.0	.0
1924	969.7	-.6	969.7	-.6	.0	.0
1925	877.0	1.4	876.9	1.4	.0	-.1
1926	981.9	-.7	985.9	-1.4	.4	4.0
1927	969.5	.1	969.9	.1	.0	.4
1928	1015.5	-2.1	1015.5	-2.1	.0	.0
1929	990.7	-3.7	991.6	-3.7	.1	.9
1930	955.3	.0	956.4	-.1	.1	1.1
1931	973.6	-1.4	972.4	-1.4	-.1	-1.2
1932	884.8	-2.2	882.7	-2.2	-.2	-2.1
1933	913.5	-4.5	918.6	-4.3	.6	5.1
1934	916.0	-1.5	918.1	-1.4	.2	2.1
1935	895.2	-2.1	894.1	-2.2	-.1	-1.1
1936	946.0	-3.8	946.9	-3.8	.1	.9
1937	954.3	-7.1	955.0	-7.1	.1	.7
1938	963.0	-.5	965.3	-.4	.2	2.3
1939	1015.5	-2.1	1015.5	-2.1	.0	.0
1940	962.5	.6	960.3	.5	-.2	-2.2
1941	1004.2	-4.4	1001.8	-4.4	-.2	-2.4
1942	1015.5	-2.1	1015.5	-2.1	.0	.0
1943	1015.5	-2.1	1015.5	-2.1	.0	.0
1944	1015.5	-2.1	1015.5	-2.1	.0	.0
1945	981.1	-1.1	982.4	-1.1	.1	1.3
1946	996.3	-.2	996.8	-.2	.1	.5
1947	999.6	-4.1	1000.5	-4.1	.1	.9
1948	982.0	3.2	982.6	3.2	.1	.6
1949	1015.1	.1	1015.3	.0	.0	.2
1950	1000.9	-5.7	999.1	-5.0	-.2	-1.8
1951	999.4	14.3	999.4	14.2	.0	.0
1952	1008.8	-3.6	1007.3	-3.6	-.1	-1.5
1953	1015.5	-2.1	1015.5	-2.1	.0	.0
1954	1015.5	-2.1	1015.5	-2.1	.0	.0
1955	1015.3	-.2	1013.8	-1.7	-.1	-1.5
1956	987.4	-2.7	989.3	-3.3	.2	1.9
1957	1015.5	-2.1	1015.5	-2.1	.0	.0
1958	1015.5	-2.1	1015.5	-2.1	.0	.0
1959	1015.5	-2.1	1015.5	-2.1	.0	.0
1960	989.3	-1.4	985.8	-.6	-.4	-3.5
1961	991.4	-2.3	990.1	-2.3	-.1	-1.3
1962	992.7	-2.5	996.2	-3.2	.4	3.5
1963	1015.5	6.3	1015.5	9.7	.0	.0
1964	1015.5	-2.1	1015.5	-2.1	.0	.0
1965	983.6	-1.7	984.0	-1.6	.0	.4
1966	1015.5	-2.1	1015.5	-2.1	.0	.0
1967	1003.3	-4.8	999.8	-4.2	-.3	-3.5
1968	1015.5	-2.1	1015.5	-2.1	.0	.0
1969	1001.5	-2.3	998.2	-2.3	-.3	-3.3
1970	1015.5	-2.1	1015.5	-2.1	.0	.0
1971	999.9	-1.5	999.3	-.9	-.1	-.6
1972	1015.5	-2.1	1015.5	-2.1	.0	.0
1973	1003.9	-1.2	1000.5	-.5	-.3	-3.4
1974	1015.5	.7	1015.5	.7	.0	.0
1975	1015.5	-2.1	1015.5	-2.1	.0	.0
1976	1015.5	-2.1	1015.5	-2.1	.0	.0
1977	981.2	.9	981.4	.8	.0	.2
1978	848.4	-9.3	855.7	-8.5	.9	7.3
1979	1013.8	-2.0	1013.8	-2.0	.0	.0
1980	1000.0	-1.1	1001.8	-1.0	.2	1.8
1981	1010.7	-4.3	1010.7	-4.3	.0	.0
1982	993.5	-1.7	991.5	-1.7	-.2	-2.0
1983	1015.5	-2.1	1015.5	-2.1	.0	.0
1984	1015.5	-2.1	1015.5	-2.1	.0	.0
1985	1015.5	.0	1015.5	.0	.0	.0
1986	983.8	.5	984.7	.5	.1	.9
1987	1001.3	-2.0	1001.3	-2.0	.0	.0
1988	974.7	-1.1	971.0	-1.9	-.4	-3.7
1989	963.4	1.0	964.5	1.0	.1	1.1
1990	992.0	3.2	991.3	3.4	-.1	-.7
1991	961.6	.0	960.2	-.2	-.1	-1.4
Mean:	988.3	-1.4	988.3	-1.4	.0	.0
Median:	999.9	-2.1	999.3	-2.1	.0	.0
Min:	848.4	-9.3	855.7	-8.5	-.4	-3.7
Max:	1015.5	14.3	1015.5	14.2	.9	7.3
X > 924.0	64		64			
X > 918.0	64		66			
X > 876.0	69		69			
X > 856.0	69		69			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	995.9	.0	995.9	.0	.0	.0
1923	1006.6	-2.7	1006.6	-2.7	.0	.0
1924	968.4	-1.3	968.4	-1.3	.0	.0
1925	890.6	13.6	890.6	13.7	.0	.0
1926	982.3	.4	985.5	-.4	.3	3.2
1927	993.0	23.5	993.4	23.5	.0	.4
1928	1015.6	.1	1015.6	.1	.0	.0
1929	989.3	-1.4	990.1	-1.5	.1	.8
1930	954.0	-1.3	955.2	-1.2	.1	1.2
1931	972.5	-1.1	971.3	-1.1	-.1	-1.2
1932	883.4	-1.4	881.3	-1.4	-.2	-2.1
1933	910.5	-3.0	915.7	-2.9	.6	5.2
1934	914.6	-1.4	916.7	-1.4	.2	2.1
1935	905.7	10.5	904.7	10.6	-.1	-1.0
1936	942.0	-4.0	942.9	-4.0	.1	.9
1937	948.9	-5.4	949.7	-5.3	.1	.8
1938	991.8	28.8	993.7	28.4	.2	1.9
1939	1013.7	-1.8	1013.7	-1.8	.0	.0
1940	962.2	-.3	960.1	-.2	-.2	-2.1
1941	1001.4	-2.8	999.0	-2.8	-.2	-2.4
1942	1013.5	-2.0	1013.5	-2.0	.0	.0
1943	1015.6	.1	1015.6	.1	.0	.0
1944	1012.7	-2.8	1012.7	-2.8	.0	.0
1945	988.2	7.1	989.5	7.1	.1	1.3
1946	1005.4	9.1	1005.9	9.1	.0	.5
1947	999.4	-.2	1000.4	-.1	.1	1.0
1948	982.6	.6	983.2	.6	.1	.6
1949	1011.7	-3.4	1011.9	-3.4	.0	.2
1950	995.9	-5.0	994.7	-4.4	-.1	-1.2
1951	1014.8	15.4	1014.8	15.4	.0	.0
1952	1011.7	2.9	1010.9	3.6	-.1	-.8
1953	1011.7	-3.8	1011.7	-3.8	.0	.0
1954	1015.6	.1	1015.6	.1	.0	.0
1955	1015.6	.3	1015.6	1.8	.0	.0
1956	989.4	2.0	990.5	1.2	.1	1.1
1957	1012.8	-2.7	1012.8	-2.7	.0	.0
1958	1015.6	.1	1015.6	.1	.0	.0
1959	1012.7	-2.8	1012.7	-2.8	.0	.0
1960	987.8	-1.5	985.0	-.8	-.3	-2.8
1961	993.9	2.5	992.6	2.5	-.1	-1.3
1962	995.8	3.1	998.6	2.4	.3	2.8
1963	1015.0	-.5	1015.0	-.5	.0	.0
1964	1015.6	.1	1015.6	.1	.0	.0
1965	988.2	4.6	988.6	4.6	.0	.4
1966	1015.6	.1	1015.6	.1	.0	.0
1967	1013.5	10.2	1011.5	11.7	-.2	-2.0
1968	1012.9	-2.6	1012.9	-2.6	.0	.0
1969	1000.8	-.7	997.6	-.6	-.3	-3.2
1970	1013.0	-2.5	1013.0	-2.5	.0	.0
1971	1015.6	15.7	1015.6	16.3	.0	.0
1972	1014.7	-.8	1014.7	-.8	.0	.0
1973	1010.8	6.9	1008.1	7.6	-.3	-2.7
1974	1015.6	.1	1015.6	.1	.0	.0
1975	1014.4	-1.1	1014.4	-1.1	.0	.0
1976	1015.6	.1	1015.6	.1	.0	.0
1977	981.8	.6	982.1	.7	.0	.3
1978	842.1	-6.3	850.3	-5.4	1.0	8.2
1979	1010.5	-3.3	1010.5	-3.3	.0	.0
1980	1002.4	2.4	1004.1	2.3	.2	1.7
1981	1008.7	-2.0	1008.7	-2.0	.0	.0
1982	1015.6	22.1	1015.6	24.1	.0	.0
1983	1015.6	.1	1015.6	.1	.0	.0
1984	1015.6	.1	1015.6	.1	.0	.0
1985	1015.6	.1	1015.6	.1	.0	.0
1986	984.5	.7	985.4	.7	.1	.9
1987	998.5	-2.8	998.5	-2.8	.0	.0
1988	975.7	1.0	971.1	.1	-.5	-4.6
1989	974.0	10.6	975.1	10.6	.1	1.1
1990	990.9	-1.1	990.3	-1.0	-.1	-.6
1991	959.4	-2.2	957.4	-2.8	-.2	-2.0
Mean:	990.0	1.7	990.1	1.8	.0	.1
Median:	1001.4	.0	1000.4	-.1	.0	.0
Min:	842.1	-6.3	850.3	-5.4	-.5	-4.6
Max:	1015.6	28.8	1015.6	28.4	1.0	8.2

X > 924.0	64	64
X > 918.0	64	64
X > 876.0	69	69
X > 856.0	69	69
X > 848.0	69	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70

SHASTA RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.8	.0	997.8	.0	.0	.0
1923	1006.3	-.3	1006.3	-.3	.0	.0
1924	968.0	-.4	968.0	-.4	.0	.0
1925	898.5	7.9	898.5	7.9	.0	.0
1926	981.6	-.7	984.1	-1.4	.3	2.5
1927	1014.4	21.4	1014.7	21.3	.0	.3
1928	1016.4	.8	1016.4	.8	.0	.0
1929	987.7	-1.6	988.6	-1.5	.1	.9
1930	981.7	27.7	982.7	27.5	.1	1.0
1931	970.6	-1.9	969.4	-1.9	-.1	-1.2
1932	900.7	17.3	898.8	17.5	-.2	-1.9
1933	909.0	-1.5	914.2	-1.5	.6	5.2
1934	923.4	8.8	925.4	8.7	.2	2.0
1935	908.7	3.0	907.7	3.0	-.1	-1.0
1936	940.5	-1.5	941.4	-1.5	.1	.9
1937	944.7	-4.2	945.5	-4.2	.1	.8
1938	1018.0	26.2	1018.0	24.3	.0	.0
1939	1015.1	1.4	1015.1	1.4	.0	.0
1940	970.7	8.5	968.4	8.3	-.2	-2.3
1941	1017.3	15.9	1017.3	18.3	.0	.0
1942	1018.3	4.8	1018.3	4.8	.0	.0
1943	1019.9	4.3	1019.9	4.3	.0	.0
1944	1008.7	-4.0	1008.7	-4.0	.0	.0
1945	999.8	11.6	1001.0	11.5	.1	1.2
1946	1016.2	10.8	1016.2	10.3	.0	.0
1947	999.1	-.3	1000.1	-.3	.1	1.0
1948	982.3	-.3	982.9	-.3	.1	.6
1949	1008.6	-3.1	1008.8	-3.1	.0	.2
1950	989.8	-6.1	989.4	-5.3	.0	-.4
1951	1018.5	3.7	1018.5	3.7	.0	.0
1952	1017.9	6.2	1017.9	7.0	.0	.0
1953	1019.4	7.7	1019.4	7.7	.0	.0
1954	1018.9	3.3	1018.9	3.3	.0	.0
1955	1020.1	4.5	1020.1	4.5	.0	.0
1956	1015.6	26.2	1015.6	25.1	.0	.0
1957	1009.5	-3.3	1009.5	-3.3	.0	.0
1958	1019.2	3.6	1019.2	3.6	.0	.0
1959	1010.5	-2.2	1010.5	-2.2	.0	.0
1960	986.5	-1.3	984.4	-.6	-.2	-2.1
1961	1010.2	16.3	1009.0	16.4	-.1	-1.2
1962	1006.8	11.0	1008.8	10.2	.2	2.0
1963	1019.6	4.6	1019.6	4.6	.0	.0
1964	1015.5	-.1	1015.5	-.1	.0	.0
1965	1015.6	27.4	1015.6	27.0	.0	.0
1966	1017.8	2.2	1017.8	2.2	.0	.0
1967	1019.0	5.5	1019.0	7.5	.0	.0
1968	1013.0	.1	1013.0	.1	.0	.0
1969	1010.8	10.0	1007.7	10.1	-.3	-3.1
1970	1018.3	5.3	1018.3	5.3	.0	.0
1971	1018.4	2.8	1018.4	2.8	.0	.0
1972	1017.0	2.3	1017.0	2.3	.0	.0
1973	1018.4	7.6	1016.5	8.4	-.2	-1.9
1974	1016.2	.6	1016.2	.6	.0	.0
1975	1016.2	1.8	1016.2	1.8	.0	.0
1976	1015.2	-.4	1015.2	-.4	.0	.0
1977	976.2	-5.6	977.9	-4.2	.2	1.7
1978	883.7	41.6	890.0	39.7	.7	6.3
1979	1005.8	-4.7	1005.7	-4.8	.0	-.1
1980	1004.3	1.9	1005.6	1.5	.1	1.3
1981	1010.4	1.7	1010.4	1.7	.0	.0
1982	1016.6	1.0	1016.6	1.0	.0	.0
1983	1018.9	3.3	1018.9	3.3	.0	.0
1984	1017.0	1.4	1017.0	1.4	.0	.0
1985	1020.1	4.5	1020.1	4.5	.0	.0
1986	990.9	6.4	991.7	6.3	.1	.8
1987	995.7	-2.8	995.7	-2.8	.0	.0
1988	999.4	23.7	995.4	24.3	-.4	-4.0
1989	979.1	5.1	980.1	5.0	.1	1.0
1990	987.9	-3.0	987.4	-2.9	-.1	-.5
1991	953.8	-5.6	951.3	-6.1	-.3	-2.5
Mean:	995.1	5.1	995.2	5.1	.0	.1
Median:	1010.2	2.3	1009.0	2.3	.0	.0
Min:	883.7	-6.1	890.0	-6.1	-.4	-4.0
Max:	1020.1	41.6	1020.1	39.7	.7	6.3
X > 924.0	64		65			
X > 918.0	65		65			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	999.1	.0	999.1	.0	.0	.0
1923	1010.3	4.0	1010.3	4.0	.0	.0
1924	968.1	.1	968.1	.1	.0	.0
1925	908.2	9.7	908.1	9.6	.0	-.1
1926	982.5	.9	985.0	.9	.3	2.5
1927	1030.1	15.7	1030.4	15.7	.0	.3
1928	1022.3	5.9	1022.3	5.9	.0	.0
1929	989.2	1.5	990.0	1.4	.1	.8
1930	990.6	8.9	991.5	8.8	.1	.9
1931	973.3	2.7	972.1	2.7	-.1	-1.2
1932	911.8	11.1	910.1	11.3	-.2	-1.7
1933	911.3	2.3	916.4	2.2	.6	5.1
1934	942.8	19.4	943.6	18.2	.1	.8
1935	930.1	21.4	929.2	21.5	-.1	-.9
1936	975.1	34.6	975.8	34.4	.1	.7
1937	943.1	-1.6	943.9	-1.6	.1	.8
1938	1028.6	10.6	1028.6	10.6	.0	.0
1939	1014.6	-.5	1014.6	-.5	.0	.0
1940	1010.5	39.8	1008.6	40.2	-.2	-1.9
1941	1018.3	1.0	1018.3	1.0	.0	.0
1942	1021.2	2.9	1021.2	2.9	.0	.0
1943	1027.3	7.4	1027.3	7.4	.0	.0
1944	1007.6	-1.1	1007.6	-1.1	.0	.0
1945	1005.3	5.5	1005.4	4.4	.0	.1
1946	1030.4	14.2	1030.4	14.2	.0	.0
1947	997.2	-1.9	998.2	-1.9	.1	1.0
1948	1006.7	24.4	1007.2	24.3	.0	.5
1949	1004.9	-3.7	1005.2	-3.6	.0	.3
1950	999.9	10.1	1000.0	10.6	.0	.1
1951	1030.5	12.0	1030.5	12.0	.0	.0
1952	1029.7	11.8	1029.7	11.8	.0	.0
1953	1020.3	.9	1020.3	.9	.0	.0
1954	1027.7	8.8	1027.7	8.8	.0	.0
1955	1020.3	.2	1020.3	.2	.0	.0
1956	1015.6	.0	1015.6	.0	.0	.0
1957	1009.1	-.4	1009.1	-.4	.0	.0
1958	1026.9	7.7	1026.9	7.7	.0	.0
1959	1031.4	20.9	1031.4	20.9	.0	.0
1960	994.9	8.4	992.5	8.1	-.2	-2.4
1961	1013.9	3.7	1013.3	4.3	-.1	-.6
1962	1007.5	.7	1009.5	.7	.2	2.0
1963	1021.6	2.0	1021.6	2.0	.0	.0
1964	1028.0	12.5	1028.0	12.5	.0	.0
1965	1020.4	4.8	1020.4	4.8	.0	.0
1966	1034.4	16.6	1034.4	16.6	.0	.0
1967	1027.7	8.7	1027.7	8.7	.0	.0
1968	1018.7	5.7	1018.7	5.7	.0	.0
1969	1020.0	9.2	1020.0	12.3	.0	.0
1970	1015.6	-2.7	1015.6	-2.7	.0	.0
1971	1026.3	7.9	1026.3	7.9	.0	.0
1972	1028.2	11.2	1028.2	11.2	.0	.0
1973	1027.7	9.3	1027.7	11.2	.0	.0
1974	1015.6	-.6	1015.6	-.6	.0	.0
1975	1016.7	.5	1016.7	.5	.0	.0
1976	1012.8	-2.4	1012.8	-2.4	.0	.0
1977	971.0	-5.2	972.9	-5.0	.2	1.9
1978	1000.5	116.8	1003.7	113.7	.3	3.2
1979	1008.0	2.2	1008.0	2.3	.0	.0
1980	1026.8	22.5	1026.8	21.2	.0	.0
1981	1020.9	10.5	1020.9	10.5	.0	.0
1982	1030.2	13.6	1030.2	13.6	.0	.0
1983	1020.6	1.7	1020.6	1.7	.0	.0
1984	1031.5	14.5	1031.5	14.5	.0	.0
1985	1019.5	-.6	1019.5	-.6	.0	.0
1986	1013.8	22.9	1014.0	22.3	.0	.2
1987	999.2	3.5	999.2	3.5	.0	.0
1988	1014.9	15.5	1011.8	16.4	-.3	-3.1
1989	983.2	4.1	984.2	4.1	.1	1.0
1990	997.5	9.6	997.1	9.7	.0	-.4
1991	948.0	-5.8	945.6	-5.7	-.3	-2.4
Mean:	1004.1	9.0	1004.2	9.0	.0	.1
Median:	1014.6	5.7	1014.0	5.7	.0	.0
Min:	908.2	-5.8	908.1	-5.7	-.3	-3.1
Max:	1034.4	116.8	1034.4	113.7	.6	5.1
X > 924.0	67		67			
X > 918.0	67		67			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1012.4	.0	1012.4	.0	.0	.0
1923	1009.9	-.4	1009.8	-.5	.0	-.1
1924	974.6	6.5	974.6	6.5	.0	.0
1925	984.4	76.2	984.4	76.3	.0	.0
1926	1013.8	31.3	1015.9	30.9	.2	2.1
1927	1024.2	-5.9	1024.2	-6.2	.0	.0
1928	1036.3	14.0	1036.3	14.0	.0	.0
1929	997.0	7.8	997.8	7.8	.1	.8
1930	1006.0	15.4	1006.2	14.7	.0	.2
1931	976.3	3.0	975.1	3.0	-.1	-1.2
1932	921.5	9.7	919.8	9.7	-.2	-1.7
1933	914.1	2.8	919.1	2.7	.5	5.0
1934	961.1	18.3	961.8	18.2	.1	.7
1935	950.7	20.6	950.0	20.8	-.1	-.7
1936	1014.7	39.6	1015.3	39.5	.1	.6
1937	948.4	5.3	949.2	5.3	.1	.8
1938	1028.0	-.6	1028.0	-.6	.0	.0
1939	1014.8	.2	1014.8	.2	.0	.0
1940	1015.6	5.1	1015.6	7.0	.0	.0
1941	1022.6	4.3	1022.6	4.3	.0	.0
1942	1026.3	5.1	1026.3	5.1	.0	.0
1943	1039.0	11.7	1039.0	11.7	.0	.0
1944	1017.3	9.7	1017.3	9.7	.0	.0
1945	1033.5	28.2	1033.6	28.2	.0	.1
1946	1033.7	3.3	1033.5	3.1	.0	-.2
1947	1006.3	9.1	1007.2	9.0	.1	.9
1948	1006.8	.1	1007.4	.2	.1	.6
1949	1009.8	4.9	1010.0	4.8	.0	.2
1950	1015.2	15.3	1015.3	15.3	.0	.1
1951	1037.0	6.5	1037.0	6.5	.0	.0
1952	1034.9	5.2	1034.9	5.2	.0	.0
1953	1029.3	9.0	1029.3	9.0	.0	.0
1954	1031.9	4.2	1031.9	4.2	.0	.0
1955	1021.3	1.0	1021.3	1.0	.0	.0
1956	1017.1	1.5	1017.1	1.5	.0	.0
1957	1032.5	23.4	1032.5	23.4	.0	.0
1958	1015.6	-11.3	1015.6	-11.3	.0	.0
1959	1036.3	4.9	1036.3	4.9	.0	.0
1960	1024.1	29.2	1022.0	29.5	-.2	-2.1
1961	1037.7	23.8	1037.8	24.5	.0	.1
1962	1032.5	25.0	1032.5	23.0	.0	.0
1963	1042.6	21.0	1042.6	21.0	.0	.0
1964	1030.5	2.5	1030.5	2.5	.0	.0
1965	1031.8	11.4	1031.8	11.4	.0	.0
1966	1045.9	11.5	1045.9	11.5	.0	.0
1967	1041.7	14.0	1041.7	14.0	.0	.0
1968	1031.9	13.2	1031.9	13.2	.0	.0
1969	1024.9	4.9	1024.9	4.9	.0	.0
1970	1022.9	7.3	1022.9	7.3	.0	.0
1971	1038.3	12.0	1038.3	12.0	.0	.0
1972	1038.8	10.6	1038.8	10.6	.0	.0
1973	1031.0	3.3	1031.0	3.3	.0	.0
1974	1033.2	17.6	1033.2	17.6	.0	.0
1975	1040.1	23.4	1040.1	23.4	.0	.0
1976	1016.8	4.0	1016.8	4.0	.0	.0
1977	962.0	-9.0	964.1	-8.8	.2	2.1
1978	1031.5	31.0	1031.5	27.8	.0	.0
1979	1019.3	11.3	1019.3	11.3	.0	.0
1980	1017.3	-9.5	1017.3	-9.5	.0	.0
1981	1033.7	12.8	1033.7	12.8	.0	.0
1982	1026.8	-3.4	1026.8	-3.4	.0	.0
1983	1015.6	-5.0	1015.6	-5.0	.0	.0
1984	1042.6	11.1	1042.6	11.1	.0	.0
1985	1021.4	1.9	1021.4	1.9	.0	.0
1986	1015.6	1.8	1015.6	1.6	.0	.0
1987	1011.3	12.1	1011.3	12.1	.0	.0
1988	1018.1	3.2	1015.7	3.9	-.2	-2.4
1989	987.1	3.9	988.1	3.9	.1	1.0
1990	999.6	2.1	999.2	2.1	.0	-.4
1991	940.9	-7.1	937.9	-7.7	-.3	-3.0
Mean:	1014.0	9.7	1014.0	9.6	.0	.1
Median:	1021.3	6.5	1021.3	6.5	.0	.0
Min:	914.1	-11.3	919.1	-11.3	-.3	-3.0
Max:	1045.9	76.2	1045.9	76.3	.5	5.0
X > 924.0	68		68			
X > 918.0	69		70			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1024.3	.0	1024.3	.0	.0	.0
1923	1010.7	.8	1010.4	.6	.0	-.3
1924	974.2	-.4	974.2	-.4	.0	.0
1925	991.0	6.6	991.2	6.8	.0	.2
1926	1017.5	3.7	1019.6	3.7	.2	2.1
1927	1044.0	19.8	1043.7	19.5	.0	-.3
1928	1043.3	7.0	1043.3	7.0	.0	.0
1929	1003.6	6.6	1004.4	6.6	.1	.8
1930	1023.9	17.9	1024.2	18.0	.0	.3
1931	981.4	5.1	979.9	4.8	-.2	-1.5
1932	948.9	27.4	947.5	27.7	-.1	-1.4
1933	952.4	38.3	956.3	37.2	.4	3.9
1934	974.3	13.2	975.0	13.2	.1	.7
1935	972.3	21.6	971.6	21.6	-.1	-.7
1936	1024.7	10.0	1025.3	10.0	.1	.6
1937	984.0	35.6	984.6	35.4	.1	.6
1938	1022.3	-5.7	1022.3	-5.7	.0	.0
1939	1026.7	11.9	1026.7	11.9	.0	.0
1940	1023.1	7.5	1023.1	7.5	.0	.0
1941	1042.4	19.8	1042.4	19.8	.0	.0
1942	1034.6	8.3	1034.6	8.3	.0	.0
1943	1048.8	9.8	1048.8	9.8	.0	.0
1944	1025.6	8.3	1025.6	8.3	.0	.0
1945	1040.0	6.5	1040.1	6.5	.0	.1
1946	1043.1	9.4	1042.7	9.2	.0	-.4
1947	1026.2	19.9	1026.4	19.2	.0	.2
1948	1017.9	11.1	1018.4	11.0	.0	.5
1949	1046.9	37.1	1047.1	37.1	.0	.2
1950	1029.0	13.8	1029.0	13.7	.0	.0
1951	1049.2	12.2	1049.2	12.2	.0	.0
1952	1045.4	10.5	1045.4	10.5	.0	.0
1953	1043.1	13.8	1043.1	13.8	.0	.0
1954	1048.4	16.5	1048.4	16.5	.0	.0
1955	1023.2	1.9	1023.2	1.9	.0	.0
1956	1042.0	24.9	1042.0	24.9	.0	.0
1957	1049.2	16.7	1049.2	16.7	.0	.0
1958	1022.3	6.7	1022.3	6.7	.0	.0
1959	1047.4	11.1	1047.6	11.3	.0	.2
1960	1045.0	20.9	1043.2	21.2	-.2	-1.8
1961	1052.2	14.5	1052.3	14.5	.0	.1
1962	1044.3	11.8	1044.4	11.9	.0	.1
1963	1052.7	10.1	1052.7	10.1	.0	.0
1964	1031.0	.5	1031.0	.5	.0	.0
1965	1035.6	3.8	1035.6	3.8	.0	.0
1966	1052.8	6.9	1052.8	6.9	.0	.0
1967	1045.8	4.1	1045.8	4.1	.0	.0
1968	1048.9	17.0	1048.9	17.0	.0	.0
1969	1045.7	20.8	1045.7	20.8	.0	.0
1970	1043.6	20.7	1043.6	20.7	.0	.0
1971	1039.9	1.6	1039.9	1.6	.0	.0
1972	1053.5	14.7	1053.5	14.7	.0	.0
1973	1050.4	19.4	1050.4	19.4	.0	.0
1974	1022.3	-10.9	1022.3	-10.9	.0	.0
1975	1037.2	-2.9	1037.2	-2.9	.0	.0
1976	1021.9	5.1	1021.9	5.1	.0	.0
1977	948.0	-14.0	951.0	-13.1	.3	3.0
1978	1043.1	11.6	1043.1	11.6	.0	.0
1979	1034.5	15.2	1034.4	15.1	.0	-.1
1980	1042.7	25.4	1042.7	25.4	.0	.0
1981	1051.5	17.8	1051.5	17.8	.0	.0
1982	1042.9	16.1	1042.9	16.1	.0	.0
1983	1022.3	6.7	1022.3	6.7	.0	.0
1984	1061.7	19.1	1061.7	19.1	.0	.0
1985	1025.0	3.6	1025.0	3.6	.0	.0
1986	1027.0	11.4	1027.0	11.4	.0	.0
1987	1037.3	26.0	1037.3	26.0	.0	.0
1988	1018.5	.4	1016.2	.5	-.2	-2.3
1989	1038.7	51.6	1038.7	50.6	.0	.0
1990	1010.0	10.4	1009.6	10.4	.0	-.4
1991	965.9	25.0	963.3	25.4	-.3	-2.6
Mean:	1026.6	12.4	1026.6	12.4	.0	.0
Median:	1034.6	11.1	1034.6	11.3	.0	.0
Min:	948.0	-14.0	947.5	-13.1	-.3	-2.6
Max:	1061.7	51.6	1061.7	50.6	.4	3.9
X > 924.0	70		70			
X > 918.0	70		70			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1042.6	.0	1042.6	.0	.0	.0
1923	1023.0	12.3	1022.5	12.1	.0	-.5
1924	962.4	-11.8	962.4	-11.8	.0	.0
1925	1020.7	29.7	1020.8	29.6	.0	.1
1926	1028.8	11.3	1030.8	11.2	.2	2.0
1927	1063.8	19.8	1063.8	20.1	.0	.0
1928	1059.2	15.9	1059.2	15.9	.0	.0
1929	1007.5	3.9	1007.6	3.2	.0	.1
1930	1029.5	5.6	1029.7	5.5	.0	.2
1931	966.8	-14.6	965.2	-14.7	-.2	-1.6
1932	957.0	8.1	956.7	9.2	.0	-.3
1933	957.7	5.3	961.1	4.8	.4	3.4
1934	974.5	.2	973.8	-1.2	-.1	-.7
1935	1017.3	45.0	1016.8	45.2	.0	-.5
1936	1033.7	9.0	1034.2	8.9	.0	.5
1937	1015.1	31.1	1015.6	31.0	.0	.5
1938	1046.7	24.4	1046.7	24.4	.0	.0
1939	1027.2	.5	1026.6	-.1	-.1	-.6
1940	1049.9	26.8	1049.9	26.8	.0	.0
1941	1060.6	18.2	1060.6	18.2	.0	.0
1942	1056.7	22.1	1056.7	22.1	.0	.0
1943	1062.9	14.1	1062.9	14.1	.0	.0
1944	1030.3	4.7	1030.6	5.0	.0	.3
1945	1045.0	5.0	1045.1	5.0	.0	.1
1946	1050.0	6.9	1050.2	7.5	.0	.2
1947	1032.1	5.9	1032.6	6.2	.0	.5
1948	1051.9	34.0	1052.3	33.9	.0	.4
1949	1058.5	11.6	1058.7	11.6	.0	.2
1950	1041.4	12.4	1041.4	12.4	.0	.0
1951	1053.3	4.1	1053.3	4.1	.0	.0
1952	1054.9	9.5	1054.9	9.5	.0	.0
1953	1054.3	11.2	1054.3	11.2	.0	.0
1954	1063.6	15.2	1063.6	15.2	.0	.0
1955	1035.1	11.9	1035.1	11.9	.0	.0
1956	1058.5	16.5	1058.5	16.5	.0	.0
1957	1054.6	5.4	1054.7	5.5	.0	.1
1958	1050.8	28.5	1050.8	28.5	.0	.0
1959	1051.0	3.6	1051.2	3.6	.0	.2
1960	1048.6	3.6	1047.0	3.8	-.2	-1.6
1961	1052.7	.5	1054.7	2.4	.2	2.0
1962	1053.6	9.3	1053.8	9.4	.0	.2
1963	1049.5	-3.2	1049.5	-3.2	.0	.0
1964	1028.6	-2.4	1029.1	-1.9	.0	.5
1965	1061.3	25.7	1061.3	25.7	.0	.0
1966	1063.8	11.0	1063.8	11.0	.0	.0
1967	1061.4	15.6	1061.4	15.6	.0	.0
1968	1050.6	1.7	1050.6	1.7	.0	.0
1969	1059.8	14.1	1059.8	14.1	.0	.0
1970	1046.3	2.7	1046.3	2.7	.0	.0
1971	1058.5	18.6	1058.5	18.6	.0	.0
1972	1061.8	8.3	1061.8	8.3	.0	.0
1973	1058.5	8.1	1058.5	8.1	.0	.0
1974	1054.9	32.6	1054.9	32.6	.0	.0
1975	1056.2	19.0	1056.2	19.0	.0	.0
1976	1027.1	5.2	1027.1	5.2	.0	.0
1977	930.4	-17.6	934.0	-17.0	.4	3.6
1978	1063.8	20.7	1063.8	20.7	.0	.0
1979	1040.0	5.5	1040.0	5.6	.0	.0
1980	1051.5	8.8	1051.5	8.8	.0	.0
1981	1055.3	3.8	1055.3	3.8	.0	.0
1982	1047.9	5.0	1047.9	5.0	.0	.0
1983	1047.3	25.0	1047.3	25.0	.0	.0
1984	1063.8	2.1	1063.8	2.1	.0	.0
1985	1031.0	6.0	1031.0	6.0	.0	.0
1986	1038.1	11.1	1038.1	11.1	.0	.0
1987	1033.0	-4.3	1033.0	-4.3	.0	.0
1988	1021.0	2.5	1019.2	3.0	-.2	-1.8
1989	1050.7	12.0	1050.7	12.0	.0	.0
1990	1007.3	-2.7	1004.6	-5.0	-.3	-2.7
1991	973.8	7.9	971.3	8.0	-.3	-2.5
Mean:	1037.1	10.3	1037.1	10.3	.0	.0
Median:	1048.6	8.3	1047.9	8.8	.0	.0
Min:	930.4	-17.6	934.0	-17.0	-.3	-2.7
Max:	1063.8	45.0	1063.8	45.2	.4	3.6
X > 924.0	70		70			
X > 918.0	70		70			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1053.7	.0	1053.7	.0	.0	.0
1923	1020.0	-3.0	1019.6	-2.9	.0	-.4
1924	952.4	-10.0	952.4	-10.0	.0	.0
1925	1030.6	9.9	1031.6	10.8	.1	1.0
1926	1026.3	-2.5	1028.3	-2.5	.2	2.0
1927	1063.8	.0	1063.8	.0	.0	.0
1928	1056.0	-3.2	1056.0	-3.2	.0	.0
1929	1002.3	-5.2	1001.5	-6.1	-.1	-.8
1930	1029.0	-.5	1029.2	-.5	.0	.2
1931	957.1	-9.7	956.5	-8.7	-.1	-.6
1932	965.2	8.2	965.9	9.2	.1	.7
1933	958.9	1.2	962.3	1.2	.4	3.4
1934	964.9	-9.6	964.1	-9.7	-.1	-.8
1935	1023.5	6.2	1024.2	7.4	.1	.7
1936	1027.7	-6.0	1028.3	-5.9	.1	.6
1937	1020.2	5.1	1020.9	5.3	.1	.7
1938	1063.8	17.1	1063.8	17.1	.0	.0
1939	1016.6	-10.6	1015.7	-10.9	-.1	-.9
1940	1054.5	4.6	1054.1	4.2	.0	-.4
1941	1063.8	3.2	1063.8	3.2	.0	.0
1942	1063.8	7.1	1063.8	7.1	.0	.0
1943	1063.8	.9	1063.8	.9	.0	.0
1944	1031.0	.7	1031.7	1.1	.1	.7
1945	1047.9	2.9	1048.0	2.9	.0	.1
1946	1050.8	.8	1051.4	1.2	.1	.6
1947	1021.0	-11.1	1022.3	-10.3	.1	1.3
1948	1063.8	11.9	1063.8	11.5	.0	.0
1949	1059.4	.9	1059.5	.8	.0	.1
1950	1038.5	-2.9	1038.5	-2.9	.0	.0
1951	1059.7	6.4	1059.7	6.4	.0	.0
1952	1063.8	8.9	1063.8	8.9	.0	.0
1953	1063.8	9.5	1063.8	9.5	.0	.0
1954	1061.5	-2.1	1061.6	-2.0	.0	.1
1955	1045.4	10.3	1046.1	11.0	.1	.7
1956	1063.8	5.3	1063.8	5.3	.0	.0
1957	1063.8	9.2	1063.8	9.1	.0	.0
1958	1063.8	13.0	1063.8	13.0	.0	.0
1959	1047.3	-3.7	1046.8	-4.4	.0	-.5
1960	1053.4	4.8	1052.2	5.2	-.1	-1.2
1961	1050.3	-2.4	1051.7	-3.0	.1	1.4
1962	1052.0	-1.6	1052.2	-1.6	.0	.2
1963	1063.8	14.3	1063.8	14.3	.0	.0
1964	1025.0	-3.6	1026.2	-2.9	.1	1.2
1965	1062.0	.7	1062.0	.7	.0	.0
1966	1055.9	-7.9	1055.7	-8.1	.0	-.2
1967	1063.8	2.4	1063.8	2.4	.0	.0
1968	1048.2	-2.4	1048.2	-2.4	.0	.0
1969	1063.8	4.0	1063.8	4.0	.0	.0
1970	1045.3	-1.0	1045.3	-1.0	.0	.0
1971	1063.8	5.3	1063.8	5.3	.0	.0
1972	1053.3	-8.5	1052.6	-9.2	-.1	-.7
1973	1063.1	4.6	1063.1	4.6	.0	.0
1974	1063.8	8.9	1063.8	8.9	.0	.0
1975	1063.8	7.6	1063.8	7.6	.0	.0
1976	1024.1	-3.0	1022.7	-4.4	-.1	-1.4
1977	930.9	.5	935.0	1.0	.4	4.1
1978	1063.8	.0	1063.8	.0	.0	.0
1979	1048.9	8.9	1048.9	8.9	.0	.0
1980	1054.7	3.2	1054.7	3.2	.0	.0
1981	1047.1	-8.2	1046.5	-8.8	-.1	-.6
1982	1063.8	15.9	1063.8	15.9	.0	.0
1983	1063.8	16.5	1063.8	16.5	.0	.0
1984	1060.2	-3.6	1059.5	-4.3	-.1	-.7
1985	1027.7	-3.3	1027.2	-3.8	.0	-.5
1986	1042.1	4.0	1042.1	4.0	.0	.0
1987	1023.0	-10.0	1020.9	-12.1	-.2	-2.1
1988	1016.5	-4.5	1015.1	-4.1	-.1	-1.4
1989	1045.6	-5.1	1044.3	-6.4	-.1	-1.3
1990	1010.9	3.6	1007.6	3.0	-.3	-3.3
1991	974.2	.4	972.8	1.5	-.1	-1.4
Mean:	1038.7	1.5	1038.7	1.5	.0	.0
Median:	1050.3	.7	1051.4	1.0	.0	.0
Min:	930.9	-11.1	935.0	-12.1	-.3	-3.3
Max:	1063.8	17.1	1063.8	17.1	.4	4.1

X > 924.0	70	70
X > 918.0	70	70
X > 876.0	70	70
X > 856.0	70	70
X > 848.0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70

SHASTA RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1046.5	.0	1046.5	.0	.0	.0
1923	1010.4	-9.6	1010.2	-9.4	.0	-.2
1924	934.6	-17.8	934.5	-17.9	.0	-.1
1925	1024.9	-5.7	1026.7	-4.9	.2	1.8
1926	1012.6	-13.7	1013.8	-14.5	.1	1.2
1927	1058.7	-5.1	1058.7	-5.1	.0	.0
1928	1045.8	-10.2	1045.2	-10.8	-.1	-.6
1929	996.1	-6.2	997.5	-4.0	.1	1.4
1930	1017.9	-11.1	1017.9	-11.3	.0	.0
1931	944.8	-12.3	944.2	-12.3	-.1	-.6
1932	960.9	-4.3	960.9	-5.0	.0	.0
1933	953.6	-5.3	955.8	-6.5	.2	2.2
1934	947.1	-17.8	947.1	-17.0	.0	.0
1935	1009.5	-14.0	1010.3	-13.9	.1	.8
1936	1020.0	-7.7	1020.6	-7.7	.1	.6
1937	1013.6	-6.6	1014.4	-6.5	.1	.8
1938	1058.7	-5.1	1058.7	-5.1	.0	.0
1939	1003.1	-13.5	1001.5	-14.2	-.2	-1.6
1940	1046.1	-8.4	1045.6	-8.5	.0	-.5
1941	1058.7	-5.1	1058.7	-5.1	.0	.0
1942	1058.7	-5.1	1058.7	-5.1	.0	.0
1943	1057.0	-6.8	1057.0	-6.8	.0	.0
1944	1021.7	-9.3	1021.8	-9.9	.0	.1
1945	1040.2	-7.7	1040.3	-7.7	.0	.1
1946	1042.2	-8.6	1042.8	-8.6	.1	.6
1947	1017.2	-3.8	1018.3	-4.0	.1	1.1
1948	1058.7	-5.1	1058.7	-5.1	.0	.0
1949	1044.5	-14.9	1044.4	-15.1	.0	-.1
1950	1028.1	-10.4	1028.2	-10.3	.0	.1
1951	1049.4	-10.3	1049.4	-10.3	.0	.0
1952	1058.7	-5.1	1058.7	-5.1	.0	.0
1953	1058.7	-5.1	1058.7	-5.1	.0	.0
1954	1054.9	-6.6	1054.5	-7.1	.0	-.4
1955	1025.8	-19.6	1030.4	-15.7	.4	4.6
1956	1058.7	-5.1	1058.7	-5.1	.0	.0
1957	1058.7	-5.1	1058.3	-5.5	.0	-.4
1958	1058.7	-5.1	1058.7	-5.1	.0	.0
1959	1031.6	-15.7	1030.8	-16.0	-.1	-.8
1960	1036.7	-16.7	1035.8	-16.4	-.1	-.9
1961	1038.0	-12.3	1041.3	-10.4	.3	3.3
1962	1043.1	-8.9	1043.0	-9.2	.0	-.1
1963	1058.7	-5.1	1058.7	-5.1	.0	.0
1964	1022.1	-2.9	1024.1	-2.1	.2	2.0
1965	1056.5	-5.5	1056.5	-5.5	.0	.0
1966	1043.4	-12.5	1042.4	-13.3	-.1	-1.0
1967	1058.7	-5.1	1058.7	-5.1	.0	.0
1968	1036.3	-11.9	1034.8	-13.4	-.1	-1.5
1969	1058.7	-5.1	1058.7	-5.1	.0	.0
1970	1039.3	-6.0	1039.3	-6.0	.0	.0
1971	1058.7	-5.1	1058.7	-5.1	.0	.0
1972	1045.1	-8.2	1044.2	-8.4	-.1	-.9
1973	1055.2	-7.9	1054.8	-8.3	.0	-.4
1974	1058.7	-5.1	1058.7	-5.1	.0	.0
1975	1058.7	-5.1	1058.7	-5.1	.0	.0
1976	1014.5	-9.6	1013.5	-9.2	-.1	-1.0
1977	917.9	-13.0	922.2	-12.8	.5	4.3
1978	1054.2	-9.6	1054.2	-9.6	.0	.0
1979	1035.5	-13.4	1035.8	-13.1	.0	.3
1980	1049.3	-5.4	1049.3	-5.4	.0	.0
1981	1034.8	-12.3	1033.6	-12.9	-.1	-1.2
1982	1058.7	-5.1	1058.7	-5.1	.0	.0
1983	1062.2	-1.6	1062.2	-1.6	.0	.0
1984	1054.3	-5.9	1053.8	-5.7	.0	-.5
1985	1016.9	-10.8	1016.4	-10.8	.0	-.5
1986	1032.5	-9.6	1032.5	-9.6	.0	.0
1987	1007.6	-15.4	1005.4	-15.5	-.2	-2.2
1988	1004.0	-12.5	1004.4	-10.7	.0	.4
1989	1031.8	-13.8	1030.3	-14.0	-.1	-1.5
1990	1007.1	-3.8	1003.8	-3.8	-.3	-3.3
1991	964.5	-9.7	964.0	-8.8	-.1	-.5
Mean:	1030.0	-8.6	1030.1	-8.6	.0	.1
Median:	1039.3	-7.9	1040.3	-8.3	.0	.0
Min:	917.9	-19.6	922.2	-17.9	-.3	-3.3
Max:	1062.2	.0	1062.2	.0	.5	4.6
X > 924.0	69		69			
X > 918.0	69		70			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1033.2	.0	1033.2	.0	.0	.0
1923	995.3	-15.1	995.2	-15.0	.0	-.1
1924	913.2	-21.4	913.1	-21.4	.0	-.1
1925	1009.6	-15.3	1012.6	-14.1	.3	3.0
1926	997.0	-15.6	997.3	-16.5	.0	.3
1927	1040.9	-17.8	1040.9	-17.8	.0	.0
1928	1020.4	-25.4	1023.0	-22.2	.3	2.6
1929	981.4	-14.7	981.7	-15.8	.0	.3
1930	1002.6	-15.3	1001.6	-16.3	-.1	-1.0
1931	923.1	-21.7	922.1	-22.1	-.1	-1.0
1932	946.4	-14.5	949.4	-11.5	.3	3.0
1933	940.8	-12.8	942.6	-13.2	.2	1.8
1934	928.1	-19.0	927.6	-19.5	-.1	-.5
1935	989.1	-20.4	990.3	-20.0	.1	1.2
1936	999.1	-20.9	999.7	-20.9	.1	.6
1937	995.2	-18.4	996.2	-18.2	.1	1.0
1938	1042.6	-16.1	1042.6	-16.1	.0	.0
1939	988.1	-15.0	986.2	-15.3	-.2	-1.9
1940	1030.6	-15.5	1028.8	-16.8	-.2	-1.8
1941	1043.7	-15.0	1043.7	-15.0	.0	.0
1942	1042.9	-15.8	1042.9	-15.8	.0	.0
1943	1040.9	-16.1	1040.9	-16.1	.0	.0
1944	1005.8	-15.9	1006.2	-15.6	.0	.4
1945	1019.8	-20.4	1020.3	-20.0	.0	.5
1946	1025.0	-17.2	1025.9	-16.9	.1	.9
1947	1001.2	-16.0	1001.2	-17.1	.0	.0
1948	1040.9	-17.8	1040.9	-17.8	.0	.0
1949	1028.8	-15.7	1026.5	-17.9	-.2	-2.3
1950	1010.7	-17.4	1010.8	-17.4	.0	.1
1951	1033.4	-16.0	1032.0	-17.4	-.1	-1.4
1952	1043.0	-15.7	1043.0	-15.7	.0	.0
1953	1042.8	-15.9	1042.8	-15.9	.0	.0
1954	1035.2	-19.7	1034.5	-20.0	-.1	-.7
1955	1010.6	-15.2	1014.5	-15.9	.4	3.9
1956	1041.8	-16.9	1041.8	-16.9	.0	.0
1957	1040.9	-17.8	1040.9	-17.4	.0	.0
1958	1044.6	-14.1	1044.6	-14.1	.0	.0
1959	1006.5	-25.1	1005.3	-25.5	-.1	-1.2
1960	1016.3	-20.4	1015.8	-20.0	.0	-.5
1961	1017.6	-20.4	1022.2	-19.1	.5	4.6
1962	1029.4	-13.7	1027.5	-15.5	-.2	-1.9
1963	1040.9	-17.8	1040.9	-17.8	.0	.0
1964	1008.2	-13.9	1008.6	-15.5	.0	.4
1965	1040.9	-15.6	1040.9	-15.6	.0	.0
1966	1025.1	-18.3	1023.6	-18.8	-.1	-1.5
1967	1042.9	-15.8	1042.9	-15.8	.0	.0
1968	1014.9	-21.4	1011.4	-23.4	-.3	-3.5
1969	1042.0	-16.7	1042.0	-16.7	.0	.0
1970	1017.0	-22.3	1016.4	-22.9	-.1	-.6
1971	1043.2	-15.5	1043.2	-15.5	.0	.0
1972	1023.0	-22.1	1022.2	-22.0	-.1	-.8
1973	1039.7	-15.5	1038.7	-16.1	-.1	-1.0
1974	1044.2	-14.5	1044.2	-14.5	.0	.0
1975	1042.7	-16.0	1042.7	-16.0	.0	.0
1976	1000.9	-13.6	1000.3	-13.2	-.1	-.6
1977	892.3	-25.6	897.5	-24.7	.6	5.2
1978	1040.9	-13.3	1040.9	-13.3	.0	.0
1979	1017.4	-18.1	1019.5	-16.3	.2	2.1
1980	1039.6	-9.7	1039.6	-9.7	.0	.0
1981	1019.6	-15.2	1018.3	-15.3	-.1	-1.3
1982	1042.2	-16.5	1042.2	-16.5	.0	.0
1983	1049.8	-12.4	1049.8	-12.4	.0	.0
1984	1038.9	-15.4	1037.4	-16.4	-.1	-1.5
1985	1004.3	-12.6	1003.7	-12.7	-.1	-.6
1986	1019.9	-12.6	1019.9	-12.6	.0	.0
1987	995.2	-12.4	992.3	-13.1	-.3	-2.9
1988	985.2	-18.8	986.2	-18.2	.1	1.0
1989	1012.5	-19.3	1012.0	-18.3	.0	-.5
1990	986.4	-20.7	985.1	-18.7	-.1	-1.3
1991	951.0	-13.5	951.6	-12.4	.1	.6
Mean:	1013.1	-16.7	1013.2	-16.7	.0	.0
Median:	1019.8	-16.0	1020.3	-16.4	.0	.0
Min:	892.3	-25.6	897.5	-25.5	-.3	-3.5
Max:	1049.8	.0	1049.8	.0	.6	5.2
X > 924.0	67		67			
X > 918.0	68		68			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1019.6	.0	1019.6	.0	.0	.0
1923	978.6	-16.7	978.7	-16.5	.0	.1
1924	885.9	-27.3	885.8	-27.3	.0	-.1
1925	990.7	-18.9	995.2	-17.4	.5	4.5
1926	979.1	-17.9	979.4	-17.9	.0	.3
1927	1019.6	-21.3	1019.6	-21.3	.0	.0
1928	1001.9	-18.5	1002.7	-20.3	.1	.8
1929	965.6	-15.8	966.6	-15.1	.1	1.0
1930	983.9	-18.7	982.8	-18.8	-.1	-1.1
1931	897.2	-25.9	895.3	-26.8	-.2	-1.9
1932	926.4	-20.0	931.0	-18.4	.5	4.6
1933	924.7	-16.1	926.7	-15.9	.2	2.0
1934	908.7	-19.4	907.8	-19.8	-.1	-.9
1935	960.1	-29.0	961.6	-28.7	.2	1.5
1936	971.8	-27.3	972.5	-27.2	.1	.7
1937	973.7	-21.5	975.8	-20.4	.2	2.1
1938	1019.6	-23.0	1019.6	-23.0	.0	.0
1939	971.3	-16.8	969.2	-17.0	-.2	-2.1
1940	1015.2	-15.4	1013.0	-15.8	-.2	-2.2
1941	1022.4	-21.3	1022.4	-21.3	.0	.0
1942	1020.2	-22.7	1020.2	-22.7	.0	.0
1943	1019.6	-21.3	1019.6	-21.3	.0	.0
1944	990.1	-15.7	991.3	-14.9	.1	1.2
1945	1003.5	-16.3	1004.0	-16.3	.0	.5
1946	1010.3	-14.7	1011.3	-14.6	.1	1.0
1947	986.9	-14.3	987.5	-13.7	.1	.6
1948	1019.6	-21.3	1019.6	-21.3	.0	.0
1949	1014.3	-14.5	1011.9	-14.6	-.2	-2.4
1950	993.4	-17.3	993.5	-17.3	.0	.1
1951	1019.3	-14.1	1017.9	-14.1	-.1	-1.4
1952	1019.6	-23.4	1019.6	-23.4	.0	.0
1953	1019.7	-23.1	1019.7	-23.1	.0	.0
1954	1019.6	-15.6	1019.6	-14.9	.0	.0
1955	996.9	-13.7	999.4	-15.1	.3	2.5
1956	1019.6	-22.2	1019.6	-22.2	.0	.0
1957	1019.6	-21.3	1019.6	-21.3	.0	.0
1958	1023.8	-20.8	1023.8	-20.8	.0	.0
1959	994.8	-11.7	990.6	-14.7	-.4	-4.2
1960	1000.5	-15.8	999.2	-16.6	-.1	-1.3
1961	1002.2	-15.4	1006.3	-15.9	.4	4.1
1962	1016.2	-13.2	1012.9	-14.6	-.3	-3.3
1963	1019.6	-21.3	1019.6	-21.3	.0	.0
1964	993.2	-15.0	993.5	-15.1	.0	.3
1965	1019.6	-21.3	1019.6	-21.3	.0	.0
1966	1014.4	-10.7	1010.4	-13.2	-.4	-4.0
1967	1021.0	-21.9	1021.0	-21.9	.0	.0
1968	1009.3	-5.6	1006.1	-5.3	-.3	-3.2
1969	1019.6	-22.4	1019.6	-22.4	.0	.0
1970	1007.1	-9.9	1005.8	-10.6	-.1	-1.3
1971	1019.6	-23.6	1019.6	-23.6	.0	.0
1972	1010.1	-12.9	1006.1	-16.1	-.4	-4.0
1973	1019.6	-20.1	1019.6	-19.1	.0	.0
1974	1023.2	-21.0	1023.2	-21.0	.0	.0
1975	1020.4	-22.3	1020.4	-22.3	.0	.0
1976	986.3	-14.6	986.5	-13.8	.0	.2
1977	860.2	-32.1	866.5	-31.0	.7	6.3
1978	1019.6	-21.3	1019.6	-21.3	.0	.0
1979	1008.1	-9.3	1009.8	-9.7	.2	1.7
1980	1019.6	-20.0	1019.6	-20.0	.0	.0
1981	1002.8	-16.8	1000.9	-17.4	-.2	-1.9
1982	1019.6	-22.6	1019.6	-22.6	.0	.0
1983	1031.9	-17.9	1031.9	-17.9	.0	.0
1984	1019.6	-19.3	1019.6	-17.8	.0	.0
1985	989.3	-15.0	990.1	-13.6	.1	.8
1986	1007.7	-12.2	1007.7	-12.2	.0	.0
1987	983.2	-12.0	980.4	-11.9	-.3	-2.8
1988	970.7	-14.5	971.8	-14.4	.1	1.1
1989	995.3	-17.2	994.4	-17.6	-.1	-.9
1990	970.5	-15.9	969.4	-15.7	-.1	-1.1
1991	938.9	-12.1	939.5	-12.1	.1	.6
Mean:	994.9	-18.0	994.9	-18.1	.0	.0
Median:	1007.7	-17.9	1006.1	-17.8	.0	.0
Min:	860.2	-32.1	866.5	-31.0	-.4	-4.2
Max:	1031.9	.0	1031.9	.0	.7	6.3
X > 924.0	66		66			
X > 918.0	66		66			
X > 876.0	69		69			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1013.1	.0	1013.1	.0	.0	.0
1923	970.3	-8.3	970.3	-8.4	.0	.0
1924	875.6	-10.3	875.5	-10.3	.0	-.1
1925	982.6	-8.1	987.3	-7.9	.5	4.7
1926	969.4	-9.7	969.8	-9.6	.0	.4
1927	1017.6	-2.0	1017.6	-2.0	.0	.0
1928	994.4	-7.5	995.3	-7.4	.1	.9
1929	955.3	-10.3	956.5	-10.1	.1	1.2
1930	975.0	-8.9	973.8	-9.0	-.1	-1.2
1931	887.0	-10.2	884.9	-10.4	-.2	-2.1
1932	918.0	-8.4	922.9	-8.1	.5	4.9
1933	917.5	-7.2	919.5	-7.2	.2	2.0
1934	897.3	-11.4	896.3	-11.5	-.1	-1.0
1935	949.8	-10.3	950.7	-10.9	.1	.9
1936	961.4	-10.4	962.1	-10.4	.1	.7
1937	963.5	-10.2	965.7	-10.1	.2	2.2
1938	1017.6	-2.0	1017.6	-2.0	.0	.0
1939	961.9	-9.4	959.8	-9.4	-.2	-2.1
1940	1008.6	-6.6	1006.2	-6.8	-.2	-2.4
1941	1017.6	-4.8	1017.6	-4.8	.0	.0
1942	1017.6	-2.6	1017.6	-2.6	.0	.0
1943	1017.6	-2.0	1017.6	-2.0	.0	.0
1944	982.2	-7.9	983.5	-7.8	.1	1.3
1945	996.5	-7.0	997.0	-7.0	.1	.5
1946	1003.7	-6.6	1004.6	-6.7	.1	.9
1947	978.8	-8.1	979.4	-8.1	.1	.6
1948	1015.0	-4.6	1015.3	-4.3	.0	.3
1949	1006.6	-7.7	1004.1	-7.8	-.2	-2.5
1950	985.1	-8.3	985.2	-8.3	.0	.1
1951	1012.4	-6.9	1010.9	-7.0	-.1	-1.5
1952	1017.6	-2.0	1017.6	-2.0	.0	.0
1953	1017.6	-2.1	1017.6	-2.1	.0	.0
1954	1015.5	-4.1	1015.5	-4.1	.0	.0
1955	990.1	-6.8	992.6	-6.8	.3	2.5
1956	1017.6	-2.0	1017.6	-2.0	.0	.0
1957	1017.6	-2.0	1017.6	-2.0	.0	.0
1958	1017.6	-6.2	1017.6	-6.2	.0	.0
1959	990.7	-4.1	986.4	-4.2	-.4	-4.3
1960	993.7	-6.8	992.4	-6.8	-.1	-1.3
1961	995.2	-7.0	999.4	-6.9	.4	4.2
1962	1009.2	-7.0	1005.8	-7.1	-.3	-3.4
1963	1017.6	-2.0	1017.6	-2.0	.0	.0
1964	985.3	-7.9	985.6	-7.9	.0	.3
1965	1017.6	-2.0	1017.6	-2.0	.0	.0
1966	1008.1	-6.3	1004.0	-6.4	-.4	-4.1
1967	1017.6	-3.4	1017.6	-3.4	.0	0
1968	1003.8	-5.5	1000.5	-5.6	-.3	-3.3
1969	1017.6	-2.0	1017.6	-2.0	.0	.0
1970	1001.4	-5.7	1000.2	-5.6	-.1	-1.2
1971	1017.6	-2.0	1017.6	-2.0	.0	.0
1972	1005.1	-5.0	1001.0	-5.1	-.4	-4.1
1973	1014.8	-4.8	1014.8	-4.8	.0	.0
1974	1017.6	-5.6	1017.6	-5.6	.0	.0
1975	1017.6	-2.8	1017.6	-2.8	.0	.0
1976	980.3	-6.0	980.6	-5.9	.0	.3
1977	857.7	-2.5	864.2	-2.3	.8	6.5
1978	1015.8	-3.8	1015.8	-3.8	.0	.0
1979	1001.1	-7.0	1002.8	-7.0	.2	1.7
1980	1015.0	-4.6	1015.0	-4.6	.0	.0
1981	995.2	-7.6	993.2	-7.7	-.2	-2.0
1982	1017.6	-2.0	1017.6	-2.0	.0	.0
1983	1017.6	-14.3	1017.6	-14.3	.0	.0
1984	1015.5	-4.1	1015.5	-4.1	.0	.0
1985	983.3	-6.0	984.2	-5.9	.1	.9
1986	1003.3	-4.4	1003.3	-4.4	.0	.0
1987	975.8	-7.4	972.9	-7.5	-.3	-2.9
1988	962.4	-8.3	963.5	-8.3	.1	1.1
1989	988.8	-6.5	987.9	-6.5	-.1	-.9
1990	961.6	-8.9	960.4	-9.0	-.1	-1.2
1991	933.0	-5.9	933.7	-5.8	.1	.7
Mean:	988.8	-6.0	988.8	-6.0	.0	.0
Median:	1001.4	-6.5	1000.5	-6.5	.0	.0
Min:	857.7	-14.3	864.2	-14.3	-.4	-4.3
Max:	1017.6	.0	1017.6	.0	.8	6.5
X > 924.0	64		64			
X > 918.0	64		66			
X > 876.0	68		68			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

RETURN TO TABLE OF CONTENTS

Section 15

CLAIR ENGLE RESERVOIR STORAGE

CLAIR ENGLE RESERVOIR STORAGE
October

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	1850.0	1850.0	.0	.0
1923	1649.7	1649.7	.0	.0
1924	1143.9	1143.9	.0	.0
1925	448.7	438.1	-2.4	-10.6
1926	1218.2	1207.8	-.9	-10.4
1927	1224.7	1214.4	-.8	-10.3
1928	1850.0	1850.0	.0	.0
1929	1509.5	1515.2	.4	5.7
1930	916.3	929.0	1.4	12.7
1931	1024.1	1036.6	1.2	12.5
1932	457.3	457.3	.0	.0
1933	456.3	456.3	.0	.0
1934	540.5	557.8	3.2	17.3
1935	463.5	463.5	.0	.0
1936	779.7	794.5	1.9	14.8
1937	1106.4	1121.0	1.3	14.6
1938	1112.5	1113.6	.1	1.1
1939	1850.0	1850.0	.0	.0
1940	1228.0	1208.7	-1.6	-19.3
1941	1620.1	1613.6	-.4	-6.5
1942	1850.0	1850.0	.0	.0
1943	1850.0	1850.0	.0	.0
1944	1850.0	1850.0	.0	.0
1945	1418.7	1449.0	2.1	30.3
1946	1412.5	1449.7	2.6	37.2
1947	1599.6	1609.7	.6	10.1
1948	1446.5	1452.6	.4	6.1
1949	1850.0	1850.0	.0	.0
1950	1730.5	1730.5	.0	.0
1951	1470.7	1471.4	.0	.7
1952	1691.5	1691.1	.0	-.4
1953	1850.0	1850.0	.0	.0
1954	1850.0	1850.0	.0	.0
1955	1850.0	1850.0	.0	.0
1956	1513.8	1541.3	1.8	27.5
1957	1850.0	1850.0	.0	.0
1958	1850.0	1850.0	.0	.0
1959	1850.0	1850.0	.0	.0
1960	1497.1	1490.4	-.4	-6.7
1961	1525.3	1514.9	-.7	-10.4
1962	1651.0	1641.3	-.6	-9.7
1963	1679.6	1676.4	-.2	-3.2
1964	1850.0	1850.0	.0	.0
1965	1486.8	1490.3	.2	3.5
1966	1850.0	1850.0	.0	.0
1967	1716.9	1732.9	.9	16.0
1968	1850.0	1850.0	.0	.0
1969	1513.9	1499.9	-.9	-14.0
1970	1850.0	1850.0	.0	.0
1971	1506.2	1515.0	.6	8.8
1972	1850.0	1850.0	.0	.0
1973	1627.6	1632.7	.3	5.1
1974	1850.0	1850.0	.0	.0
1975	1850.0	1850.0	.0	.0
1976	1850.0	1850.0	.0	.0
1977	1199.8	1202.8	.3	3.0
1978	377.4	377.1	-.1	-.3
1979	1850.0	1850.0	.0	.0
1980	1531.8	1543.2	.7	11.4
1981	1850.0	1850.0	.0	.0
1982	1578.7	1558.2	-1.3	-20.5
1983	1850.0	1850.0	.0	.0
1984	1850.0	1850.0	.0	.0
1985	1850.0	1850.0	.0	.0
1986	1432.5	1441.7	.6	9.2
1987	1501.4	1501.4	.0	.0
1988	1343.8	1308.3	-2.6	-35.5
1989	1058.4	1014.9	-4.1	-43.5
1990	1418.9	1376.1	-3.0	-42.8
1991	974.9	959.4	-1.6	-15.5
Mean:	1484.4	1484.2	.0	-.2
Median:	1578.7	1558.2	.0	.0
Min:	377.4	377.1	-4.1	-43.5
Max:	1850.0	1850.0	3.2	37.2
Littoral Habitat(ac)	1396.2	1395.3	-.1	-.9

CLAIR ENGLE RESERVOIR STORAGE
November

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	1837.4	1837.4	.0	.0
1923	1636.1	1636.1	.0	.0
1924	1125.0	1125.0	.0	.0
1925	524.1	513.5	-2.0	-10.6
1926	1203.7	1193.2	-.9	-10.5
1927	1371.7	1361.4	-.8	-10.3
1928	1850.0	1850.0	.0	.0
1929	1499.9	1505.6	.4	5.7
1930	899.4	912.1	1.4	12.7
1931	1001.3	1013.7	1.2	12.4
1932	450.6	450.6	.0	.0
1933	454.8	454.8	.0	.0
1934	532.7	550.0	3.2	17.3
1935	528.2	528.2	.0	.0
1936	769.0	783.8	1.9	14.8
1937	1080.5	1095.1	1.4	14.6
1938	1245.3	1246.4	.1	1.1
1939	1850.0	1850.0	.0	.0
1940	1203.2	1183.9	-1.6	-19.3
1941	1616.2	1609.7	-.4	-6.5
1942	1850.0	1850.0	.0	.0
1943	1850.0	1850.0	.0	.0
1944	1850.0	1850.0	.0	.0
1945	1436.3	1466.5	2.1	30.2
1946	1453.0	1490.2	2.6	37.2
1947	1608.6	1618.7	.6	10.1
1948	1448.5	1454.6	.4	6.1
1949	1850.0	1850.0	.0	.0
1950	1713.8	1713.7	.0	-.1
1951	1586.5	1587.2	.0	.7
1952	1727.2	1712.0	-.9	-15.2
1953	1845.1	1845.1	.0	.0
1954	1850.0	1850.0	.0	.0
1955	1850.0	1850.0	.0	.0
1956	1512.9	1540.4	1.8	27.5
1957	1850.0	1850.0	.0	.0
1958	1850.0	1850.0	.0	.0
1959	1850.0	1850.0	.0	.0
1960	1474.3	1467.5	-.5	-6.8
1961	1520.1	1509.8	-.7	-10.3
1962	1645.1	1635.4	-.6	-9.7
1963	1731.7	1728.5	-.2	-3.2
1964	1850.0	1850.0	.0	.0
1965	1508.3	1511.9	.2	3.6
1966	1850.0	1850.0	.0	.0
1967	1829.0	1830.1	.1	1.1
1968	1850.0	1850.0	.0	.0
1969	1525.0	1511.0	-.9	-14.0
1970	1850.0	1850.0	.0	.0
1971	1642.0	1650.8	.5	8.8
1972	1850.0	1850.0	.0	.0
1973	1652.5	1657.6	.3	5.1
1974	1850.0	1850.0	.0	.0
1975	1849.7	1849.7	.0	.0
1976	1850.0	1850.0	.0	.0
1977	1180.1	1183.1	.3	3.0
1978	407.8	407.6	.0	-.2
1979	1832.0	1832.0	.0	.0
1980	1582.3	1593.7	.7	11.4
1981	1827.8	1827.8	.0	.0
1982	1822.7	1802.2	-1.1	-20.5
1983	1850.0	1850.0	.0	.0
1984	1850.0	1850.0	.0	.0
1985	1850.0	1850.0	.0	.0
1986	1412.3	1421.5	.7	9.2
1987	1481.2	1481.2	.0	.0
1988	1320.6	1285.2	-2.7	-35.4
1989	1085.3	1041.8	-4.0	-43.5
1990	1406.8	1364.0	-3.0	-42.8
1991	946.9	929.9	-1.8	-17.0
Mean:	1497.8	1497.2	.0	-.6
Median:	1616.2	1618.7	.0	.0
Min:	407.8	407.6	-4.0	-43.5
Max:	1850.0	1850.0	3.2	37.2
Littoral Habitat(ac)	1464.9	1461.7	-.2	-3.2

CLAIR ENGLE RESERVOIR STORAGE
December

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	1839.4	1839.4	.0	.0
1923	1645.9	1645.9	.0	.0
1924	1109.3	1109.3	.0	.0
1925	572.1	561.5	-1.9	-10.6
1926	1222.2	1211.8	-.9	-10.4
1927	1572.9	1562.6	-.7	-10.3
1928	1850.0	1850.0	.0	.0
1929	1491.4	1497.1	.4	5.7
1930	1027.2	1039.9	1.2	12.7
1931	982.6	995.1	1.3	12.5
1932	450.0	450.0	.0	.0
1933	452.7	452.7	.0	.0
1934	540.6	557.9	3.2	17.3
1935	565.4	565.4	.0	.0
1936	765.9	780.8	1.9	14.9
1937	1055.8	1070.4	1.4	14.6
1938	1464.6	1465.7	.1	1.1
1939	1850.0	1850.0	.0	.0
1940	1257.6	1238.3	-1.5	-19.3
1941	1755.4	1748.9	-.4	-6.5
1942	1850.0	1850.0	.0	.0
1943	1850.0	1850.0	.0	.0
1944	1844.4	1844.4	.0	.0
1945	1501.5	1531.8	2.0	30.3
1946	1644.1	1681.3	2.3	37.2
1947	1620.8	1631.0	.6	10.2
1948	1440.4	1446.4	.4	6.0
1949	1850.0	1850.0	.0	.0
1950	1695.2	1695.2	.0	.0
1951	1844.4	1845.1	.0	.7
1952	1850.0	1850.0	.0	.0
1953	1850.0	1850.0	.0	.0
1954	1850.0	1850.0	.0	.0
1955	1850.0	1850.0	.0	.0
1956	1821.7	1849.1	1.5	27.4
1957	1848.7	1848.7	.0	.0
1958	1850.0	1850.0	.0	.0
1959	1841.5	1841.5	.0	.0
1960	1436.6	1404.6	-2.2	-32.0
1961	1609.3	1598.9	-.6	-10.4
1962	1676.9	1667.1	-.6	-9.8
1963	1850.0	1850.0	.0	.0
1964	1850.0	1850.0	.0	.0
1965	1850.0	1850.0	.0	.0
1966	1850.0	1850.0	.0	.0
1967	1850.0	1850.0	.0	.0
1968	1850.0	1850.0	.0	.0
1969	1593.7	1579.7	-.9	-14.0
1970	1850.0	1850.0	.0	.0
1971	1773.1	1781.9	.5	8.8
1972	1850.0	1850.0	.0	.0
1973	1761.8	1766.9	.3	5.1
1974	1850.0	1850.0	.0	.0
1975	1850.0	1850.0	.0	.0
1976	1850.0	1850.0	.0	.0
1977	1141.0	1160.8	1.7	19.8
1978	601.6	601.3	.0	-.3
1979	1821.7	1821.7	.0	.0
1980	1637.1	1657.7	1.3	20.6
1981	1850.0	1850.0	.0	.0
1982	1850.0	1850.0	.0	.0
1983	1850.0	1850.0	.0	.0
1984	1850.0	1850.0	.0	.0
1985	1850.0	1850.0	.0	.0
1986	1413.3	1422.5	.7	9.2
1987	1468.1	1468.1	.0	.0
1988	1480.6	1445.1	-2.4	-35.5
1989	1098.5	1055.0	-4.0	-43.5
1990	1388.7	1345.9	-3.1	-42.8
1991	891.5	865.3	-2.9	-26.2
Mean:	1539.5	1539.3	.0	-.2
Median:	1755.4	1748.9	.0	.0
Min:	450.0	450.0	-4.0	-43.5
Max:	1850.0	1850.0	3.2	37.2
Littoral Habitat(ac)	1677.4	1676.1	-.1	-1.3

CLAIR ENGLE RESERVOIR STORAGE
January

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	1836.3	1836.3	.0	.0
1923	1672.6	1672.6	.0	.0
1924	1095.7	1095.7	.0	.0
1925	618.1	607.5	-1.7	-10.6
1926	1214.1	1203.6	-.9	-10.5
1927	1697.0	1686.7	-.6	-10.3
1928	1900.0	1900.0	.0	.0
1929	1487.2	1492.9	.4	5.7
1930	1034.5	1047.2	1.2	12.7
1931	982.4	994.9	1.3	12.5
1932	462.4	462.4	.0	.0
1933	450.7	450.7	.0	.0
1934	596.2	613.5	2.9	17.3
1935	600.7	600.7	.0	.0
1936	873.6	888.4	1.7	14.8
1937	1032.2	1046.8	1.4	14.6
1938	1561.8	1562.9	.1	1.1
1939	1861.2	1861.2	.0	.0
1940	1432.6	1413.3	-1.3	-19.3
1941	1900.0	1900.0	.0	.0
1942	1900.0	1900.0	.0	.0
1943	1900.0	1900.0	.0	.0
1944	1848.5	1848.5	.0	.0
1945	1546.2	1585.7	2.6	39.5
1946	1775.0	1812.2	2.1	37.2
1947	1612.6	1622.7	.6	10.1
1948	1633.3	1639.3	.4	6.0
1949	1835.8	1835.8	.0	.0
1950	1712.9	1712.8	.0	-.1
1951	1900.0	1900.0	.0	.0
1952	1900.0	1900.0	.0	.0
1953	1900.0	1900.0	.0	.0
1954	1900.0	1900.0	.0	.0
1955	1868.5	1868.5	.0	.0
1956	1900.0	1900.0	.0	.0
1957	1847.8	1847.8	.0	.0
1958	1900.0	1900.0	.0	.0
1959	1900.0	1900.0	.0	.0
1960	1435.8	1403.7	-2.2	-32.1
1961	1640.6	1630.2	-.6	-10.4
1962	1690.3	1680.6	-.6	-9.7
1963	1891.0	1891.0	.0	.0
1964	1900.0	1900.0	.0	.0
1965	1900.0	1900.0	.0	.0
1966	1900.0	1900.0	.0	.0
1967	1900.0	1900.0	.0	.0
1968	1900.0	1900.0	.0	.0
1969	1731.6	1717.6	-.8	-14.0
1970	1900.0	1900.0	.0	.0
1971	1900.0	1900.0	.0	.0
1972	1900.0	1900.0	.0	.0
1973	1900.0	1900.0	.0	.0
1974	1900.0	1900.0	.0	.0
1975	1873.1	1873.1	.0	.0
1976	1861.2	1861.2	.0	.0
1977	1079.5	1101.9	2.1	22.4
1978	987.1	986.9	.0	-.2
1979	1844.8	1844.8	.0	.0
1980	1866.1	1886.7	1.1	20.6
1981	1900.0	1900.0	.0	.0
1982	1900.0	1900.0	.0	.0
1983	1900.0	1900.0	.0	.0
1984	1900.0	1900.0	.0	.0
1985	1876.3	1876.3	.0	.0
1986	1541.8	1551.0	.6	9.2
1987	1478.4	1478.4	.0	.0
1988	1559.3	1523.8	-2.3	-35.5
1989	1110.8	1067.3	-3.9	-43.5
1990	1438.8	1396.0	-3.0	-42.8
1991	831.8	808.6	-2.8	-23.2
Mean:	1591.8	1591.3	.0	-.6
Median:	1836.3	1836.3	.0	.0
Min:	450.7	450.7	-3.9	-43.5
Max:	1900.0	1900.0	2.9	39.5
Littoral Habitat(ac)	1941.0	1938.3	-.1	-2.8

CLAIR ENGLE RESERVOIR STORAGE
February

Water Year	Base Storage (taf)	WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1859.0	1859.0	.0	.0
1923	1696.4	1696.4	.0	.0
1924	1154.5	1154.5	.0	.0
1925	889.1	878.5	-1.2	-10.6
1926	1358.6	1348.1	-.8	-10.5
1927	1929.6	1919.3	-.5	-10.3
1928	2000.0	2000.0	.0	.0
1929	1503.5	1509.2	.4	5.7
1930	1139.3	1152.0	1.1	12.7
1931	1001.8	1014.3	1.2	12.5
1932	484.7	484.7	.0	.0
1933	451.4	451.4	.0	.0
1934	680.8	698.1	2.5	17.3
1935	679.5	679.5	.0	.0
1936	1014.9	1029.7	1.5	14.8
1937	1022.1	1036.7	1.4	14.6
1938	1713.5	1714.5	.1	1.0
1939	1875.6	1875.6	.0	.0
1940	1754.3	1734.9	-1.1	-19.4
1941	2000.0	2000.0	.0	.0
1942	2000.0	2000.0	.0	.0
1943	2000.0	2000.0	.0	.0
1944	1892.7	1892.7	.0	.0
1945	1706.7	1746.2	2.3	39.5
1946	1830.3	1867.5	2.0	37.2
1947	1673.4	1683.6	.6	10.2
1948	1656.3	1662.4	.4	6.1
1949	1867.9	1867.9	.0	.0
1950	1769.7	1769.6	.0	-.1
1951	2000.0	2000.0	.0	.0
1952	2000.0	2000.0	.0	.0
1953	2000.0	2000.0	.0	.0
1954	2000.0	2000.0	.0	.0
1955	1897.4	1897.4	.0	.0
1956	2000.0	2000.0	.0	.0
1957	2000.0	2000.0	.0	.0
1958	2000.0	2000.0	.0	.0
1959	1999.4	1999.4	.0	.0
1960	1579.6	1547.6	-2.0	-32.0
1961	1864.1	1853.7	-.6	-10.4
1962	1819.5	1809.7	-.5	-9.8
1963	2000.0	2000.0	.0	.0
1964	1948.1	1948.1	.0	.0
1965	1991.4	1991.4	.0	.0
1966	1968.6	1968.6	.0	.0
1967	2000.0	2000.0	.0	.0
1968	2000.0	2000.0	.0	.0
1969	1851.4	1837.4	-.8	-14.0
1970	2000.0	2000.0	.0	.0
1971	2000.0	2000.0	.0	.0
1972	2000.0	2000.0	.0	.0
1973	2000.0	2000.0	.0	.0
1974	2000.0	2000.0	.0	.0
1975	1970.9	1970.9	.0	.0
1976	1896.2	1896.2	.0	.0
1977	978.7	1001.8	2.4	23.1
1978	1172.8	1172.5	.0	-.3
1979	1898.5	1898.5	.0	.0
1980	2000.0	2000.0	.0	.0
1981	2000.0	2000.0	.0	.0
1982	2000.0	2000.0	.0	.0
1983	2000.0	2000.0	.0	.0
1984	1998.8	1998.8	.0	.0
1985	1916.1	1916.1	.0	.0
1986	2000.0	2000.0	.0	.0
1987	1564.2	1564.2	.0	.0
1988	1640.7	1605.3	-2.2	-35.4
1989	1136.3	1092.9	-3.8	-43.4
1990	1450.9	1408.1	-2.9	-42.8
1991	762.4	750.0	-1.6	-12.4
Mean:	1684.5	1683.6	.0	-.8
Median:	1892.7	1892.7	.0	.0
Min:	451.4	451.4	-3.8	-43.4
Max:	2000.0	2000.0	2.5	39.5
Littoral Habitat(ac)	2401.5	2397.5	-.2	-4.0

CLAIR ENGLE RESERVOIR STORAGE
March

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	1909.3	1909.3	.0	.0
1923	1745.6	1745.6	.0	.0
1924	1116.5	1116.4	.0	-.1
1925	1015.5	1004.9	-1.0	-10.6
1926	1467.9	1457.5	-.7	-10.4
1927	2100.0	2097.5	-.1	-2.5
1928	2100.0	2100.0	.0	.0
1929	1552.7	1558.4	.4	5.7
1930	1265.4	1278.1	1.0	12.7
1931	1050.9	1063.4	1.2	12.5
1932	631.5	631.5	.0	.0
1933	568.6	568.6	.0	.0
1934	832.4	849.7	2.1	17.3
1935	733.8	733.8	.0	.0
1936	1126.9	1141.8	1.3	14.9
1937	1112.5	1127.1	1.3	14.6
1938	1968.3	1969.4	.1	1.1
1939	1978.0	1978.0	.0	.0
1940	2051.8	2032.5	-.9	-19.3
1941	2100.0	2100.0	.0	.0
1942	2079.2	2079.2	.0	.0
1943	2100.0	2100.0	.0	.0
1944	1961.4	1961.4	.0	.0
1945	1760.5	1800.0	2.2	39.5
1946	1953.9	1991.1	1.9	37.2
1947	1793.8	1804.0	.6	10.2
1948	1690.6	1696.7	.4	6.1
1949	2077.9	2077.9	.0	.0
1950	1891.3	1891.3	.0	.0
1951	2100.0	2100.0	.0	.0
1952	2100.0	2100.0	.0	.0
1953	2100.0	2100.0	.0	.0
1954	2100.0	2100.0	.0	.0
1955	1924.7	1924.7	.0	.0
1956	2100.0	2100.0	.0	.0
1957	2100.0	2100.0	.0	.0
1958	2100.0	2100.0	.0	.0
1959	2100.0	2100.0	.0	.0
1960	1769.0	1736.9	-1.8	-32.1
1961	1986.4	1976.0	-.5	-10.4
1962	1895.9	1886.2	-.5	-9.7
1963	2072.7	2072.7	.0	.0
1964	1983.9	1983.9	.0	.0
1965	2065.6	2065.6	.0	.0
1966	2100.0	2100.0	.0	.0
1967	2100.0	2100.0	.0	.0
1968	2100.0	2100.0	.0	.0
1969	2007.4	1993.5	-.7	-13.9
1970	2100.0	2100.0	.0	.0
1971	2100.0	2100.0	.0	.0
1972	2100.0	2100.0	.0	.0
1973	2100.0	2100.0	.0	.0
1974	2100.0	2100.0	.0	.0
1975	2100.0	2100.0	.0	.0
1976	1948.8	1948.8	.0	.0
1977	974.3	988.1	1.4	13.8
1978	1454.6	1454.3	.0	-.3
1979	2048.3	2048.3	.0	.0
1980	2100.0	2100.0	.0	.0
1981	2100.0	2100.0	.0	.0
1982	2100.0	2100.0	.0	.0
1983	2100.0	2100.0	.0	.0
1984	2100.0	2100.0	.0	.0
1985	1963.6	1963.6	.0	.0
1986	2100.0	2100.0	.0	.0
1987	1777.2	1777.2	.0	.0
1988	1700.4	1666.0	-2.0	-34.4
1989	1480.9	1437.5	-2.9	-43.4
1990	1528.0	1485.2	-2.8	-42.8
1991	834.1	821.7	-1.5	-12.4
Mean:	1792.2	1791.4	.0	-.8
Median:	1983.9	1983.9	.0	.0
Min:	568.6	568.6	-2.9	-43.4
Max:	2100.0	2100.0	2.2	39.5
Littoral Habitat(ac)	2927.3	2923.4	-.1	-3.9

CLAIR ENGLE RESERVOIR STORAGE
April

Water Year	Base Storage (taf)	WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2023.2	2023.2	.0	.0
1923	1875.7	1875.7	.0	.0
1924	1124.3	1124.2	.0	-.1
1925	1314.2	1303.6	-.8	-10.6
1926	1693.3	1682.9	-.6	-10.4
1927	2300.0	2300.0	.0	.0
1928	2258.5	2258.5	.0	.0
1929	1542.6	1544.8	.1	2.2
1930	1389.2	1401.8	.9	12.6
1931	1103.0	1115.4	1.1	12.4
1932	729.7	729.7	.0	.0
1933	731.0	731.0	.0	.0
1934	953.9	971.2	1.8	17.3
1935	962.3	962.3	.0	.0
1936	1300.9	1315.7	1.1	14.8
1937	1337.9	1352.5	1.1	14.6
1938	2270.3	2271.4	.0	1.1
1939	1933.8	1925.3	-.4	-8.5
1940	2290.3	2270.9	-.8	-19.4
1941	2300.0	2300.0	.0	.0
1942	2282.6	2282.6	.0	.0
1943	2294.9	2294.9	.0	.0
1944	1973.3	1984.1	.5	10.8
1945	1908.1	1947.6	2.1	39.5
1946	2178.6	2200.7	1.0	22.1
1947	1895.4	1898.5	.2	3.1
1948	1883.6	1889.6	.3	6.0
1949	2300.0	2300.0	.0	.0
1950	2061.8	2061.7	.0	-.1
1951	2253.6	2253.6	.0	.0
1952	2300.0	2300.0	.0	.0
1953	2300.0	2300.0	.0	.0
1954	2300.0	2300.0	.0	.0
1955	1964.5	1964.5	.0	.0
1956	2300.0	2300.0	.0	.0
1957	2224.3	2224.3	.0	.0
1958	2300.0	2300.0	.0	.0
1959	2214.3	2217.6	.1	3.3
1960	1898.9	1866.9	-1.7	-32.0
1961	2143.3	2133.0	-.5	-10.3
1962	2134.3	2124.6	-.5	-9.7
1963	2300.0	2300.0	.0	.0
1964	1951.8	1957.9	.3	6.1
1965	2296.3	2296.3	.0	.0
1966	2300.0	2300.0	.0	.0
1967	2204.7	2204.7	.0	.0
1968	2208.5	2208.5	.0	.0
1969	2300.0	2300.0	.0	.0
1970	2135.8	2135.8	.0	.0
1971	2277.8	2277.8	.0	.0
1972	2253.9	2253.9	.0	.0
1973	2299.8	2299.8	.0	.0
1974	2300.0	2300.0	.0	.0
1975	2240.6	2240.6	.0	.0
1976	1948.2	1952.8	.2	4.6
1977	988.4	993.4	.5	5.0
1978	1664.0	1663.7	.0	-.3
1979	2180.4	2180.4	.0	.0
1980	2271.2	2271.2	.0	.0
1981	2223.4	2223.4	.0	.0
1982	2300.0	2300.0	.0	.0
1983	2300.0	2300.0	.0	.0
1984	2226.0	2226.0	.0	.0
1985	2120.3	2120.3	.0	.0
1986	2254.7	2254.7	.0	.0
1987	1937.6	1937.6	.0	.0
1988	1794.9	1760.5	-1.9	-34.4
1989	1697.4	1654.0	-2.6	-43.4
1990	1540.5	1503.3	-2.4	-37.2
1991	911.5	899.1	-1.4	-12.4
Mean:	1942.5	1941.7	.0	-.8
Median:	2143.3	2135.8	.0	.0
Min:	729.7	729.7	-2.6	-43.4
Max:	2300.0	2300.0	2.1	39.5
Littoral Habitat(ac)	3645.1	3641.5	-.1	-3.6

CLAIR ENGLE RESERVOIR STORAGE
May

Water Year	Base Storage (taf)	WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2125.1	2125.1	.0	.0
1923	1731.1	1731.1	.0	.0
1924	876.8	876.7	.0	-.1
1925	1446.5	1435.9	-.7	-10.6
1926	1624.9	1614.5	-.6	-10.4
1927	2420.0	2420.0	.0	.0
1928	2300.6	2300.6	.0	.0
1929	1484.2	1494.8	.7	10.6
1930	1343.9	1356.6	.9	12.7
1931	926.1	919.7	-.7	-6.4
1932	820.5	820.5	.0	.0
1933	800.0	800.0	.0	.0
1934	917.5	934.7	1.9	17.2
1935	1082.2	1082.2	.0	.0
1936	1346.0	1360.8	1.1	14.8
1937	1523.6	1538.2	1.0	14.6
1938	2420.0	2420.0	.0	.0
1939	1836.0	1827.5	-.5	-8.5
1940	2274.8	2267.5	-.3	-7.3
1941	2420.0	2420.0	.0	.0
1942	2420.0	2420.0	.0	.0
1943	2345.6	2345.6	.0	.0
1944	1916.5	1927.3	.6	10.8
1945	1972.0	2011.3	2.0	39.3
1946	2210.7	2221.0	.5	10.3
1947	1841.8	1845.0	.2	3.2
1948	2038.4	2044.4	.3	6.0
1949	2374.6	2376.6	.1	2.0
1950	2007.1	2007.8	.0	.7
1951	2317.9	2317.9	.0	.0
1952	2420.0	2420.0	.0	.0
1953	2420.0	2420.0	.0	.0
1954	2396.1	2398.2	.1	2.1
1955	1938.9	1938.9	.0	.0
1956	2420.0	2420.0	.0	.0
1957	2402.8	2402.8	.0	.0
1958	2420.0	2420.0	.0	.0
1959	2156.6	2161.8	.2	5.2
1960	1944.0	1912.1	-1.6	-31.9
1961	2212.4	2202.1	-.5	-10.3
1962	2155.2	2145.5	-.5	-9.7
1963	2420.0	2420.0	.0	.0
1964	1886.1	1892.1	.3	6.0
1965	2405.0	2405.0	.0	.0
1966	2387.2	2387.2	.0	.0
1967	2420.0	2420.0	.0	.0
1968	2167.1	2167.1	.0	.0
1969	2420.0	2420.0	.0	.0
1970	2119.4	2119.4	.0	.0
1971	2420.0	2420.0	.0	.0
1972	2320.9	2320.9	.0	.0
1973	2420.0	2420.0	.0	.0
1974	2420.0	2420.0	.0	.0
1975	2420.0	2420.0	.0	.0
1976	1827.8	1832.3	.2	4.5
1977	800.0	802.8	.3	2.8
1978	1866.6	1866.3	.0	-.3
1979	2179.6	2179.5	.0	-.1
1980	2277.4	2277.4	.0	.0
1981	2183.2	2183.2	.0	.0
1982	2420.0	2420.0	.0	.0
1983	2420.0	2420.0	.0	.0
1984	2380.5	2380.5	.0	.0
1985	1939.4	1945.7	.3	6.3
1986	2139.8	2139.8	.0	.0
1987	1923.1	1923.2	.0	.1
1988	1750.8	1706.3	-2.5	-44.5
1989	1689.2	1646.0	-2.6	-43.2
1990	1533.5	1496.4	-2.4	-37.1
1991	903.6	891.3	-1.4	-12.3
Mean:	1978.7	1977.8	-.1	-.9
Median:	2155.2	2145.5	.0	.0
Min:	800.0	800.0	-2.6	-44.5
Max:	2420.0	2420.0	2.0	39.3
Littoral Habitat(ac)	3815.6	3811.3	-.1	-4.3

CLAIR ENGLE RESERVOIR STORAGE
June

Water Year	Base Storage (taf)	WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2105.7	2105.7	.0	.0
1923	1583.3	1581.1	-.1	-2.2
1924	703.0	702.2	-.1	-.8
1925	1408.2	1397.7	-.7	-10.5
1926	1493.5	1483.1	-.7	-10.4
1927	2432.3	2432.3	.0	.0
1928	2127.2	2118.0	-.4	-9.2
1929	1384.8	1365.6	-1.4	-19.2
1930	1259.5	1272.1	1.0	12.6
1931	800.5	794.1	-.8	-6.4
1932	748.7	779.9	4.2	31.2
1933	889.8	912.4	2.5	22.6
1934	823.7	822.9	-.1	-.8
1935	1025.4	1025.4	.0	.0
1936	1319.6	1334.3	1.1	14.7
1937	1531.1	1545.6	.9	14.5
1938	2447.0	2447.0	.0	.0
1939	1643.3	1624.8	-1.1	-18.5
1940	2131.8	2124.6	-.3	-7.2
1941	2447.0	2447.0	.0	.0
1942	2447.0	2447.0	.0	.0
1943	2317.5	2317.5	.0	.0
1944	1808.1	1818.8	.6	10.7
1945	1929.6	1968.8	2.0	39.2
1946	2083.1	2093.4	.5	10.3
1947	1767.5	1770.6	.2	3.1
1948	2211.6	2217.6	.3	6.0
1949	2232.8	2234.8	.1	2.0
1950	1851.5	1852.2	.0	.7
1951	2186.8	2186.8	.0	.0
1952	2447.0	2447.0	.0	.0
1953	2447.0	2447.0	.0	.0
1954	2280.5	2275.1	-.2	-5.4
1955	1895.2	1895.2	.0	.0
1956	2447.0	2447.0	.0	.0
1957	2349.3	2340.7	-.4	-8.6
1958	2447.0	2447.0	.0	.0
1959	2000.8	2006.0	.3	5.2
1960	1967.9	1936.0	-1.6	-31.9
1961	2151.0	2140.7	-.5	-10.3
1962	2082.5	2080.7	-.1	-1.8
1963	2434.8	2434.8	.0	.0
1964	1769.9	1775.9	.3	6.0
1965	2309.3	2309.3	.0	.0
1966	2232.8	2232.8	.0	.0
1967	2447.0	2447.0	.0	.0
1968	1998.4	1998.4	.0	.0
1969	2447.0	2447.0	.0	.0
1970	2020.6	2020.6	.0	.0
1971	2447.0	2447.0	.0	.0
1972	2182.8	2182.8	.0	.0
1973	2293.8	2293.8	.0	.0
1974	2447.0	2447.0	.0	.0
1975	2447.0	2447.0	.0	.0
1976	1643.4	1647.9	.3	4.5
1977	594.5	597.3	.5	2.8
1978	2064.7	2064.4	.0	-.3
1979	2009.9	2009.8	.0	-.1
1980	2185.0	2185.0	.0	.0
1981	2032.6	2015.9	-.8	-16.7
1982	2447.0	2447.0	.0	.0
1983	2447.0	2447.0	.0	.0
1984	2271.0	2261.9	-.4	-9.1
1985	1804.7	1799.8	-.3	-4.9
1986	1994.4	1994.4	.0	.0
1987	1734.7	1734.7	.0	.0
1988	1615.2	1570.9	-2.7	-44.3
1989	1634.5	1591.3	-2.6	-43.2
1990	1424.8	1387.7	-2.6	-37.1
1991	892.5	880.3	-1.4	-12.2
Mean:	1913.3	1911.5	-.1	-1.8
Median:	2032.6	2020.6	.0	.0
Min:	594.5	597.3	-2.7	-44.3
Max:	2447.0	2447.0	4.2	39.2
Littoral Habitat(ac)	3507.0	3498.5	-.2	-8.5

CLAIR ENGLE RESERVOIR STORAGE
July

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	1924.2	1924.2	.0	.0
1923	1400.0	1400.0	.0	.0
1924	517.7	507.0	-2.1	-10.7
1925	1317.4	1306.8	-.8	-10.6
1926	1345.6	1335.3	-.8	-10.3
1927	2270.0	2270.0	.0	.0
1928	1905.9	1896.7	-.5	-9.2
1929	1202.7	1206.3	.3	3.6
1930	1147.2	1159.7	1.1	12.5
1931	600.4	591.7	-1.4	-8.7
1932	600.0	600.0	.0	.0
1933	761.1	778.5	2.3	17.4
1934	644.3	639.5	-.7	-4.8
1935	888.3	888.3	.0	.0
1936	1224.7	1239.4	1.2	14.7
1937	1383.3	1400.0	1.2	16.7
1938	2270.0	2270.0	.0	.0
1939	1465.3	1446.8	-1.3	-18.5
1940	1914.7	1907.5	-.4	-7.2
1941	2270.0	2270.0	.0	.0
1942	2270.0	2270.0	.0	.0
1943	2216.7	2198.1	-.8	-18.6
1944	1674.0	1679.2	.3	5.2
1945	1719.9	1757.3	2.2	37.4
1946	1884.9	1895.1	.5	10.2
1947	1622.2	1622.0	.0	-.2
1948	2126.6	2132.6	.3	6.0
1949	2019.6	2021.6	.1	2.0
1950	1636.0	1636.7	.0	.7
1951	1971.7	1971.7	.0	.0
1952	2270.0	2270.0	.0	.0
1953	2270.0	2270.0	.0	.0
1954	2077.7	2072.2	-.3	-5.5
1955	1730.2	1759.6	1.7	29.4
1956	2270.0	2270.0	.0	.0
1957	2212.8	2193.5	-.9	-19.3
1958	2270.0	2270.0	.0	.0
1959	1783.0	1788.2	.3	5.2
1960	1798.1	1774.8	-1.3	-23.3
1961	1944.2	1933.9	-.5	-10.3
1962	1872.4	1870.6	-.1	-1.8
1963	2270.0	2270.0	.0	.0
1964	1639.0	1645.1	.4	6.1
1965	2218.1	2218.1	.0	.0
1966	2031.8	2031.8	.0	.0
1967	2270.0	2270.0	.0	.0
1968	1783.2	1783.2	.0	.0
1969	2270.0	2270.0	.0	.0
1970	1810.4	1810.4	.0	.0
1971	2270.0	2270.0	.0	.0
1972	1968.5	1968.5	.0	.0
1973	2089.6	2089.6	.0	.0
1974	2270.0	2270.0	.0	.0
1975	2270.0	2270.0	.0	.0
1976	1452.6	1444.5	-.6	-8.1
1977	474.9	474.1	-.2	-.8
1978	2023.3	2023.0	.0	-.3
1979	1794.7	1794.6	.0	-.1
1980	2024.9	2024.9	.0	.0
1981	1838.4	1821.9	-.9	-16.5
1982	2270.0	2270.0	.0	.0
1983	2270.0	2270.0	.0	.0
1984	2070.6	2061.6	-.4	-9.0
1985	1656.7	1650.5	-.4	-6.2
1986	1778.9	1778.9	.0	.0
1987	1555.8	1524.1	-2.0	-31.7
1988	1404.8	1360.6	-3.1	-44.2
1989	1491.9	1448.9	-2.9	-43.0
1990	1264.9	1248.9	-1.3	-16.0
1991	848.0	835.8	-1.4	-12.2
Mean:	1743.9	1741.3	-.2	-2.6
Median:	1838.4	1821.9	.0	.0
Min:	474.9	474.1	-3.1	-44.2
Max:	2270.0	2270.0	2.3	37.4
Littoral Habitat(ac)	2693.0	2680.4	-.5	-12.5

CLAIR ENGLE RESERVOIR STORAGE
August

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	1719.3	1719.3	.0	.0
1923	1200.0	1200.0	.0	.0
1924	484.0	473.3	-2.2	-10.7
1925	1265.9	1255.4	-.8	-10.5
1926	1286.8	1276.4	-.8	-10.4
1927	2150.0	2150.0	.0	.0
1928	1676.6	1667.4	-.5	-9.2
1929	1018.3	1030.1	1.2	11.8
1930	1090.0	1102.5	1.1	12.5
1931	500.0	500.0	.0	.0
1932	500.0	500.0	.0	.0
1933	614.2	631.6	2.8	17.4
1934	500.0	500.0	.0	.0
1935	848.3	848.3	.0	.0
1936	1171.4	1186.0	1.2	14.6
1937	1200.0	1200.0	.0	.0
1938	2150.0	2150.0	.0	.0
1939	1310.3	1290.9	-1.5	-19.4
1940	1687.5	1680.3	-.4	-7.2
1941	2150.0	2150.0	.0	.0
1942	2150.0	2150.0	.0	.0
1943	2131.2	2112.6	-.9	-18.6
1944	1500.3	1514.0	.9	13.7
1945	1493.0	1530.4	2.5	37.4
1946	1660.8	1671.0	.6	10.2
1947	1466.7	1472.8	.4	6.1
1948	2046.5	2052.5	.3	6.0
1949	1794.1	1796.1	.1	2.0
1950	1408.4	1409.1	.0	.7
1951	1746.4	1746.4	.0	.0
1952	2150.0	2150.0	.0	.0
1953	2150.0	2150.0	.0	.0
1954	2000.9	1995.4	-.3	-5.5
1955	1573.7	1601.3	1.8	27.6
1956	2150.0	2150.0	.0	.0
1957	2128.3	2109.0	-.9	-19.3
1958	2150.0	2150.0	.0	.0
1959	1556.0	1561.2	.3	5.2
1960	1613.8	1599.7	-.9	-14.1
1961	1721.0	1710.7	-.6	-10.3
1962	1666.4	1652.8	-.8	-13.6
1963	2150.0	2150.0	.0	.0
1964	1533.9	1537.4	.2	3.5
1965	2147.0	2147.0	.0	.0
1966	1815.4	1815.4	.0	.0
1967	2150.0	2150.0	.0	.0
1968	1567.5	1559.5	-.5	-8.0
1969	2150.0	2150.0	.0	.0
1970	1580.0	1580.0	.0	.0
1971	2150.0	2150.0	.0	.0
1972	1745.0	1745.0	.0	.0
1973	2000.0	2000.0	.0	.0
1974	2150.0	2150.0	.0	.0
1975	2150.0	2150.0	.0	.0
1976	1263.3	1266.4	.2	3.1
1977	423.5	422.2	-.3	-1.3
1978	1946.6	1946.3	.0	-.3
1979	1563.4	1574.8	.7	11.4
1980	1937.8	1937.8	.0	.0
1981	1640.4	1618.9	-1.3	-21.5
1982	2150.0	2150.0	.0	.0
1983	2150.0	2150.0	.0	.0
1984	1991.0	1982.0	-.5	-9.0
1985	1491.7	1500.9	.6	9.2
1986	1551.9	1551.9	.0	.0
1987	1429.0	1400.5	-2.0	-28.5
1988	1176.6	1132.5	-3.7	-44.1
1989	1434.6	1391.6	-3.0	-43.0
1990	1074.3	1061.0	-1.2	-13.3
1991	743.0	749.2	.8	6.2
Mean:	1600.5	1598.8	-.1	-1.7
Median:	1640.4	1618.9	.0	.0
Min:	423.5	422.2	-3.7	-44.1
Max:	2150.0	2150.0	2.8	37.4
Littoral Habitat(ac)	1984.6	1976.0	-.4	-8.5

CLAIR ENGLE RESERVOIR STORAGE
September

Water Year	Base Storage (taf)	WFP Storage (taf)	WFP Rel Change (%)	Abs Diff (taf)
1922	1668.1	1668.1	.0	.0
1923	1163.1	1163.1	.0	.0
1924	451.4	440.7	-2.4	-10.7
1925	1239.3	1228.8	-.8	-10.5
1926	1246.6	1236.2	-.8	-10.4
1927	1975.0	1975.0	.0	.0
1928	1553.6	1559.3	.4	5.7
1929	977.6	989.4	1.2	11.8
1930	1051.3	1063.8	1.2	12.5
1931	468.5	468.5	.0	.0
1932	469.5	469.5	.0	.0
1933	569.6	586.9	3.0	17.3
1934	469.5	469.5	.0	.0
1935	795.2	810.1	1.9	14.9
1936	1134.6	1149.2	1.3	14.6
1937	1131.2	1132.3	.1	1.1
1938	1975.0	1975.0	.0	.0
1939	1270.0	1250.6	-1.5	-19.4
1940	1640.3	1633.8	-.4	-6.5
1941	1975.0	1975.0	.0	.0
1942	1975.0	1975.0	.0	.0
1943	1962.8	1944.3	-.9	-18.5
1944	1445.1	1475.4	2.1	30.3
1945	1419.1	1456.3	2.6	37.2
1946	1624.1	1634.3	.6	10.2
1947	1428.3	1434.3	.4	6.0
1948	1975.0	1975.0	.0	.0
1949	1756.2	1756.1	.0	-.1
1950	1372.2	1372.9	.1	.7
1951	1708.6	1708.2	.0	-.4
1952	1975.0	1975.0	.0	.0
1953	1975.0	1975.0	.0	.0
1954	1946.8	1910.0	-1.9	-36.8
1955	1540.2	1567.7	1.8	27.5
1956	1975.0	1975.0	.0	.0
1957	1975.0	1975.0	.0	.0
1958	1975.0	1975.0	.0	.0
1959	1522.6	1527.8	.3	5.2
1960	1548.7	1538.3	-.7	-10.4
1961	1677.9	1668.2	-.6	-9.7
1962	1584.5	1581.3	-.2	-3.2
1963	1975.0	1975.0	.0	.0
1964	1503.2	1506.8	.2	3.6
1965	1975.0	1975.0	.0	.0
1966	1737.9	1756.7	1.1	18.8
1967	1975.0	1975.0	.0	.0
1968	1533.8	1519.8	-.9	-14.0
1969	1975.0	1975.0	.0	.0
1970	1528.9	1537.8	.6	8.9
1971	1975.0	1975.0	.0	.0
1972	1640.7	1645.8	.3	5.1
1973	1950.5	1950.5	.0	.0
1974	1975.0	1975.0	.0	.0
1975	1975.0	1975.0	.0	.0
1976	1228.3	1231.3	.2	3.0
1977	407.6	406.4	-.3	-1.2
1978	1923.4	1923.2	.0	-.2
1979	1527.8	1539.1	.7	11.3
1980	1884.9	1884.9	.0	.0
1981	1594.5	1574.0	-1.3	-20.5
1982	1975.0	1975.0	.0	.0
1983	1975.0	1975.0	.0	.0
1984	1941.0	1932.0	-.5	-9.0
1985	1453.7	1462.9	.6	9.2
1986	1519.1	1519.1	.0	.0
1987	1383.4	1355.0	-2.1	-28.4
1988	1131.5	1087.5	-3.9	-44.0
1989	1401.6	1358.7	-3.1	-42.9
1990	1033.4	1020.2	-1.3	-13.2
1991	704.9	711.0	.9	6.1
Mean:	1519.9	1519.2	.0	-.7
Median:	1553.6	1567.7	.0	.0
Min:	407.6	406.4	-3.9	-44.0
Max:	1975.0	1975.0	3.0	37.2
Littoral Habitat(ac)	1577.6	1574.0	-.2	-3.6

RETURN TO TABLE OF CONTENTS

Section 16

CLAIR ENGLE RESERVOIR ELEVATION
16.1 Fisheries

CLAIR ENGLE RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2330.8	.0	2330.8	.0	.0	.0
1923	2315.7	-1.5	2315.7	-1.5	.0	.0
1924	2270.4	-2.0	2270.4	-2.0	.0	.0
1925	2174.7	-.5	2172.6	-.5	-.1	-2.1
1926	2277.9	-2.0	2276.8	-2.1	.0	-1.1
1927	2278.5	-2.1	2277.5	-2.1	.0	-1.0
1928	2330.8	-8.8	2330.8	-8.8	.0	.0
1929	2304.3	-3.7	2304.8	-3.7	.0	.5
1930	2245.1	-7.2	2246.6	-7.1	.1	1.5
1931	2257.6	-3.0	2259.0	-2.9	.1	1.4
1932	2176.4	-2.1	2176.4	-2.1	.0	.0
1933	2176.2	-2.5	2176.2	-2.5	.0	.0
1934	2191.5	-4.9	2194.4	-4.9	.1	2.9
1935	2177.6	-1.1	2177.6	-1.1	.0	.0
1936	2227.8	-2.0	2229.7	-2.1	.1	1.9
1937	2266.5	-2.9	2268.0	-2.9	.1	1.5
1938	2267.1	-2.0	2267.3	-1.9	.0	.2
1939	2330.8	-8.8	2330.8	-8.8	.0	.0
1940	2278.8	-4.1	2276.9	-4.1	-.1	-1.9
1941	2313.4	-1.6	2312.9	-1.6	.0	-.5
1942	2330.8	-8.8	2330.8	-8.8	.0	.0
1943	2330.8	-8.8	2330.8	-8.8	.0	.0
1944	2330.8	-7.9	2330.8	-6.7	.0	.0
1945	2296.5	-2.3	2299.2	-2.2	.1	2.7
1946	2296.0	-.5	2299.2	-.6	.1	3.2
1947	2311.7	-2.0	2312.5	-2.0	.0	.8
1948	2298.9	1.5	2299.5	1.6	.0	.6
1949	2330.8	-8.8	2330.8	-8.8	.0	.0
1950	2322.0	-1.9	2322.0	-1.9	.0	.0
1951	2301.0	8.6	2301.1	8.7	.0	.1
1952	2319.0	-1.3	2318.9	-1.4	.0	-.1
1953	2330.8	-8.8	2330.8	-8.8	.0	.0
1954	2330.8	-8.8	2330.8	-8.8	.0	.0
1955	2330.8	-6.8	2330.8	-4.3	.0	.0
1956	2304.7	-2.2	2307.0	-2.1	.1	2.3
1957	2330.8	-8.8	2330.8	-8.8	.0	.0
1958	2330.8	-8.8	2330.8	-8.8	.0	.0
1959	2330.8	-8.8	2330.8	-8.8	.0	.0
1960	2303.3	-2.1	2302.7	-3.2	.0	-.6
1961	2305.6	-2.0	2304.8	-1.9	.0	-.8
1962	2315.8	-2.1	2315.1	-2.1	.0	-.7
1963	2318.1	7.6	2317.8	7.5	.0	-.3
1964	2330.8	-8.8	2330.8	-8.8	.0	.0
1965	2302.4	-1.4	2302.7	-1.4	.0	.3
1966	2330.8	-8.8	2330.8	-8.8	.0	.0
1967	2320.9	-1.6	2322.1	-1.8	.1	1.2
1968	2330.8	-8.8	2330.8	-8.8	.0	.0
1969	2304.7	-1.7	2303.5	-1.7	-.1	-1.2
1970	2330.8	-8.8	2330.8	-8.8	.0	.0
1971	2304.0	-1.9	2304.8	-1.9	.0	.8
1972	2330.8	-8.8	2330.8	-8.8	.0	.0
1973	2314.0	-1.0	2314.4	-1.0	.0	.4
1974	2330.8	-7.1	2330.8	-7.1	.0	.0
1975	2330.8	-8.8	2330.8	-8.8	.0	.0
1976	2330.8	-8.8	2330.8	-8.8	.0	.0
1977	2276.1	-2.8	2276.4	-2.8	.0	.3
1978	2160.0	-6.4	2160.0	-6.2	.0	.0
1979	2330.8	-5.2	2330.8	-5.2	.0	.0
1980	2306.2	.3	2307.1	.3	.0	.9
1981	2330.8	-2.5	2330.8	-2.5	.0	.0
1982	2310.0	-1.3	2308.4	-1.3	-.1	-1.6
1983	2330.8	-8.8	2330.8	-8.8	.0	.0
1984	2330.8	-8.8	2330.8	-8.8	.0	.0
1985	2330.8	-6.4	2330.8	-5.8	.0	.0
1986	2297.7	-1.9	2298.5	-1.9	.0	.8
1987	2303.6	-1.5	2303.6	-1.5	.0	.0
1988	2289.8	-3.6	2286.5	-4.3	-.1	-3.3
1989	2261.4	-7.7	2256.6	-7.9	-.2	-4.8
1990	2296.5	1.5	2292.7	1.5	-.2	-3.8
1991	2252.0	-6.6	2250.2	-6.9	-.1	-1.8
Mean:	2297.0	-4.1	2297.0	-4.0	.0	.0
Median:	2310.0	-2.8	2308.4	-2.9	.0	.0
Min:	2160.0	-8.8	2160.0	-8.8	-.2	-4.8
Max:	2330.8	8.6	2330.8	8.7	.1	3.2
X inc > 20.0		0		0		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2329.9	.0	2329.9	.0	.0	.0
1923	2314.6	-1.1	2314.6	-1.1	.0	.0
1924	2268.5	-1.9	2268.5	-1.9	.0	.0
1925	2188.7	14.0	2186.8	14.2	-.1	-1.9
1926	2276.4	-1.5	2275.4	-1.4	.0	-1.0
1927	2292.3	13.8	2291.4	13.9	.0	-.9
1928	2330.8	.0	2330.8	.0	.0	.0
1929	2303.5	-.8	2304.0	-.8	.0	.5
1930	2243.1	-2.0	2244.6	-2.0	.1	1.5
1931	2255.0	-2.6	2256.4	-2.6	.1	1.4
1932	2175.1	-1.3	2175.1	-1.3	.0	.0
1933	2175.9	-.3	2175.9	-.3	.0	.0
1934	2190.2	-1.3	2193.1	-1.3	.1	2.9
1935	2189.4	11.8	2189.4	11.8	.0	.0
1936	2226.3	-1.5	2228.3	-1.4	.1	2.0
1937	2263.7	-2.8	2265.3	-2.7	.1	1.6
1938	2280.5	13.4	2280.6	13.3	.0	.1
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2276.4	-2.4	2274.5	-2.4	-.1	-1.9
1941	2313.1	-.3	2312.5	-.4	.0	-.6
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2330.8	.0	2330.8	.0	.0	.0
1945	2298.1	1.6	2300.7	1.5	.1	2.6
1946	2299.5	3.5	2302.7	3.5	.1	3.2
1947	2312.5	.8	2313.3	.8	.0	.8
1948	2299.1	.2	2299.6	.1	.0	.5
1949	2330.8	.0	2330.8	.0	.0	.0
1950	2320.7	-1.3	2320.7	-1.3	.0	.0
1951	2310.7	9.7	2310.7	9.6	.0	.0
1952	2321.7	2.7	2320.5	1.6	-.1	-1.2
1953	2330.4	-.4	2330.4	-.4	.0	.0
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2330.8	.0	2330.8	.0	.0	.0
1956	2304.6	-.1	2306.9	-.1	.1	2.3
1957	2330.8	.0	2330.8	.0	.0	.0
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2330.8	.0	2330.8	.0	.0	.0
1960	2301.3	-2.0	2300.8	-1.9	.0	-.5
1961	2305.2	-.4	2304.3	-.5	.0	-.9
1962	2315.4	-.4	2314.6	-.5	.0	-.8
1963	2322.0	3.9	2321.8	4.0	.0	-.2
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2304.2	1.8	2304.5	1.8	.0	.3
1966	2330.8	.0	2330.8	.0	.0	.0
1967	2329.3	8.4	2329.4	7.3	.0	.1
1968	2330.8	.0	2330.8	.0	.0	.0
1969	2305.6	.9	2304.4	.9	-.1	-1.2
1970	2330.8	.0	2330.8	.0	.0	.0
1971	2315.1	11.1	2315.8	11.0	.0	.7
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2315.9	1.9	2316.3	1.9	.0	.4
1974	2330.8	.0	2330.8	.0	.0	.0
1975	2330.8	.0	2330.8	.0	.0	.0
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2274.1	-2.0	2274.4	-2.0	.0	.3
1978	2166.5	6.5	2166.4	6.4	.0	-.1
1979	2329.5	-1.3	2329.5	-1.3	.0	.0
1980	2310.3	4.1	2311.3	4.2	.0	1.0
1981	2329.2	-1.6	2329.2	-1.6	.0	.0
1982	2328.8	18.8	2327.3	18.9	-.1	-1.5
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.0	-1.7	2296.8	-1.7	.0	.8
1987	2301.9	-1.7	2301.9	-1.7	.0	.0
1988	2287.7	-2.1	2284.3	-2.2	-.1	-3.4
1989	2264.3	2.9	2259.5	2.9	-.2	-4.8
1990	2295.5	-1.0	2291.6	-1.1	-.2	-3.9
1991	2248.8	-3.2	2246.8	-3.4	-.1	-2.0
Mean:	2298.3	1.3	2298.3	1.3	.0	-.1
Median:	2313.1	.0	2313.3	.0	.0	.0
Min:	2166.5	-3.2	2166.4	-3.4	-.2	-4.8
Max:	2330.8	18.8	2330.8	18.9	.1	3.2
X inc > 20.0		0		0		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2330.0	.0	2330.0	.0	.0	.0
1923	2315.4	.8	2315.4	.8	.0	.0
1924	2266.8	-1.7	2266.8	-1.7	.0	.0
1925	2196.8	8.1	2195.1	8.3	-.1	-1.7
1926	2278.3	1.9	2277.2	1.8	.0	-1.1
1927	2309.6	17.3	2308.7	17.3	.0	-.9
1928	2330.8	.0	2330.8	.0	.0	.0
1929	2302.8	-.7	2303.3	-.7	.0	.5
1930	2257.9	14.8	2259.3	14.7	.1	1.4
1931	2252.9	-2.1	2254.3	-2.1	.1	1.4
1932	2175.0	-.1	2175.0	-.1	.0	.0
1933	2175.5	-.4	2175.5	-.4	.0	.0
1934	2191.5	1.3	2194.5	1.4	.1	3.0
1935	2195.7	6.3	2195.7	6.3	.0	.0
1936	2225.9	-.4	2227.9	-.4	.1	2.0
1937	2261.1	-2.6	2262.7	-2.6	.1	1.6
1938	2300.5	20.0	2300.6	20.0	.0	.1
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2281.7	5.3	2279.8	5.3	-.1	-1.9
1941	2323.8	10.7	2323.3	10.8	.0	-.5
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2330.4	-.4	2330.4	-.4	.0	.0
1945	2303.7	5.6	2306.2	5.5	.1	2.5
1946	2315.3	15.8	2318.2	15.5	.1	2.9
1947	2313.4	.9	2314.2	.9	.0	.8
1948	2298.4	-.7	2298.9	-.7	.0	.5
1949	2330.8	.0	2330.8	.0	.0	.0
1950	2319.3	-1.4	2319.3	-1.4	.0	.0
1951	2330.4	19.7	2330.4	19.7	.0	.0
1952	2330.8	9.1	2330.8	10.3	.0	.0
1953	2330.8	.4	2330.8	.4	.0	.0
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2330.8	.0	2330.8	.0	.0	.0
1956	2328.7	24.1	2330.7	23.8	.1	2.0
1957	2330.7	-.1	2330.7	-.1	.0	.0
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2330.2	-.6	2330.2	-.6	.0	.0
1960	2298.1	-3.2	2295.3	-5.5	-.1	-2.8
1961	2312.5	7.3	2311.7	7.4	.0	-.8
1962	2317.8	2.4	2317.1	2.5	.0	-.7
1963	2330.8	8.8	2330.8	9.0	.0	.0
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2330.8	26.6	2330.8	26.3	.0	.0
1966	2330.8	.0	2330.8	.0	.0	.0
1967	2330.8	1.5	2330.8	1.4	.0	.0
1968	2330.8	.0	2330.8	.0	.0	.0
1969	2311.3	5.7	2310.1	5.7	-.1	-1.2
1970	2330.8	.0	2330.8	.0	.0	.0
1971	2325.2	10.1	2325.8	10.0	.0	.6
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2324.3	8.4	2324.7	8.4	.0	.4
1974	2330.8	.0	2330.8	.0	.0	.0
1975	2330.8	.0	2330.8	.0	.0	.0
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2270.1	-4.0	2272.1	-2.3	.1	2.0
1978	2201.6	35.1	2201.6	35.2	.0	.0
1979	2328.7	-.8	2328.7	-.8	.0	.0
1980	2314.7	4.4	2316.3	5.0	.1	1.6
1981	2330.8	1.6	2330.8	1.6	.0	.0
1982	2330.8	2.0	2330.8	3.5	.0	.0
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.0	.0	2296.8	.0	.0	.8
1987	2300.8	-1.1	2300.8	-1.1	.0	.0
1988	2301.9	14.2	2298.8	14.5	-.1	-3.1
1989	2265.7	1.4	2261.0	1.5	-.2	-4.7
1990	2293.9	-1.6	2290.0	-1.6	-.2	-3.9
1991	2242.1	-6.7	2238.9	-7.9	-.1	-3.2
Mean:	2302.1	3.8	2302.1	3.8	.0	.0
Median:	2323.8	.0	2323.3	.0	.0	.0
Min:	2175.0	-6.7	2175.0	-7.9	-.2	-4.7
Max:	2330.8	35.1	2330.8	35.2	.1	3.0
X inc > 20.0		3		3		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2329.8	.0	2329.8	.0	.0	.0
1923	2317.5	2.1	2317.5	2.1	.0	.0
1924	2265.4	-1.4	2265.4	-1.4	.0	.0
1925	2204.3	7.5	2202.6	7.5	-.1	-1.7
1926	2277.5	-.8	2276.4	-.8	.0	-1.1
1927	2319.4	9.8	2318.6	9.9	.0	-.8
1928	2334.4	3.6	2334.4	3.6	.0	.0
1929	2302.4	-.4	2302.9	-.4	.0	.5
1930	2258.7	.8	2260.1	.8	.1	1.4
1931	2252.9	.0	2254.3	.0	.1	1.4
1932	2177.3	2.3	2177.3	2.3	.0	.0
1933	2175.1	-.4	2175.1	-.4	.0	.0
1934	2200.8	9.3	2203.5	9.0	.1	2.7
1935	2201.5	5.8	2201.5	5.8	.0	.0
1936	2239.9	14.0	2241.7	13.8	.1	1.8
1937	2258.5	-2.6	2260.1	-2.6	.1	1.6
1938	2308.7	8.2	2308.8	8.2	.0	.1
1939	2331.6	.8	2331.6	.8	.0	.0
1940	2297.7	16.0	2296.0	16.2	-.1	-1.7
1941	2334.4	10.6	2334.4	11.1	.0	.0
1942	2334.4	3.6	2334.4	3.6	.0	.0
1943	2334.4	3.6	2334.4	3.6	.0	.0
1944	2330.7	.3	2330.7	.3	.0	.0
1945	2307.4	3.7	2310.6	4.4	.1	3.2
1946	2325.3	10.0	2328.0	9.8	.1	2.7
1947	2312.8	-.6	2313.6	-.6	.0	.8
1948	2314.4	16.0	2314.9	16.0	.0	.5
1949	2329.8	-1.0	2329.8	-1.0	.0	.0
1950	2320.6	1.3	2320.6	1.3	.0	.0
1951	2334.4	4.0	2334.4	4.0	.0	.0
1952	2334.4	3.6	2334.4	3.6	.0	.0
1953	2334.4	3.6	2334.4	3.6	.0	.0
1954	2334.4	3.6	2334.4	3.6	.0	.0
1955	2332.1	1.3	2332.1	1.3	.0	.0
1956	2334.4	5.7	2334.4	3.7	.0	.0
1957	2330.6	-.1	2330.6	-.1	.0	.0
1958	2334.4	3.6	2334.4	3.6	.0	.0
1959	2334.4	4.2	2334.4	4.2	.0	.0
1960	2298.0	-.1	2295.2	-.1	-.1	-2.8
1961	2315.0	2.5	2314.2	2.5	.0	-.8
1962	2318.9	1.1	2318.1	1.0	.0	-.8
1963	2333.7	2.9	2333.7	2.9	.0	.0
1964	2334.4	3.6	2334.4	3.6	.0	.0
1965	2334.4	3.6	2334.4	3.6	.0	.0
1966	2334.4	3.6	2334.4	3.6	.0	.0
1967	2334.4	3.6	2334.4	3.6	.0	.0
1968	2334.4	3.6	2334.4	3.6	.0	.0
1969	2322.0	10.7	2321.0	10.9	.0	-1.0
1970	2334.4	3.6	2334.4	3.6	.0	.0
1971	2334.4	9.2	2334.4	8.6	.0	.0
1972	2334.4	3.6	2334.4	3.6	.0	.0
1973	2334.4	10.1	2334.4	9.7	.0	.0
1974	2334.4	3.6	2334.4	3.6	.0	.0
1975	2332.4	1.6	2332.4	1.6	.0	.0
1976	2331.6	.8	2331.6	.8	.0	.0
1977	2263.6	-6.5	2266.0	-6.1	.1	2.4
1978	2253.4	51.8	2253.4	51.8	.0	.0
1979	2330.4	1.7	2330.4	1.7	.0	.0
1980	2331.9	17.2	2333.4	17.1	.1	1.5
1981	2334.4	3.6	2334.4	3.6	.0	.0
1982	2334.4	3.6	2334.4	3.6	.0	.0
1983	2334.4	3.6	2334.4	3.6	.0	.0
1984	2334.4	3.6	2334.4	3.6	.0	.0
1985	2332.7	1.9	2332.7	1.9	.0	.0
1986	2307.0	11.0	2307.8	11.0	.0	.8
1987	2301.7	.9	2301.7	.9	.0	.0
1988	2308.5	6.6	2305.5	6.7	-.1	-3.0
1989	2267.0	1.3	2262.3	1.3	-.2	-4.7
1990	2298.3	4.4	2294.5	4.5	-.2	-3.8
1991	2234.6	-7.5	2231.6	-7.3	-.1	-3.0
Mean:	2306.6	4.5	2306.6	4.5	.0	-.1
Median:	2329.8	3.6	2329.8	3.6	.0	.0
Min:	2175.1	-7.5	2175.1	-7.3	-.2	-4.7
Max:	2334.4	51.8	2334.4	51.8	.1	3.2
X inc > 20.0		1		1		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2331.4	.0	2331.4	.0	.0	.0
1923	2319.3	1.8	2319.3	1.8	.0	.0
1924	2271.5	6.1	2271.5	6.1	.0	.0
1925	2241.8	37.5	2240.5	37.9	-.1	-1.3
1926	2291.1	13.6	2290.2	13.8	.0	-.9
1927	2336.4	17.0	2335.7	17.1	.0	-.7
1928	2341.3	6.9	2341.3	6.9	.0	.0
1929	2303.8	1.4	2304.3	1.4	.0	.5
1930	2269.9	11.2	2271.2	11.1	.1	1.3
1931	2255.1	2.2	2256.5	2.2	.1	1.4
1932	2181.5	4.2	2181.5	4.2	.0	.0
1933	2175.2	.1	2175.2	.1	.0	.0
1934	2213.8	13.0	2216.4	12.9	.1	2.6
1935	2213.6	12.1	2213.6	12.1	.0	.0
1936	2256.6	16.7	2258.2	16.5	.1	1.6
1937	2257.4	-1.1	2259.0	-1.1	.1	1.6
1938	2320.7	12.0	2320.7	11.9	.0	.0
1939	2332.6	1.0	2332.6	1.0	.0	.0
1940	2323.8	26.1	2322.3	26.3	-.1	-1.5
1941	2341.3	6.9	2341.3	6.9	.0	.0
1942	2341.3	6.9	2341.3	6.9	.0	.0
1943	2341.3	6.9	2341.3	6.9	.0	.0
1944	2333.8	3.1	2333.8	3.1	.0	.0
1945	2320.1	12.7	2323.1	12.5	.1	3.0
1946	2329.4	4.1	2332.0	4.0	.1	2.6
1947	2317.6	4.8	2318.4	4.8	.0	.8
1948	2316.2	1.8	2316.7	1.8	.0	.5
1949	2332.1	2.3	2332.1	2.3	.0	.0
1950	2324.9	4.3	2324.9	4.3	.0	.0
1951	2341.3	6.9	2341.3	6.9	.0	.0
1952	2341.3	6.9	2341.3	6.9	.0	.0
1953	2341.3	6.9	2341.3	6.9	.0	.0
1954	2341.3	6.9	2341.3	6.9	.0	.0
1955	2334.2	2.1	2334.2	2.1	.0	.0
1956	2341.3	6.9	2341.3	6.9	.0	.0
1957	2341.3	10.7	2341.3	10.7	.0	.0
1958	2341.3	6.9	2341.3	6.9	.0	.0
1959	2341.2	6.8	2341.2	6.8	.0	.0
1960	2310.1	12.1	2307.5	12.3	-.1	-2.6
1961	2331.8	16.8	2331.1	16.9	.0	-.7
1962	2328.6	9.7	2327.9	9.8	.0	-.7
1963	2341.3	7.6	2341.3	7.6	.0	.0
1964	2337.7	3.3	2337.7	3.3	.0	.0
1965	2340.7	6.3	2340.7	6.3	.0	.0
1966	2339.1	4.7	2339.1	4.7	.0	.0
1967	2341.3	6.9	2341.3	6.9	.0	.0
1968	2341.3	6.9	2341.3	6.9	.0	.0
1969	2330.9	8.9	2329.9	8.9	.0	-1.0
1970	2341.3	6.9	2341.3	6.9	.0	.0
1971	2341.3	6.9	2341.3	6.9	.0	.0
1972	2341.3	6.9	2341.3	6.9	.0	.0
1973	2341.3	6.9	2341.3	6.9	.0	.0
1974	2341.3	6.9	2341.3	6.9	.0	.0
1975	2339.3	6.9	2339.3	6.9	.0	.0
1976	2334.1	2.5	2334.1	2.5	.0	.0
1977	2252.5	-11.1	2255.1	-10.9	.1	2.6
1978	2273.4	20.0	2273.3	19.9	.0	-.1
1979	2334.2	3.8	2334.2	3.8	.0	.0
1980	2341.3	9.4	2341.3	7.9	.0	.0
1981	2341.3	6.9	2341.3	6.9	.0	.0
1982	2341.3	6.9	2341.3	6.9	.0	.0
1983	2341.3	6.9	2341.3	6.9	.0	.0
1984	2341.2	6.8	2341.2	6.8	.0	.0
1985	2335.5	2.8	2335.5	2.8	.0	.0
1986	2341.3	34.3	2341.3	33.5	.0	.0
1987	2308.9	7.2	2308.9	7.2	.0	.0
1988	2315.0	6.5	2312.2	6.7	-.1	-2.8
1989	2269.6	2.6	2265.1	2.8	-.2	-4.5
1990	2299.3	1.0	2295.6	1.1	-.2	-3.7
1991	2225.4	-9.2	2223.7	-7.9	-.1	-1.7
Mean:	2314.0	7.4	2314.0	7.4	.0	-.1
Median:	2333.8	6.9	2333.8	6.9	.0	.0
Min:	2175.2	-11.1	2175.2	-10.9	-.2	-4.5
Max:	2341.3	37.5	2341.3	37.9	.1	3.0
X inc > 20.0		3		3		
X dec > 9.0		2		1		
X dec > 10.0		1		1		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2335.0	.0	2335.0	.0	.0	.0
1923	2323.1	3.8	2323.1	3.8	.0	.0
1924	2267.6	-3.9	2267.6	-3.9	.0	.0
1925	2256.6	14.8	2255.4	14.9	-.1	-1.2
1926	2300.8	9.7	2299.9	9.7	.0	-.9
1927	2347.9	11.5	2347.8	12.1	.0	-.1
1928	2347.9	6.6	2347.9	6.6	.0	.0
1929	2307.9	4.1	2308.4	4.1	.0	.5
1930	2282.5	12.6	2283.7	12.5	.1	1.2
1931	2260.5	5.4	2261.9	5.4	.1	1.4
1932	2206.4	24.9	2206.4	24.9	.0	.0
1933	2196.3	21.1	2196.3	21.1	.0	.0
1934	2234.7	20.9	2236.9	20.5	.1	2.2
1935	2221.5	7.9	2221.5	7.9	.0	.0
1936	2268.6	12.0	2270.2	12.0	.1	1.6
1937	2267.1	9.7	2268.7	9.7	.1	1.6
1938	2339.1	18.4	2339.2	18.5	.0	.1
1939	2339.8	7.2	2339.8	7.2	.0	.0
1940	2344.8	21.0	2343.5	21.2	-.1	-1.3
1941	2347.9	6.6	2347.9	6.6	.0	.0
1942	2346.6	5.3	2346.6	5.3	.0	.0
1943	2347.9	6.6	2347.9	6.6	.0	.0
1944	2338.6	4.8	2338.6	4.8	.0	.0
1945	2324.2	4.1	2327.1	4.0	.1	2.9
1946	2338.1	8.7	2340.7	8.7	.1	2.6
1947	2326.7	9.1	2327.4	9.0	.0	.7
1948	2318.9	2.7	2319.4	2.7	.0	.5
1949	2346.5	14.4	2346.5	14.4	.0	.0
1950	2333.7	8.8	2333.7	8.8	.0	.0
1951	2347.9	6.6	2347.9	6.6	.0	.0
1952	2347.9	6.6	2347.9	6.6	.0	.0
1953	2347.9	6.6	2347.9	6.6	.0	.0
1954	2347.9	6.6	2347.9	6.6	.0	.0
1955	2336.1	1.9	2336.1	1.9	.0	.0
1956	2347.9	6.6	2347.9	6.6	.0	.0
1957	2347.9	6.6	2347.9	6.6	.0	.0
1958	2347.9	6.6	2347.9	6.6	.0	.0
1959	2347.9	6.7	2347.9	6.7	.0	.0
1960	2324.9	14.8	2322.4	14.9	-.1	-2.5
1961	2340.3	8.5	2339.6	8.5	.0	-.7
1962	2334.1	5.5	2333.4	5.5	.0	-.7
1963	2346.1	4.8	2346.1	4.8	.0	.0
1964	2340.2	2.5	2340.2	2.5	.0	.0
1965	2345.7	5.0	2345.7	5.0	.0	.0
1966	2347.9	8.8	2347.9	8.8	.0	.0
1967	2347.9	6.6	2347.9	6.6	.0	.0
1968	2347.9	6.6	2347.9	6.6	.0	.0
1969	2341.8	10.9	2340.8	10.9	.0	-1.0
1970	2347.9	6.6	2347.9	6.6	.0	.0
1971	2347.9	6.6	2347.9	6.6	.0	.0
1972	2347.9	6.6	2347.9	6.6	.0	.0
1973	2347.9	6.6	2347.9	6.6	.0	.0
1974	2347.9	6.6	2347.9	6.6	.0	.0
1975	2347.9	8.6	2347.9	8.6	.0	.0
1976	2337.8	3.7	2337.8	3.7	.0	.0
1977	2251.9	-.6	2253.5	-1.6	.1	1.6
1978	2299.6	26.2	2299.6	26.3	.0	.0
1979	2344.5	10.3	2344.5	10.3	.0	.0
1980	2347.9	6.6	2347.9	6.6	.0	.0
1981	2347.9	6.6	2347.9	6.6	.0	.0
1982	2347.9	6.6	2347.9	6.6	.0	.0
1983	2347.9	6.6	2347.9	6.6	.0	.0
1984	2347.9	6.7	2347.9	6.7	.0	.0
1985	2338.8	3.3	2338.8	3.3	.0	.0
1986	2347.9	6.6	2347.9	6.6	.0	.0
1987	2325.5	16.6	2325.5	16.6	.0	.0
1988	2319.7	4.7	2317.0	4.8	-.1	-2.7
1989	2301.9	32.3	2298.2	33.1	-.2	-3.7
1990	2305.9	6.6	2302.3	6.7	-.2	-3.6
1991	2234.9	9.5	2233.3	9.6	-.1	-1.6
Mean:	2322.7	8.6	2322.7	8.6	.0	.0
Median:	2340.2	6.6	2340.2	6.6	.0	.0
Min:	2196.3	-3.9	2196.3	-3.9	-.2	-3.7
Max:	2347.9	32.3	2347.9	33.1	.1	2.9
X inc > 20.0		6		6		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2342.8	.0	2342.8	.0	.0	.0
1923	2332.6	9.5	2332.6	9.5	.0	.0
1924	2268.4	.8	2268.4	.8	.0	.0
1925	2287.1	30.5	2286.1	30.7	.0	-1.0
1926	2319.1	18.3	2318.3	18.4	.0	-.8
1927	2360.5	12.6	2360.5	12.7	.0	.0
1928	2358.0	10.1	2358.0	10.1	.0	.0
1929	2307.1	-.8	2307.3	-1.1	.0	.2
1930	2293.9	11.4	2295.0	11.3	.0	1.1
1931	2266.1	5.6	2267.4	5.5	.1	1.3
1932	2220.9	14.5	2220.9	14.5	.0	.0
1933	2221.1	24.8	2221.1	24.8	.0	.0
1934	2249.6	14.9	2251.6	14.7	.1	2.0
1935	2250.6	29.1	2250.6	29.1	.0	.0
1936	2285.8	17.2	2287.2	17.0	.1	1.4
1937	2289.3	22.2	2290.6	21.9	.1	1.3
1938	2358.7	19.6	2358.8	19.6	.0	.1
1939	2336.7	-3.1	2336.1	-3.7	.0	-.6
1940	2359.9	15.1	2358.7	15.2	-.1	-1.2
1941	2360.5	12.6	2360.5	12.6	.0	.0
1942	2359.5	12.9	2359.5	12.9	.0	.0
1943	2360.2	12.3	2360.2	12.3	.0	.0
1944	2339.5	.9	2340.2	1.6	.0	.7
1945	2334.9	10.7	2337.7	10.6	.1	2.8
1946	2353.0	14.9	2354.4	13.7	.1	1.4
1947	2334.0	7.3	2334.3	6.9	.0	.3
1948	2333.2	14.3	2333.6	14.2	.0	.4
1949	2360.5	14.0	2360.5	14.0	.0	.0
1950	2345.4	11.7	2345.4	11.7	.0	.0
1951	2357.7	9.8	2357.7	9.8	.0	.0
1952	2360.5	12.6	2360.5	12.6	.0	.0
1953	2360.5	12.6	2360.5	12.6	.0	.0
1954	2360.5	12.6	2360.5	12.6	.0	.0
1955	2338.8	2.7	2338.8	2.7	.0	.0
1956	2360.5	12.6	2360.5	12.6	.0	.0
1957	2355.9	8.0	2355.9	8.0	.0	.0
1958	2360.5	12.6	2360.5	12.6	.0	.0
1959	2355.2	7.3	2355.4	7.5	.0	.2
1960	2334.3	9.4	2332.0	9.6	-.1	-2.3
1961	2350.7	10.4	2350.1	10.5	.0	-.6
1962	2350.2	16.1	2349.5	16.1	.0	-.7
1963	2360.5	14.4	2360.5	14.4	.0	.0
1964	2338.0	-2.2	2338.4	-1.8	.0	.4
1965	2360.3	14.6	2360.3	14.6	.0	.0
1966	2360.5	12.6	2360.5	12.6	.0	.0
1967	2354.6	6.7	2354.6	6.7	.0	.0
1968	2354.9	7.0	2354.9	7.0	.0	.0
1969	2360.5	18.7	2360.5	19.7	.0	.0
1970	2350.2	2.3	2350.2	2.3	.0	.0
1971	2359.2	11.3	2359.2	11.3	.0	.0
1972	2357.7	9.8	2357.7	9.8	.0	.0
1973	2360.5	12.6	2360.5	12.6	.0	.0
1974	2360.5	12.6	2360.5	12.6	.0	.0
1975	2356.9	9.0	2356.9	9.0	.0	.0
1976	2337.7	-.1	2338.0	.2	.0	.3
1977	2253.6	1.7	2254.1	.6	.0	.5
1978	2316.8	17.2	2316.8	17.2	.0	.0
1979	2353.1	8.6	2353.1	8.6	.0	.0
1980	2358.8	10.9	2358.8	10.9	.0	.0
1981	2355.8	7.9	2355.8	7.9	.0	.0
1982	2360.5	12.6	2360.5	12.6	.0	.0
1983	2360.5	12.6	2360.5	12.6	.0	.0
1984	2356.0	8.1	2356.0	8.1	.0	.0
1985	2349.3	10.5	2349.3	10.5	.0	.0
1986	2357.7	9.8	2357.7	9.8	.0	.0
1987	2337.0	11.5	2337.0	11.5	.0	.0
1988	2326.8	7.1	2324.2	7.2	-.1	-2.6
1989	2319.4	17.5	2316.1	17.9	-.1	-3.3
1990	2306.9	1.0	2303.8	1.5	-.1	-3.1
1991	2244.5	9.6	2243.0	9.7	-.1	-1.5
Mean:	2333.8	11.0	2333.7	10.9	.0	.0
Median:	2350.7	11.4	2350.2	11.3	.0	.0
Min:	2220.9	-3.1	2220.9	-3.7	-.1	-3.3
Max:	2360.5	30.5	2360.5	30.7	.1	2.8
X inc > 20.0		4		4		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2349.6	.0	2349.6	.0	.0	.0
1923	2322.0	-10.6	2322.0	-10.6	.0	.0
1924	2240.3	-28.1	2240.3	-28.1	.0	.0
1925	2298.9	11.8	2298.0	11.9	.0	-.9
1926	2313.8	-5.3	2312.9	-5.4	.0	-.9
1927	2367.7	7.2	2367.7	7.2	.0	.0
1928	2360.6	2.6	2360.6	2.6	.0	.0
1929	2302.2	-4.9	2303.1	-4.2	.0	.9
1930	2289.8	-4.1	2291.0	-4.0	.1	1.2
1931	2246.3	-19.8	2245.5	-21.9	.0	-.8
1932	2233.2	12.3	2233.2	12.3	.0	.0
1933	2230.5	9.4	2230.5	9.4	.0	.0
1934	2245.3	-4.3	2247.3	-4.3	.1	2.0
1935	2263.9	13.3	2263.9	13.3	.0	.0
1936	2290.0	4.2	2291.3	4.1	.1	1.3
1937	2305.5	16.2	2306.7	16.1	.1	1.2
1938	2367.7	9.0	2367.7	8.9	.0	.0
1939	2329.8	-6.9	2329.2	-6.9	.0	-.6
1940	2359.0	-.9	2358.5	-.2	.0	-.5
1941	2367.7	7.2	2367.7	7.2	.0	.0
1942	2367.7	8.2	2367.7	8.2	.0	.0
1943	2363.3	3.1	2363.3	3.1	.0	.0
1944	2335.5	-4.0	2336.3	-3.9	.0	.8
1945	2339.4	4.5	2342.0	4.3	.1	2.6
1946	2355.0	2.0	2355.7	1.3	.0	.7
1947	2330.2	-3.8	2330.4	-3.9	.0	.2
1948	2343.9	10.7	2344.3	10.7	.0	.4
1949	2365.0	4.5	2365.1	4.6	.0	.1
1950	2341.8	-3.6	2341.8	-3.6	.0	.0
1951	2361.6	3.9	2361.6	3.9	.0	.0
1952	2367.7	7.2	2367.7	7.2	.0	.0
1953	2367.7	7.2	2367.7	7.2	.0	.0
1954	2366.3	5.8	2366.4	5.9	.0	.1
1955	2337.1	-1.7	2337.1	-1.7	.0	.0
1956	2367.7	7.2	2367.7	7.2	.0	.0
1957	2366.6	10.7	2366.6	10.7	.0	.0
1958	2367.7	7.2	2367.7	7.2	.0	.0
1959	2351.6	-3.6	2351.9	-3.5	.0	.3
1960	2337.4	3.1	2335.2	3.2	-.1	-2.2
1961	2355.1	4.4	2354.5	4.4	.0	-.6
1962	2351.5	1.3	2350.9	1.4	.0	-.6
1963	2367.7	7.2	2367.7	7.2	.0	.0
1964	2333.4	-4.6	2333.8	-4.6	.0	.4
1965	2366.8	6.5	2366.8	6.5	.0	.0
1966	2365.7	5.2	2365.7	5.2	.0	.0
1967	2367.7	13.1	2367.7	13.1	.0	.0
1968	2352.3	-2.6	2352.3	-2.6	.0	.0
1969	2367.7	7.2	2367.7	7.2	.0	.0
1970	2349.2	-1.0	2349.2	-1.0	.0	.0
1971	2367.7	8.5	2367.7	8.5	.0	.0
1972	2361.8	4.1	2361.8	4.1	.0	.0
1973	2367.7	7.2	2367.7	7.2	.0	.0
1974	2367.7	7.2	2367.7	7.2	.0	.0
1975	2367.7	10.8	2367.7	10.8	.0	.0
1976	2329.2	-8.5	2329.5	-8.5	.0	.3
1977	2230.5	-23.1	2230.8	-23.3	.0	.3
1978	2332.0	15.2	2332.0	15.2	.0	.0
1979	2353.0	-.1	2353.0	-.1	.0	.0
1980	2359.1	.3	2359.1	.3	.0	.0
1981	2353.3	-2.5	2353.3	-2.5	.0	.0
1982	2367.7	7.2	2367.7	7.2	.0	.0
1983	2367.7	7.2	2367.7	7.2	.0	.0
1984	2365.3	9.3	2365.3	9.3	.0	.0
1985	2337.1	-12.2	2337.6	-11.7	.0	.5
1986	2350.5	-7.2	2350.5	-7.2	.0	.0
1987	2336.0	-1.0	2336.0	-1.0	.0	.0
1988	2323.5	-3.3	2320.1	-4.1	-.1	-3.4
1989	2318.8	-.6	2315.4	-.7	-.1	-3.4
1990	2306.3	-.6	2303.2	-.6	-.1	-3.1
1991	2243.6	-.9	2242.1	-.9	-.1	-1.5
Mean:	2335.7	1.9	2335.6	1.8	.0	-.1
Median:	2351.5	3.1	2350.9	3.2	.0	.0
Min:	2230.5	-28.1	2230.5	-28.1	-.1	-3.4
Max:	2367.7	16.2	2367.7	16.1	.1	2.6
X inc > 20.0		0		0		
X dec > 9.0		5		5		
X dec > 10.0		5		5		
X dec > 15.0		3		3		

CLAIR ENGLE RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2348.3	.0	2348.3	.0	.0	.0
1923	2310.4	-11.6	2310.2	-11.8	.0	-.2
1924	2217.1	-23.2	2217.0	-23.3	.0	-.1
1925	2295.6	-3.3	2294.7	-3.3	.0	-.9
1926	2303.0	-10.8	2302.1	-10.8	.0	-.9
1927	2368.4	.7	2368.4	.7	.0	.0
1928	2349.7	-10.9	2349.1	-11.5	.0	-.6
1929	2293.5	-8.7	2291.8	-11.3	-.1	-1.7
1930	2281.9	-7.9	2283.1	-7.9	.1	1.2
1931	2230.5	-15.8	2229.7	-15.8	.0	-.8
1932	2223.5	-9.7	2227.8	-5.4	.2	4.3
1933	2241.9	11.4	2244.6	14.1	.1	2.7
1934	2233.6	-11.7	2233.5	-13.8	.0	-.1
1935	2257.7	-6.2	2257.7	-6.2	.0	.0
1936	2287.6	-2.4	2288.9	-2.4	.1	1.3
1937	2306.1	.6	2307.3	.6	.1	1.2
1938	2369.2	1.5	2369.2	1.5	.0	.0
1939	2315.2	-14.6	2313.8	-15.4	-.1	-1.4
1940	2350.0	-9.0	2349.5	-9.0	.0	-.5
1941	2369.2	1.5	2369.2	1.5	.0	.0
1942	2369.2	1.5	2369.2	1.5	.0	.0
1943	2361.6	-1.7	2361.6	-1.7	.0	.0
1944	2327.7	-7.8	2328.5	-7.8	.0	.8
1945	2336.4	-3.0	2339.1	-2.9	.1	2.7
1946	2346.8	-8.2	2347.5	-8.2	.0	.7
1947	2324.7	-5.5	2325.0	-5.4	.0	.3
1948	2355.1	11.2	2355.4	11.1	.0	.3
1949	2356.4	-8.6	2356.5	-8.6	.0	.1
1950	2330.9	-10.9	2330.9	-10.9	.0	.0
1951	2353.5	-8.1	2353.5	-8.1	.0	.0
1952	2369.2	1.5	2369.2	1.5	.0	.0
1953	2369.2	1.5	2369.2	1.5	.0	.0
1954	2359.3	-7.0	2359.0	-7.4	.0	-.3
1955	2334.0	-3.1	2334.0	-3.1	.0	.0
1956	2369.2	1.5	2369.2	1.5	.0	.0
1957	2363.5	-3.1	2363.0	-3.6	.0	-.5
1958	2369.2	1.5	2369.2	1.5	.0	.0
1959	2341.3	-10.3	2341.7	-10.2	.0	.4
1960	2339.1	1.7	2336.9	1.7	-.1	-2.2
1961	2351.2	-3.9	2350.6	-3.9	.0	-.6
1962	2346.8	-4.7	2346.7	-4.2	.0	-.1
1963	2368.5	.8	2368.5	.8	.0	.0
1964	2324.9	-8.5	2325.4	-8.4	.0	.5
1965	2361.1	-5.7	2361.1	-5.7	.0	.0
1966	2356.4	-9.3	2356.4	-9.3	.0	.0
1967	2369.2	1.5	2369.2	1.5	.0	.0
1968	2341.2	-11.1	2341.2	-11.1	.0	.0
1969	2369.2	1.5	2369.2	1.5	.0	.0
1970	2342.7	-6.5	2342.7	-6.5	.0	.0
1971	2369.2	1.5	2369.2	1.5	.0	.0
1972	2353.3	-8.5	2353.3	-8.5	.0	.0
1973	2360.1	-7.6	2360.1	-7.6	.0	.0
1974	2369.2	1.5	2369.2	1.5	.0	.0
1975	2369.2	1.5	2369.2	1.5	.0	.0
1976	2315.2	-14.0	2315.6	-13.9	.0	.4
1977	2200.5	-30.0	2201.0	-29.8	.0	.5
1978	2345.6	13.6	2345.6	13.6	.0	.0
1979	2341.9	-11.1	2341.9	-11.1	.0	.0
1980	2353.4	-5.7	2353.4	-5.7	.0	.0
1981	2343.5	-9.8	2342.3	-11.0	-.1	-1.2
1982	2369.2	1.5	2369.2	1.5	.0	.0
1983	2369.2	1.5	2369.2	1.5	.0	.0
1984	2358.7	-6.6	2358.2	-7.1	.0	-.5
1985	2327.5	-9.6	2327.1	-10.5	.0	-.4
1986	2340.9	-9.6	2340.9	-9.6	.0	.0
1987	2322.3	-13.7	2322.3	-13.7	.0	.0
1988	2313.0	-10.5	2309.4	-10.7	-.2	-3.6
1989	2314.5	-4.3	2311.1	-4.3	-.1	-3.4
1990	2297.0	-9.3	2293.8	-9.4	-.1	-3.2
1991	2242.2	-1.4	2240.7	-1.4	-.1	-1.5
Mean:	2330.5	-5.2	2330.4	-5.2	.0	-.1
Median:	2343.5	-6.2	2342.7	-5.7	.0	.0
Min:	2200.5	-30.0	2201.0	-29.8	-.2	-3.6
Max:	2369.2	13.6	2369.2	14.1	.2	4.3
X inc > 20.0		0		0		
X dec > 9.0		21		21		
X dec > 10.0		15		18		
X dec > 15.0		3		4		

CLAIR ENGLE RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2336.1	.0	2336.1	.0	.0	.0
1923	2294.9	-15.5	2294.9	-15.3	.0	.0
1924	2187.5	-29.6	2185.6	-31.4	-.1	-1.9
1925	2287.4	-8.2	2286.4	-8.3	.0	-1.0
1926	2290.0	-13.0	2289.0	-13.1	.0	-1.0
1927	2358.7	-9.7	2358.7	-9.7	.0	.0
1928	2334.8	-14.9	2334.1	-15.0	.0	-.7
1929	2276.3	-17.2	2276.7	-15.1	.0	.4
1930	2270.7	-11.2	2272.0	-11.1	.1	1.3
1931	2201.5	-29.0	2200.1	-29.6	-.1	-1.4
1932	2201.4	-22.1	2201.4	-26.4	.0	.0
1933	2225.2	-16.7	2227.6	-17.0	.1	2.4
1934	2208.3	-25.3	2207.6	-25.9	.0	-.7
1935	2241.7	-16.0	2241.7	-16.0	.0	.0
1936	2278.5	-9.1	2279.9	-9.0	.1	1.4
1937	2293.4	-12.7	2294.9	-12.4	.1	1.5
1938	2358.7	-10.5	2358.7	-10.5	.0	.0
1939	2300.6	-14.6	2299.0	-14.8	-.1	-1.6
1940	2335.4	-14.6	2334.9	-14.6	.0	-.5
1941	2358.7	-10.5	2358.7	-10.5	.0	.0
1942	2358.7	-10.5	2358.7	-10.5	.0	.0
1943	2355.4	-6.2	2354.2	-7.4	-.1	-1.2
1944	2317.6	-10.1	2318.0	-10.5	.0	.4
1945	2321.2	-15.2	2324.0	-15.1	.1	2.8
1946	2333.3	-13.5	2334.0	-13.5	.0	.7
1947	2313.5	-11.2	2313.5	-11.5	.0	.0
1948	2349.7	-5.4	2350.0	-5.4	.0	.3
1949	2342.6	-13.8	2342.7	-13.8	.0	.1
1950	2314.6	-16.3	2314.7	-16.2	.0	.1
1951	2339.3	-14.2	2339.3	-14.2	.0	.0
1952	2358.7	-10.5	2358.7	-10.5	.0	.0
1953	2358.7	-10.5	2358.7	-10.5	.0	.0
1954	2346.5	-12.8	2346.1	-12.9	.0	-.4
1955	2321.9	-12.1	2324.2	-9.8	.1	2.3
1956	2358.7	-10.5	2358.7	-10.5	.0	.0
1957	2355.1	-8.4	2353.9	-9.1	-.1	-1.2
1958	2358.7	-10.5	2358.7	-10.5	.0	.0
1959	2325.9	-15.4	2326.3	-15.4	.0	.4
1960	2327.0	-12.1	2325.3	-11.6	-.1	-1.7
1961	2337.4	-13.8	2336.7	-13.9	.0	-.7
1962	2332.4	-14.4	2332.3	-14.4	.0	-.1
1963	2358.7	-9.8	2358.7	-9.8	.0	.0
1964	2314.9	-10.0	2315.4	-10.0	.0	.5
1965	2355.5	-5.6	2355.5	-5.6	.0	.0
1966	2343.4	-13.0	2343.4	-13.0	.0	.0
1967	2358.7	-10.5	2358.7	-10.5	.0	.0
1968	2325.9	-15.3	2325.9	-15.3	.0	.0
1969	2358.7	-10.5	2358.7	-10.5	.0	.0
1970	2327.9	-14.8	2327.9	-14.8	.0	.0
1971	2358.7	-10.5	2358.7	-10.5	.0	.0
1972	2339.1	-14.2	2339.1	-14.2	.0	.0
1973	2347.3	-12.8	2347.3	-12.8	.0	.0
1974	2358.7	-10.5	2358.7	-10.5	.0	.0
1975	2358.7	-10.5	2358.7	-10.5	.0	.0
1976	2299.5	-15.7	2298.8	-16.8	.0	-.7
1977	2179.7	-20.8	2179.6	-21.4	.0	-.1
1978	2342.8	-2.8	2342.8	-2.8	.0	.0
1979	2326.8	-15.1	2326.8	-15.1	.0	.0
1980	2343.0	-10.4	2343.0	-10.4	.0	.0
1981	2330.0	-13.5	2328.8	-13.5	-.1	-1.2
1982	2358.7	-10.5	2358.7	-10.5	.0	.0
1983	2358.7	-10.5	2358.7	-10.5	.0	.0
1984	2346.0	-12.7	2345.4	-12.8	.0	-.6
1985	2316.3	-11.2	2315.8	-11.3	.0	-.5
1986	2325.6	-15.3	2325.6	-15.3	.0	.0
1987	2308.2	-14.1	2305.5	-16.8	-.1	-2.7
1988	2295.3	-17.7	2291.3	-18.1	-.2	-4.0
1989	2302.8	-11.7	2299.1	-12.0	-.2	-3.7
1990	2282.4	-14.6	2280.9	-12.9	-.1	-1.5
1991	2236.7	-5.5	2235.1	-5.6	-.1	-1.6
Mean:	2317.5	-12.8	2317.3	-13.0	.0	-.2
Median:	2330.0	-12.7	2328.8	-12.8	.0	.0
Min:	2179.7	-29.6	2179.6	-31.4	-.2	-4.0
Max:	2358.7	.0	2358.7	.0	.1	2.8
X inc > 20.0		0		0		
X dec > 9.0		62		62		
X dec > 10.0		58		57		
X dec > 15.0		17		18		

CLAIR ENGLE RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2321.1	.0	2321.1	.0	.0	.0
1923	2276.1	-18.8	2276.1	-18.8	.0	.0
1924	2181.4	-6.1	2179.4	-6.2	-.1	-2.0
1925	2282.5	-4.9	2281.5	-4.9	.0	-1.0
1926	2284.5	-5.5	2283.5	-5.5	.0	-1.0
1927	2351.2	-7.5	2351.2	-7.5	.0	.0
1928	2317.8	-17.0	2317.1	-17.0	.0	-.7
1929	2256.9	-19.4	2258.3	-18.4	.1	1.4
1930	2264.8	-5.9	2266.1	-5.9	.1	1.3
1931	2184.3	-17.2	2184.3	-15.8	.0	.0
1932	2184.3	-17.1	2184.3	-17.1	.0	.0
1933	2203.7	-21.5	2206.4	-21.2	.1	2.7
1934	2184.3	-24.0	2184.3	-23.3	.0	.0
1935	2236.7	-5.0	2236.7	-5.0	.0	.0
1936	2273.2	-5.3	2274.7	-5.2	.1	1.5
1937	2276.1	-17.3	2276.1	-18.8	.0	.0
1938	2351.2	-7.5	2351.2	-7.5	.0	.0
1939	2286.7	-13.9	2284.9	-14.1	-.1	-1.8
1940	2318.7	-16.7	2318.1	-16.8	.0	-.6
1941	2351.2	-7.5	2351.2	-7.5	.0	.0
1942	2351.2	-7.5	2351.2	-7.5	.0	.0
1943	2350.0	-5.4	2348.7	-5.5	-.1	-1.3
1944	2303.5	-14.1	2304.7	-13.3	.1	1.2
1945	2302.9	-18.3	2306.1	-17.9	.1	3.2
1946	2316.6	-16.7	2317.4	-16.6	.0	.8
1947	2300.7	-12.8	2301.2	-12.3	.0	.5
1948	2344.4	-5.3	2344.8	-5.2	.0	.4
1949	2326.7	-15.9	2326.9	-15.8	.0	.2
1950	2295.6	-19.0	2295.7	-19.0	.0	.1
1951	2323.2	-16.1	2323.2	-16.1	.0	.0
1952	2351.2	-7.5	2351.2	-7.5	.0	.0
1953	2351.2	-7.5	2351.2	-7.5	.0	.0
1954	2341.3	-5.2	2341.0	-5.1	.0	-.3
1955	2309.6	-12.3	2311.9	-12.3	.1	2.3
1956	2351.2	-7.5	2351.2	-7.5	.0	.0
1957	2349.8	-5.3	2348.5	-5.4	-.1	-1.3
1958	2351.2	-7.5	2351.2	-7.5	.0	.0
1959	2308.2	-17.7	2308.6	-17.7	.0	.4
1960	2312.9	-14.1	2311.7	-13.6	-.1	-1.2
1961	2321.2	-16.2	2320.5	-16.2	.0	-.7
1962	2317.0	-15.4	2316.0	-16.3	.0	-1.0
1963	2351.2	-7.5	2351.2	-7.5	.0	.0
1964	2306.4	-8.5	2306.7	-8.7	.0	.3
1965	2351.0	-4.5	2351.0	-4.5	.0	.0
1966	2328.3	-15.1	2328.3	-15.1	.0	.0
1967	2351.2	-7.5	2351.2	-7.5	.0	.0
1968	2309.1	-16.8	2308.5	-17.4	.0	-.6
1969	2351.2	-7.5	2351.2	-7.5	.0	.0
1970	2310.2	-17.7	2310.2	-17.7	.0	.0
1971	2351.2	-7.5	2351.2	-7.5	.0	.0
1972	2323.1	-16.0	2323.1	-16.0	.0	.0
1973	2341.3	-6.0	2341.3	-6.0	.0	.0
1974	2351.2	-7.5	2351.2	-7.5	.0	.0
1975	2351.2	-7.5	2351.2	-7.5	.0	.0
1976	2282.3	-17.2	2282.5	-16.3	.0	.2
1977	2169.7	-10.0	2169.4	-10.2	.0	-.3
1978	2337.6	-5.2	2337.6	-5.2	.0	.0
1979	2308.8	-18.0	2309.7	-17.1	.0	.9
1980	2337.0	-6.0	2337.0	-6.0	.0	.0
1981	2315.0	-15.0	2313.3	-15.5	-.1	-1.7
1982	2351.2	-7.5	2351.2	-7.5	.0	.0
1983	2351.2	-7.5	2351.2	-7.5	.0	.0
1984	2340.7	-5.3	2340.1	-5.3	.0	-.6
1985	2302.8	-13.5	2303.6	-12.2	.0	.8
1986	2307.9	-17.7	2307.9	-17.7	.0	.0
1987	2297.4	-10.8	2294.9	-10.6	-.1	-2.5
1988	2273.7	-21.6	2269.2	-22.1	-.2	-4.5
1989	2297.9	-4.9	2294.1	-5.0	-.2	-3.8
1990	2263.1	-19.3	2261.6	-19.3	-.1	-1.5
1991	2222.7	-14.0	2223.6	-11.5	.0	.9
Mean:	2305.7	-11.5	2305.6	-11.5	.0	-.1
Median:	2315.0	-10.8	2313.3	-10.6	.0	.0
Min:	2169.7	-24.0	2169.4	-23.3	-.2	-4.5
Max:	2351.2	.0	2351.2	.0	.1	3.2
X inc > 20.0		0		0		
X dec > 9.0		36		36		
X dec > 10.0		35		36		
X dec > 15.0		26		27		

CLAIR ENGLE RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2317.2	.0	2317.2	.0	.0	.0
1923	2272.4	-3.7	2272.4	-3.7	.0	.0
1924	2175.2	-6.2	2173.1	-6.3	-.1	-2.1
1925	2279.9	-2.6	2278.9	-2.6	.0	-1.0
1926	2280.6	-3.9	2279.6	-3.9	.0	-1.0
1927	2339.6	-11.6	2339.6	-11.6	.0	.0
1928	2308.0	-9.8	2308.5	-8.6	.0	.5
1929	2252.3	-4.6	2253.7	-4.6	.1	1.4
1930	2260.6	-4.2	2261.9	-4.2	.1	1.3
1931	2178.5	-5.8	2178.5	-5.8	.0	.0
1932	2178.7	-5.6	2178.7	-5.6	.0	.0
1933	2196.4	-7.3	2199.3	-7.1	.1	2.9
1934	2178.7	-5.6	2178.7	-5.6	.0	.0
1935	2229.8	-6.9	2231.8	-4.9	.1	2.0
1936	2269.4	-3.8	2270.9	-3.8	.1	1.5
1937	2269.1	-7.0	2269.2	-6.9	.0	.1
1938	2339.6	-11.6	2339.6	-11.6	.0	.0
1939	2282.9	-3.8	2281.0	-3.9	-.1	-1.9
1940	2315.0	-3.7	2314.5	-3.6	.0	-.5
1941	2339.6	-11.6	2339.6	-11.6	.0	.0
1942	2339.6	-11.6	2339.6	-11.6	.0	.0
1943	2338.7	-11.3	2337.5	-11.2	-.1	-1.2
1944	2298.8	-4.7	2301.4	-3.3	.1	2.6
1945	2296.5	-6.4	2299.8	-6.3	.1	3.3
1946	2313.7	-2.9	2314.5	-2.9	.0	.8
1947	2297.4	-3.3	2297.9	-3.3	.0	.5
1948	2339.6	-4.8	2339.6	-5.2	.0	.0
1949	2323.9	-2.8	2323.9	-3.0	.0	.0
1950	2292.4	-3.2	2292.4	-3.3	.0	.0
1951	2320.3	-2.9	2320.3	-2.9	.0	.0
1952	2339.6	-11.6	2339.6	-11.6	.0	.0
1953	2339.6	-11.6	2339.6	-11.6	.0	.0
1954	2337.6	-3.7	2335.1	-5.9	-.1	-2.5
1955	2306.9	-2.7	2309.1	-2.8	.1	2.2
1956	2339.6	-11.6	2339.6	-11.6	.0	.0
1957	2339.6	-10.2	2339.6	-8.9	.0	.0
1958	2339.6	-11.6	2339.6	-11.6	.0	.0
1959	2305.4	-2.8	2305.9	-2.7	.0	.5
1960	2307.6	-5.3	2306.7	-5.0	.0	-.9
1961	2317.9	-3.3	2317.2	-3.3	.0	-.7
1962	2310.5	-6.5	2310.3	-5.7	.0	-.2
1963	2339.6	-11.6	2339.6	-11.6	.0	.0
1964	2303.8	-2.6	2304.1	-2.6	.0	.3
1965	2339.6	-11.4	2339.6	-11.4	.0	.0
1966	2322.5	-5.8	2323.9	-4.4	.1	1.4
1967	2339.6	-11.6	2339.6	-11.6	.0	.0
1968	2306.4	-2.7	2305.2	-3.3	-.1	-1.2
1969	2339.6	-11.6	2339.6	-11.6	.0	.0
1970	2305.9	-4.3	2306.7	-3.5	.0	.8
1971	2339.6	-11.6	2339.6	-11.6	.0	.0
1972	2315.0	-8.1	2315.4	-7.7	.0	.4
1973	2337.9	-3.4	2337.9	-3.4	.0	.0
1974	2339.6	-11.6	2339.6	-11.6	.0	.0
1975	2339.6	-11.6	2339.6	-11.6	.0	.0
1976	2278.9	-3.4	2279.2	-3.3	.0	.3
1977	2166.4	-3.3	2166.2	-3.2	.0	-.2
1978	2336.0	-1.6	2336.0	-1.6	.0	.0
1979	2305.9	-2.9	2306.8	-2.9	.0	.9
1980	2333.3	-3.7	2333.3	-3.7	.0	.0
1981	2311.3	-3.7	2309.7	-3.6	-.1	-1.6
1982	2339.6	-11.6	2339.6	-11.6	.0	.0
1983	2339.6	-11.6	2339.6	-11.6	.0	.0
1984	2337.2	-3.5	2336.6	-3.5	.0	-.6
1985	2299.6	-3.2	2300.4	-3.2	.0	.8
1986	2305.1	-2.8	2305.1	-2.8	.0	.0
1987	2293.4	-4.0	2290.8	-4.1	-.1	-2.6
1988	2269.1	-4.6	2264.5	-4.7	-.2	-4.6
1989	2295.0	-2.9	2291.2	-2.9	-.2	-3.8
1990	2258.6	-4.5	2257.1	-4.5	-.1	-1.5
1991	2217.3	-5.4	2218.2	-5.4	.0	.9
Mean:	2299.5	-6.2	2299.4	-6.1	.0	.0
Median:	2308.0	-4.7	2309.1	-4.7	.0	.0
Min:	2166.4	-11.6	2166.2	-11.6	-.2	-4.6
Max:	2339.6	.0	2339.6	.0	.1	3.3
X inc > 20.0		0		0		
X dec > 9.0		20		18		
X dec > 10.0		19		18		
X dec > 15.0		0		0		

RETURN TO TABLE OF CONTENTS

Section 16

CLAIR ENGLE RESERVOIR ELEVATION
16.2 Recreation

CLAIR ENGLE RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2330.8	.0	2330.8	.0	.0	.0
1923	2315.7	-1.5	2315.7	-1.5	.0	.0
1924	2270.4	-2.0	2270.4	-2.0	.0	.0
1925	2174.7	-.5	2172.6	-.5	-.1	-2.1
1926	2277.9	-2.0	2276.8	-2.1	.0	-1.1
1927	2278.5	-2.1	2277.5	-2.1	.0	-1.0
1928	2330.8	-8.8	2330.8	-8.8	.0	.0
1929	2304.3	-3.7	2304.8	-3.7	.0	.5
1930	2245.1	-7.2	2246.6	-7.1	.1	1.5
1931	2257.6	-3.0	2259.0	-2.9	.1	1.4
1932	2176.4	-2.1	2176.4	-2.1	.0	.0
1933	2176.2	-2.5	2176.2	-2.5	.0	.0
1934	2191.5	-4.9	2194.4	-4.9	.1	2.9
1935	2177.6	-1.1	2177.6	-1.1	.0	.0
1936	2227.8	-2.0	2229.7	-2.1	.1	1.9
1937	2266.5	-2.9	2268.0	-2.9	.1	1.5
1938	2267.1	-2.0	2267.3	-1.9	.0	.2
1939	2330.8	-8.8	2330.8	-8.8	.0	.0
1940	2278.8	-4.1	2276.9	-4.1	-.1	-1.9
1941	2313.4	-1.6	2312.9	-1.6	.0	-.5
1942	2330.8	-8.8	2330.8	-8.8	.0	.0
1943	2330.8	-8.8	2330.8	-8.8	.0	.0
1944	2330.8	-7.9	2330.8	-6.7	.0	.0
1945	2296.5	-2.3	2299.2	-2.2	.1	2.7
1946	2296.0	-.5	2299.2	-.6	.1	3.2
1947	2311.7	-2.0	2312.5	-2.0	.0	.8
1948	2298.9	1.5	2299.5	1.6	.0	.6
1949	2330.8	-8.8	2330.8	-8.8	.0	.0
1950	2322.0	-1.9	2322.0	-1.9	.0	.0
1951	2301.0	8.6	2301.1	8.7	.0	.1
1952	2319.0	-1.3	2318.9	-1.4	.0	-.1
1953	2330.8	-8.8	2330.8	-8.8	.0	.0
1954	2330.8	-8.8	2330.8	-8.8	.0	.0
1955	2330.8	-6.8	2330.8	-4.3	.0	.0
1956	2304.7	-2.2	2307.0	-2.1	.1	2.3
1957	2330.8	-8.8	2330.8	-8.8	.0	.0
1958	2330.8	-8.8	2330.8	-8.8	.0	.0
1959	2330.8	-8.8	2330.8	-8.8	.0	.0
1960	2303.3	-2.1	2302.7	-3.2	.0	-.6
1961	2305.6	-2.0	2304.8	-1.9	.0	-.8
1962	2315.8	-2.1	2315.1	-2.1	.0	-.7
1963	2318.1	7.6	2317.8	7.5	.0	-.3
1964	2330.8	-8.8	2330.8	-8.8	.0	.0
1965	2302.4	-1.4	2302.7	-1.4	.0	.3
1966	2330.8	-8.8	2330.8	-8.8	.0	.0
1967	2320.9	-1.6	2322.1	-1.8	.1	1.2
1968	2330.8	-8.8	2330.8	-8.8	.0	.0
1969	2304.7	-1.7	2303.5	-1.7	-.1	-1.2
1970	2330.8	-8.8	2330.8	-8.8	.0	.0
1971	2304.0	-1.9	2304.8	-1.9	.0	.8
1972	2330.8	-8.8	2330.8	-8.8	.0	.0
1973	2314.0	-1.0	2314.4	-1.0	.0	.4
1974	2330.8	-7.1	2330.8	-7.1	.0	.0
1975	2330.8	-8.8	2330.8	-8.8	.0	.0
1976	2330.8	-8.8	2330.8	-8.8	.0	.0
1977	2276.1	-2.8	2276.4	-2.8	.0	.3
1978	2160.0	-6.4	2160.0	-6.2	.0	.0
1979	2330.8	-5.2	2330.8	-5.2	.0	.0
1980	2306.2	.3	2307.1	.3	.0	.9
1981	2330.8	-2.5	2330.8	-2.5	.0	.0
1982	2310.0	-1.3	2308.4	-1.3	-.1	-1.6
1983	2330.8	-8.8	2330.8	-8.8	.0	.0
1984	2330.8	-8.8	2330.8	-8.8	.0	.0
1985	2330.8	-6.4	2330.8	-5.8	.0	.0
1986	2297.7	-1.9	2298.5	-1.9	.0	.8
1987	2303.6	-1.5	2303.6	-1.5	.0	.0
1988	2289.8	-3.6	2286.5	-4.3	-.1	-3.3
1989	2261.4	-7.7	2256.6	-7.9	-.2	-4.8
1990	2296.5	1.5	2292.7	1.5	-.2	-3.8
1991	2252.0	-6.6	2250.2	-6.9	-.1	-1.8
Mean:	2297.0	-4.1	2297.0	-4.0	.0	.0
Median:	2310.0	-2.8	2308.4	-2.9	.0	.0
Min:	2160.0	-8.8	2160.0	-8.8	-.2	-4.8
Max:	2330.8	8.6	2330.8	8.7	.1	3.2
X > 2310.0	35		35			
X > 2295.0	51		50			
X > 2170.0	69		69			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2329.9	.0	2329.9	.0	.0	.0
1923	2314.6	-1.1	2314.6	-1.1	.0	.0
1924	2268.5	-1.9	2268.5	-1.9	.0	.0
1925	2188.7	14.0	2186.8	14.2	-.1	-1.9
1926	2276.4	-1.5	2275.4	-1.4	.0	-1.0
1927	2292.3	13.8	2291.4	13.9	.0	-.9
1928	2330.8	.0	2330.8	.0	.0	.0
1929	2303.5	-.8	2304.0	-.8	.0	.5
1930	2243.1	-2.0	2244.6	-2.0	.1	1.5
1931	2255.0	-2.6	2256.4	-2.6	.1	1.4
1932	2175.1	-1.3	2175.1	-1.3	.0	.0
1933	2175.9	-.3	2175.9	-.3	.0	.0
1934	2190.2	-1.3	2193.1	-1.3	.1	2.9
1935	2189.4	11.8	2189.4	11.8	.0	.0
1936	2226.3	-1.5	2228.3	-1.4	.1	2.0
1937	2263.7	-2.8	2265.3	-2.7	.1	1.6
1938	2280.5	13.4	2280.6	13.3	.0	.1
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2276.4	-2.4	2274.5	-2.4	-.1	-1.9
1941	2313.1	-.3	2312.5	-.4	.0	-.6
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2330.8	.0	2330.8	.0	.0	.0
1945	2298.1	1.6	2300.7	1.5	.1	2.6
1946	2299.5	3.5	2302.7	3.5	.1	3.2
1947	2312.5	.8	2313.3	.8	.0	.8
1948	2299.1	.2	2299.6	.1	.0	.5
1949	2330.8	.0	2330.8	.0	.0	.0
1950	2320.7	-1.3	2320.7	-1.3	.0	.0
1951	2310.7	9.7	2310.7	9.6	.0	.0
1952	2321.7	2.7	2320.5	1.6	-.1	-1.2
1953	2330.4	-.4	2330.4	-.4	.0	.0
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2330.8	.0	2330.8	.0	.0	.0
1956	2304.6	-.1	2306.9	-.1	.1	2.3
1957	2330.8	.0	2330.8	.0	.0	.0
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2330.8	.0	2330.8	.0	.0	.0
1960	2301.3	-2.0	2300.8	-1.9	.0	-.5
1961	2305.2	-.4	2304.3	-.5	.0	-.9
1962	2315.4	-.4	2314.6	-.5	.0	-.8
1963	2322.0	3.9	2321.8	4.0	.0	-.2
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2304.2	1.8	2304.5	1.8	.0	.3
1966	2330.8	.0	2330.8	.0	.0	.0
1967	2329.3	8.4	2329.4	7.3	.0	.1
1968	2330.8	.0	2330.8	.0	.0	.0
1969	2305.6	.9	2304.4	.9	-.1	-1.2
1970	2330.8	.0	2330.8	.0	.0	.0
1971	2315.1	11.1	2315.8	11.0	.0	.7
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2315.9	1.9	2316.3	1.9	.0	.4
1974	2330.8	.0	2330.8	.0	.0	.0
1975	2330.8	.0	2330.8	.0	.0	.0
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2274.1	-2.0	2274.4	-2.0	.0	.3
1978	2166.5	6.5	2166.4	6.4	.0	-.1
1979	2329.5	-1.3	2329.5	-1.3	.0	.0
1980	2310.3	4.1	2311.3	4.2	.0	1.0
1981	2329.2	-1.6	2329.2	-1.6	.0	.0
1982	2328.8	18.8	2327.3	18.9	-.1	-1.5
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.0	-1.7	2296.8	-1.7	.0	.8
1987	2301.9	-1.7	2301.9	-1.7	.0	.0
1988	2287.7	-2.1	2284.3	-2.2	-.1	-3.4
1989	2264.3	2.9	2259.5	2.9	-.2	-4.8
1990	2295.5	-1.0	2291.6	-1.1	-.2	-3.9
1991	2248.8	-3.2	2246.8	-3.4	-.1	-2.0
Mean:	2298.3	1.3	2298.3	1.3	.0	-.1
Median:	2313.1	.0	2313.3	.0	.0	.0
Min:	2166.5	-3.2	2166.4	-3.4	-.2	-4.8
Max:	2330.8	18.8	2330.8	18.9	.1	3.2
X > 2310.0	39		39			
X > 2295.0	51		50			
X > 2170.0	69		69			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2330.0	.0	2330.0	.0	.0	.0
1923	2315.4	.8	2315.4	.8	.0	.0
1924	2266.8	-1.7	2266.8	-1.7	.0	.0
1925	2196.8	8.1	2195.1	8.3	-.1	-1.7
1926	2278.3	1.9	2277.2	1.8	.0	-1.1
1927	2309.6	17.3	2308.7	17.3	.0	-.9
1928	2330.8	.0	2330.8	.0	.0	.0
1929	2302.8	-.7	2303.3	-.7	.0	.5
1930	2257.9	14.8	2259.3	14.7	.1	1.4
1931	2252.9	-2.1	2254.3	-2.1	.1	1.4
1932	2175.0	-.1	2175.0	-.1	.0	.0
1933	2175.5	-.4	2175.5	-.4	.0	.0
1934	2191.5	1.3	2194.5	1.4	.1	3.0
1935	2195.7	6.3	2195.7	6.3	.0	.0
1936	2225.9	-.4	2227.9	-.4	.1	2.0
1937	2261.1	-2.6	2262.7	-2.6	.1	1.6
1938	2300.5	20.0	2300.6	20.0	.0	.1
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2281.7	5.3	2279.8	5.3	-.1	-1.9
1941	2323.8	10.7	2323.3	10.8	.0	-.5
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2330.4	-.4	2330.4	-.4	.0	.0
1945	2303.7	5.6	2306.2	5.5	.1	2.5
1946	2315.3	15.8	2318.2	15.5	.1	2.9
1947	2313.4	.9	2314.2	.9	.0	.8
1948	2298.4	-.7	2298.9	-.7	.0	.5
1949	2330.8	.0	2330.8	.0	.0	.0
1950	2319.3	-1.4	2319.3	-1.4	.0	.0
1951	2330.4	19.7	2330.4	19.7	.0	.0
1952	2330.8	9.1	2330.8	10.3	.0	.0
1953	2330.8	.4	2330.8	.4	.0	.0
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2330.8	.0	2330.8	.0	.0	.0
1956	2328.7	24.1	2330.7	23.8	.1	2.0
1957	2330.7	-.1	2330.7	-.1	.0	.0
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2330.2	-.6	2330.2	-.6	.0	.0
1960	2298.1	-3.2	2295.3	-5.5	-.1	-2.8
1961	2312.5	7.3	2311.7	7.4	.0	-.8
1962	2317.8	2.4	2317.1	2.5	.0	-.7
1963	2330.8	8.8	2330.8	9.0	.0	.0
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2330.8	26.6	2330.8	26.3	.0	.0
1966	2330.8	.0	2330.8	.0	.0	.0
1967	2330.8	1.5	2330.8	1.4	.0	.0
1968	2330.8	.0	2330.8	.0	.0	.0
1969	2311.3	5.7	2310.1	5.7	-.1	-1.2
1970	2330.8	.0	2330.8	.0	.0	.0
1971	2325.2	10.1	2325.8	10.0	.0	.6
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2324.3	8.4	2324.7	8.4	.0	.4
1974	2330.8	.0	2330.8	.0	.0	.0
1975	2330.8	.0	2330.8	.0	.0	.0
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2270.1	-4.0	2272.1	-2.3	.1	2.0
1978	2201.6	35.1	2201.6	35.2	.0	.0
1979	2328.7	-.8	2328.7	-.8	.0	.0
1980	2314.7	4.4	2316.3	5.0	.1	1.6
1981	2330.8	1.6	2330.8	1.6	.0	.0
1982	2330.8	2.0	2330.8	3.5	.0	.0
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.0	.0	2296.8	.0	.0	.8
1987	2300.8	-1.1	2300.8	-1.1	.0	.0
1988	2301.9	14.2	2298.8	14.5	-.1	-3.1
1989	2265.7	1.4	2261.0	1.5	-.2	-4.7
1990	2293.9	-1.6	2290.0	-1.6	-.2	-3.9
1991	2242.1	-6.7	2238.9	-7.9	-.1	-3.2
Mean:	2302.1	3.8	2302.1	3.8	.0	.0
Median:	2323.8	.0	2323.3	.0	.0	.0
Min:	2175.0	-6.7	2175.0	-7.9	-.2	-4.7
Max:	2330.8	35.1	2330.8	35.2	.1	3.0
X > 2310.0	44		44			
X > 2295.0	53		53			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2329.8	.0	2329.8	.0	.0	.0
1923	2317.5	2.1	2317.5	2.1	.0	.0
1924	2265.4	-1.4	2265.4	-1.4	.0	.0
1925	2204.3	7.5	2202.6	7.5	-.1	-1.7
1926	2277.5	-.8	2276.4	-.8	.0	-1.1
1927	2319.4	9.8	2318.6	9.9	.0	-.8
1928	2334.4	3.6	2334.4	3.6	.0	.0
1929	2302.4	-.4	2302.9	-.4	.0	.5
1930	2258.7	.8	2260.1	.8	.1	1.4
1931	2252.9	.0	2254.3	.0	.1	1.4
1932	2177.3	2.3	2177.3	2.3	.0	.0
1933	2175.1	-.4	2175.1	-.4	.0	.0
1934	2200.8	9.3	2203.5	9.0	.1	2.7
1935	2201.5	5.8	2201.5	5.8	.0	.0
1936	2239.9	14.0	2241.7	13.8	.1	1.8
1937	2258.5	-2.6	2260.1	-2.6	.1	1.6
1938	2308.7	8.2	2308.8	8.2	.0	.1
1939	2331.6	.8	2331.6	.8	.0	.0
1940	2297.7	16.0	2296.0	16.2	-.1	-1.7
1941	2334.4	10.6	2334.4	11.1	.0	.0
1942	2334.4	3.6	2334.4	3.6	.0	.0
1943	2334.4	3.6	2334.4	3.6	.0	.0
1944	2330.7	.3	2330.7	.3	.0	.0
1945	2307.4	3.7	2310.6	4.4	.1	3.2
1946	2325.3	10.0	2328.0	9.8	.1	2.7
1947	2312.8	-.6	2313.6	-.6	.0	.8
1948	2314.4	16.0	2314.9	16.0	.0	.5
1949	2329.8	-1.0	2329.8	-1.0	.0	.0
1950	2320.6	1.3	2320.6	1.3	.0	.0
1951	2334.4	4.0	2334.4	4.0	.0	.0
1952	2334.4	3.6	2334.4	3.6	.0	.0
1953	2334.4	3.6	2334.4	3.6	.0	.0
1954	2334.4	3.6	2334.4	3.6	.0	.0
1955	2332.1	1.3	2332.1	1.3	.0	.0
1956	2334.4	5.7	2334.4	3.7	.0	.0
1957	2330.6	-.1	2330.6	-.1	.0	.0
1958	2334.4	3.6	2334.4	3.6	.0	.0
1959	2334.4	4.2	2334.4	4.2	.0	.0
1960	2298.0	-.1	2295.2	-.1	-.1	-2.8
1961	2315.0	2.5	2314.2	2.5	.0	-.8
1962	2318.9	1.1	2318.1	1.0	.0	-.8
1963	2333.7	2.9	2333.7	2.9	.0	.0
1964	2334.4	3.6	2334.4	3.6	.0	.0
1965	2334.4	3.6	2334.4	3.6	.0	.0
1966	2334.4	3.6	2334.4	3.6	.0	.0
1967	2334.4	3.6	2334.4	3.6	.0	.0
1968	2334.4	3.6	2334.4	3.6	.0	.0
1969	2322.0	10.7	2321.0	10.9	.0	-1.0
1970	2334.4	3.6	2334.4	3.6	.0	.0
1971	2334.4	9.2	2334.4	8.6	.0	.0
1972	2334.4	3.6	2334.4	3.6	.0	.0
1973	2334.4	10.1	2334.4	9.7	.0	.0
1974	2334.4	3.6	2334.4	3.6	.0	.0
1975	2332.4	1.6	2332.4	1.6	.0	.0
1976	2331.6	.8	2331.6	.8	.0	.0
1977	2263.6	-6.5	2266.0	-6.1	.1	2.4
1978	2253.4	51.8	2253.4	51.8	.0	.0
1979	2330.4	1.7	2330.4	1.7	.0	.0
1980	2331.9	17.2	2333.4	17.1	.1	1.5
1981	2334.4	3.6	2334.4	3.6	.0	.0
1982	2334.4	3.6	2334.4	3.6	.0	.0
1983	2334.4	3.6	2334.4	3.6	.0	.0
1984	2334.4	3.6	2334.4	3.6	.0	.0
1985	2332.7	1.9	2332.7	1.9	.0	.0
1986	2307.0	11.0	2307.8	11.0	.0	.8
1987	2301.7	.9	2301.7	.9	.0	.0
1988	2308.5	6.6	2305.5	6.7	-.1	-3.0
1989	2267.0	1.3	2262.3	1.3	-.2	-4.7
1990	2298.3	4.4	2294.5	4.5	-.2	-3.8
1991	2234.6	-7.5	2231.6	-7.3	-.1	-3.0
Mean:	2306.6	4.5	2306.6	4.5	.0	-.1
Median:	2329.8	3.6	2329.8	3.6	.0	.0
Min:	2175.1	-7.5	2175.1	-7.3	-.2	-4.7
Max:	2334.4	51.8	2334.4	51.8	.1	3.2
X > 2310.0	46		47			
X > 2295.0	55		54			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2331.4	.0	2331.4	.0	.0	.0
1923	2319.3	1.8	2319.3	1.8	.0	.0
1924	2271.5	6.1	2271.5	6.1	.0	.0
1925	2241.8	37.5	2240.5	37.9	-.1	-1.3
1926	2291.1	13.6	2290.2	13.8	.0	-.9
1927	2336.4	17.0	2335.7	17.1	.0	-.7
1928	2341.3	6.9	2341.3	6.9	.0	.0
1929	2303.8	1.4	2304.3	1.4	.0	.5
1930	2269.9	11.2	2271.2	11.1	.1	1.3
1931	2255.1	2.2	2256.5	2.2	.1	1.4
1932	2181.5	4.2	2181.5	4.2	.0	.0
1933	2175.2	.1	2175.2	.1	.0	.0
1934	2213.8	13.0	2216.4	12.9	.1	2.6
1935	2213.6	12.1	2213.6	12.1	.0	.0
1936	2256.6	16.7	2258.2	16.5	.1	1.6
1937	2257.4	-1.1	2259.0	-1.1	.1	1.6
1938	2320.7	12.0	2320.7	11.9	.0	.0
1939	2332.6	1.0	2332.6	1.0	.0	.0
1940	2323.8	26.1	2322.3	26.3	-.1	-1.5
1941	2341.3	6.9	2341.3	6.9	.0	.0
1942	2341.3	6.9	2341.3	6.9	.0	.0
1943	2341.3	6.9	2341.3	6.9	.0	.0
1944	2333.8	3.1	2333.8	3.1	.0	.0
1945	2320.1	12.7	2323.1	12.5	.1	3.0
1946	2329.4	4.1	2332.0	4.0	.1	2.6
1947	2317.6	4.8	2318.4	4.8	.0	.8
1948	2316.2	1.8	2316.7	1.8	.0	.5
1949	2332.1	2.3	2332.1	2.3	.0	.0
1950	2324.9	4.3	2324.9	4.3	.0	.0
1951	2341.3	6.9	2341.3	6.9	.0	.0
1952	2341.3	6.9	2341.3	6.9	.0	.0
1953	2341.3	6.9	2341.3	6.9	.0	.0
1954	2341.3	6.9	2341.3	6.9	.0	.0
1955	2334.2	2.1	2334.2	2.1	.0	.0
1956	2341.3	6.9	2341.3	6.9	.0	.0
1957	2341.3	10.7	2341.3	10.7	.0	.0
1958	2341.3	6.9	2341.3	6.9	.0	.0
1959	2341.2	6.8	2341.2	6.8	.0	.0
1960	2310.1	12.1	2307.5	12.3	-.1	-2.6
1961	2331.8	16.8	2331.1	16.9	.0	-.7
1962	2328.6	9.7	2327.9	9.8	.0	-.7
1963	2341.3	7.6	2341.3	7.6	.0	.0
1964	2337.7	3.3	2337.7	3.3	.0	.0
1965	2340.7	6.3	2340.7	6.3	.0	.0
1966	2339.1	4.7	2339.1	4.7	.0	.0
1967	2341.3	6.9	2341.3	6.9	.0	.0
1968	2341.3	6.9	2341.3	6.9	.0	.0
1969	2330.9	8.9	2329.9	8.9	.0	-1.0
1970	2341.3	6.9	2341.3	6.9	.0	.0
1971	2341.3	6.9	2341.3	6.9	.0	.0
1972	2341.3	6.9	2341.3	6.9	.0	.0
1973	2341.3	6.9	2341.3	6.9	.0	.0
1974	2341.3	6.9	2341.3	6.9	.0	.0
1975	2339.3	6.9	2339.3	6.9	.0	.0
1976	2334.1	2.5	2334.1	2.5	.0	.0
1977	2252.5	-11.1	2255.1	-10.9	.1	2.6
1978	2273.4	20.0	2273.3	19.9	.0	-.1
1979	2334.2	3.8	2334.2	3.8	.0	.0
1980	2341.3	9.4	2341.3	7.9	.0	.0
1981	2341.3	6.9	2341.3	6.9	.0	.0
1982	2341.3	6.9	2341.3	6.9	.0	.0
1983	2341.3	6.9	2341.3	6.9	.0	.0
1984	2341.2	6.8	2341.2	6.8	.0	.0
1985	2335.5	2.8	2335.5	2.8	.0	.0
1986	2341.3	34.3	2341.3	33.5	.0	.0
1987	2308.9	7.2	2308.9	7.2	.0	.0
1988	2315.0	6.5	2312.2	6.7	-.1	-2.8
1989	2269.6	2.6	2265.1	2.8	-.2	-4.5
1990	2299.3	1.0	2295.6	1.1	-.2	-3.7
1991	2225.4	-9.2	2223.7	-7.9	-.1	-1.7
Mean:	2314.0	7.4	2314.0	7.4	.0	-.1
Median:	2333.8	6.9	2333.8	6.9	.0	.0
Min:	2175.2	-11.1	2175.2	-10.9	-.2	-4.5
Max:	2341.3	37.5	2341.3	37.9	.1	3.0

X > 2310.0	52	51
X > 2295.0	55	55
X > 2170.0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70

CLAIR ENGLE RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2335.0	.0	2335.0	.0	.0	.0
1923	2323.1	3.8	2323.1	3.8	.0	.0
1924	2267.6	-3.9	2267.6	-3.9	.0	.0
1925	2256.6	14.8	2255.4	14.9	-.1	-1.2
1926	2300.8	9.7	2299.9	9.7	.0	-.9
1927	2347.9	11.5	2347.8	12.1	.0	-.1
1928	2347.9	6.6	2347.9	6.6	.0	.0
1929	2307.9	4.1	2308.4	4.1	.0	.5
1930	2282.5	12.6	2283.7	12.5	.1	1.2
1931	2260.5	5.4	2261.9	5.4	.1	1.4
1932	2206.4	24.9	2206.4	24.9	.0	.0
1933	2196.3	21.1	2196.3	21.1	.0	.0
1934	2234.7	20.9	2236.9	20.5	.1	2.2
1935	2221.5	7.9	2221.5	7.9	.0	.0
1936	2268.6	12.0	2270.2	12.0	.1	1.6
1937	2267.1	9.7	2268.7	9.7	.1	1.6
1938	2339.1	18.4	2339.2	18.5	.0	.1
1939	2339.8	7.2	2339.8	7.2	.0	.0
1940	2344.8	21.0	2343.5	21.2	-.1	-1.3
1941	2347.9	6.6	2347.9	6.6	.0	.0
1942	2346.6	5.3	2346.6	5.3	.0	.0
1943	2347.9	6.6	2347.9	6.6	.0	.0
1944	2338.6	4.8	2338.6	4.8	.0	.0
1945	2324.2	4.1	2327.1	4.0	.1	2.9
1946	2338.1	8.7	2340.7	8.7	.1	2.6
1947	2326.7	9.1	2327.4	9.0	.0	.7
1948	2318.9	2.7	2319.4	2.7	.0	.5
1949	2346.5	14.4	2346.5	14.4	.0	.0
1950	2333.7	8.8	2333.7	8.8	.0	.0
1951	2347.9	6.6	2347.9	6.6	.0	.0
1952	2347.9	6.6	2347.9	6.6	.0	.0
1953	2347.9	6.6	2347.9	6.6	.0	.0
1954	2347.9	6.6	2347.9	6.6	.0	.0
1955	2336.1	1.9	2336.1	1.9	.0	.0
1956	2347.9	6.6	2347.9	6.6	.0	.0
1957	2347.9	6.6	2347.9	6.6	.0	.0
1958	2347.9	6.6	2347.9	6.6	.0	.0
1959	2347.9	6.7	2347.9	6.7	.0	.0
1960	2324.9	14.8	2322.4	14.9	-.1	-2.5
1961	2340.3	8.5	2339.6	8.5	.0	-.7
1962	2334.1	5.5	2333.4	5.5	.0	-.7
1963	2346.1	4.8	2346.1	4.8	.0	.0
1964	2340.2	2.5	2340.2	2.5	.0	.0
1965	2345.7	5.0	2345.7	5.0	.0	.0
1966	2347.9	8.8	2347.9	8.8	.0	.0
1967	2347.9	6.6	2347.9	6.6	.0	.0
1968	2347.9	6.6	2347.9	6.6	.0	.0
1969	2341.8	10.9	2340.8	10.9	.0	-1.0
1970	2347.9	6.6	2347.9	6.6	.0	.0
1971	2347.9	6.6	2347.9	6.6	.0	.0
1972	2347.9	6.6	2347.9	6.6	.0	.0
1973	2347.9	6.6	2347.9	6.6	.0	.0
1974	2347.9	6.6	2347.9	6.6	.0	.0
1975	2347.9	8.6	2347.9	8.6	.0	.0
1976	2337.8	3.7	2337.8	3.7	.0	.0
1977	2251.9	-.6	2253.5	-1.6	.1	1.6
1978	2299.6	26.2	2299.6	26.3	.0	.0
1979	2344.5	10.3	2344.5	10.3	.0	.0
1980	2347.9	6.6	2347.9	6.6	.0	.0
1981	2347.9	6.6	2347.9	6.6	.0	.0
1982	2347.9	6.6	2347.9	6.6	.0	.0
1983	2347.9	6.6	2347.9	6.6	.0	.0
1984	2347.9	6.7	2347.9	6.7	.0	.0
1985	2338.8	3.3	2338.8	3.3	.0	.0
1986	2347.9	6.6	2347.9	6.6	.0	.0
1987	2325.5	16.6	2325.5	16.6	.0	.0
1988	2319.7	4.7	2317.0	4.8	-.1	-2.7
1989	2301.9	32.3	2298.2	33.1	-.2	-3.7
1990	2305.9	6.6	2302.3	6.7	-.2	-3.6
1991	2234.9	9.5	2233.3	9.6	-.1	-1.6
Mean:	2322.7	8.6	2322.7	8.6	.0	.0
Median:	2340.2	6.6	2340.2	6.6	.0	.0
Min:	2196.3	-3.9	2196.3	-3.9	-.2	-3.7
Max:	2347.9	32.3	2347.9	33.1	.1	2.9
X > 2310.0	53		53			
X > 2295.0	58		58			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2342.8	.0	2342.8	.0	.0	.0
1923	2332.6	9.5	2332.6	9.5	.0	.0
1924	2268.4	.8	2268.4	.8	.0	.0
1925	2287.1	30.5	2286.1	30.7	.0	-1.0
1926	2319.1	18.3	2318.3	18.4	.0	-.8
1927	2360.5	12.6	2360.5	12.7	.0	.0
1928	2358.0	10.1	2358.0	10.1	.0	.0
1929	2307.1	-.8	2307.3	-1.1	.0	.2
1930	2293.9	11.4	2295.0	11.3	.0	1.1
1931	2266.1	5.6	2267.4	5.5	.1	1.3
1932	2220.9	14.5	2220.9	14.5	.0	.0
1933	2221.1	24.8	2221.1	24.8	.0	.0
1934	2249.6	14.9	2251.6	14.7	.1	2.0
1935	2250.6	29.1	2250.6	29.1	.0	.0
1936	2285.8	17.2	2287.2	17.0	.1	1.4
1937	2289.3	22.2	2290.6	21.9	.1	1.3
1938	2358.7	19.6	2358.8	19.6	.0	.1
1939	2336.7	-3.1	2336.1	-3.7	.0	-.6
1940	2359.9	15.1	2358.7	15.2	-.1	-1.2
1941	2360.5	12.6	2360.5	12.6	.0	.0
1942	2359.5	12.9	2359.5	12.9	.0	.0
1943	2360.2	12.3	2360.2	12.3	.0	.0
1944	2339.5	.9	2340.2	1.6	.0	.7
1945	2334.9	10.7	2337.7	10.6	.1	2.8
1946	2353.0	14.9	2354.4	13.7	.1	1.4
1947	2334.0	7.3	2334.3	6.9	.0	.3
1948	2333.2	14.3	2333.6	14.2	.0	.4
1949	2360.5	14.0	2360.5	14.0	.0	.0
1950	2345.4	11.7	2345.4	11.7	.0	.0
1951	2357.7	9.8	2357.7	9.8	.0	.0
1952	2360.5	12.6	2360.5	12.6	.0	.0
1953	2360.5	12.6	2360.5	12.6	.0	.0
1954	2360.5	12.6	2360.5	12.6	.0	.0
1955	2338.8	2.7	2338.8	2.7	.0	.0
1956	2360.5	12.6	2360.5	12.6	.0	.0
1957	2355.9	8.0	2355.9	8.0	.0	.0
1958	2360.5	12.6	2360.5	12.6	.0	.0
1959	2355.2	7.3	2355.4	7.5	.0	.2
1960	2334.3	9.4	2332.0	9.6	-.1	-2.3
1961	2350.7	10.4	2350.1	10.5	.0	-.6
1962	2350.2	16.1	2349.5	16.1	.0	-.7
1963	2360.5	14.4	2360.5	14.4	.0	.0
1964	2338.0	-2.2	2338.4	-1.8	.0	.4
1965	2360.3	14.6	2360.3	14.6	.0	.0
1966	2360.5	12.6	2360.5	12.6	.0	.0
1967	2354.6	6.7	2354.6	6.7	.0	.0
1968	2354.9	7.0	2354.9	7.0	.0	.0
1969	2360.5	18.7	2360.5	19.7	.0	.0
1970	2350.2	2.3	2350.2	2.3	.0	.0
1971	2359.2	11.3	2359.2	11.3	.0	.0
1972	2357.7	9.8	2357.7	9.8	.0	.0
1973	2360.5	12.6	2360.5	12.6	.0	.0
1974	2360.5	12.6	2360.5	12.6	.0	.0
1975	2356.9	9.0	2356.9	9.0	.0	.0
1976	2337.7	-.1	2338.0	.2	.0	.3
1977	2253.6	1.7	2254.1	.6	.0	.5
1978	2316.8	17.2	2316.8	17.2	.0	.0
1979	2353.1	8.6	2353.1	8.6	.0	.0
1980	2358.8	10.9	2358.8	10.9	.0	.0
1981	2355.8	7.9	2355.8	7.9	.0	.0
1982	2360.5	12.6	2360.5	12.6	.0	.0
1983	2360.5	12.6	2360.5	12.6	.0	.0
1984	2356.0	8.1	2356.0	8.1	.0	.0
1985	2349.3	10.5	2349.3	10.5	.0	.0
1986	2357.7	9.8	2357.7	9.8	.0	.0
1987	2337.0	11.5	2337.0	11.5	.0	.0
1988	2326.8	7.1	2324.2	7.2	-.1	-2.6
1989	2319.4	17.5	2316.1	17.9	-.1	-3.3
1990	2306.9	1.0	2303.8	1.5	-.1	-3.1
1991	2244.5	9.6	2243.0	9.7	-.1	-1.5
Mean:	2333.8	11.0	2333.7	10.9	.0	.0
Median:	2350.7	11.4	2350.2	11.3	.0	.0
Min:	2220.9	-3.1	2220.9	-3.7	-.1	-3.3
Max:	2360.5	30.5	2360.5	30.7	.1	2.8
X > 2310.0	56		56			
X > 2295.0	58		58			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2349.6	.0	2349.6	.0	.0	.0
1923	2322.0	-10.6	2322.0	-10.6	.0	.0
1924	2240.3	-28.1	2240.3	-28.1	.0	.0
1925	2298.9	11.8	2298.0	11.9	.0	-.9
1926	2313.8	-5.3	2312.9	-5.4	.0	-.9
1927	2367.7	7.2	2367.7	7.2	.0	.0
1928	2360.6	2.6	2360.6	2.6	.0	.0
1929	2302.2	-4.9	2303.1	-4.2	.0	.9
1930	2289.8	-4.1	2291.0	-4.0	.1	1.2
1931	2246.3	-19.8	2245.5	-21.9	.0	-.8
1932	2233.2	12.3	2233.2	12.3	.0	.0
1933	2230.5	9.4	2230.5	9.4	.0	.0
1934	2245.3	-4.3	2247.3	-4.3	.1	2.0
1935	2263.9	13.3	2263.9	13.3	.0	.0
1936	2290.0	4.2	2291.3	4.1	.1	1.3
1937	2305.5	16.2	2306.7	16.1	.1	1.2
1938	2367.7	9.0	2367.7	8.9	.0	.0
1939	2329.8	-6.9	2329.2	-6.9	.0	-.6
1940	2359.0	-.9	2358.5	-.2	.0	-.5
1941	2367.7	7.2	2367.7	7.2	.0	.0
1942	2367.7	8.2	2367.7	8.2	.0	.0
1943	2363.3	3.1	2363.3	3.1	.0	.0
1944	2335.5	-4.0	2336.3	-3.9	.0	.8
1945	2339.4	4.5	2342.0	4.3	.1	2.6
1946	2355.0	2.0	2355.7	1.3	.0	.7
1947	2330.2	-3.8	2330.4	-3.9	.0	.2
1948	2343.9	10.7	2344.3	10.7	.0	.4
1949	2365.0	4.5	2365.1	4.6	.0	.1
1950	2341.8	-3.6	2341.8	-3.6	.0	.0
1951	2361.6	3.9	2361.6	3.9	.0	.0
1952	2367.7	7.2	2367.7	7.2	.0	.0
1953	2367.7	7.2	2367.7	7.2	.0	.0
1954	2366.3	5.8	2366.4	5.9	.0	.1
1955	2337.1	-1.7	2337.1	-1.7	.0	.0
1956	2367.7	7.2	2367.7	7.2	.0	.0
1957	2366.6	10.7	2366.6	10.7	.0	.0
1958	2367.7	7.2	2367.7	7.2	.0	.0
1959	2351.6	-3.6	2351.9	-3.5	.0	.3
1960	2337.4	3.1	2335.2	3.2	-.1	-2.2
1961	2355.1	4.4	2354.5	4.4	.0	-.6
1962	2351.5	1.3	2350.9	1.4	.0	-.6
1963	2367.7	7.2	2367.7	7.2	.0	.0
1964	2333.4	-4.6	2333.8	-4.6	.0	.4
1965	2366.8	6.5	2366.8	6.5	.0	.0
1966	2365.7	5.2	2365.7	5.2	.0	.0
1967	2367.7	13.1	2367.7	13.1	.0	.0
1968	2352.3	-2.6	2352.3	-2.6	.0	.0
1969	2367.7	7.2	2367.7	7.2	.0	.0
1970	2349.2	-1.0	2349.2	-1.0	.0	.0
1971	2367.7	8.5	2367.7	8.5	.0	.0
1972	2361.8	4.1	2361.8	4.1	.0	.0
1973	2367.7	7.2	2367.7	7.2	.0	.0
1974	2367.7	7.2	2367.7	7.2	.0	.0
1975	2367.7	10.8	2367.7	10.8	.0	.0
1976	2329.2	-8.5	2329.5	-8.5	.0	.3
1977	2230.5	-23.1	2230.8	-23.3	.0	.3
1978	2332.0	15.2	2332.0	15.2	.0	.0
1979	2353.0	-.1	2353.0	-.1	.0	.0
1980	2359.1	.3	2359.1	.3	.0	.0
1981	2353.3	-2.5	2353.3	-2.5	.0	.0
1982	2367.7	7.2	2367.7	7.2	.0	.0
1983	2367.7	7.2	2367.7	7.2	.0	.0
1984	2365.3	9.3	2365.3	9.3	.0	.0
1985	2337.1	-12.2	2337.6	-11.7	.0	.5
1986	2350.5	-7.2	2350.5	-7.2	.0	.0
1987	2336.0	-1.0	2336.0	-1.0	.0	.0
1988	2323.5	-3.3	2320.1	-4.1	-.1	-3.4
1989	2318.8	-.6	2315.4	-.7	-.1	-3.4
1990	2306.3	-.6	2303.2	-.6	-.1	-3.1
1991	2243.6	-.9	2242.1	-.9	-.1	-1.5
Mean:	2335.7	1.9	2335.6	1.8	.0	-.1
Median:	2351.5	3.1	2350.9	3.2	.0	.0
Min:	2230.5	-28.1	2230.5	-28.1	-.1	-3.4
Max:	2367.7	16.2	2367.7	16.1	.1	2.6

X > 2310.0	56	56
X > 2295.0	60	60
X > 2170.0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70

CLAIR ENGLE RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2348.3	.0	2348.3	.0	.0	.0
1923	2310.4	-11.6	2310.2	-11.8	.0	-.2
1924	2217.1	-23.2	2217.0	-23.3	.0	-.1
1925	2295.6	-3.3	2294.7	-3.3	.0	-.9
1926	2303.0	-10.8	2302.1	-10.8	.0	-.9
1927	2368.4	.7	2368.4	.7	.0	.0
1928	2349.7	-10.9	2349.1	-11.5	.0	-.6
1929	2293.5	-8.7	2291.8	-11.3	-.1	-1.7
1930	2281.9	-7.9	2283.1	-7.9	.1	1.2
1931	2230.5	-15.8	2229.7	-15.8	.0	-.8
1932	2223.5	-9.7	2227.8	-5.4	.2	4.3
1933	2241.9	11.4	2244.6	14.1	.1	2.7
1934	2233.6	-11.7	2233.5	-13.8	.0	-.1
1935	2257.7	-6.2	2257.7	-6.2	.0	.0
1936	2287.6	-2.4	2288.9	-2.4	.1	1.3
1937	2306.1	.6	2307.3	.6	.1	1.2
1938	2369.2	1.5	2369.2	1.5	.0	.0
1939	2315.2	-14.6	2313.8	-15.4	-.1	-1.4
1940	2350.0	-9.0	2349.5	-9.0	.0	-.5
1941	2369.2	1.5	2369.2	1.5	.0	.0
1942	2369.2	1.5	2369.2	1.5	.0	.0
1943	2361.6	-1.7	2361.6	-1.7	.0	.0
1944	2327.7	-7.8	2328.5	-7.8	.0	.8
1945	2336.4	-3.0	2339.1	-2.9	.1	2.7
1946	2346.8	-8.2	2347.5	-8.2	.0	.7
1947	2324.7	-5.5	2325.0	-5.4	.0	.3
1948	2355.1	11.2	2355.4	11.1	.0	.3
1949	2356.4	-8.6	2356.5	-8.6	.0	.1
1950	2330.9	-10.9	2330.9	-10.9	.0	.0
1951	2353.5	-8.1	2353.5	-8.1	.0	.0
1952	2369.2	1.5	2369.2	1.5	.0	.0
1953	2369.2	1.5	2369.2	1.5	.0	.0
1954	2359.3	-7.0	2359.0	-7.4	.0	-.3
1955	2334.0	-3.1	2334.0	-3.1	.0	.0
1956	2369.2	1.5	2369.2	1.5	.0	.0
1957	2363.5	-3.1	2363.0	-3.6	.0	-.5
1958	2369.2	1.5	2369.2	1.5	.0	.0
1959	2341.3	-10.3	2341.7	-10.2	.0	.4
1960	2339.1	1.7	2336.9	1.7	-.1	-2.2
1961	2351.2	-3.9	2350.6	-3.9	.0	-.6
1962	2346.8	-4.7	2346.7	-4.2	.0	-.1
1963	2368.5	.8	2368.5	.8	.0	.0
1964	2324.9	-8.5	2325.4	-8.4	.0	.5
1965	2361.1	-5.7	2361.1	-5.7	.0	.0
1966	2356.4	-9.3	2356.4	-9.3	.0	.0
1967	2369.2	1.5	2369.2	1.5	.0	.0
1968	2341.2	-11.1	2341.2	-11.1	.0	.0
1969	2369.2	1.5	2369.2	1.5	.0	.0
1970	2342.7	-6.5	2342.7	-6.5	.0	.0
1971	2369.2	1.5	2369.2	1.5	.0	.0
1972	2353.3	-8.5	2353.3	-8.5	.0	.0
1973	2360.1	-7.6	2360.1	-7.6	.0	.0
1974	2369.2	1.5	2369.2	1.5	.0	.0
1975	2369.2	1.5	2369.2	1.5	.0	.0
1976	2315.2	-14.0	2315.6	-13.9	.0	.4
1977	2200.5	-30.0	2201.0	-29.8	.0	.5
1978	2345.6	13.6	2345.6	13.6	.0	.0
1979	2341.9	-11.1	2341.9	-11.1	.0	.0
1980	2353.4	-5.7	2353.4	-5.7	.0	.0
1981	2343.5	-9.8	2342.3	-11.0	-.1	-1.2
1982	2369.2	1.5	2369.2	1.5	.0	.0
1983	2369.2	1.5	2369.2	1.5	.0	.0
1984	2358.7	-6.6	2358.2	-7.1	.0	-.5
1985	2327.5	-9.6	2327.1	-10.5	.0	-.4
1986	2340.9	-9.6	2340.9	-9.6	.0	.0
1987	2322.3	-13.7	2322.3	-13.7	.0	.0
1988	2313.0	-10.5	2309.4	-10.7	-.2	-3.6
1989	2314.5	-4.3	2311.1	-4.3	-.1	-3.4
1990	2297.0	-9.3	2293.8	-9.4	-.1	-3.2
1991	2242.2	-1.4	2240.7	-1.4	-.1	-1.5
Mean:	2330.5	-5.2	2330.4	-5.2	.0	-.1
Median:	2343.5	-6.2	2342.7	-5.7	.0	.0
Min:	2200.5	-30.0	2201.0	-29.8	-.2	-3.6
Max:	2369.2	13.6	2369.2	14.1	.2	4.3
X > 2310.0	55		54			
X > 2295.0	59		57			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2336.1	.0	2336.1	.0	.0	.0
1923	2294.9	-15.5	2294.9	-15.3	.0	.0
1924	2187.5	-29.6	2185.6	-31.4	-.1	-1.9
1925	2287.4	-8.2	2286.4	-8.3	.0	-1.0
1926	2290.0	-13.0	2289.0	-13.1	.0	-1.0
1927	2358.7	-9.7	2358.7	-9.7	.0	.0
1928	2334.8	-14.9	2334.1	-15.0	.0	-.7
1929	2276.3	-17.2	2276.7	-15.1	.0	.4
1930	2270.7	-11.2	2272.0	-11.1	.1	1.3
1931	2201.5	-29.0	2200.1	-29.6	-.1	-1.4
1932	2201.4	-22.1	2201.4	-26.4	.0	.0
1933	2225.2	-16.7	2227.6	-17.0	.1	2.4
1934	2208.3	-25.3	2207.6	-25.9	.0	-.7
1935	2241.7	-16.0	2241.7	-16.0	.0	.0
1936	2278.5	-9.1	2279.9	-9.0	.1	1.4
1937	2293.4	-12.7	2294.9	-12.4	.1	1.5
1938	2358.7	-10.5	2358.7	-10.5	.0	.0
1939	2300.6	-14.6	2299.0	-14.8	-.1	-1.6
1940	2335.4	-14.6	2334.9	-14.6	.0	-.5
1941	2358.7	-10.5	2358.7	-10.5	.0	.0
1942	2358.7	-10.5	2358.7	-10.5	.0	.0
1943	2355.4	-6.2	2354.2	-7.4	-.1	-1.2
1944	2317.6	-10.1	2318.0	-10.5	.0	.4
1945	2321.2	-15.2	2324.0	-15.1	.1	2.8
1946	2333.3	-13.5	2334.0	-13.5	.0	.7
1947	2313.5	-11.2	2313.5	-11.5	.0	.0
1948	2349.7	-5.4	2350.0	-5.4	.0	.3
1949	2342.6	-13.8	2342.7	-13.8	.0	.1
1950	2314.6	-16.3	2314.7	-16.2	.0	.1
1951	2339.3	-14.2	2339.3	-14.2	.0	.0
1952	2358.7	-10.5	2358.7	-10.5	.0	.0
1953	2358.7	-10.5	2358.7	-10.5	.0	.0
1954	2346.5	-12.8	2346.1	-12.9	.0	-.4
1955	2321.9	-12.1	2324.2	-9.8	.1	2.3
1956	2358.7	-10.5	2358.7	-10.5	.0	.0
1957	2355.1	-8.4	2353.9	-9.1	-.1	-1.2
1958	2358.7	-10.5	2358.7	-10.5	.0	.0
1959	2325.9	-15.4	2326.3	-15.4	.0	.4
1960	2327.0	-12.1	2325.3	-11.6	-.1	-1.7
1961	2337.4	-13.8	2336.7	-13.9	.0	-.7
1962	2332.4	-14.4	2332.3	-14.4	.0	-.1
1963	2358.7	-9.8	2358.7	-9.8	.0	.0
1964	2314.9	-10.0	2315.4	-10.0	.0	.5
1965	2355.5	-5.6	2355.5	-5.6	.0	.0
1966	2343.4	-13.0	2343.4	-13.0	.0	.0
1967	2358.7	-10.5	2358.7	-10.5	.0	.0
1968	2325.9	-15.3	2325.9	-15.3	.0	.0
1969	2358.7	-10.5	2358.7	-10.5	.0	.0
1970	2327.9	-14.8	2327.9	-14.8	.0	.0
1971	2358.7	-10.5	2358.7	-10.5	.0	.0
1972	2339.1	-14.2	2339.1	-14.2	.0	.0
1973	2347.3	-12.8	2347.3	-12.8	.0	.0
1974	2358.7	-10.5	2358.7	-10.5	.0	.0
1975	2358.7	-10.5	2358.7	-10.5	.0	.0
1976	2299.5	-15.7	2298.8	-16.8	.0	-.7
1977	2179.7	-20.8	2179.6	-21.4	.0	-.1
1978	2342.8	-2.8	2342.8	-2.8	.0	.0
1979	2326.8	-15.1	2326.8	-15.1	.0	.0
1980	2343.0	-10.4	2343.0	-10.4	.0	.0
1981	2330.0	-13.5	2328.8	-13.5	-.1	-1.2
1982	2358.7	-10.5	2358.7	-10.5	.0	.0
1983	2358.7	-10.5	2358.7	-10.5	.0	.0
1984	2346.0	-12.7	2345.4	-12.8	.0	-.6
1985	2316.3	-11.2	2315.8	-11.3	.0	-.5
1986	2325.6	-15.3	2325.6	-15.3	.0	.0
1987	2308.2	-14.1	2305.5	-16.8	-.1	-2.7
1988	2295.3	-17.7	2291.3	-18.1	-.2	-4.0
1989	2302.8	-11.7	2299.1	-12.0	-.2	-3.7
1990	2282.4	-14.6	2280.9	-12.9	-.1	-1.5
1991	2236.7	-5.5	2235.1	-5.6	-.1	-1.6
Mean:	2317.5	-12.8	2317.3	-13.0	.0	-.2
Median:	2330.0	-12.7	2328.8	-12.8	.0	.0
Min:	2179.7	-29.6	2179.6	-31.4	-.2	-4.0
Max:	2358.7	.0	2358.7	.0	.1	2.8

X > 2310.0	49	49
X > 2295.0	54	53
X > 2170.0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70

CLAIR ENGLE RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2321.1	.0	2321.1	.0	.0	.0
1923	2276.1	-18.8	2276.1	-18.8	.0	.0
1924	2181.4	-6.1	2179.4	-6.2	-.1	-2.0
1925	2282.5	-4.9	2281.5	-4.9	.0	-1.0
1926	2284.5	-5.5	2283.5	-5.5	.0	-1.0
1927	2351.2	-7.5	2351.2	-7.5	.0	.0
1928	2317.8	-17.0	2317.1	-17.0	.0	-.7
1929	2256.9	-19.4	2258.3	-18.4	.1	1.4
1930	2264.8	-5.9	2266.1	-5.9	.1	1.3
1931	2184.3	-17.2	2184.3	-15.8	.0	.0
1932	2184.3	-17.1	2184.3	-17.1	.0	.0
1933	2203.7	-21.5	2206.4	-21.2	.1	2.7
1934	2184.3	-24.0	2184.3	-23.3	.0	.0
1935	2236.7	-5.0	2236.7	-5.0	.0	.0
1936	2273.2	-5.3	2274.7	-5.2	.1	1.5
1937	2276.1	-17.3	2276.1	-18.8	.0	.0
1938	2351.2	-7.5	2351.2	-7.5	.0	.0
1939	2286.7	-13.9	2284.9	-14.1	-.1	-1.8
1940	2318.7	-16.7	2318.1	-16.8	.0	-.6
1941	2351.2	-7.5	2351.2	-7.5	.0	.0
1942	2351.2	-7.5	2351.2	-7.5	.0	.0
1943	2350.0	-5.4	2348.7	-5.5	-.1	-1.3
1944	2303.5	-14.1	2304.7	-13.3	.1	1.2
1945	2302.9	-18.3	2306.1	-17.9	.1	3.2
1946	2316.6	-16.7	2317.4	-16.6	.0	.8
1947	2300.7	-12.8	2301.2	-12.3	.0	.5
1948	2344.4	-5.3	2344.8	-5.2	.0	.4
1949	2326.7	-15.9	2326.9	-15.8	.0	.2
1950	2295.6	-19.0	2295.7	-19.0	.0	.1
1951	2323.2	-16.1	2323.2	-16.1	.0	.0
1952	2351.2	-7.5	2351.2	-7.5	.0	.0
1953	2351.2	-7.5	2351.2	-7.5	.0	.0
1954	2341.3	-5.2	2341.0	-5.1	.0	-.3
1955	2309.6	-12.3	2311.9	-12.3	.1	2.3
1956	2351.2	-7.5	2351.2	-7.5	.0	.0
1957	2349.8	-5.3	2348.5	-5.4	-.1	-1.3
1958	2351.2	-7.5	2351.2	-7.5	.0	.0
1959	2308.2	-17.7	2308.6	-17.7	.0	.4
1960	2312.9	-14.1	2311.7	-13.6	-.1	-1.2
1961	2321.2	-16.2	2320.5	-16.2	.0	-.7
1962	2317.0	-15.4	2316.0	-16.3	.0	-1.0
1963	2351.2	-7.5	2351.2	-7.5	.0	.0
1964	2306.4	-8.5	2306.7	-8.7	.0	.3
1965	2351.0	-4.5	2351.0	-4.5	.0	.0
1966	2328.3	-15.1	2328.3	-15.1	.0	.0
1967	2351.2	-7.5	2351.2	-7.5	.0	.0
1968	2309.1	-16.8	2308.5	-17.4	.0	-.6
1969	2351.2	-7.5	2351.2	-7.5	.0	.0
1970	2310.2	-17.7	2310.2	-17.7	.0	.0
1971	2351.2	-7.5	2351.2	-7.5	.0	.0
1972	2323.1	-16.0	2323.1	-16.0	.0	.0
1973	2341.3	-6.0	2341.3	-6.0	.0	.0
1974	2351.2	-7.5	2351.2	-7.5	.0	.0
1975	2351.2	-7.5	2351.2	-7.5	.0	.0
1976	2282.3	-17.2	2282.5	-16.3	.0	.2
1977	2169.7	-10.0	2169.4	-10.2	.0	-.3
1978	2337.6	-5.2	2337.6	-5.2	.0	.0
1979	2308.8	-18.0	2309.7	-17.1	.0	.9
1980	2337.0	-6.0	2337.0	-6.0	.0	.0
1981	2315.0	-15.0	2313.3	-15.5	-.1	-1.7
1982	2351.2	-7.5	2351.2	-7.5	.0	.0
1983	2351.2	-7.5	2351.2	-7.5	.0	.0
1984	2340.7	-5.3	2340.1	-5.3	.0	-.6
1985	2302.8	-13.5	2303.6	-12.2	.0	.8
1986	2307.9	-17.7	2307.9	-17.7	.0	.0
1987	2297.4	-10.8	2294.9	-10.6	-.1	-2.5
1988	2273.7	-21.6	2269.2	-22.1	-.2	-4.5
1989	2297.9	-4.9	2294.1	-5.0	-.2	-3.8
1990	2263.1	-19.3	2261.6	-19.3	-.1	-1.5
1991	2222.7	-14.0	2223.6	-11.5	.0	.9
Mean:	2305.7	-11.5	2305.6	-11.5	.0	-.1
Median:	2315.0	-10.8	2313.3	-10.6	.0	.0
Min:	2169.7	-24.0	2169.4	-23.3	-.2	-4.5
Max:	2351.2	.0	2351.2	.0	.1	3.2
X > 2310.0	38		39			
X > 2295.0	51		49			
X > 2170.0	69		69			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	WFP Elev (ft msl)	WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2317.2	.0	2317.2	.0	.0	.0
1923	2272.4	-3.7	2272.4	-3.7	.0	.0
1924	2175.2	-6.2	2173.1	-6.3	-.1	-2.1
1925	2279.9	-2.6	2278.9	-2.6	.0	-1.0
1926	2280.6	-3.9	2279.6	-3.9	.0	-1.0
1927	2339.6	-11.6	2339.6	-11.6	.0	.0
1928	2308.0	-9.8	2308.5	-8.6	.0	.5
1929	2252.3	-4.6	2253.7	-4.6	.1	1.4
1930	2260.6	-4.2	2261.9	-4.2	.1	1.3
1931	2178.5	-5.8	2178.5	-5.8	.0	.0
1932	2178.7	-5.6	2178.7	-5.6	.0	.0
1933	2196.4	-7.3	2199.3	-7.1	.1	2.9
1934	2178.7	-5.6	2178.7	-5.6	.0	.0
1935	2229.8	-6.9	2231.8	-4.9	.1	2.0
1936	2269.4	-3.8	2270.9	-3.8	.1	1.5
1937	2269.1	-7.0	2269.2	-6.9	.0	.1
1938	2339.6	-11.6	2339.6	-11.6	.0	.0
1939	2282.9	-3.8	2281.0	-3.9	-.1	-1.9
1940	2315.0	-3.7	2314.5	-3.6	.0	-.5
1941	2339.6	-11.6	2339.6	-11.6	.0	.0
1942	2339.6	-11.6	2339.6	-11.6	.0	.0
1943	2338.7	-11.3	2337.5	-11.2	-.1	-1.2
1944	2298.8	-4.7	2301.4	-3.3	.1	2.6
1945	2296.5	-6.4	2299.8	-6.3	.1	3.3
1946	2313.7	-2.9	2314.5	-2.9	.0	.8
1947	2297.4	-3.3	2297.9	-3.3	.0	.5
1948	2339.6	-4.8	2339.6	-5.2	.0	.0
1949	2323.9	-2.8	2323.9	-3.0	.0	.0
1950	2292.4	-3.2	2292.4	-3.3	.0	.0
1951	2320.3	-2.9	2320.3	-2.9	.0	.0
1952	2339.6	-11.6	2339.6	-11.6	.0	.0
1953	2339.6	-11.6	2339.6	-11.6	.0	.0
1954	2337.6	-3.7	2335.1	-5.9	-.1	-2.5
1955	2306.9	-2.7	2309.1	-2.8	.1	2.2
1956	2339.6	-11.6	2339.6	-11.6	.0	.0
1957	2339.6	-10.2	2339.6	-8.9	.0	.0
1958	2339.6	-11.6	2339.6	-11.6	.0	.0
1959	2305.4	-2.8	2305.9	-2.7	.0	.5
1960	2307.6	-5.3	2306.7	-5.0	.0	-.9
1961	2317.9	-3.3	2317.2	-3.3	.0	-.7
1962	2310.5	-6.5	2310.3	-5.7	.0	-.2
1963	2339.6	-11.6	2339.6	-11.6	.0	.0
1964	2303.8	-2.6	2304.1	-2.6	.0	.3
1965	2339.6	-11.4	2339.6	-11.4	.0	.0
1966	2322.5	-5.8	2323.9	-4.4	.1	1.4
1967	2339.6	-11.6	2339.6	-11.6	.0	.0
1968	2306.4	-2.7	2305.2	-3.3	-.1	-1.2
1969	2339.6	-11.6	2339.6	-11.6	.0	.0
1970	2305.9	-4.3	2306.7	-3.5	.0	.8
1971	2339.6	-11.6	2339.6	-11.6	.0	.0
1972	2315.0	-8.1	2315.4	-7.7	.0	.4
1973	2337.9	-3.4	2337.9	-3.4	.0	.0
1974	2339.6	-11.6	2339.6	-11.6	.0	.0
1975	2339.6	-11.6	2339.6	-11.6	.0	.0
1976	2278.9	-3.4	2279.2	-3.3	.0	.3
1977	2166.4	-3.3	2166.2	-3.2	.0	-.2
1978	2336.0	-1.6	2336.0	-1.6	.0	.0
1979	2305.9	-2.9	2306.8	-2.9	.0	.9
1980	2333.3	-3.7	2333.3	-3.7	.0	.0
1981	2311.3	-3.7	2309.7	-3.6	-.1	-1.6
1982	2339.6	-11.6	2339.6	-11.6	.0	.0
1983	2339.6	-11.6	2339.6	-11.6	.0	.0
1984	2337.2	-3.5	2336.6	-3.5	.0	-.6
1985	2299.6	-3.2	2300.4	-3.2	.0	.8
1986	2305.1	-2.8	2305.1	-2.8	.0	.0
1987	2293.4	-4.0	2290.8	-4.1	-.1	-2.6
1988	2269.1	-4.6	2264.5	-4.7	-.2	-4.6
1989	2295.0	-2.9	2291.2	-2.9	-.2	-3.8
1990	2258.6	-4.5	2257.1	-4.5	-.1	-1.5
1991	2217.3	-5.4	2218.2	-5.4	.0	.9
Mean:	2299.5	-6.2	2299.4	-6.1	.0	.0
Median:	2308.0	-4.7	2309.1	-4.7	.0	.0
Min:	2166.4	-11.6	2166.2	-11.6	-.2	-4.6
Max:	2339.6	.0	2339.6	.0	.1	3.3
X > 2310.0	35		34			
X > 2295.0	48		48			
X > 2170.0	69		69			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

RETURN TO TABLE OF CONTENTS

Section 17

SACRAMENTO RIVER FLOW BELOW KESWICK DAM

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

October

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	5500.0	5500.0	.0	.0
1924	4116.5	4112.1	-.1	-4.4
1925	3250.0	3250.0	.0	.0
1926	4250.0	4500.0	5.9	250.0
1927	3500.0	3500.0	.0	.0
1928	6100.3	6100.3	.0	.0
1929	5035.5	5035.5	.0	.0
1930	3806.6	3792.3	-.4	-14.3
1931	3750.0	3750.0	.0	.0
1932	3345.4	3345.4	.0	.0
1933	3742.2	3734.1	-.2	-8.1
1934	3524.1	3524.1	.0	.0
1935	3250.0	3250.0	.0	.0
1936	4177.6	4174.9	-.1	-2.7
1937	5066.0	5066.0	.0	.0
1938	3503.8	3502.3	.0	-1.5
1939	7175.3	7175.3	.0	.0
1940	3498.2	3498.2	.0	.0
1941	5500.0	5500.0	.0	.0
1942	6835.4	6835.4	.0	.0
1943	6767.1	6767.1	.0	.0
1944	6292.9	5991.4	-4.8	-301.5
1945	4250.0	4250.0	.0	.0
1946	5000.0	5000.0	.0	.0
1947	5250.0	5250.0	.0	.0
1948	4000.0	4000.0	.0	.0
1949	5500.0	5500.0	.0	.0
1950	5500.0	5250.0	-4.5	-250.0
1951	4250.0	4250.0	.0	.0
1952	5500.0	5500.0	.0	.0
1953	6571.9	6571.9	.0	.0
1954	6837.0	6837.0	.0	.0
1955	5500.0	5500.0	.0	.0
1956	4500.0	4750.0	5.6	250.0
1957	7484.3	7484.3	.0	.0
1958	10788.4	10788.4	.0	.0
1959	7271.2	7271.2	.0	.0
1960	4500.0	4444.3	-1.2	-55.7
1961	4750.0	4750.0	.0	.0
1962	4750.0	5000.0	5.3	250.0
1963	8805.9	7517.6	-14.6	-1288.3
1964	7038.7	7038.7	.0	.0
1965	4250.0	4250.0	.0	.0
1966	6451.5	6451.5	.0	.0
1967	5500.0	5295.2	-3.7	-204.8
1968	7305.4	7305.4	.0	.0
1969	5250.0	5250.0	.0	.0
1970	7222.4	7222.4	.0	.0
1971	5250.0	5000.0	-4.8	-250.0
1972	7346.0	7346.0	.0	.0
1973	5500.0	5250.0	-4.5	-250.0
1974	6991.9	6991.9	.0	.0
1975	7183.4	7183.4	.0	.0
1976	8354.4	8354.4	.0	.0
1977	4000.0	4000.0	.0	.0
1978	5688.9	5611.5	-1.4	-77.4
1979	5500.0	5500.0	.0	.0
1980	5250.0	5250.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	4750.0	4750.0	.0	.0
1983	8094.2	8094.2	.0	.0
1984	7866.5	7866.5	.0	.0
1985	5896.2	5750.4	-2.5	-145.8
1986	4250.0	4250.0	.0	.0
1987	5250.0	5250.0	.0	.0
1988	4216.8	4562.1	8.2	345.3
1989	3921.0	3913.1	-.2	-7.9
1990	4500.0	4500.0	.0	.0
1991	4030.0	4130.0	2.5	100.0
Mean:	5430.0	5406.2	-.2	-23.8
Median:	5250.0	5250.0	.0	.0
Min:	3250.0	3250.0	-14.6	-1288.3
Max:	10788.4	10788.4	8.2	345.3
Rel Dif = 0.0			51	
Rel Dif > 0.0			5	
Rel Dif < 0.0			14	
Rel Dif: 0.0 < X <= 5.0			1	
5.0 < X <= 20.0			4	
X > 20.0			4	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			13	
X < -20.0			1	
X <= 3250.0	2	2		
3250.0 < X <= 4250.0	20	18		
4250.0 < X <= 5250.0	15	19		
5250.0 < X	33	31		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

November

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	5500.0	5500.0	.0	.0
1924	4076.8	4084.2	.2	7.4
1925	3250.0	3250.0	.0	.0
1926	4250.0	4500.0	5.9	250.0
1927	3500.0	3500.0	.0	.0
1928	8654.4	8654.4	.0	.0
1929	4750.0	4750.0	.0	.0
1930	3426.0	3413.1	-.4	-12.9
1931	3750.0	3750.0	.0	.0
1932	3250.0	3250.0	.0	.0
1933	3762.4	3770.0	.2	7.6
1934	3250.0	3250.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	4197.2	4204.3	.2	7.1
1937	4559.4	4559.4	.0	.0
1938	3250.0	3250.0	.0	.0
1939	5500.0	5500.0	.0	.0
1940	3490.7	3490.7	.0	.0
1941	5500.0	5500.0	.0	.0
1942	5500.0	5500.0	.0	.0
1943	5526.9	5526.9	.0	.0
1944	5500.0	5500.0	.0	.0
1945	4250.0	4250.0	.0	.0
1946	5000.0	5000.0	.0	.0
1947	5250.0	5250.0	.0	.0
1948	4000.0	4000.0	.0	.0
1949	5500.0	5500.0	.0	.0
1950	5500.0	5250.0	-4.5	-250.0
1951	4250.0	4250.0	.0	.0
1952	5500.0	5500.0	.0	.0
1953	5500.0	5500.0	.0	.0
1954	8121.7	8121.7	.0	.0
1955	6721.7	6103.8	-9.2	-617.9
1956	4500.0	4750.0	5.6	250.0
1957	5500.0	5500.0	.0	.0
1958	7844.4	7844.4	.0	.0
1959	5500.0	5500.0	.0	.0
1960	4500.0	4250.0	-5.6	-250.0
1961	4750.0	4750.0	.0	.0
1962	4750.0	5000.0	5.3	250.0
1963	5500.0	5500.0	.0	.0
1964	10388.8	10388.8	.0	.0
1965	4250.0	4250.0	.0	.0
1966	10741.7	10741.7	.0	.0
1967	5500.0	5250.0	-4.5	-250.0
1968	5500.0	5500.0	.0	.0
1969	5250.0	5250.0	.0	.0
1970	5500.0	5500.0	.0	.0
1971	5358.6	5134.1	-4.2	-224.5
1972	5500.0	5500.0	.0	.0
1973	5500.0	5250.0	-4.5	-250.0
1974	30616.5	30616.5	.0	.0
1975	5500.0	5500.0	.0	.0
1976	5651.3	5651.3	.0	.0
1977	4000.0	4000.0	.0	.0
1978	5120.0	5050.4	-1.4	-69.6
1979	5500.0	5500.0	.0	.0
1980	5250.0	5250.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	10052.1	9331.5	-7.2	-720.6
1983	6832.7	6832.7	.0	.0
1984	13827.2	13827.2	.0	.0
1985	12711.3	12711.3	.0	.0
1986	4250.0	4250.0	.0	.0
1987	5250.0	5250.0	.0	.0
1988	3795.1	4105.9	8.2	310.8
1989	3528.9	3521.8	-.2	-7.1
1990	4500.0	4500.0	.0	.0
1991	4301.6	4466.1	3.8	164.5
Mean:	5779.4	5759.3	-.2	-20.1
Median:	5250.0	5250.0	.0	.0
Min:	3250.0	3250.0	-9.2	-720.6
Max:	30616.5	30616.5	8.2	310.8
Rel Dif = 0.0			52	
Rel Dif > 0.0			8	
Rel Dif < 0.0			10	
Rel Dif: 0.0 < X <= 5.0			4	
5.0 < X <= 20.0			4	
X > 20.0			4	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			7	
X < -20.0			3	
X <= 3250.0	5	5		
3250.0 < X <= 4250.0	16	16		
4250.0 < X <= 5250.0	15	19		
5250.0 < X	34	30		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

December

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	5500.0	5500.0	.0	.0
1924	3669.1	3675.8	.2	6.7
1925	3250.0	3250.0	.0	.0
1926	4250.0	4500.0	5.9	250.0
1927	3500.0	3500.0	.0	.0
1928	5500.0	5500.0	.0	.0
1929	4750.0	4750.0	.0	.0
1930	3250.0	3250.0	.0	.0
1931	3750.0	3750.0	.0	.0
1932	3250.0	3250.0	.0	.0
1933	3386.1	3393.0	.2	6.9
1934	3250.0	3250.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	3777.5	3783.8	.2	6.3
1937	4103.5	4103.5	.0	.0
1938	8690.1	9369.4	7.8	679.3
1939	5500.0	5500.0	.0	.0
1940	3250.0	3322.2	2.2	72.2
1941	12651.1	11764.8	-7.0	-886.3
1942	19236.5	19236.5	.0	.0
1943	6431.6	6431.6	.0	.0
1944	5500.0	5500.0	.0	.0
1945	4250.0	4250.0	.0	.0
1946	18519.3	18709.0	1.0	189.7
1947	5250.0	5250.0	.0	.0
1948	4000.0	4000.0	.0	.0
1949	5500.0	5500.0	.0	.0
1950	5500.0	5250.0	-4.5	-250.0
1951	14653.3	14671.9	.1	18.6
1952	16032.9	15464.1	-3.5	-568.8
1953	8483.2	8483.2	.0	.0
1954	5500.0	5500.0	.0	.0
1955	7495.3	7495.3	.0	.0
1956	22531.5	22932.5	1.8	401.0
1957	5500.0	5500.0	.0	.0
1958	10863.4	10863.4	.0	.0
1959	5500.0	5500.0	.0	.0
1960	4776.6	4937.7	3.4	161.1
1961	4750.0	4750.0	.0	.0
1962	4750.0	5000.0	5.3	250.0
1963	9441.8	9389.6	-.6	-52.2
1964	5500.0	5500.0	.0	.0
1965	20297.7	20413.7	.6	116.0
1966	5500.0	5500.0	.0	.0
1967	15036.0	14254.1	-5.2	-781.9
1968	5500.0	5500.0	.0	.0
1969	5250.0	5250.0	.0	.0
1970	17159.7	17159.7	.0	.0
1971	15684.0	15684.0	.0	.0
1972	5500.0	5500.0	.0	.0
1973	5500.0	5250.0	-4.5	-250.0
1974	23144.4	23144.4	.0	.0
1975	5500.0	5500.0	.0	.0
1976	5500.0	5500.0	.0	.0
1977	5934.8	5207.8	-12.2	-727.0
1978	4608.0	4545.3	-1.4	-62.7
1979	5500.0	5500.0	.0	.0
1980	5250.0	5250.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	25323.7	25323.7	.0	.0
1983	15091.9	15091.9	.0	.0
1984	26982.6	26982.6	.0	.0
1985	6483.7	6483.7	.0	.0
1986	4250.0	4250.0	.0	.0
1987	5250.0	5250.0	.0	.0
1988	3750.0	3750.0	.0	.0
1989	3250.0	3250.0	.0	.0
1990	4500.0	4500.0	.0	.0
1991	5189.1	5493.7	5.9	304.6
Mean:	7852.5	7836.6	-.1	-15.9
Median:	5500.0	5500.0	.0	.0
Min:	3250.0	3250.0	-12.2	-886.3
Max:	26982.6	26982.6	7.8	679.3
Rel Dif = 0.0		49		
Rel Dif > 0.0		13		
Rel Dif < 0.0		8		
Rel Dif: 0.0 < X <= 5.0		9		
5.0 < X <= 20.0		4		
X > 20.0		4		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		5		
X < -20.0		3		
X <= 3250.0	7	6		
3250.0 < X <= 4250.0	11	11		
4250.0 < X <= 5250.0	12	15		
5250.0 < X	40	38		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

January

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	5000.0	5000.0	.0	.0
1924	3750.0	3750.0	.0	.0
1925	3250.0	3250.0	.0	.0
1926	3750.0	3750.0	.0	.0
1927	5500.0	5500.0	.0	.0
1928	5500.0	5500.0	.0	.0
1929	4000.0	4000.0	.0	.0
1930	3750.0	3750.0	.0	.0
1931	3750.0	3750.0	.0	.0
1932	3250.0	3250.0	.0	.0
1933	3250.0	3250.0	.0	.0
1934	3250.0	3500.0	7.7	250.0
1935	3250.0	3250.0	.0	.0
1936	3500.0	3500.0	.0	.0
1937	3500.0	3500.0	.0	.0
1938	5500.0	5500.0	.0	.0
1939	5500.0	5500.0	.0	.0
1940	3750.0	3750.0	.0	.0
1941	25724.4	25618.7	-.4	-105.7
1942	20301.6	20301.6	.0	.0
1943	12911.2	12911.2	.0	.0
1944	5000.0	5000.0	.0	.0
1945	4500.0	4750.0	5.6	250.0
1946	7276.2	7276.2	.0	.0
1947	4500.0	4500.0	.0	.0
1948	3750.0	3750.0	.0	.0
1949	5000.0	5000.0	.0	.0
1950	4400.0	4200.0	-4.5	-200.0
1951	8040.4	8051.6	.1	11.2
1952	8097.6	8097.6	.0	.0
1953	31096.6	31096.6	.0	.0
1954	13353.5	13353.5	.0	.0
1955	5500.0	5500.0	.0	.0
1956	32723.6	32723.6	.0	.0
1957	5250.0	5250.0	.0	.0
1958	13883.9	13883.9	.0	.0
1959	9813.3	9813.3	.0	.0
1960	3821.3	3950.1	3.4	128.8
1961	5250.0	5000.0	-4.8	-250.0
1962	5000.0	5000.0	.0	.0
1963	5500.0	5500.0	.0	.0
1964	5500.0	5500.0	.0	.0
1965	23567.8	23567.8	.0	.0
1966	5948.9	5948.9	.0	.0
1967	10047.4	10047.4	.0	.0
1968	5250.0	5250.0	.0	.0
1969	20952.9	19765.7	-5.7	-1187.2
1970	52792.2	52792.2	.0	.0
1971	16090.6	16234.6	.9	144.0
1972	5500.0	5500.0	.0	.0
1973	14471.9	13781.8	-4.8	-690.1
1974	38513.3	38513.3	.0	.0
1975	5500.0	5500.0	.0	.0
1976	5500.0	5500.0	.0	.0
1977	6276.2	6114.9	-2.6	-161.3
1978	3686.4	3636.3	-1.4	-50.1
1979	5000.0	5000.0	.0	.0
1980	11919.7	12397.7	4.0	478.0
1981	5250.0	5250.0	.0	.0
1982	7744.9	7744.9	.0	.0
1983	21777.7	21777.7	.0	.0
1984	7575.7	7575.7	.0	.0
1985	5500.0	5500.0	.0	.0
1986	4000.0	4250.0	6.3	250.0
1987	4250.0	4250.0	.0	.0
1988	4500.0	4250.0	-5.6	-250.0
1989	3750.0	3750.0	.0	.0
1990	4000.0	4000.0	.0	.0
1991	5724.4	5592.7	-2.3	-131.7
Mean:	8982.6	8961.0	-.1	-21.6
Median:	5500.0	5500.0	.0	.0
Min:	3250.0	3250.0	-5.7	-1187.2
Max:	52792.2	52792.2	7.7	478.0
Rel Dif = 0.0			54	
Rel Dif > 0.0			7	
Rel Dif < 0.0			9	
Rel Dif: 0.0 < X <= 5.0			4	
5.0 < X <= 20.0			3	
X > 20.0			3	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			7	
X < -20.0			2	
X <= 3250.0	5	4		
3250.0 < X <= 4250.0	15	18		
4250.0 < X <= 5250.0	14	12		
5250.0 < X	36	36		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

February

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4250.0	4250.0	.0	.0
1923	5725.6	5805.2	1.4	79.6
1924	3750.0	3750.0	.0	.0
1925	3250.0	3250.0	.0	.0
1926	3750.0	3750.0	.0	.0
1927	28937.0	29065.6	.4	128.6
1928	5500.0	5500.0	.0	.0
1929	3750.0	3750.0	.0	.0
1930	3750.0	4000.0	6.7	250.0
1931	3750.0	3750.0	.0	.0
1932	3250.0	3250.0	.0	.0
1933	3250.0	3250.0	.0	.0
1934	3500.0	3500.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	3750.0	3750.0	.0	.0
1937	3500.0	3500.0	.0	.0
1938	28514.8	28514.8	.0	.0
1939	5250.0	5250.0	.0	.0
1940	31283.1	30507.7	-2.5	-775.4
1941	24948.8	24948.8	.0	.0
1942	29209.6	29209.6	.0	.0
1943	8130.4	8130.4	.0	.0
1944	4750.0	4750.0	.0	.0
1945	4750.0	4750.0	.0	.0
1946	6224.0	6311.3	1.4	87.3
1947	4250.0	4250.0	.0	.0
1948	4750.0	4750.0	.0	.0
1949	4750.0	4750.0	.0	.0
1950	4250.0	4250.0	.0	.0
1951	17662.0	17662.0	.0	.0
1952	20708.8	20708.8	.0	.0
1953	5500.0	5500.0	.0	.0
1954	20160.1	20160.1	.0	.0
1955	5500.0	5500.0	.0	.0
1956	23180.8	23180.8	.0	.0
1957	5893.1	5893.1	.0	.0
1958	53810.3	53810.3	.0	.0
1959	13781.7	13781.7	.0	.0
1960	4000.0	4000.0	.0	.0
1961	5250.0	5000.0	-4.8	-250.0
1962	12610.9	13431.9	6.5	821.0
1963	10363.7	10363.7	.0	.0
1964	5500.0	5500.0	.0	.0
1965	5500.0	5500.0	.0	.0
1966	5920.4	5920.4	.0	.0
1967	8000.7	8000.7	.0	.0
1968	16809.4	16809.4	.0	.0
1969	21419.0	21419.0	.0	.0
1970	14197.6	14197.6	.0	.0
1971	5500.0	5500.0	.0	.0
1972	5500.0	5500.0	.0	.0
1973	19803.6	19803.6	.0	.0
1974	5506.1	5506.1	.0	.0
1975	5250.0	5250.0	.0	.0
1976	5000.0	5000.0	.0	.0
1977	8747.4	8659.2	-1.0	-88.2
1978	6647.5	7955.2	19.7	1307.7
1979	4750.0	4750.0	.0	.0
1980	33643.7	33643.7	.0	.0
1981	5500.0	5500.0	.0	.0
1982	26213.1	26213.1	.0	.0
1983	36778.2	36778.2	.0	.0
1984	5500.0	5500.0	.0	.0
1985	5500.0	5500.0	.0	.0
1986	46112.1	46329.5	.5	217.4
1987	4250.0	4250.0	.0	.0
1988	5250.0	5000.0	-4.8	-250.0
1989	3750.0	3750.0	.0	.0
1990	4250.0	4250.0	.0	.0
1991	7234.5	7195.1	-.5	-39.4
Mean:	11063.3	11084.5	.3	21.3
Median:	5500.0	5500.0	.0	.0
Min:	3250.0	3250.0	-4.8	-775.4
Max:	53810.3	53810.3	19.7	1307.7
Rel Dif = 0.0			58	
Rel Dif > 0.0			7	
Rel Dif < 0.0			5	
Rel Dif: 0.0 < X <= 5.0			4	
5.0 < X <= 20.0			3	
X > 20.0			3	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			5	
X < -20.0			0	
X <= 3250.0	4	4		
3250.0 < X <= 4250.0	15	15		
4250.0 < X <= 5250.0	10	10		
5250.0 < X	41	41		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

March

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	5153.1	5224.7	1.4	71.6
1924	4521.0	4529.7	.2	8.7
1925	6503.1	6434.0	-1.1	-69.1
1926	5000.0	5000.0	.0	.0
1927	5500.0	5500.0	.0	.0
1928	14919.8	14919.8	.0	.0
1929	3750.0	3750.0	.0	.0
1930	4000.0	4000.0	.0	.0
1931	4409.6	4533.3	2.8	123.7
1932	3250.0	3250.0	.0	.0
1933	3250.0	3250.0	.0	.0
1934	3500.0	3500.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	5000.0	5000.0	.0	.0
1937	3250.0	3250.0	.0	.0
1938	33907.0	33907.0	.0	.0
1939	5000.0	5000.0	.0	.0
1940	20738.0	20738.0	.0	.0
1941	15300.5	15300.5	.0	.0
1942	5500.0	5500.0	.0	.0
1943	12427.7	12427.7	.0	.0
1944	5000.0	5000.0	.0	.0
1945	5500.0	5500.0	.0	.0
1946	5601.6	5680.2	1.4	78.6
1947	4000.0	4250.0	6.3	250.0
1948	4275.0	4275.0	.0	.0
1949	4500.0	4500.0	.0	.0
1950	5000.0	5000.0	.0	.0
1951	5500.0	5500.0	.0	.0
1952	11890.9	11890.9	.0	.0
1953	5500.0	5500.0	.0	.0
1954	11021.9	11021.9	.0	.0
1955	5250.0	5250.0	.0	.0
1956	5000.0	5000.0	.0	.0
1957	10610.2	10610.2	.0	.0
1958	21914.4	21914.4	.0	.0
1959	5573.8	5500.0	-1.3	-73.8
1960	5500.0	5500.0	.0	.0
1961	5500.0	5500.0	.0	.0
1962	6617.8	6538.4	-1.2	-79.4
1963	6237.6	6237.6	.0	.0
1964	5500.0	5500.0	.0	.0
1965	5500.0	5500.0	.0	.0
1966	13035.9	13035.9	.0	.0
1967	15939.6	15939.6	.0	.0
1968	5500.0	5500.0	.0	.0
1969	5821.2	5821.2	.0	.0
1970	5500.0	5500.0	.0	.0
1971	18383.6	18383.6	.0	.0
1972	12329.0	12329.0	.0	.0
1973	7424.8	7424.8	.0	.0
1974	37528.8	37528.8	.0	.0
1975	27885.1	27885.1	.0	.0
1976	5000.0	5000.0	.0	.0
1977	7872.5	7668.7	-2.6	-203.8
1978	16407.5	16407.5	.0	.0
1979	5250.0	5250.0	.0	.0
1980	5000.0	5000.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	13564.1	13564.1	.0	.0
1983	45943.3	45943.3	.0	.0
1984	5500.0	5500.0	.0	.0
1985	5250.0	5250.0	.0	.0
1986	23093.1	23093.1	.0	.0
1987	4500.0	4500.0	.0	.0
1988	5906.2	5847.1	-1.0	-59.1
1989	5747.4	6087.1	5.9	339.7
1990	3825.0	3825.0	.0	.0
1991	3250.0	3250.0	.0	.0
Mean:	9069.0	9074.5	.2	5.5
Median:	5500.0	5500.0	.0	.0
Min:	3250.0	3250.0	-2.6	-203.8
Max:	45943.3	45943.3	6.3	339.7
Rel Dif = 0.0			59	
Rel Dif > 0.0			6	
Rel Dif < 0.0			5	
Rel Dif: 0.0 < X <= 5.0			4	
5.0 < X <= 20.0			2	
X > 20.0			2	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			5	
X < -20.0			0	
X <= 3250.0	5	5		
3250.0 < X <= 4250.0	5	5		
4250.0 < X <= 5250.0	18	18		
5250.0 < X	42	42		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

April

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	4637.8	4702.2	1.4	64.4
1924	7018.8	7018.8	.0	.0
1925	3750.0	3750.0	.0	.0
1926	4500.0	4500.0	.0	.0
1927	8670.6	8497.9	-2.0	-172.7
1928	5500.0	5500.0	.0	.0
1929	5881.9	6188.9	5.2	307.0
1930	4500.0	4500.0	.0	.0
1931	8777.7	8763.4	-.2	-14.3
1932	4705.9	4411.0	-6.3	-294.9
1933	6458.4	6593.6	2.1	135.2
1934	5407.5	5876.4	8.7	468.9
1935	3500.0	3500.0	.0	.0
1936	4500.0	4500.0	.0	.0
1937	3750.0	3750.0	.0	.0
1938	12570.3	12570.3	.0	.0
1939	7845.3	8273.8	5.5	428.5
1940	4500.0	4500.0	.0	.0
1941	15750.7	15750.7	.0	.0
1942	5250.0	5250.0	.0	.0
1943	5500.0	5500.0	.0	.0
1944	5336.0	5008.0	-6.1	-328.0
1945	5500.0	5500.0	.0	.0
1946	6618.2	6618.2	.0	.0
1947	4750.0	4750.0	.0	.0
1948	4250.0	4250.0	.0	.0
1949	5500.0	5500.0	.0	.0
1950	4750.0	4750.0	.0	.0
1951	6988.1	6988.1	.0	.0
1952	20034.3	20034.3	.0	.0
1953	5500.0	5500.0	.0	.0
1954	12705.2	12705.2	.0	.0
1955	4725.0	4725.0	.0	.0
1956	5500.0	5500.0	.0	.0
1957	7769.3	7703.2	-.9	-66.1
1958	13235.3	13235.3	.0	.0
1959	8035.6	7961.2	-.9	-74.4
1960	6178.9	6089.2	-1.5	-89.7
1961	8052.5	7126.6	-11.5	-925.9
1962	5500.0	5500.0	.0	.0
1963	30719.2	30719.2	.0	.0
1964	8418.2	8113.0	-3.6	-305.2
1965	5250.0	5250.0	.0	.0
1966	8465.8	8465.8	.0	.0
1967	10203.3	10203.3	.0	.0
1968	6574.3	6574.3	.0	.0
1969	12736.1	12501.5	-1.8	-234.6
1970	6691.0	6691.0	.0	.0
1971	5500.0	5500.0	.0	.0
1972	7561.3	7561.3	.0	.0
1973	5500.0	5500.0	.0	.0
1974	7121.4	7121.4	.0	.0
1975	5500.0	5500.0	.0	.0
1976	5896.9	5820.9	-1.3	-76.0
1977	8064.4	7998.3	-.8	-66.1
1978	5786.7	5786.7	.0	.0
1979	5250.0	5250.0	.0	.0
1980	5500.0	5500.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	25438.8	25438.8	.0	.0
1983	10274.1	10274.1	.0	.0
1984	8386.0	8386.0	.0	.0
1985	4725.0	4725.0	.0	.0
1986	4750.0	4750.0	.0	.0
1987	8051.4	8048.6	.0	-2.8
1988	4250.0	4000.0	-5.9	-250.0
1989	5500.0	5500.0	.0	.0
1990	5706.0	6491.5	13.8	785.5
1991	3500.0	3500.0	.0	.0
Mean:	7360.3	7350.2	-.1	-10.2
Median:	5500.0	5500.0	.0	.0
Min:	3500.0	3500.0	-11.5	-925.9
Max:	30719.2	30719.2	13.8	785.5
Rel Dif = 0.0			51	
Rel Dif > 0.0			6	
Rel Dif < 0.0			13	
Rel Dif: 0.0 < X <= 5.0			2	
5.0 < X <= 20.0			4	
X > 20.0			4	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			9	
X < -20.0			4	
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	6	6		
4250.0 < X <= 5250.0	15	16		
5250.0 < X	49	48		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

May

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	5837.3	5837.3	.0	.0
1923	9992.6	9939.9	-.5	-52.7
1924	8253.5	8253.5	.0	.0
1925	3893.2	3536.0	-9.2	-357.2
1926	6108.2	6108.2	.0	.0
1927	9711.6	9711.6	.0	.0
1928	8557.9	8557.9	.0	.0
1929	8496.1	8720.5	2.6	224.4
1930	5848.0	5848.0	.0	.0
1931	8030.7	8030.7	.0	.0
1932	4978.6	4683.0	-5.9	-295.6
1933	6282.6	6282.6	.0	.0
1934	6967.6	6967.6	.0	.0
1935	6774.6	6311.7	-6.8	-462.9
1936	8513.1	8513.1	.0	.0
1937	7769.3	7711.5	-.7	-57.8
1938	11296.6	11296.6	.0	.0
1939	9374.7	9445.0	.7	70.3
1940	6764.0	6764.0	.0	.0
1941	14602.0	14602.0	.0	.0
1942	9788.4	9788.4	.0	.0
1943	7173.0	7173.0	.0	.0
1944	7094.6	6912.6	-2.6	-182.0
1945	7528.6	7528.6	.0	.0
1946	9372.4	9372.4	.0	.0
1947	9707.1	9403.7	-3.1	-303.4
1948	7444.1	7639.6	2.6	195.5
1949	8179.3	8179.3	.0	.0
1950	10151.9	10151.9	.0	.0
1951	6057.0	6057.0	.0	.0
1952	12173.8	12173.8	.0	.0
1953	6727.7	6727.7	.0	.0
1954	9813.9	9724.7	-.9	-89.2
1955	5562.0	5256.3	-5.5	-305.7
1956	11921.2	11921.2	.0	.0
1957	7301.8	7365.7	.9	63.9
1958	10170.8	10170.8	.0	.0
1959	9302.7	9579.5	3.0	276.8
1960	5986.8	5828.6	-2.6	-158.2
1961	9613.8	9883.0	2.8	269.2
1962	8354.0	8354.0	.0	.0
1963	7299.5	7299.5	.0	.0
1964	7092.8	6788.4	-4.3	-304.4
1965	7422.9	7422.9	.0	.0
1966	11469.7	11548.4	.7	78.7
1967	15888.2	15888.2	.0	.0
1968	8468.9	8468.9	.0	.0
1969	14765.3	14765.3	.0	.0
1970	8268.0	8268.0	.0	.0
1971	10789.7	10789.7	.0	.0
1972	10790.3	11117.4	3.0	327.1
1973	7814.0	7814.0	.0	.0
1974	9355.4	9355.4	.0	.0
1975	11401.1	11401.1	.0	.0
1976	9107.0	9672.9	6.2	565.9
1977	5349.9	5249.9	-1.9	-100.0
1978	9168.6	9168.6	.0	.0
1979	7141.1	7141.1	.0	.0
1980	6905.9	6905.9	.0	.0
1981	9752.2	10037.4	2.9	285.2
1982	4814.0	4814.0	.0	.0
1983	13019.8	13019.8	.0	.0
1984	9647.2	9975.8	3.4	328.6
1985	8696.5	8771.7	.9	75.2
1986	8860.6	8860.6	.0	.0
1987	9630.9	10483.3	8.9	852.4
1988	8805.3	8842.3	.4	37.0
1989	8567.1	9127.8	6.5	560.7
1990	7811.8	8063.1	3.2	251.3
1991	5746.4	5444.8	-5.2	-301.6
Mean:	8590.4	8611.7	.0	21.3
Median:	8468.9	8468.9	.0	.0
Min:	3893.2	3536.0	-9.2	-462.9
Max:	15888.2	15888.2	8.9	852.4
Rel Dif = 0.0			41	
Rel Dif > 0.0			16	
Rel Dif < 0.0			13	
Rel Dif: 0.0 < X <= 5.0			13	
5.0 < X <= 20.0			3	
X > 20.0			3	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			8	
X < -20.0			5	
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	1	1		
4250.0 < X <= 5250.0	2	3		
5250.0 < X	67	66		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

June

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	10124.5	10124.5	.0	.0
1923	10773.3	10715.7	-.5	-57.6
1924	9714.6	9745.2	.3	30.6
1925	8887.1	8540.1	-3.9	-347.0
1926	10504.2	10851.2	3.3	347.0
1927	10250.9	10250.9	.0	.0
1928	11658.3	12072.0	3.5	413.7
1929	7878.0	7538.4	-4.3	-339.6
1930	9392.3	9470.9	.8	78.6
1931	8331.8	8331.8	.0	.0
1932	6842.5	6531.4	-4.5	-311.1
1933	7001.3	7001.3	.0	.0
1934	9471.5	9552.6	.9	81.1
1935	11480.5	11408.5	-.6	-72.0
1936	9366.9	9366.9	.0	.0
1937	9935.6	9876.4	-.6	-59.2
1938	12980.5	12980.5	.0	.0
1939	11452.3	11885.1	3.8	432.8
1940	11368.7	11368.7	.0	.0
1941	13431.0	13431.0	.0	.0
1942	12889.7	12889.7	.0	.0
1943	10085.6	10085.6	.0	.0
1944	10975.1	11253.9	2.5	278.8
1945	10453.6	10453.6	.0	.0
1946	11717.9	11717.9	.0	.0
1947	9674.4	9757.5	.9	83.1
1948	10954.5	10954.5	.0	.0
1949	14248.4	14328.3	.6	79.9
1950	11497.9	11497.9	.0	.0
1951	11916.9	11916.9	.0	.0
1952	11274.7	11274.7	.0	.0
1953	14511.5	14511.5	.0	.0
1954	11257.9	11595.2	3.0	337.3
1955	14460.8	12787.0	-11.6	-1673.8
1956	10960.5	10960.5	.0	.0
1957	10054.0	10379.2	3.2	325.2
1958	14456.2	14456.2	.0	.0
1959	14582.7	14691.1	.7	108.4
1960	14306.0	14113.3	-1.3	-192.7
1961	13834.2	13009.0	-6.0	-825.2
1962	11042.2	11042.2	.0	.0
1963	8852.6	8852.6	.0	.0
1964	8679.6	8372.8	-3.5	-306.8
1965	9746.2	9746.2	.0	.0
1966	13308.6	13730.5	3.2	421.9
1967	14513.2	14513.2	.0	.0
1968	12848.0	13498.7	5.1	650.7
1969	11676.4	11676.4	.0	.0
1970	10309.6	10309.6	.0	.0
1971	12644.4	12644.4	.0	.0
1972	11731.6	11804.1	.6	72.5
1973	11499.8	11666.1	1.4	166.3
1974	12758.8	12758.8	.0	.0
1975	13548.7	13548.7	.0	.0
1976	10749.3	10561.7	-1.7	-187.6
1977	9591.9	9620.7	.3	28.8
1978	9861.7	9861.7	.0	.0
1979	12888.3	12775.4	-.9	-112.9
1980	9621.6	9621.6	.0	.0
1981	11605.6	12155.8	4.7	550.2
1982	10006.2	10006.2	.0	.0
1983	15007.4	15007.4	.0	.0
1984	11628.1	11693.9	.6	65.8
1985	10510.8	10713.2	1.9	202.4
1986	11827.1	11827.1	.0	.0
1987	12594.2	12566.8	-.2	-27.4
1988	12397.0	11663.0	-5.9	-734.0
1989	10776.9	10853.0	.7	76.1
1990	9691.7	9657.8	-.3	-33.9
1991	6814.4	6500.6	-4.6	-313.8
Mean:	11195.6	11184.7	-.1	-10.9
Median:	11042.2	11253.9	.0	.0
Min:	6814.4	6500.6	-11.6	-1673.8
Max:	15007.4	15007.4	5.1	650.7
Rel Dif = 0.0		33		
Rel Dif > 0.0		21		
Rel Dif < 0.0		16		
Rel Dif: 0.0 < X <= 5.0		20		
5.0 < X <= 20.0		1		
X > 20.0		1		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		13		
X < -20.0		3		
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	0	0		
5250.0 < X	70	70		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

July

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	11802.1	11802.1	.0	.0
1923	11339.8	11282.3	-.5	-57.5
1924	9977.8	10130.7	1.5	152.9
1925	10352.2	9925.5	-4.1	-426.7
1926	10296.1	10660.3	3.5	364.2
1927	14430.4	14430.4	.0	.0
1928	17249.5	15950.8	-7.5	-1298.7
1929	10336.1	10378.6	.4	42.5
1930	9973.0	10377.2	4.1	404.2
1931	10619.9	10724.4	1.0	104.5
1932	8920.9	8610.1	-3.5	-310.8
1933	8370.4	8590.6	2.6	220.2
1934	9772.8	9946.5	1.8	173.7
1935	12297.8	12228.8	-.6	-69.0
1936	12367.1	12367.1	.0	.0
1937	12417.3	12353.4	-.5	-63.9
1938	14994.9	14994.9	.0	.0
1939	10535.3	10587.2	.5	51.9
1940	13235.8	13801.2	4.3	565.4
1941	14994.9	14994.9	.0	.0
1942	14994.9	14994.9	.0	.0
1943	12695.3	12998.2	2.4	302.9
1944	11532.1	11504.7	-.2	-27.4
1945	15022.2	14901.0	-.8	-121.2
1946	14225.9	14151.1	-.5	-74.8
1947	11455.8	11950.9	4.3	495.1
1948	13319.1	13319.1	.0	.0
1949	12891.4	13795.3	7.0	903.9
1950	12999.8	12999.8	.0	.0
1951	13311.8	13879.0	4.3	567.2
1952	14994.9	14994.9	.0	.0
1953	14994.9	14994.9	.0	.0
1954	15889.2	16035.3	.9	146.1
1955	11685.8	11611.7	-.6	-74.1
1956	14994.9	14994.9	.0	.0
1957	13946.3	13946.3	.0	.0
1958	14994.9	14994.9	.0	.0
1959	16722.0	16856.0	.8	134.0
1960	14374.1	14036.2	-2.4	-337.9
1961	14963.6	14578.7	-2.6	-384.9
1962	12179.7	12915.5	6.0	735.8
1963	14682.5	14682.5	.0	.0
1964	10244.2	10891.5	6.3	647.3
1965	12326.2	12326.2	.0	.0
1966	14435.8	14560.3	.9	124.5
1967	14994.9	14994.9	.0	.0
1968	15549.4	16249.6	4.5	700.2
1969	14994.9	14994.9	.0	.0
1970	16318.5	16573.4	1.6	254.9
1971	14994.9	14994.9	.0	.0
1972	16296.1	16243.2	-.3	-52.9
1973	13892.2	14137.9	1.8	245.7
1974	14994.9	14994.9	.0	.0
1975	14994.9	14994.9	.0	.0
1976	11190.6	11231.9	.4	41.3
1977	9628.5	9687.8	.6	59.3
1978	11334.5	11334.5	.0	.0
1979	13830.0	13115.9	-5.2	-714.1
1980	10637.8	10637.8	.0	.0
1981	11754.8	11745.5	-.1	-9.3
1982	14994.9	14994.9	.0	.0
1983	14994.9	14994.9	.0	.0
1984	14035.4	14477.9	3.2	442.5
1985	10084.7	10120.6	.4	35.9
1986	12364.8	12364.8	.0	.0
1987	10416.6	11141.2	7.0	724.6
1988	12410.2	12218.9	-1.5	-191.3
1989	12478.5	12014.1	-3.7	-464.4
1990	12774.6	11648.9	-8.8	-1125.7
1991	7113.5	6799.5	-4.4	-314.0
Mean:	12931.9	12968.0	.3	36.0
Median:	12891.4	12999.8	.0	.0
Min:	7113.5	6799.5	-8.8	-1298.7
Max:	17249.5	16856.0	7.0	903.9
Rel Dif = 0.0		25		
Rel Dif > 0.0		26		
Rel Dif < 0.0		19		
Rel Dif: 0.0 < X <= 5.0		22		
5.0 < X <= 20.0		4		
X > 20.0		4		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		16		
X < -20.0		3		
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	0	0		
5250.0 < X	70	70		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

August

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	11433.8	11433.8	.0	.0
1923	11235.5	11184.0	-.5	-51.5
1924	7961.3	7961.3	.0	.0
1925	9869.6	9463.8	-4.1	-405.8
1926	8970.0	8970.0	.0	.0
1927	13499.2	13499.2	.0	.0
1928	13206.5	13949.5	5.6	743.0
1929	10056.8	9699.6	-3.6	-357.2
1930	9540.6	9540.6	.0	.0
1931	9000.5	9000.5	.0	.0
1932	8716.7	8412.4	-3.5	-304.3
1933	8428.1	8428.1	.0	.0
1934	8525.1	8525.1	.0	.0
1935	12068.6	12007.0	-.5	-61.6
1936	12107.1	12107.1	.0	.0
1937	12316.5	12259.4	-.5	-57.1
1938	14948.4	14948.4	.0	.0
1939	10138.9	10138.9	.0	.0
1940	12485.8	12618.0	1.1	132.2
1941	14994.9	14994.9	.0	.0
1942	14994.9	14994.9	.0	.0
1943	13360.7	13360.7	.0	.0
1944	11072.2	10659.5	-3.7	-412.7
1945	12537.1	12537.1	.0	.0
1946	12464.5	12464.5	.0	.0
1947	10144.7	9836.6	-3.0	-308.1
1948	12905.3	12905.3	.0	.0
1949	11841.2	11841.2	.0	.0
1950	12323.7	12323.7	.0	.0
1951	11956.0	11956.0	.0	.0
1952	14975.7	14975.7	.0	.0
1953	14994.9	14994.9	.0	.0
1954	11186.2	10892.9	-2.6	-293.3
1955	10175.5	10817.4	6.3	641.9
1956	14642.0	14642.0	.0	.0
1957	13214.3	13214.3	.0	.0
1958	14994.9	14994.9	.0	.0
1959	10689.2	11687.0	9.3	997.8
1960	11689.8	11806.9	1.0	117.1
1961	12186.0	12513.0	2.7	327.0
1962	11474.1	12176.4	6.1	702.3
1963	13993.7	13993.7	.0	.0
1964	9626.7	9695.8	.7	69.1
1965	13214.3	13214.3	.0	.0
1966	10615.9	11548.9	8.8	933.0
1967	14994.9	14994.9	.0	.0
1968	8975.1	8975.1	.0	.0
1969	14571.9	14571.9	.0	.0
1970	10772.8	10987.7	2.0	214.9
1971	14994.9	14994.9	.0	.0
1972	11929.2	13109.4	9.9	1180.2
1973	12556.9	12151.8	-3.2	-405.1
1974	14994.9	14994.9	.0	.0
1975	14994.9	14994.9	.0	.0
1976	11770.9	11291.5	-4.1	-479.4
1977	8984.0	9024.9	.5	40.9
1978	13279.3	13279.3	.0	.0
1979	9784.1	9784.1	.0	.0
1980	12351.0	12351.0	.0	.0
1981	11528.9	11776.4	2.1	247.5
1982	14805.8	14805.8	.0	.0
1983	14994.9	14994.9	.0	.0
1984	12663.2	11978.5	-5.4	-684.7
1985	10669.8	9916.2	-7.1	-753.6
1986	11471.3	11471.3	.0	.0
1987	8193.0	8044.9	-1.8	-148.1
1988	10685.7	10691.6	.1	5.9
1989	9543.1	9687.7	1.5	144.6
1990	10700.8	10586.0	-1.1	-114.8
1991	7146.0	6838.5	-4.3	-307.5
Mean:	11830.5	11849.8	.1	19.3
Median:	11841.2	11956.0	.0	.0
Min:	7146.0	6838.5	-7.1	-753.6
Max:	14994.9	14994.9	9.9	1180.2
Rel Dif = 0.0		39		
Rel Dif > 0.0		15		
Rel Dif < 0.0		16		
Rel Dif: 0.0 < X <= 5.0		9		
5.0 < X <= 20.0		6		
X > 20.0		6		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		14		
X < -20.0		2		
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	0	0		
5250.0 < X	70	70		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

September

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	6154.5	6154.5	.0	.0
1923	6000.0	6000.0	.0	.0
1924	4500.0	4500.0	.0	.0
1925	6000.0	6000.0	.0	.0
1926	6000.0	6000.0	.0	.0
1927	6511.9	6511.9	.0	.0
1928	7415.4	7165.3	-3.4	-250.1
1929	6000.0	6000.0	.0	.0
1930	6000.0	6000.0	.0	.0
1931	4570.1	4570.1	.0	.0
1932	4638.5	4621.3	-.4	-17.2
1933	4634.1	4634.1	.0	.0
1934	4898.0	4898.0	.0	.0
1935	6167.6	6150.0	-.3	-17.6
1936	6000.0	6000.0	.0	.0
1937	6537.0	6518.8	-.3	-18.2
1938	6948.9	6948.9	.0	.0
1939	6000.0	6000.0	.0	.0
1940	6229.4	6218.4	-.2	-11.0
1941	8560.9	8560.9	.0	.0
1942	7412.6	7412.6	.0	.0
1943	6716.1	6716.1	.0	.0
1944	6280.2	6000.0	-4.5	-280.2
1945	6596.2	6596.2	.0	.0
1946	6000.0	6000.0	.0	.0
1947	6000.0	6000.0	.0	.0
1948	6000.0	6000.0	.0	.0
1949	6000.0	6034.0	.6	34.0
1950	6000.0	6000.0	.0	.0
1951	6000.0	6005.8	.1	5.8
1952	7051.4	7051.4	.0	.0
1953	7186.3	7186.3	.0	.0
1954	6137.3	6664.8	8.6	527.5
1955	6000.0	6000.0	.0	.0
1956	7101.8	7101.8	.0	.0
1957	7258.5	6935.7	-4.4	-322.8
1958	9356.8	9356.8	.0	.0
1959	6000.0	6000.0	.0	.0
1960	6442.9	6381.4	-1.0	-61.5
1961	6089.4	6080.6	-.1	-8.8
1962	6756.6	6582.8	-2.6	-173.8
1963	6975.8	6975.8	.0	.0
1964	6000.0	6000.0	.0	.0
1965	6759.6	6759.6	.0	.0
1966	6817.4	6501.3	-4.6	-316.1
1967	7914.5	7914.5	.0	.0
1968	6000.0	6100.5	1.7	100.5
1969	7614.4	7614.4	.0	.0
1970	6160.8	6011.8	-2.4	-149.0
1971	7059.8	7059.8	.0	.0
1972	7060.6	6975.1	-1.2	-85.5
1973	6000.0	6000.0	.0	.0
1974	9292.3	9292.3	.0	.0
1975	7965.7	7965.7	.0	.0
1976	6000.0	6000.0	.0	.0
1977	4500.0	4500.0	.0	.0
1978	6000.0	6000.0	.0	.0
1979	6000.0	6000.0	.0	.0
1980	6000.0	6000.0	.0	.0
1981	6016.2	6000.0	-.3	-16.2
1982	7110.2	7110.2	.0	.0
1983	13720.8	13720.8	.0	.0
1984	6000.0	6000.0	.0	.0
1985	6000.0	6000.0	.0	.0
1986	6000.0	6000.0	.0	.0
1987	6000.0	6000.0	.0	.0
1988	6000.0	6000.0	.0	.0
1989	6000.0	6000.0	.0	.0
1990	6000.0	6000.0	.0	.0
1991	4500.0	4500.0	.0	.0
Mean:	6451.7	6436.6	-.2	-15.1
Median:	6000.0	6000.0	.0	.0
Min:	4500.0	4500.0	-4.6	-322.8
Max:	13720.8	13720.8	8.6	527.5
Rel Dif = 0.0			52	
Rel Dif > 0.0			4	
Rel Dif < 0.0			14	
Rel Dif:0.0 < X <= 5.0			3	
5.0 < X <= 20.0			1	
X > 20.0			1	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			14	
X < -20.0			0	
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	7	7		
5250.0 < X	63	63		

RETURN TO TABLE OF CONTENTS

Section 18

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

January

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	45.0	45.0	.0	.0
1923.	43.8	43.8	.0	.0
1924.	45.8	45.8	.0	.0
1925.	43.4	43.4	.0	.0
1926.	45.5	45.5	.0	.0
1927.	46.0	46.0	.0	.0
1928.	45.5	45.5	.0	.0
1929.	43.6	43.6	.0	.0
1930.	45.1	45.1	.0	.0
1931.	47.4	47.4	.0	.0
1932.	43.1	43.0	-.2	-.1
1933.	41.8	41.5	-.7	-.3
1934.	48.6	48.5	-.2	-.1
1935.	44.7	44.7	.0	.0
1936.	47.5	47.5	.0	.0
1937.	40.3	40.3	.0	.0
1938.	48.3	48.3	.0	.0
1939.	48.2	48.2	.0	.0
1940.	46.6	46.5	-.2	-.1
1941.	47.3	47.3	.0	.0
1942.	46.1	46.1	.0	.0
1943.	45.9	45.9	.0	.0
1944.	46.6	46.6	.0	.0
1945.	46.5	46.5	.0	.0
1946.	45.0	45.0	.0	.0
1947.	45.0	45.0	.0	.0
1948.	47.2	47.3	.2	.1
1949.	41.4	41.5	.2	.1
1950.	40.7	40.6	-.2	-.1
1951.	44.5	44.5	.0	.0
1952.	42.9	42.9	.0	.0
1953.	47.8	47.8	.0	.0
1954.	46.6	46.6	.0	.0
1955.	44.6	44.6	.0	.0
1956.	45.5	45.5	.0	.0
1957.	46.4	46.4	.0	.0
1958.	46.2	46.2	.0	.0
1959.	49.3	49.3	.0	.0
1960.	46.2	46.1	-.2	-.1
1961.	46.4	46.4	.0	.0
1962.	48.1	48.1	.0	.0
1963.	47.0	47.0	.0	.0
1964.	45.1	45.1	.0	.0
1965.	46.4	46.4	.0	.0
1966.	44.6	44.6	.0	.0
1967.	46.2	46.2	.0	.0
1968.	46.0	46.0	.0	.0
1969.	42.7	42.7	.0	.0
1970.	48.0	48.0	.0	.0
1971.	45.0	45.0	.0	.0
1972.	44.3	44.3	.0	.0
1973.	42.7	42.7	.0	.0
1974.	45.4	45.4	.0	.0
1975.	46.8	46.8	.0	.0
1976.	49.0	49.0	.0	.0
1977.	47.5	47.7	.4	.2
1978.	44.6	44.6	.0	.0
1979.	45.3	45.3	.0	.0
1980.	45.2	45.2	.0	.0
1981.	45.6	45.6	.0	.0
1982.	43.3	43.3	.0	.0
1983.	44.3	44.3	.0	.0
1984.	46.3	46.3	.0	.0
1985.	44.1	44.1	.0	.0
1986.	46.2	46.3	.2	.1
1987.	44.0	44.0	.0	.0
1988.	44.6	44.5	-.2	-.1
1989.	44.3	44.3	.0	.0
1990.	45.1	45.1	.0	.0
Mean:	45.4	45.4	.0	.0
Median:	45.5	45.5	.0	.0
Min:	40.3	40.3	-.7	-.3
Max:	49.3	49.3	.4	.2
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

February

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	44.5	44.5	.0	.0
1923.	51.0	51.0	.0	.0
1924.	47.2	47.2	.0	.0
1925.	46.2	46.2	.0	.0
1926.	46.6	46.9	.6	.3
1927.	47.3	47.3	.0	.0
1928.	49.5	49.5	.0	.0
1929.	43.7	43.7	.0	.0
1930.	44.6	44.5	-.2	-.1
1931.	47.6	47.6	.0	.0
1932.	47.6	47.7	.2	.1
1933.	44.0	43.8	-.5	-.2
1934.	48.0	47.9	-.2	-.1
1935.	48.0	48.1	.2	.1
1936.	46.7	46.7	.0	.0
1937.	42.7	42.7	.0	.0
1938.	46.6	46.6	.0	.0
1939.	46.0	46.0	.0	.0
1940.	48.1	48.1	.0	.0
1941.	48.9	48.9	.0	.0
1942.	46.9	46.9	.0	.0
1943.	50.2	50.2	.0	.0
1944.	46.2	46.2	.0	.0
1945.	49.4	49.4	.0	.0
1946.	44.6	44.6	.0	.0
1947.	45.7	46.3	1.3	.6
1948.	46.7	46.8	.2	.1
1949.	43.1	43.3	.5	.2
1950.	44.6	44.6	.0	.0
1951.	46.1	46.1	.0	.0
1952.	46.4	46.4	.0	.0
1953.	50.9	50.9	.0	.0
1954.	50.4	50.4	.0	.0
1955.	47.5	47.4	-.2	-.1
1956.	45.8	45.8	.0	.0
1957.	51.0	51.0	.0	.0
1958.	49.2	49.2	.0	.0
1959.	48.7	48.7	.0	.0
1960.	47.4	47.1	-.6	-.3
1961.	50.8	50.7	-.2	-.1
1962.	47.2	47.2	.0	.0
1963.	51.4	51.4	.0	.0
1964.	52.1	52.1	.0	.0
1965.	51.1	51.1	.0	.0
1966.	46.2	46.2	.0	.0
1967.	51.1	51.1	.0	.0
1968.	51.7	51.7	.0	.0
1969.	44.4	44.4	.0	.0
1970.	52.3	52.3	.0	.0
1971.	48.7	48.7	.0	.0
1972.	49.3	49.3	.0	.0
1973.	49.3	49.3	.0	.0
1974.	48.2	48.2	.0	.0
1975.	46.8	46.8	.0	.0
1976.	48.5	48.5	.0	.0
1977.	47.4	47.3	-.2	-.1
1978.	49.1	49.5	.8	.4
1979.	46.9	46.9	.0	.0
1980.	48.4	48.4	.0	.0
1981.	48.2	48.2	.0	.0
1982.	46.8	46.8	.0	.0
1983.	46.8	46.8	.0	.0
1984.	48.2	48.2	.0	.0
1985.	49.4	49.4	.0	.0
1986.	49.6	49.6	.0	.0
1987.	45.6	45.6	.0	.0
1988.	52.0	52.2	.4	.2
1989.	44.1	44.1	.0	.0
1990.	44.5	44.5	.0	.0
Mean:	47.7	47.7	.0	.0
Median:	47.4	47.3	.0	.0
Min:	42.7	42.7	-.6	-.3
Max:	52.3	52.3	1.3	.6

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

March

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	49.4	49.4	.0	.0
1923.	55.6	55.6	.0	.0
1924.	48.3	48.3	.0	.0
1925.	46.6	46.6	.0	.0
1926.	57.5	57.5	.0	.0
1927.	51.3	51.4	.2	.1
1928.	52.1	52.1	.0	.0
1929.	45.5	45.5	.0	.0
1930.	55.6	55.6	.0	.0
1931.	49.2	49.2	.0	.0
1932.	54.1	54.2	.2	.1
1933.	50.7	50.5	-.4	-.2
1934.	51.1	51.0	-.2	-.1
1935.	47.4	47.4	.0	.0
1936.	55.6	55.6	.0	.0
1937.	47.2	47.0	-.4	-.2
1938.	47.2	47.2	.0	.0
1939.	53.9	53.9	.0	.0
1940.	53.5	53.5	.0	.0
1941.	52.6	52.6	.0	.0
1942.	51.7	51.7	.0	.0
1943.	52.1	52.1	.0	.0
1944.	54.1	54.1	.0	.0
1945.	48.8	48.8	.0	.0
1946.	51.0	51.0	.0	.0
1947.	54.8	54.8	.0	.0
1948.	47.8	47.8	.0	.0
1949.	47.2	47.2	.0	.0
1950.	50.4	50.4	.0	.0
1951.	51.8	51.8	.0	.0
1952.	48.1	48.1	.0	.0
1953.	52.2	52.2	.0	.0
1954.	49.4	49.4	.0	.0
1955.	53.6	53.6	.0	.0
1956.	52.2	52.2	.0	.0
1957.	52.0	52.0	.0	.0
1958.	48.4	48.4	.0	.0
1959.	55.7	55.7	.0	.0
1960.	54.6	54.6	.0	.0
1961.	51.3	51.3	.0	.0
1962.	50.4	50.4	.0	.0
1963.	51.8	51.8	.0	.0
1964.	52.9	52.9	.0	.0
1965.	56.0	56.0	.0	.0
1966.	52.3	52.3	.0	.0
1967.	49.8	49.8	.0	.0
1968.	54.1	54.1	.0	.0
1969.	52.3	52.3	.0	.0
1970.	53.9	53.9	.0	.0
1971.	49.0	49.0	.0	.0
1972.	53.4	53.4	.0	.0
1973.	49.6	49.6	.0	.0
1974.	51.2	51.3	.2	.1
1975.	48.9	48.9	.0	.0
1976.	52.5	52.5	.0	.0
1977.	49.8	49.6	-.4	-.2
1978.	54.9	54.9	.0	.0
1979.	53.3	53.3	.0	.0
1980.	50.9	50.9	.0	.0
1981.	50.7	50.7	.0	.0
1982.	46.3	46.3	.0	.0
1983.	50.0	50.0	.0	.0
1984.	53.9	53.9	.0	.0
1985.	49.0	49.0	.0	.0
1986.	52.9	52.9	.0	.0
1987.	49.9	49.9	.0	.0
1988.	54.6	54.7	.2	.1
1989.	48.1	48.1	.0	.0
1990.	49.0	48.6	-.8	-.4
Mean:	51.3	51.3	.0	.0
Median:	51.3	51.3	.0	.0
Min:	45.5	45.5	-.8	-.4
Max:	57.5	57.5	.2	.1

X > 56.0	1	1		
Mean X > 56.0	57.5	57.5	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

April

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	51.7	51.7	.0	.0
1923.	51.6	51.6	.0	.0
1924.	51.2	51.2	.0	.0
1925.	49.7	49.7	.0	.0
1926.	51.8	51.8	.0	.0
1927.	50.6	50.6	.0	.0
1928.	51.4	51.4	.0	.0
1929.	47.5	47.9	.8	.4
1930.	51.9	51.9	.0	.0
1931.	50.9	51.0	.2	.1
1932.	51.3	51.4	.2	.1
1933.	51.5	51.3	-.4	-.2
1934.	52.2	52.0	-.4	-.2
1935.	49.8	49.8	.0	.0
1936.	52.0	52.0	.0	.0
1937.	48.3	48.4	.2	.1
1938.	50.3	50.3	.0	.0
1939.	50.5	50.5	.0	.0
1940.	51.2	51.2	.0	.0
1941.	50.1	50.1	.0	.0
1942.	50.7	50.7	.0	.0
1943.	51.6	51.6	.0	.0
1944.	50.6	50.7	.2	.1
1945.	51.7	51.7	.0	.0
1946.	51.5	51.3	-.4	-.2
1947.	52.4	52.3	-.2	-.1
1948.	49.7	49.7	.0	.0
1949.	51.0	51.0	.0	.0
1950.	52.0	52.0	.0	.0
1951.	51.0	51.0	.0	.0
1952.	50.1	50.1	.0	.0
1953.	51.3	51.3	.0	.0
1954.	50.4	50.4	.0	.0
1955.	51.0	51.0	.0	.0
1956.	50.9	50.9	.0	.0
1957.	51.4	51.4	.0	.0
1958.	50.2	50.2	.0	.0
1959.	51.5	51.5	.0	.0
1960.	51.4	51.4	.0	.0
1961.	51.5	51.7	.4	.2
1962.	52.3	52.3	.0	.0
1963.	50.2	50.2	.0	.0
1964.	50.5	50.6	.2	.1
1965.	51.1	51.1	.0	.0
1966.	50.7	50.7	.0	.0
1967.	48.4	48.4	.0	.0
1968.	51.7	51.7	.0	.0
1969.	50.3	50.3	.0	.0
1970.	50.9	50.9	.0	.0
1971.	51.1	51.1	.0	.0
1972.	51.2	51.2	.0	.0
1973.	51.8	51.8	.0	.0
1974.	50.0	50.0	.0	.0
1975.	50.6	50.6	.0	.0
1976.	50.6	50.6	.0	.0
1977.	51.7	51.7	.0	.0
1978.	51.0	51.0	.0	.0
1979.	51.3	51.3	.0	.0
1980.	51.2	51.2	.0	.0
1981.	51.7	51.7	.0	.0
1982.	50.1	50.1	.0	.0
1983.	49.7	49.7	.0	.0
1984.	51.0	51.0	.0	.0
1985.	52.0	52.0	.0	.0
1986.	51.6	51.6	.0	.0
1987.	51.4	51.4	.0	.0
1988.	51.9	52.0	.2	.1
1989.	51.9	51.9	.0	.0
1990.	51.4	50.0	-2.7	-1.4
Mean:	51.0	51.0	.0	.0
Median:	51.1	51.0	.0	.0
Min:	47.5	47.9	-2.7	-1.4
Max:	52.4	52.3	.8	.4

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

May

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	48.1	48.1	.0	.0
1923.	47.6	47.6	.0	.0
1924.	49.0	49.0	.0	.0
1925.	50.7	51.1	.8	.4
1926.	48.9	48.9	.0	.0
1927.	47.6	47.6	.0	.0
1928.	48.2	48.2	.0	.0
1929.	47.9	47.9	.0	.0
1930.	47.9	47.9	.0	.0
1931.	49.5	49.6	.2	.1
1932.	48.7	48.8	.2	.1
1933.	47.6	47.6	.0	.0
1934.	48.2	48.2	.0	.0
1935.	48.2	48.3	.2	.1
1936.	47.8	47.8	.0	.0
1937.	47.7	47.7	.0	.0
1938.	48.3	48.3	.0	.0
1939.	47.9	47.8	-.2	-.1
1940.	49.6	49.6	.0	.0
1941.	47.6	47.6	.0	.0
1942.	47.5	47.5	.0	.0
1943.	48.1	48.1	.0	.0
1944.	48.4	48.5	.2	.1
1945.	47.7	47.7	.0	.0
1946.	47.6	47.7	.2	.1
1947.	47.8	47.9	.2	.1
1948.	47.4	47.3	-.2	-.1
1949.	48.0	48.0	.0	.0
1950.	47.1	47.1	.0	.0
1951.	48.6	48.6	.0	.0
1952.	47.6	47.6	.0	.0
1953.	47.7	47.7	.0	.0
1954.	48.2	48.2	.0	.0
1955.	49.3	49.5	.4	.2
1956.	47.8	47.8	.0	.0
1957.	48.0	48.0	.0	.0
1958.	48.6	48.6	.0	.0
1959.	49.0	48.9	-.2	-.1
1960.	48.3	48.3	.0	.0
1961.	47.4	47.3	-.2	-.1
1962.	47.8	47.8	.0	.0
1963.	49.2	49.2	.0	.0
1964.	48.3	48.4	.2	.1
1965.	48.1	48.1	.0	.0
1966.	48.1	48.1	.0	.0
1967.	47.3	47.3	.0	.0
1968.	48.3	48.3	.0	.0
1969.	47.6	47.6	.0	.0
1970.	49.0	49.0	.0	.0
1971.	47.4	47.3	-.2	-.1
1972.	47.5	47.5	.0	.0
1973.	49.2	49.2	.0	.0
1974.	48.9	48.9	.0	.0
1975.	48.0	48.0	.0	.0
1976.	50.1	50.0	-.2	-.1
1977.	48.9	49.1	.4	.2
1978.	47.8	47.8	.0	.0
1979.	48.9	48.9	.0	.0
1980.	48.0	48.0	.0	.0
1981.	47.6	47.5	-.2	-.1
1982.	49.6	49.6	.0	.0
1983.	47.9	47.9	.0	.0
1984.	47.7	47.6	-.2	-.1
1985.	47.5	47.5	.0	.0
1986.	48.0	48.0	.0	.0
1987.	47.8	47.6	-.4	-.2
1988.	47.4	47.5	.2	.1
1989.	47.6	47.5	-.2	-.1
1990.	47.8	47.7	-.2	-.1
Mean:	48.2	48.2	.0	.0
Median:	48.0	48.0	.0	.0
Min:	47.1	47.1	-.4	-.2
Max:	50.7	51.1	.8	.4

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

June

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	47.6	47.6	.0	.0
1923.	47.1	47.1	.0	.0
1924.	48.9	48.9	.0	.0
1925.	48.9	49.0	.2	.1
1926.	48.7	48.6	-.2	-.1
1927.	48.6	48.6	.0	.0
1928.	48.1	48.0	-.2	-.1
1929.	48.1	48.6	1.0	.5
1930.	47.7	47.7	.0	.0
1931.	50.2	50.1	-.2	-.1
1932.	48.8	48.6	-.4	-.2
1933.	47.6	47.6	.0	.0
1934.	47.5	47.7	.4	.2
1935.	47.1	47.1	.0	.0
1936.	47.9	47.9	.0	.0
1937.	47.8	47.9	.2	.1
1938.	48.5	48.5	.0	.0
1939.	48.5	48.5	.0	.0
1940.	49.0	49.0	.0	.0
1941.	47.3	47.3	.0	.0
1942.	47.6	47.6	.0	.0
1943.	46.6	46.6	.0	.0
1944.	47.8	47.8	.0	.0
1945.	48.0	48.0	.0	.0
1946.	47.3	47.3	.0	.0
1947.	48.0	48.0	.0	.0
1948.	47.1	47.2	.2	.1
1949.	47.2	47.2	.0	.0
1950.	47.2	47.2	.0	.0
1951.	48.1	48.1	.0	.0
1952.	47.0	47.0	.0	.0
1953.	47.2	47.2	.0	.0
1954.	48.2	48.1	-.2	-.1
1955.	46.8	47.0	.4	.2
1956.	47.8	47.8	.0	.0
1957.	48.6	48.6	.0	.0
1958.	47.6	47.6	.0	.0
1959.	49.7	49.7	.0	.0
1960.	47.3	47.3	.0	.0
1961.	48.9	49.1	.4	.2
1962.	48.9	48.8	-.2	-.1
1963.	48.6	48.6	.0	.0
1964.	48.7	48.8	.2	.1
1965.	48.5	48.5	.0	.0
1966.	48.0	47.9	-.2	-.1
1967.	48.5	48.5	.0	.0
1968.	48.9	48.7	-.4	-.2
1969.	47.7	47.7	.0	.0
1970.	48.9	48.9	.0	.0
1971.	47.3	47.3	.0	.0
1972.	48.3	48.2	-.2	-.1
1973.	48.6	48.5	-.2	-.1
1974.	48.3	48.3	.0	.0
1975.	49.1	49.1	.0	.0
1976.	50.8	50.9	.2	.1
1977.	50.6	50.7	.2	.1
1978.	47.0	47.0	.0	.0
1979.	47.6	47.6	.0	.0
1980.	47.6	47.6	.0	.0
1981.	48.8	48.8	.0	.0
1982.	47.4	47.4	.0	.0
1983.	47.1	47.1	.0	.0
1984.	47.8	47.9	.2	.1
1985.	47.9	47.9	.0	.0
1986.	47.9	47.9	.0	.0
1987.	47.9	47.9	.0	.0
1988.	47.7	47.8	.2	.1
1989.	47.2	47.1	-.2	-.1
1990.	48.6	48.7	.2	.1
Mean:	48.1	48.1	.0	.0
Median:	47.9	47.9	.0	.0
Min:	46.6	46.6	-.4	-.2
Max:	50.8	50.9	1.0	.5

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

July

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	49.3	49.3	.0	.0
1923.	48.6	48.5	-.2	-.1
1924.	51.1	51.2	.2	.1
1925.	49.0	49.2	.4	.2
1926.	49.9	49.7	-.4	-.2
1927.	48.8	48.8	.0	.0
1928.	48.2	48.4	.4	.2
1929.	49.1	48.8	-.6	-.3
1930.	49.0	48.9	-.2	-.1
1931.	52.0	52.0	.0	.0
1932.	50.4	51.0	1.2	.6
1933.	50.5	50.0	-1.0	-.5
1934.	51.3	51.2	-.2	-.1
1935.	48.6	48.6	.0	.0
1936.	48.6	48.6	.0	.0
1937.	48.8	48.8	.0	.0
1938.	49.1	49.1	.0	.0
1939.	49.4	49.3	-.2	-.1
1940.	48.8	48.7	-.2	-.1
1941.	48.5	48.5	.0	.0
1942.	48.7	48.7	.0	.0
1943.	48.2	48.3	.2	.1
1944.	48.4	48.5	.2	.1
1945.	48.8	48.8	.0	.0
1946.	48.1	48.1	.0	.0
1947.	48.6	48.5	-.2	-.1
1948.	47.8	47.8	.0	.0
1949.	48.2	48.1	-.2	-.1
1950.	48.2	48.2	.0	.0
1951.	48.6	48.5	-.2	-.1
1952.	48.3	48.3	.0	.0
1953.	48.6	48.6	.0	.0
1954.	48.4	48.4	.0	.0
1955.	48.8	48.6	-.4	-.2
1956.	48.6	48.6	.0	.0
1957.	48.6	48.7	.2	.1
1958.	48.5	48.5	.0	.0
1959.	50.4	50.5	.2	.1
1960.	49.1	49.1	.0	.0
1961.	49.2	49.2	.0	.0
1962.	49.7	49.5	-.4	-.2
1963.	48.5	48.5	.0	.0
1964.	49.2	49.0	-.4	-.2
1965.	48.4	48.4	.0	.0
1966.	48.4	48.4	.0	.0
1967.	49.4	49.4	.0	.0
1968.	49.0	48.9	-.2	-.1
1969.	48.7	48.7	.0	.0
1970.	48.9	48.9	.0	.0
1971.	49.2	49.2	.0	.0
1972.	48.6	48.6	.0	.0
1973.	48.9	48.9	.0	.0
1974.	48.7	48.7	.0	.0
1975.	49.3	49.3	.0	.0
1976.	51.5	51.6	.2	.1
1977.	52.7	52.2	-.9	-.5
1978.	48.5	48.5	.0	.0
1979.	48.3	48.5	.4	.2
1980.	48.8	48.8	.0	.0
1981.	49.2	49.2	.0	.0
1982.	47.9	47.9	.0	.0
1983.	47.9	47.9	.0	.0
1984.	48.9	48.8	-.2	-.1
1985.	49.1	49.0	-.2	-.1
1986.	48.7	48.7	.0	.0
1987.	48.9	48.8	-.2	-.1
1988.	49.1	49.1	.0	.0
1989.	48.6	48.7	.2	.1
1990.	48.8	48.9	.2	.1
Mean:	49.0	49.0	.0	.0
Median:	48.8	48.7	.0	.0
Min:	47.8	47.8	-1.0	-.5
Max:	52.7	52.2	1.2	.6

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

August

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	50.0	50.0	.0	.0
1923.	50.1	50.1	.0	.0
1924.	59.2	59.3	.2	.1
1925.	49.7	49.8	.2	.1
1926.	50.0	50.0	.0	.0
1927.	49.7	49.7	.0	.0
1928.	50.2	50.1	-.2	-.1
1929.	50.6	50.8	.4	.2
1930.	49.9	49.9	.0	.0
1931.	57.8	57.9	.2	.1
1932.	51.8	51.8	.0	.0
1933.	52.7	52.6	-.2	-.1
1934.	57.0	57.1	.2	.1
1935.	51.9	51.6	-.6	-.3
1936.	50.5	50.9	.8	.4
1937.	50.3	50.4	.2	.1
1938.	49.8	49.8	.0	.0
1939.	50.9	50.9	.0	.0
1940.	50.4	50.4	.0	.0
1941.	49.5	49.5	.0	.0
1942.	49.6	49.6	.0	.0
1943.	49.5	49.5	.0	.0
1944.	50.5	50.6	.2	.1
1945.	50.1	50.1	.0	.0
1946.	49.9	49.9	.0	.0
1947.	50.2	50.2	.0	.0
1948.	49.5	49.5	.0	.0
1949.	49.2	49.2	.0	.0
1950.	49.6	49.6	.0	.0
1951.	50.1	50.1	.0	.0
1952.	49.3	49.3	.0	.0
1953.	49.4	49.4	.0	.0
1954.	49.6	49.6	.0	.0
1955.	50.9	50.7	-.4	-.2
1956.	49.5	49.5	.0	.0
1957.	49.5	49.5	.0	.0
1958.	49.8	49.8	.0	.0
1959.	52.2	52.2	.0	.0
1960.	50.7	50.7	.0	.0
1961.	50.7	50.6	-.2	-.1
1962.	50.8	50.6	-.4	-.2
1963.	49.9	49.9	.0	.0
1964.	50.8	50.8	.0	.0
1965.	49.7	49.7	.0	.0
1966.	51.0	50.7	-.6	-.3
1967.	50.1	50.1	.0	.0
1968.	51.5	51.5	.0	.0
1969.	49.8	49.8	.0	.0
1970.	51.4	51.3	-.2	-.1
1971.	50.0	50.0	.0	.0
1972.	50.7	50.5	-.4	-.2
1973.	49.6	49.6	.0	.0
1974.	49.7	49.7	.0	.0
1975.	49.6	49.6	.0	.0
1976.	51.0	51.1	.2	.1
1977.	63.9	62.8	-1.7	-1.1
1978.	49.9	49.9	.0	.0
1979.	50.2	50.2	.0	.0
1980.	49.3	49.3	.0	.0
1981.	50.4	50.3	-.2	-.1
1982.	49.3	49.3	.0	.0
1983.	49.6	49.6	.0	.0
1984.	49.4	49.5	.2	.1
1985.	50.0	50.1	.2	.1
1986.	50.3	50.3	.0	.0
1987.	50.8	50.7	-.2	-.1
1988.	50.8	50.8	.0	.0
1989.	49.8	49.7	-.2	-.1
1990.	50.5	50.6	.2	.1
Mean:	50.7	50.7	.0	.0
Median:	50.0	50.1	.0	.0
Min:	49.2	49.2	-1.7	-1.1
Max:	63.9	62.8	.8	.4
X > 56.0	4	4		
Mean X > 56.0	59.5	59.3	-.3	-.2
X > 60.0	1	1		
Mean X > 60.0	63.9	62.8	-1.7	-1.1
X > 62.5	1	1		
Mean X > 62.5	63.9	62.8	-1.7	-1.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

September

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	47.0	47.0	.0	.0
1923.	46.6	46.6	.0	.0
1924.	66.0	66.0	.0	.0
1925.	47.5	46.7	-1.7	-.8
1926.	48.2	48.2	.0	.0
1927.	49.4	49.4	.0	.0
1928.	48.8	48.7	-.2	-.1
1929.	47.0	46.8	-.4	-.2
1930.	45.8	45.9	.2	.1
1931.	64.4	64.7	.5	.3
1932.	58.8	56.5	-3.9	-2.3
1933.	54.7	53.8	-1.6	-.9
1934.	62.9	63.1	.3	.2
1935.	57.2	57.1	-.2	-.1
1936.	54.0	53.1	-1.7	-.9
1937.	44.7	44.9	.4	.2
1938.	52.6	52.6	.0	.0
1939.	50.8	51.4	1.2	.6
1940.	47.6	47.6	.0	.0
1941.	50.4	50.4	.0	.0
1942.	49.3	49.3	.0	.0
1943.	50.7	50.6	-.2	-.1
1944.	49.5	49.1	-.8	-.4
1945.	49.6	49.5	-.2	-.1
1946.	46.6	46.6	.0	.0
1947.	50.2	49.9	-.6	-.3
1948.	50.8	50.9	.2	.1
1949.	43.3	43.4	.2	.1
1950.	43.2	43.2	.0	.0
1951.	46.5	46.5	.0	.0
1952.	47.8	47.8	.0	.0
1953.	49.4	49.4	.0	.0
1954.	48.7	49.2	1.0	.5
1955.	47.5	47.5	.0	.0
1956.	48.5	48.5	.0	.0
1957.	49.7	49.7	.0	.0
1958.	52.3	52.3	.0	.0
1959.	53.2	53.9	1.3	.7
1960.	48.9	49.0	.2	.1
1961.	50.1	49.6	-1.0	-.5
1962.	49.4	49.4	.0	.0
1963.	51.3	51.3	.0	.0
1964.	48.0	48.0	.0	.0
1965.	49.0	49.0	.0	.0
1966.	48.0	47.8	-.4	-.2
1967.	52.7	52.7	.0	.0
1968.	48.4	48.7	.6	.3
1969.	48.2	48.2	.0	.0
1970.	46.9	46.7	-.4	-.2
1971.	49.7	49.7	.0	.0
1972.	48.0	48.0	.0	.0
1973.	46.4	46.4	.0	.0
1974.	48.3	48.3	.0	.0
1975.	52.3	52.3	.0	.0
1976.	52.3	52.3	.0	.0
1977.	65.8	65.9	.2	.1
1978.	47.1	47.2	.2	.1
1979.	47.7	47.7	.0	.0
1980.	46.7	46.7	.0	.0
1981.	48.6	48.7	.2	.1
1982.	47.3	47.3	.0	.0
1983.	49.8	49.8	.0	.0
1984.	47.6	47.6	.0	.0
1985.	46.2	46.2	.0	.0
1986.	46.9	46.9	.0	.0
1987.	46.4	46.5	.2	.1
1988.	48.1	48.0	-.2	-.1
1989.	46.9	46.9	.0	.0
1990.	52.6	53.6	1.9	1.0
Mean:	50.0	49.9	-.1	.0
Median:	48.5	48.7	.0	.0
Min:	43.2	43.2	-3.9	-2.3
Max:	66.0	66.0	1.9	1.0
X > 56.0	6	6		
Mean X > 56.0	62.5	62.2	-.5	-.3
X > 60.0	4	4		
Mean X > 60.0	64.8	64.9	.2	.1
X > 62.5	4	4		
Mean X > 62.5	64.8	64.9	.2	.1
X > 65.0	2	2		
Mean X > 65.0	65.9	65.9	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

October"

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	46.4	46.4	.0	.0
1923.	50.7	50.6	-.2	-.1
1924.	58.1	58.1	.0	.0
1925.	53.5	52.6	-1.7	-.9
1926.	54.2	54.2	.0	.0
1927.	49.5	49.6	.2	.1
1928.	51.1	50.9	-.4	-.2
1929.	53.4	53.0	-.7	-.4
1930.	50.2	50.5	.6	.3
1931.	61.1	61.0	-.2	-.1
1932.	61.4	60.5	-1.5	-.9
1933.	61.4	61.0	-.7	-.4
1934.	61.6	61.6	.0	.0
1935.	59.3	59.2	-.2	-.1
1936.	57.9	57.7	-.3	-.2
1937.	52.5	50.9	-3.0	-1.6
1938.	52.8	52.8	.0	.0
1939.	55.2	55.6	.7	.4
1940.	49.7	50.1	.8	.4
1941.	52.8	52.8	.0	.0
1942.	51.0	51.0	.0	.0
1943.	50.0	50.0	.0	.0
1944.	52.3	52.0	-.6	-.3
1945.	51.9	51.8	-.2	-.1
1946.	47.3	47.2	-.2	-.1
1947.	54.4	54.3	-.2	-.1
1948.	51.8	51.7	-.2	-.1
1949.	42.7	42.8	.2	.1
1950.	43.7	43.7	.0	.0
1951.	45.5	45.5	.0	.0
1952.	46.8	46.8	.0	.0
1953.	50.0	50.0	.0	.0
1954.	51.5	51.5	.0	.0
1955.	50.7	50.0	-1.4	-.7
1956.	48.9	48.9	.0	.0
1957.	49.6	49.7	.2	.1
1958.	54.4	54.4	.0	.0
1959.	55.4	56.1	1.3	.7
1960.	52.2	52.3	.2	.1
1961.	52.9	52.3	-1.1	-.6
1962.	50.8	51.2	.8	.4
1963.	50.1	50.1	.0	.0
1964.	51.3	51.3	.0	.0
1965.	49.4	49.4	.0	.0
1966.	49.8	50.6	1.6	.8
1967.	53.5	53.5	.0	.0
1968.	50.4	51.1	1.4	.7
1969.	46.6	46.6	.0	.0
1970.	47.8	48.1	.6	.3
1971.	50.6	50.6	.0	.0
1972.	49.5	50.3	1.6	.8
1973.	47.0	47.0	.0	.0
1974.	50.5	50.5	.0	.0
1975.	52.6	52.6	.0	.0
1976.	54.2	54.1	-.2	-.1
1977.	61.3	61.4	.2	.1
1978.	49.4	49.4	.0	.0
1979.	48.7	48.5	-.4	-.2
1980.	46.7	46.7	.0	.0
1981.	49.7	50.0	.6	.3
1982.	45.3	45.3	.0	.0
1983.	55.0	55.0	.0	.0
1984.	49.2	49.2	.0	.0
1985.	48.6	48.5	-.2	-.1
1986.	49.8	49.8	.0	.0
1987.	50.7	51.5	1.6	.8
1988.	53.8	53.5	-.6	-.3
1989.	50.6	50.8	.4	.2
1990.	56.3	56.7	.7	.4
Mean:	51.7	51.7	.0	.0
Median:	50.7	50.8	.0	.0
Min:	42.7	42.8	-3.0	-1.6
Max:	61.6	61.6	1.6	.8
X > 56.0	9	10		
Mean X > 56.0	59.8	59.3	-.8	-.5
X > 60.0	5	5		
Mean X > 60.0	61.4	61.1	-.5	-.3
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

November

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	48.8	48.8	.0	.0
1923.	53.9	53.9	.0	.0
1924.	51.8	51.8	.0	.0
1925.	53.1	52.8	-.6	-.3
1926.	54.1	54.1	.0	.0
1927.	50.9	50.9	.0	.0
1928.	52.7	52.4	-.6	-.3
1929.	56.3	55.8	-.9	-.5
1930.	52.0	52.4	.8	.4
1931.	53.0	52.9	-.2	-.1
1932.	57.2	57.3	.2	.1
1933.	57.9	57.9	.0	.0
1934.	53.4	53.4	.0	.0
1935.	54.7	54.7	.0	.0
1936.	59.0	58.9	-.2	-.1
1937.	52.7	52.5	-.4	-.2
1938.	54.0	54.0	.0	.0
1939.	55.8	56.1	.5	.3
1940.	51.7	52.2	1.0	.5
1941.	54.4	54.4	.0	.0
1942.	52.2	52.2	.0	.0
1943.	50.9	50.9	.0	.0
1944.	52.1	52.0	-.2	-.1
1945.	52.1	52.0	-.2	-.1
1946.	49.8	49.6	-.4	-.2
1947.	53.8	53.8	.0	.0
1948.	51.8	51.8	.0	.0
1949.	43.6	43.8	.5	.2
1950.	43.0	43.0	.0	.0
1951.	45.9	46.4	1.1	.5
1952.	45.6	45.6	.0	.0
1953.	51.6	51.6	.0	.0
1954.	52.1	52.2	.2	.1
1955.	52.2	51.9	-.6	-.3
1956.	52.8	52.9	.2	.1
1957.	52.2	52.2	.0	.0
1958.	56.0	56.0	.0	.0
1959.	56.5	56.9	.7	.4
1960.	52.8	52.9	.2	.1
1961.	53.4	53.2	-.4	-.2
1962.	54.1	54.1	.0	.0
1963.	51.0	51.1	.2	.1
1964.	51.7	51.7	.0	.0
1965.	50.2	50.2	.0	.0
1966.	52.3	52.8	1.0	.5
1967.	55.9	55.9	.0	.0
1968.	52.1	52.7	1.2	.6
1969.	49.5	49.5	.0	.0
1970.	51.0	51.1	.2	.1
1971.	52.8	52.8	.0	.0
1972.	51.4	51.9	1.0	.5
1973.	48.9	48.9	.0	.0
1974.	53.0	53.0	.0	.0
1975.	53.1	53.1	.0	.0
1976.	55.4	55.3	-.2	-.1
1977.	53.0	53.2	.4	.2
1978.	49.2	49.2	.0	.0
1979.	49.7	49.5	-.4	-.2
1980.	47.7	47.7	.0	.0
1981.	51.1	51.2	.2	.1
1982.	44.5	44.5	.0	.0
1983.	53.1	53.1	.0	.0
1984.	49.8	49.8	.0	.0
1985.	49.2	49.1	-.2	-.1
1986.	52.0	52.0	.0	.0
1987.	51.9	52.8	1.7	.9
1988.	52.4	52.3	-.2	-.1
1989.	52.3	52.4	.2	.1
1990.	54.0	54.0	.0	.0
Mean:	52.0	52.1	.1	.0
Median:	52.2	52.3	.0	.0
Min:	43.0	43.0	-.9	-.5
Max:	59.0	58.9	1.7	.9
X > 56.0	5	5		
Mean X > 56.0	57.4	57.4	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

December

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	46.9	46.9	.0	.0
1923.	49.7	49.7	.0	.0
1924.	44.9	44.9	.0	.0
1925.	50.1	50.1	.0	.0
1926.	49.8	49.8	.0	.0
1927.	49.2	49.2	.0	.0
1928.	47.9	47.9	.0	.0
1929.	53.3	53.2	-.2	-.1
1930.	50.8	50.8	.0	.0
1931.	45.1	45.1	.0	.0
1932.	47.0	47.1	.2	.1
1933.	48.4	48.4	.0	.0
1934.	48.9	48.9	.0	.0
1935.	49.9	49.9	.0	.0
1936.	51.6	51.6	.0	.0
1937.	51.4	51.4	.0	.0
1938.	51.3	51.3	.0	.0
1939.	51.8	51.8	.0	.0
1940.	50.9	50.9	.0	.0
1941.	49.6	49.6	.0	.0
1942.	48.3	48.3	.0	.0
1943.	50.1	50.1	.0	.0
1944.	49.7	49.7	.0	.0
1945.	47.8	47.8	.0	.0
1946.	48.3	48.3	.0	.0
1947.	48.6	48.6	.0	.0
1948.	46.7	46.7	.0	.0
1949.	49.2	49.2	.0	.0
1950.	49.8	49.8	.0	.0
1951.	47.6	47.6	.0	.0
1952.	48.3	48.3	.0	.0
1953.	50.0	50.0	.0	.0
1954.	47.8	47.8	.0	.0
1955.	49.0	48.9	-.2	-.1
1956.	52.5	52.5	.0	.0
1957.	48.7	48.7	.0	.0
1958.	54.7	54.7	.0	.0
1959.	52.4	52.1	-.6	-.3
1960.	49.2	49.2	.0	.0
1961.	48.7	48.8	.2	.1
1962.	52.0	52.0	.0	.0
1963.	48.3	48.3	.0	.0
1964.	48.4	48.4	.0	.0
1965.	47.7	47.7	.0	.0
1966.	49.5	49.4	-.2	-.1
1967.	51.6	51.6	.0	.0
1968.	46.8	46.8	.0	.0
1969.	51.5	51.5	.0	.0
1970.	48.5	48.5	.0	.0
1971.	47.7	47.7	.0	.0
1972.	45.7	45.7	.0	.0
1973.	47.8	47.8	.0	.0
1974.	49.5	49.5	.0	.0
1975.	50.2	50.2	.0	.0
1976.	53.4	53.4	.0	.0
1977.	48.5	48.6	.2	.1
1978.	48.5	48.5	.0	.0
1979.	46.6	46.6	.0	.0
1980.	49.3	49.3	.0	.0
1981.	47.8	47.8	.0	.0
1982.	45.9	45.9	.0	.0
1983.	47.7	47.7	.0	.0
1984.	46.2	46.2	.0	.0
1985.	46.5	46.5	.0	.0
1986.	48.6	48.6	.0	.0
1987.	47.5	47.5	.0	.0
1988.	47.3	47.3	.0	.0
1989.	48.7	48.8	.2	.1
1990.	45.3	45.3	.0	.0
Mean:	49.0	49.0	.0	.0
Median:	48.6	48.6	.0	.0
Min:	44.9	44.9	-.6	-.3
Max:	54.7	54.7	.2	.1

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 19

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

January

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	44.1	44.1	.0	.0
1923.	43.9	43.9	.0	.0
1924.	45.1	45.1	.0	.0
1925.	44.0	44.0	.0	.0
1926.	44.6	44.6	.0	.0
1927.	45.4	45.4	.0	.0
1928.	45.0	45.0	.0	.0
1929.	43.3	43.3	.0	.0
1930.	44.3	44.3	.0	.0
1931.	46.1	46.1	.0	.0
1932.	43.7	43.7	.0	.0
1933.	42.6	42.5	-.2	-.1
1934.	46.7	46.8	.2	.1
1935.	44.6	44.6	.0	.0
1936.	45.7	45.7	.0	.0
1937.	39.9	39.9	.0	.0
1938.	46.8	46.8	.0	.0
1939.	47.1	47.1	.0	.0
1940.	45.4	45.4	.0	.0
1941.	46.5	46.5	.0	.0
1942.	45.8	45.8	.0	.0
1943.	45.5	45.5	.0	.0
1944.	45.7	45.7	.0	.0
1945.	45.7	45.7	.0	.0
1946.	45.0	45.0	.0	.0
1947.	44.4	44.4	.0	.0
1948.	46.5	46.6	.2	.1
1949.	41.2	41.2	.0	.0
1950.	41.8	41.8	.0	.0
1951.	44.5	44.5	.0	.0
1952.	43.8	43.8	.0	.0
1953.	47.0	47.0	.0	.0
1954.	45.9	45.9	.0	.0
1955.	44.5	44.5	.0	.0
1956.	45.3	45.3	.0	.0
1957.	45.3	45.3	.0	.0
1958.	45.8	45.8	.0	.0
1959.	47.8	47.8	.0	.0
1960.	45.0	45.0	.0	.0
1961.	45.7	45.7	.0	.0
1962.	47.0	47.0	.0	.0
1963.	45.8	45.8	.0	.0
1964.	44.8	44.8	.0	.0
1965.	46.0	46.0	.0	.0
1966.	44.7	44.7	.0	.0
1967.	45.7	45.7	.0	.0
1968.	45.2	45.2	.0	.0
1969.	43.6	43.6	.0	.0
1970.	47.1	47.1	.0	.0
1971.	45.0	45.0	.0	.0
1972.	44.3	44.3	.0	.0
1973.	43.6	43.6	.0	.0
1974.	45.2	45.2	.0	.0
1975.	46.0	46.0	.0	.0
1976.	48.0	48.0	.0	.0
1977.	46.5	46.6	.2	.1
1978.	45.3	45.3	.0	.0
1979.	44.9	44.9	.0	.0
1980.	45.1	45.1	.0	.0
1981.	45.3	45.3	.0	.0
1982.	43.8	43.8	.0	.0
1983.	44.6	44.6	.0	.0
1984.	45.8	45.8	.0	.0
1985.	44.0	44.0	.0	.0
1986.	45.7	45.7	.0	.0
1987.	43.8	43.8	.0	.0
1988.	44.7	44.7	.0	.0
1989.	44.2	44.2	.0	.0
1990.	44.7	44.7	.0	.0
Mean:	45.0	45.0	.0	.0
Median:	45.0	45.0	.0	.0
Min:	39.9	39.9	-.2	-.1
Max:	48.0	48.0	.2	.1
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

February

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	46.6	46.6	.0	.0
1923.	50.3	50.3	.0	.0
1924.	48.7	48.7	.0	.0
1925.	48.1	48.1	.0	.0
1926.	48.0	48.1	.2	.1
1927.	47.7	47.6	-.2	-.1
1928.	48.9	48.9	.0	.0
1929.	46.2	46.2	.0	.0
1930.	47.4	47.3	-.2	-.1
1931.	48.5	48.5	.0	.0
1932.	47.8	47.8	.0	.0
1933.	45.4	45.3	-.2	-.1
1934.	48.6	48.5	-.2	-.1
1935.	48.3	48.3	.0	.0
1936.	47.8	47.8	.0	.0
1937.	46.0	46.0	.0	.0
1938.	47.2	47.2	.0	.0
1939.	46.3	46.3	.0	.0
1940.	48.2	48.2	.0	.0
1941.	48.7	48.7	.0	.0
1942.	47.3	47.3	.0	.0
1943.	49.5	49.5	.0	.0
1944.	47.0	47.0	.0	.0
1945.	48.8	48.8	.0	.0
1946.	45.4	45.4	.0	.0
1947.	47.7	48.0	.6	.3
1948.	46.8	46.9	.2	.1
1949.	44.5	44.6	.2	.1
1950.	46.8	46.8	.0	.0
1951.	46.8	46.8	.0	.0
1952.	46.9	46.9	.0	.0
1953.	50.1	50.1	.0	.0
1954.	49.8	49.8	.0	.0
1955.	47.6	47.6	.0	.0
1956.	46.5	46.5	.0	.0
1957.	50.1	50.1	.0	.0
1958.	48.8	48.8	.0	.0
1959.	48.6	48.6	.0	.0
1960.	48.1	48.0	-.2	-.1
1961.	49.5	49.5	.0	.0
1962.	47.6	47.6	.0	.0
1963.	50.5	50.5	.0	.0
1964.	51.2	51.2	.0	.0
1965.	50.0	50.0	.0	.0
1966.	47.1	47.1	.0	.0
1967.	50.1	50.1	.0	.0
1968.	50.7	50.7	.0	.0
1969.	45.9	45.9	.0	.0
1970.	51.1	51.1	.0	.0
1971.	48.7	48.7	.0	.0
1972.	48.9	48.9	.0	.0
1973.	49.0	49.0	.0	.0
1974.	48.2	48.2	.0	.0
1975.	47.7	47.7	.0	.0
1976.	48.3	48.3	.0	.0
1977.	48.3	48.2	-.2	-.1
1978.	48.8	49.0	.4	.2
1979.	47.6	47.6	.0	.0
1980.	48.4	48.4	.0	.0
1981.	48.4	48.4	.0	.0
1982.	47.2	47.2	.0	.0
1983.	47.3	47.3	.0	.0
1984.	48.2	48.2	.0	.0
1985.	49.2	49.2	.0	.0
1986.	49.3	49.3	.0	.0
1987.	47.1	47.0	-.2	-.1
1988.	51.1	51.2	.2	.1
1989.	45.1	45.1	.0	.0
1990.	45.5	45.5	.0	.0
Mean:	48.1	48.1	.0	.0
Median:	48.1	48.1	.0	.0
Min:	44.5	44.6	-.2	-.1
Max:	51.2	51.2	.6	.3

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

March

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	50.6	50.6	.0	.0
1923.	55.1	55.2	.2	.1
1924.	50.0	50.0	.0	.0
1925.	49.6	49.6	.0	.0
1926.	56.9	56.9	.0	.0
1927.	51.8	51.9	.2	.1
1928.	52.2	52.2	.0	.0
1929.	49.5	49.4	-.2	-.1
1930.	53.8	53.8	.0	.0
1931.	51.5	51.5	.0	.0
1932.	54.1	54.2	.2	.1
1933.	51.8	51.7	-.2	-.1
1934.	54.0	54.0	.0	.0
1935.	50.2	50.2	.0	.0
1936.	54.7	54.7	.0	.0
1937.	50.8	50.8	.0	.0
1938.	49.0	49.0	.0	.0
1939.	53.8	53.8	.0	.0
1940.	53.3	53.3	.0	.0
1941.	52.5	52.5	.0	.0
1942.	52.0	52.0	.0	.0
1943.	52.2	52.2	.0	.0
1944.	53.7	53.7	.0	.0
1945.	50.2	50.2	.0	.0
1946.	51.5	51.5	.0	.0
1947.	53.8	53.9	.2	.1
1948.	49.8	49.8	.0	.0
1949.	50.8	50.8	.0	.0
1950.	51.1	51.1	.0	.0
1951.	52.1	52.1	.0	.0
1952.	49.8	49.8	.0	.0
1953.	52.4	52.4	.0	.0
1954.	50.6	50.6	.0	.0
1955.	53.4	53.4	.0	.0
1956.	52.6	52.6	.0	.0
1957.	52.2	52.2	.0	.0
1958.	49.6	49.6	.0	.0
1959.	55.2	55.1	-.2	-.1
1960.	53.7	53.8	.2	.1
1961.	51.8	51.8	.0	.0
1962.	51.3	51.3	.0	.0
1963.	52.0	52.0	.0	.0
1964.	52.8	52.8	.0	.0
1965.	55.0	55.0	.0	.0
1966.	52.5	52.5	.0	.0
1967.	50.4	50.4	.0	.0
1968.	53.6	53.6	.0	.0
1969.	52.5	52.5	.0	.0
1970.	53.5	53.5	.0	.0
1971.	49.9	49.9	.0	.0
1972.	53.6	53.6	.0	.0
1973.	50.9	50.9	.0	.0
1974.	51.4	51.4	.0	.0
1975.	50.0	50.0	.0	.0
1976.	52.5	52.5	.0	.0
1977.	50.5	50.4	-.2	-.1
1978.	54.1	54.1	.0	.0
1979.	53.1	53.1	.0	.0
1980.	51.9	51.9	.0	.0
1981.	51.7	51.7	.0	.0
1982.	48.4	48.4	.0	.0
1983.	50.6	50.6	.0	.0
1984.	53.6	53.6	.0	.0
1985.	50.0	50.0	.0	.0
1986.	52.8	52.8	.0	.0
1987.	51.2	51.2	.0	.0
1988.	54.5	54.6	.2	.1
1989.	50.8	50.8	.0	.0
1990.	51.2	51.0	-.4	-.2
Mean:	52.0	52.0	.0	.0
Median:	51.8	51.9	.0	.0
Min:	48.4	48.4	-.4	-.2
Max:	56.9	56.9	.2	.1
X > 56.0	1	1		
Mean X > 56.0	56.9	56.9	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

April

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	55.4	55.4	.0	.0
1923.	55.0	54.9	-.2	-.1
1924.	54.3	54.3	.0	.0
1925.	55.4	55.4	.0	.0
1926.	56.0	56.0	.0	.0
1927.	54.0	54.1	.2	.1
1928.	54.9	54.9	.0	.0
1929.	50.9	51.1	.4	.2
1930.	55.3	55.3	.0	.0
1931.	53.6	53.6	.0	.0
1932.	54.0	54.1	.2	.1
1933.	54.5	54.3	-.4	-.2
1934.	55.9	55.6	-.5	-.3
1935.	55.5	55.6	.2	.1
1936.	55.5	55.5	.0	.0
1937.	53.8	53.8	.0	.0
1938.	53.2	53.2	.0	.0
1939.	53.9	53.7	-.4	-.2
1940.	55.8	55.8	.0	.0
1941.	53.4	53.4	.0	.0
1942.	54.6	54.6	.0	.0
1943.	54.8	54.8	.0	.0
1944.	52.9	53.1	.4	.2
1945.	54.9	54.9	.0	.0
1946.	54.6	54.5	-.2	-.1
1947.	56.1	56.1	.0	.0
1948.	54.4	54.4	.0	.0
1949.	55.4	55.4	.0	.0
1950.	55.6	55.6	.0	.0
1951.	54.1	54.1	.0	.0
1952.	52.1	52.1	.0	.0
1953.	54.5	54.5	.0	.0
1954.	53.6	53.6	.0	.0
1955.	53.8	53.8	.0	.0
1956.	54.9	54.9	.0	.0
1957.	54.2	54.3	.2	.1
1958.	53.8	53.8	.0	.0
1959.	54.9	54.9	.0	.0
1960.	54.0	54.1	.2	.1
1961.	54.5	54.8	.6	.3
1962.	56.3	56.3	.0	.0
1963.	52.1	52.1	.0	.0
1964.	53.1	53.2	.2	.1
1965.	55.5	55.5	.0	.0
1966.	54.3	54.3	.0	.0
1967.	51.9	51.9	.0	.0
1968.	54.8	54.8	.0	.0
1969.	53.1	53.2	.2	.1
1970.	53.4	53.4	.0	.0
1971.	54.6	54.6	.0	.0
1972.	53.6	53.6	.0	.0
1973.	55.7	55.7	.0	.0
1974.	54.5	54.5	.0	.0
1975.	54.1	54.1	.0	.0
1976.	53.2	53.3	.2	.1
1977.	54.6	54.6	.0	.0
1978.	54.9	54.9	.0	.0
1979.	54.2	54.2	.0	.0
1980.	54.3	54.3	.0	.0
1981.	55.1	55.1	.0	.0
1982.	52.1	52.1	.0	.0
1983.	53.4	53.4	.0	.0
1984.	53.2	53.2	.0	.0
1985.	55.8	55.8	.0	.0
1986.	54.8	54.8	.0	.0
1987.	54.2	54.2	.0	.0
1988.	55.0	55.2	.4	.2
1989.	55.5	55.5	.0	.0
1990.	55.1	53.9	-2.2	-1.2
Mean:	54.4	54.3	.0	.0
Median:	54.5	54.3	.0	.0
Min:	50.9	51.1	-2.2	-1.2
Max:	56.3	56.3	.6	.3
X > 56.0	2	2		
Mean X > 56.0	56.2	56.2	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

May

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	57.1	57.1	.0	.0
1923.	52.6	52.7	.2	.1
1924.	54.8	54.8	.0	.0
1925.	59.1	59.7	1.0	.6
1926.	55.9	55.9	.0	.0
1927.	53.5	53.5	.0	.0
1928.	55.0	55.0	.0	.0
1929.	53.3	53.1	-.4	-.2
1930.	54.5	54.5	.0	.0
1931.	55.0	55.1	.2	.1
1932.	56.2	56.6	.7	.4
1933.	53.2	53.2	.0	.0
1934.	54.4	54.4	.0	.0
1935.	56.2	56.7	.9	.5
1936.	53.7	53.7	.0	.0
1937.	54.9	54.9	.0	.0
1938.	54.7	54.7	.0	.0
1939.	52.2	52.2	.0	.0
1940.	56.6	56.6	.0	.0
1941.	52.6	52.6	.0	.0
1942.	53.3	53.3	.0	.0
1943.	55.0	55.0	.0	.0
1944.	53.8	53.9	.2	.1
1945.	53.1	53.1	.0	.0
1946.	52.6	52.7	.2	.1
1947.	52.7	52.9	.4	.2
1948.	54.8	54.7	-.2	-.1
1949.	53.4	53.4	.0	.0
1950.	52.4	52.4	.0	.0
1951.	55.8	55.8	.0	.0
1952.	53.6	53.6	.0	.0
1953.	54.5	54.5	.0	.0
1954.	54.3	54.3	.0	.0
1955.	57.5	57.9	.7	.4
1956.	53.6	53.6	.0	.0
1957.	55.3	55.3	.0	.0
1958.	54.9	54.9	.0	.0
1959.	53.5	53.4	-.2	-.1
1960.	54.8	55.0	.4	.2
1961.	52.2	52.0	-.4	-.2
1962.	53.2	53.2	.0	.0
1963.	56.6	56.6	.0	.0
1964.	53.9	54.2	.6	.3
1965.	55.5	55.5	.0	.0
1966.	53.0	53.0	.0	.0
1967.	52.7	52.7	.0	.0
1968.	53.8	53.8	.0	.0
1969.	53.1	53.1	.0	.0
1970.	55.2	55.2	.0	.0
1971.	52.6	52.6	.0	.0
1972.	52.5	52.3	-.4	-.2
1973.	56.5	56.5	.0	.0
1974.	55.2	55.2	.0	.0
1975.	54.1	54.1	.0	.0
1976.	55.2	54.9	-.5	-.3
1977.	54.1	54.2	.2	.1
1978.	54.5	54.5	.0	.0
1979.	56.0	56.0	.0	.0
1980.	54.1	54.1	.0	.0
1981.	52.7	52.5	-.4	-.2
1982.	58.8	58.8	.0	.0
1983.	54.7	54.7	.0	.0
1984.	53.3	53.1	-.4	-.2
1985.	52.5	52.4	-.2	-.1
1986.	53.5	53.5	.0	.0
1987.	53.2	52.8	-.8	-.4
1988.	52.2	52.2	.0	.0
1989.	53.0	52.7	-.6	-.3
1990.	53.4	53.2	-.4	-.2
Mean:	54.3	54.3	.0	.0
Median:	53.8	54.0	.0	.0
Min:	52.2	52.0	-.8	-.4
Max:	59.1	59.7	1.0	.6
X > 56.0	9	9		
Mean X > 56.0	57.2	57.4	.3	.2
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

June

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	54.9	54.9	.0	.0
1923.	52.1	52.1	.0	.0
1924.	54.7	54.7	.0	.0
1925.	56.3	56.6	.5	.3
1926.	55.6	55.3	-.5	-.3
1927.	55.0	55.0	.0	.0
1928.	53.5	53.3	-.4	-.2
1929.	54.9	55.5	1.1	.6
1930.	54.4	54.3	-.2	-.1
1931.	55.4	55.3	-.2	-.1
1932.	57.3	57.5	.3	.2
1933.	55.5	55.5	.0	.0
1934.	53.5	53.6	.2	.1
1935.	53.5	53.5	.0	.0
1936.	54.4	54.4	.0	.0
1937.	54.1	54.2	.2	.1
1938.	54.9	54.9	.0	.0
1939.	53.4	53.2	-.4	-.2
1940.	55.3	55.3	.0	.0
1941.	53.2	53.2	.0	.0
1942.	53.9	53.9	.0	.0
1943.	52.7	52.7	.0	.0
1944.	52.4	52.3	-.2	-.1
1945.	53.9	53.9	.0	.0
1946.	51.9	51.9	.0	.0
1947.	53.5	53.5	.0	.0
1948.	54.6	54.6	.0	.0
1949.	52.0	52.0	.0	.0
1950.	52.7	52.7	.0	.0
1951.	53.6	53.6	.0	.0
1952.	53.2	53.2	.0	.0
1953.	52.8	52.8	.0	.0
1954.	53.5	53.3	-.4	-.2
1955.	51.6	52.4	1.6	.8
1956.	54.8	54.8	.0	.0
1957.	55.8	55.6	-.4	-.2
1958.	53.4	53.4	.0	.0
1959.	54.2	54.2	.0	.0
1960.	52.8	52.9	.2	.1
1961.	54.4	54.8	.7	.4
1962.	54.7	54.6	-.2	-.1
1963.	56.1	56.1	.0	.0
1964.	54.8	55.1	.5	.3
1965.	55.2	55.2	.0	.0
1966.	52.9	52.7	-.4	-.2
1967.	54.2	54.2	.0	.0
1968.	54.0	53.6	-.7	-.4
1969.	53.8	53.8	.0	.0
1970.	55.2	55.2	.0	.0
1971.	53.4	53.4	.0	.0
1972.	53.9	53.8	-.2	-.1
1973.	55.1	54.9	-.4	-.2
1974.	54.8	54.8	.0	.0
1975.	54.7	54.7	.0	.0
1976.	55.4	55.5	.2	.1
1977.	57.0	57.0	.0	.0
1978.	54.3	54.3	.0	.0
1979.	52.3	52.4	.2	.1
1980.	53.2	53.2	.0	.0
1981.	54.6	54.4	-.4	-.2
1982.	54.1	54.1	.0	.0
1983.	53.6	53.6	.0	.0
1984.	53.4	53.4	.0	.0
1985.	54.2	54.2	.0	.0
1986.	53.7	53.7	.0	.0
1987.	53.4	53.4	.0	.0
1988.	52.8	53.2	.8	.4
1989.	53.0	53.0	.0	.0
1990.	55.3	55.3	.0	.0
Mean:	54.1	54.1	.0	.0
Median:	54.0	53.9	.0	.0
Min:	51.6	51.9	-.7	-.4
Max:	57.3	57.5	1.6	.8
X > 56.0	4	4		
Mean X > 56.0	56.7	56.8	.2	.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

July

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	55.4	55.4	.0	.0
1923.	54.5	54.5	.0	.0
1924.	56.7	56.6	-.2	-.1
1925.	55.7	56.0	.5	.3
1926.	56.5	56.2	-.5	-.3
1927.	54.0	54.0	.0	.0
1928.	52.6	53.1	1.0	.5
1929.	55.0	54.8	-.4	-.2
1930.	55.4	55.1	-.5	-.3
1931.	57.7	57.7	.0	.0
1932.	56.4	57.1	1.2	.7
1933.	58.1	57.6	-.9	-.5
1934.	56.6	56.5	-.2	-.1
1935.	53.6	53.6	.0	.0
1936.	54.2	54.2	.0	.0
1937.	54.5	54.5	.0	.0
1938.	54.2	54.2	.0	.0
1939.	55.0	54.9	-.2	-.1
1940.	53.5	53.2	-.6	-.3
1941.	53.9	53.9	.0	.0
1942.	53.7	53.7	.0	.0
1943.	53.5	53.5	.0	.0
1944.	53.5	53.6	.2	.1
1945.	53.3	53.4	.2	.1
1946.	52.3	52.3	.0	.0
1947.	53.2	52.9	-.6	-.3
1948.	53.0	53.0	.0	.0
1949.	52.9	52.5	-.8	-.4
1950.	53.6	53.6	.0	.0
1951.	53.4	53.1	-.6	-.3
1952.	54.0	54.0	.0	.0
1953.	53.9	53.9	.0	.0
1954.	52.8	52.7	-.2	-.1
1955.	53.9	53.8	-.2	-.1
1956.	53.8	53.8	.0	.0
1957.	53.5	53.5	.0	.0
1958.	54.1	54.1	.0	.0
1959.	54.7	54.7	.0	.0
1960.	54.0	54.2	.4	.2
1961.	54.1	54.3	.4	.2
1962.	55.5	55.0	-.9	-.5
1963.	53.2	53.2	.0	.0
1964.	55.4	54.9	-.9	-.5
1965.	54.3	54.3	.0	.0
1966.	52.7	52.7	.0	.0
1967.	54.6	54.6	.0	.0
1968.	53.8	53.5	-.6	-.3
1969.	53.9	53.9	.0	.0
1970.	53.6	53.5	-.2	-.1
1971.	55.0	55.0	.0	.0
1972.	53.0	53.0	.0	.0
1973.	54.7	54.5	-.4	-.2
1974.	54.1	54.1	.0	.0
1975.	54.1	54.1	.0	.0
1976.	56.4	56.4	.0	.0
1977.	58.2	57.8	-.7	-.4
1978.	55.1	55.1	.0	.0
1979.	53.1	53.4	.6	.3
1980.	54.6	54.6	.0	.0
1981.	54.9	54.9	.0	.0
1982.	52.7	52.7	.0	.0
1983.	53.3	53.3	.0	.0
1984.	54.4	54.1	-.6	-.3
1985.	55.2	55.2	.0	.0
1986.	53.7	53.7	.0	.0
1987.	54.5	54.1	-.7	-.4
1988.	55.7	55.8	.2	.1
1989.	53.9	54.2	.6	.3
1990.	54.0	54.5	.9	.5
Mean:	54.4	54.3	-.1	.0
Median:	54.0	54.1	.0	.0
Min:	52.3	52.3	-.9	-.5
Max:	58.2	57.8	1.2	.7
X > 56.0	8	8		
Mean X > 56.0	57.1	57.0	-.2	-.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

August

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	54.5	54.5	.0	.0
1923.	54.9	54.9	.0	.0
1924.	62.8	62.8	.0	.0
1925.	55.1	55.3	.4	.2
1926.	55.6	55.6	.0	.0
1927.	53.8	53.8	.0	.0
1928.	54.7	54.4	-.5	-.3
1929.	55.8	56.1	.5	.3
1930.	55.0	55.0	.0	.0
1931.	61.7	61.9	.3	.2
1932.	57.0	57.2	.4	.2
1933.	58.2	58.2	.0	.0
1934.	61.3	61.4	.2	.1
1935.	56.1	55.9	-.4	-.2
1936.	55.1	55.4	.5	.3
1937.	54.8	54.9	.2	.1
1938.	53.6	53.6	.0	.0
1939.	55.8	55.8	.0	.0
1940.	54.8	54.7	-.2	-.1
1941.	53.2	53.2	.0	.0
1942.	53.5	53.5	.0	.0
1943.	53.2	53.2	.0	.0
1944.	54.6	54.8	.4	.2
1945.	54.0	53.9	-.2	-.1
1946.	53.8	53.8	.0	.0
1947.	54.2	54.4	.4	.2
1948.	53.5	53.5	.0	.0
1949.	53.0	53.0	.0	.0
1950.	54.0	54.0	.0	.0
1951.	54.4	54.4	.0	.0
1952.	53.3	53.3	.0	.0
1953.	53.2	53.2	.0	.0
1954.	53.8	54.0	.4	.2
1955.	56.3	55.9	-.7	-.4
1956.	53.5	53.5	.0	.0
1957.	53.5	53.5	.0	.0
1958.	54.7	54.7	.0	.0
1959.	56.7	56.3	-.7	-.4
1960.	55.1	55.1	.0	.0
1961.	55.4	55.2	-.4	-.2
1962.	55.3	54.9	-.7	-.4
1963.	54.2	54.2	.0	.0
1964.	56.0	56.0	.0	.0
1965.	54.0	54.0	.0	.0
1966.	56.3	55.8	-.9	-.5
1967.	54.5	54.5	.0	.0
1968.	56.8	56.8	.0	.0
1969.	54.2	54.2	.0	.0
1970.	56.5	56.3	-.4	-.2
1971.	54.7	54.7	.0	.0
1972.	55.4	54.8	-1.1	-.6
1973.	54.4	54.6	.4	.2
1974.	54.2	54.2	.0	.0
1975.	53.4	53.4	.0	.0
1976.	54.2	54.4	.4	.2
1977.	66.4	65.6	-1.2	-.8
1978.	54.5	54.5	.0	.0
1979.	54.8	54.8	.0	.0
1980.	53.5	53.5	.0	.0
1981.	55.2	55.1	-.2	-.1
1982.	53.1	53.1	.0	.0
1983.	53.7	53.7	.0	.0
1984.	53.6	53.9	.6	.3
1985.	54.3	54.7	.7	.4
1986.	54.7	54.7	.0	.0
1987.	57.3	57.3	.0	.0
1988.	55.4	55.4	.0	.0
1989.	54.9	54.8	-.2	-.1
1990.	54.7	54.8	.2	.1
Mean:	55.2	55.2	.0	.0
Median:	54.7	54.7	.0	.0
Min:	53.0	53.0	-1.2	-.8
Max:	66.4	65.6	.7	.4
X > 56.0	13	11		
Mean X > 56.0	58.7	59.1	.7	.4
X > 60.0	4	4		
Mean X > 60.0	63.1	62.9	-.3	-.2
X > 62.5	2	2		
Mean X > 62.5	64.6	64.2	-.6	-.4
X > 65.0	1	1		
Mean X > 65.0	66.4	65.6	-1.2	-.8
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

September

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	54.2	54.2	.0	.0
1923.	52.8	52.8	.0	.0
1924.	66.0	66.0	.0	.0
1925.	52.8	52.2	-1.1	-.6
1926.	53.3	53.4	.2	.1
1927.	54.2	54.2	.0	.0
1928.	53.9	53.9	.0	.0
1929.	53.4	53.3	-.2	-.1
1930.	51.2	51.3	.2	.1
1931.	64.8	64.9	.2	.1
1932.	63.3	61.9	-2.2	-1.4
1933.	58.4	57.8	-1.0	-.6
1934.	64.9	65.0	.2	.1
1935.	60.5	60.4	-.2	-.1
1936.	58.7	58.1	-1.0	-.6
1937.	51.3	51.5	.4	.2
1938.	56.8	56.9	.2	.1
1939.	55.5	55.9	.7	.4
1940.	52.6	52.6	.0	.0
1941.	54.0	54.0	.0	.0
1942.	54.0	54.0	.0	.0
1943.	56.1	56.1	.0	.0
1944.	55.2	55.2	.0	.0
1945.	54.8	54.7	-.2	-.1
1946.	52.1	52.1	.0	.0
1947.	55.3	55.2	-.2	-.1
1948.	55.8	55.9	.2	.1
1949.	50.5	50.5	.0	.0
1950.	50.5	50.5	.0	.0
1951.	53.8	53.8	.0	.0
1952.	54.2	54.2	.0	.0
1953.	55.3	55.3	.0	.0
1954.	54.2	54.2	.0	.0
1955.	54.2	54.2	.0	.0
1956.	54.0	54.0	.0	.0
1957.	54.5	54.7	.4	.2
1958.	56.5	56.5	.0	.0
1959.	57.1	57.6	.9	.5
1960.	54.9	55.0	.2	.1
1961.	55.4	55.1	-.5	-.3
1962.	54.9	55.1	.4	.2
1963.	56.6	56.6	.0	.0
1964.	53.8	53.8	.0	.0
1965.	53.9	53.9	.0	.0
1966.	54.1	54.3	.4	.2
1967.	56.9	56.9	.0	.0
1968.	55.5	55.6	.2	.1
1969.	54.1	54.1	.0	.0
1970.	54.0	54.0	.0	.0
1971.	55.5	55.5	.0	.0
1972.	52.9	52.9	.0	.0
1973.	53.5	53.5	.0	.0
1974.	53.6	53.6	.0	.0
1975.	57.4	57.4	.0	.0
1976.	57.2	57.1	-.2	-.1
1977.	66.0	66.1	.2	.1
1978.	53.2	53.2	.0	.0
1979.	54.3	54.3	.0	.0
1980.	52.8	52.8	.0	.0
1981.	54.2	54.3	.2	.1
1982.	52.8	52.8	.0	.0
1983.	52.9	52.9	.0	.0
1984.	54.1	54.1	.0	.0
1985.	51.6	51.6	.0	.0
1986.	51.9	52.0	.2	.1
1987.	52.6	52.7	.2	.1
1988.	54.0	53.9	-.2	-.1
1989.	52.3	52.3	.0	.0
1990.	57.1	57.7	1.1	.6
Mean:	55.1	55.1	.0	.0
Median:	54.2	54.2	.0	.0
Min:	50.5	50.5	-2.2	-1.4
Max:	66.0	66.1	1.1	.6
X > 56.0	17	17		
Mean X > 56.0	59.7	59.6	-.2	-.1
X > 60.0	6	6		
Mean X > 60.0	64.3	64.0	-.5	-.3
X > 62.5	5	4		
Mean X > 62.5	65.0	65.5	.8	.5
X > 65.0	2	2		
Mean X > 65.0	66.0	66.1	.2	.1
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

October"

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	50.0	50.0	.0	.0
1923.	53.3	53.2	-.2	-.1
1924.	57.4	57.4	.0	.0
1925.	55.3	54.6	-1.3	-.7
1926.	56.7	56.7	.0	.0
1927.	52.4	52.4	.0	.0
1928.	53.5	53.4	-.2	-.1
1929.	56.5	56.3	-.4	-.2
1930.	53.8	53.9	.2	.1
1931.	60.2	60.2	.0	.0
1932.	61.0	60.5	-.8	-.5
1933.	62.3	62.1	-.3	-.2
1934.	60.6	60.6	.0	.0
1935.	58.8	58.8	.0	.0
1936.	59.3	59.1	-.3	-.2
1937.	55.5	54.6	-1.6	-.9
1938.	54.0	54.0	.0	.0
1939.	57.1	57.3	.4	.2
1940.	52.5	52.7	.4	.2
1941.	54.1	54.1	.0	.0
1942.	53.5	53.5	.0	.0
1943.	52.1	52.2	.2	.1
1944.	55.0	54.9	-.2	-.1
1945.	54.6	54.6	.0	.0
1946.	49.7	49.6	-.2	-.1
1947.	56.0	55.9	-.2	-.1
1948.	53.8	53.8	.0	.0
1949.	47.2	47.5	.6	.3
1950.	50.3	50.3	.0	.0
1951.	49.2	49.2	.0	.0
1952.	51.1	51.1	.0	.0
1953.	52.3	52.3	.0	.0
1954.	53.6	53.6	.0	.0
1955.	54.1	53.6	-.9	-.5
1956.	51.3	51.3	.0	.0
1957.	52.2	52.2	.0	.0
1958.	56.1	56.2	.2	.1
1959.	57.5	58.0	.9	.5
1960.	54.5	54.6	.2	.1
1961.	55.3	54.8	-.9	-.5
1962.	54.0	54.7	1.3	.7
1963.	52.9	52.9	.0	.0
1964.	55.1	55.1	.0	.0
1965.	53.2	53.2	.0	.0
1966.	53.4	54.0	1.1	.6
1967.	55.2	55.2	.0	.0
1968.	53.3	53.8	.9	.5
1969.	49.8	49.8	.0	.0
1970.	51.6	51.9	.6	.3
1971.	52.9	52.9	.0	.0
1972.	52.8	53.4	1.1	.6
1973.	50.5	50.5	.0	.0
1974.	53.2	53.2	.0	.0
1975.	54.1	54.1	.0	.0
1976.	56.7	56.6	-.2	-.1
1977.	60.9	60.9	.0	.0
1978.	53.9	53.9	.0	.0
1979.	52.3	52.2	-.2	-.1
1980.	50.4	50.4	.0	.0
1981.	52.4	52.6	.4	.2
1982.	48.6	48.6	.0	.0
1983.	56.1	56.1	.0	.0
1984.	51.7	51.7	.0	.0
1985.	52.2	52.2	.0	.0
1986.	52.7	52.7	.0	.0
1987.	54.4	54.8	.7	.4
1988.	56.7	56.6	-.2	-.1
1989.	53.4	53.6	.4	.2
1990.	57.5	57.7	.3	.2
Mean:	54.1	54.2	.0	.0
Median:	53.5	53.7	.0	.0
Min:	47.2	47.5	-1.6	-.9
Max:	62.3	62.1	1.3	.7
X > 56.0	17	17		
Mean X > 56.0	58.3	58.3	.0	.0
X > 60.0	5	5		
Mean X > 60.0	61.0	60.9	-.2	-.1
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

November

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	49.0	49.0	.0	.0
1923.	53.6	53.6	.0	.0
1924.	51.3	51.3	.0	.0
1925.	52.0	51.8	-.4	-.2
1926.	53.0	53.0	.0	.0
1927.	51.1	51.1	.0	.0
1928.	51.8	51.7	-.2	-.1
1929.	55.9	55.6	-.5	-.3
1930.	52.2	52.4	.4	.2
1931.	51.7	51.6	-.2	-.1
1932.	56.0	56.1	.2	.1
1933.	56.3	56.3	.0	.0
1934.	52.1	52.1	.0	.0
1935.	53.2	53.2	.0	.0
1936.	57.5	57.5	.0	.0
1937.	51.9	51.8	-.2	-.1
1938.	52.8	52.8	.0	.0
1939.	54.8	54.9	.2	.1
1940.	51.4	51.7	.6	.3
1941.	53.6	53.6	.0	.0
1942.	51.6	51.6	.0	.0
1943.	50.5	50.5	.0	.0
1944.	51.2	51.2	.0	.0
1945.	51.2	51.2	.0	.0
1946.	49.7	49.6	-.2	-.1
1947.	52.5	52.5	.0	.0
1948.	51.4	51.4	.0	.0
1949.	46.4	46.6	.4	.2
1950.	47.4	47.4	.0	.0
1951.	47.8	48.1	.6	.3
1952.	47.2	47.2	.0	.0
1953.	51.3	51.3	.0	.0
1954.	51.6	51.7	.2	.1
1955.	51.5	51.3	-.4	-.2
1956.	52.6	52.7	.2	.1
1957.	51.7	51.8	.2	.1
1958.	54.7	54.7	.0	.0
1959.	55.4	55.5	.2	.1
1960.	51.7	51.8	.2	.1
1961.	52.3	52.2	-.2	-.1
1962.	53.3	53.4	.2	.1
1963.	51.0	51.0	.0	.0
1964.	51.0	51.0	.0	.0
1965.	50.5	50.5	.0	.0
1966.	52.1	52.3	.4	.2
1967.	55.0	55.1	.2	.1
1968.	51.5	51.9	.8	.4
1969.	50.4	50.4	.0	.0
1970.	51.3	51.3	.0	.0
1971.	52.1	52.1	.0	.0
1972.	51.0	51.3	.6	.3
1973.	49.2	49.2	.0	.0
1974.	52.2	52.2	.0	.0
1975.	52.0	52.0	.0	.0
1976.	54.7	54.7	.0	.0
1977.	52.3	52.4	.2	.1
1978.	49.5	49.6	.2	.1
1979.	49.7	49.6	-.2	-.1
1980.	48.3	48.3	.0	.0
1981.	51.2	51.3	.2	.1
1982.	46.6	46.6	.0	.0
1983.	52.4	52.4	.0	.0
1984.	50.1	50.1	.0	.0
1985.	48.8	48.8	.0	.0
1986.	51.6	51.6	.0	.0
1987.	51.2	51.8	1.2	.6
1988.	51.3	51.3	.0	.0
1989.	51.8	51.9	.2	.1
1990.	52.5	52.6	.2	.1
Mean:	51.7	51.7	.1	.0
Median:	51.6	51.7	.0	.0
Min:	46.4	46.6	-.5	-.3
Max:	57.5	57.5	1.2	.6
X > 56.0	2	3		
Mean X > 56.0	56.9	56.6	-.5	-.3
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

December

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	45.8	45.8	.0	.0
1923.	47.6	47.6	.0	.0
1924.	44.2	44.2	.0	.0
1925.	48.5	48.6	.2	.1
1926.	46.7	46.7	.0	.0
1927.	47.3	47.3	.0	.0
1928.	46.3	46.3	.0	.0
1929.	48.9	48.9	.0	.0
1930.	48.8	48.8	.0	.0
1931.	44.9	44.9	.0	.0
1932.	45.1	45.2	.2	.1
1933.	46.1	46.1	.0	.0
1934.	47.3	47.3	.0	.0
1935.	48.1	48.1	.0	.0
1936.	49.1	49.1	.0	.0
1937.	48.3	48.4	.2	.1
1938.	49.5	49.5	.0	.0
1939.	49.0	49.0	.0	.0
1940.	48.5	48.4	-.2	-.1
1941.	48.3	48.3	.0	.0
1942.	46.8	46.8	.0	.0
1943.	49.0	49.0	.0	.0
1944.	47.7	47.7	.0	.0
1945.	46.9	46.9	.0	.0
1946.	47.1	47.1	.0	.0
1947.	46.9	46.9	.0	.0
1948.	45.4	45.4	.0	.0
1949.	47.6	47.5	-.2	-.1
1950.	48.2	48.2	.0	.0
1951.	46.7	46.7	.0	.0
1952.	46.7	46.7	.0	.0
1953.	48.8	48.8	.0	.0
1954.	46.5	46.5	.0	.0
1955.	47.7	47.7	.0	.0
1956.	50.7	50.7	.0	.0
1957.	47.6	47.6	.0	.0
1958.	52.8	52.8	.0	.0
1959.	50.3	50.2	-.2	-.1
1960.	47.2	47.2	.0	.0
1961.	46.7	46.8	.2	.1
1962.	49.8	49.8	.0	.0
1963.	46.9	46.9	.0	.0
1964.	47.3	47.4	.2	.1
1965.	46.2	46.2	.0	.0
1966.	48.3	48.2	-.2	-.1
1967.	49.2	49.2	.0	.0
1968.	45.5	45.5	.0	.0
1969.	49.6	49.6	.0	.0
1970.	47.2	47.2	.0	.0
1971.	46.2	46.2	.0	.0
1972.	44.9	44.9	.0	.0
1973.	47.1	47.1	.0	.0
1974.	47.6	47.6	.0	.0
1975.	48.7	48.7	.0	.0
1976.	51.9	51.7	-.4	-.2
1977.	47.0	47.1	.2	.1
1978.	47.2	47.2	.0	.0
1979.	45.8	45.8	.0	.0
1980.	47.8	47.8	.0	.0
1981.	47.1	47.1	.0	.0
1982.	45.7	45.7	.0	.0
1983.	46.9	46.9	.0	.0
1984.	45.5	45.5	.0	.0
1985.	45.6	45.6	.0	.0
1986.	47.2	47.2	.0	.0
1987.	46.0	46.0	.0	.0
1988.	45.9	45.9	.0	.0
1989.	47.4	47.4	.0	.0
1990.	44.0	44.1	.2	.1
Mean:	47.4	47.4	.0	.0
Median:	47.2	47.2	.0	.0
Min:	44.0	44.1	-.4	-.2
Max:	52.8	52.8	.2	.1

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 20

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

January

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	44.0	44.0	.0	.0
1923.	43.8	43.8	.0	.0
1924.	45.0	45.0	.0	.0
1925.	44.0	44.0	.0	.0
1926.	44.4	44.4	.0	.0
1927.	45.3	45.3	.0	.0
1928.	45.0	45.0	.0	.0
1929.	43.2	43.2	.0	.0
1930.	44.2	44.3	.2	.1
1931.	46.0	46.0	.0	.0
1932.	43.7	43.7	.0	.0
1933.	42.6	42.4	-.5	-.2
1934.	46.7	46.8	.2	.1
1935.	44.6	44.6	.0	.0
1936.	45.7	45.7	.0	.0
1937.	39.7	39.7	.0	.0
1938.	46.8	46.8	.0	.0
1939.	47.1	47.1	.0	.0
1940.	45.4	45.4	.0	.0
1941.	46.5	46.5	.0	.0
1942.	45.8	45.7	-.2	-.1
1943.	45.4	45.4	.0	.0
1944.	45.6	45.6	.0	.0
1945.	45.6	45.6	.0	.0
1946.	44.9	44.9	.0	.0
1947.	44.3	44.3	.0	.0
1948.	46.5	46.5	.0	.0
1949.	41.1	41.1	.0	.0
1950.	41.7	41.7	.0	.0
1951.	44.5	44.5	.0	.0
1952.	43.8	43.8	.0	.0
1953.	47.0	47.0	.0	.0
1954.	45.9	45.9	.0	.0
1955.	44.4	44.4	.0	.0
1956.	45.3	45.3	.0	.0
1957.	45.2	45.2	.0	.0
1958.	45.8	45.8	.0	.0
1959.	47.8	47.8	.0	.0
1960.	44.9	44.9	.0	.0
1961.	45.6	45.6	.0	.0
1962.	46.9	46.9	.0	.0
1963.	45.7	45.7	.0	.0
1964.	44.8	44.8	.0	.0
1965.	46.0	46.0	.0	.0
1966.	44.6	44.6	.0	.0
1967.	45.6	45.6	.0	.0
1968.	45.1	45.1	.0	.0
1969.	43.5	43.6	.2	.1
1970.	47.1	47.1	.0	.0
1971.	45.0	45.0	.0	.0
1972.	44.2	44.2	.0	.0
1973.	43.6	43.6	.0	.0
1974.	45.2	45.2	.0	.0
1975.	45.9	45.9	.0	.0
1976.	47.9	47.9	.0	.0
1977.	46.4	46.5	.2	.1
1978.	45.4	45.4	.0	.0
1979.	44.9	44.9	.0	.0
1980.	45.1	45.1	.0	.0
1981.	45.3	45.3	.0	.0
1982.	43.8	43.8	.0	.0
1983.	44.6	44.6	.0	.0
1984.	45.8	45.8	.0	.0
1985.	44.0	44.0	.0	.0
1986.	45.7	45.7	.0	.0
1987.	43.8	43.8	.0	.0
1988.	44.7	44.7	.0	.0
1989.	44.2	44.2	.0	.0
1990.	44.7	44.7	.0	.0
Mean:	45.0	45.0	.0	.0
Median:	45.0	45.0	.0	.0
Min:	39.7	39.7	-.5	-.2
Max:	47.9	47.9	.2	.1
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

February

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	46.6	46.6	.0	.0
1923.	50.3	50.3	.0	.0
1924.	48.9	48.9	.0	.0
1925.	48.1	48.1	.0	.0
1926.	48.0	48.1	.2	.1
1927.	47.7	47.7	.0	.0
1928.	48.9	48.9	.0	.0
1929.	46.2	46.2	.0	.0
1930.	47.5	47.4	-.2	-.1
1931.	48.6	48.6	.0	.0
1932.	47.8	47.8	.0	.0
1933.	45.4	45.3	-.2	-.1
1934.	48.6	48.6	.0	.0
1935.	48.3	48.3	.0	.0
1936.	47.9	47.9	.0	.0
1937.	46.0	46.0	.0	.0
1938.	47.2	47.2	.0	.0
1939.	46.3	46.3	.0	.0
1940.	48.2	48.2	.0	.0
1941.	48.7	48.7	.0	.0
1942.	47.3	47.3	.0	.0
1943.	49.5	49.5	.0	.0
1944.	47.0	47.0	.0	.0
1945.	48.8	48.8	.0	.0
1946.	45.4	45.4	.0	.0
1947.	47.8	48.1	.6	.3
1948.	46.8	46.8	.0	.0
1949.	44.5	44.6	.2	.1
1950.	46.9	46.9	.0	.0
1951.	46.8	46.8	.0	.0
1952.	47.0	47.0	.0	.0
1953.	50.1	50.1	.0	.0
1954.	49.8	49.8	.0	.0
1955.	47.6	47.6	.0	.0
1956.	46.5	46.5	.0	.0
1957.	50.1	50.1	.0	.0
1958.	48.8	48.8	.0	.0
1959.	48.6	48.6	.0	.0
1960.	48.1	48.0	-.2	-.1
1961.	49.5	49.5	.0	.0
1962.	47.6	47.6	.0	.0
1963.	50.6	50.6	.0	.0
1964.	51.2	51.2	.0	.0
1965.	50.0	50.0	.0	.0
1966.	47.0	47.0	.0	.0
1967.	50.1	50.1	.0	.0
1968.	50.7	50.7	.0	.0
1969.	45.9	45.9	.0	.0
1970.	51.1	51.1	.0	.0
1971.	48.7	48.7	.0	.0
1972.	48.9	48.9	.0	.0
1973.	49.0	49.0	.0	.0
1974.	48.2	48.2	.0	.0
1975.	47.7	47.7	.0	.0
1976.	48.3	48.3	.0	.0
1977.	48.4	48.3	-.2	-.1
1978.	48.9	49.1	.4	.2
1979.	47.6	47.6	.0	.0
1980.	48.4	48.4	.0	.0
1981.	48.5	48.5	.0	.0
1982.	47.2	47.2	.0	.0
1983.	47.3	47.3	.0	.0
1984.	48.2	48.2	.0	.0
1985.	49.3	49.3	.0	.0
1986.	49.4	49.3	-.2	-.1
1987.	47.1	47.1	.0	.0
1988.	51.2	51.2	.0	.0
1989.	45.2	45.2	.0	.0
1990.	45.5	45.5	.0	.0
Mean:	48.1	48.1	.0	.0
Median:	48.1	48.1	.0	.0
Min:	44.5	44.6	-.2	-.1
Max:	51.2	51.2	.6	.3

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

March

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	50.6	50.6	.0	.0
1923.	55.2	55.2	.0	.0
1924.	50.2	50.2	.0	.0
1925.	49.7	49.7	.0	.0
1926.	57.1	57.1	.0	.0
1927.	51.9	51.9	.0	.0
1928.	52.3	52.3	.0	.0
1929.	49.7	49.7	.0	.0
1930.	53.9	53.9	.0	.0
1931.	51.8	51.8	.0	.0
1932.	54.3	54.3	.0	.0
1933.	51.9	51.8	-.2	-.1
1934.	54.4	54.4	.0	.0
1935.	50.2	50.2	.0	.0
1936.	54.8	54.8	.0	.0
1937.	50.9	50.9	.0	.0
1938.	49.0	49.0	.0	.0
1939.	53.9	53.9	.0	.0
1940.	53.3	53.3	.0	.0
1941.	52.5	52.5	.0	.0
1942.	52.0	52.0	.0	.0
1943.	52.2	52.2	.0	.0
1944.	53.8	53.8	.0	.0
1945.	50.2	50.2	.0	.0
1946.	51.6	51.6	.0	.0
1947.	53.9	53.9	.0	.0
1948.	49.8	49.8	.0	.0
1949.	50.8	50.8	.0	.0
1950.	51.2	51.2	.0	.0
1951.	52.2	52.2	.0	.0
1952.	49.8	49.8	.0	.0
1953.	52.5	52.5	.0	.0
1954.	50.6	50.6	.0	.0
1955.	53.5	53.4	-.2	-.1
1956.	52.6	52.6	.0	.0
1957.	52.3	52.3	.0	.0
1958.	49.6	49.6	.0	.0
1959.	55.2	55.2	.0	.0
1960.	53.8	53.8	.0	.0
1961.	51.8	51.8	.0	.0
1962.	51.3	51.3	.0	.0
1963.	52.0	52.0	.0	.0
1964.	52.8	52.8	.0	.0
1965.	55.0	55.0	.0	.0
1966.	52.5	52.5	.0	.0
1967.	50.4	50.4	.0	.0
1968.	53.7	53.7	.0	.0
1969.	52.6	52.6	.0	.0
1970.	53.5	53.5	.0	.0
1971.	49.9	49.9	.0	.0
1972.	53.6	53.6	.0	.0
1973.	50.9	50.9	.0	.0
1974.	51.5	51.5	.0	.0
1975.	50.0	50.0	.0	.0
1976.	52.5	52.5	.0	.0
1977.	50.6	50.5	-.2	-.1
1978.	54.1	54.1	.0	.0
1979.	53.2	53.2	.0	.0
1980.	51.9	51.9	.0	.0
1981.	51.7	51.7	.0	.0
1982.	48.4	48.4	.0	.0
1983.	50.6	50.6	.0	.0
1984.	53.7	53.7	.0	.0
1985.	50.1	50.1	.0	.0
1986.	52.9	52.9	.0	.0
1987.	51.3	51.3	.0	.0
1988.	54.6	54.7	.2	.1
1989.	50.9	50.8	-.2	-.1
1990.	51.4	51.3	-.2	-.1
Mean:	52.1	52.1	.0	.0
Median:	51.9	51.9	.0	.0
Min:	48.4	48.4	-.2	-.1
Max:	57.1	57.1	.2	.1

X > 56.0	1	1		
Mean X > 56.0	57.1	57.1	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

April

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	55.5	55.5	.0	.0
1923.	55.1	55.1	.0	.0
1924.	54.7	54.7	.0	.0
1925.	55.6	55.6	.0	.0
1926.	56.3	56.3	.0	.0
1927.	54.2	54.2	.0	.0
1928.	55.0	55.0	.0	.0
1929.	51.1	51.3	.4	.2
1930.	55.6	55.6	.0	.0
1931.	53.9	53.9	.0	.0
1932.	54.2	54.4	.4	.2
1933.	54.7	54.6	-.2	-.1
1934.	56.3	56.0	-.5	-.3
1935.	55.6	55.6	.0	.0
1936.	55.7	55.7	.0	.0
1937.	54.0	54.0	.0	.0
1938.	53.4	53.4	.0	.0
1939.	54.3	54.1	-.4	-.2
1940.	56.0	56.0	.0	.0
1941.	53.5	53.5	.0	.0
1942.	54.7	54.7	.0	.0
1943.	55.0	55.0	.0	.0
1944.	53.1	53.3	.4	.2
1945.	55.2	55.2	.0	.0
1946.	54.9	54.7	-.4	-.2
1947.	56.4	56.4	.0	.0
1948.	54.4	54.4	.0	.0
1949.	55.7	55.7	.0	.0
1950.	55.9	55.9	.0	.0
1951.	54.3	54.3	.0	.0
1952.	52.3	52.3	.0	.0
1953.	54.6	54.6	.0	.0
1954.	53.7	53.7	.0	.0
1955.	53.8	53.8	.0	.0
1956.	55.1	55.1	.0	.0
1957.	54.4	54.4	.0	.0
1958.	53.9	53.9	.0	.0
1959.	55.2	55.2	.0	.0
1960.	54.2	54.3	.2	.1
1961.	54.7	55.0	.5	.3
1962.	56.6	56.6	.0	.0
1963.	52.1	52.1	.0	.0
1964.	53.3	53.4	.2	.1
1965.	55.6	55.6	.0	.0
1966.	54.5	54.5	.0	.0
1967.	51.9	51.9	.0	.0
1968.	55.0	55.0	.0	.0
1969.	53.2	53.3	.2	.1
1970.	53.6	53.6	.0	.0
1971.	54.7	54.7	.0	.0
1972.	53.8	53.8	.0	.0
1973.	55.9	55.9	.0	.0
1974.	54.6	54.6	.0	.0
1975.	54.1	54.1	.0	.0
1976.	53.4	53.4	.0	.0
1977.	55.0	55.0	.0	.0
1978.	55.0	55.0	.0	.0
1979.	54.4	54.4	.0	.0
1980.	54.6	54.6	.0	.0
1981.	55.4	55.4	.0	.0
1982.	52.1	52.1	.0	.0
1983.	53.4	53.4	.0	.0
1984.	53.3	53.3	.0	.0
1985.	56.1	56.1	.0	.0
1986.	55.0	55.0	.0	.0
1987.	54.5	54.5	.0	.0
1988.	55.4	55.5	.2	.1
1989.	55.8	55.8	.0	.0
1990.	55.5	54.3	-2.2	-1.2
Mean:	54.6	54.5	.0	.0
Median:	54.6	54.6	.0	.0
Min:	51.1	51.3	-2.2	-1.2
Max:	56.6	56.6	.5	.3
X > 56.0	5	4		
Mean X > 56.0	56.3	56.3	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

May

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	57.4	57.4	.0	.0
1923.	53.0	53.1	.2	.1
1924.	55.4	55.4	.0	.0
1925.	59.5	60.0	.8	.5
1926.	56.4	56.4	.0	.0
1927.	53.8	53.8	.0	.0
1928.	55.5	55.5	.0	.0
1929.	53.8	53.6	-.4	-.2
1930.	54.8	54.8	.0	.0
1931.	55.6	55.7	.2	.1
1932.	56.7	57.1	.7	.4
1933.	53.6	53.6	.0	.0
1934.	54.9	54.9	.0	.0
1935.	56.6	57.0	.7	.4
1936.	54.2	54.2	.0	.0
1937.	55.3	55.3	.0	.0
1938.	55.0	55.0	.0	.0
1939.	52.7	52.7	.0	.0
1940.	57.1	57.1	.0	.0
1941.	52.9	52.9	.0	.0
1942.	53.5	53.5	.0	.0
1943.	55.5	55.5	.0	.0
1944.	54.2	54.4	.4	.2
1945.	53.5	53.5	.0	.0
1946.	53.1	53.1	.0	.0
1947.	53.3	53.5	.4	.2
1948.	55.0	54.9	-.2	-.1
1949.	53.9	53.9	.0	.0
1950.	52.9	52.9	.0	.0
1951.	56.3	56.3	.0	.0
1952.	53.9	53.9	.0	.0
1953.	54.7	54.7	.0	.0
1954.	54.7	54.7	.0	.0
1955.	57.9	58.3	.7	.4
1956.	53.8	53.8	.0	.0
1957.	55.6	55.6	.0	.0
1958.	55.2	55.2	.0	.0
1959.	53.9	53.7	-.4	-.2
1960.	55.2	55.4	.4	.2
1961.	52.5	52.3	-.4	-.2
1962.	53.5	53.5	.0	.0
1963.	56.9	56.9	.0	.0
1964.	54.3	54.6	.6	.3
1965.	55.8	55.8	.0	.0
1966.	53.4	53.4	.0	.0
1967.	53.0	53.0	.0	.0
1968.	54.2	54.2	.0	.0
1969.	53.5	53.5	.0	.0
1970.	55.7	55.7	.0	.0
1971.	52.9	52.9	.0	.0
1972.	52.8	52.7	-.2	-.1
1973.	57.0	57.0	.0	.0
1974.	55.5	55.5	.0	.0
1975.	54.4	54.4	.0	.0
1976.	55.7	55.4	-.5	-.3
1977.	54.5	54.6	.2	.1
1978.	54.9	54.9	.0	.0
1979.	56.5	56.5	.0	.0
1980.	54.5	54.5	.0	.0
1981.	53.1	53.0	-.2	-.1
1982.	59.3	59.3	.0	.0
1983.	54.9	54.9	.0	.0
1984.	53.8	53.6	-.4	-.2
1985.	53.0	52.9	-.2	-.1
1986.	53.9	53.9	.0	.0
1987.	53.7	53.2	-.9	-.5
1988.	52.6	52.6	.0	.0
1989.	53.5	53.1	-.7	-.4
1990.	53.8	53.6	-.4	-.2
Mean:	54.7	54.7	.0	.0
Median:	54.3	54.4	.0	.0
Min:	52.5	52.3	-.9	-.5
Max:	59.5	60.0	.8	.5
X > 56.0	12	12		
Mean X > 56.0	57.3	57.4	.2	.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

June

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	55.4	55.4	.0	.0
1923.	52.5	52.6	.2	.1
1924.	55.3	55.3	.0	.0
1925.	56.8	57.2	.7	.4
1926.	56.2	55.9	-.5	-.3
1927.	55.5	55.5	.0	.0
1928.	54.0	53.8	-.4	-.2
1929.	55.5	56.0	.9	.5
1930.	55.0	55.0	.0	.0
1931.	56.0	55.9	-.2	-.1
1932.	58.1	58.3	.3	.2
1933.	56.2	56.2	.0	.0
1934.	54.1	54.2	.2	.1
1935.	54.1	54.1	.0	.0
1936.	54.9	54.9	.0	.0
1937.	54.6	54.7	.2	.1
1938.	55.4	55.4	.0	.0
1939.	53.9	53.7	-.4	-.2
1940.	55.9	55.9	.0	.0
1941.	53.5	53.5	.0	.0
1942.	54.3	54.3	.0	.0
1943.	53.1	53.1	.0	.0
1944.	52.9	52.8	-.2	-.1
1945.	54.4	54.4	.0	.0
1946.	52.4	52.4	.0	.0
1947.	54.0	54.0	.0	.0
1948.	55.0	55.0	.0	.0
1949.	52.6	52.6	.0	.0
1950.	53.3	53.3	.0	.0
1951.	54.2	54.2	.0	.0
1952.	53.6	53.6	.0	.0
1953.	53.1	53.1	.0	.0
1954.	54.0	53.8	-.4	-.2
1955.	52.1	52.9	1.5	.8
1956.	55.3	55.3	.0	.0
1957.	56.4	56.2	-.4	-.2
1958.	53.8	53.8	.0	.0
1959.	54.7	54.7	.0	.0
1960.	53.4	53.5	.2	.1
1961.	54.9	55.3	.7	.4
1962.	55.2	55.2	.0	.0
1963.	56.6	56.6	.0	.0
1964.	55.4	55.7	.5	.3
1965.	55.7	55.7	.0	.0
1966.	53.4	53.2	-.4	-.2
1967.	54.6	54.6	.0	.0
1968.	54.5	54.1	-.7	-.4
1969.	54.2	54.2	.0	.0
1970.	55.8	55.8	.0	.0
1971.	53.8	53.8	.0	.0
1972.	54.4	54.4	.0	.0
1973.	55.6	55.5	-.2	-.1
1974.	55.2	55.2	.0	.0
1975.	55.1	55.1	.0	.0
1976.	55.9	56.0	.2	.1
1977.	57.7	57.7	.0	.0
1978.	54.9	54.9	.0	.0
1979.	52.9	53.0	.2	.1
1980.	53.6	53.6	.0	.0
1981.	55.3	55.0	-.5	-.3
1982.	54.6	54.6	.0	.0
1983.	54.0	54.0	.0	.0
1984.	53.9	53.9	.0	.0
1985.	54.9	54.9	.0	.0
1986.	54.2	54.2	.0	.0
1987.	53.9	53.9	.0	.0
1988.	53.4	53.8	.7	.4
1989.	53.6	53.5	-.2	-.1
1990.	55.8	55.8	.0	.0
Mean:	54.6	54.6	.0	.0
Median:	54.5	54.4	.0	.0
Min:	52.1	52.4	-.7	-.4
Max:	58.1	58.3	1.5	.8
X > 56.0	7	6		
Mean X > 56.0	56.9	57.0	.2	.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

July

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	55.9	55.9	.0	.0
1923.	55.0	55.0	.0	.0
1924.	57.2	57.2	.0	.0
1925.	56.3	56.6	.5	.3
1926.	57.1	56.8	-.5	-.3
1927.	54.5	54.5	.0	.0
1928.	53.0	53.5	.9	.5
1929.	55.6	55.4	-.4	-.2
1930.	56.0	55.7	-.5	-.3
1931.	58.4	58.4	.0	.0
1932.	57.0	57.7	1.2	.7
1933.	58.9	58.4	-.8	-.5
1934.	57.2	57.1	-.2	-.1
1935.	54.1	54.1	.0	.0
1936.	54.7	54.7	.0	.0
1937.	55.1	55.1	.0	.0
1938.	54.6	54.6	.0	.0
1939.	55.6	55.5	-.2	-.1
1940.	54.0	53.7	-.6	-.3
1941.	54.3	54.3	.0	.0
1942.	54.2	54.2	.0	.0
1943.	54.0	54.0	.0	.0
1944.	54.1	54.2	.2	.1
1945.	53.9	54.0	.2	.1
1946.	52.8	52.9	.2	.1
1947.	53.7	53.5	-.4	-.2
1948.	53.4	53.5	.2	.1
1949.	53.5	53.1	-.7	-.4
1950.	54.2	54.2	.0	.0
1951.	53.9	53.7	-.4	-.2
1952.	54.6	54.6	.0	.0
1953.	54.5	54.5	.0	.0
1954.	53.3	53.2	-.2	-.1
1955.	54.4	54.3	-.2	-.1
1956.	54.3	54.3	.0	.0
1957.	54.0	54.0	.0	.0
1958.	54.6	54.6	.0	.0
1959.	55.2	55.2	.0	.0
1960.	54.6	54.7	.2	.1
1961.	54.7	54.9	.4	.2
1962.	56.0	55.6	-.7	-.4
1963.	53.7	53.7	.0	.0
1964.	56.0	55.5	-.9	-.5
1965.	54.9	54.9	.0	.0
1966.	53.2	53.1	-.2	-.1
1967.	55.1	55.1	.0	.0
1968.	54.2	53.9	-.6	-.3
1969.	54.4	54.4	.0	.0
1970.	54.1	54.0	-.2	-.1
1971.	55.5	55.5	.0	.0
1972.	53.5	53.5	.0	.0
1973.	55.2	55.0	-.4	-.2
1974.	54.5	54.5	.0	.0
1975.	54.5	54.5	.0	.0
1976.	57.0	57.0	.0	.0
1977.	58.8	58.4	-.7	-.4
1978.	55.7	55.7	.0	.0
1979.	53.6	54.0	.7	.4
1980.	55.2	55.2	.0	.0
1981.	55.5	55.5	.0	.0
1982.	53.2	53.2	.0	.0
1983.	53.7	53.7	.0	.0
1984.	54.9	54.7	-.4	-.2
1985.	55.9	55.8	-.2	-.1
1986.	54.2	54.2	.0	.0
1987.	54.9	54.5	-.7	-.4
1988.	56.3	56.5	.4	.2
1989.	54.5	54.7	.4	.2
1990.	54.6	55.1	.9	.5
Mean:	54.9	54.9	-.1	.0
Median:	54.5	54.5	.0	.0
Min:	52.8	52.9	-.9	-.5
Max:	58.9	58.4	1.2	.7
X > 56.0	10	10		
Mean X > 56.0	57.4	57.4	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

August

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	54.9	54.9	.0	.0
1923.	55.3	55.4	.2	.1
1924.	63.1	63.1	.0	.0
1925.	55.5	55.8	.5	.3
1926.	56.1	56.1	.0	.0
1927.	54.2	54.2	.0	.0
1928.	55.1	54.8	-.5	-.3
1929.	56.3	56.6	.5	.3
1930.	55.5	55.5	.0	.0
1931.	62.2	62.3	.2	.1
1932.	57.6	57.8	.3	.2
1933.	58.8	58.8	.0	.0
1934.	61.8	61.9	.2	.1
1935.	56.6	56.4	-.4	-.2
1936.	55.6	55.9	.5	.3
1937.	55.3	55.3	.0	.0
1938.	54.0	54.0	.0	.0
1939.	56.3	56.3	.0	.0
1940.	55.2	55.2	.0	.0
1941.	53.5	53.5	.0	.0
1942.	53.9	53.9	.0	.0
1943.	53.6	53.6	.0	.0
1944.	55.1	55.3	.4	.2
1945.	54.4	54.4	.0	.0
1946.	54.3	54.3	.0	.0
1947.	54.7	54.9	.4	.2
1948.	53.9	53.9	.0	.0
1949.	53.5	53.5	.0	.0
1950.	54.6	54.6	.0	.0
1951.	54.9	54.9	.0	.0
1952.	53.8	53.8	.0	.0
1953.	53.5	53.5	.0	.0
1954.	54.2	54.4	.4	.2
1955.	56.8	56.4	-.7	-.4
1956.	53.8	53.8	.0	.0
1957.	53.9	53.9	.0	.0
1958.	55.2	55.2	.0	.0
1959.	57.2	56.8	-.7	-.4
1960.	55.6	55.6	.0	.0
1961.	55.8	55.7	-.2	-.1
1962.	55.7	55.4	-.5	-.3
1963.	54.6	54.6	.0	.0
1964.	56.6	56.5	-.2	-.1
1965.	54.5	54.5	.0	.0
1966.	56.9	56.3	-1.1	-.6
1967.	55.0	55.0	.0	.0
1968.	57.2	57.2	.0	.0
1969.	54.7	54.7	.0	.0
1970.	56.9	56.8	-.2	-.1
1971.	55.1	55.1	.0	.0
1972.	55.9	55.3	-1.1	-.6
1973.	54.8	55.0	.4	.2
1974.	54.6	54.6	.0	.0
1975.	53.8	53.8	.0	.0
1976.	54.7	54.8	.2	.1
1977.	66.7	65.9	-1.2	-.8
1978.	55.0	55.0	.0	.0
1979.	55.3	55.3	.0	.0
1980.	54.0	54.0	.0	.0
1981.	55.7	55.6	-.2	-.1
1982.	53.5	53.5	.0	.0
1983.	54.1	54.1	.0	.0
1984.	54.0	54.3	.6	.3
1985.	54.8	55.2	.7	.4
1986.	55.3	55.3	.0	.0
1987.	57.9	57.9	.0	.0
1988.	55.9	56.0	.2	.1
1989.	55.5	55.4	-.2	-.1
1990.	55.2	55.3	.2	.1
Mean:	55.6	55.6	.0	.0
Median:	55.1	55.2	.0	.0
Min:	53.5	53.5	-1.2	-.8
Max:	66.7	65.9	.7	.4
X > 56.0	17	17		
Mean X > 56.0	58.5	58.4	-.2	-.1
X > 60.0	4	4		
Mean X > 60.0	63.5	63.3	-.3	-.2
X > 62.5	2	2		
Mean X > 62.5	64.9	64.5	-.6	-.4
X > 65.0	1	1		
Mean X > 65.0	66.7	65.9	-1.2	-.8
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

September

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	54.8	54.8	.0	.0
1923.	53.4	53.4	.0	.0
1924.	66.1	66.1	.0	.0
1925.	53.1	52.6	-.9	-.5
1926.	53.7	53.8	.2	.1
1927.	54.5	54.5	.0	.0
1928.	54.3	54.4	.2	.1
1929.	54.0	53.8	-.4	-.2
1930.	51.7	51.7	.0	.0
1931.	64.8	65.0	.3	.2
1932.	63.8	62.4	-2.2	-1.4
1933.	58.8	58.2	-1.0	-.6
1934.	65.2	65.3	.2	.1
1935.	60.8	60.7	-.2	-.1
1936.	59.0	58.4	-1.0	-.6
1937.	51.9	52.1	.4	.2
1938.	57.3	57.3	.0	.0
1939.	56.0	56.4	.7	.4
1940.	53.0	53.1	.2	.1
1941.	54.3	54.3	.0	.0
1942.	54.5	54.5	.0	.0
1943.	56.6	56.6	.0	.0
1944.	55.8	55.8	.0	.0
1945.	55.4	55.3	-.2	-.1
1946.	52.8	52.8	.0	.0
1947.	55.9	55.8	-.2	-.1
1948.	56.2	56.3	.2	.1
1949.	51.2	51.2	.0	.0
1950.	51.2	51.2	.0	.0
1951.	54.4	54.4	.0	.0
1952.	54.7	54.7	.0	.0
1953.	55.8	55.8	.0	.0
1954.	54.7	54.6	-.2	-.1
1955.	54.8	54.7	-.2	-.1
1956.	54.4	54.4	.0	.0
1957.	55.0	55.1	.2	.1
1958.	56.9	56.9	.0	.0
1959.	57.5	57.9	.7	.4
1960.	55.4	55.5	.2	.1
1961.	55.9	55.5	-.7	-.4
1962.	55.4	55.5	.2	.1
1963.	57.1	57.1	.0	.0
1964.	54.3	54.3	.0	.0
1965.	54.3	54.3	.0	.0
1966.	54.7	54.8	.2	.1
1967.	57.3	57.3	.0	.0
1968.	56.1	56.1	.0	.0
1969.	54.7	54.6	-.2	-.1
1970.	54.5	54.6	.2	.1
1971.	55.9	55.9	.0	.0
1972.	53.3	53.3	.0	.0
1973.	54.0	54.0	.0	.0
1974.	54.1	54.1	.0	.0
1975.	57.8	57.8	.0	.0
1976.	57.6	57.6	.0	.0
1977.	66.1	66.1	.0	.0
1978.	53.7	53.7	.0	.0
1979.	55.0	55.0	.0	.0
1980.	53.5	53.5	.0	.0
1981.	54.8	54.9	.2	.1
1982.	53.2	53.2	.0	.0
1983.	53.2	53.2	.0	.0
1984.	54.8	54.8	.0	.0
1985.	52.1	52.1	.0	.0
1986.	52.3	52.3	.0	.0
1987.	53.2	53.2	.0	.0
1988.	54.7	54.6	-.2	-.1
1989.	52.8	52.8	.0	.0
1990.	57.5	58.2	1.2	.7
Mean:	55.6	55.6	.0	.0
Median:	54.7	54.7	.0	.0
Min:	51.2	51.2	-2.2	-1.4
Max:	66.1	66.1	1.2	.7
X > 56.0	19	20		
Mean X > 56.0	59.6	59.4	-.3	-.2
X > 60.0	6	6		
Mean X > 60.0	64.5	64.3	-.3	-.2
X > 62.5	5	4		
Mean X > 62.5	65.2	65.6	.6	.4
X > 65.0	3	3		
Mean X > 65.0	65.8	65.8	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

October"

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	50.2	50.2	.0	.0
1923.	53.4	53.4	.0	.0
1924.	57.3	57.3	.0	.0
1925.	55.4	54.8	-1.1	-.6
1926.	56.9	56.9	.0	.0
1927.	52.6	52.6	.0	.0
1928.	53.7	53.6	-.2	-.1
1929.	56.8	56.6	-.4	-.2
1930.	54.1	54.2	.2	.1
1931.	60.1	60.1	.0	.0
1932.	61.0	60.5	-.8	-.5
1933.	62.4	62.2	-.3	-.2
1934.	60.6	60.6	.0	.0
1935.	58.8	58.7	-.2	-.1
1936.	59.3	59.2	-.2	-.1
1937.	55.7	54.8	-1.6	-.9
1938.	54.1	54.1	.0	.0
1939.	57.2	57.4	.3	.2
1940.	52.7	53.0	.6	.3
1941.	54.2	54.2	.0	.0
1942.	53.7	53.7	.0	.0
1943.	52.3	52.4	.2	.1
1944.	55.3	55.2	-.2	-.1
1945.	54.9	54.9	.0	.0
1946.	50.0	49.9	-.2	-.1
1947.	56.1	56.0	-.2	-.1
1948.	54.0	53.9	-.2	-.1
1949.	47.7	47.9	.4	.2
1950.	50.6	50.6	.0	.0
1951.	49.5	49.5	.0	.0
1952.	51.5	51.5	.0	.0
1953.	52.5	52.5	.0	.0
1954.	53.8	53.8	.0	.0
1955.	54.4	53.9	-.9	-.5
1956.	51.5	51.5	.0	.0
1957.	52.2	52.3	.2	.1
1958.	56.3	56.4	.2	.1
1959.	57.7	58.2	.9	.5
1960.	54.7	54.8	.2	.1
1961.	55.5	55.0	-.9	-.5
1962.	54.1	54.8	1.3	.7
1963.	53.1	53.1	.0	.0
1964.	55.4	55.4	.0	.0
1965.	53.4	53.5	.2	.1
1966.	53.7	54.3	1.1	.6
1967.	55.3	55.3	.0	.0
1968.	53.5	53.9	.7	.4
1969.	50.0	50.0	.0	.0
1970.	51.9	52.1	.4	.2
1971.	53.0	53.0	.0	.0
1972.	52.9	53.5	1.1	.6
1973.	50.7	50.7	.0	.0
1974.	53.4	53.5	.2	.1
1975.	54.2	54.2	.0	.0
1976.	56.9	56.9	.0	.0
1977.	60.9	60.9	.0	.0
1978.	54.3	54.3	.0	.0
1979.	52.6	52.4	-.4	-.2
1980.	50.8	50.8	.0	.0
1981.	52.6	52.7	.2	.1
1982.	48.9	48.9	.0	.0
1983.	56.2	56.2	.0	.0
1984.	51.8	51.9	.2	.1
1985.	52.5	52.5	.0	.0
1986.	52.9	52.9	.0	.0
1987.	54.8	55.1	.5	.3
1988.	57.1	57.0	-.2	-.1
1989.	53.6	53.7	.2	.1
1990.	57.7	57.9	.3	.2
Mean:	54.3	54.3	.0	.0
Median:	53.8	53.9	.0	.0
Min:	47.7	47.9	-1.6	-.9
Max:	62.4	62.2	1.3	.7
X > 56.0	18	17		
Mean X > 56.0	58.3	58.4	.2	.1
X > 60.0	5	5		
Mean X > 60.0	61.0	60.9	-.2	-.1
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

November

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	48.9	48.9	.0	.0
1923.	53.6	53.6	.0	.0
1924.	51.2	51.2	.0	.0
1925.	51.8	51.7	-.2	-.1
1926.	53.0	53.0	.0	.0
1927.	51.0	51.0	.0	.0
1928.	51.7	51.6	-.2	-.1
1929.	55.8	55.6	-.4	-.2
1930.	52.2	52.4	.4	.2
1931.	51.5	51.5	.0	.0
1932.	55.9	56.0	.2	.1
1933.	56.2	56.2	.0	.0
1934.	52.1	52.1	.0	.0
1935.	53.0	53.0	.0	.0
1936.	57.4	57.4	.0	.0
1937.	51.9	51.8	-.2	-.1
1938.	52.7	52.7	.0	.0
1939.	54.7	54.8	.2	.1
1940.	51.3	51.6	.6	.3
1941.	53.5	53.5	.0	.0
1942.	51.6	51.6	.0	.0
1943.	50.6	50.6	.0	.0
1944.	51.1	51.1	.0	.0
1945.	51.2	51.2	.0	.0
1946.	49.7	49.6	-.2	-.1
1947.	52.4	52.4	.0	.0
1948.	51.4	51.4	.0	.0
1949.	46.7	46.9	.4	.2
1950.	47.6	47.6	.0	.0
1951.	47.9	48.1	.4	.2
1952.	47.3	47.3	.0	.0
1953.	51.3	51.3	.0	.0
1954.	51.6	51.6	.0	.0
1955.	51.5	51.3	-.4	-.2
1956.	52.6	52.6	.0	.0
1957.	51.7	51.7	.0	.0
1958.	54.6	54.6	.0	.0
1959.	55.3	55.4	.2	.1
1960.	51.7	51.7	.0	.0
1961.	52.2	52.1	-.2	-.1
1962.	53.3	53.3	.0	.0
1963.	50.9	50.9	.0	.0
1964.	50.9	50.9	.0	.0
1965.	50.5	50.5	.0	.0
1966.	52.1	52.3	.4	.2
1967.	55.0	55.0	.0	.0
1968.	51.5	51.8	.6	.3
1969.	50.4	50.5	.2	.1
1970.	51.3	51.3	.0	.0
1971.	52.0	52.0	.0	.0
1972.	50.9	51.2	.6	.3
1973.	49.2	49.2	.0	.0
1974.	52.1	52.1	.0	.0
1975.	51.9	51.9	.0	.0
1976.	54.7	54.6	-.2	-.1
1977.	52.3	52.4	.2	.1
1978.	49.5	49.6	.2	.1
1979.	49.7	49.6	-.2	-.1
1980.	48.4	48.4	.0	.0
1981.	51.2	51.3	.2	.1
1982.	46.6	46.6	.0	.0
1983.	52.3	52.3	.0	.0
1984.	50.0	50.1	.2	.1
1985.	48.7	48.7	.0	.0
1986.	51.5	51.5	.0	.0
1987.	51.2	51.7	1.0	.5
1988.	51.2	51.2	.0	.0
1989.	51.8	51.9	.2	.1
1990.	52.4	52.5	.2	.1
Mean:	51.6	51.7	.1	.0
Median:	51.5	51.6	.0	.0
Min:	46.6	46.6	-.4	-.2
Max:	57.4	57.4	1.0	.5
X > 56.0	2	2		
Mean X > 56.0	56.8	56.8	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

December

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	45.7	45.7	.0	.0
1923.	47.4	47.4	.0	.0
1924.	44.0	44.0	.0	.0
1925.	48.4	48.4	.0	.0
1926.	46.6	46.6	.0	.0
1927.	47.2	47.2	.0	.0
1928.	46.2	46.2	.0	.0
1929.	48.8	48.8	.0	.0
1930.	48.7	48.7	.0	.0
1931.	44.8	44.8	.0	.0
1932.	44.9	45.0	.2	.1
1933.	46.0	46.0	.0	.0
1934.	47.2	47.2	.0	.0
1935.	48.0	48.0	.0	.0
1936.	48.9	48.9	.0	.0
1937.	48.3	48.4	.2	.1
1938.	49.5	49.5	.0	.0
1939.	48.9	48.9	.0	.0
1940.	48.5	48.4	-.2	-.1
1941.	48.2	48.2	.0	.0
1942.	46.8	46.8	.0	.0
1943.	48.9	48.9	.0	.0
1944.	47.6	47.6	.0	.0
1945.	46.8	46.8	.0	.0
1946.	47.0	47.0	.0	.0
1947.	46.8	46.8	.0	.0
1948.	45.3	45.3	.0	.0
1949.	47.4	47.3	-.2	-.1
1950.	48.2	48.2	.0	.0
1951.	46.7	46.7	.0	.0
1952.	46.6	46.6	.0	.0
1953.	48.7	48.7	.0	.0
1954.	46.4	46.4	.0	.0
1955.	47.7	47.7	.0	.0
1956.	50.5	50.5	.0	.0
1957.	47.5	47.5	.0	.0
1958.	52.7	52.7	.0	.0
1959.	50.2	50.0	-.4	-.2
1960.	47.1	47.1	.0	.0
1961.	46.6	46.7	.2	.1
1962.	49.8	49.8	.0	.0
1963.	46.7	46.7	.0	.0
1964.	47.3	47.3	.0	.0
1965.	46.0	46.0	.0	.0
1966.	48.3	48.2	-.2	-.1
1967.	49.1	49.1	.0	.0
1968.	45.5	45.5	.0	.0
1969.	49.6	49.6	.0	.0
1970.	47.1	47.1	.0	.0
1971.	46.0	46.0	.0	.0
1972.	44.8	44.8	.0	.0
1973.	47.1	47.1	.0	.0
1974.	47.4	47.4	.0	.0
1975.	48.6	48.6	.0	.0
1976.	51.7	51.6	-.2	-.1
1977.	47.0	47.1	.2	.1
1978.	47.1	47.1	.0	.0
1979.	45.8	45.8	.0	.0
1980.	47.8	47.8	.0	.0
1981.	47.1	47.1	.0	.0
1982.	45.6	45.6	.0	.0
1983.	46.9	46.9	.0	.0
1984.	45.5	45.5	.0	.0
1985.	45.5	45.5	.0	.0
1986.	47.1	47.1	.0	.0
1987.	45.9	45.9	.0	.0
1988.	45.8	45.8	.0	.0
1989.	47.3	47.3	.0	.0
1990.	43.8	43.9	.2	.1
Mean:	47.3	47.3	.0	.0
Median:	47.1	47.1	.0	.0
Min:	43.8	43.9	-.4	-.2
Max:	52.7	52.7	.2	.1
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 21

SACRAMENTO RIVER SALMON SURVIVAL

SACRAMENTO RIVER - FALL RUN SALMON SURVIVAL

Water Year	Base Survival (%)	WFP Survival (%)	Rel Change (%)	Abs Diff (%)
1922	96.1	96.1	.0	.0
1923	94.7	94.7	.0	.0
1924	70.9	70.9	.0	.0
1925	93.3	94.8	1.6	1.5
1926	88.6	88.6	.0	.0
1927	96.1	96.1	.0	.0
1928	95.2	95.4	.2	.2
1929	86.4	87.6	1.4	1.2
1930	95.7	95.5	-.2	-.2
1931	65.4	65.5	.2	.1
1932	62.9	65.4	4.0	2.5
1933	62.5	63.5	1.6	1.0
1934	64.2	64.2	.0	.0
1935	73.4	73.8	.5	.4
1936	67.9	68.9	1.5	1.0
1937	93.5	94.6	1.2	1.1
1938	91.6	91.6	.0	.0
1939	84.8	83.6	-1.4	-1.2
1940	96.7	96.5	-.2	-.2
1941	94.3	94.3	.0	.0
1942	95.2	95.2	.0	.0
1943	94.4	94.4	.0	.0
1944	91.3	91.4	.1	.1
1945	92.1	92.2	.1	.1
1946	97.2	97.2	.0	.0
1947	88.7	89.1	.5	.4
1948	93.5	93.4	-.1	-.1
1949	98.1	98.0	-.1	-.1
1950	97.5	97.5	.0	.0
1951	96.3	96.3	.0	.0
1952	95.5	95.5	.0	.0
1953	94.8	94.8	.0	.0
1954	94.7	94.7	.0	.0
1955	93.0	93.7	.8	.7
1956	96.6	96.6	.0	.0
1957	96.4	96.2	-.2	-.2
1958	85.6	85.6	.0	.0
1959	80.3	78.0	-2.9	-2.3
1960	92.3	92.0	-.3	-.3
1961	90.8	92.1	1.4	1.3
1962	92.6	91.6	-1.1	-1.0
1963	93.4	93.4	.0	.0
1964	92.6	92.6	.0	.0
1965	95.5	95.5	.0	.0
1966	93.3	92.6	-.8	-.7
1967	86.9	86.9	.0	.0
1968	93.2	92.7	-.5	-.5
1969	96.5	96.5	.0	.0
1970	95.4	95.2	-.2	-.2
1971	94.8	94.8	.0	.0
1972	96.5	96.2	-.3	-.3
1973	96.8	96.8	.0	.0
1974	95.2	95.2	.0	.0
1975	91.4	91.4	.0	.0
1976	83.8	84.0	.2	.2
1977	63.8	63.6	-.3	-.2
1978	93.8	93.8	.0	.0
1979	94.4	94.5	.1	.1
1980	96.5	96.5	.0	.0
1981	94.7	94.6	-.1	-.1
1982	97.8	97.8	.0	.0
1983	91.2	91.1	-.1	-.1
1984	95.4	95.3	-.1	-.1
1985	97.0	96.9	-.1	-.1
1986	96.7	96.6	-.1	-.1
1987	92.8	92.4	-.4	-.4
1988	87.9	88.2	.3	.3
1989	95.7	95.6	-.1	-.1
1990	82.7	81.1	-1.9	-1.6
Mean	90.1	90.1	.1	.0
Median	93.5	93.8	.0	.0
Min	62.5	63.5	-2.9	-2.3
Max	98.1	98.0	4.0	2.5
Abs Diff < -1.0				
&Rel Diff < signif				0
Abs Diff > 1.0				
&Rel Diff > signif				7
No measurable Change				62
Check				69

SACRAMENTO RIVER - LATE FALL RUN SALMON SURVIVAL

Water Year	Base Survival (%)	WFP Survival (%)	WFP Rel Change (%)	WFP Abs Diff (%)
1922	99.1	99.1	.0	.0
1923	99.5	99.5	.0	.0
1924	98.7	98.7	.0	.0
1925	98.1	97.9	-.2	-.2
1926	96.2	96.2	.0	.0
1927	99.8	99.8	.0	.0
1928	99.4	99.4	.0	.0
1929	97.3	97.6	.3	.3
1930	99.6	99.6	.0	.0
1931	98.3	98.3	.0	.0
1932	96.4	96.4	.0	.0
1933	96.3	96.4	.1	.1
1934	97.6	97.7	.1	.1
1935	98.3	98.2	-.1	-.1
1936	95.4	95.4	.0	.0
1937	99.5	99.5	.0	.0
1938	99.4	99.4	.0	.0
1939	98.0	97.9	-.1	-.1
1940	99.1	99.1	.0	.0
1941	99.5	99.5	.0	.0
1942	99.9	99.9	.0	.0
1943	99.6	99.6	.0	.0
1944	99.7	99.7	.0	.0
1945	99.7	99.7	.0	.0
1946	99.7	99.7	.0	.0
1947	98.9	98.9	.0	.0
1948	99.9	99.9	.0	.0
1949	99.5	99.5	.0	.0
1950	99.6	99.6	.0	.0
1951	99.3	99.3	.0	.0
1952	99.9	99.9	.0	.0
1953	99.9	99.9	.0	.0
1954	99.7	99.7	.0	.0
1955	99.2	99.0	-.2	-.2
1956	99.7	99.7	.0	.0
1957	99.6	99.6	.0	.0
1958	95.6	95.6	.0	.0
1959	97.3	97.2	-.1	-.1
1960	99.6	99.6	.0	.0
1961	99.7	99.8	.1	.1
1962	99.1	99.1	.0	.0
1963	99.4	99.4	.0	.0
1964	99.7	99.7	.0	.0
1965	99.4	99.4	.0	.0
1966	99.8	99.7	-.1	-.1
1967	98.5	98.5	.0	.0
1968	99.6	99.6	.0	.0
1969	99.9	99.9	.0	.0
1970	99.4	99.4	.0	.0
1971	99.9	99.9	.0	.0
1972	99.9	99.9	.0	.0
1973	99.0	99.0	.0	.0
1974	99.7	99.7	.0	.0
1975	99.7	99.7	.0	.0
1976	97.2	97.4	.2	.2
1977	98.5	98.4	-.1	-.1
1978	99.6	99.6	.0	.0
1979	99.3	99.3	.0	.0
1980	99.7	99.7	.0	.0
1981	99.7	99.7	.0	.0
1982	98.0	98.0	.0	.0
1983	99.6	99.6	.0	.0
1984	99.7	99.7	.0	.0
1985	99.4	99.4	.0	.0
1986	99.7	99.7	.0	.0
1987	99.7	99.7	.0	.0
1988	99.5	99.5	.0	.0
1989	99.6	99.6	.0	.0
1990	98.7	99.0	.3	.3
Mean	99.0	99.0	.0	.0
Median	99.5	99.5	.0	.0
Min	95.4	95.4	-.2	-.2
Max	99.9	99.9	.3	.3
Abs Diff < -1.0				
&Rel Diff < signif				0
Abs Diff > 1.0				
&Rel Diff > signif				0
No measurable Change				69
Check				69

SACRAMENTO RIVER - WINTER RUN SALMON SURVIVAL

Water Year	Base Survival (%)	WFP Survival (%)	Rel Change (%)	Abs Diff (%)
1922	97.9	97.9	.0	.0
1923	95.5	95.5	.0	.0
1924	57.1	57.3	.4	.2
1925	96.5	95.9	-.6	-.6
1926	90.4	90.4	.0	.0
1927	99.0	99.0	.0	.0
1928	98.8	98.8	.0	.0
1929	98.9	98.8	-.1	-.1
1930	95.4	95.5	.1	.1
1931	74.0	72.5	-2.0	-1.5
1932	93.0	95.1	2.3	2.1
1933	97.2	97.4	.2	.2
1934	77.8	77.1	-.9	-.7
1935	97.9	97.9	.0	.0
1936	95.0	95.0	.0	.0
1937	98.9	98.8	-.1	-.1
1938	99.0	99.0	.0	.0
1939	98.4	98.4	.0	.0
1940	97.3	97.3	.0	.0
1941	99.5	99.5	.0	.0
1942	99.2	99.2	.0	.0
1943	98.8	98.8	.0	.0
1944	98.6	98.5	-.1	-.1
1945	99.1	99.1	.0	.0
1946	99.4	99.4	.0	.0
1947	95.9	96.1	.2	.2
1948	99.0	99.1	.1	.1
1949	99.2	99.2	.0	.0
1950	99.0	99.0	.0	.0
1951	98.7	98.7	.0	.0
1952	99.4	99.4	.0	.0
1953	99.1	99.1	.0	.0
1954	99.3	99.3	.0	.0
1955	97.9	97.8	-.1	-.1
1956	98.9	98.9	.0	.0
1957	98.5	98.5	.0	.0
1958	99.0	99.0	.0	.0
1959	95.2	95.3	.1	.1
1960	97.4	97.3	-.1	-.1
1961	99.1	98.9	-.2	-.2
1962	98.0	98.2	.2	.2
1963	98.4	98.4	.0	.0
1964	98.4	98.4	.0	.0
1965	94.6	94.6	.0	.0
1966	99.1	99.2	.1	.1
1967	99.4	99.4	.0	.0
1968	97.3	97.4	.1	.1
1969	99.2	99.2	.0	.0
1970	97.5	97.5	.0	.0
1971	99.3	99.3	.0	.0
1972	98.9	98.9	.0	.0
1973	97.9	97.9	.0	.0
1974	98.8	98.8	.0	.0
1975	99.0	99.0	.0	.0
1976	98.0	98.0	.0	.0
1977	21.3	26.0	22.1	4.7
1978	96.5	96.5	.0	.0
1979	98.3	98.3	.0	.0
1980	98.9	98.9	.0	.0
1981	98.5	98.6	.1	.1
1982	98.2	98.2	.0	.0
1983	99.2	99.2	.0	.0
1984	98.4	98.4	.0	.0
1985	98.4	98.4	.0	.0
1986	98.5	98.5	.0	.0
1987	98.7	98.8	.1	.1
1988	96.2	95.8	-.4	-.4
1989	98.8	98.9	.1	.1
1990	98.6	98.7	.1	.1
Mean	95.7	95.7	.3	.1
Median	98.5	98.5	.0	.0
Min	21.3	26.0	-2.0	-1.5
Max	99.5	99.5	22.1	4.7
Abs Diff < -1.0				
&Rel Diff < signif				0
Abs Diff > 1.0				
&Rel Diff > signif				2
No measurable Change				67
Check				69

SACRAMENTO RIVER - SPRING RUN SALMON SURVIVAL

Water Year	Base Survival (%)	WFP Survival (%)	WFP Rel Change (%)	WFP Abs Diff (%)
1922	96.3	96.3	.0	.0
1923	97.3	97.3	.0	.0
1924	3.4	3.4	.0	.0
1925	96.0	95.7	-.3	-.3
1926	95.2	95.3	.1	.1
1927	97.6	97.6	.0	.0
1928	97.6	97.7	.1	.1
1929	95.9	95.8	-.1	-.1
1930	96.9	97.0	.1	.1
1931	1.2	1.3	8.3	.1
1932	2.2	25.3	1050.0	23.1
1933	13.7	22.3	62.8	8.6
1934	.9	.9	.0	.0
1935	56.8	59.8	5.3	3.0
1936	75.7	79.8	5.4	4.1
1937	97.3	97.3	.0	.0
1938	96.0	96.0	.0	.0
1939	95.0	94.6	-.4	-.4
1940	97.2	97.3	.1	.1
1941	98.3	98.3	.0	.0
1942	97.9	97.9	.0	.0
1943	96.9	96.9	.0	.0
1944	96.3	96.2	-.1	-.1
1945	96.8	96.8	.0	.0
1946	98.4	98.3	-.1	-.1
1947	96.2	96.3	.1	.1
1948	97.0	97.0	.0	.0
1949	98.5	98.6	.1	.1
1950	98.0	98.0	.0	.0
1951	97.2	97.2	.0	.0
1952	97.5	97.5	.0	.0
1953	97.3	97.3	.0	.0
1954	97.7	97.8	.1	.1
1955	96.0	96.2	.2	.2
1956	97.7	97.7	.0	.0
1957	97.4	97.4	.0	.0
1958	95.4	95.3	-.1	-.1
1959	90.9	88.9	-2.2	-2.0
1960	96.2	96.1	-.1	-.1
1961	96.0	96.2	.2	.2
1962	95.8	96.0	.2	.2
1963	95.8	95.8	.0	.0
1964	95.7	95.8	.1	.1
1965	97.2	97.2	.0	.0
1966	96.2	96.5	.3	.3
1967	94.7	94.7	.0	.0
1968	95.3	95.3	.0	.0
1969	97.3	97.3	.0	.0
1970	95.9	96.0	.1	.1
1971	96.6	96.6	.0	.0
1972	97.4	97.8	.4	.4
1973	96.9	96.9	.0	.0
1974	97.4	97.4	.0	.0
1975	94.9	94.9	.0	.0
1976	92.7	92.7	.0	.0
1977	.9	.9	.0	.0
1978	96.8	96.8	.0	.0
1979	96.6	96.6	.0	.0
1980	97.7	97.7	.0	.0
1981	96.1	96.2	.1	.1
1982	97.9	97.9	.0	.0
1983	98.0	97.9	-.1	-.1
1984	97.0	97.0	.0	.0
1985	97.2	97.0	-.2	-.2
1986	97.5	97.5	.0	.0
1987	95.7	95.7	.0	.0
1988	95.0	95.0	.0	.0
1989	97.4	97.3	-.1	-.1
1990	92.4	90.1	-2.5	-2.3
Mean	87.6	88.1	16.3	.5
Median	96.3	96.5	.0	.0
Min	.9	.9	-2.5	-2.3
Max	98.5	98.6	1050.0	23.1
Abs Diff < -1.0 &Rel Diff < signif				2
Abs Diff > 1.0 &Rel Diff > signif				3
No measurable Change				64
Check				69

RETURN TO TABLE OF CONTENTS

Section 22

SACRAMENTO RIVER FLOW AT FREEPORT

SACRAMENTO RIVER FLOW AT FREEPORT

October

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	11339.7	11324.0	-.1	-15.7
1923	14138.1	14124.0	-.1	-14.1
1924	10996.9	10976.1	-.2	-20.8
1925	8058.0	7767.1	-3.6	-290.9
1926	10187.7	10191.1	.0	3.4
1927	9014.7	8946.8	-.8	-67.9
1928	12937.2	12926.3	-.1	-10.9
1929	10579.8	10311.0	-2.5	-268.8
1930	7493.5	7175.6	-4.2	-317.9
1931	9881.3	9556.6	-3.3	-324.7
1932	6304.4	6202.9	-1.6	-101.5
1933	8925.9	9097.1	1.9	171.2
1934	7140.2	6813.5	-4.6	-326.7
1935	6223.1	5634.6	-9.5	-588.5
1936	11118.1	11105.6	-.1	-12.5
1937	10563.3	10552.8	-.1	-10.5
1938	10528.3	10518.5	-.1	-9.8
1939	15751.3	15745.3	.0	-6.0
1940	8187.6	7977.3	-2.6	-210.3
1941	10932.5	10673.2	-2.4	-259.3
1942	14418.1	14410.4	-.1	-7.7
1943	14162.6	14156.6	.0	-6.0
1944	13065.7	12758.3	-2.4	-307.4
1945	9025.8	8973.5	-.6	-52.3
1946	11595.8	11089.8	-4.4	-506.0
1947	11005.3	10750.9	-2.3	-254.4
1948	10352.2	10292.5	-.6	-59.7
1949	12340.9	12331.6	-.1	-9.3
1950	10741.3	10486.9	-2.4	-254.4
1951	11029.6	11025.3	.0	-4.3
1952	12311.3	12055.3	-2.1	-256.0
1953	14047.2	14046.1	.0	-1.1
1954	14489.2	14489.7	.0	.5
1955	12354.0	12296.9	-.5	-57.1
1956	9260.2	9371.2	1.2	111.0
1957	16998.4	17000.5	.0	2.1
1958	21972.2	21966.2	.0	-6.0
1959	14309.5	14310.0	.0	.5
1960	9305.8	9245.0	-.7	-60.8
1961	9737.1	9712.5	-.3	-24.6
1962	8811.3	8997.2	2.1	185.9
1963	32725.3	31338.1	-4.2	-1387.2
1964	15442.5	15436.5	.0	-6.0
1965	8944.4	8934.4	-.1	-10.0
1966	12043.6	12039.2	.0	-4.4
1967	10144.1	9936.8	-2.0	-207.3
1968	14732.3	14734.4	.0	2.1
1969	11787.7	11224.1	-4.8	-563.6
1970	15715.9	15714.7	.0	-1.2
1971	11211.2	10905.7	-2.7	-305.5
1972	15112.5	15113.0	.0	.5
1973	12272.8	11964.1	-2.5	-308.7
1974	15252.7	15251.5	.0	-1.2
1975	14141.0	14138.3	.0	-2.7
1976	18164.8	18159.0	.0	-5.8
1977	6794.0	6729.5	-.9	-64.5
1978	7457.1	7359.9	-1.3	-97.2
1979	11922.4	11913.2	-.1	-9.2
1980	12907.0	12397.8	-3.9	-509.2
1981	11730.1	11720.9	-.1	-9.2
1982	10772.0	10701.2	-.7	-70.8
1983	20104.2	19883.9	-1.1	-220.3
1984	17555.8	16516.4	-5.9	-1039.4
1985	12354.1	12149.6	-1.7	-204.5
1986	9162.9	8853.7	-3.4	-309.2
1987	12828.6	12574.3	-2.0	-254.3
1988	9511.0	9832.2	3.4	321.2
1989	6508.7	6279.9	-3.5	-228.8
1990	12110.6	12042.6	-.6	-68.0
1991	7649.7	7549.1	-1.3	-100.6
Mean:	11981.3	11839.7	-1.2	-141.6
Median:	11211.2	11089.8	-.6	-57.1
Min:	6223.1	5634.6	-9.5	-1387.2
Max:	32725.3	31338.1	3.4	321.2
Alt-Base >= .0				10
Rel Dif >= .0%			21	
.0% > Rel Dif >= -1.0%			21	
-1.0% > Rel Dif >= -2.0%			7	
-2.0% > Rel Dif >= -3.0%			9	
-3.0% > Rel Dif >= -5.0%			10	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			1	

SACRAMENTO RIVER FLOW AT FREEPORT

November

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	11628.4	11634.6	.1	6.2
1923	15972.9	15982.3	.1	9.4
1924	10701.7	10748.1	.4	46.4
1925	7480.8	7202.9	-3.7	-277.9
1926	9989.7	9952.3	-.4	-37.4
1927	21790.4	21753.1	-.2	-37.3
1928	21792.3	20517.9	-5.8	-1274.4
1929	12367.9	12127.7	-1.9	-240.2
1930	6835.7	6520.9	-4.6	-314.8
1931	9903.9	9614.1	-2.9	-289.8
1932	6385.9	6318.6	-1.1	-67.3
1933	9183.2	9247.3	.7	64.1
1934	6670.6	6379.1	-4.4	-291.5
1935	10109.4	9553.0	-5.5	-556.4
1936	11020.2	11056.5	.3	36.3
1937	11009.0	11054.9	.4	45.9
1938	23392.0	23394.6	.0	2.6
1939	13941.3	13954.2	.1	12.9
1940	8911.4	8674.7	-2.7	-236.7
1941	12854.3	12615.4	-1.9	-238.9
1942	14990.9	15003.7	.1	12.8
1943	18137.7	17850.6	-1.6	-287.1
1944	12347.2	12363.4	.1	16.2
1945	14591.7	14543.5	-.3	-48.2
1946	15191.6	14707.8	-3.2	-483.8
1947	12765.7	12533.6	-1.8	-232.1
1948	11317.0	11279.5	-.3	-37.5
1949	12432.0	12448.2	.1	16.2
1950	11425.2	11194.7	-2.0	-230.5
1951	41267.9	39982.6	-3.1	-1285.3
1952	15837.5	15602.0	-1.5	-235.5
1953	14309.4	14330.6	.1	21.2
1954	18937.1	18958.3	.1	21.2
1955	17105.2	16459.3	-3.8	-645.9
1956	10857.8	11067.7	1.9	209.9
1957	12806.0	12827.2	.2	21.2
1958	16570.0	16586.2	.1	16.2
1959	13055.1	13074.6	.1	19.5
1960	10755.0	10483.8	-2.5	-271.2
1961	12705.1	12665.6	-.3	-39.5
1962	9408.4	9611.7	2.2	203.3
1963	16595.8	16448.6	-.9	-147.2
1964	30192.6	28584.0	-5.3	-1608.6
1965	14928.3	14888.8	-.3	-39.5
1966	24379.7	22949.7	-5.9	-1430.0
1967	14762.4	14479.4	-1.9	-283.0
1968	13438.3	13459.5	.2	21.2
1969	13549.1	13017.8	-3.9	-531.3
1970	14818.8	14836.7	.1	17.9
1971	18192.3	17941.5	-1.4	-250.8
1972	13526.3	13545.9	.1	19.6
1973	19406.0	19129.8	-1.4	-276.2
1974	53512.1	52048.1	-2.7	-1464.0
1975	13847.7	13865.6	.1	17.9
1976	15504.6	15192.5	-2.0	-312.1
1977	6228.0	6181.7	-.7	-46.3
1978	6539.7	6450.6	-1.4	-89.1
1979	12875.1	12888.0	.1	12.9
1980	15596.9	15108.0	-3.1	-488.9
1981	10249.9	10262.7	.1	12.8
1982	39561.8	38497.1	-2.7	-1064.7
1983	33769.0	33686.3	-.2	-82.7
1984	55949.7	56013.2	.1	63.5
1985	30723.5	30081.7	-2.1	-641.8
1986	10589.4	10299.6	-2.7	-289.8
1987	10744.7	10514.3	-2.1	-230.4
1988	9569.4	9572.8	.0	3.4
1989	9170.6	8836.5	-3.6	-334.1
1990	9483.6	9457.4	-.3	-26.2
1991	7855.3	7761.7	-1.2	-93.6
Mean:	15775.9	15541.1	-1.3	-234.8
Median:	12875.1	12888.0	-.9	-82.7
Min:	6228.0	6181.7	-5.9	-1608.6
Max:	55949.7	56013.2	2.2	209.9

Alt-Base				26
Rel Dif >=	.0%		26	
.0% > Rel Dif >=	-1.0%		10	
-1.0% > Rel Dif >=	-2.0%		13	
-2.0% > Rel Dif >=	-3.0%		8	
-3.0% > Rel Dif >=	-5.0%		9	
-5.0% > Rel Dif >=	-6.0%		4	
Rel Dif <	-6.0%		0	

SACRAMENTO RIVER FLOW AT FREEPORT

December

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	17851.8	17869.4	.1	17.6
1923	33471.7	33092.0	-1.1	-379.7
1924	14813.4	14833.3	.1	19.9
1925	11398.0	11127.8	-2.4	-270.2
1926	13918.7	13819.0	-.7	-99.7
1927	17550.3	17526.0	-.1	-24.3
1928	15990.1	16010.9	.1	20.8
1929	17031.9	16944.6	-.5	-87.3
1930	15607.6	15320.3	-1.8	-287.3
1931	13188.0	12982.9	-1.6	-205.1
1932	16867.1	16815.0	-.3	-52.1
1933	11554.4	11648.4	.8	94.0
1934	13160.6	12881.6	-2.1	-279.0
1935	9242.5	8700.1	-5.9	-542.4
1936	15895.3	15918.4	.1	23.1
1937	16240.4	16277.7	.2	37.3
1938	52349.1	52112.2	-.5	-236.9
1939	16356.9	16382.6	.2	25.7
1940	10178.5	10029.8	-1.5	-148.7
1941	38645.7	37879.3	-2.0	-766.4
1942	52123.1	51693.1	-.8	-430.0
1943	28102.9	28002.0	-.4	-100.9
1944	14064.0	13979.1	-.6	-84.9
1945	16831.1	16797.3	-.2	-33.8
1946	53206.5	52696.2	-1.0	-510.3
1947	17111.6	16888.9	-1.3	-222.7
1948	12211.2	12213.2	.0	2.0
1949	17653.1	17561.4	-.5	-91.7
1950	14671.9	14705.5	.2	33.6
1951	62805.5	61665.4	-1.8	-1140.1
1952	39584.7	38576.4	-2.5	-1008.3
1953	37711.8	37740.8	.1	29.0
1954	14836.5	14868.7	.2	32.2
1955	24850.8	24841.3	.0	-9.5
1956	59456.1	60003.6	.9	547.5
1957	14057.7	14086.6	.2	28.9
1958	23886.4	23912.1	.1	25.7
1959	14567.0	14599.2	.2	32.2
1960	15717.2	15876.1	1.0	158.9
1961	16739.5	16716.3	-.1	-23.2
1962	16960.0	17179.3	1.3	219.3
1963	27046.9	26916.9	-.5	-130.0
1964	15319.4	15115.6	-1.3	-203.8
1965	66950.2	66644.2	-.5	-306.0
1966	16708.8	16736.2	.2	27.4
1967	37116.4	36613.2	-1.4	-503.2
1968	16397.8	16426.7	.2	28.9
1969	23571.9	23055.9	-2.2	-516.0
1970	49663.4	49244.8	-.8	-418.6
1971	49858.5	49126.9	-1.5	-731.6
1972	21357.1	21386.1	.1	29.0
1973	22844.9	22580.5	-1.2	-264.4
1974	56230.0	56140.4	-.2	-89.6
1975	17448.2	17475.5	.2	27.3
1976	16587.9	16616.8	.2	28.9
1977	11033.1	10096.0	-8.5	-937.1
1978	13674.7	13562.5	-.8	-112.2
1979	12640.7	12663.2	.2	22.5
1980	20101.8	19625.9	-2.4	-475.9
1981	15459.1	15484.8	.2	25.7
1982	67230.6	67194.4	-.1	-36.2
1983	54891.8	54761.6	-.2	-130.2
1984	71521.3	71398.0	-.2	-123.3
1985	22816.8	22746.4	-.3	-70.4
1986	16901.7	16627.3	-1.6	-274.4
1987	17464.8	17382.5	-.5	-82.3
1988	18357.0	17879.7	-2.6	-477.3
1989	9320.1	9012.1	-3.3	-308.0
1990	12307.0	12273.9	-.3	-33.1
1991	11747.4	11590.6	-1.3	-156.8
Mean:	25014.7	24845.0	-.8	-169.7
Median:	16901.7	16815.0	-.4	-89.6
Min:	9242.5	8700.1	-8.5	-1140.1
Max:	71521.3	71398.0	1.3	547.5
Alt-Base >= .0				24
Rel Dif >= .0%			25	
.0% > Rel Dif >= -1.0%			23	
-1.0% > Rel Dif >= -2.0%			13	
-2.0% > Rel Dif >= -3.0%			6	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			1	

SACRAMENTO RIVER FLOW AT FREEPORT

January

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	17888.4	17910.6	.1	22.2
1923	30898.4	30766.2	-.4	-132.2
1924	16457.9	16372.0	-.5	-85.9
1925	12030.0	12009.7	-.2	-20.3
1926	18222.3	18005.1	-1.2	-217.2
1927	31044.9	30426.5	-2.0	-618.4
1928	25938.0	25574.7	-1.4	-363.3
1929	17168.1	17081.8	-.5	-86.3
1930	21247.9	20919.8	-1.5	-328.1
1931	15274.6	15191.4	-.5	-83.2
1932	20331.1	20032.7	-1.5	-298.4
1933	15372.1	15446.3	.5	74.2
1934	17186.5	17164.8	-.1	-21.7
1935	26304.1	26518.5	.8	214.4
1936	35225.7	34694.1	-1.5	-531.6
1937	14748.1	14773.8	.2	25.7
1938	31184.0	31059.0	-.4	-125.0
1939	16349.5	16128.0	-1.4	-221.5
1940	28052.4	27719.7	-1.2	-332.7
1941	61918.9	61519.4	-.6	-399.5
1942	57268.9	57135.0	-.2	-133.9
1943	58049.4	58454.6	.7	405.2
1944	16397.8	16426.3	.2	28.5
1945	14237.6	14712.8	3.3	475.2
1946	44866.4	44734.1	-.3	-132.3
1947	15592.0	15751.8	1.0	159.8
1948	15666.3	15649.1	-.1	-17.2
1949	16157.0	16074.1	-.5	-82.9
1950	19921.5	19753.4	-.8	-168.1
1951	54378.3	54269.5	-.2	-108.8
1952	57848.6	57735.9	-.2	-112.7
1953	62746.6	62258.8	-.8	-487.8
1954	32525.1	32558.5	.1	33.4
1955	21728.7	21469.7	-1.2	-259.0
1956	72098.2	72028.9	-.1	-69.3
1957	17933.5	17966.9	.2	33.4
1958	36245.1	36025.3	-.6	-219.8
1959	33617.4	33400.9	-.6	-216.5
1960	16542.1	16459.7	-.5	-82.4
1961	13782.2	13414.4	-2.7	-367.8
1962	13178.9	13079.6	-.8	-99.3
1963	17392.0	17262.7	-.7	-129.3
1964	26442.8	26314.6	-.5	-128.2
1965	69037.8	68964.6	-.1	-73.2
1966	28368.4	28398.5	.1	30.1
1967	44128.3	43274.7	-1.9	-853.6
1968	30096.4	30129.8	.1	33.4
1969	70226.4	69782.9	-.6	-443.5
1970	71952.5	71861.5	-.1	-91.0
1971	45376.3	45349.4	-.1	-26.9
1972	20304.8	20336.6	.2	31.8
1973	56699.5	55841.1	-1.5	-858.4
1974	69233.2	69160.9	-.1	-72.3
1975	18240.1	18271.9	.2	31.8
1976	16546.1	16577.4	.2	31.3
1977	12097.1	11928.6	-1.4	-168.5
1978	47907.4	47828.7	-.2	-78.7
1979	26207.8	25984.8	-.9	-223.0
1980	65896.4	66210.9	.5	314.5
1981	27532.4	26697.7	-3.0	-834.7
1982	55660.1	55510.4	-.3	-149.7
1983	57997.5	57878.3	-.2	-119.2
1984	47852.4	47756.0	-.2	-96.4
1985	16746.3	16735.7	-.1	-10.6
1986	21585.3	22107.2	2.4	521.9
1987	16392.2	16309.4	-.5	-82.8
1988	28446.2	27785.7	-2.3	-660.5
1989	13715.2	13660.9	-.4	-54.3
1990	20488.5	20263.7	-1.1	-224.8
1991	11508.1	11338.7	-1.5	-169.4
Mean:	31681.5	31545.7	-.4	-135.8
Median:	25938.0	25574.7	-.4	-99.3
Min:	11508.1	11338.7	-3.0	-858.4
Max:	72098.2	72028.9	3.3	521.9

Alt-Base			WFP
Alt-Base >=	.0		17
Rel Dif >=	.0%		17
.0% > Rel Dif >=	-1.0%		36
-1.0% > Rel Dif >=	-2.0%		14
-2.0% > Rel Dif >=	-3.0%		3
-3.0% > Rel Dif >=	-5.0%		0
-5.0% > Rel Dif >=	-6.0%		0
Rel Dif <	-6.0%		0

SACRAMENTO RIVER FLOW AT FREEPORT

February

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	29060.4	28270.5	-2.7	-789.9
1923	18993.8	18928.6	-.3	-65.2
1924	16791.0	16811.5	.1	20.5
1925	48777.7	49037.5	.5	259.8
1926	36746.5	36569.4	-.5	-177.1
1927	74507.1	74456.7	-.1	-50.4
1928	27317.3	27346.9	.1	29.6
1929	16034.9	16035.8	.0	.9
1930	17897.3	18118.1	1.2	220.8
1931	13784.8	13664.1	-.9	-120.7
1932	14012.6	13800.4	-1.5	-212.2
1933	14277.7	14203.7	-.5	-74.0
1934	14606.8	14591.0	-.1	-15.8
1935	13830.5	13795.6	-.3	-34.9
1936	55943.7	55826.9	-.2	-116.8
1937	31344.7	31126.5	-.7	-218.2
1938	71960.5	71852.4	-.2	-108.1
1939	15443.4	15476.5	.2	33.1
1940	54704.1	53761.5	-1.7	-942.6
1941	70342.4	70225.4	-.2	-117.0
1942	73905.6	73784.5	-.2	-121.1
1943	48067.6	47940.8	-.3	-126.8
1944	26485.4	25828.6	-2.5	-656.8
1945	45904.4	45761.1	-.3	-143.3
1946	23810.2	23783.2	-.1	-27.0
1947	19501.6	19288.4	-1.1	-213.2
1948	16488.9	16398.3	-.5	-90.6
1949	14895.7	14530.7	-2.5	-365.0
1950	33472.4	31940.3	-4.6	-1532.1
1951	56814.5	56705.6	-.2	-108.9
1952	62056.7	61931.7	-.2	-125.0
1953	27945.2	27809.3	-.5	-135.9
1954	51959.7	51947.8	.0	-11.9
1955	16230.9	16228.5	.0	-2.4
1956	60386.1	60284.2	-.2	-101.9
1957	28749.1	28787.7	.1	38.6
1958	72733.1	71775.4	-1.3	-957.7
1959	46401.6	46442.0	.1	40.4
1960	30446.1	30322.7	-.4	-123.4
1961	29004.1	28610.7	-1.4	-393.4
1962	43727.9	44178.4	1.0	450.5
1963	58840.9	58260.8	-1.0	-580.1
1964	17321.5	17229.2	-.5	-92.3
1965	35010.2	34918.5	-.3	-91.7
1966	25207.8	25244.5	.1	36.7
1967	49254.8	49119.3	-.3	-135.5
1968	52344.3	51532.3	-1.6	-812.0
1969	69563.7	69477.2	-.1	-86.5
1970	63016.8	62949.3	-.1	-67.5
1971	27869.8	27741.3	-.5	-128.5
1972	24065.0	23862.6	-.8	-202.4
1973	62920.2	62817.0	-.2	-103.2
1974	41535.3	41226.7	-.7	-308.6
1975	49274.2	49310.9	.1	36.7
1976	15057.4	15097.3	.3	39.9
1977	15548.1	15455.1	-.6	-93.0
1978	42798.4	43479.4	1.6	681.0
1979	39505.8	39540.7	.1	34.9
1980	75513.4	75186.5	-.4	-326.9
1981	29053.6	29085.0	.1	31.4
1982	71075.0	70870.9	-.3	-204.1
1983	76332.8	76246.3	-.1	-86.5
1984	36428.3	36341.1	-.2	-87.2
1985	21170.8	20253.1	-4.3	-917.7
1986	83986.8	83932.8	-.1	-54.0
1987	20826.6	20701.6	-.6	-125.0
1988	16367.6	16275.5	-.6	-92.1
1989	10481.4	10717.0	2.2	235.6
1990	16830.8	16739.8	-.5	-91.0
1991	15993.0	15897.0	-.6	-96.0
Mean:	37836.5	37681.3	-.5	-155.3
Median:	30446.1	30322.7	-.3	-96.0
Min:	10481.4	10717.0	-4.6	-1532.1
Max:	83986.8	83932.8	2.2	681.0

Alt-Base >= .0		16
Rel Dif >= .0%	18	
.0% > Rel Dif >= -1.0%	41	
-1.0% > Rel Dif >= -2.0%	6	
-2.0% > Rel Dif >= -3.0%	3	
-3.0% > Rel Dif >= -5.0%	2	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

SACRAMENTO RIVER FLOW AT FREEPORT

March

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	29415.4	29435.5	.1	20.1
1923	17097.3	17107.4	.1	10.1
1924	10352.7	10311.7	-.4	-41.0
1925	31129.7	31018.4	-.4	-111.3
1926	17665.9	17360.4	-1.7	-305.5
1927	41561.4	41029.3	-1.3	-532.1
1928	66560.8	66175.0	-.6	-385.8
1929	12556.7	12541.3	-.1	-15.4
1930	29433.5	29406.7	-.1	-26.8
1931	13779.7	13506.8	-2.0	-272.9
1932	11240.5	11260.9	.2	20.4
1933	14362.4	14145.1	-1.5	-217.3
1934	12178.8	12140.9	-.3	-37.9
1935	24751.8	24773.5	.1	21.7
1936	34538.5	30838.7	-10.7	-3699.8
1937	37755.5	37126.2	-1.7	-629.3
1938	69066.5	68948.2	-.2	-118.3
1939	14987.3	14969.5	-.1	-17.8
1940	66861.1	66637.9	-.3	-223.2
1941	58509.9	58354.6	-.3	-155.3
1942	27754.1	27779.1	.1	25.0
1943	57114.3	56983.5	-.2	-130.8
1944	24420.6	24163.0	-1.1	-257.6
1945	28736.7	28750.5	.0	13.8
1946	23128.2	23176.6	.2	48.4
1947	20709.3	20699.9	.0	-9.4
1948	17256.6	17279.7	.1	23.1
1949	37770.4	37797.0	.1	26.6
1950	23103.3	22819.5	-1.2	-283.8
1951	31101.7	30980.6	-.4	-121.1
1952	49473.0	49338.9	-.3	-134.1
1953	25376.0	25405.9	.1	29.9
1954	44550.7	43782.3	-1.7	-768.4
1955	16262.9	16174.8	-.5	-88.1
1956	36589.0	36613.3	.1	24.3
1957	42147.8	41300.4	-2.0	-847.4
1958	61521.4	61401.1	-.2	-120.3
1959	21588.0	21502.6	-.4	-85.4
1960	23353.7	22987.7	-1.6	-366.0
1961	19246.1	18972.1	-1.4	-274.0
1962	31410.5	31329.7	-.3	-80.8
1963	31270.5	31300.3	.1	29.8
1964	16326.3	16322.7	.0	-3.6
1965	23528.6	23548.8	.1	20.2
1966	28309.3	28300.0	.0	-9.3
1967	47370.5	47174.6	-.4	-195.9
1968	36384.1	38139.8	4.8	1755.7
1969	43342.0	43373.5	.1	31.5
1970	35465.7	35226.6	-.7	-239.1
1971	45084.8	44971.8	-.3	-113.0
1972	32931.1	32227.2	-2.1	-703.9
1973	45175.3	45015.2	-.4	-160.1
1974	66279.8	66220.2	-.1	-59.6
1975	58176.5	57355.0	-1.4	-821.5
1976	17136.7	17098.5	-.2	-38.2
1977	13943.9	13791.7	-1.1	-152.2
1978	49982.2	50156.8	.3	174.6
1979	31997.1	31372.3	-2.0	-624.8
1980	41904.8	41655.7	-.6	-249.1
1981	29454.0	29285.9	-.6	-168.1
1982	57126.6	57056.2	-.1	-70.4
1983	66433.2	66347.7	-.1	-85.5
1984	30608.4	30365.9	-.8	-242.5
1985	21871.0	21611.5	-1.2	-259.5
1986	69025.4	68895.5	-.2	-129.9
1987	24736.4	24577.6	-.6	-158.8
1988	11970.2	11753.0	-1.8	-217.2
1989	42144.2	42000.0	-.3	-144.2
1990	14748.1	14749.9	.0	1.8
1991	30126.0	31856.2	5.7	1730.2
Mean:	33418.2	33258.2	-.5	-159.9
Median:	30126.0	30365.9	-.3	-118.3
Min:	10352.7	10311.7	-10.7	-3699.8
Max:	69066.5	68948.2	5.7	1755.7
Alt-Base >= .0				18
Rel Dif >= .0%			21	
.0% > Rel Dif >= -1.0%			31	
-1.0% > Rel Dif >= -2.0%			16	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			1	

SACRAMENTO RIVER FLOW AT FREEPORT

April

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	23437.6	23436.7	.0	-.9
1923	22998.8	22847.5	-.7	-151.3
1924	5939.5	5883.1	-.9	-56.4
1925	22087.1	21456.7	-2.9	-630.4
1926	19209.0	19159.3	-.3	-49.7
1927	42975.3	42716.5	-.6	-258.8
1928	28598.9	28334.7	-.9	-264.2
1929	7021.9	6875.9	-2.1	-146.0
1930	13125.7	12829.4	-2.3	-296.3
1931	8245.6	7937.4	-3.7	-308.2
1932	11138.4	11048.3	-.8	-90.1
1933	10224.7	10062.3	-1.6	-162.4
1934	11130.0	11023.0	-1.0	-107.0
1935	40749.0	41054.1	.7	305.1
1936	21656.4	21425.8	-1.1	-230.6
1937	22379.6	22167.8	-.9	-211.8
1938	53012.1	52774.6	-.4	-237.5
1939	11028.3	10936.8	-.8	-91.5
1940	52953.3	52823.1	-.2	-130.2
1941	51529.3	51335.5	-.4	-193.8
1942	40374.0	40381.5	.0	7.5
1943	27858.7	27638.0	-.8	-220.7
1944	9679.3	9135.1	-5.6	-544.2
1945	14223.1	14232.3	.1	9.2
1946	12692.9	12291.2	-3.2	-401.7
1947	14021.8	14024.2	.0	2.4
1948	24271.5	24284.1	.1	12.6
1949	13670.9	13678.4	.1	7.5
1950	18732.0	18636.9	-.5	-95.1
1951	15050.7	14793.0	-1.7	-257.7
1952	53765.6	53521.4	-.5	-244.2
1953	16644.7	16407.2	-1.4	-237.5
1954	39126.5	38926.1	-.5	-200.4
1955	9964.7	9965.8	.0	1.1
1956	21744.8	21752.3	.0	7.5
1957	16917.8	17002.4	.5	84.6
1958	61721.9	61536.0	-.3	-185.9
1959	10399.1	10105.0	-2.8	-294.1
1960	12719.6	12678.5	-.3	-41.1
1961	13627.6	13548.6	-.6	-79.0
1962	12516.2	11724.9	-6.3	-791.3
1963	60333.3	60012.4	-.5	-320.9
1964	9456.7	9169.5	-3.0	-287.2
1965	36984.6	36591.9	-1.1	-392.7
1966	13647.3	13607.0	-.3	-40.3
1967	37811.2	37823.7	.0	12.5
1968	11298.0	11007.3	-2.6	-290.7
1969	40986.8	40455.2	-1.3	-531.6
1970	11048.1	10755.6	-2.6	-292.5
1971	21216.1	20977.0	-1.1	-239.1
1972	11608.5	11569.9	-.3	-38.6
1973	19593.4	19606.0	.1	12.6
1974	53545.1	53383.2	-.3	-161.9
1975	26103.0	26113.9	.0	10.9
1976	8601.8	8483.6	-1.4	-118.2
1977	7185.0	7173.7	-.2	-11.3
1978	36639.0	35971.3	-1.8	-667.7
1979	17632.6	17640.1	.0	7.5
1980	20060.0	19817.5	-1.2	-242.5
1981	17782.8	17517.3	-1.5	-265.5
1982	70938.3	70806.4	-.2	-131.9
1983	53864.5	53662.4	-.4	-202.1
1984	18244.2	18202.3	-.2	-41.9
1985	12799.6	12556.3	-1.9	-243.3
1986	22199.9	22210.8	.0	10.9
1987	13467.3	13431.6	-.3	-35.7
1988	8392.5	8083.0	-3.7	-309.5
1989	25291.0	24705.1	-2.3	-585.9
1990	12376.5	12262.0	-.9	-114.5
1991	16750.3	16735.6	-.1	-14.7
Mean:	23643.2	23467.5	-1.1	-175.7
Median:	17782.8	17640.1	-.6	-161.9
Min:	5939.5	5883.1	-6.3	-791.3
Max:	70938.3	70806.4	.7	305.1

Alt-Base >= .0		14
Rel Dif >= .0%	15	
.0% > Rel Dif >= -1.0%	30	
-1.0% > Rel Dif >= -2.0%	12	
-2.0% > Rel Dif >= -3.0%	8	
-3.0% > Rel Dif >= -5.0%	3	
-5.0% > Rel Dif >= -6.0%	1	
Rel Dif < -6.0%	1	

SACRAMENTO RIVER FLOW AT FREEPORT

May

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	41908.2	41120.2	-1.9	-788.0
1923	16251.8	15881.8	-2.3	-370.0
1924	8044.4	7869.1	-2.2	-175.3
1925	14169.2	13293.8	-6.2	-875.4
1926	12644.4	12558.1	-.7	-86.3
1927	26154.2	25698.7	-1.7	-455.5
1928	14121.0	14061.8	-.4	-59.2
1929	9139.0	9142.6	.0	3.6
1930	12221.6	12084.8	-1.1	-136.8
1931	8985.7	8535.9	-5.0	-449.8
1932	12289.4	11968.2	-2.6	-321.2
1933	8928.0	8830.8	-1.1	-97.2
1934	7136.7	7034.6	-1.4	-102.1
1935	26179.8	25860.1	-1.2	-319.7
1936	16010.0	15991.5	-.1	-18.5
1937	16058.6	15712.7	-2.2	-345.9
1938	51808.3	51444.0	-.7	-364.3
1939	9558.7	9541.7	-.2	-17.0
1940	17294.3	17027.5	-1.5	-266.8
1941	39715.3	39365.6	-.9	-349.7
1942	32126.7	31505.8	-1.9	-620.9
1943	17989.4	17975.9	-.1	-13.5
1944	10301.5	9891.3	-4.0	-410.2
1945	12539.3	12522.6	-.1	-16.7
1946	13209.7	13174.4	-.3	-35.3
1947	10292.1	9966.2	-3.2	-325.9
1948	27349.2	27531.1	.7	181.9
1949	13240.7	12972.3	-2.0	-268.4
1950	16101.2	16089.3	-.1	-11.9
1951	15702.7	15435.9	-1.7	-266.8
1952	53525.9	53169.7	-.7	-356.2
1953	21646.1	21634.2	-.1	-11.9
1954	19357.4	19314.7	-.2	-42.7
1955	11940.6	11362.7	-4.8	-577.9
1956	36352.6	36342.3	.0	-10.3
1957	15727.0	15530.7	-1.2	-196.3
1958	43316.7	42967.0	-.8	-349.7
1959	12214.3	12237.6	.2	23.3
1960	12203.4	12013.6	-1.6	-189.8
1961	12672.1	12906.9	1.9	234.8
1962	13038.8	12940.7	-.8	-98.1
1963	29490.1	29068.8	-1.4	-421.3
1964	10730.8	10402.3	-3.1	-328.5
1965	18433.0	18167.9	-1.4	-265.1
1966	13620.8	13620.8	.0	.0
1967	42568.9	42010.4	-1.3	-558.5
1968	12146.6	12072.8	-.6	-73.8
1969	44983.9	44600.1	-.9	-383.8
1970	13485.4	13156.8	-2.4	-328.6
1971	28335.1	28323.2	.0	-11.9
1972	13636.5	13636.5	.0	.0
1973	15433.5	14810.1	-4.0	-623.4
1974	26896.8	26495.1	-1.5	-401.7
1975	28082.2	28072.0	.0	-10.2
1976	9745.5	9745.5	.0	.0
1977	7008.2	6954.3	-.8	-53.9
1978	20106.2	19576.1	-2.6	-530.1
1979	13780.5	13094.4	-5.0	-686.1
1980	15905.2	15890.1	-.1	-15.1
1981	11548.8	11548.8	.0	.0
1982	36619.5	36328.3	-.8	-291.2
1983	50486.0	50149.3	-.7	-336.7
1984	14816.7	14816.7	.0	.0
1985	13487.8	13389.6	-.7	-98.2
1986	14416.6	14404.7	-.1	-11.9
1987	10240.2	10142.2	-1.0	-98.0
1988	9555.1	9512.7	-.4	-42.4
1989	13246.8	13222.0	-.2	-24.8
1990	9493.6	9431.5	-.7	-62.1
1991	9245.1	8904.1	-3.7	-341.0
Mean:	19243.0	19029.4	-1.3	-213.7
Median:	14121.0	13636.5	-.8	-175.3
Min:	7008.2	6954.3	-6.2	-875.4
Max:	53525.9	53169.7	1.9	234.8
Alt-Base >= .0				9
Rel Dif >= .0%			12	
.0% > Rel Dif >= -1.0%			27	
-1.0% > Rel Dif >= -2.0%			16	
-2.0% > Rel Dif >= -3.0%			6	
-3.0% > Rel Dif >= -5.0%			8	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			1	

SACRAMENTO RIVER FLOW AT FREEPORT

June

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	35306.6	34803.9	-1.4	-502.7
1923	16080.9	16004.8	-.5	-76.1
1924	9515.8	9471.0	-.5	-44.8
1925	14755.7	14662.8	-.6	-92.9
1926	12419.0	12366.7	-.4	-52.3
1927	17880.8	17430.2	-2.5	-450.6
1928	15868.7	15712.8	-1.0	-155.9
1929	10764.4	10750.4	-.1	-14.0
1930	10182.8	10124.1	-.6	-58.7
1931	8987.7	8441.5	-6.1	-546.2
1932	13874.4	13754.5	-.9	-119.9
1933	9185.4	9065.0	-1.3	-120.4
1934	9811.4	9689.7	-1.2	-121.7
1935	15872.2	15207.6	-4.2	-664.6
1936	14732.8	13942.0	-5.4	-790.8
1937	13288.4	13219.2	-.5	-69.2
1938	37727.9	37253.8	-1.3	-474.1
1939	9054.7	8946.2	-1.2	-108.5
1940	14038.7	13925.4	-.8	-113.3
1941	22304.4	22021.6	-1.3	-282.8
1942	30039.0	29553.1	-1.6	-485.9
1943	12465.9	12434.8	-.2	-31.1
1944	12454.1	12382.4	-.6	-71.7
1945	17490.6	17334.2	-.9	-156.4
1946	17798.7	17726.6	-.4	-72.1
1947	10905.7	11588.1	6.3	682.4
1948	22727.2	22449.5	-1.2	-277.7
1949	17294.1	16865.2	-2.5	-428.9
1950	19455.7	19335.3	-.6	-120.4
1951	14511.4	14402.5	-.8	-108.9
1952	40181.3	39697.0	-1.2	-484.3
1953	27279.1	27004.7	-1.0	-274.4
1954	15467.3	15374.7	-.6	-92.6
1955	18441.5	15685.3	-14.9	-2756.2
1956	23910.4	22709.4	-5.0	-1201.0
1957	19064.8	18981.4	-.4	-83.4
1958	36820.1	36374.5	-1.2	-445.6
1959	15878.0	15767.3	-.7	-110.7
1960	16702.9	16595.9	-.6	-107.0
1961	15843.6	13993.5	-11.7	-1850.1
1962	17326.3	17283.8	-.2	-42.5
1963	16140.6	16114.5	-.2	-26.1
1964	10912.0	10400.0	-4.7	-512.0
1965	15527.5	15498.1	-.2	-29.4
1966	15010.4	14901.7	-.7	-108.7
1967	43805.0	43386.2	-1.0	-418.8
1968	15576.2	15468.1	-.7	-108.1
1969	26744.3	26312.2	-1.6	-432.1
1970	14336.7	14228.0	-.8	-108.7
1971	23904.6	23555.8	-1.5	-348.8
1972	15307.7	15199.6	-.7	-108.1
1973	18716.6	18682.4	-.2	-34.2
1974	24078.1	23615.7	-1.9	-462.4
1975	27949.0	26878.6	-3.8	-1070.4
1976	10663.9	10452.8	-2.0	-211.1
1977	7917.3	7877.4	-.5	-39.9
1978	16224.8	15275.4	-5.9	-949.4
1979	17521.3	17530.5	.1	9.2
1980	14298.3	14020.6	-1.9	-277.7
1981	10060.8	10127.6	.7	66.8
1982	24311.4	23825.5	-2.0	-485.9
1983	52566.2	52083.6	-.9	-482.6
1984	16067.9	15932.5	-.8	-135.4
1985	9175.7	8946.1	-2.5	-229.6
1986	11609.7	11330.3	-2.4	-279.4
1987	9273.4	9115.7	-1.7	-157.7
1988	12087.0	11299.8	-6.5	-787.2
1989	14905.5	14814.6	-.6	-90.9
1990	16706.4	16606.3	-.6	-100.1
1991	11412.9	10432.4	-8.6	-980.5
Mean:	17950.3	17632.1	-1.8	-318.2
Median:	15843.6	15374.7	-1.0	-135.4
Min:	7917.3	7877.4	-14.9	-2756.2
Max:	52566.2	52083.6	6.3	682.4
Alt-Base >= .0				3
Rel Dif >= .0%			3	
.0% > Rel Dif >= -1.0%			35	
-1.0% > Rel Dif >= -2.0%			17	
-2.0% > Rel Dif >= -3.0%			4	
-3.0% > Rel Dif >= -5.0%			4	
-5.0% > Rel Dif >= -6.0%			2	
Rel Dif < -6.0%			5	

SACRAMENTO RIVER FLOW AT FREEPORT

July

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	14463.5	13540.3	-6.4	-923.2
1923	14941.6	13021.6	-12.9	-1920.0
1924	7372.3	7325.1	-.6	-47.2
1925	12516.3	11852.9	-5.3	-663.4
1926	10032.0	9919.3	-1.1	-112.7
1927	15291.6	15181.5	-.7	-110.1
1928	17698.5	16443.5	-7.1	-1255.0
1929	7858.2	7690.6	-2.1	-167.6
1930	9320.2	9237.3	-.9	-82.9
1931	8440.4	8318.2	-1.4	-122.2
1932	8644.6	8486.6	-1.8	-158.0
1933	7888.3	7756.1	-1.7	-132.2
1934	8003.7	7882.1	-1.5	-121.6
1935	13916.6	12557.1	-9.8	-1359.5
1936	12838.9	11412.4	-11.1	-1426.5
1937	11186.1	10999.7	-1.7	-186.4
1938	18758.3	18242.7	-2.7	-515.6
1939	8068.8	7959.4	-1.4	-109.4
1940	17275.8	17139.5	-.8	-136.3
1941	15645.8	15473.3	-1.1	-172.5
1942	16788.4	16261.4	-3.1	-527.0
1943	15758.9	15675.7	-.5	-83.2
1944	9328.7	8256.8	-11.5	-1071.9
1945	15431.1	14266.4	-7.5	-1164.7
1946	15633.0	14900.6	-4.7	-732.4
1947	9956.0	10192.6	2.4	236.6
1948	21206.4	19870.0	-6.3	-1336.4
1949	13353.5	12952.4	-3.0	-401.1
1950	21412.5	20686.0	-3.4	-726.5
1951	20120.4	19968.8	-.8	-151.6
1952	23000.2	22494.3	-2.2	-505.9
1953	17521.2	16407.6	-6.4	-1113.6
1954	18308.1	18128.4	-1.0	-179.7
1955	12164.6	11416.8	-6.1	-747.8
1956	18445.5	17921.7	-2.8	-523.8
1957	18546.0	18361.9	-1.0	-184.1
1958	20220.4	19716.1	-2.5	-504.3
1959	15184.1	15078.2	-.7	-105.9
1960	15646.5	14172.8	-9.4	-1473.7
1961	11898.8	11508.9	-3.3	-389.9
1962	19029.6	18940.5	-.5	-89.1
1963	15427.8	15374.1	-.3	-53.7
1964	10109.8	9711.4	-3.9	-398.4
1965	17783.8	17665.5	-.7	-118.3
1966	15843.6	15136.5	-4.5	-707.1
1967	21179.3	20675.0	-2.4	-504.3
1968	14941.0	14846.9	-.6	-94.1
1969	17538.2	17016.0	-3.0	-522.2
1970	16866.9	16722.1	-.9	-144.8
1971	18560.9	17558.0	-5.4	-1002.9
1972	17260.0	17163.6	-.6	-96.4
1973	17172.1	17036.0	-.8	-136.1
1974	21785.5	21286.1	-2.3	-499.4
1975	18844.6	18345.2	-2.7	-499.4
1976	8857.9	8666.7	-2.2	-191.2
1977	8005.0	7961.5	-.5	-43.5
1978	15276.8	14444.4	-5.4	-832.4
1979	15052.4	13305.8	-11.6	-1746.6
1980	12071.5	11172.7	-7.4	-898.8
1981	9077.7	9164.3	1.0	86.6
1982	19921.9	19398.1	-2.6	-523.8
1983	26473.6	26054.9	-1.6	-418.7
1984	16374.6	16264.4	-.7	-110.2
1985	8403.5	8092.4	-3.7	-311.1
1986	13530.9	13469.7	-.5	-61.2
1987	8704.9	8570.7	-1.5	-134.2
1988	9680.2	9270.3	-4.2	-409.9
1989	13171.7	12150.3	-7.8	-1021.4
1990	11063.3	9666.9	-12.6	-1396.4
1991	8069.6	7917.5	-1.9	-152.1
Mean:	14516.6	14024.6	-3.4	-492.0
Median:	15184.1	14266.4	-2.3	-398.4
Min:	7372.3	7325.1	-12.9	-1920.0
Max:	26473.6	26054.9	2.4	236.6
Alt-Base >= .0				2
Rel Dif >= .0%			2	
.0% > Rel Dif >= -1.0%			19	
-1.0% > Rel Dif >= -2.0%			11	
-2.0% > Rel Dif >= -3.0%			12	
-3.0% > Rel Dif >= -5.0%			8	
-5.0% > Rel Dif >= -6.0%			3	
Rel Dif < -6.0%			15	

SACRAMENTO RIVER FLOW AT FREEPORT

August

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	12105.8	11958.3	-1.2	-147.5
1923	13092.0	13350.4	2.0	258.4
1924	6653.9	6665.4	.2	11.5
1925	13843.1	13027.6	-5.9	-815.5
1926	8687.1	8634.7	-.6	-52.4
1927	19154.0	19150.8	.0	-3.2
1928	20079.3	19940.7	-.7	-138.6
1929	7963.6	7660.7	-3.8	-302.9
1930	10563.0	10484.3	-.7	-78.7
1931	6619.3	6403.9	-3.3	-215.4
1932	11537.4	11267.0	-2.3	-270.4
1933	6687.7	6326.5	-5.4	-361.2
1934	6581.5	6549.2	-.5	-32.3
1935	13714.6	13738.6	.2	24.0
1936	13708.3	13635.8	-.5	-72.5
1937	13265.0	12482.2	-5.9	-782.8
1938	17566.5	17042.1	-3.0	-524.4
1939	11325.0	11271.7	-.5	-53.3
1940	19498.1	19355.8	-.7	-142.3
1941	16835.6	15788.4	-6.2	-1047.2
1942	16753.0	16235.1	-3.1	-517.9
1943	18595.5	18487.0	-.6	-108.5
1944	15598.0	13813.7	-11.4	-1784.3
1945	12600.0	12730.7	1.0	130.7
1946	13516.2	13415.9	-.7	-100.3
1947	12104.2	10954.2	-9.5	-1150.0
1948	18244.1	17924.1	-1.8	-320.0
1949	13803.9	13694.5	-.8	-109.4
1950	18723.6	18796.5	.4	72.9
1951	19546.4	19425.3	-.6	-121.1
1952	20213.2	19699.1	-2.5	-514.1
1953	18523.3	18015.2	-2.7	-508.1
1954	19493.3	19386.9	-.5	-106.4
1955	14129.4	13147.5	-6.9	-981.9
1956	18680.7	18167.6	-2.7	-513.1
1957	19622.7	19517.0	-.5	-105.7
1958	19872.7	19377.6	-2.5	-495.1
1959	13538.4	13427.5	-.8	-110.9
1960	15514.6	15483.8	-.2	-30.8
1961	12711.5	12212.2	-3.9	-499.3
1962	18449.1	18106.2	-1.9	-342.9
1963	19586.7	19508.4	-.4	-78.3
1964	14636.3	14670.2	.2	33.9
1965	19569.1	19461.6	-.5	-107.5
1966	13887.7	13781.0	-.8	-106.7
1967	19326.6	18811.9	-2.7	-514.7
1968	12229.2	12120.8	-.9	-108.4
1969	18633.5	18133.5	-2.7	-500.0
1970	19072.2	18926.3	-.8	-145.9
1971	19076.1	19072.6	.0	-3.5
1972	18503.1	18466.0	-.2	-37.1
1973	19386.6	19245.2	-.7	-141.4
1974	20889.6	20378.2	-2.4	-511.4
1975	20077.3	19585.4	-2.5	-491.9
1976	16791.0	15940.8	-5.1	-850.2
1977	8775.2	8723.9	-.6	-51.3
1978	12815.8	12917.0	.8	101.2
1979	12545.3	12719.6	1.4	174.3
1980	15366.0	15337.5	-.2	-28.5
1981	17428.4	17141.8	-1.6	-286.6
1982	19096.6	18580.3	-2.7	-516.3
1983	23140.4	22984.1	-.7	-156.3
1984	18619.5	18510.9	-.6	-108.6
1985	16031.0	14792.4	-7.7	-1238.6
1986	18595.1	18486.6	-.6	-108.5
1987	8668.9	8451.2	-2.5	-217.7
1988	9584.5	9238.1	-3.6	-346.4
1989	12832.8	12409.4	-3.3	-423.4
1990	12919.8	12285.2	-4.9	-634.6
1991	7578.2	6305.1	-16.8	-1273.1
Mean:	15219.7	14910.5	-2.2	-309.1
Median:	15514.6	14792.4	-.8	-145.9
Min:	6581.5	6305.1	-16.8	-1784.3
Max:	23140.4	22984.1	2.0	258.4

Alt-Base	WFP
Rel Dif >= .0%	10
.0% > Rel Dif >= -1.0%	27
-1.0% > Rel Dif >= -2.0%	4
-2.0% > Rel Dif >= -3.0%	12
-3.0% > Rel Dif >= -5.0%	7
-5.0% > Rel Dif >= -6.0%	4
Rel Dif < -6.0%	6
	8

SACRAMENTO RIVER FLOW AT FREEPORT

September

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	14632.7	14207.0	-2.9	-425.7
1923	14998.7	14886.9	-.7	-111.8
1924	7969.7	8038.6	.9	68.9
1925	13421.4	13202.3	-1.6	-219.1
1926	11488.5	11274.3	-1.9	-214.2
1927	13254.5	13151.3	-.8	-103.2
1928	15013.9	14895.3	-.8	-118.6
1929	9645.7	9515.9	-1.3	-129.8
1930	12029.9	12044.4	.1	14.5
1931	7815.3	7097.7	-9.2	-717.6
1932	12163.7	11233.4	-7.6	-930.3
1933	7543.1	7180.5	-4.8	-362.6
1934	6821.1	6440.1	-5.6	-381.0
1935	15131.3	15018.7	-.7	-112.6
1936	14593.6	14435.5	-1.1	-158.1
1937	14556.9	14489.7	-.5	-67.2
1938	16804.8	16370.6	-2.6	-434.2
1939	11650.7	11630.5	-.2	-20.2
1940	14107.1	13983.3	-.9	-123.8
1941	16623.9	16193.1	-2.6	-430.8
1942	15640.6	15211.5	-2.7	-429.1
1943	12682.5	12578.6	-.8	-103.9
1944	13326.4	12874.8	-3.4	-451.6
1945	14782.8	14683.3	-.7	-99.5
1946	15813.0	15714.5	-.6	-98.5
1947	13820.8	13147.7	-4.9	-673.1
1948	15629.3	15527.3	-.7	-102.0
1949	13788.6	13665.5	-.9	-123.1
1950	16064.8	15980.1	-.5	-84.7
1951	16326.9	16043.9	-1.7	-283.0
1952	17755.1	17313.7	-2.5	-441.4
1953	17280.8	16860.1	-2.4	-420.7
1954	15792.7	15641.9	-1.0	-150.8
1955	13321.6	12977.0	-2.6	-344.6
1956	17770.6	17344.9	-2.4	-425.7
1957	15628.1	15471.6	-1.0	-156.5
1958	20273.2	19852.5	-2.1	-420.7
1959	14909.6	14806.0	-.7	-103.6
1960	14698.6	14338.0	-2.5	-360.6
1961	12183.0	11891.0	-2.4	-292.0
1962	16321.9	16211.1	-.7	-110.8
1963	15130.0	14709.3	-2.8	-420.7
1964	13359.2	13089.4	-2.0	-269.8
1965	13953.4	13637.4	-2.3	-316.0
1966	15887.0	15591.4	-1.9	-295.6
1967	18307.1	17916.7	-2.1	-390.4
1968	15868.9	15765.1	-.7	-103.8
1969	19682.0	19276.4	-2.1	-405.6
1970	13628.4	13497.4	-1.0	-131.0
1971	18030.4	17100.9	-5.2	-929.5
1972	16296.8	16206.8	-.6	-90.0
1973	13944.7	13819.4	-.9	-125.3
1974	20839.1	20420.0	-2.0	-419.1
1975	19053.1	18620.6	-2.3	-432.5
1976	11993.2	11867.9	-1.0	-125.3
1977	6439.4	6377.6	-1.0	-61.8
1978	15302.5	14297.3	-6.6	-1005.2
1979	14868.1	14755.2	-.8	-112.9
1980	14153.7	13748.2	-2.9	-405.5
1981	14355.0	14226.8	-.9	-128.2
1982	20556.5	20162.7	-1.9	-393.8
1983	26751.1	26635.9	-.4	-115.2
1984	12643.3	12539.3	-.8	-104.0
1985	13526.2	13510.9	-.1	-15.3
1986	12417.7	12313.8	-.8	-103.9
1987	11859.8	12077.5	1.8	217.7
1988	8763.9	8706.4	-.7	-57.5
1989	12257.5	12138.0	-1.0	-119.5
1990	11092.9	11023.7	-.6	-69.2
1991	8476.2	8163.8	-3.7	-312.4
Mean:	14335.9	14080.3	-1.8	-255.6
Median:	14556.9	14226.8	-1.1	-156.5
Min:	6439.4	6377.6	-9.2	-1005.2
Max:	26751.1	26635.9	1.8	217.7

Alt-Base	WFP
Alt-Base >= .0	3
Rel Dif >= .0%	3
.0% > Rel Dif >= -1.0%	32
-1.0% > Rel Dif >= -2.0%	9
-2.0% > Rel Dif >= -3.0%	17
-3.0% > Rel Dif >= -5.0%	4
-5.0% > Rel Dif >= -6.0%	2
Rel Dif < -6.0%	3

RETURN TO TABLE OF CONTENTS

Section 23

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

January

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	41.8	41.8	.0	.0
1923.	43.5	43.5	.0	.0
1924.	44.0	44.0	.0	.0
1925.	45.4	45.5	.2	.1
1926.	42.5	42.5	.0	.0
1927.	45.6	45.6	.0	.0
1928.	45.1	45.1	.0	.0
1929.	42.0	41.9	-.2	-.1
1930.	43.7	43.7	.0	.0
1931.	46.2	46.1	-.2	-.1
1932.	44.4	44.4	.0	.0
1933.	42.7	42.7	.0	.0
1934.	46.7	46.7	.0	.0
1935.	45.3	45.3	.0	.0
1936.	46.8	46.7	-.2	-.1
1937.	39.7	39.7	.0	.0
1938.	45.7	45.7	.0	.0
1939.	46.3	46.2	-.2	-.1
1940.	46.1	46.1	.0	.0
1941.	46.9	46.8	-.2	-.1
1942.	45.8	45.8	.0	.0
1943.	46.0	46.0	.0	.0
1944.	45.6	45.6	.0	.0
1945.	44.6	44.6	.0	.0
1946.	44.9	44.9	.0	.0
1947.	43.2	43.2	.0	.0
1948.	46.8	46.8	.0	.0
1949.	40.2	40.2	.0	.0
1950.	42.3	42.3	.0	.0
1951.	44.9	44.9	.0	.0
1952.	43.7	43.7	.0	.0
1953.	47.2	47.2	.0	.0
1954.	45.9	45.8	-.2	-.1
1955.	43.0	43.0	.0	.0
1956.	46.1	46.1	.0	.0
1957.	43.9	43.9	.0	.0
1958.	45.2	45.2	.0	.0
1959.	47.4	47.4	.0	.0
1960.	45.1	45.1	.0	.0
1961.	43.7	43.6	-.2	-.1
1962.	44.2	44.2	.0	.0
1963.	43.4	43.4	.0	.0
1964.	44.4	44.4	.0	.0
1965.	45.2	45.2	.0	.0
1966.	44.4	44.4	.0	.0
1967.	45.6	45.5	-.2	-.1
1968.	44.4	44.4	.0	.0
1969.	44.6	44.5	-.2	-.1
1970.	48.0	48.0	.0	.0
1971.	45.1	45.1	.0	.0
1972.	43.0	43.0	.0	.0
1973.	44.2	44.2	.0	.0
1974.	46.1	46.1	.0	.0
1975.	44.5	44.5	.0	.0
1976.	46.5	46.5	.0	.0
1977.	44.1	44.1	.0	.0
1978.	46.7	46.7	.0	.0
1979.	45.0	44.9	-.2	-.1
1980.	46.5	46.4	-.2	-.1
1981.	46.0	45.9	-.2	-.1
1982.	43.8	43.8	.0	.0
1983.	44.6	44.6	.0	.0
1984.	46.1	46.1	.0	.0
1985.	43.5	43.5	.0	.0
1986.	47.5	47.5	.0	.0
1987.	44.6	44.6	.0	.0
1988.	45.5	45.4	-.2	-.1
1989.	44.2	44.3	.2	.1
1990.	45.3	45.2	-.2	-.1
Mean:	44.8	44.8	.0	.0
Median:	44.9	44.9	.0	.0
Min:	39.7	39.7	-.2	-.1
Max:	48.0	48.0	.2	.1
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

February

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	47.2	47.2	.0	.0
1923.	49.3	49.3	.0	.0
1924.	51.9	51.9	.0	.0
1925.	49.3	49.3	.0	.0
1926.	49.5	49.5	.0	.0
1927.	48.8	48.8	.0	.0
1928.	49.6	49.6	.0	.0
1929.	48.2	48.2	.0	.0
1930.	50.7	50.7	.0	.0
1931.	51.8	51.8	.0	.0
1932.	48.8	48.8	.0	.0
1933.	47.7	47.7	.0	.0
1934.	51.0	51.0	.0	.0
1935.	49.5	49.5	.0	.0
1936.	49.0	49.0	.0	.0
1937.	48.0	48.0	.0	.0
1938.	48.2	48.2	.0	.0
1939.	48.2	48.2	.0	.0
1940.	49.4	49.4	.0	.0
1941.	49.6	49.6	.0	.0
1942.	48.1	48.1	.0	.0
1943.	50.0	50.0	.0	.0
1944.	48.8	48.8	.0	.0
1945.	49.8	49.8	.0	.0
1946.	47.2	47.2	.0	.0
1947.	49.9	50.0	.2	.1
1948.	48.1	48.1	.0	.0
1949.	46.5	46.5	.0	.0
1950.	48.8	48.9	.2	.1
1951.	48.0	48.0	.0	.0
1952.	47.9	47.9	.0	.0
1953.	50.1	50.1	.0	.0
1954.	49.1	49.1	.0	.0
1955.	48.1	48.1	.0	.0
1956.	47.1	47.1	.0	.0
1957.	49.7	49.7	.0	.0
1958.	49.4	49.3	-.2	-.1
1959.	49.1	49.1	.0	.0
1960.	49.0	49.0	.0	.0
1961.	50.2	50.2	.0	.0
1962.	48.1	48.1	.0	.0
1963.	51.9	51.9	.0	.0
1964.	50.4	50.4	.0	.0
1965.	49.1	49.1	.0	.0
1966.	47.4	47.4	.0	.0
1967.	49.0	49.0	.0	.0
1968.	51.0	50.9	-.2	-.1
1969.	47.3	47.3	.0	.0
1970.	51.3	51.3	.0	.0
1971.	48.8	48.8	.0	.0
1972.	50.1	50.1	.0	.0
1973.	50.1	50.1	.0	.0
1974.	48.7	48.7	.0	.0
1975.	48.6	48.6	.0	.0
1976.	50.5	50.5	.0	.0
1977.	51.4	51.4	.0	.0
1978.	50.1	50.1	.0	.0
1979.	48.6	48.6	.0	.0
1980.	49.5	49.5	.0	.0
1981.	50.9	50.9	.0	.0
1982.	48.2	48.2	.0	.0
1983.	49.2	49.2	.0	.0
1984.	49.2	49.2	.0	.0
1985.	50.9	51.0	.2	.1
1986.	48.8	48.8	.0	.0
1987.	50.2	50.1	-.2	-.1
1988.	52.7	52.7	.0	.0
1989.	47.8	47.8	.0	.0
1990.	47.8	47.9	.2	.1
Mean:	49.2	49.3	.0	.0
Median:	49.1	49.1	.0	.0
Min:	46.5	46.5	-.2	-.1
Max:	52.7	52.7	.2	.1

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

March

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	52.0	52.0	.0	.0
1923.	56.0	55.6	-.7	-.4
1924.	54.1	54.1	.0	.0
1925.	53.1	53.1	.0	.0
1926.	58.5	58.5	.0	.0
1927.	52.8	52.8	.0	.0
1928.	53.0	53.0	.0	.0
1929.	54.7	54.6	-.2	-.1
1930.	55.7	55.7	.0	.0
1931.	56.7	56.7	.0	.0
1932.	56.9	56.9	.0	.0
1933.	54.7	54.6	-.2	-.1
1934.	59.8	59.8	.0	.0
1935.	52.2	52.2	.0	.0
1936.	56.6	56.9	.5	.3
1937.	54.7	54.7	.0	.0
1938.	50.9	50.9	.0	.0
1939.	55.2	55.2	.0	.0
1940.	53.8	53.8	.0	.0
1941.	54.2	54.2	.0	.0
1942.	53.4	53.3	-.2	-.1
1943.	52.7	52.7	.0	.0
1944.	55.6	55.7	.2	.1
1945.	51.6	51.6	.0	.0
1946.	53.5	53.5	.0	.0
1947.	55.9	55.9	.0	.0
1948.	51.6	51.6	.0	.0
1949.	52.6	52.6	.0	.0
1950.	53.1	53.2	.2	.1
1951.	53.5	53.6	.2	.1
1952.	51.3	51.3	.0	.0
1953.	53.3	53.3	.0	.0
1954.	51.7	51.7	.0	.0
1955.	54.5	54.5	.0	.0
1956.	53.9	53.9	.0	.0
1957.	54.3	54.3	.0	.0
1958.	51.5	51.5	.0	.0
1959.	56.8	56.8	.0	.0
1960.	55.0	55.0	.0	.0
1961.	53.2	53.1	-.2	-.1
1962.	52.4	52.3	-.2	-.1
1963.	52.3	52.3	.0	.0
1964.	53.7	53.7	.0	.0
1965.	53.8	53.8	.0	.0
1966.	53.6	53.6	.0	.0
1967.	51.4	51.4	.0	.0
1968.	55.4	55.2	-.4	-.2
1969.	53.4	53.4	.0	.0
1970.	55.1	55.1	.0	.0
1971.	51.7	51.7	.0	.0
1972.	56.2	56.3	.2	.1
1973.	52.4	52.4	.0	.0
1974.	51.9	51.9	.0	.0
1975.	51.3	51.4	.2	.1
1976.	54.3	54.3	.0	.0
1977.	53.2	53.2	.0	.0
1978.	55.3	55.3	.0	.0
1979.	55.1	55.1	.0	.0
1980.	53.7	53.7	.0	.0
1981.	53.5	53.5	.0	.0
1982.	51.9	51.9	.0	.0
1983.	51.9	51.9	.0	.0
1984.	56.1	56.1	.0	.0
1985.	52.6	52.6	.0	.0
1986.	55.1	55.1	.0	.0
1987.	54.0	54.0	.0	.0
1988.	57.7	57.8	.2	.1
1989.	53.2	53.2	.0	.0
1990.	56.5	56.5	.0	.0
Mean:	54.0	54.0	.0	.0
Median:	53.5	53.6	.0	.0
Min:	50.9	50.9	-.7	-.4
Max:	59.8	59.8	.5	.3
X > 56.0	10	10		
Mean X > 56.0	57.2	57.2	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

April

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	58.3	58.3	.0	.0
1923.	58.9	58.9	.0	.0
1924.	62.7	62.7	.0	.0
1925.	58.9	59.1	.3	.2
1926.	62.4	62.4	.0	.0
1927.	57.4	57.5	.2	.1
1928.	58.3	58.4	.2	.1
1929.	58.3	58.4	.2	.1
1930.	61.0	61.0	.0	.0
1931.	63.8	63.9	.2	.1
1932.	59.1	59.1	.0	.0
1933.	60.8	60.9	.2	.1
1934.	64.0	64.1	.2	.1
1935.	58.5	58.5	.0	.0
1936.	60.0	60.1	.2	.1
1937.	58.7	58.8	.2	.1
1938.	57.0	57.1	.2	.1
1939.	64.1	64.1	.0	.0
1940.	60.6	60.6	.0	.0
1941.	57.0	57.0	.0	.0
1942.	57.2	57.2	.0	.0
1943.	59.0	59.1	.2	.1
1944.	58.7	58.9	.3	.2
1945.	60.9	61.0	.2	.1
1946.	60.5	60.7	.3	.2
1947.	63.4	63.3	-.2	-.1
1948.	56.1	56.1	.0	.0
1949.	62.0	62.0	.0	.0
1950.	60.9	61.0	.2	.1
1951.	60.0	60.1	.2	.1
1952.	56.3	56.3	.0	.0
1953.	58.9	59.0	.2	.1
1954.	59.3	59.3	.0	.0
1955.	57.7	57.8	.2	.1
1956.	59.6	59.6	.0	.0
1957.	60.9	60.9	.0	.0
1958.	58.1	58.2	.2	.1
1959.	64.5	64.2	-.5	-.3
1960.	60.5	60.5	.0	.0
1961.	60.7	60.9	.3	.2
1962.	61.8	62.1	.5	.3
1963.	55.1	55.2	.2	.1
1964.	60.4	60.5	.2	.1
1965.	57.8	57.8	.0	.0
1966.	62.0	61.9	-.2	-.1
1967.	54.4	54.4	.0	.0
1968.	61.8	61.7	-.2	-.1
1969.	57.3	57.4	.2	.1
1970.	59.2	59.3	.2	.1
1971.	59.3	59.4	.2	.1
1972.	60.1	60.1	.0	.0
1973.	61.0	61.0	.0	.0
1974.	57.6	57.7	.2	.1
1975.	56.8	56.8	.0	.0
1976.	60.4	60.4	.0	.0
1977.	64.2	64.2	.0	.0
1978.	57.7	57.8	.2	.1
1979.	59.5	59.6	.2	.1
1980.	60.1	60.2	.2	.1
1981.	61.7	61.8	.2	.1
1982.	55.9	55.9	.0	.0
1983.	56.7	56.7	.0	.0
1984.	59.6	59.6	.0	.0
1985.	63.7	63.8	.2	.1
1986.	60.5	60.6	.2	.1
1987.	63.3	63.3	.0	.0
1988.	63.2	63.3	.2	.1
1989.	61.7	61.8	.2	.1
1990.	64.2	64.4	.3	.2
Mean:	59.9	59.9	.1	.1
Median:	59.6	59.6	.1	.0
Min:	54.4	54.4	-.5	-.3
Max:	64.5	64.4	.5	.3
X > 56.0	66	66		
Mean X > 56.0	60.1	60.2	.2	.1
X > 60.0	33	35		
Mean X > 60.0	61.9	61.9	.0	.0
X > 62.5	11	11		
Mean X > 62.5	63.7	63.8	.2	.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

May

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	62.6	62.7	.2	.1
1923.	63.9	64.1	.3	.2
1924.	69.7	69.7	.0	.0
1925.	64.8	65.1	.5	.3
1926.	67.1	67.1	.0	.0
1927.	63.5	63.6	.2	.1
1928.	67.0	67.0	.0	.0
1929.	66.6	66.6	.0	.0
1930.	63.9	64.0	.2	.1
1931.	70.8	70.8	.0	.0
1932.	65.4	65.6	.3	.2
1933.	63.4	63.4	.0	.0
1934.	69.5	69.5	.0	.0
1935.	65.0	65.0	.0	.0
1936.	65.8	65.9	.2	.1
1937.	65.8	65.9	.2	.1
1938.	62.4	62.5	.2	.1
1939.	67.8	67.7	-.1	-.1
1940.	66.1	66.2	.2	.1
1941.	62.3	62.4	.2	.1
1942.	61.4	61.5	.2	.1
1943.	66.2	66.3	.2	.1
1944.	66.1	66.3	.3	.2
1945.	63.8	63.9	.2	.1
1946.	64.9	65.0	.2	.1
1947.	69.2	69.1	-.1	-.1
1948.	62.6	62.6	.0	.0
1949.	66.0	66.2	.3	.2
1950.	65.5	65.6	.2	.1
1951.	65.9	66.0	.2	.1
1952.	62.1	62.1	.0	.0
1953.	62.4	62.4	.0	.0
1954.	66.3	66.3	.0	.0
1955.	66.7	67.0	.4	.3
1956.	62.9	63.0	.2	.1
1957.	65.0	65.1	.2	.1
1958.	63.7	63.7	.0	.0
1959.	66.4	66.2	-.3	-.2
1960.	66.3	66.4	.2	.1
1961.	64.4	64.3	-.2	-.1
1962.	65.1	65.2	.2	.1
1963.	63.2	63.3	.2	.1
1964.	65.4	65.3	-.2	-.1
1965.	64.5	64.6	.2	.1
1966.	66.5	66.6	.2	.1
1967.	62.5	62.6	.2	.1
1968.	66.6	66.3	-.5	-.3
1969.	63.6	63.6	.0	.0
1970.	68.2	68.3	.1	.1
1971.	62.1	62.1	.0	.0
1972.	66.4	66.4	.0	.0
1973.	67.6	67.9	.4	.3
1974.	64.4	64.4	.0	.0
1975.	64.8	64.8	.0	.0
1976.	70.1	70.0	-.1	-.1
1977.	64.0	64.0	.0	.0
1978.	65.6	65.8	.3	.2
1979.	66.6	67.1	.8	.5
1980.	64.3	64.3	.0	.0
1981.	66.7	66.6	-.1	-.1
1982.	64.5	64.6	.2	.1
1983.	62.5	62.5	.0	.0
1984.	68.1	68.2	.1	.1
1985.	65.5	65.5	.0	.0
1986.	66.0	66.1	.2	.1
1987.	69.1	68.8	-.4	-.3
1988.	65.7	65.7	.0	.0
1989.	66.3	66.4	.2	.1
1990.	65.9	65.8	-.2	-.1
Mean:	65.4	65.5	.1	.1
Median:	65.4	65.6	.1	.0
Min:	61.4	61.5	-.5	-.3
Max:	70.8	70.8	.8	.5

X > 56.0	69	69		
Mean X > 56.0	65.4	65.5	.2	.1
X > 60.0	69	69		
Mean X > 60.0	65.4	65.5	.2	.1
X > 62.5	61	62		
Mean X > 62.5	65.8	65.8	.0	.0
X > 65.0	39	41		
Mean X > 65.0	66.9	66.8	-.1	-.1
X > 67.5	10	10		
Mean X > 67.5	69.0	69.0	.0	.0
X > 70.0	2	1		
Mean X > 70.0	70.4	70.8	.6	.4

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

June

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	67.9	67.7	-.3	-.2
1923.	66.0	66.0	.0	.0
1924.	71.3	71.3	.0	.0
1925.	69.2	68.9	-.4	-.3
1926.	72.7	72.7	.0	.0
1927.	68.2	68.1	-.1	-.1
1928.	69.5	69.8	.4	.3
1929.	70.9	70.7	-.3	-.2
1930.	71.4	71.2	-.3	-.2
1931.	70.9	70.9	.0	.0
1932.	70.4	70.3	-.1	-.1
1933.	70.2	70.2	.0	.0
1934.	71.3	71.0	-.4	-.3
1935.	71.2	71.4	.3	.2
1936.	69.7	70.0	.4	.3
1937.	69.9	69.8	-.1	-.1
1938.	68.9	68.8	-.1	-.1
1939.	72.0	71.9	-.1	-.1
1940.	72.4	72.6	.3	.2
1941.	68.0	67.8	-.3	-.2
1942.	68.0	68.0	.0	.0
1943.	67.8	67.7	-.1	-.1
1944.	68.2	68.3	.1	.1
1945.	69.9	70.2	.4	.3
1946.	67.8	68.1	.4	.3
1947.	71.6	71.5	-.1	-.1
1948.	69.1	69.0	-.1	-.1
1949.	70.7	70.7	.0	.0
1950.	68.7	68.7	.0	.0
1951.	69.9	69.9	.0	.0
1952.	65.5	65.5	.0	.0
1953.	66.3	66.4	.2	.1
1954.	69.1	69.1	.0	.0
1955.	68.7	69.4	1.0	.7
1956.	69.4	69.6	.3	.2
1957.	72.0	72.1	.1	.1
1958.	67.2	67.2	.0	.0
1959.	71.7	71.6	-.1	-.1
1960.	73.2	73.0	-.3	-.2
1961.	73.0	73.5	.7	.5
1962.	70.5	70.5	.0	.0
1963.	69.5	69.4	-.1	-.1
1964.	70.4	70.3	-.1	-.1
1965.	67.4	67.5	.1	.1
1966.	70.4	70.1	-.4	-.3
1967.	66.5	66.5	.0	.0
1968.	71.8	71.8	.0	.0
1969.	67.9	67.9	.0	.0
1970.	71.0	71.1	.1	.1
1971.	67.9	68.0	.1	.1
1972.	70.4	70.7	.4	.3
1973.	71.0	70.7	-.4	-.3
1974.	69.5	69.5	.0	.0
1975.	68.7	68.7	.0	.0
1976.	72.2	71.9	-.4	-.3
1977.	73.4	73.4	.0	.0
1978.	69.2	69.5	.4	.3
1979.	69.5	69.6	.1	.1
1980.	67.3	67.4	.1	.1
1981.	74.3	74.3	.0	.0
1982.	67.3	67.1	-.3	-.2
1983.	66.9	66.9	.0	.0
1984.	70.0	69.8	-.3	-.2
1985.	73.2	73.0	-.3	-.2
1986.	70.3	70.5	.3	.2
1987.	71.1	71.2	.1	.1
1988.	70.5	70.6	.1	.1
1989.	70.1	70.2	.1	.1
1990.	70.2	70.1	-.1	-.1
Mean:	69.8	69.8	.0	.0
Median:	69.9	69.9	.0	.0
Min:	65.5	65.5	-.4	-.3
Max:	74.3	74.3	1.0	.7

X > 56.0	69	69		
Mean X > 56.0	69.8	69.8	.0	.0
X > 60.0	69	69		
Mean X > 60.0	69.8	69.8	.0	.0
X > 62.5	69	69		
Mean X > 62.5	69.8	69.8	.0	.0
X > 65.0	69	69		
Mean X > 65.0	69.8	69.8	.0	.0
X > 67.5	60	60		
Mean X > 67.5	70.3	70.3	.0	.0
X > 70.0	33	34		
Mean X > 70.0	71.4	71.4	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

July

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	72.9	73.1	.3	.2
1923.	71.8	71.9	.1	.1
1924.	73.2	73.2	.0	.0
1925.	73.3	73.2	-.1	-.1
1926.	75.5	75.4	-.1	-.1
1927.	71.9	71.8	-.1	-.1
1928.	70.5	71.0	.7	.5
1929.	73.7	73.6	-.1	-.1
1930.	73.2	73.4	.3	.2
1931.	77.7	77.7	.0	.0
1932.	73.1	72.7	-.5	-.4
1933.	76.7	76.6	-.1	-.1
1934.	74.6	74.5	-.1	-.1
1935.	72.0	72.1	.1	.1
1936.	74.3	74.6	.4	.3
1937.	74.3	74.2	-.1	-.1
1938.	72.1	72.0	-.1	-.1
1939.	75.0	74.9	-.1	-.1
1940.	71.8	71.9	.1	.1
1941.	72.8	72.7	-.1	-.1
1942.	72.3	72.1	-.3	-.2
1943.	72.2	71.9	-.4	-.3
1944.	72.7	73.1	.6	.4
1945.	73.6	74.2	.8	.6
1946.	72.2	72.5	.4	.3
1947.	73.3	73.1	-.3	-.2
1948.	71.4	71.5	.1	.1
1949.	72.8	72.7	-.1	-.1
1950.	72.7	72.6	-.1	-.1
1951.	71.3	71.0	-.4	-.3
1952.	72.1	72.1	.0	.0
1953.	73.0	73.2	.3	.2
1954.	72.4	72.4	.0	.0
1955.	72.4	72.5	.1	.1
1956.	71.8	71.7	-.1	-.1
1957.	72.4	72.8	.6	.4
1958.	71.6	71.6	.0	.0
1959.	73.8	73.7	-.1	-.1
1960.	74.5	74.8	.4	.3
1961.	74.9	75.1	.3	.2
1962.	72.8	72.7	-.1	-.1
1963.	71.1	71.0	-.1	-.1
1964.	74.3	74.6	.4	.3
1965.	71.7	71.6	-.1	-.1
1966.	70.7	70.7	.0	.0
1967.	73.3	73.2	-.1	-.1
1968.	72.9	72.7	-.3	-.2
1969.	72.4	72.3	-.1	-.1
1970.	72.7	72.7	.0	.0
1971.	72.5	72.6	.1	.1
1972.	72.4	72.5	.1	.1
1973.	72.7	72.5	-.3	-.2
1974.	71.0	70.9	-.1	-.1
1975.	71.3	71.4	.1	.1
1976.	74.9	74.8	-.1	-.1
1977.	74.3	74.2	-.1	-.1
1978.	72.3	72.2	-.1	-.1
1979.	72.9	73.4	.7	.5
1980.	72.8	73.0	.3	.2
1981.	74.4	74.4	.0	.0
1982.	70.2	70.1	-.1	-.1
1983.	70.0	70.0	.0	.0
1984.	73.8	73.6	-.3	-.2
1985.	75.5	75.7	.3	.2
1986.	72.4	72.2	-.3	-.2
1987.	71.8	71.3	-.7	-.5
1988.	76.6	76.8	.3	.2
1989.	72.4	72.9	.7	.5
1990.	74.3	74.9	.8	.6
Mean:	73.0	73.0	.0	.0
Median:	72.7	72.7	-.1	-.1
Min:	70.0	70.0	-.7	-.5
Max:	77.7	77.7	.8	.6

X > 56.0	69	69		
Mean X > 56.0	73.0	73.0	.0	.0
X > 60.0	69	69		
Mean X > 60.0	73.0	73.0	.0	.0
X > 62.5	69	69		
Mean X > 62.5	73.0	73.0	.0	.0
X > 65.0	69	69		
Mean X > 65.0	73.0	73.0	.0	.0
X > 67.5	69	69		
Mean X > 67.5	73.0	73.0	.0	.0
X > 70.0	68	68		
Mean X > 70.0	73.0	73.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

August

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	70.8	70.7	-.1	-.1
1923.	71.6	71.5	-.1	-.1
1924.	72.9	72.9	.0	.0
1925.	70.4	70.4	.0	.0
1926.	72.6	72.5	-.1	-.1
1927.	69.4	69.3	-.1	-.1
1928.	70.6	70.4	-.3	-.2
1929.	73.9	74.0	.1	.1
1930.	72.3	72.2	-.1	-.1
1931.	74.9	74.9	.0	.0
1932.	72.7	72.7	.0	.0
1933.	75.0	75.1	.1	.1
1934.	75.0	75.0	.0	.0
1935.	73.3	73.2	-.1	-.1
1936.	73.4	73.1	-.4	-.3
1937.	73.1	73.3	.3	.2
1938.	70.0	70.0	.0	.0
1939.	73.7	73.7	.0	.0
1940.	71.2	71.0	-.3	-.2
1941.	69.2	69.2	.0	.0
1942.	69.9	69.8	-.1	-.1
1943.	69.9	69.8	-.1	-.1
1944.	72.1	72.4	.4	.3
1945.	71.8	71.9	.1	.1
1946.	71.8	72.0	.3	.2
1947.	71.9	72.0	.1	.1
1948.	70.0	70.0	.0	.0
1949.	70.5	70.4	-.1	-.1
1950.	72.2	72.0	-.3	-.2
1951.	70.6	70.6	.0	.0
1952.	70.1	70.0	-.1	-.1
1953.	68.9	68.8	-.1	-.1
1954.	69.0	69.0	.0	.0
1955.	73.0	73.1	.1	.1
1956.	69.5	69.4	-.1	-.1
1957.	69.9	70.0	.1	.1
1958.	72.7	72.7	.0	.0
1959.	72.5	72.2	-.4	-.3
1960.	72.9	72.9	.0	.0
1961.	73.9	74.0	.1	.1
1962.	71.3	71.4	.1	.1
1963.	70.9	70.9	.0	.0
1964.	73.2	73.3	.1	.1
1965.	70.9	70.8	-.1	-.1
1966.	74.2	73.6	-.8	-.6
1967.	73.3	73.2	-.1	-.1
1968.	72.1	72.2	.1	.1
1969.	72.3	72.3	.0	.0
1970.	72.0	72.1	.1	.1
1971.	71.5	71.4	-.1	-.1
1972.	72.4	72.4	.0	.0
1973.	71.0	71.0	.0	.0
1974.	70.6	70.6	.0	.0
1975.	69.8	69.8	.0	.0
1976.	69.7	69.8	.1	.1
1977.	74.3	74.2	-.1	-.1
1978.	72.0	71.9	-.1	-.1
1979.	71.8	71.9	.1	.1
1980.	70.3	70.4	.1	.1
1981.	72.2	72.2	.0	.0
1982.	69.3	69.2	-.1	-.1
1983.	70.9	70.8	-.1	-.1
1984.	71.6	71.8	.3	.2
1985.	71.3	71.4	.1	.1
1986.	71.8	71.5	-.4	-.3
1987.	73.4	73.3	-.1	-.1
1988.	73.1	73.1	.0	.0
1989.	71.9	72.0	.1	.1
1990.	72.9	73.0	.1	.1
Mean:	71.8	71.7	.0	.0
Median:	71.8	71.9	.0	.0
Min:	68.9	68.8	-.8	-.6
Max:	75.0	75.1	.4	.3
X > 56.0	69	69		
Mean X > 56.0	71.8	71.7	-.1	-.1
X > 60.0	69	69		
Mean X > 60.0	71.8	71.7	-.1	-.1
X > 62.5	69	69		
Mean X > 62.5	71.8	71.7	-.1	-.1
X > 65.0	69	69		
Mean X > 65.0	71.8	71.7	-.1	-.1
X > 67.5	69	69		
Mean X > 67.5	71.8	71.7	-.1	-.1
X > 70.0	56	55		
Mean X > 70.0	72.3	72.3	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

September

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	70.2	70.2	.0	.0
1923.	68.4	68.4	.0	.0
1924.	69.6	69.5	-.1	-.1
1925.	64.5	64.3	-.3	-.2
1926.	66.2	66.1	-.2	-.1
1927.	66.6	66.3	-.5	-.3
1928.	67.3	67.5	.3	.2
1929.	68.3	68.2	-.1	-.1
1930.	65.1	65.0	-.2	-.1
1931.	68.1	68.1	.0	.0
1932.	71.3	71.4	.1	.1
1933.	68.1	68.0	-.1	-.1
1934.	71.1	71.2	.1	.1
1935.	68.4	68.3	-.1	-.1
1936.	70.0	69.7	-.4	-.3
1937.	68.2	68.0	-.3	-.2
1938.	68.8	68.7	-.1	-.1
1939.	69.7	69.7	.0	.0
1940.	67.1	67.0	-.1	-.1
1941.	66.6	66.4	-.3	-.2
1942.	67.3	67.1	-.3	-.2
1943.	69.8	69.7	-.1	-.1
1944.	70.9	70.9	.0	.0
1945.	69.5	69.7	.3	.2
1946.	68.1	68.3	.3	.2
1947.	71.0	71.0	.0	.0
1948.	67.9	67.8	-.1	-.1
1949.	69.1	69.0	-.1	-.1
1950.	68.1	67.9	-.3	-.2
1951.	69.0	69.0	.0	.0
1952.	69.3	69.0	-.4	-.3
1953.	69.5	69.3	-.3	-.2
1954.	67.0	66.7	-.4	-.3
1955.	68.9	68.9	.0	.0
1956.	67.6	67.4	-.3	-.2
1957.	67.4	67.6	.3	.2
1958.	69.2	69.0	-.3	-.2
1959.	67.5	67.6	.1	.1
1960.	69.6	69.5	-.1	-.1
1961.	68.2	68.0	-.3	-.2
1962.	67.9	67.9	.0	.0
1963.	69.3	69.1	-.3	-.2
1964.	67.5	67.4	-.1	-.1
1965.	66.0	65.7	-.5	-.3
1966.	68.5	68.5	.0	.0
1967.	70.3	70.1	-.3	-.2
1968.	69.3	69.3	.0	.0
1969.	69.3	69.2	-.1	-.1
1970.	69.2	69.3	.1	.1
1971.	68.4	68.3	-.1	-.1
1972.	65.9	66.0	.2	.1
1973.	68.0	67.9	-.1	-.1
1974.	68.6	68.5	-.1	-.1
1975.	69.7	69.7	.0	.0
1976.	69.2	69.2	.0	.0
1977.	69.0	69.0	.0	.0
1978.	67.1	67.0	-.1	-.1
1979.	70.3	70.5	.3	.2
1980.	67.9	67.7	-.3	-.2
1981.	68.5	68.5	.0	.0
1982.	66.2	66.0	-.3	-.2
1983.	66.0	65.9	-.2	-.1
1984.	70.8	70.7	-.1	-.1
1985.	65.8	65.8	.0	.0
1986.	64.1	64.2	.2	.1
1987.	68.9	68.7	-.3	-.2
1988.	70.0	69.9	-.1	-.1
1989.	66.2	66.2	.0	.0
1990.	69.7	69.7	.0	.0
Mean:	68.3	68.3	-.1	-.1
Median:	68.4	68.3	-.1	-.1
Min:	64.1	64.2	-.5	-.3
Max:	71.3	71.4	.3	.2
X > 56.0	69	69		
Mean X > 56.0	68.3	68.3	.0	.0
X > 60.0	69	69		
Mean X > 60.0	68.3	68.3	.0	.0
X > 62.5	69	69		
Mean X > 62.5	68.3	68.3	.0	.0
X > 65.0	67	66		
Mean X > 65.0	68.5	68.5	.0	.0
X > 67.5	49	50		
Mean X > 67.5	69.2	69.1	-.1	-.1
X > 70.0	8	8		
Mean X > 70.0	70.7	70.8	.1	.1

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

October"

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	58.0	58.1	.2	.1
1923.	60.2	60.0	-.3	-.2
1924.	58.7	58.6	-.2	-.1
1925.	59.7	59.6	-.2	-.1
1926.	61.8	61.8	.0	.0
1927.	59.9	59.8	-.2	-.1
1928.	59.7	59.4	-.5	-.3
1929.	62.9	62.9	.0	.0
1930.	60.3	60.3	.0	.0
1931.	61.2	61.2	.0	.0
1932.	62.1	61.9	-.3	-.2
1933.	65.2	65.2	.0	.0
1934.	62.5	62.4	-.2	-.1
1935.	60.1	60.1	.0	.0
1936.	62.5	62.3	-.3	-.2
1937.	61.4	61.3	-.2	-.1
1938.	58.9	58.9	.0	.0
1939.	62.5	62.3	-.3	-.2
1940.	60.0	60.1	.2	.1
1941.	59.0	58.9	-.2	-.1
1942.	60.4	60.3	-.2	-.1
1943.	59.3	59.4	.2	.1
1944.	62.5	62.2	-.5	-.3
1945.	62.1	61.6	-.8	-.5
1946.	58.9	58.6	-.5	-.3
1947.	60.3	60.2	-.2	-.1
1948.	59.6	59.8	.3	.2
1949.	59.0	59.3	.5	.3
1950.	59.7	59.7	.0	.0
1951.	58.6	58.3	-.5	-.3
1952.	61.6	61.5	-.2	-.1
1953.	59.5	59.3	-.3	-.2
1954.	59.4	59.3	-.2	-.1
1955.	61.3	60.7	-1.0	-.6
1956.	58.2	58.2	.0	.0
1957.	56.8	56.5	-.5	-.3
1958.	62.6	62.6	.0	.0
1959.	63.5	63.5	.0	.0
1960.	61.1	61.0	-.2	-.1
1961.	61.9	61.6	-.5	-.3
1962.	59.5	59.7	.3	.2
1963.	59.6	59.5	-.2	-.1
1964.	62.6	62.2	-.6	-.4
1965.	61.3	61.3	.0	.0
1966.	61.0	61.2	.3	.2
1967.	61.4	61.3	-.2	-.1
1968.	59.7	59.9	.3	.2
1969.	57.8	57.7	-.2	-.1
1970.	59.4	59.0	-.7	-.4
1971.	58.3	58.3	.0	.0
1972.	59.1	59.0	-.2	-.1
1973.	58.7	58.7	.0	.0
1974.	61.1	61.0	-.2	-.1
1975.	58.7	58.7	.0	.0
1976.	63.4	63.4	.0	.0
1977.	62.5	62.5	.0	.0
1978.	62.7	62.6	-.2	-.1
1979.	60.6	60.1	-.8	-.5
1980.	60.6	60.5	-.2	-.1
1981.	59.6	59.6	.0	.0
1982.	57.7	57.7	.0	.0
1983.	61.1	61.2	.2	.1
1984.	58.7	58.6	-.2	-.1
1985.	60.2	60.1	-.2	-.1
1986.	61.1	60.8	-.5	-.3
1987.	64.2	64.1	-.2	-.1
1988.	64.4	64.2	-.3	-.2
1989.	59.6	59.4	-.3	-.2
1990.	63.5	63.3	-.3	-.2
Mean:	60.6	60.5	-.2	-.1
Median:	60.2	60.1	-.2	-.1
Min:	56.8	56.5	-1.0	-.6
Max:	65.2	65.2	.5	.3

X > 56.0	69	69		
Mean X > 56.0	60.6	60.5	-.2	-.1
X > 60.0	38	38		
Mean X > 60.0	61.9	61.8	-.2	-.1
X > 62.5	10	9		
Mean X > 62.5	63.5	63.5	.0	.0
X > 65.0	1	1		
Mean X > 65.0	65.2	65.2	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

November

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	49.7	49.7	.0	.0
1923.	55.2	55.1	-.2	-.1
1924.	51.4	51.3	-.2	-.1
1925.	52.0	51.8	-.4	-.2
1926.	54.2	54.2	.0	.0
1927.	52.2	52.1	-.2	-.1
1928.	52.0	51.7	-.6	-.3
1929.	55.2	55.0	-.4	-.2
1930.	54.1	53.9	-.4	-.2
1931.	51.1	51.1	.0	.0
1932.	56.4	56.4	.0	.0
1933.	55.5	55.3	-.4	-.2
1934.	53.4	53.2	-.4	-.2
1935.	51.8	51.8	.0	.0
1936.	54.8	54.7	-.2	-.1
1937.	53.0	52.9	-.2	-.1
1938.	52.2	52.2	.0	.0
1939.	55.0	54.9	-.2	-.1
1940.	52.0	51.8	-.4	-.2
1941.	53.8	53.8	.0	.0
1942.	52.5	52.4	-.2	-.1
1943.	53.2	53.1	-.2	-.1
1944.	51.0	50.9	-.2	-.1
1945.	52.1	51.8	-.6	-.3
1946.	51.0	50.7	-.6	-.3
1947.	51.2	51.2	.0	.0
1948.	52.6	52.6	.0	.0
1949.	53.9	54.0	.2	.1
1950.	54.4	54.3	-.2	-.1
1951.	51.5	51.4	-.2	-.1
1952.	50.9	50.9	.0	.0
1953.	52.7	52.7	.0	.0
1954.	51.6	51.5	-.2	-.1
1955.	51.6	51.5	-.2	-.1
1956.	53.2	53.2	.0	.0
1957.	51.6	51.5	-.2	-.1
1958.	54.2	54.0	-.4	-.2
1959.	54.3	54.3	.0	.0
1960.	52.0	51.9	-.2	-.1
1961.	52.4	52.3	-.2	-.1
1962.	53.6	53.5	-.2	-.1
1963.	51.5	51.4	-.2	-.1
1964.	50.4	50.4	.0	.0
1965.	52.0	51.8	-.4	-.2
1966.	52.7	52.9	.4	.2
1967.	55.0	54.9	-.2	-.1
1968.	52.1	51.9	-.4	-.2
1969.	52.9	52.8	-.2	-.1
1970.	52.7	52.6	-.2	-.1
1971.	52.5	52.5	.0	.0
1972.	50.3	50.2	-.2	-.1
1973.	50.8	50.6	-.4	-.2
1974.	52.4	52.4	.0	.0
1975.	52.2	52.1	-.2	-.1
1976.	55.1	55.1	.0	.0
1977.	52.9	53.0	.2	.1
1978.	51.4	51.3	-.2	-.1
1979.	51.8	51.4	-.8	-.4
1980.	53.0	52.8	-.4	-.2
1981.	53.4	53.3	-.2	-.1
1982.	50.5	50.4	-.2	-.1
1983.	52.8	52.7	-.2	-.1
1984.	51.1	51.0	-.2	-.1
1985.	49.8	49.6	-.4	-.2
1986.	53.8	53.7	-.2	-.1
1987.	52.8	52.8	.0	.0
1988.	52.4	52.2	-.4	-.2
1989.	53.3	53.2	-.2	-.1
1990.	52.0	51.8	-.4	-.2
Mean:	52.6	52.5	-.2	-.1
Median:	52.4	52.3	-.2	-.1
Min:	49.7	49.6	-.8	-.4
Max:	56.4	56.4	.4	.2

X > 56.0	1	1		
Mean X > 56.0	56.4	56.4	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

December

Water Year	Base Temp (deg)	WFP Temp (deg)	WFP Rel Change (%)	WFP Abs Diff (deg)
1922.	45.9	45.9	.0	.0
1923.	45.6	45.5	-.2	-.1
1924.	42.3	42.2	-.2	-.1
1925.	46.3	46.3	.0	.0
1926.	46.0	46.0	.0	.0
1927.	45.9	45.9	.0	.0
1928.	44.4	44.3	-.2	-.1
1929.	47.9	47.9	.0	.0
1930.	46.0	45.9	-.2	-.1
1931.	44.5	44.5	.0	.0
1932.	43.4	43.5	.2	.1
1933.	45.2	45.1	-.2	-.1
1934.	46.7	46.5	-.4	-.2
1935.	47.0	47.1	.2	.1
1936.	46.3	46.2	-.2	-.1
1937.	48.2	48.1	-.2	-.1
1938.	47.9	47.9	.0	.0
1939.	48.6	48.5	-.2	-.1
1940.	47.9	47.9	.0	.0
1941.	48.0	48.0	.0	.0
1942.	46.6	46.5	-.2	-.1
1943.	47.6	47.5	-.2	-.1
1944.	46.8	46.8	.0	.0
1945.	46.6	46.6	.0	.0
1946.	45.6	45.5	-.2	-.1
1947.	45.0	44.9	-.2	-.1
1948.	43.9	43.8	-.2	-.1
1949.	44.9	44.8	-.2	-.1
1950.	47.8	47.8	.0	.0
1951.	46.0	45.9	-.2	-.1
1952.	46.3	46.3	.0	.0
1953.	47.8	47.8	.0	.0
1954.	44.5	44.5	.0	.0
1955.	47.4	47.4	.0	.0
1956.	46.3	46.3	.0	.0
1957.	46.0	46.0	.0	.0
1958.	50.6	50.5	-.2	-.1
1959.	47.3	47.3	.0	.0
1960.	45.5	45.5	.0	.0
1961.	44.9	44.9	.0	.0
1962.	47.5	47.5	.0	.0
1963.	43.6	43.5	-.2	-.1
1964.	47.5	47.5	.0	.0
1965.	43.3	43.3	.0	.0
1966.	46.3	46.3	.0	.0
1967.	46.2	46.2	.0	.0
1968.	44.5	44.4	-.2	-.1
1969.	48.6	48.6	.0	.0
1970.	46.0	46.0	.0	.0
1971.	44.5	44.5	.0	.0
1972.	42.6	42.5	-.2	-.1
1973.	47.2	47.2	.0	.0
1974.	45.9	45.9	.0	.0
1975.	46.7	46.7	.0	.0
1976.	47.4	47.2	-.4	-.2
1977.	47.3	47.3	.0	.0
1978.	44.1	44.1	.0	.0
1979.	46.7	46.5	-.4	-.2
1980.	47.1	47.1	.0	.0
1981.	48.2	48.2	.0	.0
1982.	46.2	46.2	.0	.0
1983.	47.9	47.9	.0	.0
1984.	45.3	45.3	.0	.0
1985.	43.1	43.1	.0	.0
1986.	46.5	46.4	-.2	-.1
1987.	45.8	45.7	-.2	-.1
1988.	45.5	45.4	-.2	-.1
1989.	45.2	45.2	.0	.0
1990.	41.8	41.7	-.2	-.1
Mean:	46.1	46.0	-.1	.0
Median:	46.1	46.1	.0	.0
Min:	41.8	41.7	-.4	-.2
Max:	50.6	50.5	.2	.1

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 24

DELTA OUTFLOW

DELTA OUTFLOW

October

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	4216.3	4244.4	.7	28.1
1923	6494.1	6572.8	1.2	78.7
1924	4116.5	4141.0	.6	24.5
1925	3414.5	3157.8	-7.5	-256.7
1926	4000.8	4000.8	.0	.0
1927	4000.8	4000.8	.0	.0
1928	5155.0	5177.6	.4	22.6
1929	4000.8	4000.8	.0	.0
1930	3000.6	3000.6	.0	.0
1931	4000.8	4000.8	.0	.0
1932	3652.7	3568.4	-2.3	-84.3
1933	4000.8	4000.8	.0	.0
1934	3065.8	3000.6	-2.1	-65.2
1935	3719.9	4122.7	10.8	402.8
1936	4348.1	4375.6	.6	27.5
1937	4016.8	4051.2	.9	34.4
1938	4005.7	4040.0	.9	34.3
1939	11381.9	11468.8	.8	86.9
1940	4637.8	4775.2	3.0	137.4
1941	4178.4	4121.1	-1.4	-57.3
1942	6878.3	6963.5	1.2	85.2
1943	6200.8	6287.7	1.4	86.9
1944	4844.2	4780.3	-1.3	-63.9
1945	4000.8	4000.8	.0	.0
1946	4794.3	4660.3	-2.8	-134.0
1947	4106.3	4048.5	-1.4	-57.8
1948	4347.9	4362.5	.3	14.6
1949	4701.0	4730.0	.6	29.0
1950	4000.8	4000.8	.0	.0
1951	4470.3	4499.6	.7	29.3
1952	4784.7	4729.0	-1.2	-55.7
1953	12812.0	12907.6	.7	95.6
1954	5815.2	5903.2	1.5	88.0
1955	4558.9	4571.8	.3	12.9
1956	4000.8	4000.8	.0	.0
1957	9367.8	9462.8	1.0	95.0
1958	13206.8	13298.0	.7	91.2
1959	7922.6	7830.7	-1.2	-91.9
1960	4000.8	4000.8	.0	.0
1961	4000.8	4000.8	.0	.0
1962	4000.8	4000.8	.0	.0
1963	25896.3	24602.1	-5.0	-1294.2
1964	6747.5	6828.9	1.2	81.4
1965	4000.8	4000.8	.0	.0
1966	4411.3	4443.0	.7	31.7
1967	4000.8	4000.8	.0	.0
1968	9059.4	9154.4	1.0	95.0
1969	4438.5	4272.0	-3.8	-166.5
1970	14801.4	14335.3	-3.1	-466.1
1971	4241.5	4167.0	-1.8	-74.5
1972	5825.3	5918.7	1.6	93.4
1973	5064.6	4995.2	-1.4	-69.4
1974	6754.3	6851.5	1.4	97.2
1975	5451.7	5541.9	1.7	90.2
1976	9880.7	9960.0	.8	79.3
1977	3168.9	3054.6	-3.6	-114.3
1978	5538.2	5492.8	-.8	-45.4
1979	4350.1	4380.0	.7	29.9
1980	5047.1	4910.8	-2.7	-136.3
1981	4297.9	4327.9	.7	30.0
1982	4321.7	4329.1	.2	7.4
1983	19619.4	19492.0	-.6	-127.4
1984	20807.6	19861.1	-4.5	-946.5
1985	5379.2	5273.2	-2.0	-106.0
1986	4000.8	4000.8	.0	.0
1987	4693.8	4635.7	-1.2	-58.1
1988	5763.6	6174.2	7.1	410.6
1989	3607.2	3774.2	4.6	167.0
1990	4682.8	4690.0	.2	7.2
1991	4277.6	4428.4	3.5	150.8
Mean:	6033.6	6010.8	.0	-22.8
Median:	4411.3	4428.4	.0	.0
Min:	3000.6	3000.6	-7.5	-1294.2
Max:	25896.3	24602.1	10.8	410.6

Alt-Base >= .0		49
Rel Dif >= .0%	49	
.0% > Rel Dif >= -1.0%	2	
-1.0% > Rel Dif >= -2.0%	9	
-2.0% > Rel Dif >= -3.0%	4	
-3.0% > Rel Dif >= -5.0%	5	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	1	

DELTA OUTFLOW

November

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	5414.9	5440.5	.5	25.6
1923	7965.5	8065.0	1.2	99.5
1924	4850.6	4894.2	.9	43.6
1925	4424.9	4399.4	-.6	-25.5
1926	4740.6	4759.0	.4	18.4
1927	13798.9	13851.0	.4	52.1
1928	12763.9	11579.5	-9.3	-1184.4
1929	5899.8	5862.3	-.6	-37.5
1930	3987.5	3942.0	-1.1	-45.5
1931	4704.0	4633.0	-1.5	-71.0
1932	4293.2	4316.0	.5	22.8
1933	4812.2	4629.3	-3.8	-182.9
1934	4073.7	4039.9	-.8	-33.8
1935	5775.8	5815.6	.7	39.8
1936	5012.1	5054.2	.8	42.1
1937	4838.0	4878.5	.8	40.5
1938	14006.1	14104.2	.7	98.1
1939	8562.9	8665.7	1.2	102.8
1940	5876.8	5989.9	1.9	113.1
1941	5544.9	5501.5	-.8	-43.4
1942	8686.0	8069.7	-7.1	-616.3
1943	11890.4	11693.3	-1.7	-197.1
1944	5401.3	5432.0	.6	30.7
1945	6774.4	6781.3	.1	6.9
1946	6890.7	6496.8	-5.7	-393.9
1947	5937.4	5902.0	-.6	-35.4
1948	5121.1	5138.8	.3	17.7
1949	5325.9	5358.0	.6	32.1
1950	5186.2	5137.7	-.9	-48.5
1951	42410.8	41210.7	-2.8	-1200.1
1952	6687.9	6661.5	-.4	-26.4
1953	9746.2	9858.9	1.2	112.7
1954	9151.6	9257.5	1.2	105.9
1955	7355.3	6845.9	-6.9	-509.4
1956	5056.5	5164.8	2.1	108.3
1957	5380.2	5414.5	.6	34.3
1958	6708.1	6818.5	1.6	110.4
1959	6787.0	6888.8	1.5	101.8
1960	4748.1	4694.4	-1.1	-53.7
1961	6136.2	6148.0	.2	11.8
1962	4880.5	4975.0	1.9	94.5
1963	6403.4	6345.7	-.9	-57.7
1964	22366.7	20842.8	-6.8	-1523.9
1965	6724.1	6730.2	.1	6.1
1966	18572.7	17232.7	-7.2	-1340.0
1967	6997.0	6961.3	-.5	-35.7
1968	7341.2	7452.5	1.5	111.3
1969	6048.7	5936.9	-1.8	-111.8
1970	11179.7	11287.6	1.0	107.9
1971	10210.7	10054.8	-1.5	-155.9
1972	5748.2	5774.5	.5	26.3
1973	11179.2	10986.9	-1.7	-192.3
1974	56548.2	54933.5	-2.9	-1614.7
1975	5779.6	5804.4	.4	24.8
1976	6699.2	6472.0	-3.4	-227.2
1977	3930.8	3800.5	-3.3	-130.3
1978	4124.2	4113.3	-.3	-10.9
1979	5852.3	5878.4	.4	26.1
1980	6294.5	6223.4	-1.1	-71.1
1981	4627.5	4658.5	.7	31.0
1982	32220.3	30922.4	-4.0	-1297.9
1983	39416.5	39423.8	.0	7.3
1984	76876.5	77030.0	.2	153.5
1985	23687.7	23135.4	-2.3	-552.3
1986	5503.8	5440.1	-1.2	-63.7
1987	4785.1	4742.3	-.9	-42.8
1988	5719.6	5423.0	-5.2	-296.6
1989	4760.7	4742.0	-.4	-18.7
1990	4542.7	4565.0	.5	22.3
1991	4351.2	4384.5	.8	33.3
Mean:	10230.0	10081.0	-.9	-149.0
Median:	5899.8	5902.0	-.3	-10.9
Min:	3930.8	3800.5	-9.3	-1614.7
Max:	76876.5	77030.0	2.1	153.5
Alt-Base >= .0				35
Rel Dif >= .0%			35	
.0% > Rel Dif >= -1.0%			12	
-1.0% > Rel Dif >= -2.0%			9	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			4	
-5.0% > Rel Dif >= -6.0%			2	
Rel Dif < -6.0%			5	

DELTA OUTFLOW

December

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	10342.6	10442.7	1.0	100.1
1923	35098.2	34800.9	-.8	-297.3
1924	6652.4	6672.4	.3	20.0
1925	6424.7	6363.5	-1.0	-61.2
1926	6516.5	6508.1	-.1	-8.4
1927	9183.2	9240.5	.6	57.3
1928	7623.2	7726.4	1.4	103.2
1929	7446.7	7448.2	.0	1.5
1930	7281.9	7252.4	-.4	-29.5
1931	6059.5	6029.8	-.5	-29.7
1932	12591.1	12623.2	.3	32.1
1933	5966.5	5885.7	-1.4	-80.8
1934	7369.9	7342.4	-.4	-27.5
1935	5322.1	5630.5	5.8	308.4
1936	7082.0	7098.7	.2	16.7
1937	7396.0	7412.2	.2	16.2
1938	58139.3	58146.4	.0	7.1
1939	9730.5	9838.6	1.1	108.1
1940	5352.6	5348.1	-.1	-4.5
1941	37885.2	36862.0	-2.7	-1023.2
1942	66346.0	65998.4	-.5	-347.6
1943	24811.9	24507.8	-1.2	-304.1
1944	6360.2	6359.7	.0	-.5
1945	8135.5	8196.6	.8	61.1
1946	65713.0	65120.0	-.9	-593.0
1947	7926.3	7786.0	-1.8	-140.3
1948	5722.8	5744.0	.4	21.2
1949	7562.9	7553.5	-.1	-9.4
1950	6670.8	6710.3	.6	39.5
1951	84563.7	81940.7	-3.1	-2623.0
1952	36944.0	35861.3	-2.9	-1082.7
1953	39081.1	39193.1	.3	112.0
1954	6347.6	6375.8	.4	28.2
1955	15940.3	16015.4	.5	75.1
1956	86382.5	87959.2	1.8	1576.7
1957	6105.1	6127.4	.4	22.3
1958	14026.1	14136.9	.8	110.8
1959	7965.2	8075.1	1.4	109.9
1960	6912.0	6981.8	1.0	69.8
1961	7039.5	7048.6	.1	9.1
1962	7207.0	7245.1	.5	38.1
1963	17541.9	17493.7	-.3	-48.2
1964	6389.1	6367.1	-.3	-22.0
1965	90300.5	89826.1	-.5	-474.4
1966	11172.9	11282.7	1.0	109.8
1967	33598.8	32882.7	-2.1	-716.1
1968	10326.6	10438.0	1.1	111.4
1969	14938.3	14504.1	-2.9	-434.2
1970	54183.1	53846.8	-.6	-336.3
1971	58855.5	58021.1	-1.4	-834.4
1972	12428.0	12539.3	.9	111.3
1973	13930.6	13741.0	-1.4	-189.6
1974	66925.8	66920.1	.0	-5.7
1975	9997.4	9987.8	-.1	-9.6
1976	6583.0	6653.0	1.1	70.0
1977	5689.0	5361.4	-5.8	-327.6
1978	7043.2	7028.3	-.2	-14.9
1979	5789.7	5816.5	.5	26.8
1980	11066.2	10678.6	-3.5	-387.6
1981	6961.1	6983.3	.3	22.2
1982	87039.7	87096.4	.1	56.7
1983	86124.2	85421.7	-.8	-702.5
1984	158453.4	158353.6	-.1	-99.8
1985	14092.1	14103.5	.1	11.4
1986	8329.6	8143.5	-2.2	-186.1
1987	7232.6	7232.6	.0	.0
1988	9069.0	8673.8	-4.4	-395.2
1989	5283.6	5242.3	-.8	-41.3
1990	5765.2	5778.4	.2	13.2
1991	5922.1	5897.0	-.4	-25.1
Mean:	22975.1	22856.1	-.3	-119.1
Median:	8135.5	8143.5	.0	-4.5
Min:	5283.6	5242.3	-5.8	-2623.0
Max:	158453.4	158353.6	5.8	1576.7
Alt-Base >= .0				34
Rel Dif >= .0%			36	
.0% > Rel Dif >= -1.0%			20	
-1.0% > Rel Dif >= -2.0%			5	
-2.0% > Rel Dif >= -3.0%			5	
-3.0% > Rel Dif >= -5.0%			3	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			0	

DELTA OUTFLOW

January

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	12105.2	12210.2	.9	105.0
1923	35591.9	35181.0	-1.2	-410.9
1924	7046.5	7046.2	.0	-.3
1925	6238.9	6244.2	.1	5.3
1926	9217.9	9098.7	-1.3	-119.2
1927	24265.8	23729.7	-2.2	-536.1
1928	18108.8	17828.3	-1.5	-280.5
1929	8045.2	8044.8	.0	-.4
1930	13659.2	13428.4	-1.7	-230.8
1931	7186.2	7186.2	.0	.0
1932	14763.0	14549.7	-1.4	-213.3
1933	7270.2	7327.0	.8	56.8
1934	9422.8	9487.0	.7	64.2
1935	22761.7	23061.1	1.3	299.4
1936	30061.9	29615.2	-1.5	-446.7
1937	7322.3	7430.7	1.5	108.4
1938	28850.2	28810.1	-.1	-40.1
1939	11620.9	11482.3	-1.2	-138.6
1940	27385.5	27135.1	-.9	-250.4
1941	102903.3	102139.2	-.7	-764.1
1942	87645.8	87594.8	-.1	-51.0
1943	89400.8	89351.4	-.1	-49.4
1944	8187.5	8204.3	.2	16.8
1945	6597.3	6688.4	1.4	91.1
1946	45422.7	45363.7	-.1	-59.0
1947	6773.1	6805.2	.5	32.1
1948	6770.5	6779.0	.1	8.5
1949	6985.1	6985.1	.0	.0
1950	12624.0	12540.8	-.7	-83.2
1951	71330.2	71301.4	.0	-28.8
1952	87450.2	87370.2	-.1	-80.0
1953	105633.7	105160.2	-.4	-473.5
1954	27480.1	26613.5	-3.2	-866.6
1955	16425.9	16250.6	-1.1	-175.3
1956	170911.1	170922.4	.0	11.3
1957	8598.0	8714.3	1.4	116.3
1958	30877.6	30742.0	-.4	-135.6
1959	29174.0	29034.3	-.5	-139.7
1960	7198.3	7198.3	.0	.0
1961	6865.7	6826.1	-.6	-39.6
1962	6427.0	6422.8	-.1	-4.2
1963	10506.6	10459.7	-.4	-46.9
1964	19973.6	19926.4	-.2	-47.2
1965	122182.7	122185.1	.0	2.4
1966	23874.0	23987.0	.5	113.0
1967	53764.3	52834.8	-1.7	-929.5
1968	28167.6	28283.9	.4	116.3
1969	126729.0	124884.9	-1.5	-1844.1
1970	210246.5	210210.1	.0	-36.4
1971	47827.4	47934.5	.2	107.1
1972	11223.6	11338.2	1.0	114.6
1973	75056.9	73733.2	-1.8	-1323.7
1974	128317.9	128325.6	.0	7.7
1975	12869.5	12984.4	.9	114.9
1976	10114.8	10248.2	1.3	133.4
1977	6189.7	6169.4	-.3	-20.3
1978	59615.9	59545.6	-.1	-70.3
1979	22445.8	22305.5	-.6	-140.3
1980	103247.0	103720.3	.5	473.3
1981	20346.9	19795.8	-2.7	-551.1
1982	79236.5	79171.4	-.1	-65.1
1983	111542.3	111506.1	.0	-36.2
1984	77265.8	77252.2	.0	-13.6
1985	8164.9	8231.2	.8	66.3
1986	14630.6	15243.3	4.2	612.7
1987	8099.6	8099.6	.0	.0
1988	21683.2	21105.7	-2.7	-577.5
1989	6492.0	6497.0	.1	5.0
1990	11078.2	10943.8	-1.2	-134.4
1991	5843.6	5820.8	-.4	-22.8
Mean:	38276.3	38152.1	-.2	-124.2
Median:	18108.8	17828.3	-.1	-36.2
Min:	5843.6	5820.8	-3.2	-1844.1
Max:	210246.5	210210.1	4.2	612.7
Alt-Base >= .0				28
Rel Dif >= .0%			34	
.0% > Rel Dif >= -1.0%			20	
-1.0% > Rel Dif >= -2.0%			12	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

DELTA OUTFLOW

February

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	35896.6	35196.9	-1.9	-699.7
1923	21305.9	21395.8	.4	89.9
1924	10430.5	10492.1	.6	61.6
1925	56243.1	56547.1	.5	304.0
1926	35070.4	34989.5	-.2	-80.9
1927	115396.4	116465.9	.9	1069.5
1928	24017.1	24136.7	.5	119.6
1929	10312.9	10363.8	.5	50.9
1930	13121.4	13307.7	1.4	186.3
1931	8579.3	8571.2	-.1	-8.1
1932	17852.8	18375.3	2.9	522.5
1933	8844.6	8851.3	.1	6.7
1934	12377.4	13112.5	5.9	735.1
1935	11856.8	11895.3	.3	38.5
1936	82026.4	82001.2	.0	-25.2
1937	44952.2	44824.0	-.3	-128.2
1938	141185.4	141893.0	.5	707.6
1939	11238.6	11359.8	1.1	121.2
1940	66326.8	65014.1	-2.0	-1312.7
1941	126836.3	127299.8	.4	463.5
1942	145480.1	145421.7	.0	-58.4
1943	61108.8	61072.1	-.1	-36.7
1944	21711.8	21145.0	-2.6	-566.8
1945	53099.7	53014.2	-.2	-85.5
1946	21896.8	21978.5	.4	81.7
1947	12928.1	12860.4	-.5	-67.7
1948	11400.1	11400.1	.0	.0
1949	9624.9	9473.6	-1.6	-151.3
1950	28865.4	27427.3	-5.0	-1438.1
1951	67604.0	67574.3	.0	-29.7
1952	84161.6	83961.6	-.2	-200.0
1953	27879.6	27834.7	-.2	-44.9
1954	58358.3	58425.0	.1	66.7
1955	11504.8	11557.3	.5	52.5
1956	92265.5	92485.2	.2	219.7
1957	23301.9	22476.4	-3.5	-825.5
1958	178798.8	176599.9	-1.2	-2198.9
1959	51919.4	52038.5	.2	119.1
1960	23930.4	23885.6	-.2	-44.8
1961	20246.4	19923.7	-1.6	-322.7
1962	49614.0	50486.1	1.8	872.1
1963	67868.6	66991.9	-1.3	-876.7
1964	12436.0	12434.6	.0	-1.4
1965	33315.0	33323.4	.0	8.4
1966	22986.5	23023.2	.2	36.7
1967	54153.4	53746.8	-.8	-406.6
1968	60362.6	59640.7	-1.2	-721.9
1969	140749.2	140746.5	.0	-2.7
1970	92192.9	92201.3	.0	8.4
1971	24738.7	24604.2	-.5	-134.5
1972	18099.5	17029.4	-5.9	-1070.1
1973	94323.7	94306.3	.0	-17.4
1974	41751.8	41545.1	-.5	-206.7
1975	60619.7	60747.0	.2	127.3
1976	9262.3	9334.6	.8	72.3
1977	8748.5	8748.2	.0	-.3
1978	49747.7	50979.6	2.5	1231.9
1979	50200.3	49645.1	-1.1	-555.2
1980	144420.2	143172.5	-.9	-1247.7
1981	26364.8	26485.8	.5	121.0
1982	102770.4	102615.8	-.2	-154.6
1983	183638.8	184596.7	.5	957.9
1984	45390.1	45392.9	.0	2.8
1985	16431.7	15603.7	-5.0	-828.0
1986	235071.3	235076.8	.0	5.5
1987	13339.8	13320.6	-.1	-19.2
1988	11400.1	11400.1	.0	.0
1989	8218.1	8218.1	.0	.0
1990	11400.1	11400.1	.0	.0
1991	9101.0	9100.4	.0	-.6
Mean:	50838.2	50750.9	-.2	-87.3
Median:	28865.4	27834.7	.0	-.6
Min:	8218.1	8218.1	-5.9	-2198.9
Max:	235071.3	235076.8	5.9	1231.9

Alt-Base >= .0	34
Rel Dif >= .0%	42
.0% > Rel Dif >= -1.0%	15
-1.0% > Rel Dif >= -2.0%	8
-2.0% > Rel Dif >= -3.0%	1
-3.0% > Rel Dif >= -5.0%	3
-5.0% > Rel Dif >= -6.0%	1
Rel Dif < -6.0%	0

DELTA OUTFLOW

March

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	34103.6	34324.1	.6	220.5
1923	13235.9	13296.6	.5	60.7
1924	11400.1	11400.1	.0	.0
1925	27473.5	27473.5	.0	.0
1926	11941.3	11796.7	-1.2	-144.6
1927	43313.4	42689.1	-1.4	-624.3
1928	97645.2	97096.8	-.6	-548.4
1929	11400.1	11400.1	.0	.0
1930	23277.8	24999.3	7.4	1721.5
1931	11400.1	11400.1	.0	.0
1932	11400.1	11624.1	2.0	224.0
1933	10833.8	10749.7	-.8	-84.1
1934	11400.1	11400.1	.0	.0
1935	22375.1	23276.0	4.0	900.9
1936	33516.3	30132.0	-10.1	-3384.3
1937	51577.1	50355.8	-2.4	-1221.3
1938	173064.8	172987.7	.0	-77.1
1939	13976.2	14041.5	.5	65.3
1940	105643.5	105441.0	-.2	-202.5
1941	99056.5	99483.4	.4	426.9
1942	31589.7	31697.9	.3	108.2
1943	89912.6	89865.0	-.1	-47.6
1944	21690.4	21543.2	-.7	-147.2
1945	29672.8	30464.8	2.7	792.0
1946	18918.1	18751.3	-.9	-166.8
1947	15357.4	15405.3	.3	47.9
1948	12904.8	12974.0	.5	69.2
1949	36193.2	36306.6	.3	113.4
1950	17129.4	16999.1	-.8	-130.3
1951	30609.1	29894.4	-2.3	-714.7
1952	75614.9	75564.6	-.1	-50.3
1953	19838.2	19942.7	.5	104.5
1954	46968.2	46292.3	-1.4	-675.9
1955	11400.1	11400.1	.0	.0
1956	39302.5	40787.1	3.8	1484.6
1957	42770.7	42016.2	-1.8	-754.5
1958	106003.2	105949.9	-.1	-53.3
1959	16788.7	16786.5	.0	-2.2
1960	16809.7	16624.3	-1.1	-185.4
1961	13578.1	13451.0	-.9	-127.1
1962	26903.9	26903.9	.0	.0
1963	29018.2	29121.9	.4	103.7
1964	11400.1	11400.1	.0	.0
1965	19308.0	19476.7	.9	168.7
1966	22350.6	22424.7	.3	74.1
1967	63006.5	62573.4	-.7	-433.1
1968	35044.0	36882.9	5.2	1838.9
1969	74599.9	74436.1	-.2	-163.8
1970	39863.0	39820.0	-.1	-43.0
1971	46757.7	46729.2	-.1	-28.5
1972	25222.7	24592.0	-2.5	-630.7
1973	57912.9	57673.6	-.4	-239.3
1974	113031.3	113056.1	.0	24.8
1975	89122.0	88375.1	-.8	-746.9
1976	11400.1	11400.1	.0	.0
1977	9870.5	9870.5	.0	.0
1978	73279.8	73640.9	.5	361.1
1979	35454.1	34922.8	-1.5	-531.3
1980	64875.1	64228.6	-1.0	-646.5
1981	25735.5	25660.1	-.3	-75.4
1982	95742.3	95749.5	.0	7.2
1983	264875.7	264863.9	.0	-11.8
1984	30225.6	30066.2	-.5	-159.4
1985	18662.9	18508.3	-.8	-154.6
1986	155687.1	155677.4	.0	-9.7
1987	19598.5	19311.0	-1.5	-287.5
1988	11400.1	11400.1	.0	.0
1989	36478.8	36517.1	.1	38.3
1990	11400.1	11400.1	.0	.0
1991	23381.1	25209.0	7.8	1827.9
Mean:	43609.9	43571.1	.0	-38.8
Median:	27473.5	27473.5	.0	-2.2
Min:	9870.5	9870.5	-10.1	-3384.3
Max:	264875.7	264863.9	7.8	1838.9
Alt-Base >= .0				35
Rel Dif >= .0%			39	
.0% > Rel Dif >= -1.0%			20	
-1.0% > Rel Dif >= -2.0%			7	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			1	

DELTA OUTFLOW

April

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	27521.3	27611.9	.3	90.6
1923	24790.5	24741.5	-.2	-49.0
1924	5597.4	5593.4	-.1	-4.0
1925	23142.3	22692.7	-1.9	-449.6
1926	20545.6	20580.6	.2	35.0
1927	46760.5	46545.2	-.5	-215.3
1928	28147.9	27975.2	-.6	-172.7
1929	7603.5	7599.7	.0	-3.8
1930	11958.4	11787.1	-1.4	-171.3
1931	7243.1	7244.7	.0	1.6
1932	11258.8	11258.8	.0	.0
1933	10718.2	10718.2	.0	.0
1934	10730.5	10730.5	.0	.0
1935	49312.0	49717.1	.8	405.1
1936	24444.8	23528.4	-3.7	-916.4
1937	27207.5	27088.0	-.4	-119.5
1938	80813.0	80667.0	-.2	-146.0
1939	10755.1	10755.1	.0	.0
1940	69942.7	69671.9	-.4	-270.8
1941	80443.4	80341.1	-.1	-102.3
1942	50233.3	50332.4	.2	99.1
1943	32561.8	32432.6	-.4	-129.2
1944	11339.7	10957.1	-3.4	-382.6
1945	17009.7	17094.0	.5	84.3
1946	13619.1	13359.6	-1.9	-259.5
1947	11905.7	11985.1	.7	79.4
1948	24003.3	24090.3	.4	87.0
1949	12586.2	12669.1	.7	82.9
1950	18072.9	18069.9	.0	-3.0
1951	16402.6	16263.6	-.8	-139.0
1952	72724.1	72574.4	-.2	-149.7
1953	16196.5	16874.4	4.2	677.9
1954	39584.8	39475.9	-.3	-108.9
1955	9878.1	9959.7	.8	81.6
1956	23400.7	23483.6	.4	82.9
1957	16004.9	16152.3	.9	147.4
1958	105418.1	105309.2	-.1	-108.9
1959	9021.7	8852.2	-1.9	-169.5
1960	11226.5	11268.7	.4	42.2
1961	10816.5	10816.5	.0	.0
1962	12001.1	11406.4	-5.0	-594.7
1963	90293.7	90064.3	-.3	-229.4
1964	7997.8	7849.5	-1.9	-148.3
1965	41463.7	41157.4	-.7	-306.3
1966	12315.1	12357.9	.3	42.8
1967	59680.8	59784.9	.2	104.1
1968	10653.7	10487.0	-1.6	-166.7
1969	65352.9	64825.2	-.8	-527.7
1970	12493.7	12325.6	-1.3	-168.1
1971	19882.0	19758.5	-.6	-123.5
1972	10302.6	10346.9	.4	44.3
1973	20933.4	21020.5	.4	87.1
1974	69150.3	69079.9	-.1	-70.4
1975	29740.7	29843.1	.3	102.4
1976	8035.4	8025.1	-.1	-10.3
1977	6024.3	6030.2	.1	5.9
1978	50990.4	50414.1	-1.1	-576.3
1979	19276.7	19359.6	.4	82.9
1980	23213.4	23087.1	-.5	-126.3
1981	16012.7	15867.2	-.9	-145.5
1982	142852.2	142766.8	-.1	-85.4
1983	99182.9	99072.4	-.1	-110.5
1984	18738.2	18779.7	.2	41.5
1985	11721.9	11594.8	-1.1	-127.1
1986	29678.2	29780.6	.3	102.4
1987	11050.2	11106.0	.5	55.8
1988	7314.5	7213.7	-1.4	-100.8
1989	20645.0	20229.7	-2.0	-415.3
1990	10583.1	10583.1	.0	.0
1991	13877.0	13943.1	.5	66.1
Mean:	29320.0	29243.3	-.3	-76.7
Median:	18072.9	18069.9	-.1	-49.0
Min:	5597.4	5593.4	-5.0	-916.4
Max:	142852.2	142766.8	4.2	677.9
Alt-Base >= .0				31
Rel Dif >= .0%			33	
.0% > Rel Dif >= -1.0%			23	
-1.0% > Rel Dif >= -2.0%			11	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			3	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

DELTA OUTFLOW

May

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	44890.1	44271.4	-1.4	-618.7
1923	16566.5	16221.0	-2.1	-345.5
1924	5216.2	5200.1	-.3	-16.1
1925	14961.9	14279.8	-4.6	-682.1
1926	10663.7	10674.2	.1	10.5
1927	26062.2	25741.8	-1.2	-320.4
1928	12649.1	12683.2	.3	34.1
1929	7168.8	7253.8	1.2	85.0
1930	10647.7	10613.6	-.3	-34.1
1931	6152.2	5921.7	-3.7	-230.5
1932	11259.7	11056.1	-1.8	-203.6
1933	7889.5	7889.3	.0	-.2
1934	5586.8	5575.2	-.2	-11.6
1935	26074.7	25881.3	-.7	-193.4
1936	17959.7	17304.1	-3.7	-655.6
1937	19860.1	19641.7	-1.1	-218.4
1938	79234.2	78968.0	-.3	-266.2
1939	8696.1	8768.0	.8	71.9
1940	18365.7	18217.1	-.8	-148.6
1941	45762.6	45535.7	-.5	-226.9
1942	34953.7	34487.6	-1.3	-466.1
1943	21631.8	21706.3	.3	74.5
1944	10754.1	10484.0	-2.5	-270.1
1945	14185.9	14258.4	.5	72.5
1946	13648.2	13703.2	.4	55.0
1947	7845.0	7644.3	-2.6	-200.7
1948	26509.2	26758.9	.9	249.7
1949	11711.5	11560.6	-1.3	-150.9
1950	14834.0	14910.4	.5	76.4
1951	17304.4	17154.0	-.9	-150.4
1952	72201.3	71943.2	-.4	-258.1
1953	20795.0	21596.8	3.9	801.8
1954	17775.3	17824.4	.3	49.1
1955	11024.9	10604.9	-3.8	-420.0
1956	39915.4	39994.6	.2	79.2
1957	16573.7	16487.6	-.5	-86.1
1958	53478.5	53227.0	-.5	-251.5
1959	10078.8	10187.1	1.1	108.3
1960	10568.4	10489.8	-.7	-78.6
1961	9938.2	10233.3	3.0	295.1
1962	11400.1	11400.1	.0	.0
1963	31768.2	31476.7	-.9	-291.5
1964	8862.5	8593.3	-3.0	-269.2
1965	20470.0	20320.3	-.7	-149.7
1966	11726.2	11812.7	.7	86.5
1967	60781.7	60321.4	-.8	-460.3
1968	10624.4	10645.8	.2	21.4
1969	65871.5	65585.7	-.4	-285.8
1970	14147.1	13941.6	-1.5	-205.5
1971	26853.6	26930.0	.3	76.4
1972	11081.8	11168.8	.8	87.0
1973	15493.8	15025.5	-3.0	-468.3
1974	27309.3	27040.2	-1.0	-269.1
1975	28586.5	28664.8	.3	78.3
1976	7166.0	7225.4	.8	59.4
1977	6418.8	6412.8	-.1	-6.0
1978	26662.4	26279.4	-1.4	-383.0
1979	14671.6	14156.5	-3.5	-515.1
1980	21350.2	21424.6	.3	74.4
1981	9773.5	9860.5	.9	87.0
1982	49667.7	49493.6	-.4	-174.1
1983	83337.5	83098.9	-.3	-238.6
1984	15252.6	15340.1	.6	87.5
1985	11142.1	11142.1	.0	.0
1986	20393.9	20471.2	.4	77.3
1987	7578.8	7578.8	.0	.0
1988	6972.6	7170.5	2.8	197.9
1989	9988.9	10054.4	.7	65.5
1990	7942.4	7969.3	.3	26.9
1991	6886.8	6673.1	-3.1	-213.7
Mean:	21165.4	21060.5	-.5	-104.9
Median:	14671.6	14258.4	-.3	-78.6
Min:	5216.2	5200.1	-4.6	-682.1
Max:	83337.5	83098.9	3.9	801.8
Alt-Base >= .0				30
Rel Dif >= .0%			31	
.0% > Rel Dif >= -1.0%			20	
-1.0% > Rel Dif >= -2.0%			8	
-2.0% > Rel Dif >= -3.0%			5	
-3.0% > Rel Dif >= -5.0%			6	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

DELTA OUTFLOW

June

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	30678.8	30284.4	-1.3	-394.4
1923	9199.0	9263.1	.7	64.1
1924	4435.2	4435.5	.0	.3
1925	9477.5	9643.2	1.7	165.7
1926	6117.2	6117.2	.0	.0
1927	10315.0	10092.6	-2.2	-222.4
1928	7579.3	7579.3	.0	.0
1929	7182.1	7154.5	-.4	-27.6
1930	6117.2	6117.2	.0	.0
1931	4380.9	4271.4	-2.5	-109.5
1932	11203.5	11203.5	.0	.0
1933	6531.2	6533.0	.0	1.8
1934	6854.2	6854.2	.0	.0
1935	9703.4	9703.4	.0	.0
1936	8744.1	8921.4	2.0	177.3
1937	9551.8	9598.8	.5	47.0
1938	38474.3	38108.5	-1.0	-365.8
1939	6117.2	6117.2	.0	.0
1940	7617.5	7643.5	.3	26.0
1941	15695.9	15582.5	-.7	-113.4
1942	22766.6	22389.1	-1.7	-377.5
1943	7579.3	7579.3	.0	.0
1944	9757.2	9880.2	1.3	123.0
1945	10269.9	10237.4	-.3	-32.5
1946	10382.1	10393.0	.1	10.9
1947	6117.2	6117.2	.0	.0
1948	12957.6	12847.5	-.8	-110.1
1949	9589.9	9624.6	.4	34.7
1950	10050.0	10042.2	-.1	-7.8
1951	7579.3	7579.3	.0	.0
1952	35674.5	35298.6	-1.1	-375.9
1953	15939.9	15832.0	-.7	-107.9
1954	7579.3	7579.3	.0	.0
1955	9346.8	9457.9	1.2	111.1
1956	16248.8	15513.4	-4.5	-735.4
1957	9874.3	9891.2	.2	16.9
1958	34946.7	34603.4	-1.0	-343.3
1959	7090.1	7090.2	.0	.1
1960	7250.3	7250.8	.0	.5
1961	6973.6	6309.5	-9.5	-664.1
1962	8184.3	8227.2	.5	42.9
1963	9307.7	9361.2	.6	53.5
1964	6539.6	6619.4	1.2	79.8
1965	9355.8	9407.2	.5	51.4
1966	6845.8	6845.7	.0	-.1
1967	44123.8	43813.5	-.7	-310.3
1968	6970.6	6970.8	.0	.2
1969	28390.5	28066.7	-1.1	-323.8
1970	7579.3	7579.3	.0	.0
1971	13216.4	13060.2	-1.2	-156.2
1972	6955.6	6955.7	.0	.1
1973	10417.7	10520.6	1.0	102.9
1974	15096.1	14866.0	-1.5	-230.1
1975	20086.8	19120.2	-4.8	-966.6
1976	6536.7	6519.1	-.3	-17.6
1977	3999.7	3999.7	.0	.0
1978	9723.1	9176.4	-5.6	-546.7
1979	10704.5	10832.7	1.2	128.2
1980	10326.4	10216.4	-1.1	-110.0
1981	6117.2	6117.2	.0	.0
1982	21637.4	21259.9	-1.7	-377.5
1983	71296.6	70922.5	-.5	-374.1
1984	9129.8	9112.4	-.2	-17.4
1985	6117.2	6117.2	.0	.0
1986	9129.2	9018.1	-1.2	-111.1
1987	6117.2	6117.2	.0	.0
1988	6625.5	6576.1	-.7	-49.4
1989	6698.3	6705.0	.1	6.7
1990	7172.0	7172.0	.0	.0
1991	6535.2	6582.1	.7	46.9
Mean:	12355.5	12265.7	-.5	-89.8
Median:	9129.8	9112.4	.0	.0
Min:	3999.7	3999.7	-9.5	-966.6
Max:	71296.6	70922.5	2.0	177.3
Alt-Base >= .0				41
Rel Dif >= .0%			42	
.0% > Rel Dif >= -1.0%			13	
-1.0% > Rel Dif >= -2.0%			9	
-2.0% > Rel Dif >= -3.0%			2	
-3.0% > Rel Dif >= -5.0%			2	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			1	

DELTA OUTFLOW

July

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	8001.6	8001.6	.0	.0
1923	6502.1	6502.1	.0	.0
1924	4000.8	4000.8	.0	.0
1925	5001.0	5001.0	.0	.0
1926	5001.0	5001.0	.0	.0
1927	8001.6	8001.6	.0	.0
1928	8001.6	8001.6	.0	.0
1929	4000.8	4000.8	.0	.0
1930	5001.0	5001.0	.0	.0
1931	4000.8	4000.8	.0	.0
1932	5001.0	5001.0	.0	.0
1933	4000.8	4000.8	.0	.0
1934	4000.8	4000.8	.0	.0
1935	6502.1	6502.1	.0	.0
1936	6502.1	6502.1	.0	.0
1937	6502.1	6502.1	.0	.0
1938	8404.0	8269.9	-1.6	-134.1
1939	5001.0	5001.0	.0	.0
1940	8001.6	8001.6	.0	.0
1941	8001.6	8001.6	.0	.0
1942	8001.6	8001.6	.0	.0
1943	8001.6	8001.6	.0	.0
1944	5001.0	5001.0	.0	.0
1945	6502.1	6502.1	.0	.0
1946	6502.1	6502.1	.0	.0
1947	5001.0	5001.0	.0	.0
1948	7644.1	7257.5	-5.1	-386.6
1949	5001.0	5001.0	.0	.0
1950	7705.4	7537.4	-2.2	-168.0
1951	8440.3	8424.9	-.2	-15.4
1952	10449.2	10053.4	-3.8	-395.8
1953	8001.6	8001.6	.0	.0
1954	8001.6	8001.6	.0	.0
1955	5001.0	5001.0	.0	.0
1956	8001.6	8001.6	.0	.0
1957	8001.6	8001.6	.0	.0
1958	8506.3	8227.9	-3.3	-278.4
1959	6502.1	6502.1	.0	.0
1960	5555.7	5045.1	-9.2	-510.6
1961	5001.0	5001.0	.0	.0
1962	7054.5	7059.5	.1	5.0
1963	8001.6	8001.6	.0	.0
1964	5001.0	5001.0	.0	.0
1965	8001.6	8001.6	.0	.0
1966	6502.1	6502.1	.0	.0
1967	14649.0	14254.9	-2.7	-394.1
1968	6502.1	6502.1	.0	.0
1969	8411.4	8276.4	-1.6	-135.0
1970	8001.6	8001.6	.0	.0
1971	8001.6	8001.6	.0	.0
1972	6663.1	6668.2	.1	5.1
1973	8001.6	8001.6	.0	.0
1974	9401.3	9100.2	-3.2	-301.1
1975	8123.0	8001.6	-1.5	-121.4
1976	4000.8	4000.8	.0	.0
1977	4000.8	4000.8	.0	.0
1978	8001.6	8001.6	.0	.0
1979	6502.1	6502.1	.0	.0
1980	8001.6	8001.6	.0	.0
1981	5001.0	5001.0	.0	.0
1982	8339.1	8489.9	1.8	150.8
1983	25910.4	25601.8	-1.2	-308.6
1984	8001.6	8001.6	.0	.0
1985	5001.0	5001.0	.0	.0
1986	8001.6	8001.6	.0	.0
1987	5001.0	5001.0	.0	.0
1988	4000.8	4000.8	.0	.0
1989	5001.0	5001.0	.0	.0
1990	4000.8	4000.8	.0	.0
1991	4000.8	4000.8	.0	.0
Mean:	6933.3	6890.6	-.5	-42.7
Median:	6502.1	6502.1	.0	.0
Min:	4000.8	4000.8	-9.2	-510.6
Max:	25910.4	25601.8	1.8	150.8

Alt-Base			WFP
>=	.0		58
Rel Dif >=	.0%	58	
.0% > Rel Dif >=	-1.0%	1	
-1.0% > Rel Dif >=	-2.0%	4	
-2.0% > Rel Dif >=	-3.0%	2	
-3.0% > Rel Dif >=	-5.0%	3	
-5.0% > Rel Dif >=	-6.0%	1	
Rel Dif <	-6.0%	1	

DELTA OUTFLOW

August

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	5122.3	5158.1	.7	35.8
1923	5030.4	5414.2	7.6	383.8
1924	3415.3	3415.3	.0	.0
1925	5163.6	4939.7	-4.3	-223.9
1926	3805.6	3805.6	.0	.0
1927	7963.1	7991.9	.4	28.8
1928	7890.1	7882.7	-.1	-7.4
1929	3415.3	3415.3	.0	.0
1930	4050.6	4061.4	.3	10.8
1931	3415.3	3415.3	.0	.0
1932	4323.4	4257.7	-1.5	-65.7
1933	3415.3	3415.3	.0	.0
1934	3415.3	3415.3	.0	.0
1935	5348.9	5498.3	2.8	149.4
1936	5414.2	5443.8	.5	29.6
1937	5257.2	4994.6	-5.0	-262.6
1938	7096.7	6962.5	-1.9	-134.2
1939	4225.8	4247.8	.5	22.0
1940	7736.1	7727.3	-.1	-8.8
1941	7271.9	6889.3	-5.3	-382.6
1942	7043.3	6899.7	-2.0	-143.6
1943	7780.0	7780.0	.0	.0
1944	5745.1	5216.6	-9.2	-528.5
1945	4737.0	4973.3	5.0	236.3
1946	5077.7	5080.4	.1	2.7
1947	4579.4	4131.1	-9.8	-448.3
1948	6471.6	6418.0	-.8	-53.6
1949	5070.8	5093.9	.5	23.1
1950	6569.4	6605.5	.5	36.1
1951	7599.4	7597.9	.0	-1.5
1952	8544.6	8162.6	-4.5	-382.0
1953	7782.6	7702.5	-1.0	-80.1
1954	7789.3	7796.2	.1	6.9
1955	5215.7	4937.6	-5.3	-278.1
1956	7720.5	7620.0	-1.3	-100.5
1957	7775.1	7782.5	.1	7.4
1958	8378.2	7985.3	-4.7	-392.9
1959	5326.0	5325.3	.0	-.7
1960	5516.2	5616.5	1.8	100.3
1961	4771.5	4621.2	-3.1	-150.3
1962	6710.7	6506.8	-3.0	-203.9
1963	8133.7	8141.5	.1	7.8
1964	5491.9	5537.5	.8	45.6
1965	8171.6	8172.6	.0	1.0
1966	5268.9	5269.5	.0	.6
1967	8191.7	7785.6	-5.0	-406.1
1968	5068.6	5068.7	.0	.1
1969	7450.3	7343.3	-1.4	-107.0
1970	7973.2	7962.9	-.1	-10.3
1971	7822.6	7935.0	1.4	112.4
1972	6937.4	6956.3	.3	18.9
1973	7794.4	7786.3	-.1	-8.1
1974	9196.5	8793.6	-4.4	-402.9
1975	8827.7	8439.7	-4.4	-388.0
1976	6275.5	6112.7	-2.6	-162.8
1977	3427.6	3426.3	.0	-1.3
1978	5260.6	5409.7	2.8	149.1
1979	4786.3	5086.3	6.3	300.0
1980	6510.3	6539.3	.4	29.0
1981	6201.0	6163.6	-.6	-37.4
1982	7784.5	7472.4	-4.0	-312.1
1983	15537.2	15489.4	-.3	-47.8
1984	7791.8	7791.8	.0	.0
1985	5880.0	5560.1	-5.4	-319.9
1986	7759.0	7759.0	.0	.0
1987	3805.6	3805.6	.0	.0
1988	3526.1	3478.7	-1.3	-47.4
1989	4733.6	4661.3	-1.5	-72.3
1990	4794.7	4635.6	-3.3	-159.1
1991	3415.3	3415.3	.0	.0
Mean:	6182.8	6117.2	-.9	-65.6
Median:	5745.1	5560.1	.0	-.7
Min:	3415.3	3415.3	-9.8	-528.5
Max:	15537.2	15489.4	7.6	383.8
Alt-Base >= .0				35
Rel Dif >= .0%			38	
.0% > Rel Dif >= -1.0%			8	
-1.0% > Rel Dif >= -2.0%			7	
-2.0% > Rel Dif >= -3.0%			2	
-3.0% > Rel Dif >= -5.0%			10	
-5.0% > Rel Dif >= -6.0%			3	
Rel Dif < -6.0%			2	

DELTA OUTFLOW

September

Water Year	Base Flow (cfs)	WFP Flow (cfs)	WFP Rel Change (%)	WFP Abs Diff (cfs)
1922	5449.1	5341.0	-2.0	-108.1
1923	5633.4	5632.6	.0	-.8
1924	3301.6	3307.9	.2	6.3
1925	4875.9	4842.6	-.7	-33.3
1926	4448.3	4394.0	-1.2	-54.3
1927	4797.6	4797.8	.0	.2
1928	5305.5	5302.0	-.1	-3.5
1929	3637.2	3637.3	.0	.1
1930	4603.6	4650.1	1.0	46.5
1931	3307.1	3393.4	2.6	86.3
1932	4381.7	4087.8	-6.7	-293.9
1933	3313.7	3314.2	.0	.5
1934	3241.9	3312.7	2.2	70.8
1935	5544.5	5542.9	.0	-1.6
1936	5401.4	5381.5	-.4	-19.9
1937	5376.5	5425.1	.9	48.6
1938	7888.1	7557.8	-4.2	-330.3
1939	4252.3	4280.7	.7	28.4
1940	5072.5	5066.6	-.1	-5.9
1941	6491.5	6164.6	-5.0	-326.9
1942	5570.7	5388.6	-3.3	-182.1
1943	4558.5	4558.5	.0	.0
1944	4765.4	4647.7	-2.5	-117.7
1945	5441.5	5442.8	.0	1.3
1946	5751.2	5752.3	.0	1.1
1947	5113.4	4940.5	-3.4	-172.9
1948	5465.7	5466.1	.0	.4
1949	4970.0	4964.2	-.1	-5.8
1950	5632.1	5635.8	.1	3.7
1951	5633.4	5593.9	-.7	-39.5
1952	10907.0	10575.8	-3.0	-331.2
1953	6230.8	5910.8	-5.1	-320.0
1954	5529.5	5518.2	-.2	-11.3
1955	4901.9	4821.4	-1.6	-80.5
1956	7889.5	7567.6	-4.1	-321.9
1957	5553.5	5541.0	-.2	-12.5
1958	10941.1	10621.1	-2.9	-320.0
1959	6083.7	6083.8	.0	.1
1960	5284.2	5208.6	-1.4	-75.6
1961	4563.5	4499.3	-1.4	-64.2
1962	5663.4	5662.1	.0	-1.3
1963	5425.7	5350.3	-1.4	-75.4
1964	4895.7	4846.8	-1.0	-48.9
1965	5090.0	5027.7	-1.2	-62.3
1966	5830.0	5770.4	-1.0	-59.6
1967	10139.8	9853.2	-2.8	-286.6
1968	5827.0	5827.1	.0	.1
1969	11152.8	10851.1	-2.7	-301.7
1970	4957.7	4949.6	-.2	-8.1
1971	7645.2	6819.6	-10.8	-825.6
1972	5786.1	5788.8	.0	2.7
1973	5079.3	5072.9	-.1	-6.4
1974	10560.0	10244.8	-3.0	-315.2
1975	8937.5	8606.6	-3.7	-330.9
1976	4534.3	4525.1	-.2	-9.2
1977	3529.6	3500.2	-.8	-29.4
1978	5720.4	5397.2	-5.6	-323.2
1979	5457.0	5455.2	.0	-1.8
1980	5291.8	4990.1	-5.7	-301.7
1981	5174.3	5167.1	-.1	-7.2
1982	14021.6	13731.6	-2.1	-290.0
1983	24459.5	24448.1	.0	-11.4
1984	4537.8	4537.7	.0	-.1
1985	4949.5	4975.7	.5	26.2
1986	4645.7	4645.7	.0	.0
1987	4572.5	4707.9	3.0	135.4
1988	3008.2	3017.4	.3	9.2
1989	5012.7	5007.7	-.1	-5.0
1990	4004.6	4016.6	.3	12.0
1991	3232.8	3347.6	3.6	114.8
Mean:	5946.5	5861.6	-1.1	-84.9
Median:	5291.8	5208.6	-.2	-9.2
Min:	3008.2	3017.4	-10.8	-825.6
Max:	24459.5	24448.1	3.6	135.4
Alt-Base >= .0				23
Rel Dif >= .0%			29	
.0% > Rel Dif >= -1.0%			16	
-1.0% > Rel Dif >= -2.0%			7	
-2.0% > Rel Dif >= -3.0%			7	
-3.0% > Rel Dif >= -5.0%			6	
-5.0% > Rel Dif >= -6.0%			3	
Rel Dif < -6.0%			2	

RETURN TO TABLE OF CONTENTS

Section 25

X2 POSITION

X2 POSITION

October

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	82.4	82.4	.0	.0
1923	82.0	82.0	.0	.0
1924	85.6	85.5	-.1	-.1
1925	88.9	89.5	.7	.6
1926	86.2	86.3	.1	.1
1927	86.8	86.8	.0	.0
1928	83.8	83.8	.0	.0
1929	85.6	85.6	.0	.0
1930	89.6	89.6	.0	.0
1931	86.6	86.6	.0	.0
1932	88.4	88.5	.1	.1
1933	86.6	86.8	.2	.2
1934	89.7	89.8	.1	.1
1935	88.3	87.4	-1.0	-.9
1936	85.1	85.1	.0	.0
1937	85.8	85.8	.0	.0
1938	85.9	85.8	-.1	-.1
1939	76.5	76.5	.0	.0
1940	85.7	85.4	-.4	-.3
1941	85.3	85.4	.1	.1
1942	80.9	81.0	.1	.1
1943	82.1	82.1	.0	.0
1944	84.5	84.6	.1	.1
1945	86.2	86.3	.1	.1
1946	84.6	84.7	.1	.1
1947	85.6	85.7	.1	.1
1948	85.6	85.8	.2	.2
1949	84.4	84.3	-.1	-.1
1950	86.2	86.2	.0	.0
1951	84.7	84.7	.0	.0
1952	84.1	84.2	.1	.1
1953	74.5	74.6	.1	.1
1954	82.2	82.3	.1	.1
1955	84.5	84.4	-.1	-.1
1956	86.2	86.3	.1	.1
1957	78.0	78.0	.0	.0
1958	76.3	76.3	.0	.0
1959	78.3	78.5	.3	.2
1960	85.6	85.6	.0	.0
1961	86.0	86.0	.0	.0
1962	86.5	86.6	.1	.1
1963	71.3	71.7	.6	.4
1964	81.4	81.4	.0	.0
1965	86.2	86.2	.0	.0
1966	84.9	84.8	-.1	-.1
1967	85.7	85.8	.1	.1
1968	77.3	77.3	.0	.0
1969	85.0	85.3	.4	.3
1970	73.6	73.9	.4	.3
1971	85.3	85.4	.1	.1
1972	81.7	81.9	.2	.2
1973	83.7	83.8	.1	.1
1974	81.7	81.5	-.2	-.2
1975	81.2	81.2	.0	.0
1976	77.2	77.2	.0	.0
1977	88.1	88.4	.3	.3
1978	85.1	85.2	.1	.1
1979	85.0	85.1	.1	.1
1980	84.2	84.3	.1	.1
1981	85.1	85.2	.1	.1
1982	85.4	85.4	.0	.0
1983	70.8	71.0	.3	.2
1984	68.0	68.4	.6	.4
1985	83.7	83.8	.1	.1
1986	86.1	86.2	.1	.1
1987	84.7	84.7	.0	.0
1988	83.9	83.3	-.7	-.6
1989	88.7	88.3	-.5	-.4
1990	85.1	85.1	.0	.0
1991	86.4	86.1	-.3	-.3
Mean:	83.5	83.6	.0	.0
Median:	85.0	85.1	.0	.0
Min:	68.0	68.4	-1.0	-.9
Max:	89.7	89.8	.7	.6
Alt-Base >= .0				59
Rel Dif >= .0%			59	
.0% > Rel Dif >= -1.0%			11	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

November

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	83.3	83.2	-.1	-.1
1923	80.2	80.1	-.1	-.1
1924	85.2	85.0	-.2	-.2
1925	86.9	87.2	.3	.3
1926	85.5	85.5	.0	.0
1927	77.6	77.5	-.1	-.1
1928	77.2	77.9	.9	.7
1929	83.6	83.7	.1	.1
1930	88.0	88.0	.0	.0
1931	85.7	85.8	.1	.1
1932	87.0	87.0	.0	.0
1933	85.6	85.9	.4	.3
1934	87.8	87.9	.1	.1
1935	84.7	84.4	-.4	-.3
1936	84.8	84.7	-.1	-.1
1937	85.2	85.2	.0	.0
1938	77.1	77.1	.0	.0
1939	77.8	77.8	.0	.0
1940	83.7	83.5	-.2	-.2
1941	84.0	84.1	.1	.1
1942	79.2	79.7	.6	.5
1943	77.2	77.3	.1	.1
1944	84.0	84.0	.0	.0
1945	82.8	82.8	.0	.0
1946	82.1	82.6	.6	.5
1947	83.6	83.7	.1	.1
1948	84.8	84.8	.0	.0
1949	84.0	84.0	.0	.0
1950	84.8	84.9	.1	.1
1951	68.3	68.5	.3	.2
1952	82.2	82.3	.1	.1
1953	76.2	76.1	-.1	-.1
1954	79.2	79.1	-.1	-.1
1955	81.6	82.1	.6	.5
1956	85.0	84.9	-.1	-.1
1957	81.9	81.8	-.1	-.1
1958	79.6	79.5	-.1	-.1
1959	80.2	80.1	-.1	-.1
1960	85.3	85.4	.1	.1
1961	83.5	83.5	.0	.0
1962	85.4	85.3	-.1	-.1
1963	78.4	78.6	.3	.2
1964	72.1	72.6	.7	.5
1965	82.9	82.9	.0	.0
1966	74.7	75.2	.7	.5
1967	82.4	82.5	.1	.1
1968	79.3	79.2	-.1	-.1
1969	83.3	83.5	.2	.2
1970	74.8	74.9	.1	.1
1971	79.4	79.5	.1	.1
1972	82.6	82.6	.0	.0
1973	78.2	78.3	.1	.1
1974	65.1	65.3	.3	.2
1975	82.4	82.3	-.1	-.1
1976	79.9	80.2	.4	.3
1977	87.6	87.9	.3	.3
1978	86.2	86.3	.1	.1
1979	83.5	83.5	.0	.0
1980	82.7	82.8	.1	.1
1981	85.4	85.3	-.1	-.1
1982	70.6	70.9	.4	.3
1983	64.3	64.3	.0	.0
1984	58.3	58.4	.2	.1
1985	72.4	72.6	.3	.2
1986	84.4	84.5	.1	.1
1987	84.9	85.0	.1	.1
1988	83.3	83.6	.4	.3
1989	86.3	86.2	-.1	-.1
1990	85.5	85.4	-.1	-.1
1991	86.2	86.1	-.1	-.1
Mean:	81.1	81.2	.1	.1
Median:	82.9	82.9	.0	.0
Min:	58.3	58.4	-.4	-.3
Max:	88.0	88.0	.9	.7

Alt-Base >= .0		50
Rel Dif >= .0%	50	
.0% > Rel Dif >= -1.0%	20	
-1.0% > Rel Dif >= -2.0%	0	
-2.0% > Rel Dif >= -3.0%	0	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

X2 POSITION

December

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	78.6	78.5	-.1	-.1
1923	68.3	68.3	.0	.0
1924	82.6	82.6	.0	.0
1925	83.5	83.6	.1	.1
1926	82.9	82.9	.0	.0
1927	77.7	77.6	-.1	-.1
1928	79.0	79.1	.1	.1
1929	81.3	81.3	.0	.0
1930	82.8	82.9	.1	.1
1931	83.5	83.6	.1	.1
1932	78.3	78.3	.0	.0
1933	83.6	83.8	.2	.2
1934	82.7	82.8	.1	.1
1935	84.2	83.6	-.7	-.6
1936	82.0	82.0	.0	.0
1937	81.8	81.8	.0	.0
1938	63.4	63.4	.0	.0
1939	77.3	77.2	-.1	-.1
1940	83.8	83.7	-.1	-.1
1941	68.9	69.2	.4	.3
1942	63.0	63.3	.5	.3
1943	69.9	70.1	.3	.2
1944	82.6	82.6	.0	.0
1945	80.3	80.3	.0	.0
1946	64.1	64.3	.3	.2
1947	80.8	80.9	.1	.1
1948	83.6	83.6	.0	.0
1949	81.3	81.3	.0	.0
1950	82.5	82.5	.0	.0
1951	57.6	57.9	.5	.3
1952	68.5	68.8	.4	.3
1953	66.1	66.1	.0	.0
1954	81.0	81.0	.0	.0
1955	74.8	74.9	.1	.1
1956	62.9	62.8	-.2	-.1
1957	82.2	82.2	.0	.0
1958	75.1	75.0	-.1	-.1
1959	79.6	79.5	-.1	-.1
1960	82.4	82.3	-.1	-.1
1961	81.6	81.6	.0	.0
1962	82.1	82.0	-.1	-.1
1963	73.0	73.1	.1	.1
1964	78.7	78.9	.3	.2
1965	61.9	61.9	.0	.0
1966	75.2	75.3	.1	.1
1967	69.3	69.5	.3	.2
1968	77.3	77.2	-.1	-.1
1969	75.8	76.1	.4	.3
1970	63.2	63.2	.0	.0
1971	64.0	64.2	.3	.2
1972	77.0	76.9	-.1	-.1
1973	74.7	74.8	.1	.1
1974	58.4	58.4	.0	.0
1975	78.6	78.6	.0	.0
1976	81.0	81.0	.0	.0
1977	84.6	85.2	.7	.6
1978	82.5	82.6	.1	.1
1979	83.1	83.1	.0	.0
1980	77.9	78.2	.4	.3
1981	82.3	82.3	.0	.0
1982	58.2	58.3	.2	.1
1983	56.2	56.2	.0	.0
1984	49.5	49.6	.2	.1
1985	72.7	72.8	.1	.1
1986	80.6	80.8	.2	.2
1987	81.9	81.9	.0	.0
1988	79.7	80.1	.5	.4
1989	84.8	84.8	.0	.0
1990	83.8	83.8	.0	.0
1991	83.9	83.9	.0	.0
Mean:	76.0	76.0	.1	.1
Median:	79.0	79.1	.0	.0
Min:	49.5	49.6	-.7	-.6
Max:	84.8	85.2	.7	.6
Alt-Base >= .0				58
Rel Dif >= .0%			58	
.0% > Rel Dif >= -1.0%			12	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

January

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	75.9	75.8	-.1	-.1
1923	64.2	64.3	.2	.1
1924	81.3	81.3	.0	.0
1925	82.6	82.6	.0	.0
1926	79.4	79.5	.1	.1
1927	70.3	70.4	.1	.1
1928	72.9	73.1	.3	.2
1929	79.9	79.9	.0	.0
1930	76.4	76.5	.1	.1
1931	81.5	81.5	.0	.0
1932	74.3	74.4	.1	.1
1933	81.4	81.4	.0	.0
1934	79.2	79.1	-.1	-.1
1935	72.9	72.6	-.4	-.3
1936	70.0	70.1	.1	.1
1937	80.8	80.7	-.1	-.1
1938	64.3	64.3	.0	.0
1939	75.8	75.8	.0	.0
1940	71.3	71.4	.1	.1
1941	56.3	56.5	.4	.2
1942	55.6	55.7	.2	.1
1943	57.7	57.8	.2	.1
1944	80.2	80.2	.0	.0
1945	81.1	81.0	-.1	-.1
1946	61.0	61.1	.2	.1
1947	81.0	81.1	.1	.1
1948	82.0	82.0	.0	.0
1949	81.0	81.0	.0	.0
1950	76.8	76.9	.1	.1
1951	55.4	55.5	.2	.1
1952	57.4	57.5	.2	.1
1953	55.2	55.2	.0	.0
1954	70.4	70.6	.3	.2
1955	72.3	72.4	.1	.1
1956	50.5	50.4	-.2	-.1
1957	79.7	79.6	-.1	-.1
1958	67.6	67.6	.0	.0
1959	69.5	69.5	.0	.0
1960	81.1	81.1	.0	.0
1961	81.2	81.3	.1	.1
1962	81.9	81.9	.0	.0
1963	75.1	75.2	.1	.1
1964	72.1	72.2	.1	.1
1965	52.7	52.7	.0	.0
1966	69.6	69.6	.0	.0
1967	61.4	61.6	.3	.2
1968	69.0	68.9	-.1	-.1
1969	57.0	57.2	.4	.2
1970	49.0	49.0	.0	.0
1971	60.6	60.6	.0	.0
1972	75.9	75.8	-.1	-.1
1973	60.6	60.8	.3	.2
1974	51.2	51.2	.0	.0
1975	75.4	75.4	.0	.0
1976	78.0	78.0	.0	.0
1977	83.0	83.2	.2	.2
1978	65.0	65.0	.0	.0
1979	72.7	72.7	.0	.0
1980	59.2	59.3	.2	.1
1981	73.1	73.3	.3	.2
1982	54.8	54.8	.0	.0
1983	51.5	51.6	.2	.1
1984	52.2	52.2	.0	.0
1985	77.0	76.9	-.1	-.1
1986	75.1	74.9	-.3	-.2
1987	80.1	80.1	.0	.0
1988	71.8	72.1	.4	.3
1989	82.7	82.7	.0	.0
1990	78.3	78.4	.1	.1
1991	83.2	83.2	.0	.0
Mean:	70.5	70.6	.1	.0
Median:	72.9	72.7	.0	.0
Min:	49.0	49.0	-.4	-.3
Max:	83.2	83.2	.4	.3
Alt-Base >= .0				59
Rel Dif >= .0%			59	
.0% > Rel Dif >= -1.0%			11	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

February

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	66.7	66.8	.1	.1
1923	66.9	66.9	.0	.0
1924	77.9	77.9	.0	.0
1925	65.4	65.4	.0	.0
1926	68.0	68.1	.1	.1
1927	55.9	55.9	.0	.0
1928	68.8	68.8	.0	.0
1929	77.5	77.5	.0	.0
1930	74.5	74.5	.0	.0
1931	79.5	79.5	.0	.0
1932	71.5	71.3	-.3	-.2
1933	79.2	79.2	.0	.0
1934	75.9	75.4	-.7	-.5
1935	74.2	74.1	-.1	-.1
1936	58.4	58.5	.2	.1
1937	66.6	66.5	-.2	-.1
1938	52.4	52.3	-.2	-.1
1939	75.5	75.5	.0	.0
1940	60.5	60.7	.3	.2
1941	50.6	50.6	.0	.0
1942	49.3	49.3	.0	.0
1943	56.6	56.7	.2	.1
1944	71.9	72.1	.3	.2
1945	65.4	65.4	.0	.0
1946	65.6	65.6	.0	.0
1947	76.2	76.2	.0	.0
1948	77.5	77.5	.0	.0
1949	78.4	78.5	.1	.1
1950	68.7	69.1	.6	.4
1951	55.1	55.2	.2	.1
1952	54.1	54.1	.0	.0
1953	61.8	61.9	.2	.1
1954	61.2	61.2	.0	.0
1955	74.2	74.2	.0	.0
1956	51.1	51.1	.0	.0
1957	71.2	71.5	.4	.3
1958	51.6	51.7	.2	.1
1959	61.7	61.7	.0	.0
1960	71.5	71.5	.0	.0
1961	72.8	72.9	.1	.1
1962	66.2	66.0	-.3	-.2
1963	61.5	61.7	.3	.2
1964	73.5	73.6	.1	.1
1965	59.6	59.6	.0	.0
1966	68.0	68.0	.0	.0
1967	58.8	58.9	.2	.1
1968	60.4	60.5	.2	.1
1969	50.0	50.1	.2	.1
1970	50.6	50.6	.0	.0
1971	64.5	64.6	.2	.1
1972	71.9	72.4	.7	.5
1973	54.3	54.3	.0	.0
1974	57.4	57.5	.2	.1
1975	62.5	62.5	.0	.0
1976	77.8	77.7	-.1	-.1
1977	79.8	79.9	.1	.1
1978	60.6	60.4	-.3	-.2
1979	63.0	63.1	.2	.1
1980	50.6	50.6	.0	.0
1981	68.1	68.2	.1	.1
1982	51.7	51.7	.0	.0
1983	46.2	46.1	-.2	-.1
1984	57.1	57.1	.0	.0
1985	73.0	73.4	.5	.4
1986	52.0	51.9	-.2	-.1
1987	75.6	75.6	.0	.0
1988	74.1	74.2	.1	.1
1989	80.2	80.2	.0	.0
1990	76.2	76.3	.1	.1
1991	79.6	79.6	.0	.0
Mean:	65.5	65.6	.1	.0
Median:	66.2	66.0	.0	.0
Min:	46.2	46.1	-.7	-.5
Max:	80.2	80.2	.7	.5
Alt-Base >= .0				60
Rel Dif >= .0%			60	
.0% > Rel Dif >= -1.0%			10	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

March

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	64.0	64.0	.0	.0
1923	71.3	71.3	.0	.0
1924	76.1	76.1	.0	.0
1925	65.3	65.3	.0	.0
1926	72.5	72.6	.1	.1
1927	58.7	58.8	.2	.1
1928	56.7	56.7	.0	.0
1929	76.0	76.0	.0	.0
1930	69.5	69.0	-.7	-.5
1931	76.6	76.6	.0	.0
1932	74.0	73.8	-.3	-.2
1933	76.9	77.0	.1	.1
1934	75.5	75.3	-.3	-.2
1935	69.7	69.4	-.4	-.3
1936	61.5	62.3	1.3	.8
1937	60.8	61.0	.3	.2
1938	46.9	46.9	.0	.0
1939	73.8	73.7	-.1	-.1
1940	53.4	53.4	.0	.0
1941	50.6	50.6	.0	.0
1942	58.9	58.9	.0	.0
1943	53.3	53.3	.0	.0
1944	69.2	69.4	.3	.2
1945	64.7	64.5	-.3	-.2
1946	68.2	68.3	.1	.1
1947	73.3	73.3	.0	.0
1948	75.0	75.0	.0	.0
1949	67.4	67.5	.1	.1
1950	70.0	70.2	.3	.2
1951	61.1	61.3	.3	.2
1952	53.8	53.8	.0	.0
1953	66.6	66.6	.0	.0
1954	59.8	59.9	.2	.1
1955	74.9	74.9	.0	.0
1956	57.9	57.6	-.5	-.3
1957	63.8	64.0	.3	.2
1958	50.4	50.5	.2	.1
1959	67.9	67.9	.0	.0
1960	71.0	71.1	.1	.1
1961	73.1	73.2	.1	.1
1962	65.7	65.6	-.2	-.1
1963	63.6	63.6	.0	.0
1964	74.7	74.7	.0	.0
1965	66.1	66.0	-.2	-.1
1966	67.7	67.7	.0	.0
1967	56.8	56.8	.0	.0
1968	61.8	61.4	-.6	-.4
1969	52.6	52.6	.0	.0
1970	57.6	57.6	.0	.0
1971	60.9	60.9	.0	.0
1972	68.1	68.4	.4	.3
1973	55.9	56.0	.2	.1
1974	51.8	51.8	.0	.0
1975	55.3	55.4	.2	.1
1976	76.1	76.0	-.1	-.1
1977	77.8	77.9	.1	.1
1978	56.2	56.1	-.2	-.1
1979	62.6	62.7	.2	.1
1980	53.8	53.9	.2	.1
1981	66.7	66.7	.0	.0
1982	51.2	51.2	.0	.0
1983	41.6	41.6	.0	.0
1984	61.8	61.9	.2	.1
1985	70.7	70.9	.3	.2
1986	47.6	47.6	.0	.0
1987	71.2	71.3	.1	.1
1988	74.9	74.9	.0	.0
1989	68.0	68.0	.0	.0
1990	75.6	75.6	.0	.0
1991	71.2	70.6	-.8	-.6
Mean:	64.5	64.5	.0	.0
Median:	65.7	65.6	.0	.0
Min:	41.6	41.6	-.8	-.6
Max:	77.8	77.9	1.3	.8
Alt-Base >= .0				57
Rel Dif >= .0%			57	
.0% > Rel Dif >= -1.0%			13	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

April

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	64.8	64.8	.0	.0
1923	68.0	68.0	.0	.0
1924	81.0	81.0	.0	.0
1925	66.6	66.7	.2	.1
1926	69.8	69.9	.1	.1
1927	59.0	59.1	.2	.1
1928	62.2	62.3	.2	.1
1929	78.6	78.6	.0	.0
1930	73.0	72.9	-.1	-.1
1931	79.2	79.2	.0	.0
1932	74.9	74.9	.0	.0
1933	76.3	76.3	.0	.0
1934	75.8	75.7	-.1	-.1
1935	62.2	62.0	-.3	-.2
1936	64.9	65.5	.9	.6
1937	63.9	64.0	.2	.1
1938	51.0	51.0	.0	.0
1939	75.2	75.2	.0	.0
1940	54.2	54.2	.0	.0
1941	52.2	52.2	.0	.0
1942	58.5	58.5	.0	.0
1943	60.0	60.1	.2	.1
1944	73.3	73.6	.4	.3
1945	68.7	68.6	-.1	-.1
1946	71.6	71.7	.1	.1
1947	74.3	74.2	-.1	-.1
1948	69.5	69.4	-.1	-.1
1949	71.9	71.9	.0	.0
1950	70.0	70.0	.0	.0
1951	67.8	67.9	.1	.1
1952	54.0	54.1	.2	.1
1953	69.7	69.4	-.4	-.3
1954	60.6	60.7	.2	.1
1955	76.2	76.2	.0	.0
1956	64.0	63.9	-.2	-.1
1957	68.9	68.9	.0	.0
1958	50.1	50.1	.0	.0
1959	74.6	74.7	.1	.1
1960	74.0	74.0	.0	.0
1961	74.9	75.0	.1	.1
1962	71.7	72.1	.6	.4
1963	55.6	55.6	.0	.0
1964	77.8	77.9	.1	.1
1965	62.4	62.4	.0	.0
1966	72.2	72.1	-.1	-.1
1967	56.5	56.5	.0	.0
1968	71.3	71.3	.0	.0
1969	54.4	54.5	.2	.1
1970	68.8	68.9	.1	.1
1971	66.3	66.3	.0	.0
1972	73.7	73.7	.0	.0
1973	64.3	64.2	-.2	-.1
1974	53.8	53.8	.0	.0
1975	61.4	61.4	.0	.0
1976	78.2	78.2	.0	.0
1977	81.0	81.0	.0	.0
1978	57.5	57.6	.2	.1
1979	67.1	67.1	.0	.0
1980	62.8	62.9	.2	.1
1981	69.8	69.9	.1	.1
1982	48.0	48.0	.0	.0
1983	47.7	47.7	.0	.0
1984	67.0	67.0	.0	.0
1985	73.5	73.7	.3	.2
1986	58.9	58.8	-.2	-.1
1987	74.2	74.2	.0	.0
1988	78.5	78.6	.1	.1
1989	68.3	68.5	.3	.2
1990	75.9	75.9	.0	.0
1991	72.4	72.2	-.3	-.2
Mean:	67.1	67.1	.0	.0
Median:	68.7	68.6	.0	.0
Min:	47.7	47.7	-.4	-.3
Max:	81.0	81.0	.9	.6
Alt-Base >= .0				58
Rel Dif >= .0%			58	
.0% > Rel Dif >= -1.0%			12	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

May

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	61.3	61.4	.2	.1
1923	70.0	70.2	.3	.2
1924	83.1	83.1	.0	.0
1925	70.3	70.7	.6	.4
1926	74.0	74.0	.0	.0
1927	63.6	63.7	.2	.1
1928	70.2	70.2	.0	.0
1929	79.9	79.8	-.1	-.1
1930	75.0	75.0	.0	.0
1931	81.2	81.5	.4	.3
1932	75.2	75.3	.1	.1
1933	78.4	78.4	.0	.0
1934	80.9	80.9	.0	.0
1935	64.6	64.6	.0	.0
1936	68.4	68.8	.6	.4
1937	67.3	67.4	.1	.1
1938	52.4	52.5	.2	.1
1939	77.3	77.2	-.1	-.1
1940	64.7	64.8	.2	.1
1941	57.0	57.1	.2	.1
1942	61.2	61.3	.2	.1
1943	65.4	65.3	-.2	-.1
1944	75.1	75.3	.3	.2
1945	71.4	71.4	.0	.0
1946	72.7	72.7	.0	.0
1947	77.8	78.0	.3	.2
1948	66.9	66.8	-.1	-.1
1949	73.9	74.0	.1	.1
1950	71.5	71.5	.0	.0
1951	69.6	69.7	.1	.1
1952	54.2	54.2	.0	.0
1953	68.8	68.4	-.6	-.4
1954	67.1	67.1	.0	.0
1955	75.8	76.1	.4	.3
1956	62.0	61.9	-.2	-.1
1957	70.3	70.3	.0	.0
1958	55.2	55.2	.0	.0
1959	76.0	75.9	-.1	-.1
1960	75.4	75.5	.1	.1
1961	76.2	76.0	-.3	-.2
1962	74.1	74.2	.1	.1
1963	61.0	61.0	.0	.0
1964	78.0	78.3	.4	.3
1965	66.5	66.6	.2	.1
1966	74.0	74.0	.0	.0
1967	56.3	56.3	.0	.0
1968	74.5	74.5	.0	.0
1969	55.0	55.1	.2	.1
1970	71.5	71.6	.1	.1
1971	65.7	65.7	.0	.0
1972	74.9	74.9	.0	.0
1973	69.3	69.5	.3	.2
1974	61.5	61.6	.2	.1
1975	63.7	63.6	-.2	-.1
1976	79.7	79.7	.0	.0
1977	81.5	81.5	.0	.0
1978	62.9	63.1	.3	.2
1979	70.6	70.9	.4	.3
1980	66.4	66.4	.0	.0
1981	74.6	74.6	.0	.0
1982	55.0	55.1	.2	.1
1983	51.0	51.0	.0	.0
1984	70.3	70.3	.0	.0
1985	74.9	74.9	.0	.0
1986	65.4	65.4	.0	.0
1987	78.0	78.0	.0	.0
1988	80.1	79.9	-.2	-.2
1989	74.0	74.0	.0	.0
1990	78.2	78.2	.0	.0
1991	78.2	78.3	.1	.1
Mean:	69.8	69.9	.1	.0
Median:	70.3	70.7	.0	.0
Min:	51.0	51.0	-.6	-.4
Max:	83.1	83.1	.6	.4

Alt-Base >= .0		60
Rel Dif >= .0%	60	
.0% > Rel Dif >= -1.0%	10	
-1.0% > Rel Dif >= -2.0%	0	
-2.0% > Rel Dif >= -3.0%	0	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

X2 POSITION

June

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	63.1	63.2	.2	.1
1923	75.2	75.2	.0	.0
1924	85.0	85.0	.0	.0
1925	75.0	75.0	.0	.0
1926	79.6	79.6	.0	.0
1927	72.2	72.4	.3	.2
1928	76.7	76.7	.0	.0
1929	80.3	80.3	.0	.0
1930	79.9	79.9	.0	.0
1931	84.5	84.8	.4	.3
1932	75.4	75.4	.0	.0
1933	80.5	80.5	.0	.0
1934	81.0	81.0	.0	.0
1935	73.0	73.0	.0	.0
1936	75.0	75.0	.0	.0
1937	74.0	74.0	.0	.0
1938	58.5	58.5	.0	.0
1939	80.7	80.7	.0	.0
1940	74.9	74.9	.0	.0
1941	66.8	66.9	.1	.1
1942	65.3	65.5	.3	.2
1943	75.1	75.1	.0	.0
1944	76.4	76.4	.0	.0
1945	74.8	74.8	.0	.0
1946	75.1	75.1	.0	.0
1947	80.8	80.9	.1	.1
1948	71.5	71.6	.1	.1
1949	76.1	76.1	.0	.0
1950	75.0	75.0	.0	.0
1951	76.5	76.6	.1	.1
1952	59.6	59.7	.2	.1
1953	70.6	70.5	-.1	-.1
1954	75.7	75.7	.0	.0
1955	77.0	77.0	.0	.0
1956	68.2	68.5	.4	.3
1957	74.7	74.7	.0	.0
1958	60.1	60.2	.2	.1
1959	79.1	79.1	.0	.0
1960	78.8	78.8	.0	.0
1961	79.3	80.0	.9	.7
1962	77.4	77.4	.0	.0
1963	72.1	72.1	.0	.0
1964	80.4	80.4	.0	.0
1965	73.9	73.9	.0	.0
1966	78.8	78.7	-.1	-.1
1967	58.7	58.7	.0	.0
1968	78.8	78.8	.0	.0
1969	61.6	61.7	.2	.1
1970	77.1	77.2	.1	.1
1971	71.0	71.1	.1	.1
1972	78.9	78.9	.0	.0
1973	74.0	74.0	.0	.0
1974	68.6	68.7	.1	.1
1975	67.1	67.5	.6	.4
1976	81.0	81.0	.0	.0
1977	85.3	85.3	.0	.0
1978	72.4	72.9	.7	.5
1979	74.2	74.2	.0	.0
1980	73.1	73.2	.1	.1
1981	79.8	79.8	.0	.0
1982	63.7	63.9	.3	.2
1983	53.2	53.3	.2	.1
1984	75.3	75.3	.0	.0
1985	79.9	79.9	.0	.0
1986	73.7	73.8	.1	.1
1987	80.9	80.9	.0	.0
1988	81.0	81.0	.0	.0
1989	78.9	78.9	.0	.0
1990	79.8	79.8	.0	.0
1991	80.5	80.5	.0	.0
Mean:	74.5	74.5	.1	.1
Median:	75.2	75.2	.0	.0
Min:	53.2	53.3	-.1	-.1
Max:	85.3	85.3	.9	.7
Alt-Base >= .0				68
Rel Dif >= .0%			68	
.0% > Rel Dif >= -1.0%			2	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

July

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	74.0	74.0	.0	.0
1923	79.5	79.5	.0	.0
1924	86.5	86.5	.0	.0
1925	81.5	81.5	.0	.0
1926	83.0	83.0	.0	.0
1927	77.0	77.0	.0	.0
1928	78.5	78.5	.0	.0
1929	84.9	84.9	.0	.0
1930	83.1	83.1	.0	.0
1931	86.3	86.4	.1	.1
1932	81.6	81.6	.0	.0
1933	85.0	85.0	.0	.0
1934	85.2	85.2	.0	.0
1935	78.8	78.8	.0	.0
1936	79.5	79.5	.0	.0
1937	79.2	79.2	.0	.0
1938	72.1	72.2	.1	.1
1939	83.4	83.4	.0	.0
1940	77.9	77.9	.0	.0
1941	75.2	75.2	.0	.0
1942	74.7	74.8	.1	.1
1943	77.9	77.9	.0	.0
1944	81.9	81.9	.0	.0
1945	79.4	79.4	.0	.0
1946	79.5	79.5	.0	.0
1947	83.4	83.4	.0	.0
1948	77.1	77.5	.5	.4
1949	81.9	81.9	.0	.0
1950	78.2	78.3	.1	.1
1951	78.0	78.0	.0	.0
1952	70.8	71.1	.4	.3
1953	76.4	76.4	.0	.0
1954	78.1	78.1	.0	.0
1955	82.1	82.1	.0	.0
1956	75.7	75.8	.1	.1
1957	77.8	77.8	.0	.0
1958	72.5	72.8	.4	.3
1959	80.8	80.8	.0	.0
1960	81.9	82.7	1.0	.8
1961	82.9	83.1	.2	.2
1962	79.6	79.6	.0	.0
1963	76.9	76.9	.0	.0
1964	83.3	83.3	.0	.0
1965	77.5	77.5	.0	.0
1966	80.7	80.7	.0	.0
1967	67.9	68.1	.3	.2
1968	80.7	80.7	.0	.0
1969	73.1	73.3	.3	.2
1970	78.6	78.6	.0	.0
1971	76.6	76.6	.0	.0
1972	80.6	80.6	.0	.0
1973	77.6	77.6	.0	.0
1974	74.6	74.9	.4	.3
1975	75.2	75.4	.3	.2
1976	85.2	85.2	.0	.0
1977	86.6	86.6	.0	.0
1978	77.1	77.2	.1	.1
1979	79.2	79.2	.0	.0
1980	77.3	77.3	.0	.0
1981	83.1	83.1	.0	.0
1982	73.9	73.8	-.1	-.1
1983	61.8	61.9	.2	.1
1984	78.0	78.0	.0	.0
1985	83.1	83.1	.0	.0
1986	77.5	77.5	.0	.0
1987	83.4	83.4	.0	.0
1988	85.2	85.2	.0	.0
1989	82.8	82.8	.0	.0
1990	84.8	84.8	.0	.0
1991	85.0	85.0	.0	.0
Mean:	79.3	79.3	.1	.1
Median:	79.2	79.2	.0	.0
Min:	61.8	61.9	-.1	-.1
Max:	86.6	86.6	1.0	.8
Alt-Base >= .0				69
Rel Dif >= .0%			69	
.0% > Rel Dif >= -1.0%			1	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

August

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	81.0	80.9	-.1	-.1
1923	82.9	82.4	-.6	-.5
1924	88.2	88.2	.0	.0
1925	83.4	83.7	.4	.3
1926	86.2	86.2	.0	.0
1927	78.6	78.6	.0	.0
1928	79.1	79.1	.0	.0
1929	87.7	87.7	.0	.0
1930	85.8	85.8	.0	.0
1931	88.1	88.2	.1	.1
1932	84.8	84.9	.1	.1
1933	87.7	87.7	.0	.0
1934	87.8	87.8	.0	.0
1935	82.2	82.0	-.2	-.2
1936	82.4	82.3	-.1	-.1
1937	82.5	82.9	.5	.4
1938	77.9	78.1	.3	.2
1939	85.5	85.5	.0	.0
1940	79.1	79.1	.0	.0
1941	78.7	79.1	.5	.4
1942	78.8	79.0	.3	.2
1943	79.1	79.1	.0	.0
1944	82.7	83.5	1.0	.8
1945	83.4	83.0	-.5	-.4
1946	82.9	82.9	.0	.0
1947	84.9	85.7	.9	.8
1948	80.2	80.4	.2	.2
1949	83.6	83.6	.0	.0
1950	80.4	80.5	.1	.1
1951	79.3	79.3	.0	.0
1952	76.0	76.5	.7	.5
1953	78.6	78.7	.1	.1
1954	79.1	79.1	.0	.0
1955	83.5	83.9	.5	.4
1956	78.4	78.5	.1	.1
1957	79.0	79.0	.0	.0
1958	76.7	77.2	.7	.5
1959	82.9	82.9	.0	.0
1960	83.0	83.1	.1	.1
1961	84.5	84.8	.4	.3
1962	80.8	81.0	.2	.2
1963	78.4	78.4	.0	.0
1964	83.5	83.4	-.1	-.1
1965	78.6	78.6	.0	.0
1966	83.0	83.0	.0	.0
1967	75.4	75.9	.7	.5
1968	83.3	83.3	.0	.0
1969	77.8	78.0	.3	.2
1970	79.1	79.1	.0	.0
1971	78.6	78.5	-.1	-.1
1972	80.8	80.8	.0	.0
1973	78.9	78.9	.0	.0
1974	76.7	77.1	.5	.4
1975	77.2	77.6	.5	.4
1976	83.1	83.3	.2	.2
1977	88.2	88.2	.0	.0
1978	81.8	81.6	-.2	-.2
1979	83.2	82.8	-.5	-.4
1980	80.2	80.2	.0	.0
1981	82.5	82.5	.0	.0
1982	77.7	78.0	.4	.3
1983	68.5	68.5	.0	.0
1984	79.1	79.1	.0	.0
1985	82.9	83.3	.5	.4
1986	78.9	79.0	.1	.1
1987	86.4	86.4	.0	.0
1988	87.5	87.6	.1	.1
1989	84.5	84.6	.1	.1
1990	85.0	85.3	.4	.3
1991	87.7	87.7	.0	.0
Mean:	81.7	81.8	.1	.1
Median:	82.2	82.0	.0	.0
Min:	68.5	68.5	-.6	-.5
Max:	88.2	88.2	1.0	.8
Alt-Base >= .0				61
Rel Dif >= .0%			61	
.0% > Rel Dif >= -1.0%			9	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

September

Water Year	Base Location (km)	WFP Location (cfs)	WFP Rel Change (%)	WFP Abs Diff (km)
1922	82.8	82.9	.1	.1
1923	83.1	83.0	-.1	-.1
1924	88.9	88.9	.0	.0
1925	84.4	84.6	.2	.2
1926	86.0	86.1	.1	.1
1927	82.9	82.9	.0	.0
1928	82.4	82.4	.0	.0
1929	88.0	88.0	.0	.0
1930	85.6	85.5	-.1	-.1
1931	88.9	88.7	-.2	-.2
1932	85.7	86.2	.6	.5
1933	88.7	88.7	.0	.0
1934	88.9	88.8	-.1	-.1
1935	83.0	83.0	.0	.0
1936	83.3	83.3	.0	.0
1937	83.3	83.4	.1	.1
1938	78.9	79.3	.5	.4
1939	86.1	86.1	.0	.0
1940	82.7	82.7	.0	.0
1941	80.7	81.2	.6	.5
1942	81.9	82.2	.4	.3
1943	83.5	83.5	.0	.0
1944	84.3	84.8	.6	.5
1945	83.5	83.4	-.1	-.1
1946	83.0	83.0	.0	.0
1947	84.5	85.1	.7	.6
1948	82.5	82.5	.0	.0
1949	84.3	84.3	.0	.0
1950	82.3	82.3	.0	.0
1951	81.9	82.0	.1	.1
1952	75.8	76.2	.5	.4
1953	80.9	81.4	.6	.5
1954	82.0	82.0	.0	.0
1955	84.4	84.7	.4	.3
1956	79.1	79.4	.4	.3
1957	82.0	82.0	.0	.0
1958	76.0	76.4	.5	.4
1959	82.6	82.6	.0	.0
1960	83.7	83.8	.1	.1
1961	85.2	85.5	.4	.3
1962	82.4	82.5	.1	.1
1963	81.9	82.0	.1	.1
1964	84.4	84.4	.0	.0
1965	82.5	82.6	.1	.1
1966	82.9	83.0	.1	.1
1967	76.2	76.6	.5	.4
1968	83.0	83.0	.0	.0
1969	76.3	76.5	.3	.2
1970	82.9	82.9	.0	.0
1971	79.4	80.2	1.0	.8
1972	82.2	82.2	.0	.0
1973	82.6	82.6	.0	.0
1974	76.3	76.7	.5	.4
1975	77.7	78.2	.6	.5
1976	84.8	84.9	.1	.1
1977	88.4	88.5	.1	.1
1978	82.6	83.0	.5	.4
1979	83.5	83.3	-.2	-.2
1980	82.7	83.2	.6	.5
1981	83.6	83.7	.1	.1
1982	74.5	74.7	.3	.2
1983	67.2	67.2	.0	.0
1984	83.5	83.5	.0	.0
1985	84.1	84.2	.1	.1
1986	83.3	83.3	.0	.0
1987	85.8	85.6	-.2	-.2
1988	89.4	89.4	.0	.0
1989	84.5	84.6	.1	.1
1990	86.4	86.5	.1	.1
1991	88.9	88.7	-.2	-.2
Mean:	82.9	83.0	.2	.1
Median:	83.0	83.0	.1	.1
Min:	67.2	67.2	-.2	-.2
Max:	89.4	89.4	1.0	.8
Alt-Base >= .0				62
Rel Dif >= .0%			62	
.0% > Rel Dif >= -1.0%			8	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

RETURN TO TABLE OF CONTENTS

Section 26

BANKS PLUS TRACY EXPORTS

BANKS PLUS TRACY EXPORTS

October

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	492.0	495.0	.6	3.0
1923	676.8	676.8	.0	.0
1924	556.2	558.9	.5	2.7
1925	334.0	334.5	.1	.5
1926	487.9	493.8	1.2	5.9
1927	347.3	348.8	.4	1.5
1928	609.8	613.4	.6	3.6
1929	453.7	442.7	-2.4	-11.0
1930	276.3	262.5	-5.0	-13.8
1931	370.9	356.4	-3.9	-14.5
1932	165.0	169.8	2.9	4.8
1933	313.7	329.5	5.0	15.8
1934	261.4	251.1	-3.9	-10.3
1935	166.2	111.2	-33.1	-55.0
1936	481.4	484.7	.7	3.3
1937	526.3	529.3	.6	3.0
1938	532.0	535.0	.6	3.0
1939	676.1	676.9	.1	.8
1940	256.0	240.3	-6.1	-15.7
1941	560.3	553.6	-1.2	-6.7
1942	677.4	677.4	.0	.0
1943	677.1	677.1	.0	.0
1944	646.5	637.2	-1.4	-9.3
1945	363.2	365.8	.7	2.6
1946	591.8	574.6	-2.9	-17.2
1947	553.4	547.0	-1.2	-6.4
1948	426.5	427.6	.3	1.1
1949	529.0	532.3	.6	3.3
1950	448.6	438.6	-2.2	-10.0
1951	549.2	552.8	.7	3.6
1952	624.0	617.4	-1.1	-6.6
1953	460.7	460.5	.0	-.2
1954	675.8	676.2	.1	.4
1955	512.4	513.8	.3	1.4
1956	349.3	362.1	3.7	12.8
1957	677.4	677.4	.0	.0
1958	676.4	676.2	.0	-.2
1959	582.7	594.1	2.0	11.4
1960	339.2	341.2	.6	2.0
1961	351.4	355.7	1.2	4.3
1962	294.4	311.6	5.8	17.2
1963	675.5	675.5	.0	.0
1964	676.4	676.8	.1	.4
1965	339.7	344.8	1.5	5.1
1966	631.3	634.8	.6	3.5
1967	403.8	396.8	-1.7	-7.0
1968	536.5	536.5	.0	.0
1969	492.7	474.0	-3.8	-18.7
1970	484.3	518.6	7.1	34.3
1971	571.4	562.9	-1.5	-8.5
1972	675.5	675.5	.0	.0
1973	504.6	495.6	-1.8	-9.0
1974	676.8	676.4	-.1	-.4
1975	676.4	676.4	.0	.0
1976	676.2	676.4	.0	.2
1977	315.5	324.1	2.7	8.6
1978	126.7	126.1	-.5	-.6
1979	541.8	545.1	.6	3.3
1980	634.1	616.8	-2.7	-17.3
1981	634.1	637.4	.5	3.3
1982	457.4	458.3	.2	.9
1983	677.4	677.4	.0	.0
1984	451.1	451.1	.0	.0
1985	661.1	660.8	.0	-.3
1986	359.7	346.4	-3.7	-13.3
1987	622.5	616.1	-1.0	-6.4
1988	246.5	246.5	.0	.0
1989	165.6	147.0	-11.2	-18.6
1990	470.9	471.8	.2	.9
1991	195.0	185.1	-5.1	-9.9
Mean:	487.6	485.9	-.8	-1.7
Median:	504.6	513.8	.0	.0
Min:	126.7	111.2	-33.1	-55.0
Max:	677.4	677.4	7.1	34.3

Alt-Base >= .0		44
Rel Dif >= .0%		47
.0% > Rel Dif >= -1.0%		3
-1.0% > Rel Dif >= -2.0%		7
-2.0% > Rel Dif >= -3.0%		4
-3.0% > Rel Dif >= -5.0%		5
-5.0% > Rel Dif >= -6.0%		1
Rel Dif < -6.0%		3

BANKS PLUS TRACY EXPORTS

November

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	457.1	461.3	.9	4.2
1923	654.8	654.8	.0	.0
1924	430.2	435.7	1.3	5.5
1925	254.0	241.6	-4.9	-12.4
1926	373.5	375.6	.6	2.1
1927	650.0	650.0	.0	.0
1928	654.8	654.8	.0	.0
1929	462.9	456.1	-1.5	-6.8
1930	200.2	189.5	-5.3	-10.7
1931	351.2	343.5	-2.2	-7.7
1932	174.1	174.2	.1	.1
1933	303.8	323.6	6.5	19.8
1934	188.6	178.7	-5.2	-9.9
1935	332.0	302.0	-9.0	-30.0
1936	415.7	420.7	1.2	5.0
1937	426.1	431.8	1.3	5.7
1938	653.9	653.6	.0	-.3
1939	503.0	503.0	.0	.0
1940	234.0	218.5	-6.6	-15.5
1941	519.3	513.0	-1.2	-6.3
1942	526.7	569.5	8.1	42.8
1943	654.3	655.1	.1	.8
1944	503.4	507.9	.9	4.5
1945	614.4	616.5	.3	2.1
1946	654.5	654.5	.0	.0
1947	514.8	508.5	-1.2	-6.3
1948	421.8	423.8	.5	2.0
1949	471.0	475.4	.9	4.4
1950	426.2	420.7	-1.3	-5.5
1951	653.3	653.6	.0	.3
1952	645.1	638.0	-1.1	-7.1
1953	425.7	425.6	.0	-.1
1954	653.9	654.3	.1	.4
1955	654.5	651.7	-.4	-2.8
1956	405.8	417.4	2.9	11.6
1957	569.2	573.8	.8	4.6
1958	654.5	654.3	.0	-.2
1959	510.6	511.0	.1	.4
1960	395.1	387.5	-1.9	-7.6
1961	462.8	465.0	.5	2.2
1962	319.1	330.9	3.7	11.8
1963	653.6	653.6	.0	.0
1964	654.5	654.8	.0	.3
1965	576.6	579.2	.5	2.6
1966	654.8	654.8	.0	.0
1967	570.0	560.6	-1.6	-9.4
1968	503.0	503.0	.0	.0
1969	530.0	510.4	-3.7	-19.6
1970	425.5	425.5	.0	.0
1971	654.8	654.5	.0	-.3
1972	529.0	533.9	.9	4.9
1973	653.6	653.9	.0	.3
1974	654.8	654.5	.0	-.3
1975	558.8	563.7	.9	4.9
1976	654.3	654.5	.0	.2
1977	218.1	228.4	4.7	10.3
1978	202.5	200.5	-1.0	-2.0
1979	530.8	535.3	.8	4.5
1980	630.6	611.1	-3.1	-19.5
1981	453.0	457.2	.9	4.2
1982	652.4	652.1	.0	-.3
1983	655.4	655.4	.0	.0
1984	417.6	417.6	.0	.0
1985	654.8	654.8	.0	.0
1986	408.6	400.5	-2.0	-8.1
1987	438.0	432.2	-1.3	-5.8
1988	306.6	329.7	7.5	23.1
1989	327.6	314.1	-4.1	-13.5
1990	338.3	340.7	.7	2.4
1991	232.0	229.7	-1.0	-2.3
Mean:	487.4	487.0	-.2	-.3
Median:	503.0	503.0	.0	.0
Min:	174.1	174.2	-9.0	-30.0
Max:	655.4	655.4	8.1	42.8

Alt-Base >= .0		43
Rel Dif >= .0%		49
.0% > Rel Dif >= -1.0%		3
-1.0% > Rel Dif >= -2.0%		9
-2.0% > Rel Dif >= -3.0%		1
-3.0% > Rel Dif >= -5.0%		4
-5.0% > Rel Dif >= -6.0%		2
Rel Dif < -6.0%		2

BANKS PLUS TRACY EXPORTS

December

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	705.5	705.5	.0	.0
1923	729.5	729.5	.0	.0
1924	567.5	572.6	.9	5.1
1925	452.0	441.7	-2.3	-10.3
1926	517.5	516.9	-.1	-.6
1927	693.1	693.1	.0	.0
1928	699.3	699.3	.0	.0
1929	691.0	690.6	-.1	-.4
1930	602.5	591.7	-1.8	-10.8
1931	463.6	457.8	-1.3	-5.8
1932	704.3	704.3	.0	.0
1933	397.3	413.0	4.0	15.7
1934	467.5	457.3	-2.2	-10.2
1935	336.6	289.4	-14.0	-47.2
1936	610.3	615.8	.9	5.5
1937	644.0	650.4	1.0	6.4
1938	732.9	732.5	-.1	-.4
1939	499.3	499.3	.0	.0
1940	355.1	351.2	-1.1	-3.9
1941	707.9	707.5	-.1	-.4
1942	412.8	412.8	.0	.0
1943	501.0	518.6	3.5	17.6
1944	571.0	570.9	.0	-.1
1945	694.4	693.6	-.1	-.8
1946	733.5	733.5	.0	.0
1947	698.7	698.7	.0	.0
1948	440.4	444.3	.9	3.9
1949	691.2	691.2	.0	.0
1950	541.7	546.4	.9	4.7
1951	732.2	732.5	.0	.3
1952	706.8	706.6	.0	-.2
1953	420.2	420.1	.0	-.1
1954	584.8	591.7	1.2	6.9
1955	693.5	693.4	.0	-.1
1956	730.2	729.8	-.1	-.4
1957	555.7	561.2	1.0	5.5
1958	695.5	695.4	.0	-.1
1959	506.4	506.7	.1	.3
1960	582.2	592.7	1.8	10.5
1961	652.3	655.3	.5	3.0
1962	648.5	664.6	2.5	16.1
1963	690.8	690.8	.0	.0
1964	637.9	631.8	-1.0	-6.1
1965	717.3	716.9	-.1	-.4
1966	726.7	726.7	.0	.0
1967	704.2	704.2	.0	.0
1968	499.3	499.3	.0	.0
1969	698.0	698.0	.0	.0
1970	420.1	420.1	.0	.0
1971	702.7	702.6	.0	-.1
1972	694.3	694.3	.0	.0
1973	692.2	692.6	.1	.4
1974	706.9	706.8	.0	-.1
1975	560.2	567.5	1.3	7.3
1976	684.2	687.3	.5	3.1
1977	380.0	347.6	-8.5	-32.4
1978	522.9	519.4	-.7	-3.5
1979	482.0	486.8	1.0	4.8
1980	695.8	695.4	-.1	-.4
1981	600.7	606.0	.9	5.3
1982	695.2	694.8	-.1	-.4
1983	604.7	644.9	6.6	40.2
1984	300.9	300.9	.0	.0
1985	697.4	697.4	.0	.0
1986	691.6	691.1	-.1	-.5
1987	695.1	695.1	.0	.0
1988	685.1	685.1	.0	.0
1989	332.4	321.0	-3.4	-11.4
1990	423.5	425.7	.5	2.2
1991	387.7	384.6	-.8	-3.1
Mean:	595.7	595.9	-.1	.2
Median:	644.0	650.4	.0	.0
Min:	300.9	289.4	-14.0	-47.2
Max:	733.5	733.5	6.6	40.2
Alt-Base >= .0				42
Rel Dif >= .0%			49	
.0% > Rel Dif >= -1.0%			13	
-1.0% > Rel Dif >= -2.0%			3	
-2.0% > Rel Dif >= -3.0%			2	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			2	

BANKS PLUS TRACY EXPORTS

January

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	736.7	736.7	.0	.0
1923	510.4	532.7	4.4	22.3
1924	710.6	710.4	.0	-.2
1925	513.5	514.5	.2	1.0
1926	703.6	702.7	-.1	-.9
1927	709.3	709.3	.0	.0
1928	720.6	720.6	.0	.0
1929	706.1	705.9	.0	-.2
1930	699.5	698.5	-.1	-1.0
1931	635.2	635.2	.0	.0
1932	744.4	744.4	.0	.0
1933	700.8	706.8	.9	6.0
1934	699.4	699.4	.0	.0
1935	734.5	734.5	.0	.0
1936	716.2	716.1	.0	-.1
1937	730.7	730.7	.0	.0
1938	789.7	789.6	.0	-.1
1939	464.2	464.2	.0	.0
1940	760.0	760.0	.0	.0
1941	789.5	789.2	.0	-.3
1942	379.9	379.9	.0	.0
1943	465.1	465.1	.0	.0
1944	676.4	682.2	.9	5.8
1945	650.6	679.3	4.4	28.7
1946	774.3	774.3	.0	.0
1947	702.3	715.3	1.9	13.0
1948	642.2	645.7	.5	3.5
1949	704.3	704.3	.0	.0
1950	711.5	711.4	.0	-.1
1951	789.5	789.6	.0	.1
1952	790.0	789.8	.0	-.2
1953	385.6	385.6	.0	.0
1954	483.9	544.3	12.5	60.4
1955	715.2	715.2	.0	.0
1956	787.2	786.7	-.1	-.5
1957	714.1	714.1	.0	.0
1958	718.6	718.5	.0	-.1
1959	469.6	469.9	.1	.3
1960	705.6	705.6	.0	.0
1961	597.1	582.0	-2.5	-15.1
1962	503.3	502.5	-.2	-.8
1963	715.5	715.5	.0	.0
1964	711.4	712.1	.1	.7
1965	785.8	785.2	-.1	-.6
1966	773.0	773.0	.0	.0
1967	739.8	739.8	.0	.0
1968	415.8	415.8	.0	.0
1969	789.8	789.8	.0	.0
1970	385.5	385.5	.0	.0
1971	737.5	738.2	.1	.7
1972	712.2	712.2	.0	.0
1973	720.6	720.7	.0	.1
1974	788.3	788.1	.0	-.2
1975	487.4	487.4	.0	.0
1976	510.5	509.3	-.2	-1.2
1977	449.7	445.7	-.9	-4.0
1978	741.3	741.3	.0	.0
1979	775.2	775.2	.0	.0
1980	789.6	789.5	.0	-.1
1981	672.1	659.7	-1.8	-12.4
1982	788.2	787.7	-.1	-.5
1983	501.6	501.6	.0	.0
1984	215.0	215.0	.0	.0
1985	702.7	703.0	.0	.3
1986	709.1	708.5	-.1	-.6
1987	645.1	645.1	.0	.0
1988	697.8	697.8	.0	.0
1989	545.3	546.7	.3	1.4
1990	700.2	699.8	-.1	-.4
1991	411.1	407.2	-.9	-3.9
Mean:	653.7	655.1	.3	1.4
Median:	705.6	706.8	.0	.0
Min:	215.0	215.0	-2.5	-15.1
Max:	790.0	789.8	12.5	60.4
Alt-Base >= .0				47
Rel Dif >= .0%			57	
.0% > Rel Dif >= -1.0%			11	
-1.0% > Rel Dif >= -2.0%			1	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

BANKS PLUS TRACY EXPORTS

February

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	715.8	715.8	.0	.0
1923	322.6	319.0	-1.1	-3.6
1924	488.8	491.6	.6	2.8
1925	660.7	660.7	.0	.0
1926	649.6	649.2	-.1	-.4
1927	529.8	478.0	-9.8	-51.8
1928	474.3	474.4	.0	.1
1929	480.2	482.5	.5	2.3
1930	463.3	470.2	1.5	6.9
1931	395.1	393.9	-.3	-1.2
1932	595.2	559.6	-6.0	-35.6
1933	419.6	420.1	.1	.5
1934	411.5	375.1	-8.8	-36.4
1935	360.6	361.6	.3	1.0
1936	714.7	714.5	.0	-.2
1937	714.7	714.7	.0	.0
1938	494.8	453.3	-8.4	-41.5
1939	447.0	447.1	.0	.1
1940	710.2	710.2	.0	.0
1941	655.9	627.9	-4.3	-28.0
1942	380.4	380.4	.0	.0
1943	469.1	469.1	.0	.0
1944	670.7	670.6	.0	-.1
1945	713.6	713.2	-.1	-.4
1946	452.5	451.4	-.2	-1.1
1947	586.8	583.7	-.5	-3.1
1948	359.2	359.1	.0	-.1
1949	438.9	432.0	-1.6	-6.9
1950	664.7	664.5	.0	-.2
1951	713.0	713.1	.0	.1
1952	569.0	578.1	1.6	9.1
1953	386.3	386.2	.0	-.1
1954	472.5	473.1	.1	.6
1955	431.9	433.8	.4	1.9
1956	713.6	700.5	-1.8	-13.1
1957	555.5	608.5	9.5	53.0
1958	587.7	585.8	-.3	-1.9
1959	472.9	473.5	.1	.6
1960	654.6	654.6	.0	.0
1961	639.6	639.5	.0	-.1
1962	713.9	713.8	.0	-.1
1963	673.9	673.9	.0	.0
1964	389.4	389.4	.0	.0
1965	712.7	711.8	-.1	-.9
1966	540.4	545.4	.9	5.0
1967	689.9	710.0	2.9	20.1
1968	441.0	441.0	.0	.0
1969	714.6	715.1	.1	.5
1970	333.2	334.0	.2	.8
1971	474.4	479.7	1.1	5.3
1972	532.0	585.2	10.0	53.2
1973	714.7	714.9	.0	.2
1974	491.8	491.1	-.1	-.7
1975	491.1	491.1	.0	.0
1976	433.7	436.9	.7	3.2
1977	430.4	430.4	.0	.0
1978	560.2	559.0	-.2	-1.2
1979	428.5	466.3	8.8	37.8
1980	469.1	527.8	12.5	58.7
1981	380.5	380.5	.0	.0
1982	712.3	712.0	.0	-.3
1983	482.5	428.4	-11.2	-54.1
1984	332.7	332.7	.0	.0
1985	468.6	468.6	.0	.0
1986	712.7	711.8	-.1	-.9
1987	598.9	598.0	-.2	-.9
1988	355.8	355.8	.0	.0
1989	231.5	249.6	7.8	18.1
1990	420.0	420.1	.0	.1
1991	441.5	441.3	.0	-.2
Mean:	528.7	528.7	.1	.0
Median:	488.8	482.5	.0	.0
Min:	231.5	249.6	-11.2	-54.1
Max:	715.8	715.8	12.5	58.7
Alt-Base >= .0				41
Rel Dif >= .0%			50	
.0% > Rel Dif >= -1.0%			11	
-1.0% > Rel Dif >= -2.0%			3	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			4	

BANKS PLUS TRACY EXPORTS

March

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	605.6	598.4	-1.2	-7.2
1923	477.5	479.6	.4	2.1
1924	10.3	10.3	.0	.0
1925	449.1	447.4	-.4	-1.7
1926	439.0	434.2	-1.1	-4.8
1927	462.4	462.4	.0	.0
1928	542.3	541.6	-.1	-.7
1929	192.7	196.9	2.2	4.2
1930	692.1	589.7	-14.8	-102.4
1931	190.2	178.7	-6.0	-11.5
1932	322.7	315.1	-2.4	-7.6
1933	372.5	369.7	-.8	-2.8
1934	124.0	127.0	2.4	3.0
1935	718.2	667.3	-7.1	-50.9
1936	667.8	653.5	-2.1	-14.3
1937	560.4	601.9	7.4	41.5
1938	409.5	409.5	.0	.0
1939	255.9	255.9	.0	.0
1940	734.5	734.4	.0	-.1
1941	409.9	379.3	-7.5	-30.6
1942	519.8	519.8	.0	.0
1943	523.4	523.4	.0	.0
1944	512.8	511.1	-.3	-1.7
1945	621.0	578.3	-6.9	-42.7
1946	572.0	590.3	3.2	18.3
1947	521.0	522.6	.3	1.6
1948	441.6	443.9	.5	2.3
1949	706.4	706.2	.0	-.2
1950	587.1	582.8	-.7	-4.3
1951	517.9	559.6	8.1	41.7
1952	436.7	436.6	.0	-.1
1953	523.9	524.4	.1	.5
1954	560.2	559.6	-.1	-.6
1955	410.1	410.0	.0	-.1
1956	635.6	550.6	-13.4	-85.0
1957	560.2	559.7	-.1	-.5
1958	524.2	524.8	.1	.6
1959	442.1	442.1	.0	.0
1960	584.3	578.1	-1.1	-6.2
1961	460.7	456.5	-.9	-4.2
1962	725.6	725.6	.0	.0
1963	544.1	544.7	.1	.6
1964	390.9	395.7	1.2	4.8
1965	625.7	621.7	-.6	-4.0
1966	539.7	539.7	.0	.0
1967	583.6	603.3	3.4	19.7
1968	448.7	448.7	.0	.0
1969	436.6	453.7	3.9	17.1
1970	462.4	455.4	-1.5	-7.0
1971	558.5	558.4	.0	-.1
1972	558.3	558.9	.1	.6
1973	652.4	662.3	1.5	9.9
1974	544.2	544.1	.0	-.1
1975	559.7	560.2	.1	.5
1976	402.8	405.6	.7	2.8
1977	277.6	270.8	-2.4	-6.8
1978	430.2	430.2	.0	.0
1979	516.7	516.0	-.1	-.7
1980	321.4	350.9	9.2	29.5
1981	520.6	520.0	-.1	-.6
1982	559.8	559.8	.0	.0
1983	321.4	321.4	.0	.0
1984	454.9	454.9	.0	.0
1985	442.1	440.8	-.3	-1.3
1986	697.4	691.9	-.8	-5.5
1987	537.2	550.3	2.4	13.1
1988	76.7	68.5	-10.7	-8.2
1989	694.3	694.2	.0	-.1
1990	264.4	269.6	2.0	5.2
1991	698.8	698.1	-.1	-.7
Mean:	487.8	485.0	-.5	-2.8
Median:	519.8	520.0	.0	-.1
Min:	10.3	10.3	-14.8	-102.4
Max:	734.5	734.4	9.2	41.7
Alt-Base >= .0				35
Rel Dif >= .0%			42	
.0% > Rel Dif >= -1.0%			14	
-1.0% > Rel Dif >= -2.0%			4	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			6	

BANKS PLUS TRACY EXPORTS

April

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	408.4	408.4	.0	.0
1923	393.9	393.3	-.2	-.6
1924	28.7	28.1	-2.1	-.6
1925	347.3	342.1	-1.5	-5.2
1926	296.9	297.3	.1	.4
1927	360.8	360.8	.0	.0
1928	408.4	408.4	.0	.0
1929	64.7	61.5	-4.9	-3.2
1930	201.1	199.1	-1.0	-2.0
1931	28.0	15.1	-46.1	-12.9
1932	226.0	225.9	.0	-.1
1933	40.8	36.7	-10.0	-4.1
1934	13.5	12.7	-5.9	-.8
1935	408.4	408.1	-.1	-.3
1936	350.1	396.4	13.2	46.3
1937	360.8	360.8	.0	.0
1938	360.8	360.8	.0	.0
1939	186.6	186.6	.0	.0
1940	408.4	408.4	.0	.0
1941	360.8	360.8	.0	.0
1942	408.3	408.3	.0	.0
1943	360.8	360.8	.0	.0
1944	175.4	171.4	-2.3	-4.0
1945	267.2	268.1	.3	.9
1946	280.1	277.1	-1.1	-3.0
1947	209.7	210.6	.4	.9
1948	362.7	363.7	.3	1.0
1949	219.9	220.9	.5	1.0
1950	302.1	302.0	.0	-.1
1951	248.9	247.3	-.6	-1.6
1952	393.5	393.3	-.1	-.2
1953	303.5	254.5	-16.1	-49.0
1954	384.6	384.6	.0	.0
1955	172.9	173.8	.5	.9
1956	337.8	338.7	.3	.9
1957	300.3	302.0	.6	1.7
1958	407.5	407.9	.1	.4
1959	195.5	193.6	-1.0	-1.9
1960	197.3	197.8	.3	.5
1961	199.0	199.7	.4	.7
1962	241.8	235.5	-2.6	-6.3
1963	408.4	408.4	.0	.0
1964	164.3	161.4	-1.8	-2.9
1965	360.8	360.8	.0	.0
1966	230.7	231.2	.2	.5
1967	360.8	360.8	.0	.0
1968	212.0	210.0	-.9	-2.0
1969	360.8	360.8	.0	.0
1970	211.5	209.6	-.9	-1.9
1971	344.9	343.4	-.4	-1.5
1972	184.6	185.1	.3	.5
1973	365.3	366.3	.3	1.0
1974	408.4	408.4	.0	.0
1975	408.4	408.4	.0	.0
1976	102.9	101.8	-1.1	-1.1
1977	58.8	60.3	2.6	1.5
1978	386.6	386.6	.0	.0
1979	342.6	343.6	.3	1.0
1980	341.6	340.2	-.4	-1.4
1981	299.1	297.4	-.6	-1.7
1982	360.8	360.8	.0	.0
1983	360.8	360.8	.0	.0
1984	278.9	279.3	.1	.4
1985	222.4	220.9	-.7	-1.5
1986	360.8	360.8	.0	.0
1987	194.1	194.1	.0	.0
1988	120.6	113.5	-5.9	-7.1
1989	317.3	312.5	-1.5	-4.8
1990	120.7	119.3	-1.2	-1.4
1991	235.4	236.1	.3	.7
Mean:	276.4	275.5	-1.3	-.9
Median:	300.3	297.4	.0	.0
Min:	13.5	12.7	-46.1	-49.0
Max:	408.4	408.4	13.2	46.3
Alt-Base >= .0				41
Rel Dif >= .0%			43	
.0% > Rel Dif >= -1.0%			12	
-1.0% > Rel Dif >= -2.0%			6	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			2	
Rel Dif < -6.0%			3	

BANKS PLUS TRACY EXPORTS

May

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	419.0	414.6	-1.1	-4.4
1923	240.0	244.6	1.9	4.6
1924	99.0	92.0	-7.1	-7.0
1925	198.3	192.7	-2.8	-5.6
1926	146.6	146.7	.1	.1
1927	236.0	233.7	-1.0	-2.3
1928	215.4	215.7	.1	.3
1929	123.5	124.2	.6	.7
1930	141.4	141.1	-.2	-.3
1931	101.9	94.3	-7.5	-7.6
1932	183.7	182.3	-.8	-1.4
1933	123.7	123.7	.0	.0
1934	38.9	39.3	1.0	.4
1935	311.8	310.3	-.5	-1.5
1936	201.3	246.5	22.5	45.2
1937	223.4	221.6	-.8	-1.8
1938	402.6	402.6	.0	.0
1939	124.0	124.6	.5	.6
1940	261.0	259.8	-.5	-1.2
1941	361.9	360.4	-.4	-1.5
1942	367.5	364.0	-1.0	-3.5
1943	242.7	243.3	.2	.6
1944	151.8	149.2	-1.7	-2.6
1945	158.8	159.4	.4	.6
1946	225.1	225.5	.2	.4
1947	132.3	130.6	-1.3	-1.7
1948	276.3	278.1	.7	1.8
1949	156.7	155.5	-.8	-1.2
1950	201.3	201.9	.3	.6
1951	180.9	179.8	-.6	-1.1
1952	447.2	447.2	.0	.0
1953	278.7	234.7	-15.8	-44.0
1954	224.8	225.2	.2	.4
1955	146.5	143.1	-2.3	-3.4
1956	324.4	324.9	.2	.5
1957	244.3	243.5	-.3	-.8
1958	447.2	447.2	.0	.0
1959	173.1	174.1	.6	1.0
1960	144.1	143.5	-.4	-.6
1961	143.3	145.6	1.6	2.3
1962	187.0	187.0	.0	.0
1963	310.0	308.1	-.6	-1.9
1964	133.1	135.4	1.7	2.3
1965	199.8	198.7	-.6	-1.1
1966	179.9	180.6	.4	.7
1967	402.6	402.6	.0	.0
1968	175.6	175.8	.1	.2
1969	402.6	402.6	.0	.0
1970	164.6	163.1	-.9	-1.5
1971	313.3	313.9	.2	.6
1972	152.3	153.0	.5	.7
1973	222.4	218.9	-1.6	-3.5
1974	327.1	325.0	-.6	-2.1
1975	326.3	326.8	.2	.5
1976	95.7	97.7	2.1	2.0
1977	64.6	64.4	-.3	-.2
1978	316.0	313.0	-.9	-3.0
1979	236.2	231.8	-1.9	-4.4
1980	209.4	209.9	.2	.5
1981	183.2	183.9	.4	.7
1982	390.3	389.1	-.3	-1.2
1983	402.6	402.6	.0	.0
1984	172.1	172.7	.3	.6
1985	177.7	177.7	.0	.0
1986	204.2	204.7	.2	.5
1987	129.1	129.1	.0	.0
1988	128.3	119.2	-7.1	-9.1
1989	148.5	149.0	.3	.5
1990	128.9	129.2	.2	.3
1991	127.1	125.2	-1.5	-1.9
Mean:	220.4	219.7	-.4	-.8
Median:	198.3	192.7	.0	.0
Min:	38.9	39.3	-15.8	-44.0
Max:	447.2	447.2	22.5	45.2

Alt-Base >= .0		39
Rel Dif >= .0%	39	
.0% > Rel Dif >= -1.0%	19	
-1.0% > Rel Dif >= -2.0%	6	
-2.0% > Rel Dif >= -3.0%	2	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	4	

BANKS PLUS TRACY EXPORTS

June

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	662.3	662.3	.0	.0
1923	409.5	407.6	-.5	-1.9
1924	144.8	144.9	.1	.1
1925	245.1	236.2	-3.6	-8.9
1926	201.6	205.0	1.7	3.4
1927	461.8	454.7	-1.5	-7.1
1928	380.8	378.0	-.7	-2.8
1929	115.5	122.3	5.9	6.8
1930	96.7	99.7	3.1	3.0
1931	124.7	104.9	-15.9	-19.8
1932	37.6	36.6	-2.7	-1.0
1933	18.2	17.1	-6.0	-1.1
1934	20.1	19.1	-5.0	-1.0
1935	337.5	304.4	-9.8	-33.1
1936	373.8	322.7	-13.7	-51.1
1937	287.6	287.2	-.1	-.4
1938	663.1	663.1	.0	.0
1939	32.5	32.5	.0	.0
1940	356.3	354.5	-.5	-1.8
1941	640.7	637.0	-.6	-3.7
1942	662.7	662.7	.0	.0
1943	349.8	354.4	1.3	4.6
1944	95.0	89.9	-5.4	-5.1
1945	435.3	434.4	-.2	-.9
1946	438.6	440.1	.3	1.5
1947	146.4	193.4	32.1	47.0
1948	538.1	534.6	-.7	-3.5
1949	342.8	321.7	-6.2	-21.1
1950	462.4	462.2	.0	-.2
1951	384.0	384.0	.0	.0
1952	663.1	663.1	.0	.0
1953	634.5	631.0	-.6	-3.5
1954	379.0	379.9	.2	.9
1955	430.5	266.6	-38.1	-163.9
1956	663.1	641.8	-3.2	-21.3
1957	458.3	458.8	.1	.5
1958	662.7	663.1	.1	.4
1959	379.3	379.3	.0	.0
1960	391.3	391.4	.0	.1
1961	333.3	269.2	-19.2	-64.1
1962	411.8	413.2	.3	1.4
1963	433.3	435.0	.4	1.7
1964	162.6	133.9	-17.7	-28.7
1965	430.0	431.6	.4	1.6
1966	361.8	361.8	.0	.0
1967	663.1	663.1	.0	.0
1968	374.4	374.4	.0	.0
1969	663.1	663.1	.0	.0
1970	383.9	383.9	.0	.0
1971	560.1	555.1	-.9	-5.0
1972	371.1	371.1	.0	.0
1973	430.2	428.5	-.4	-1.7
1974	625.2	617.8	-1.2	-7.4
1975	661.7	662.0	.0	.3
1976	92.7	87.1	-6.0	-5.6
1977	49.2	49.7	1.0	.5
1978	456.8	439.3	-3.8	-17.5
1979	325.8	325.1	-.2	-.7
1980	462.2	458.6	-.8	-3.6
1981	80.1	90.5	13.0	10.4
1982	663.1	663.1	.0	.0
1983	663.1	663.1	.0	.0
1984	398.8	398.2	-.2	-.6
1985	41.1	33.9	-17.5	-7.2
1986	435.6	432.1	-.8	-3.5
1987	50.5	47.5	-5.9	-3.0
1988	179.2	141.3	-21.1	-37.9
1989	354.2	354.9	.2	.7
1990	377.8	377.8	.0	.0
1991	170.5	115.5	-32.3	-55.0
Mean:	368.5	361.2	-2.6	-7.3
Median:	379.3	378.0	-.1	-.4
Min:	18.2	17.1	-38.1	-163.9
Max:	663.1	663.1	32.1	47.0
Alt-Base >= .0				34
Rel Dif >= .0%			35	
.0% > Rel Dif >= -1.0%			14	
-1.0% > Rel Dif >= -2.0%			2	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			4	
-5.0% > Rel Dif >= -6.0%			4	
Rel Dif < -6.0%			10	

BANKS PLUS TRACY EXPORTS

July

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	282.8	232.8	-17.7	-50.0
1923	410.9	299.6	-27.1	-111.3
1924	21.9	21.9	.0	.0
1925	333.1	299.0	-10.2	-34.1
1926	85.5	85.4	-.1	-.1
1927	299.4	299.4	.0	.0
1928	440.4	370.0	-16.0	-70.4
1929	27.8	23.7	-14.7	-4.1
1930	65.7	67.3	2.4	1.6
1931	20.8	19.7	-5.3	-1.1
1932	51.1	48.0	-6.1	-3.1
1933	19.1	17.4	-8.9	-1.7
1934	20.2	19.1	-5.4	-1.1
1935	306.5	229.7	-25.1	-76.8
1936	232.0	151.1	-34.9	-80.9
1937	144.2	139.5	-3.3	-4.7
1938	578.2	561.5	-2.9	-16.7
1939	27.9	27.9	.0	.0
1940	439.2	437.5	-.4	-1.7
1941	351.5	347.7	-1.1	-3.8
1942	431.9	406.2	-6.0	-25.7
1943	364.7	366.3	.4	1.6
1944	149.0	89.9	-39.7	-59.1
1945	411.7	346.9	-15.7	-64.8
1946	440.4	402.2	-8.7	-38.2
1947	94.0	115.3	22.7	21.3
1948	683.7	632.1	-7.5	-51.6
1949	359.0	341.1	-5.0	-17.9
1950	674.4	646.9	-4.1	-27.5
1951	572.2	570.6	-.3	-1.6
1952	686.2	686.2	.0	.0
1953	426.6	364.9	-14.5	-61.7
1954	480.7	476.4	-.9	-4.3
1955	252.6	213.6	-15.4	-39.0
1956	524.1	498.7	-4.8	-25.4
1957	502.1	497.5	-.9	-4.6
1958	637.6	630.4	-1.1	-7.2
1959	365.8	366.2	.1	.4
1960	396.6	344.1	-13.2	-52.5
1961	196.4	179.2	-8.8	-17.2
1962	569.8	570.8	.2	1.0
1963	344.4	347.9	1.0	3.5
1964	104.7	87.0	-16.9	-17.7
1965	482.6	482.1	-.1	-.5
1966	456.5	419.8	-8.0	-36.7
1967	686.2	686.2	.0	.0
1968	375.5	376.5	.3	1.0
1969	579.0	562.0	-2.9	-17.0
1970	419.5	417.4	-.5	-2.1
1971	518.9	464.0	-10.6	-54.9
1972	465.5	466.1	.1	.6
1973	446.8	445.2	-.4	-1.6
1974	685.0	679.5	-.8	-5.5
1975	589.1	572.6	-2.8	-16.5
1976	92.9	87.3	-6.0	-5.6
1977	29.6	29.9	1.0	.3
1978	339.5	295.1	-13.1	-44.4
1979	395.9	295.3	-25.4	-100.6
1980	183.1	134.6	-26.5	-48.5
1981	91.8	103.9	13.2	12.1
1982	646.7	612.0	-5.4	-34.7
1983	686.2	686.2	.0	.0
1984	402.2	402.2	.0	.0
1985	46.7	34.4	-26.3	-12.3
1986	230.5	233.5	1.3	3.0
1987	36.5	35.0	-4.1	-1.5
1988	100.3	81.3	-18.9	-19.0
1989	272.4	216.4	-20.6	-56.0
1990	201.7	122.1	-39.5	-79.6
1991	25.3	22.4	-11.5	-2.9
Mean:	333.0	312.0	-7.5	-21.0
Median:	359.0	341.1	-4.8	-5.5
Min:	19.1	17.4	-39.7	-111.3
Max:	686.2	686.2	22.7	21.3
Alt-Base >= .0				18
Rel Dif >= .0%			18	
.0% > Rel Dif >= -1.0%			9	
-1.0% > Rel Dif >= -2.0%			2	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			5	
-5.0% > Rel Dif >= -6.0%			5	
Rel Dif < -6.0%			28	

BANKS PLUS TRACY EXPORTS

August

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	416.3	411.7	-1.1	-4.6
1923	476.6	475.6	-.2	-1.0
1924	97.2	100.8	3.7	3.6
1925	503.1	473.4	-5.9	-29.7
1926	186.4	189.8	1.8	3.4
1927	639.5	644.2	.7	4.7
1928	676.8	675.4	-.2	-1.4
1929	154.4	141.8	-8.2	-12.6
1930	295.5	296.7	.4	1.2
1931	62.3	55.4	-11.1	-6.9
1932	357.2	351.0	-1.7	-6.2
1933	76.1	60.2	-20.9	-15.9
1934	61.8	66.1	7.0	4.3
1935	441.3	440.2	-.2	-1.1
1936	441.3	441.7	.1	.4
1937	427.3	401.9	-5.9	-25.4
1938	602.9	585.6	-2.9	-17.3
1939	350.0	352.1	.6	2.1
1940	675.6	674.1	-.2	-1.5
1941	577.5	543.3	-5.9	-34.2
1942	564.9	548.6	-2.9	-16.3
1943	638.3	638.3	.0	.0
1944	542.4	471.9	-13.0	-70.5
1945	449.2	449.3	.0	.1
1946	476.7	477.1	.1	.4
1947	351.5	315.0	-10.4	-36.5
1948	653.7	644.0	-1.5	-9.7
1949	464.2	462.8	-.3	-1.4
1950	653.7	662.6	1.4	8.9
1951	684.5	683.8	-.1	-.7
1952	666.6	665.1	-.2	-1.5
1953	629.0	609.3	-3.1	-19.7
1954	684.1	683.8	.0	-.3
1955	428.7	392.3	-8.5	-36.4
1956	647.5	628.8	-2.9	-18.7
1957	684.1	683.8	.0	-.3
1958	684.8	685.2	.1	.4
1959	442.5	442.5	.0	.0
1960	482.4	481.0	-.3	-1.4
1961	370.9	356.1	-4.0	-14.8
1962	639.2	637.3	-.3	-1.9
1963	667.1	668.5	.2	1.4
1964	448.8	454.8	1.3	6.0
1965	684.5	684.5	.0	.0
1966	471.3	471.4	.0	.1
1967	685.2	685.2	.0	.0
1968	448.3	448.3	.0	.0
1969	657.2	639.7	-2.7	-17.5
1970	651.3	649.7	-.2	-1.6
1971	656.3	655.9	-.1	-.4
1972	633.1	636.3	.5	3.2
1973	682.8	681.2	-.2	-1.6
1974	684.1	684.1	.0	.0
1975	683.8	684.1	.0	.3
1976	597.4	561.4	-6.0	-36.0
1977	208.3	208.0	-.1	-.3
1978	415.8	419.6	.9	3.8
1979	434.4	433.3	-.3	-1.1
1980	511.1	514.2	.6	3.1
1981	622.0	613.4	-1.4	-8.6
1982	685.2	679.4	-.8	-5.8
1983	646.3	646.3	.0	.0
1984	640.3	640.3	.0	.0
1985	525.7	475.9	-9.5	-49.8
1986	631.3	631.3	.0	.0
1987	183.8	177.1	-3.6	-6.7
1988	241.2	228.9	-5.1	-12.3
1989	378.4	363.5	-3.9	-14.9
1990	366.1	343.0	-6.3	-23.1
1991	131.6	59.7	-54.6	-71.9
Mean:	494.7	486.3	-2.7	-8.5
Median:	511.1	477.1	-.2	-1.4
Min:	61.8	55.4	-54.6	-71.9
Max:	685.2	685.2	7.0	8.9
Alt-Base >= .0				27
Rel Dif >= .0%			29	
.0% > Rel Dif >= -1.0%			15	
-1.0% > Rel Dif >= -2.0%			4	
-2.0% > Rel Dif >= -3.0%			4	
-3.0% > Rel Dif >= -5.0%			4	
-5.0% > Rel Dif >= -6.0%			5	
Rel Dif < -6.0%			9	

BANKS PLUS TRACY EXPORTS

September

Water Year	Base Export (taf)	WFP Export (taf)	WFP Rel Change (%)	WFP Abs Diff (taf)
1922	580.6	567.9	-2.2	-12.7
1923	601.0	600.6	-.1	-.4
1924	244.1	250.5	2.6	6.4
1925	530.8	525.9	-.9	-4.9
1926	385.4	382.0	-.9	-3.4
1927	514.4	514.4	.0	.0
1928	552.8	552.2	-.1	-.6
1929	315.2	313.2	-.6	-2.0
1930	417.8	422.1	1.0	4.3
1931	226.9	185.1	-18.4	-41.8
1932	440.9	409.0	-7.2	-31.9
1933	214.6	199.0	-7.3	-15.6
1934	167.4	146.6	-12.4	-20.8
1935	559.6	559.2	-.1	-.4
1936	561.9	559.9	-.4	-2.0
1937	557.4	556.7	-.1	-.7
1938	658.6	658.6	.0	.0
1939	404.6	407.9	.8	3.3
1940	552.4	551.5	-.2	-.9
1941	658.6	658.6	.0	.0
1942	658.4	649.9	-1.3	-8.5
1943	509.6	509.6	.0	.0
1944	485.1	471.4	-2.8	-13.7
1945	573.4	573.6	.0	.2
1946	601.1	601.3	.0	.2
1947	470.1	446.6	-5.0	-23.5
1948	593.1	593.2	.0	.1
1949	510.8	510.0	-.2	-.8
1950	625.5	626.4	.1	.9
1951	632.3	624.0	-1.3	-8.3
1952	539.1	538.8	-.1	-.3
1953	657.7	657.9	.0	.2
1954	604.9	602.8	-.3	-2.1
1955	479.1	469.8	-1.9	-9.3
1956	658.6	658.6	.0	.0
1957	605.1	602.8	-.4	-2.3
1958	658.4	658.6	.0	.2
1959	570.1	570.2	.0	.1
1960	525.1	514.4	-2.0	-10.7
1961	432.2	424.9	-1.7	-7.3
1962	626.9	626.5	-.1	-.4
1963	623.7	609.4	-2.3	-14.3
1964	480.0	473.2	-1.4	-6.8
1965	614.8	605.9	-1.4	-8.9
1966	598.4	590.6	-1.3	-7.8
1967	658.0	658.0	.0	.0
1968	573.2	573.2	.0	.0
1969	658.6	658.6	.0	.0
1970	526.9	525.8	-.2	-1.1
1971	657.4	657.4	.0	.0
1972	626.8	627.5	.1	.7
1973	556.2	555.3	-.2	-.9
1974	658.0	658.0	.0	.0
1975	657.9	658.0	.0	.1
1976	426.0	425.0	-.2	-1.0
1977	145.0	145.8	.6	.8
1978	624.4	590.0	-5.5	-34.4
1979	561.1	560.7	-.1	-.4
1980	658.6	658.6	.0	.0
1981	519.8	518.7	-.2	-1.1
1982	658.6	658.6	.0	.0
1983	528.1	528.1	.0	.0
1984	516.1	516.1	.0	.0
1985	496.6	500.3	.7	3.7
1986	514.5	514.5	.0	.0
1987	386.1	397.1	2.8	11.0
1988	289.6	291.4	.6	1.8
1989	458.3	457.7	-.1	-.6
1990	366.2	367.2	.3	1.0
1991	247.1	227.7	-7.9	-19.4
Mean:	520.7	516.6	-1.1	-4.1
Median:	552.8	552.2	-.1	-.4
Min:	145.0	145.8	-18.4	-41.8
Max:	658.6	658.6	2.8	11.0
Alt-Base >= .0				32
Rel Dif >= .0%			32	
.0% > Rel Dif >= -1.0%			20	
-1.0% > Rel Dif >= -2.0%			8	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			5	

RETURN TO TABLE OF CONTENTS

Water Forum Proposal
Environmental Impact Report

TECHNICAL APPENDIX J
Base Condition versus 2030 with Water Forum Proposal

HOME

Section 1

FOLSOM RESERVOIR STORAGE

FOLSOM RESERVOIR STORAGE
October

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (taf)
1922	459.3	443.9	-3.4	-15.4
1923	575.0	562.6	-2.2	-12.4
1924	506.1	495.1	-2.2	-11.0
1925	273.1	266.1	-2.6	-7.0
1926	425.7	544.3	27.9	118.6
1927	356.9	335.0	-6.1	-21.9
1928	575.6	410.7	-28.6	-164.9
1929	393.7	319.0	-19.0	-74.7
1930	299.0	260.7	-12.8	-38.3
1931	413.6	374.3	-9.5	-39.3
1932	271.6	245.7	-9.5	-25.9
1933	565.1	544.1	-3.7	-21.0
1934	352.6	305.5	-13.4	-47.1
1935	264.7	267.5	1.1	2.8
1936	562.2	555.9	-1.1	-6.3
1937	568.8	555.4	-2.4	-13.4
1938	574.2	561.5	-2.2	-12.7
1939	578.3	564.1	-2.5	-14.2
1940	362.7	310.7	-14.3	-52.0
1941	404.4	378.2	-6.5	-26.2
1942	577.1	560.9	-2.8	-16.2
1943	575.0	559.8	-2.6	-15.2
1944	530.2	391.0	-26.3	-139.2
1945	278.2	363.3	30.6	85.1
1946	463.0	399.3	-13.8	-63.7
1947	432.5	376.6	-12.9	-55.9
1948	377.3	383.8	1.7	6.5
1949	521.1	447.7	-14.1	-73.4
1950	475.0	380.3	-19.9	-94.7
1951	603.0	591.3	-1.9	-11.7
1952	455.6	391.4	-14.1	-64.2
1953	593.5	577.5	-2.7	-16.0
1954	573.4	557.5	-2.8	-15.9
1955	398.0	367.4	-7.7	-30.6
1956	341.9	360.3	5.4	18.4
1957	591.3	578.4	-2.2	-12.9
1958	546.1	400.3	-26.7	-145.8
1959	570.3	554.3	-2.8	-16.0
1960	342.3	318.5	-7.0	-23.8
1961	331.3	362.9	9.5	31.6
1962	342.2	306.3	-10.5	-35.9
1963	650.0	650.0	.0	.0
1964	584.5	507.0	-13.3	-77.5
1965	317.9	401.9	26.4	84.0
1966	581.3	480.9	-17.3	-100.4
1967	353.1	319.8	-9.4	-33.3
1968	589.1	573.2	-2.7	-15.9
1969	432.7	354.9	-18.0	-77.8
1970	592.7	578.6	-2.4	-14.1
1971	397.9	373.1	-6.2	-24.8
1972	573.4	557.4	-2.8	-16.0
1973	374.6	348.8	-6.9	-25.8
1974	523.4	396.2	-24.3	-127.2
1975	579.6	566.6	-2.2	-13.0
1976	625.0	613.1	-1.9	-11.9
1977	265.3	250.2	-5.7	-15.1
1978	137.7	81.1	-41.1	-56.6
1979	559.0	450.3	-19.4	-108.7
1980	456.8	372.2	-18.5	-84.6
1981	573.4	457.3	-20.2	-116.1
1982	382.7	358.6	-6.3	-24.1
1983	650.0	650.0	.0	.0
1984	650.0	650.0	.0	.0
1985	532.3	425.1	-20.1	-107.2
1986	321.8	310.7	-3.4	-11.1
1987	497.8	420.6	-15.5	-77.2
1988	238.8	221.9	-7.1	-16.9
1989	258.6	250.3	-3.2	-8.3
1990	389.7	360.2	-7.6	-29.5
1991	249.5	243.9	-2.2	-5.6
Mean:	457.7	425.0	-7.0	-32.7
Median:	459.3	396.2	-6.1	-21.0
Min:	137.7	81.1	-41.1	-164.9
Max:	650.0	650.0	30.6	118.6
Littoral Habitat(ac)	88.0	-252.8	-387.3	-340.8

FOLSOM RESERVOIR STORAGE
November

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	384.8	361.4	-6.1	-23.4
1923	543.8	526.2	-3.2	-17.6
1924	422.2	401.6	-4.9	-20.6
1925	277.8	284.7	2.5	6.9
1926	362.0	473.0	30.7	111.0
1927	480.4	458.5	-4.6	-21.9
1928	575.0	422.7	-26.5	-152.3
1929	339.3	271.6	-20.0	-67.7
1930	242.1	213.7	-11.7	-28.4
1931	366.6	353.1	-3.7	-13.5
1932	256.8	229.7	-10.6	-27.1
1933	488.1	458.8	-6.0	-29.3
1934	316.6	264.5	-16.5	-52.1
1935	294.0	336.7	14.5	42.7
1936	504.3	490.4	-2.8	-13.9
1937	492.9	470.1	-4.6	-22.8
1938	528.6	509.8	-3.6	-18.8
1939	521.0	497.9	-4.4	-23.1
1940	317.9	274.9	-13.5	-43.0
1941	388.7	354.5	-8.8	-34.2
1942	531.5	507.3	-4.6	-24.2
1943	575.0	575.0	.0	.0
1944	464.1	331.0	-28.7	-133.1
1945	354.0	409.2	15.6	55.2
1946	507.0	468.5	-7.6	-38.5
1947	443.2	411.7	-7.1	-31.5
1948	355.0	356.7	.5	1.7
1949	459.9	377.7	-17.9	-82.2
1950	396.8	324.6	-18.2	-72.2
1951	396.0	396.0	.0	.0
1952	477.0	422.9	-11.3	-54.1
1953	543.3	519.7	-4.3	-23.6
1954	543.1	520.5	-4.2	-22.6
1955	350.6	330.3	-5.8	-20.3
1956	309.5	323.8	4.6	14.3
1957	533.0	508.5	-4.6	-24.5
1958	491.4	351.9	-28.4	-139.5
1959	512.0	486.3	-5.0	-25.7
1960	288.9	258.0	-10.7	-30.9
1961	313.0	327.7	4.7	14.7
1962	293.2	251.6	-14.2	-41.6
1963	575.0	575.0	.0	.0
1964	575.0	575.0	.0	.0
1965	335.4	401.2	19.6	65.8
1966	571.7	467.7	-18.2	-104.0
1967	372.3	338.1	-9.2	-34.2
1968	570.7	546.1	-4.3	-24.6
1969	437.2	385.2	-11.9	-52.0
1970	545.7	522.9	-4.2	-22.8
1971	496.9	470.5	-5.3	-26.4
1972	532.1	508.4	-4.5	-23.7
1973	419.5	390.0	-7.0	-29.5
1974	573.0	571.0	-.3	-2.0
1975	506.6	483.9	-4.5	-22.7
1976	575.0	575.0	.0	.0
1977	262.6	236.4	-10.0	-26.2
1978	152.6	86.9	-43.1	-65.7
1979	498.0	379.5	-23.8	-118.5
1980	424.3	374.8	-11.7	-49.5
1981	512.2	384.4	-25.0	-127.8
1982	557.0	553.0	-.7	-4.0
1983	574.0	574.0	.0	.0
1984	410.0	403.0	-1.7	-7.0
1985	575.0	516.7	-10.1	-58.3
1986	334.0	336.8	.8	2.8
1987	429.7	357.7	-16.8	-72.0
1988	219.1	182.1	-16.9	-37.0
1989	325.4	318.4	-2.2	-7.0
1990	384.9	347.9	-9.6	-37.0
1991	226.3	215.9	-4.6	-10.4
Mean:	431.6	402.7	-6.8	-28.9
Median:	437.2	396.0	-4.9	-24.2
Min:	152.6	86.9	-43.1	-152.3
Max:	575.0	575.0	30.7	111.0
Littoral Habitat(ac)	-183.0	-496.4	171.2	-313.3

FOLSOM RESERVOIR STORAGE
December

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	406.0	379.5	-6.5	-26.5
1923	575.0	575.0	.0	.0
1924	332.1	306.2	-7.8	-25.9
1925	300.4	322.7	7.4	22.3
1926	299.1	403.7	35.0	104.6
1927	547.9	520.7	-5.0	-27.2
1928	561.8	403.7	-28.1	-158.1
1929	288.7	229.7	-20.4	-59.0
1930	336.2	324.7	-3.4	-11.5
1931	278.8	290.9	4.3	12.1
1932	356.6	328.9	-7.8	-27.7
1933	403.9	368.4	-8.8	-35.5
1934	353.9	302.5	-14.5	-51.4
1935	308.2	382.7	24.2	74.5
1936	430.2	410.6	-4.6	-19.6
1937	411.8	384.8	-6.6	-27.0
1938	564.0	564.0	.0	.0
1939	453.5	421.7	-7.0	-31.8
1940	280.3	249.5	-11.0	-30.8
1941	560.3	522.3	-6.8	-38.0
1942	575.0	575.0	.0	.0
1943	574.0	574.0	.0	.0
1944	381.9	257.6	-32.5	-124.3
1945	418.1	437.2	4.6	19.1
1946	575.0	575.0	.0	.0
1947	429.3	422.1	-1.7	-7.2
1948	311.0	307.4	-1.2	-3.6
1949	413.5	327.6	-20.8	-85.9
1950	306.4	258.6	-15.6	-47.8
1951	318.0	319.0	.3	1.0
1952	575.0	575.0	.0	.0
1953	547.3	521.2	-4.8	-26.1
1954	499.5	470.6	-5.8	-28.9
1955	382.5	376.9	-1.5	-5.6
1956	547.0	547.0	.0	.0
1957	472.6	440.6	-6.8	-32.0
1958	481.6	353.8	-26.5	-127.8
1959	429.5	395.4	-7.9	-34.1
1960	236.7	187.3	-20.9	-49.4
1961	291.9	285.1	-2.3	-6.8
1962	274.4	228.7	-16.7	-45.7
1963	575.0	575.0	.0	.0
1964	496.3	538.1	8.4	41.8
1965	418.0	420.0	.5	2.0
1966	541.6	429.1	-20.8	-112.5
1967	563.3	523.3	-7.1	-40.0
1968	534.2	504.2	-5.6	-30.0
1969	471.3	444.2	-5.8	-27.1
1970	572.0	573.0	.2	1.0
1971	575.0	575.0	.0	.0
1972	557.2	529.1	-5.0	-28.1
1973	548.7	513.4	-6.4	-35.3
1974	566.0	564.0	-.4	-2.0
1975	465.5	435.3	-6.5	-30.2
1976	510.2	502.9	-1.4	-7.3
1977	229.8	193.0	-16.0	-36.8
1978	299.3	232.4	-22.4	-66.9
1979	426.9	299.7	-29.8	-127.2
1980	406.7	397.8	-2.2	-8.9
1981	447.9	312.4	-30.3	-135.5
1982	408.0	399.0	-2.2	-9.0
1983	570.0	570.0	.0	.0
1984	354.0	353.0	-.3	-1.0
1985	575.0	529.7	-7.9	-45.3
1986	408.4	421.5	3.2	13.1
1987	339.4	272.2	-19.8	-67.2
1988	268.3	231.2	-13.8	-37.1
1989	366.2	355.8	-2.8	-10.4
1990	349.0	303.8	-13.0	-45.2
1991	197.8	184.0	-7.0	-13.8
Mean:	430.4	404.4	-6.3	-26.0
Median:	418.1	399.0	-5.6	-26.5
Min:	197.8	184.0	-32.5	-158.1
Max:	575.0	575.0	35.0	104.6
Littoral Habitat(ac)	-195.4	-477.5	144.4	-282.1

FOLSOM RESERVOIR STORAGE
January

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (taf)
1922	408.7	372.8	-8.8	-35.9
1923	575.0	575.0	.0	.0
1924	256.7	224.8	-12.4	-31.9
1925	259.2	278.7	7.5	19.5
1926	240.0	338.6	41.1	98.6
1927	575.0	573.0	-.3	-2.0
1928	524.8	388.0	-26.1	-136.8
1929	242.8	187.8	-22.7	-55.0
1930	376.5	360.1	-4.4	-16.4
1931	235.5	264.3	12.2	28.8
1932	398.5	382.4	-4.0	-16.1
1933	345.3	306.2	-11.3	-39.1
1934	391.4	349.6	-10.7	-41.8
1935	372.4	427.2	14.7	54.8
1936	575.0	575.0	.0	.0
1937	357.1	325.1	-9.0	-32.0
1938	562.0	562.0	.0	.0
1939	382.6	360.8	-5.7	-21.8
1940	573.0	572.0	-.2	-1.0
1941	575.0	575.0	.0	.0
1942	564.0	566.0	.4	2.0
1943	557.0	557.0	.0	.0
1944	338.4	220.2	-34.9	-118.2
1945	402.3	401.2	-.3	-1.1
1946	566.0	566.0	.0	.0
1947	351.1	350.5	-.2	-.6
1948	354.8	348.6	-1.7	-6.2
1949	356.9	261.8	-26.6	-95.1
1950	496.8	469.7	-5.5	-27.1
1951	341.0	342.0	.3	1.0
1952	575.0	575.0	.0	.0
1953	573.0	574.0	.2	1.0
1954	496.6	460.6	-7.2	-36.0
1955	419.2	407.4	-2.8	-11.8
1956	392.0	392.0	.0	.0
1957	411.6	373.5	-9.3	-38.1
1958	522.8	402.3	-23.0	-120.5
1959	450.9	428.0	-5.1	-22.9
1960	238.0	176.6	-25.8	-61.4
1961	242.9	223.4	-8.0	-19.5
1962	254.1	203.9	-19.8	-50.2
1963	554.0	555.0	.2	1.0
1964	496.6	538.7	8.5	42.1
1965	370.0	368.0	-.5	-2.0
1966	520.7	415.4	-20.2	-105.3
1967	567.0	563.0	-.7	-4.0
1968	518.2	479.0	-7.6	-39.2
1969	554.0	554.0	.0	.0
1970	418.0	420.0	.5	2.0
1971	575.0	575.0	.0	.0
1972	525.9	487.6	-7.3	-38.3
1973	565.0	564.0	-.2	-1.0
1974	510.0	505.0	-1.0	-5.0
1975	433.9	396.5	-8.6	-37.4
1976	408.5	392.1	-4.0	-16.4
1977	214.9	169.8	-21.0	-45.1
1978	569.0	575.0	1.1	6.0
1979	467.0	348.9	-25.3	-118.1
1980	495.0	460.0	-7.1	-35.0
1981	419.0	292.6	-30.2	-126.4
1982	391.0	387.0	-1.0	-4.0
1983	561.0	561.0	.0	.0
1984	359.0	359.0	.0	.0
1985	505.3	453.8	-10.2	-51.5
1986	563.0	562.0	-.2	-1.0
1987	283.1	221.1	-21.9	-62.0
1988	364.2	322.7	-11.4	-41.5
1989	328.1	313.2	-4.5	-14.9
1990	341.0	293.0	-14.1	-48.0
1991	164.4	144.9	-11.9	-19.5
Mean:	431.0	408.2	-5.8	-22.8
Median:	418.0	392.1	-4.0	-14.9
Min:	164.4	144.9	-34.9	-136.8
Max:	575.0	575.0	41.1	98.6
Littoral Habitat(ac)	-188.9	-435.5	130.5	-246.6

FOLSOM RESERVOIR STORAGE
February

	Base	2030 w/ WFP		
Water Year	Storage (taf)	Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	575.0	575.0	.0	.0
1923	550.0	573.0	4.2	23.0
1924	256.2	218.6	-14.7	-37.6
1925	560.0	564.0	.7	4.0
1926	402.2	486.6	21.0	84.4
1927	563.0	560.0	-.5	-3.0
1928	541.6	396.5	-26.8	-145.1
1929	271.4	216.0	-20.4	-55.4
1930	393.7	373.5	-5.1	-20.2
1931	222.8	257.5	15.6	34.7
1932	575.0	570.6	-.8	-4.4
1933	304.3	257.7	-15.3	-46.6
1934	425.5	392.8	-7.7	-32.7
1935	407.4	457.8	12.4	50.4
1936	575.0	574.0	-.2	-1.0
1937	573.1	547.3	-4.5	-25.8
1938	559.0	559.0	.0	.0
1939	344.0	314.9	-8.5	-29.1
1940	560.0	560.0	.0	.0
1941	575.0	575.0	.0	.0
1942	555.0	557.0	.4	2.0
1943	546.0	546.0	.0	.0
1944	386.5	276.5	-28.5	-110.0
1945	566.0	566.0	.0	.0
1946	550.0	550.0	.0	.0
1947	392.3	382.8	-2.4	-9.5
1948	305.9	309.0	1.0	3.1
1949	337.3	256.3	-24.0	-81.0
1950	575.0	575.0	.0	.0
1951	353.0	354.0	.3	1.0
1952	575.0	575.0	.0	.0
1953	567.0	569.0	.4	2.0
1954	575.0	533.9	-7.1	-41.1
1955	403.5	386.7	-4.2	-16.8
1956	387.0	387.0	.0	.0
1957	550.1	506.0	-8.0	-44.1
1958	566.0	566.0	.0	.0
1959	524.7	493.8	-5.9	-30.9
1960	491.8	423.8	-13.8	-68.0
1961	273.5	246.9	-9.7	-26.6
1962	575.0	528.4	-8.1	-46.6
1963	473.0	475.0	.4	2.0
1964	475.9	514.6	8.1	38.7
1965	369.0	367.0	-.5	-2.0
1966	517.3	402.9	-22.1	-114.4
1967	556.0	553.0	-.5	-3.0
1968	558.0	558.0	.0	.0
1969	539.0	538.0	-.2	-1.0
1970	391.0	391.0	.0	.0
1971	567.0	568.0	.2	1.0
1972	575.0	540.9	-5.9	-34.1
1973	561.0	560.0	-.2	-1.0
1974	505.0	510.0	1.0	5.0
1975	562.0	519.6	-7.5	-42.4
1976	357.1	332.7	-6.8	-24.4
1977	201.4	154.1	-23.5	-47.3
1978	563.0	575.0	2.1	12.0
1979	560.3	446.9	-20.2	-113.4
1980	389.0	374.0	-3.9	-15.0
1981	416.3	304.0	-27.0	-112.3
1982	335.0	338.0	.9	3.0
1983	550.0	550.0	.0	.0
1984	363.0	362.0	-.3	-1.0
1985	522.5	465.7	-10.9	-56.8
1986	386.0	383.0	-.8	-3.0
1987	310.0	251.9	-18.7	-58.1
1988	324.7	292.7	-9.9	-32.0
1989	326.6	307.3	-5.9	-19.3
1990	335.5	300.5	-10.4	-35.0
1991	146.0	123.7	-15.3	-22.3
Mean:	457.5	438.3	-4.8	-19.2
Median:	505.0	465.7	-.5	-3.0
Min:	146.0	123.7	-28.5	-145.1
Max:	575.0	575.0	21.0	84.4
Littoral Habitat(ac)	85.9	-112.7	-231.2	-198.7

FOLSOM RESERVOIR STORAGE
March

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	604.9	595.4	-1.6	-9.5
1923	556.4	573.2	3.0	16.8
1924	213.4	180.9	-15.2	-32.5
1925	590.0	590.0	.0	.0
1926	409.7	485.8	18.6	76.1
1927	663.0	662.0	-.2	-1.0
1928	647.0	643.0	-.6	-4.0
1929	311.9	251.5	-19.4	-60.4
1930	547.3	521.0	-4.8	-26.3
1931	258.6	304.0	17.6	45.4
1932	640.0	626.1	-2.2	-13.9
1933	315.8	279.5	-11.5	-36.3
1934	485.7	462.0	-4.9	-23.7
1935	411.4	452.8	10.1	41.4
1936	670.0	670.0	.0	.0
1937	675.0	675.0	.0	.0
1938	670.0	670.0	.0	.0
1939	424.3	390.5	-8.0	-33.8
1940	618.0	626.0	1.3	8.0
1941	673.0	673.0	.0	.0
1942	531.8	523.5	-1.6	-8.3
1943	621.0	622.0	.2	1.0
1944	467.6	367.0	-21.5	-100.6
1945	626.8	617.7	-1.5	-9.1
1946	663.0	656.7	-1.0	-6.3
1947	518.0	503.3	-2.8	-14.7
1948	279.7	272.6	-2.5	-7.1
1949	510.0	421.5	-17.4	-88.5
1950	662.5	670.9	1.3	8.4
1951	587.0	587.0	.0	.0
1952	675.0	675.0	.0	.0
1953	564.8	557.7	-1.3	-7.1
1954	671.0	671.0	.0	.0
1955	401.9	377.2	-6.1	-24.7
1956	491.9	479.7	-2.5	-12.2
1957	665.0	665.0	.0	.0
1958	672.0	672.0	.0	.0
1959	563.0	526.2	-6.5	-36.8
1960	670.0	619.3	-7.6	-50.7
1961	315.9	298.5	-5.5	-17.4
1962	645.1	592.5	-8.2	-52.6
1963	493.2	486.0	-1.5	-7.2
1964	451.1	483.6	7.2	32.5
1965	456.3	444.1	-2.7	-12.2
1966	566.1	459.4	-18.8	-106.7
1967	647.0	647.0	.0	.0
1968	654.0	537.9	-17.8	-116.1
1969	604.7	594.5	-1.7	-10.2
1970	587.7	595.0	1.2	7.3
1971	660.0	660.0	.0	.0
1972	656.0	656.0	.0	.0
1973	671.0	671.0	.0	.0
1974	606.0	608.0	.3	2.0
1975	675.0	675.0	.0	.0
1976	341.7	317.6	-7.1	-24.1
1977	198.3	153.8	-22.4	-44.5
1978	662.0	662.0	.0	.0
1979	673.0	589.8	-12.4	-83.2
1980	605.0	597.0	-1.3	-8.0
1981	512.4	410.7	-19.8	-101.7
1982	581.0	581.0	.0	.0
1983	634.0	632.0	-.3	-2.0
1984	582.5	589.0	1.1	6.5
1985	551.1	503.8	-8.6	-47.3
1986	578.0	578.0	.0	.0
1987	398.6	348.1	-12.7	-50.5
1988	316.8	296.2	-6.5	-20.6
1989	640.0	663.0	3.6	23.0
1990	419.1	380.2	-9.3	-38.9
1991	281.0	273.3	-2.7	-7.7
Mean:	541.3	525.7	-3.3	-15.6
Median:	582.5	581.0	-1.3	-7.1
Min:	198.3	153.8	-22.4	-116.1
Max:	675.0	675.0	18.6	76.1
Littoral Habitat(ac)	885.3	744.3	-15.9	-141.0

FOLSOM RESERVOIR STORAGE
April

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	739.0	714.5	-3.3	-24.5
1923	800.0	800.0	.0	.0
1924	251.4	215.9	-14.1	-35.5
1925	800.0	800.0	.0	.0
1926	646.1	715.9	10.8	69.8
1927	800.0	800.0	.0	.0
1928	800.0	800.0	.0	.0
1929	370.9	347.6	-6.3	-23.3
1930	627.7	606.4	-3.4	-21.3
1931	305.2	347.5	13.9	42.3
1932	702.3	691.3	-1.6	-11.0
1933	358.9	326.8	-8.9	-32.1
1934	400.0	400.0	.0	.0
1935	800.0	800.0	.0	.0
1936	800.0	800.0	.0	.0
1937	800.0	800.0	.0	.0
1938	800.0	800.0	.0	.0
1939	512.7	499.1	-2.7	-13.6
1940	800.0	800.0	.0	.0
1941	800.0	800.0	.0	.0
1942	764.1	743.1	-2.7	-21.0
1943	800.0	800.0	.0	.0
1944	492.6	400.2	-18.8	-92.4
1945	741.8	718.2	-3.2	-23.6
1946	800.0	800.0	.0	.0
1947	573.4	549.7	-4.1	-23.7
1948	563.1	544.3	-3.3	-18.8
1949	702.4	599.7	-14.6	-102.7
1950	800.0	800.0	.0	.0
1951	800.0	800.0	.0	.0
1952	800.0	800.0	.0	.0
1953	689.9	685.1	-.7	-4.8
1954	800.0	800.0	.0	.0
1955	457.7	428.2	-6.4	-29.5
1956	619.7	593.8	-4.2	-25.9
1957	688.3	674.7	-2.0	-13.6
1958	800.0	800.0	.0	.0
1959	601.1	569.2	-5.3	-31.9
1960	756.0	696.5	-7.9	-59.5
1961	418.9	390.9	-6.7	-28.0
1962	800.0	800.0	.0	.0
1963	800.0	800.0	.0	.0
1964	510.9	532.2	4.2	21.3
1965	800.0	800.0	.0	.0
1966	708.1	604.6	-14.6	-103.5
1967	774.3	761.7	-1.6	-12.6
1968	698.9	570.2	-18.4	-128.7
1969	800.0	800.0	.0	.0
1970	637.5	647.7	1.6	10.2
1971	756.1	756.2	.0	.1
1972	722.9	712.0	-1.5	-10.9
1973	798.9	782.3	-2.1	-16.6
1974	800.0	800.0	.0	.0
1975	700.0	684.5	-2.2	-15.5
1976	390.5	364.5	-6.7	-26.0
1977	200.2	157.3	-21.4	-42.9
1978	800.0	800.0	.0	.0
1979	761.3	677.8	-11.0	-83.5
1980	786.0	777.1	-1.1	-8.9
1981	569.8	504.2	-11.5	-65.6
1982	800.0	800.0	.0	.0
1983	800.0	800.0	.0	.0
1984	725.8	721.4	-.6	-4.4
1985	700.8	657.5	-6.2	-43.3
1986	798.3	783.6	-1.8	-14.7
1987	490.7	431.6	-12.0	-59.1
1988	383.5	366.5	-4.4	-17.0
1989	800.0	800.0	.0	.0
1990	406.7	400.0	-1.6	-6.7
1991	377.3	375.0	-.6	-2.3
Mean:	666.9	650.4	-3.0	-16.5
Median:	739.0	714.5	-1.1	-6.7
Min:	200.2	157.3	-21.4	-128.7
Max:	800.0	800.0	13.9	69.8
Littoral Habitat(ac)	1913.8	1788.8	-6.5	-125.0

FOLSOM RESERVOIR STORAGE
May

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	975.0	975.0	.0	.0
1923	975.0	975.0	.0	.0
1924	284.3	250.4	-11.9	-33.9
1925	975.0	975.0	.0	.0
1926	586.1	643.2	9.7	57.1
1927	975.0	975.0	.0	.0
1928	890.5	869.0	-2.4	-21.5
1929	403.8	384.0	-4.9	-19.8
1930	600.2	582.0	-3.0	-18.2
1931	361.3	383.1	6.0	21.8
1932	881.5	858.2	-2.6	-23.3
1933	399.1	356.4	-10.7	-42.7
1934	422.6	415.6	-1.7	-7.0
1935	963.9	951.2	-1.3	-12.7
1936	957.2	938.1	-2.0	-19.1
1937	975.0	975.0	.0	.0
1938	975.0	975.0	.0	.0
1939	486.3	460.7	-5.3	-25.6
1940	946.7	934.7	-1.3	-12.0
1941	975.0	975.0	.0	.0
1942	975.0	975.0	.0	.0
1943	904.4	882.2	-2.5	-22.2
1944	561.9	471.8	-16.0	-90.1
1945	924.3	881.1	-4.7	-43.2
1946	975.0	956.8	-1.9	-18.2
1947	533.5	507.4	-4.9	-26.1
1948	755.3	716.4	-5.2	-38.9
1949	855.5	764.4	-10.6	-91.1
1950	971.5	951.1	-2.1	-20.4
1951	969.8	964.9	-.5	-4.9
1952	975.0	975.0	.0	.0
1953	794.8	768.0	-3.4	-26.8
1954	850.2	835.6	-1.7	-14.6
1955	544.2	517.8	-4.9	-26.4
1956	950.5	906.6	-4.6	-43.9
1957	894.3	881.0	-1.5	-13.3
1958	975.0	975.0	.0	.0
1959	542.8	513.8	-5.3	-29.0
1960	747.8	675.2	-9.7	-72.6
1961	470.4	431.6	-8.2	-38.8
1962	864.5	843.7	-2.4	-20.8
1963	975.0	975.0	.0	.0
1964	573.5	583.1	1.7	9.6
1965	957.5	951.7	-.6	-5.8
1966	675.3	556.4	-17.6	-118.9
1967	975.0	975.0	.0	.0
1968	667.2	523.3	-21.6	-143.9
1969	975.0	975.0	.0	.0
1970	702.7	713.4	1.5	10.7
1971	909.9	888.8	-2.3	-21.1
1972	789.3	778.2	-1.4	-11.1
1973	975.0	975.0	.0	.0
1974	975.0	975.0	.0	.0
1975	963.4	926.9	-3.8	-36.5
1976	420.0	420.3	.1	.3
1977	207.7	164.2	-20.9	-43.5
1978	975.0	954.8	-2.1	-20.2
1979	975.0	904.1	-7.3	-70.9
1980	907.7	890.6	-1.9	-17.1
1981	530.5	482.6	-9.0	-47.9
1982	975.0	975.0	.0	.0
1983	975.0	975.0	.0	.0
1984	875.8	873.1	-.3	-2.7
1985	671.4	629.3	-6.3	-42.1
1986	905.3	869.6	-3.9	-35.7
1987	465.8	448.7	-3.7	-17.1
1988	412.3	389.9	-5.4	-22.4
1989	823.6	820.7	-.4	-2.9
1990	381.9	382.8	.2	.9
1991	430.5	415.4	-3.5	-15.1
Mean:	772.7	752.0	-3.3	-20.7
Median:	881.5	869.0	-2.0	-17.1
Min:	207.7	164.2	-21.6	-143.9
Max:	975.0	975.0	9.7	57.1
Littoral Habitat(ac)	2652.4	2515.9	-5.1	-136.6

FOLSOM RESERVOIR STORAGE
June

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	975.0	975.0	.0	.0
1923	863.0	877.4	1.7	14.4
1924	302.2	265.9	-12.0	-36.3
1925	770.5	797.3	3.5	26.8
1926	512.1	534.7	4.4	22.6
1927	975.0	975.0	.0	.0
1928	600.0	659.6	9.9	59.6
1929	365.4	343.2	-6.1	-22.2
1930	549.7	530.1	-3.6	-19.6
1931	363.0	404.0	11.3	41.0
1932	872.4	829.2	-5.0	-43.2
1933	419.4	380.4	-9.3	-39.0
1934	350.0	340.0	-2.9	-10.0
1935	975.0	958.1	-1.7	-16.9
1936	975.0	975.0	.0	.0
1937	908.8	890.9	-2.0	-17.9
1938	975.0	975.0	.0	.0
1939	472.0	454.1	-3.8	-17.9
1940	858.8	843.2	-1.8	-15.6
1941	945.1	934.8	-1.1	-10.3
1942	975.0	975.0	.0	.0
1943	893.1	845.6	-5.3	-47.5
1944	535.4	458.0	-14.5	-77.4
1945	730.9	737.2	.9	6.3
1946	719.7	740.7	2.9	21.0
1947	498.2	471.4	-5.4	-26.8
1948	856.7	804.8	-6.1	-51.9
1949	776.4	693.8	-10.6	-82.6
1950	975.0	952.6	-2.3	-22.4
1951	888.9	858.8	-3.4	-30.1
1952	975.0	975.0	.0	.0
1953	939.5	902.7	-3.9	-36.8
1954	751.7	676.9	-10.0	-74.8
1955	526.0	499.1	-5.1	-26.9
1956	975.0	975.0	.0	.0
1957	843.4	788.3	-6.5	-55.1
1958	975.0	975.0	.0	.0
1959	510.7	480.9	-5.8	-29.8
1960	685.5	596.6	-13.0	-88.9
1961	498.8	452.5	-9.3	-46.3
1962	835.6	782.0	-6.4	-53.6
1963	968.7	942.7	-2.7	-26.0
1964	554.2	547.1	-1.3	-7.1
1965	963.5	931.5	-3.3	-32.0
1966	590.8	484.0	-18.1	-106.8
1967	975.0	975.0	.0	.0
1968	585.0	467.1	-20.2	-117.9
1969	975.0	975.0	.0	.0
1970	618.6	631.7	2.1	13.1
1971	975.0	945.1	-3.1	-29.9
1972	600.0	580.0	-3.3	-20.0
1973	758.8	689.1	-9.2	-69.7
1974	975.0	975.0	.0	.0
1975	975.0	975.0	.0	.0
1976	350.0	340.0	-2.9	-10.0
1977	190.9	150.0	-21.4	-40.9
1978	975.0	950.6	-2.5	-24.4
1979	690.3	594.0	-14.0	-96.3
1980	891.9	863.5	-3.2	-28.4
1981	479.1	460.7	-3.8	-18.4
1982	975.0	975.0	.0	.0
1983	975.0	975.0	.0	.0
1984	739.0	774.5	4.8	35.5
1985	546.8	514.6	-5.9	-32.2
1986	902.6	858.0	-4.9	-44.6
1987	466.5	432.4	-7.3	-34.1
1988	350.0	340.0	-2.9	-10.0
1989	671.8	663.9	-1.2	-7.9
1990	350.0	340.0	-2.9	-10.0
1991	388.8	368.3	-5.3	-20.5
Mean:	726.4	704.3	-3.6	-22.1
Median:	758.8	740.7	-2.9	-19.6
Min:	190.9	150.0	-21.4	-117.9
Max:	975.0	975.0	11.3	59.6
Littoral Habitat(ac)	2342.3	2187.3	-6.6	-155.0

FOLSOM RESERVOIR STORAGE
July

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	881.0	897.8	1.9	16.8
1923	662.1	828.2	25.1	166.1
1924	300.0	276.8	-7.7	-23.2
1925	642.0	739.8	15.2	97.8
1926	392.8	400.3	1.9	7.5
1927	927.8	690.6	-25.6	-237.2
1928	556.8	587.6	5.5	30.8
1929	316.3	290.0	-8.3	-26.3
1930	443.5	415.8	-6.2	-27.7
1931	300.0	289.2	-3.6	-10.8
1932	836.9	760.4	-9.1	-76.5
1933	348.4	308.3	-11.5	-40.1
1934	300.0	279.5	-6.8	-20.5
1935	801.5	886.8	10.6	85.3
1936	877.4	857.2	-2.3	-20.2
1937	866.8	828.2	-4.5	-38.6
1938	950.0	950.0	.0	.0
1939	396.4	375.0	-5.4	-21.4
1940	600.0	590.0	-1.7	-10.0
1941	950.0	917.6	-3.4	-32.4
1942	950.0	950.0	.0	.0
1943	691.6	600.0	-13.2	-91.6
1944	483.0	431.8	-10.6	-51.2
1945	600.0	580.0	-3.3	-20.0
1946	600.0	580.0	-3.3	-20.0
1947	424.5	407.8	-3.9	-16.7
1948	769.5	771.1	.2	1.6
1949	645.2	572.5	-11.3	-72.7
1950	792.0	857.6	8.3	65.6
1951	602.2	590.0	-2.0	-12.2
1952	950.0	950.0	.0	.0
1953	950.0	947.5	-.3	-2.5
1954	600.0	590.0	-1.7	-10.0
1955	496.4	471.4	-5.0	-25.0
1956	950.0	950.0	.0	.0
1957	661.4	590.0	-10.8	-71.4
1958	950.0	950.0	.0	.0
1959	503.1	461.8	-8.2	-41.3
1960	541.7	526.2	-2.9	-15.5
1961	498.0	428.1	-14.0	-69.9
1962	600.0	580.0	-3.3	-20.0
1963	950.0	684.3	-28.0	-265.7
1964	477.7	462.7	-3.1	-15.0
1965	780.4	667.6	-14.5	-112.8
1966	529.6	455.6	-14.0	-74.0
1967	950.0	950.0	.0	.0
1968	527.7	436.6	-17.3	-91.1
1969	950.0	950.0	.0	.0
1970	600.0	600.0	.0	.0
1971	950.0	950.0	.0	.0
1972	575.6	537.6	-6.6	-38.0
1973	600.0	590.0	-1.7	-10.0
1974	950.0	950.0	.0	.0
1975	950.0	950.0	.0	.0
1976	300.0	290.0	-3.3	-10.0
1977	162.1	123.4	-23.9	-38.7
1978	742.1	718.0	-3.2	-24.1
1979	600.0	572.0	-4.7	-28.0
1980	833.8	764.0	-8.4	-69.8
1981	485.6	443.1	-8.8	-42.5
1982	950.0	950.0	.0	.0
1983	956.4	950.0	-.7	-6.4
1984	600.0	600.0	.0	.0
1985	447.5	419.6	-6.2	-27.9
1986	686.6	638.3	-7.0	-48.3
1987	380.2	375.0	-1.4	-5.2
1988	300.0	290.0	-3.3	-10.0
1989	511.1	522.4	2.2	11.3
1990	300.0	290.0	-3.3	-10.0
1991	337.7	294.7	-12.7	-43.0
Mean:	642.7	619.7	-4.2	-23.0
Median:	600.0	590.0	-3.3	-16.7
Min:	162.1	123.4	-28.0	-265.7
Max:	956.4	950.0	25.1	166.1
Littoral Habitat(ac)	1730.0	1548.7	-10.5	-181.3

FOLSOM RESERVOIR STORAGE
August

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	800.0	794.7	-.7	-5.3
1923	609.7	629.7	3.3	20.0
1924	314.0	284.3	-9.5	-29.7
1925	517.0	711.2	37.6	194.2
1926	411.3	400.3	-2.7	-11.0
1927	800.0	543.9	-32.0	-256.1
1928	450.0	400.0	-11.1	-50.0
1929	363.2	315.2	-13.2	-48.0
1930	483.0	437.4	-9.4	-45.6
1931	317.1	289.2	-8.8	-27.9
1932	800.0	725.9	-9.3	-74.1
1933	403.2	360.2	-10.7	-43.0
1934	294.9	251.0	-14.9	-43.9
1935	715.0	717.4	.3	2.4
1936	796.2	800.0	.5	3.8
1937	800.0	784.0	-2.0	-16.0
1938	800.0	800.0	.0	.0
1939	407.1	361.6	-11.2	-45.5
1940	459.2	466.9	1.7	7.7
1941	800.0	800.0	.0	.0
1942	800.0	800.0	.0	.0
1943	644.1	497.1	-22.8	-147.0
1944	343.2	458.0	33.4	114.8
1945	576.7	510.4	-11.5	-66.3
1946	575.3	512.9	-10.8	-62.4
1947	437.0	435.4	-.4	-1.6
1948	680.5	665.9	-2.1	-14.6
1949	591.5	468.1	-20.9	-123.4
1950	713.2	765.6	7.3	52.4
1951	506.9	474.7	-6.4	-32.2
1952	800.1	800.0	.0	-.1
1953	800.0	800.0	.0	.0
1954	487.5	427.1	-12.4	-60.4
1955	392.1	437.1	11.5	45.0
1956	800.0	800.0	.0	.0
1957	660.9	507.8	-23.2	-153.1
1958	800.0	800.0	.0	.0
1959	400.0	400.0	.0	.0
1960	418.8	453.0	8.2	34.2
1961	432.1	403.6	-6.6	-28.5
1962	404.4	476.8	17.9	72.4
1963	800.0	645.8	-19.3	-154.2
1964	365.6	483.6	32.3	118.0
1965	787.9	610.7	-22.5	-177.2
1966	418.6	400.0	-4.4	-18.6
1967	800.0	800.0	.0	.0
1968	542.8	400.0	-26.3	-142.8
1969	800.0	800.0	.0	.0
1970	450.0	450.0	.0	.0
1971	800.0	800.0	.0	.0
1972	400.0	400.0	.0	.0
1973	597.2	429.9	-28.0	-167.3
1974	800.0	800.0	.0	.0
1975	800.0	800.0	.0	.0
1976	250.0	259.0	3.6	9.0
1977	143.3	105.0	-26.7	-38.3
1978	735.3	584.7	-20.5	-150.6
1979	553.2	451.1	-18.5	-102.1
1980	800.0	598.2	-25.2	-201.8
1981	436.6	428.6	-1.8	-8.0
1982	800.0	800.0	.0	.0
1983	828.5	800.0	-3.4	-28.5
1984	613.9	500.4	-18.5	-113.5
1985	337.5	334.0	-1.0	-3.5
1986	557.7	502.6	-9.9	-55.1
1987	295.7	291.5	-1.4	-4.2
1988	250.0	256.3	2.5	6.3
1989	380.7	375.5	-1.4	-5.2
1990	250.0	259.0	3.6	9.0
1991	321.2	321.1	.0	-.1
Mean:	564.6	535.0	-4.5	-29.5
Median:	553.2	476.8	-1.4	-5.3
Min:	143.3	105.0	-32.0	-256.1
Max:	828.5	800.0	37.6	194.2
Littoral Habitat(ac)	1090.2	829.1	-24.0	-261.1

FOLSOM RESERVOIR STORAGE
September

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	650.0	650.0	.0	.0
1923	586.2	586.6	.1	.4
1924	290.3	272.7	-6.1	-17.6
1925	501.1	631.4	26.0	130.3
1926	397.6	383.4	-3.6	-14.2
1927	650.0	500.0	-23.1	-150.0
1928	449.7	375.7	-16.5	-74.0
1929	350.7	303.4	-13.5	-47.3
1930	483.7	423.3	-12.5	-60.4
1931	295.1	275.2	-6.7	-19.9
1932	650.0	642.1	-1.2	-7.9
1933	393.6	350.6	-10.9	-43.0
1934	281.0	251.6	-10.5	-29.4
1935	632.1	636.8	.7	4.7
1936	650.0	650.0	.0	.0
1937	650.0	650.0	.0	.0
1938	650.0	650.0	.0	.0
1939	395.4	336.4	-14.9	-59.0
1940	450.0	439.1	-2.4	-10.9
1941	650.0	650.0	.0	.0
1942	650.0	650.0	.0	.0
1943	607.5	466.6	-23.2	-140.9
1944	306.4	429.7	40.2	123.3
1945	521.0	437.9	-16.0	-83.1
1946	492.3	420.0	-14.7	-72.3
1947	384.4	396.9	3.3	12.5
1948	600.3	543.0	-9.5	-57.3
1949	557.0	443.9	-20.3	-113.1
1950	650.0	650.0	.0	.0
1951	496.6	430.0	-13.4	-66.6
1952	650.0	650.0	.0	.0
1953	650.0	650.0	.0	.0
1954	450.0	413.9	-8.0	-36.1
1955	388.3	417.7	7.6	29.4
1956	650.0	650.0	.0	.0
1957	614.9	467.5	-24.0	-147.4
1958	650.0	650.0	.0	.0
1959	393.6	380.0	-3.5	-13.6
1960	375.5	429.4	14.4	53.9
1961	398.1	371.8	-6.6	-26.3
1962	397.9	412.6	3.7	14.7
1963	650.0	585.6	-9.9	-64.4
1964	352.4	461.1	30.8	108.7
1965	650.0	565.5	-13.0	-84.5
1966	400.0	376.7	-5.8	-23.3
1967	650.0	650.0	.0	.0
1968	494.5	392.7	-20.6	-101.8
1969	650.0	650.0	.0	.0
1970	450.7	433.8	-3.7	-16.9
1971	650.0	650.0	.0	.0
1972	398.8	383.9	-3.7	-14.9
1973	583.2	422.6	-27.5	-160.6
1974	650.0	650.0	.0	.0
1975	650.0	650.0	.0	.0
1976	254.6	254.1	-.2	-.5
1977	133.6	89.8	-32.8	-43.8
1978	650.0	555.4	-14.6	-94.6
1979	518.2	400.0	-22.8	-118.2
1980	650.0	549.9	-15.4	-100.1
1981	406.0	388.6	-4.3	-17.4
1982	650.0	650.0	.0	.0
1983	697.4	650.6	-6.7	-46.8
1984	591.5	476.4	-19.5	-115.1
1985	356.3	339.5	-4.7	-16.8
1986	562.1	485.4	-13.6	-76.7
1987	287.3	298.3	3.8	11.0
1988	267.8	266.5	-.5	-1.3
1989	404.8	385.4	-4.8	-19.4
1990	270.7	272.6	.7	1.9
1991	315.4	300.9	-4.6	-14.5
Mean:	502.7	475.1	-5.1	-27.6
Median:	501.1	437.9	-3.7	-14.9
Min:	133.6	89.8	-32.8	-160.6
Max:	697.4	650.6	40.2	130.3
Littoral Habitat(ac)	529.2	262.0	-50.5	-267.2

RETURN TO TABLE OF CONTENTS

Section 2

FOLSOM RESERVOIR ELEVATION
2.1 Recreation and Fisheries

FOLSOM RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	407.5	.0	405.5	.0	-.5	-2.0
1923	421.3	-8.1	419.9	-9.5	-.3	-1.4
1924	413.3	-9.2	411.9	-10.7	-.3	-1.4
1925	379.1	-3.1	377.8	-1.2	-.3	-1.3
1926	403.0	-9.7	417.8	-9.7	3.7	14.8
1927	393.2	-6.0	389.8	-7.3	-.9	-3.4
1928	421.4	-8.0	401.0	-11.5	-4.8	-20.4
1929	398.6	-7.6	387.2	-8.8	-2.9	-11.4
1930	383.8	-8.4	376.7	-7.8	-1.8	-7.1
1931	401.4	-9.1	395.8	-6.9	-1.4	-5.6
1932	378.8	-4.3	373.7	-5.8	-1.3	-5.1
1933	420.2	-9.2	417.8	-10.8	-.6	-2.4
1934	392.5	-6.1	384.9	-7.3	-1.9	-7.6
1935	377.5	-3.0	378.0	3.1	.1	.5
1936	419.8	-7.7	419.1	-8.9	-.2	-.7
1937	420.6	-8.8	419.1	-10.3	-.4	-1.5
1938	421.2	-8.2	419.8	-9.6	-.3	-1.4
1939	421.7	-7.7	420.1	-9.3	-.4	-1.6
1940	394.1	-4.7	385.8	-4.2	-2.1	-8.3
1941	400.1	-6.1	396.4	-8.4	-.9	-3.7
1942	421.5	-7.9	419.7	-9.7	-.4	-1.8
1943	421.3	-8.1	419.6	-9.8	-.4	-1.7
1944	416.1	-8.8	398.2	-10.2	-4.3	-17.9
1945	380.0	-5.0	394.2	-9.4	3.7	14.2
1946	407.9	-7.2	399.4	-5.3	-2.1	-8.5
1947	403.9	-7.7	396.1	-6.2	-1.9	-7.8
1948	396.2	-1.1	397.2	-1.9	.3	1.0
1949	415.1	-9.0	406.0	-11.6	-2.2	-9.1
1950	409.4	-9.8	396.7	-8.7	-3.1	-12.7
1951	424.4	-5.0	423.1	-6.3	-.3	-1.3
1952	407.0	-5.1	398.3	-5.3	-2.1	-8.7
1953	423.3	-6.1	421.6	-7.8	-.4	-1.7
1954	421.1	-8.3	419.3	-10.1	-.4	-1.8
1955	399.2	-7.0	394.8	-6.6	-1.1	-4.4
1956	390.9	-6.9	393.7	-8.3	.7	2.8
1957	423.1	-6.3	421.7	-7.7	-.3	-1.4
1958	418.0	-7.7	399.5	-9.0	-4.4	-18.5
1959	420.8	-8.6	418.9	-10.5	-.5	-1.9
1960	390.9	-7.7	387.1	-9.5	-1.0	-3.8
1961	389.2	-6.8	394.1	-9.4	1.3	4.9
1962	390.9	-8.3	385.0	-10.4	-1.5	-5.9
1963	429.4	30.2	429.4	28.2	.0	.0
1964	422.3	-7.1	413.4	-9.1	-2.1	-8.9
1965	387.0	-5.5	399.8	-7.9	3.3	12.8
1966	422.0	-7.4	410.2	-10.0	-2.8	-11.8
1967	392.6	-6.9	387.3	-8.9	-1.3	-5.3
1968	422.9	-6.5	421.1	-8.3	-.4	-1.8
1969	404.0	-7.9	392.9	-5.6	-2.7	-11.1
1970	423.3	-6.1	421.7	-7.7	-.4	-1.6
1971	399.2	-7.1	395.6	-8.5	-.9	-3.6
1972	421.1	-8.3	419.3	-10.1	-.4	-1.8
1973	395.8	-3.5	391.9	-5.3	-1.0	-3.9
1974	415.3	-6.9	399.0	-3.6	-3.9	-16.3
1975	421.8	-7.6	420.3	-9.1	-.4	-1.5
1976	426.8	-2.6	425.5	-3.9	-.3	-1.3
1977	377.6	2.1	374.6	-.8	-.8	-3.0
1978	345.9	1.4	322.1	-4.5	-6.9	-23.8
1979	419.5	-9.9	406.3	-12.8	-3.1	-13.2
1980	407.1	-7.6	395.5	-4.0	-2.8	-11.6
1981	421.1	-8.3	407.2	-11.2	-3.3	-13.9
1982	397.0	-3.3	393.4	-4.5	-.9	-3.6
1983	429.4	.0	429.4	.0	.0	.0
1984	429.4	-4.9	429.4	-.1	.0	.0
1985	416.4	-6.7	403.0	-6.6	-3.2	-13.4
1986	387.6	-5.5	385.8	-4.7	-.5	-1.8
1987	412.3	-7.5	402.3	-8.4	-2.4	-10.0
1988	372.3	-9.4	368.7	-14.9	-1.0	-3.6
1989	376.3	-1.8	374.7	-3.1	-.4	-1.6
1990	398.0	-2.2	393.7	-3.7	-1.1	-4.3
1991	374.5	-4.1	373.4	-5.6	-.3	-1.1
Mean:	405.5	-5.8	401.0	-6.8	-1.1	-4.5
Median:	407.5	-7.1	399.0	-8.3	-.9	-3.4
Min:	345.9	-9.9	322.1	-14.9	-6.9	-23.8
Max:	429.4	30.2	429.4	28.2	3.7	14.8
X < 360.0	1		1			
X < 375.0	3		6			
X < 395.0	20		25			
X < 405.0	32		41			
X < 420.0	46		59			
X inc > 20.0		1		1		
X dec > 9.0		7		25		
X dec > 10.0		0		13		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	397.3	.0	393.9	.0	-.9	-3.4
1923	417.7	-3.6	415.7	-4.2	-.5	-2.0
1924	402.6	-10.7	399.7	-12.2	-.7	-2.9
1925	380.0	.9	381.2	3.4	.3	1.2
1926	394.0	-9.0	409.2	-8.6	3.9	15.2
1927	410.1	16.9	407.3	17.5	-.7	-2.8
1928	421.3	-.1	402.6	1.6	-4.4	-18.7
1929	390.4	-8.2	378.8	-8.4	-3.0	-11.6
1930	373.0	-10.8	366.8	-9.9	-1.7	-6.2
1931	394.6	-6.8	392.6	-3.2	-.5	-2.0
1932	376.0	-2.8	370.4	-3.3	-1.5	-5.6
1933	411.1	-9.1	407.4	-10.4	-.9	-3.7
1934	386.8	-5.7	377.4	-7.5	-2.4	-9.4
1935	382.9	5.4	390.0	12.0	1.9	7.1
1936	413.1	-6.7	411.4	-7.7	-.4	-1.7
1937	411.7	-8.9	408.8	-10.3	-.7	-2.9
1938	416.0	-5.2	413.7	-6.1	-.6	-2.3
1939	415.1	-6.6	412.3	-7.8	-.7	-2.8
1940	387.0	-7.1	379.4	-6.4	-2.0	-7.6
1941	397.9	-2.2	392.8	-3.6	-1.3	-5.1
1942	416.3	-5.2	413.4	-6.3	-.7	-2.9
1943	421.3	.0	421.3	1.7	.0	.0
1944	408.1	-8.0	389.1	-9.1	-4.7	-19.0
1945	392.7	12.7	400.8	6.6	2.1	8.1
1946	413.4	5.5	408.6	9.2	-1.2	-4.8
1947	405.4	1.5	401.1	5.0	-1.1	-4.3
1948	392.9	-3.3	393.1	-4.1	.1	.2
1949	407.5	-7.6	396.3	-9.7	-2.7	-11.2
1950	399.0	-10.4	388.1	-8.6	-2.7	-10.9
1951	398.9	-25.5	398.9	-24.2	.0	.0
1952	409.7	2.7	402.7	4.4	-1.7	-7.0
1953	417.7	-5.6	414.9	-6.7	-.7	-2.8
1954	417.6	-3.5	415.0	-4.3	-.6	-2.6
1955	392.2	-7.0	389.0	-5.8	-.8	-3.2
1956	385.6	-5.3	388.0	-5.7	.6	2.4
1957	416.5	-6.6	413.6	-8.1	-.7	-2.9
1958	411.5	-6.5	392.4	-7.1	-4.6	-19.1
1959	414.0	-6.8	410.9	-8.0	-.7	-3.1
1960	382.0	-8.9	376.2	-10.9	-1.5	-5.8
1961	386.2	-3.0	388.6	-5.5	.6	2.4
1962	382.7	-8.2	374.9	-10.1	-2.0	-7.8
1963	421.3	-8.1	421.3	-8.1	.0	.0
1964	421.3	-1.0	421.3	7.9	.0	.0
1965	389.8	2.8	399.7	-.1	2.5	9.9
1966	420.9	-1.1	408.5	-1.7	-2.9	-12.4
1967	395.5	2.9	390.3	3.0	-1.3	-5.2
1968	420.8	-2.1	418.0	-3.1	-.7	-2.8
1969	404.6	.6	397.4	4.5	-1.8	-7.2
1970	418.0	-5.3	415.3	-6.4	-.6	-2.7
1971	412.2	13.0	408.9	13.3	-.8	-3.3
1972	416.4	-4.7	413.6	-5.7	-.7	-2.8
1973	402.2	6.4	398.1	6.2	-1.0	-4.1
1974	421.1	5.8	420.8	21.8	-.1	-.3
1975	413.3	-8.5	410.6	-9.7	-.7	-2.7
1976	421.3	-5.5	421.3	-4.2	.0	.0
1977	377.1	-.5	371.8	-2.8	-1.4	-5.3
1978	350.7	4.8	325.1	3.0	-7.3	-25.6
1979	412.3	-7.2	396.6	-9.7	-3.8	-15.7
1980	402.8	-4.3	395.9	.4	-1.7	-6.9
1981	414.0	-7.1	397.3	-9.9	-4.0	-16.7
1982	419.2	22.2	418.8	25.4	-.1	-.4
1983	421.2	-8.2	421.2	-8.2	.0	.0
1984	400.9	-28.5	399.9	-29.5	-.2	-1.0
1985	421.3	4.9	414.5	11.5	-1.6	-6.8
1986	389.6	2.0	390.0	4.2	.1	.4
1987	403.6	-8.7	393.3	-9.0	-2.6	-10.3
1988	368.0	-4.3	359.1	-9.6	-2.4	-8.9
1989	388.2	11.9	387.1	12.4	-.3	-1.1
1990	397.3	-.7	391.8	-1.9	-1.4	-5.5
1991	369.6	-4.9	367.3	-6.1	-.6	-2.3
Mean:	402.3	-3.0	398.0	-2.8	-1.1	-4.3
Median:	404.6	-4.9	398.9	-5.7	-.7	-2.9
Min:	350.7	-28.5	325.1	-29.5	-7.3	-25.6
Max:	421.3	22.2	421.3	25.4	3.9	15.2
X < 360.0	1		2			
X < 375.0	4		7			
X < 395.0	23		28			
X < 405.0	35		42			
X < 420.0	60		64			
X inc > 20.0		1		2		
X dec > 9.0		6		14		
X dec > 10.0		5		7		
X dec > 15.0		2		2		

FOLSOM RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	400.3	.0	396.6	.0	-.9	-3.7
1923	421.3	3.6	421.3	5.6	.0	.0
1924	389.3	-13.3	385.0	-14.7	-1.1	-4.3
1925	384.0	4.0	387.8	6.6	1.0	3.8
1926	383.8	-10.2	400.0	-9.2	4.2	16.2
1927	418.2	8.1	415.0	7.7	-.8	-3.2
1928	419.8	-1.5	400.0	-2.6	-4.7	-19.8
1929	381.9	-8.5	370.4	-8.4	-3.0	-11.5
1930	390.0	17.0	388.1	21.3	-.5	-1.9
1931	380.1	-14.5	382.3	-10.3	.6	2.2
1932	393.1	17.1	388.8	18.4	-1.1	-4.3
1933	400.0	-11.1	394.9	-12.5	-1.3	-5.1
1934	392.7	5.9	384.4	7.0	-2.1	-8.3
1935	385.3	2.4	397.0	7.0	3.0	11.7
1936	403.6	-9.5	401.0	-10.4	-.6	-2.6
1937	401.1	-10.6	397.3	-11.5	-.9	-3.8
1938	420.0	4.0	420.0	6.3	.0	.0
1939	406.7	-8.4	402.5	-9.8	-1.0	-4.2
1940	380.4	-6.6	374.5	-4.9	-1.6	-5.9
1941	419.6	21.7	415.2	22.4	-1.0	-4.4
1942	421.3	5.0	421.3	7.9	.0	.0
1943	421.2	-.1	421.2	-.1	.0	.0
1944	396.9	-11.2	376.1	-13.0	-5.2	-20.8
1945	402.0	9.3	404.6	3.8	.6	2.6
1946	421.3	7.9	421.3	12.7	.0	.0
1947	403.5	-1.9	402.5	1.4	-.2	-1.0
1948	385.8	-7.1	385.2	-7.9	-.2	-.6
1949	401.4	-6.1	388.6	-7.7	-3.2	-12.8
1950	385.0	-14.0	376.3	-11.8	-2.3	-8.7
1951	387.0	-11.9	387.2	-11.7	.1	.2
1952	421.3	11.6	421.3	18.6	.0	.0
1953	418.1	.4	415.1	.2	-.7	-3.0
1954	412.5	-5.1	408.9	-6.1	-.9	-3.6
1955	397.0	4.8	396.2	7.2	-.2	-.8
1956	418.1	32.5	418.1	30.1	.0	.0
1957	409.1	-7.4	405.0	-8.6	-1.0	-4.1
1958	410.3	-1.2	392.7	.3	-4.3	-17.6
1959	403.5	-10.5	398.8	-12.1	-1.2	-4.7
1960	371.9	-10.1	360.4	-15.8	-3.1	-11.5
1961	382.5	-3.7	381.3	-7.3	-.3	-1.2
1962	379.3	-3.4	370.2	-4.7	-2.4	-9.1
1963	421.3	.0	421.3	.0	.0	.0
1964	412.1	-9.2	417.1	-4.2	1.2	5.0
1965	402.0	12.2	402.3	2.6	.1	.3
1966	417.5	-3.4	403.5	-5.0	-3.4	-14.0
1967	420.0	24.5	415.3	25.0	-1.1	-4.7
1968	416.6	-4.2	413.0	-5.0	-.9	-3.6
1969	409.0	4.4	405.5	8.1	-.9	-3.5
1970	420.9	2.9	421.1	5.8	.0	.2
1971	421.3	9.1	421.3	12.4	.0	.0
1972	419.3	2.9	416.0	2.4	-.8	-3.3
1973	418.3	16.1	414.2	16.1	-1.0	-4.1
1974	420.3	-.8	420.0	-.8	-.1	-.3
1975	408.2	-5.1	404.3	-6.3	-1.0	-3.9
1976	413.8	-7.5	412.9	-8.4	-.2	-.9
1977	370.4	-6.7	361.9	-9.9	-2.3	-8.5
1978	383.8	33.1	371.0	45.9	-3.3	-12.8
1979	403.2	-9.1	383.9	-12.7	-4.8	-19.3
1980	400.4	-2.4	399.2	3.3	-.3	-1.2
1981	406.0	-8.0	386.1	-11.2	-4.9	-19.9
1982	400.6	-18.6	399.4	-19.4	-.3	-1.2
1983	420.7	-.5	420.7	-.5	.0	.0
1984	392.7	-8.2	392.6	-7.3	.0	-.1
1985	421.3	.0	416.1	1.6	-1.2	-5.2
1986	400.7	11.1	402.5	12.5	.4	1.8
1987	390.5	-13.1	378.9	-14.4	-3.0	-11.6
1988	378.2	10.2	370.7	11.6	-2.0	-7.5
1989	394.6	6.4	393.0	5.9	-.4	-1.6
1990	392.0	-5.3	384.6	-7.2	-1.9	-7.4
1991	363.1	-6.5	359.6	-7.7	-1.0	-3.5
Mean:	402.3	-.1	398.3	.2	-1.0	-4.0
Median:	402.0	-1.9	399.4	-.8	-.9	-3.5
Min:	363.1	-18.6	359.6	-19.4	-5.2	-20.8
Max:	421.3	33.1	421.3	45.9	4.2	16.2
X < 360.0	0		1			
X < 375.0	3		8			
X < 395.0	24		28			
X < 405.0	39		45			
X < 420.0	57		59			
X inc > 20.0		4		5		
X dec > 9.0		15		17		
X dec > 10.0		12		14		
X dec > 15.0		1		2		

FOLSOM RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	400.7	.0	395.6	.0	-1.3	-5.1
1923	421.3	.0	421.3	.0	.0	.0
1924	375.9	-13.4	369.3	-15.7	-1.8	-6.6
1925	376.4	-7.6	380.1	-7.7	1.0	3.7
1926	372.5	-11.3	390.3	-9.7	4.8	17.8
1927	421.3	3.1	421.1	6.1	.0	-.2
1928	415.5	-4.3	397.8	-2.2	-4.3	-17.7
1929	373.1	-8.8	360.5	-9.9	-3.4	-12.6
1930	396.1	6.1	393.7	5.6	-.6	-2.4
1931	371.6	-8.5	377.4	-4.9	1.6	5.8
1932	399.3	6.2	397.0	8.2	-.6	-2.3
1933	391.4	-8.6	385.0	-9.9	-1.6	-6.4
1934	398.3	5.6	392.1	7.7	-1.6	-6.2
1935	395.5	10.2	403.2	6.2	1.9	7.7
1936	421.3	17.7	421.3	20.3	.0	.0
1937	393.2	-7.9	388.2	-9.1	-1.3	-5.0
1938	419.8	-.2	419.8	-.2	.0	.0
1939	397.0	-9.7	393.8	-8.7	-.8	-3.2
1940	421.1	40.7	420.9	46.4	.0	-.2
1941	421.3	1.7	421.3	6.1	.0	.0
1942	420.0	-1.3	420.3	-1.0	.1	.3
1943	419.2	-2.0	419.2	-2.0	.0	.0
1944	390.3	-6.6	368.3	-7.8	-5.6	-22.0
1945	399.8	-2.2	399.7	-4.9	.0	-.1
1946	420.3	-1.0	420.3	-1.0	.0	.0
1947	392.3	-11.2	392.2	-10.3	.0	-.1
1948	392.9	7.1	391.9	6.7	-.3	-1.0
1949	393.2	-8.2	376.9	-11.7	-4.1	-16.3
1950	412.1	27.1	408.8	32.5	-.8	-3.3
1951	390.7	3.7	390.9	3.7	.1	.2
1952	421.3	.0	421.3	.0	.0	.0
1953	421.1	3.0	421.2	6.1	.0	.1
1954	412.1	-.4	407.6	-1.3	-1.1	-4.5
1955	402.1	5.1	400.5	4.3	-.4	-1.6
1956	398.4	-19.7	398.4	-19.7	.0	.0
1957	401.1	-8.0	395.7	-9.3	-1.3	-5.4
1958	415.3	5.0	399.8	7.1	-3.7	-15.5
1959	406.4	2.9	403.3	4.5	-.8	-3.1
1960	372.1	.2	357.6	-2.8	-3.9	-14.5
1961	373.2	-9.3	369.0	-12.3	-1.1	-4.2
1962	375.4	-3.9	364.5	-5.7	-2.9	-10.9
1963	418.9	-2.4	419.0	-2.3	.0	.1
1964	412.1	.0	417.1	.0	1.2	5.0
1965	395.2	-6.8	394.9	-7.4	-.1	-.3
1966	415.0	-2.5	401.6	-1.9	-3.2	-13.4
1967	420.4	.4	419.9	4.6	-.1	-.5
1968	414.7	-1.9	409.9	-3.1	-1.2	-4.8
1969	418.9	9.9	418.9	13.4	.0	.0
1970	402.0	-18.9	402.3	-18.8	.1	.3
1971	421.3	.0	421.3	.0	.0	.0
1972	415.6	-3.7	411.0	-5.0	-1.1	-4.6
1973	420.2	1.9	420.0	5.8	.0	-.2
1974	413.7	-6.6	413.1	-6.9	-.1	-.6
1975	404.1	-4.1	399.0	-5.3	-1.3	-5.1
1976	400.7	-13.1	398.4	-14.5	-.6	-2.3
1977	367.1	-3.3	355.7	-6.2	-3.1	-11.4
1978	420.6	36.8	421.3	50.3	.2	.7
1979	408.4	5.2	392.0	8.1	-4.0	-16.4
1980	411.9	11.5	407.5	8.3	-1.1	-4.4
1981	402.1	-3.9	382.6	-3.5	-4.8	-19.5
1982	398.2	-2.4	397.6	-1.8	-.2	-.6
1983	419.7	-1.0	419.7	-1.0	.0	.0
1984	393.5	.8	393.5	.9	.0	.0
1985	413.2	-8.1	406.7	-9.4	-1.6	-6.5
1986	419.9	19.2	419.8	17.3	.0	-.1
1987	380.9	-9.6	368.5	-10.4	-3.3	-12.4
1988	394.3	16.1	387.8	17.1	-1.6	-6.5
1989	388.7	-5.9	386.2	-6.8	-.6	-2.5
1990	390.7	-1.3	382.7	-1.9	-2.0	-8.0
1991	354.2	-8.9	348.3	-11.3	-1.7	-5.9
Mean:	402.1	-.2	398.5	.2	-.9	-3.6
Median:	402.0	-1.3	398.4	-1.9	-.6	-2.3
Min:	354.2	-19.7	348.3	-19.7	-5.6	-22.0
Max:	421.3	40.7	421.3	50.3	4.8	17.8
X < 360.0	1		3			
X < 375.0	7		9			
X < 395.0	22		28			
X < 405.0	38		43			
X < 420.0	57		58			
X inc > 20.0		3		4		
X dec > 9.0		9		15		
X dec > 10.0		6		9		
X dec > 15.0		2		3		

FOLSOM RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	421.3	.0	421.3	.0	.0	.0
1923	418.4	-2.9	421.1	-.2	.6	2.7
1924	375.8	-.1	367.9	-1.4	-2.1	-7.9
1925	419.6	43.2	420.0	39.9	.1	.4
1926	399.8	27.3	410.9	20.6	2.8	11.1
1927	419.9	-1.4	419.6	-1.5	-.1	-.3
1928	417.5	2.0	399.0	1.2	-4.4	-18.5
1929	378.8	5.7	367.3	6.8	-3.0	-11.5
1930	398.6	2.5	395.7	2.0	-.7	-2.9
1931	368.9	-2.7	376.1	-1.3	2.0	7.2
1932	421.3	22.0	420.8	23.8	-.1	-.5
1933	384.7	-6.7	376.1	-8.9	-2.2	-8.6
1934	403.0	4.7	398.5	6.4	-1.1	-4.5
1935	400.5	5.0	407.3	4.1	1.7	6.8
1936	421.3	.0	421.2	-.1	.0	-.1
1937	421.1	27.9	418.1	29.9	-.7	-3.0
1938	419.5	-.3	419.5	-.3	.0	.0
1939	391.2	-5.8	386.5	-7.3	-1.2	-4.7
1940	419.6	-1.5	419.6	-1.3	.0	.0
1941	421.3	.0	421.3	.0	.0	.0
1942	419.0	-1.0	419.2	-1.1	.0	.2
1943	418.0	-1.2	418.0	-1.2	.0	.0
1944	397.6	7.3	379.7	11.4	-4.5	-17.9
1945	420.3	20.5	420.3	20.6	.0	.0
1946	418.4	-1.9	418.4	-1.9	.0	.0
1947	398.4	6.1	397.0	4.8	-.4	-1.4
1948	384.9	-8.0	385.5	-6.4	.2	.6
1949	390.1	-3.1	375.9	-1.0	-3.6	-14.2
1950	421.3	9.2	421.3	12.5	.0	.0
1951	392.6	1.9	392.7	1.8	.0	.1
1952	421.3	.0	421.3	.0	.0	.0
1953	420.4	-.7	420.6	-.6	.0	.2
1954	421.3	9.2	416.6	9.0	-1.1	-4.7
1955	400.0	-2.1	397.6	-2.9	-.6	-2.4
1956	397.6	-.8	397.6	-.8	.0	.0
1957	418.5	17.4	413.3	17.6	-1.2	-5.2
1958	420.3	5.0	420.3	20.5	.0	.0
1959	415.5	9.1	411.8	8.5	-.9	-3.7
1960	411.5	39.4	402.8	45.2	-2.1	-8.7
1961	379.2	6.0	374.0	5.0	-1.4	-5.2
1962	421.3	45.9	415.9	51.4	-1.3	-5.4
1963	409.2	-9.7	409.4	-9.6	.0	.2
1964	409.6	-2.5	414.3	-2.8	1.1	4.7
1965	395.0	-.2	394.7	-.2	-.1	-.3
1966	414.6	-.4	399.9	-1.7	-3.5	-14.7
1967	419.1	-1.3	418.8	-1.1	-.1	-.3
1968	419.4	4.7	419.4	9.5	.0	.0
1969	417.2	-1.7	417.1	-1.8	.0	-.1
1970	398.2	-3.8	398.2	-4.1	.0	.0
1971	420.4	-.9	420.5	-.8	.0	.1
1972	421.3	5.7	417.4	6.4	-.9	-3.9
1973	419.7	-.5	419.6	-.4	.0	-.1
1974	413.1	-.6	413.7	.6	.1	.6
1975	419.8	15.7	414.9	15.9	-1.2	-4.9
1976	393.2	-7.5	389.4	-9.0	-1.0	-3.8
1977	363.9	-3.2	351.2	-4.5	-3.5	-12.7
1978	419.9	-.7	421.3	.0	.3	1.4
1979	419.6	11.2	405.8	13.8	-3.3	-13.8
1980	397.9	-14.0	395.7	-11.8	-.6	-2.2
1981	401.8	-.3	384.6	2.0	-4.3	-17.2
1982	389.8	-8.4	390.2	-7.4	.1	.4
1983	418.4	-1.3	418.4	-1.3	.0	.0
1984	394.1	.6	394.0	.5	.0	-.1
1985	415.2	2.0	408.3	1.6	-1.7	-6.9
1986	397.5	-22.4	397.1	-22.7	-.1	-.4
1987	385.6	4.7	375.0	6.5	-2.7	-10.6
1988	388.1	-6.2	382.7	-5.1	-1.4	-5.4
1989	388.4	-.3	385.2	-1.0	-.8	-3.2
1990	389.9	-.8	384.0	1.3	-1.5	-5.9
1991	348.6	-5.6	341.0	-7.3	-2.2	-7.6
Mean:	405.7	3.3	402.7	3.9	-.8	-3.0
Median:	413.1	-.3	408.3	-.1	-.1	-.3
Min:	348.6	-22.4	341.0	-22.7	-4.5	-18.5
Max:	421.3	45.9	421.3	51.4	2.8	11.1
X < 360.0	1		2			
X < 375.0	3		5			
X < 395.0	18		21			
X < 405.0	31		32			
X < 420.0	56		57			
X inc > 20.0		7		8		
X dec > 9.0		3		3		
X dec > 10.0		2		2		
X dec > 15.0		1		1		

FOLSOM RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	424.6	.0	423.6	.0	-.2	-1.0
1923	419.2	.8	421.1	.0	.5	1.9
1924	366.8	-9.0	358.8	-9.1	-2.2	-8.0
1925	423.0	3.4	423.0	3.0	.0	.0
1926	400.8	1.0	410.8	-.1	2.5	10.0
1927	430.8	10.9	430.7	11.1	.0	-.1
1928	429.1	11.6	428.7	29.7	-.1	-.4
1929	386.0	7.2	374.9	7.6	-2.9	-11.1
1930	418.1	19.5	415.1	19.4	-.7	-3.0
1931	376.3	7.4	384.6	8.5	2.2	8.3
1932	428.4	7.1	426.9	6.1	-.4	-1.5
1933	386.6	1.9	380.3	4.2	-1.6	-6.3
1934	410.8	7.8	407.8	9.3	-.7	-3.0
1935	401.1	.6	406.6	-.7	1.4	5.5
1936	431.5	10.2	431.5	10.3	.0	.0
1937	432.0	10.9	432.0	13.9	.0	.0
1938	431.5	12.0	431.5	12.0	.0	.0
1939	402.8	11.6	398.1	11.6	-1.2	-4.7
1940	426.0	6.4	426.9	7.3	.2	.9
1941	431.8	10.5	431.8	10.5	.0	.0
1942	416.3	-2.7	415.4	-3.8	-.2	-.9
1943	426.3	8.3	426.5	8.5	.0	.2
1944	408.5	10.9	394.7	15.0	-3.4	-13.8
1945	427.0	6.7	426.0	5.7	-.2	-1.0
1946	430.8	12.4	430.1	11.7	-.2	-.7
1947	414.7	16.3	412.9	15.9	-.4	-1.8
1948	380.3	-4.6	379.0	-6.5	-.3	-1.3
1949	413.7	23.6	402.5	26.6	-2.7	-11.2
1950	430.7	9.4	431.6	10.3	.2	.9
1951	422.6	30.0	422.6	29.9	.0	.0
1952	432.0	10.7	432.0	10.7	.0	.0
1953	420.1	-.3	419.3	-1.3	-.2	-.8
1954	431.6	10.3	431.6	15.0	.0	.0
1955	399.8	-.2	396.2	-1.4	-.9	-3.6
1956	411.5	13.9	410.0	12.4	-.4	-1.5
1957	431.0	12.5	431.0	17.7	.0	.0
1958	431.7	11.4	431.7	11.4	.0	.0
1959	419.9	4.4	415.7	3.9	-1.0	-4.2
1960	431.5	20.0	426.2	23.4	-1.2	-5.3
1961	386.6	7.4	383.7	9.7	-.8	-2.9
1962	428.9	7.6	423.2	7.3	-1.3	-5.7
1963	411.7	2.5	410.8	1.4	-.2	-.9
1964	406.4	-3.2	410.5	-3.8	1.0	4.1
1965	407.1	12.1	405.5	10.8	-.4	-1.6
1966	420.3	5.7	407.5	7.6	-3.0	-12.8
1967	429.1	10.0	429.1	10.3	.0	.0
1968	429.9	10.5	417.0	-2.4	-3.0	-12.9
1969	424.6	7.4	423.5	6.4	-.3	-1.1
1970	422.7	24.5	423.5	25.3	.2	.8
1971	430.5	10.1	430.5	10.0	.0	.0
1972	430.1	8.8	430.1	12.7	.0	.0
1973	431.6	11.9	431.6	12.0	.0	.0
1974	424.7	11.6	424.9	11.2	.0	.2
1975	432.0	12.2	432.0	17.1	.0	.0
1976	390.8	-2.4	386.9	-2.5	-1.0	-3.9
1977	363.2	-.7	351.1	-.1	-3.3	-12.1
1978	430.7	10.8	430.7	9.4	.0	.0
1979	431.8	12.2	422.9	17.1	-2.1	-8.9
1980	424.6	26.7	423.7	28.0	-.2	-.9
1981	414.0	12.2	401.0	16.4	-3.1	-13.0
1982	422.0	32.2	422.0	31.8	.0	.0
1983	427.7	9.3	427.5	9.1	.0	-.2
1984	422.1	28.0	422.8	28.8	.2	.7
1985	418.6	3.4	413.0	4.7	-1.3	-5.6
1986	421.6	24.1	421.6	24.5	.0	.0
1987	399.3	13.7	391.8	16.8	-1.9	-7.5
1988	386.8	-1.3	383.3	.6	-.9	-3.5
1989	428.4	40.0	430.8	45.6	.6	2.4
1990	402.1	12.2	396.7	12.7	-1.3	-5.4
1991	380.5	31.9	379.1	38.1	-.4	-1.4
Mean:	416.0	10.2	413.8	11.1	-.5	-2.1
Median:	422.1	10.2	422.0	10.3	-.2	-.9
Min:	363.2	-9.0	351.1	-9.1	-3.4	-13.8
Max:	432.0	40.0	432.0	45.6	2.5	10.0
X < 360.0	0		2			
X < 375.0	2		3			
X < 395.0	10		12			
X < 405.0	16		17			
X < 420.0	30		32			
X inc > 20.0		9		11		
X dec > 9.0		0		1		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	438.5	.0	436.1	.0	-.5	-2.4
1923	444.5	25.3	444.5	23.4	.0	.0
1924	374.9	8.1	367.3	8.5	-2.0	-7.6
1925	444.5	21.5	444.5	21.5	.0	.0
1926	429.0	28.2	436.2	25.4	1.7	7.2
1927	444.5	13.7	444.5	13.8	.0	.0
1928	444.5	15.4	444.5	15.8	.0	.0
1929	395.3	9.3	391.7	16.8	-.9	-3.6
1930	427.1	9.0	424.8	9.7	-.5	-2.3
1931	384.8	8.5	391.7	7.1	1.8	6.9
1932	434.8	6.4	433.7	6.8	-.3	-1.1
1933	393.5	6.9	388.4	8.1	-1.3	-5.1
1934	399.5	-11.3	399.5	-8.3	.0	.0
1935	444.5	43.4	444.5	37.9	.0	.0
1936	444.5	13.0	444.5	13.0	.0	.0
1937	444.5	12.5	444.5	12.5	.0	.0
1938	444.5	13.0	444.5	13.0	.0	.0
1939	414.1	11.3	412.4	14.3	-.4	-1.7
1940	444.5	18.5	444.5	17.6	.0	.0
1941	444.5	12.7	444.5	12.7	.0	.0
1942	441.0	24.7	438.9	23.5	-.5	-2.1
1943	444.5	18.2	444.5	18.0	.0	.0
1944	411.6	3.1	399.5	4.8	-2.9	-12.1
1945	438.8	11.8	436.5	10.5	-.5	-2.3
1946	444.5	13.7	444.5	14.4	.0	.0
1947	421.1	6.4	418.4	5.5	-.6	-2.7
1948	419.9	39.6	417.8	38.8	-.5	-2.1
1949	434.9	21.2	424.0	21.5	-2.5	-10.9
1950	444.5	13.8	444.5	12.9	.0	.0
1951	444.5	21.9	444.5	21.9	.0	.0
1952	444.5	12.5	444.5	12.5	.0	.0
1953	433.6	13.5	433.1	13.8	-.1	-.5
1954	444.5	12.9	444.5	12.9	.0	.0
1955	407.2	7.4	403.4	7.2	-.9	-3.8
1956	426.2	14.7	423.4	13.4	-.7	-2.8
1957	433.4	2.4	432.0	1.0	-.3	-1.4
1958	444.5	12.8	444.5	12.8	.0	.0
1959	424.2	4.3	420.6	4.9	-.8	-3.6
1960	440.2	8.7	434.2	8.0	-1.4	-6.0
1961	402.1	15.5	398.2	14.5	-1.0	-3.9
1962	444.5	15.6	444.5	21.3	.0	.0
1963	444.5	32.8	444.5	33.7	.0	.0
1964	413.8	7.4	416.4	5.9	.6	2.6
1965	444.5	37.4	444.5	39.0	.0	.0
1966	435.4	15.1	424.6	17.1	-2.5	-10.8
1967	442.0	12.9	440.8	11.7	-.3	-1.2
1968	434.5	4.6	420.7	3.7	-3.2	-13.8
1969	444.5	19.9	444.5	21.0	.0	.0
1970	428.1	5.4	429.2	5.7	.3	1.1
1971	440.2	9.7	440.2	9.7	.0	.0
1972	436.9	6.8	435.8	5.7	-.3	-1.1
1973	444.4	12.8	442.8	11.2	-.4	-1.6
1974	444.5	19.8	444.5	19.6	.0	.0
1975	434.6	2.6	433.0	1.0	-.4	-1.6
1976	398.2	7.4	394.3	7.4	-1.0	-3.9
1977	363.6	.4	352.1	1.0	-3.2	-11.5
1978	444.5	13.8	444.5	13.8	.0	.0
1979	440.7	8.9	432.3	9.4	-1.9	-8.4
1980	443.1	18.5	442.3	18.6	-.2	-.8
1981	420.7	6.7	413.0	12.0	-1.8	-7.7
1982	444.5	22.5	444.5	22.5	.0	.0
1983	444.5	16.8	444.5	17.0	.0	.0
1984	437.2	15.1	436.8	14.0	-.1	-.4
1985	434.7	16.1	430.2	17.2	-1.0	-4.5
1986	444.3	22.7	442.9	21.3	-.3	-1.4
1987	411.4	12.1	403.8	12.0	-1.8	-7.6
1988	397.1	10.3	394.6	11.3	-.6	-2.5
1989	444.5	16.1	444.5	13.7	.0	.0
1990	400.4	-1.7	399.5	2.8	-.2	-.9
1991	396.2	15.7	395.9	16.8	-.1	-.3
Mean:	429.7	13.6	427.7	13.7	-.5	-2.0
Median:	438.5	12.9	436.1	12.9	-.2	-.8
Min:	363.6	-11.3	352.1	-8.3	-3.2	-13.8
Max:	444.5	43.4	444.5	39.0	1.8	7.2
X < 360.0	0		1			
X < 375.0	2		2			
X < 395.0	4		7			
X < 405.0	11		14			
X < 420.0	17		19			
X inc > 20.0		12		14		
X dec > 9.0		1		0		
X dec > 10.0		1		0		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	460.7	16.2	460.7	16.2	.0	.0
1924	381.2	6.3	374.7	7.4	-1.7	-6.5
1925	460.7	16.2	460.7	16.2	.0	.0
1926	422.5	-6.5	428.7	-7.5	1.5	6.2
1927	460.7	16.2	460.7	16.2	.0	.0
1928	453.0	8.5	451.0	6.5	-.4	-2.0
1929	400.0	4.7	397.2	5.5	-.7	-2.8
1930	424.1	-3.0	422.1	-2.7	-.5	-2.0
1931	393.9	9.1	397.1	5.4	.8	3.2
1932	452.2	17.4	450.0	16.3	-.5	-2.2
1933	399.4	5.9	393.1	4.7	-1.6	-6.3
1934	402.6	3.1	401.7	2.2	-.2	-.9
1935	459.7	15.2	458.5	14.0	-.3	-1.2
1936	459.1	14.6	457.4	12.9	-.4	-1.7
1937	460.7	16.2	460.7	16.2	.0	.0
1938	460.7	16.2	460.7	16.2	.0	.0
1939	410.8	-3.3	407.6	-4.8	-.8	-3.2
1940	458.1	13.6	457.0	12.5	-.2	-1.1
1941	460.7	16.2	460.7	16.2	.0	.0
1942	460.7	19.7	460.7	21.8	.0	.0
1943	454.3	9.8	452.2	7.7	-.5	-2.1
1944	419.8	8.2	409.0	9.5	-2.6	-10.8
1945	456.1	17.3	452.1	15.6	-.9	-4.0
1946	460.7	16.2	459.0	14.5	-.4	-1.7
1947	416.5	-4.6	413.4	-5.0	-.7	-3.1
1948	440.1	20.2	436.3	18.5	-.9	-3.8
1949	449.7	14.8	441.0	17.0	-1.9	-8.7
1950	460.4	15.9	458.5	14.0	-.4	-1.9
1951	460.2	15.7	459.8	15.3	-.1	-.4
1952	460.7	16.2	460.7	16.2	.0	.0
1953	444.0	10.4	441.4	8.3	-.6	-2.6
1954	449.2	4.7	447.9	3.4	-.3	-1.3
1955	417.8	10.6	414.7	11.3	-.7	-3.1
1956	458.5	32.3	454.5	31.1	-.9	-4.0
1957	453.4	20.0	452.1	20.1	-.3	-1.3
1958	460.7	16.2	460.7	16.2	.0	.0
1959	417.6	-6.6	414.2	-6.4	-.8	-3.4
1960	439.4	-.8	432.1	-2.1	-1.7	-7.3
1961	408.9	6.8	403.8	5.6	-1.2	-5.1
1962	450.6	6.1	448.6	4.1	-.4	-2.0
1963	460.7	16.2	460.7	16.2	.0	.0
1964	421.1	7.3	422.2	5.8	.3	1.1
1965	459.1	14.6	458.6	14.1	-.1	-.5
1966	432.1	-3.3	419.2	-5.4	-3.0	-12.9
1967	460.7	18.7	460.7	19.9	.0	.0
1968	431.2	-3.3	415.3	-5.4	-3.7	-15.9
1969	460.7	16.2	460.7	16.2	.0	.0
1970	434.9	6.8	436.0	6.8	.3	1.1
1971	454.8	14.6	452.8	12.6	-.4	-2.0
1972	443.5	6.6	442.4	6.6	-.2	-1.1
1973	460.7	16.3	460.7	17.9	.0	.0
1974	460.7	16.2	460.7	16.2	.0	.0
1975	459.6	25.0	456.3	23.3	-.7	-3.3
1976	402.3	4.1	402.3	8.0	.0	.0
1977	365.4	1.8	354.2	2.1	-3.1	-11.2
1978	460.7	16.2	458.9	14.4	-.4	-1.8
1979	460.7	20.0	454.2	21.9	-1.4	-6.5
1980	454.6	11.5	453.0	10.7	-.4	-1.6
1981	416.2	-4.5	410.4	-2.6	-1.4	-5.8
1982	460.7	16.2	460.7	16.2	.0	.0
1983	460.7	16.2	460.7	16.2	.0	.0
1984	451.6	14.4	451.4	14.6	.0	-.2
1985	431.7	-3.0	427.2	-3.0	-1.0	-4.5
1986	454.4	10.1	451.1	8.2	-.7	-3.3
1987	408.3	-3.1	406.1	2.3	-.5	-2.2
1988	401.2	4.1	398.1	3.5	-.8	-3.1
1989	446.7	2.2	446.5	2.0	.0	-.2
1990	396.9	-3.5	397.0	-2.5	.0	.1
1991	403.7	7.5	401.6	5.7	-.5	-2.1
Mean:	439.9	9.9	437.6	9.6	-.5	-2.3
Median:	452.2	10.6	451.0	10.7	-.4	-1.7
Min:	365.4	-6.6	354.2	-7.5	-3.7	-15.9
Max:	460.7	32.3	460.7	31.1	1.5	6.2
X < 360.0	0		1			
X < 375.0	1		2			
X < 395.0	3		3			
X < 405.0	10		11			
X < 420.0	18		20			
X inc > 20.0		3		5		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	2030 w/ WFP Rel Diff (%)	2030 w/ WFP Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	450.4	-10.3	451.8	-8.9	.3	1.4
1924	384.3	3.1	377.7	3.0	-1.7	-6.6
1925	441.6	-19.1	444.2	-16.5	.6	2.6
1926	414.0	-8.5	416.7	-12.0	.7	2.7
1927	460.7	.0	460.7	.0	.0	.0
1928	424.1	-28.9	430.4	-20.6	1.5	6.3
1929	394.5	-5.5	391.1	-6.1	-.9	-3.4
1930	418.4	-5.7	416.1	-6.0	-.5	-2.3
1931	394.1	.2	400.1	3.0	1.5	6.0
1932	451.3	.9	447.3	-2.7	-.9	-4.0
1933	402.2	2.8	396.7	3.6	-1.4	-5.5
1934	392.1	-10.5	390.6	-11.1	-.4	-1.5
1935	460.7	1.0	459.2	.7	-.3	-1.5
1936	460.7	1.6	460.7	3.3	.0	.0
1937	454.7	-6.0	453.0	-7.7	-.4	-1.7
1938	460.7	.0	460.7	.0	.0	.0
1939	409.1	-1.7	406.8	-.8	-.6	-2.3
1940	450.0	-8.1	448.6	-8.4	-.3	-1.4
1941	458.0	-2.7	457.1	-3.6	-.2	-.9
1942	460.7	.0	460.7	.0	.0	.0
1943	453.2	-1.1	448.8	-3.4	-1.0	-4.4
1944	416.8	-3.0	407.3	-1.7	-2.3	-9.5
1945	437.7	-18.4	438.3	-13.8	.1	.6
1946	436.6	-24.1	438.7	-20.3	.5	2.1
1947	412.3	-4.2	409.0	-4.4	-.8	-3.3
1948	449.9	9.8	444.9	8.6	-1.1	-5.0
1949	442.2	-7.5	434.0	-7.0	-1.9	-8.2
1950	460.7	.3	458.7	.2	-.4	-2.0
1951	452.9	-7.3	450.0	-9.8	-.6	-2.9
1952	460.7	.0	460.7	.0	.0	.0
1953	457.5	13.5	454.1	12.7	-.7	-3.4
1954	439.8	-9.4	432.2	-15.7	-1.7	-7.6
1955	415.6	-2.2	412.4	-2.3	-.8	-3.2
1956	460.7	2.2	460.7	6.2	.0	.0
1957	448.6	-4.8	443.3	-8.8	-1.2	-5.3
1958	460.7	.0	460.7	.0	.0	.0
1959	413.8	-3.8	410.2	-4.0	-.9	-3.6
1960	433.1	-6.3	423.7	-8.4	-2.2	-9.4
1961	412.4	3.5	406.6	2.8	-1.4	-5.8
1962	447.9	-2.7	442.7	-5.9	-1.2	-5.2
1963	460.1	-.6	457.8	-2.9	-.5	-2.3
1964	418.9	-2.2	418.1	-4.1	-.2	-.8
1965	459.7	.6	456.8	-1.8	-.6	-2.9
1966	423.1	-9.0	410.6	-8.6	-3.0	-12.5
1967	460.7	.0	460.7	.0	.0	.0
1968	422.4	-8.8	408.4	-6.9	-3.3	-14.0
1969	460.7	.0	460.7	.0	.0	.0
1970	426.1	-8.8	427.5	-8.5	.3	1.4
1971	460.7	5.9	458.0	5.2	-.6	-2.7
1972	424.1	-19.4	421.8	-20.6	-.5	-2.3
1973	440.5	-20.2	433.5	-27.2	-1.6	-7.0
1974	460.7	.0	460.7	.0	.0	.0
1975	460.7	1.1	460.7	4.4	.0	.0
1976	392.1	-10.2	390.6	-11.7	-.4	-1.5
1977	361.3	-4.1	349.9	-4.3	-3.2	-11.4
1978	460.7	.0	458.5	-.4	-.5	-2.2
1979	433.6	-27.1	423.4	-30.8	-2.4	-10.2
1980	453.1	-1.5	450.5	-2.5	-.6	-2.6
1981	410.0	-6.2	407.6	-2.8	-.6	-2.4
1982	460.7	.0	460.7	.0	.0	.0
1983	460.7	.0	460.7	.0	.0	.0
1984	438.5	-13.1	442.0	-9.4	.8	3.5
1985	418.1	-13.6	414.3	-12.9	-.9	-3.8
1986	454.1	-.3	450.0	-1.1	-.9	-4.1
1987	408.4	.1	403.9	-2.2	-1.1	-4.5
1988	392.1	-9.1	390.6	-7.5	-.4	-1.5
1989	431.7	-15.0	430.9	-15.6	-.2	-.8
1990	392.1	-4.8	390.6	-6.4	-.4	-1.5
1991	397.9	-5.8	394.9	-6.7	-.8	-3.0
Mean:	435.1	-4.8	432.6	-5.0	-.6	-2.5
Median:	440.5	-2.7	438.7	-3.6	-.5	-2.3
Min:	361.3	-28.9	349.9	-30.8	-3.3	-14.0
Max:	460.7	13.5	460.7	12.7	1.5	6.3
X < 360.0	0		1			
X < 375.0	1		1			
X < 395.0	8		8			
X < 405.0	10		11			
X < 420.0	22		24			
X inc > 20.0		0		0		
X dec > 9.0		15		15		
X dec > 10.0		13		13		
X dec > 15.0		7		8		

FOLSOM RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	452.1	.0	453.7	.0	.4	1.6
1923	430.7	-19.7	447.2	-4.6	3.8	16.5
1924	383.9	-.4	379.8	2.1	-1.1	-4.1
1925	428.6	-13.0	438.6	-5.6	2.3	10.0
1926	398.5	-15.5	399.5	-17.2	.3	1.0
1927	456.4	-4.3	433.6	-27.1	-5.0	-22.8
1928	419.2	-4.9	422.7	-7.7	.8	3.5
1929	386.7	-7.8	382.2	-8.9	-1.2	-4.5
1930	405.4	-13.0	401.7	-14.4	-.9	-3.7
1931	383.9	-10.2	382.0	-18.1	-.5	-1.9
1932	448.0	-3.3	440.6	-6.7	-1.7	-7.4
1933	391.9	-10.3	385.4	-11.3	-1.7	-6.5
1934	383.9	-8.2	380.3	-10.3	-.9	-3.6
1935	444.6	-16.1	452.7	-6.5	1.8	8.1
1936	451.8	-8.9	449.9	-10.8	-.4	-1.9
1937	450.8	-3.9	447.2	-5.8	-.8	-3.6
1938	458.4	-2.3	458.4	-2.3	.0	.0
1939	399.0	-10.1	395.9	-10.9	-.8	-3.1
1940	424.1	-25.9	423.0	-25.6	-.3	-1.1
1941	458.4	.4	455.5	-1.6	-.6	-2.9
1942	458.4	-2.3	458.4	-2.3	.0	.0
1943	433.7	-19.5	424.1	-24.7	-2.2	-9.6
1944	410.4	-6.4	403.8	-3.5	-1.6	-6.6
1945	424.1	-13.6	421.8	-16.5	-.5	-2.3
1946	424.1	-12.5	421.8	-16.9	-.5	-2.3
1947	402.9	-9.4	400.6	-8.4	-.6	-2.3
1948	441.5	-8.4	441.7	-3.2	.0	.2
1949	428.9	-13.3	421.0	-13.0	-1.8	-7.9
1950	443.7	-17.0	449.9	-8.8	1.4	6.2
1951	424.3	-28.6	423.0	-27.0	-.3	-1.3
1952	458.4	-2.3	458.4	-2.3	.0	.0
1953	458.4	.9	458.2	4.1	.0	-.2
1954	424.1	-15.7	423.0	-9.2	-.3	-1.1
1955	412.1	-3.5	409.0	-3.4	-.8	-3.1
1956	458.4	-2.3	458.4	-2.3	.0	.0
1957	430.6	-18.0	423.0	-20.3	-1.8	-7.6
1958	458.4	-2.3	458.4	-2.3	.0	.0
1959	412.9	-.9	407.8	-2.4	-1.2	-5.1
1960	417.5	-15.6	415.7	-8.0	-.4	-1.8
1961	412.3	-.1	403.3	-3.3	-2.2	-9.0
1962	424.1	-23.8	421.8	-20.9	-.5	-2.3
1963	458.4	-1.7	433.0	-24.8	-5.5	-25.4
1964	409.8	-9.1	407.9	-10.2	-.5	-1.9
1965	442.6	-17.1	431.3	-25.5	-2.6	-11.3
1966	416.1	-7.0	407.0	-3.6	-2.2	-9.1
1967	458.4	-2.3	458.4	-2.3	.0	.0
1968	415.8	-6.6	404.5	-3.9	-2.7	-11.3
1969	458.4	-2.3	458.4	-2.3	.0	.0
1970	424.1	-2.0	424.1	-3.4	.0	.0
1971	458.4	-2.3	458.4	.4	.0	.0
1972	421.4	-2.7	417.0	-4.8	-1.0	-4.4
1973	424.1	-16.4	423.0	-10.5	-.3	-1.1
1974	458.4	-2.3	458.4	-2.3	.0	.0
1975	458.4	-2.3	458.4	-2.3	.0	.0
1976	383.9	-8.2	382.2	-8.4	-.4	-1.7
1977	353.5	-7.8	340.9	-9.0	-3.6	-12.6
1978	438.8	-21.9	436.4	-22.1	-.5	-2.4
1979	424.1	-9.5	420.9	-2.5	-.8	-3.2
1980	447.7	-5.4	441.0	-9.5	-1.5	-6.7
1981	410.8	.8	405.4	-2.2	-1.3	-5.4
1982	458.4	-2.3	458.4	-2.3	.0	.0
1983	459.0	-1.7	458.4	-2.3	-.1	-.6
1984	424.1	-14.4	424.1	-17.9	.0	.0
1985	405.9	-12.2	402.2	-12.1	-.9	-3.7
1986	433.2	-20.9	428.2	-21.8	-1.2	-5.0
1987	396.7	-11.7	395.9	-8.0	-.2	-.8
1988	383.9	-8.2	382.2	-8.4	-.4	-1.7
1989	413.9	-17.8	415.2	-15.7	.3	1.3
1990	383.9	-8.2	382.2	-8.4	-.4	-1.7
1991	390.2	-7.7	383.0	-11.9	-1.8	-7.2
Mean:	426.1	-8.9	423.3	-9.2	-.7	-2.8
Median:	424.1	-8.2	423.0	-8.4	-.5	-1.9
Min:	353.5	-28.6	340.9	-27.1	-5.5	-25.4
Max:	459.0	.9	458.4	4.1	3.8	16.5
X < 360.0	1		1			
X < 375.0	1		1			
X < 395.0	10		10			
X < 405.0	14		19			
X < 420.0	27		27			
X inc > 20.0		0		0		
X dec > 9.0		30		28		
X dec > 10.0		27		26		
X dec > 15.0		16		16		

FOLSOM RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	444.5	.0	444.0	.0	-.1	-.5
1923	425.1	-5.6	427.3	-19.9	.5	2.2
1924	386.3	2.4	381.2	1.4	-1.3	-5.1
1925	414.6	-14.0	435.7	-2.9	5.1	21.1
1926	401.1	2.6	399.5	.0	-.4	-1.6
1927	444.5	-11.9	417.7	-15.9	-6.0	-26.8
1928	406.2	-13.0	399.5	-23.2	-1.6	-6.7
1929	394.1	7.4	386.5	4.3	-1.9	-7.6
1930	410.4	5.0	404.6	2.9	-1.4	-5.8
1931	386.8	2.9	382.0	.0	-1.2	-4.8
1932	444.5	-3.5	437.2	-3.4	-1.6	-7.3
1933	399.9	8.0	393.7	8.3	-1.6	-6.2
1934	383.0	-.9	374.8	-5.5	-2.1	-8.2
1935	436.1	-8.5	436.4	-16.3	.1	.3
1936	444.1	-7.7	444.5	-5.4	.1	.4
1937	444.5	-6.3	442.9	-4.3	-.4	-1.6
1938	444.5	-13.9	444.5	-13.9	.0	.0
1939	400.5	1.5	393.9	-2.0	-1.6	-6.6
1940	407.4	-16.7	408.4	-14.6	.2	1.0
1941	444.5	-13.9	444.5	-11.0	.0	.0
1942	444.5	-13.9	444.5	-13.9	.0	.0
1943	428.8	-4.9	412.2	-11.9	-3.9	-16.6
1944	391.1	-19.3	407.3	3.5	4.1	16.2
1945	421.5	-2.6	413.8	-8.0	-1.8	-7.7
1946	421.3	-2.8	414.1	-7.7	-1.7	-7.2
1947	404.5	1.6	404.3	3.7	.0	-.2
1948	432.6	-8.9	431.1	-10.6	-.3	-1.5
1949	423.1	-5.8	408.6	-12.4	-3.4	-14.5
1950	435.9	-7.8	441.1	-8.8	1.2	5.2
1951	413.4	-10.9	409.4	-13.6	-1.0	-4.0
1952	444.5	-13.9	444.5	-13.9	.0	.0
1953	444.5	-13.9	444.5	-13.7	.0	.0
1954	411.0	-13.1	403.2	-19.8	-1.9	-7.8
1955	398.4	-13.7	404.6	-4.4	1.6	6.2
1956	444.5	-13.9	444.5	-13.9	.0	.0
1957	430.6	.0	413.5	-9.5	-4.0	-17.1
1958	444.5	-13.9	444.5	-13.9	.0	.0
1959	399.5	-13.4	399.5	-8.3	.0	.0
1960	402.1	-15.4	406.6	-9.1	1.1	4.5
1961	403.9	-8.4	400.0	-3.3	-1.0	-3.9
1962	400.1	-24.0	409.7	-12.1	2.4	9.6
1963	444.5	-13.9	429.0	-4.0	-3.5	-15.5
1964	394.5	-15.3	410.5	2.6	4.1	16.0
1965	443.3	.7	425.2	-6.1	-4.1	-18.1
1966	402.1	-14.0	399.5	-7.5	-.6	-2.6
1967	444.5	-13.9	444.5	-13.9	.0	.0
1968	417.6	1.8	399.5	-5.0	-4.3	-18.1
1969	444.5	-13.9	444.5	-13.9	.0	.0
1970	406.2	-17.9	406.2	-17.9	.0	.0
1971	444.5	-13.9	444.5	-13.9	.0	.0
1972	399.5	-21.9	399.5	-17.5	.0	.0
1973	423.8	-.3	403.6	-19.4	-4.8	-20.2
1974	444.5	-13.9	444.5	-13.9	.0	.0
1975	444.5	-13.9	444.5	-13.9	.0	.0
1976	374.6	-9.3	376.4	-5.8	.5	1.8
1977	347.8	-5.7	333.6	-7.3	-4.1	-14.2
1978	438.2	-.6	422.4	-14.0	-3.6	-15.8
1979	418.8	-5.3	406.4	-14.5	-3.0	-12.4
1980	444.5	-3.2	423.9	-17.1	-4.6	-20.6
1981	404.5	-6.3	403.4	-2.0	-.3	-1.1
1982	444.5	-13.9	444.5	-13.9	.0	.0
1983	447.2	-11.8	444.5	-13.9	-.6	-2.7
1984	425.6	1.5	412.6	-11.5	-3.1	-13.0
1985	390.2	-15.7	389.6	-12.6	-.2	-.6
1986	419.3	-13.9	412.8	-15.4	-1.6	-6.5
1987	383.2	-13.5	382.4	-13.5	-.2	-.8
1988	374.6	-9.3	375.9	-6.3	.3	1.3
1989	396.7	-17.2	396.0	-19.2	-.2	-.7
1990	374.6	-9.3	376.4	-5.8	.5	1.8
1991	387.5	-2.7	387.5	4.5	.0	.0
Mean:	417.6	-8.4	414.1	-9.1	-.8	-3.5
Median:	418.8	-9.3	409.7	-11.0	-.2	-.8
Min:	347.8	-24.0	333.6	-23.2	-6.0	-26.8
Max:	447.2	8.0	444.5	8.3	5.1	21.1
X < 360.0	1		1			
X < 375.0	4		2			
X < 395.0	13		13			
X < 405.0	26		27			
X < 420.0	36		43			
X inc > 20.0		0		0		
X dec > 9.0		37		38		
X dec > 10.0		34		36		
X dec > 15.0		9		11		

FOLSOM RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	429.4	.0	429.4	.0	.0	.0
1923	422.5	-2.6	422.6	-4.7	.0	.1
1924	382.2	-4.1	379.0	-2.2	-.8	-3.2
1925	412.7	-1.9	427.5	-8.2	3.6	14.8
1926	399.2	-1.9	397.1	-2.4	-.5	-2.1
1927	429.4	-15.1	412.5	-5.2	-3.9	-16.9
1928	406.2	.0	396.0	-3.5	-2.5	-10.2
1929	392.2	-1.9	384.5	-2.0	-2.0	-7.7
1930	410.5	.1	402.7	-1.9	-1.9	-7.8
1931	383.1	-3.7	379.5	-2.5	-.9	-3.6
1932	429.4	-15.1	428.6	-8.6	-.2	-.8
1933	398.6	-1.3	392.2	-1.5	-1.6	-6.4
1934	380.5	-2.5	374.9	.1	-1.5	-5.6
1935	427.5	-8.6	428.0	-8.4	.1	.5
1936	429.4	-14.7	429.4	-15.1	.0	.0
1937	429.4	-15.1	429.4	-13.5	.0	.0
1938	429.4	-15.1	429.4	-15.1	.0	.0
1939	398.8	-1.7	390.0	-3.9	-2.2	-8.8
1940	406.2	-1.2	404.8	-3.6	-.3	-1.4
1941	429.4	-15.1	429.4	-15.1	.0	.0
1942	429.4	-15.1	429.4	-15.1	.0	.0
1943	424.9	-3.9	408.4	-3.8	-3.9	-16.5
1944	385.0	-6.1	403.6	-3.7	4.8	18.6
1945	415.1	-6.4	404.7	-9.1	-2.5	-10.4
1946	411.6	-9.7	402.3	-11.8	-2.3	-9.3
1947	397.3	-7.2	399.1	-5.2	.5	1.8
1948	424.1	-8.5	417.6	-13.5	-1.5	-6.5
1949	419.2	-3.9	405.4	-3.2	-3.3	-13.8
1950	429.4	-6.5	429.4	-11.7	.0	.0
1951	412.1	-1.3	403.6	-5.8	-2.1	-8.5
1952	429.4	-15.1	429.4	-15.1	.0	.0
1953	429.4	-15.1	429.4	-15.1	.0	.0
1954	406.2	-4.8	401.4	-1.8	-1.2	-4.8
1955	397.8	-.6	402.0	-2.6	1.1	4.2
1956	429.4	-15.1	429.4	-15.1	.0	.0
1957	425.7	-4.9	408.5	-5.0	-4.0	-17.2
1958	429.4	-15.1	429.4	-15.1	.0	.0
1959	398.6	-.9	396.6	-2.9	-.5	-2.0
1960	396.0	-6.1	403.5	-3.1	1.9	7.5
1961	399.2	-4.7	395.4	-4.6	-1.0	-3.8
1962	399.2	-.9	401.2	-8.5	.5	2.0
1963	429.4	-15.1	422.5	-6.5	-1.6	-6.9
1964	392.5	-2.0	407.7	-2.8	3.9	15.2
1965	429.4	-13.9	420.2	-5.0	-2.1	-9.2
1966	399.5	-2.6	396.2	-3.3	-.8	-3.3
1967	429.4	-15.1	429.4	-15.1	.0	.0
1968	411.9	-5.7	398.5	-1.0	-3.3	-13.4
1969	429.4	-15.1	429.4	-15.1	.0	.0
1970	406.3	.1	404.1	-2.1	-.5	-2.2
1971	429.4	-15.1	429.4	-15.1	.0	.0
1972	399.3	-.2	397.2	-2.3	-.5	-2.1
1973	422.2	-1.6	402.6	-1.0	-4.6	-19.6
1974	429.4	-15.1	429.4	-15.1	.0	.0
1975	429.4	-15.1	429.4	-15.1	.0	.0
1976	375.5	.9	375.4	-1.0	.0	-.1
1977	344.5	-3.3	326.6	-7.0	-5.2	-17.9
1978	429.4	-8.8	419.1	-3.3	-2.4	-10.3
1979	414.7	-4.1	399.5	-6.9	-3.7	-15.2
1980	429.4	-15.1	418.4	-5.5	-2.6	-11.0
1981	400.3	-4.2	397.9	-5.5	-.6	-2.4
1982	429.4	-15.1	429.4	-15.1	.0	.0
1983	434.3	-12.9	429.5	-15.0	-1.1	-4.8
1984	423.1	-2.5	409.6	-3.0	-3.2	-13.5
1985	393.1	2.9	390.5	.9	-.7	-2.6
1986	419.8	.5	410.7	-2.1	-2.2	-9.1
1987	381.7	-1.5	383.6	1.2	.5	1.9
1988	378.1	3.5	377.8	1.9	-.1	-.3
1989	400.2	3.5	397.4	1.4	-.7	-2.8
1990	378.6	4.0	379.0	2.6	.1	.4
1991	386.6	-.9	384.1	-3.4	-.6	-2.5
Mean:	411.0	-6.3	407.4	-6.4	-.9	-3.6
Median:	412.7	-4.2	404.7	-4.7	-.5	-2.2
Min:	344.5	-15.1	326.6	-15.1	-5.2	-19.6
Max:	434.3	4.0	429.5	2.6	4.8	18.6
X < 360.0	1		1			
X < 375.0	1		2			
X < 395.0	13		13			
X < 405.0	26		36			
X < 420.0	39		46			
X inc > 20.0		0		0		
X dec > 9.0		22		20		
X dec > 10.0		21		19		
X dec > 15.0		18		14		

RETURN TO TABLE OF CONTENTS

Section 2

FOLSOM RESERVOIR ELEVATION
2.2 Recreation

FOLSOM RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	407.5	.0	405.5	.0	-.5	-2.0
1923	421.3	-8.1	419.9	-9.5	-.3	-1.4
1924	413.3	-9.2	411.9	-10.7	-.3	-1.4
1925	379.1	-3.1	377.8	-1.2	-.3	-1.3
1926	403.0	-9.7	417.8	-9.7	3.7	14.8
1927	393.2	-6.0	389.8	-7.3	-.9	-3.4
1928	421.4	-8.0	401.0	-11.5	-4.8	-20.4
1929	398.6	-7.6	387.2	-8.8	-2.9	-11.4
1930	383.8	-8.4	376.7	-7.8	-1.8	-7.1
1931	401.4	-9.1	395.8	-6.9	-1.4	-5.6
1932	378.8	-4.3	373.7	-5.8	-1.3	-5.1
1933	420.2	-9.2	417.8	-10.8	-.6	-2.4
1934	392.5	-6.1	384.9	-7.3	-1.9	-7.6
1935	377.5	-3.0	378.0	3.1	.1	.5
1936	419.8	-7.7	419.1	-8.9	-.2	-.7
1937	420.6	-8.8	419.1	-10.3	-.4	-1.5
1938	421.2	-8.2	419.8	-9.6	-.3	-1.4
1939	421.7	-7.7	420.1	-9.3	-.4	-1.6
1940	394.1	-4.7	385.8	-4.2	-2.1	-8.3
1941	400.1	-6.1	396.4	-8.4	-.9	-3.7
1942	421.5	-7.9	419.7	-9.7	-.4	-1.8
1943	421.3	-8.1	419.6	-9.8	-.4	-1.7
1944	416.1	-8.8	398.2	-10.2	-4.3	-17.9
1945	380.0	-5.0	394.2	-9.4	3.7	14.2
1946	407.9	-7.2	399.4	-5.3	-2.1	-8.5
1947	403.9	-7.7	396.1	-6.2	-1.9	-7.8
1948	396.2	-1.1	397.2	-1.9	.3	1.0
1949	415.1	-9.0	406.0	-11.6	-2.2	-9.1
1950	409.4	-9.8	396.7	-8.7	-3.1	-12.7
1951	424.4	-5.0	423.1	-6.3	-.3	-1.3
1952	407.0	-5.1	398.3	-5.3	-2.1	-8.7
1953	423.3	-6.1	421.6	-7.8	-.4	-1.7
1954	421.1	-8.3	419.3	-10.1	-.4	-1.8
1955	399.2	-7.0	394.8	-6.6	-1.1	-4.4
1956	390.9	-6.9	393.7	-8.3	.7	2.8
1957	423.1	-6.3	421.7	-7.7	-.3	-1.4
1958	418.0	-7.7	399.5	-9.0	-4.4	-18.5
1959	420.8	-8.6	418.9	-10.5	-.5	-1.9
1960	390.9	-7.7	387.1	-9.5	-1.0	-3.8
1961	389.2	-6.8	394.1	-9.4	1.3	4.9
1962	390.9	-8.3	385.0	-10.4	-1.5	-5.9
1963	429.4	30.2	429.4	28.2	.0	.0
1964	422.3	-7.1	413.4	-9.1	-2.1	-8.9
1965	387.0	-5.5	399.8	-7.9	3.3	12.8
1966	422.0	-7.4	410.2	-10.0	-2.8	-11.8
1967	392.6	-6.9	387.3	-8.9	-1.3	-5.3
1968	422.9	-6.5	421.1	-8.3	-.4	-1.8
1969	404.0	-7.9	392.9	-5.6	-2.7	-11.1
1970	423.3	-6.1	421.7	-7.7	-.4	-1.6
1971	399.2	-7.1	395.6	-8.5	-.9	-3.6
1972	421.1	-8.3	419.3	-10.1	-.4	-1.8
1973	395.8	-3.5	391.9	-5.3	-1.0	-3.9
1974	415.3	-6.9	399.0	-3.6	-3.9	-16.3
1975	421.8	-7.6	420.3	-9.1	-.4	-1.5
1976	426.8	-2.6	425.5	-3.9	-.3	-1.3
1977	377.6	2.1	374.6	-.8	-.8	-3.0
1978	345.9	1.4	322.1	-4.5	-6.9	-23.8
1979	419.5	-9.9	406.3	-12.8	-3.1	-13.2
1980	407.1	-7.6	395.5	-4.0	-2.8	-11.6
1981	421.1	-8.3	407.2	-11.2	-3.3	-13.9
1982	397.0	-3.3	393.4	-4.5	-.9	-3.6
1983	429.4	.0	429.4	.0	.0	.0
1984	429.4	-4.9	429.4	-.1	.0	.0
1985	416.4	-6.7	403.0	-6.6	-3.2	-13.4
1986	387.6	-5.5	385.8	-4.7	-.5	-1.8
1987	412.3	-7.5	402.3	-8.4	-2.4	-10.0
1988	372.3	-9.4	368.7	-14.9	-1.0	-3.6
1989	376.3	-1.8	374.7	-3.1	-.4	-1.6
1990	398.0	-2.2	393.7	-3.7	-1.1	-4.3
1991	374.5	-4.1	373.4	-5.6	-.3	-1.1
Mean:	405.5	-5.8	401.0	-6.8	-1.1	-4.5
Median:	407.5	-7.1	399.0	-8.3	-.9	-3.4
Min:	345.9	-9.9	322.1	-14.9	-6.9	-23.8
Max:	429.4	30.2	429.4	28.2	3.7	14.8
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	24		11			
X > 412.0	33		23			
X > 405.0	38		29			
X > 395.0	50		45			
X > 375.0	67		64			
X > 360.0	69		69			

FOLSOM RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	397.3	.0	393.9	.0	-.9	-3.4
1923	417.7	-3.6	415.7	-4.2	-.5	-2.0
1924	402.6	-10.7	399.7	-12.2	-.7	-2.9
1925	380.0	.9	381.2	3.4	.3	1.2
1926	394.0	-9.0	409.2	-8.6	3.9	15.2
1927	410.1	16.9	407.3	17.5	-.7	-2.8
1928	421.3	-.1	402.6	1.6	-4.4	-18.7
1929	390.4	-8.2	378.8	-8.4	-3.0	-11.6
1930	373.0	-10.8	366.8	-9.9	-1.7	-6.2
1931	394.6	-6.8	392.6	-3.2	-.5	-2.0
1932	376.0	-2.8	370.4	-3.3	-1.5	-5.6
1933	411.1	-9.1	407.4	-10.4	-.9	-3.7
1934	386.8	-5.7	377.4	-7.5	-2.4	-9.4
1935	382.9	5.4	390.0	12.0	1.9	7.1
1936	413.1	-6.7	411.4	-7.7	-.4	-1.7
1937	411.7	-8.9	408.8	-10.3	-.7	-2.9
1938	416.0	-5.2	413.7	-6.1	-.6	-2.3
1939	415.1	-6.6	412.3	-7.8	-.7	-2.8
1940	387.0	-7.1	379.4	-6.4	-2.0	-7.6
1941	397.9	-2.2	392.8	-3.6	-1.3	-5.1
1942	416.3	-5.2	413.4	-6.3	-.7	-2.9
1943	421.3	.0	421.3	1.7	.0	.0
1944	408.1	-8.0	389.1	-9.1	-4.7	-19.0
1945	392.7	12.7	400.8	6.6	2.1	8.1
1946	413.4	5.5	408.6	9.2	-1.2	-4.8
1947	405.4	1.5	401.1	5.0	-1.1	-4.3
1948	392.9	-3.3	393.1	-4.1	.1	.2
1949	407.5	-7.6	396.3	-9.7	-2.7	-11.2
1950	399.0	-10.4	388.1	-8.6	-2.7	-10.9
1951	398.9	-25.5	398.9	-24.2	.0	.0
1952	409.7	2.7	402.7	4.4	-1.7	-7.0
1953	417.7	-5.6	414.9	-6.7	-.7	-2.8
1954	417.6	-3.5	415.0	-4.3	-.6	-2.6
1955	392.2	-7.0	389.0	-5.8	-.8	-3.2
1956	385.6	-5.3	388.0	-5.7	.6	2.4
1957	416.5	-6.6	413.6	-8.1	-.7	-2.9
1958	411.5	-6.5	392.4	-7.1	-4.6	-19.1
1959	414.0	-6.8	410.9	-8.0	-.7	-3.1
1960	382.0	-8.9	376.2	-10.9	-1.5	-5.8
1961	386.2	-3.0	388.6	-5.5	.6	2.4
1962	382.7	-8.2	374.9	-10.1	-2.0	-7.8
1963	421.3	-8.1	421.3	-8.1	.0	.0
1964	421.3	-1.0	421.3	7.9	.0	.0
1965	389.8	2.8	399.7	-.1	2.5	9.9
1966	420.9	-1.1	408.5	-1.7	-2.9	-12.4
1967	395.5	2.9	390.3	3.0	-1.3	-5.2
1968	420.8	-2.1	418.0	-3.1	-.7	-2.8
1969	404.6	.6	397.4	4.5	-1.8	-7.2
1970	418.0	-5.3	415.3	-6.4	-.6	-2.7
1971	412.2	13.0	408.9	13.3	-.8	-3.3
1972	416.4	-4.7	413.6	-5.7	-.7	-2.8
1973	402.2	6.4	398.1	6.2	-1.0	-4.1
1974	421.1	5.8	420.8	21.8	-.1	-.3
1975	413.3	-8.5	410.6	-9.7	-.7	-2.7
1976	421.3	-5.5	421.3	-4.2	.0	.0
1977	377.1	-.5	371.8	-2.8	-1.4	-5.3
1978	350.7	4.8	325.1	3.0	-7.3	-25.6
1979	412.3	-7.2	396.6	-9.7	-3.8	-15.7
1980	402.8	-4.3	395.9	.4	-1.7	-6.9
1981	414.0	-7.1	397.3	-9.9	-4.0	-16.7
1982	419.2	22.2	418.8	25.4	-.1	-.4
1983	421.2	-8.2	421.2	-8.2	.0	.0
1984	400.9	-28.5	399.9	-29.5	-.2	-1.0
1985	421.3	4.9	414.5	11.5	-1.6	-6.8
1986	389.6	2.0	390.0	4.2	.1	.4
1987	403.6	-8.7	393.3	-9.0	-2.6	-10.3
1988	368.0	-4.3	359.1	-9.6	-2.4	-8.9
1989	388.2	11.9	387.1	12.4	-.3	-1.1
1990	397.3	-.7	391.8	-1.9	-1.4	-5.5
1991	369.6	-4.9	367.3	-6.1	-.6	-2.3
Mean:	402.3	-3.0	398.0	-2.8	-1.1	-4.3
Median:	404.6	-4.9	398.9	-5.7	-.7	-2.9
Min:	350.7	-28.5	325.1	-29.5	-7.3	-25.6
Max:	421.3	22.2	421.3	25.4	3.9	15.2
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	10		6			
X > 412.0	27		18			
X > 405.0	35		28			
X > 395.0	47		42			
X > 375.0	66		63			
X > 360.0	69		68			

FOLSOM RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	400.3	.0	396.6	.0	-.9	-3.7
1923	421.3	3.6	421.3	5.6	.0	.0
1924	389.3	-13.3	385.0	-14.7	-1.1	-4.3
1925	384.0	4.0	387.8	6.6	1.0	3.8
1926	383.8	-10.2	400.0	-9.2	4.2	16.2
1927	418.2	8.1	415.0	7.7	-.8	-3.2
1928	419.8	-1.5	400.0	-2.6	-4.7	-19.8
1929	381.9	-8.5	370.4	-8.4	-3.0	-11.5
1930	390.0	17.0	388.1	21.3	-.5	-1.9
1931	380.1	-14.5	382.3	-10.3	.6	2.2
1932	393.1	17.1	388.8	18.4	-1.1	-4.3
1933	400.0	-11.1	394.9	-12.5	-1.3	-5.1
1934	392.7	5.9	384.4	7.0	-2.1	-8.3
1935	385.3	2.4	397.0	7.0	3.0	11.7
1936	403.6	-9.5	401.0	-10.4	-.6	-2.6
1937	401.1	-10.6	397.3	-11.5	-.9	-3.8
1938	420.0	4.0	420.0	6.3	.0	.0
1939	406.7	-8.4	402.5	-9.8	-1.0	-4.2
1940	380.4	-6.6	374.5	-4.9	-1.6	-5.9
1941	419.6	21.7	415.2	22.4	-1.0	-4.4
1942	421.3	5.0	421.3	7.9	.0	.0
1943	421.2	-.1	421.2	-.1	.0	.0
1944	396.9	-11.2	376.1	-13.0	-5.2	-20.8
1945	402.0	9.3	404.6	3.8	.6	2.6
1946	421.3	7.9	421.3	12.7	.0	.0
1947	403.5	-1.9	402.5	1.4	-.2	-1.0
1948	385.8	-7.1	385.2	-7.9	-.2	-.6
1949	401.4	-6.1	388.6	-7.7	-3.2	-12.8
1950	385.0	-14.0	376.3	-11.8	-2.3	-8.7
1951	387.0	-11.9	387.2	-11.7	.1	.2
1952	421.3	11.6	421.3	18.6	.0	.0
1953	418.1	.4	415.1	.2	-.7	-3.0
1954	412.5	-5.1	408.9	-6.1	-.9	-3.6
1955	397.0	4.8	396.2	7.2	-.2	-.8
1956	418.1	32.5	418.1	30.1	.0	.0
1957	409.1	-7.4	405.0	-8.6	-1.0	-4.1
1958	410.3	-1.2	392.7	.3	-4.3	-17.6
1959	403.5	-10.5	398.8	-12.1	-1.2	-4.7
1960	371.9	-10.1	360.4	-15.8	-3.1	-11.5
1961	382.5	-3.7	381.3	-7.3	-.3	-1.2
1962	379.3	-3.4	370.2	-4.7	-2.4	-9.1
1963	421.3	.0	421.3	.0	.0	.0
1964	412.1	-9.2	417.1	-4.2	1.2	5.0
1965	402.0	12.2	402.3	2.6	.1	.3
1966	417.5	-3.4	403.5	-5.0	-3.4	-14.0
1967	420.0	24.5	415.3	25.0	-1.1	-4.7
1968	416.6	-4.2	413.0	-5.0	-.9	-3.6
1969	409.0	4.4	405.5	8.1	-.9	-3.5
1970	420.9	2.9	421.1	5.8	.0	.2
1971	421.3	9.1	421.3	12.4	.0	.0
1972	419.3	2.9	416.0	2.4	-.8	-3.3
1973	418.3	16.1	414.2	16.1	-1.0	-4.1
1974	420.3	-.8	420.0	-.8	-.1	-.3
1975	408.2	-5.1	404.3	-6.3	-1.0	-3.9
1976	413.8	-7.5	412.9	-8.4	-.2	-.9
1977	370.4	-6.7	361.9	-9.9	-2.3	-8.5
1978	383.8	33.1	371.0	45.9	-3.3	-12.8
1979	403.2	-9.1	383.9	-12.7	-4.8	-19.3
1980	400.4	-2.4	399.2	3.3	-.3	-1.2
1981	406.0	-8.0	386.1	-11.2	-4.9	-19.9
1982	400.6	-18.6	399.4	-19.4	-.3	-1.2
1983	420.7	-.5	420.7	-.5	.0	.0
1984	392.7	-8.2	392.6	-7.3	.0	-.1
1985	421.3	.0	416.1	1.6	-1.2	-5.2
1986	400.7	11.1	402.5	12.5	.4	1.8
1987	390.5	-13.1	378.9	-14.4	-3.0	-11.6
1988	378.2	10.2	370.7	11.6	-2.0	-7.5
1989	394.6	6.4	393.0	5.9	-.4	-1.6
1990	392.0	-5.3	384.6	-7.2	-1.9	-7.4
1991	363.1	-6.5	359.6	-7.7	-1.0	-3.5
Mean:	402.3	-.1	398.3	.2	-1.0	-4.0
Median:	402.0	-1.9	399.4	-.8	-.9	-3.5
Min:	363.1	-18.6	359.6	-19.4	-5.2	-20.8
Max:	421.3	33.1	421.3	45.9	4.2	16.2
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	11		9			
X > 412.0	25		22			
X > 405.0	31		24			
X > 395.0	46		42			
X > 375.0	67		62			
X > 360.0	70		69			

FOLSOM RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	400.7	.0	395.6	.0	-1.3	-5.1
1923	421.3	.0	421.3	.0	.0	.0
1924	375.9	-13.4	369.3	-15.7	-1.8	-6.6
1925	376.4	-7.6	380.1	-7.7	1.0	3.7
1926	372.5	-11.3	390.3	-9.7	4.8	17.8
1927	421.3	3.1	421.1	6.1	.0	-.2
1928	415.5	-4.3	397.8	-2.2	-4.3	-17.7
1929	373.1	-8.8	360.5	-9.9	-3.4	-12.6
1930	396.1	6.1	393.7	5.6	-.6	-2.4
1931	371.6	-8.5	377.4	-4.9	1.6	5.8
1932	399.3	6.2	397.0	8.2	-.6	-2.3
1933	391.4	-8.6	385.0	-9.9	-1.6	-6.4
1934	398.3	5.6	392.1	7.7	-1.6	-6.2
1935	395.5	10.2	403.2	6.2	1.9	7.7
1936	421.3	17.7	421.3	20.3	.0	.0
1937	393.2	-7.9	388.2	-9.1	-1.3	-5.0
1938	419.8	-.2	419.8	-.2	.0	.0
1939	397.0	-9.7	393.8	-8.7	-.8	-3.2
1940	421.1	40.7	420.9	46.4	.0	-.2
1941	421.3	1.7	421.3	6.1	.0	.0
1942	420.0	-1.3	420.3	-1.0	.1	.3
1943	419.2	-2.0	419.2	-2.0	.0	.0
1944	390.3	-6.6	368.3	-7.8	-5.6	-22.0
1945	399.8	-2.2	399.7	-4.9	.0	-.1
1946	420.3	-1.0	420.3	-1.0	.0	.0
1947	392.3	-11.2	392.2	-10.3	.0	-.1
1948	392.9	7.1	391.9	6.7	-.3	-1.0
1949	393.2	-8.2	376.9	-11.7	-4.1	-16.3
1950	412.1	27.1	408.8	32.5	-.8	-3.3
1951	390.7	3.7	390.9	3.7	.1	.2
1952	421.3	.0	421.3	.0	.0	.0
1953	421.1	3.0	421.2	6.1	.0	.1
1954	412.1	-.4	407.6	-1.3	-1.1	-4.5
1955	402.1	5.1	400.5	4.3	-.4	-1.6
1956	398.4	-19.7	398.4	-19.7	.0	.0
1957	401.1	-8.0	395.7	-9.3	-1.3	-5.4
1958	415.3	5.0	399.8	7.1	-3.7	-15.5
1959	406.4	2.9	403.3	4.5	-.8	-3.1
1960	372.1	.2	357.6	-2.8	-3.9	-14.5
1961	373.2	-9.3	369.0	-12.3	-1.1	-4.2
1962	375.4	-3.9	364.5	-5.7	-2.9	-10.9
1963	418.9	-2.4	419.0	-2.3	.0	.1
1964	412.1	.0	417.1	.0	1.2	5.0
1965	395.2	-6.8	394.9	-7.4	-.1	-.3
1966	415.0	-2.5	401.6	-1.9	-3.2	-13.4
1967	420.4	.4	419.9	4.6	-.1	-.5
1968	414.7	-1.9	409.9	-3.1	-1.2	-4.8
1969	418.9	9.9	418.9	13.4	.0	.0
1970	402.0	-18.9	402.3	-18.8	.1	.3
1971	421.3	.0	421.3	.0	.0	.0
1972	415.6	-3.7	411.0	-5.0	-1.1	-4.6
1973	420.2	1.9	420.0	5.8	.0	-.2
1974	413.7	-6.6	413.1	-6.9	-.1	-.6
1975	404.1	-4.1	399.0	-5.3	-1.3	-5.1
1976	400.7	-13.1	398.4	-14.5	-.6	-2.3
1977	367.1	-3.3	355.7	-6.2	-3.1	-11.4
1978	420.6	36.8	421.3	50.3	.2	.7
1979	408.4	5.2	392.0	8.1	-4.0	-16.4
1980	411.9	11.5	407.5	8.3	-1.1	-4.4
1981	402.1	-3.9	382.6	-3.5	-4.8	-19.5
1982	398.2	-2.4	397.6	-1.8	-.2	-.6
1983	419.7	-1.0	419.7	-1.0	.0	.0
1984	393.5	.8	393.5	.9	.0	.0
1985	413.2	-8.1	406.7	-9.4	-1.6	-6.5
1986	419.9	19.2	419.8	17.3	.0	-.1
1987	380.9	-9.6	368.5	-10.4	-3.3	-12.4
1988	394.3	16.1	387.8	17.1	-1.6	-6.5
1989	388.7	-5.9	386.2	-6.8	-.6	-2.5
1990	390.7	-1.3	382.7	-1.9	-2.0	-8.0
1991	354.2	-8.9	348.3	-11.3	-1.7	-5.9
Mean:	402.1	-.2	398.5	.2	-.9	-3.6
Median:	402.0	-1.3	398.4	-1.9	-.6	-2.3
Min:	354.2	-19.7	348.3	-19.7	-5.6	-22.0
Max:	421.3	40.7	421.3	50.3	4.8	17.8
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	12		11			
X > 412.0	29		21			
X > 405.0	32		27			
X > 395.0	48		42			
X > 375.0	63		61			
X > 360.0	69		67			

FOLSOM RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	421.3	.0	421.3	.0	.0	.0
1923	418.4	-2.9	421.1	-.2	.6	2.7
1924	375.8	-.1	367.9	-1.4	-2.1	-7.9
1925	419.6	43.2	420.0	39.9	.1	.4
1926	399.8	27.3	410.9	20.6	2.8	11.1
1927	419.9	-1.4	419.6	-1.5	-.1	-.3
1928	417.5	2.0	399.0	1.2	-4.4	-18.5
1929	378.8	5.7	367.3	6.8	-3.0	-11.5
1930	398.6	2.5	395.7	2.0	-.7	-2.9
1931	368.9	-2.7	376.1	-1.3	2.0	7.2
1932	421.3	22.0	420.8	23.8	-.1	-.5
1933	384.7	-6.7	376.1	-8.9	-2.2	-8.6
1934	403.0	4.7	398.5	6.4	-1.1	-4.5
1935	400.5	5.0	407.3	4.1	1.7	6.8
1936	421.3	.0	421.2	-.1	.0	-.1
1937	421.1	27.9	418.1	29.9	-.7	-3.0
1938	419.5	-.3	419.5	-.3	.0	.0
1939	391.2	-5.8	386.5	-7.3	-1.2	-4.7
1940	419.6	-1.5	419.6	-1.3	.0	.0
1941	421.3	.0	421.3	.0	.0	.0
1942	419.0	-1.0	419.2	-1.1	.0	.2
1943	418.0	-1.2	418.0	-1.2	.0	.0
1944	397.6	7.3	379.7	11.4	-4.5	-17.9
1945	420.3	20.5	420.3	20.6	.0	.0
1946	418.4	-1.9	418.4	-1.9	.0	.0
1947	398.4	6.1	397.0	4.8	-.4	-1.4
1948	384.9	-8.0	385.5	-6.4	.2	.6
1949	390.1	-3.1	375.9	-1.0	-3.6	-14.2
1950	421.3	9.2	421.3	12.5	.0	.0
1951	392.6	1.9	392.7	1.8	.0	.1
1952	421.3	.0	421.3	.0	.0	.0
1953	420.4	-.7	420.6	-.6	.0	.2
1954	421.3	9.2	416.6	9.0	-1.1	-4.7
1955	400.0	-2.1	397.6	-2.9	-.6	-2.4
1956	397.6	-.8	397.6	-.8	.0	.0
1957	418.5	17.4	413.3	17.6	-1.2	-5.2
1958	420.3	5.0	420.3	20.5	.0	.0
1959	415.5	9.1	411.8	8.5	-.9	-3.7
1960	411.5	39.4	402.8	45.2	-2.1	-8.7
1961	379.2	6.0	374.0	5.0	-1.4	-5.2
1962	421.3	45.9	415.9	51.4	-1.3	-5.4
1963	409.2	-9.7	409.4	-9.6	.0	.2
1964	409.6	-2.5	414.3	-2.8	1.1	4.7
1965	395.0	-.2	394.7	-.2	-.1	-.3
1966	414.6	-.4	399.9	-1.7	-3.5	-14.7
1967	419.1	-1.3	418.8	-1.1	-.1	-.3
1968	419.4	4.7	419.4	9.5	.0	.0
1969	417.2	-1.7	417.1	-1.8	.0	-.1
1970	398.2	-3.8	398.2	-4.1	.0	.0
1971	420.4	-.9	420.5	-.8	.0	.1
1972	421.3	5.7	417.4	6.4	-.9	-3.9
1973	419.7	-.5	419.6	-.4	.0	-.1
1974	413.1	-.6	413.7	.6	.1	.6
1975	419.8	15.7	414.9	15.9	-1.2	-4.9
1976	393.2	-7.5	389.4	-9.0	-1.0	-3.8
1977	363.9	-3.2	351.2	-4.5	-3.5	-12.7
1978	419.9	-.7	421.3	.0	.3	1.4
1979	419.6	11.2	405.8	13.8	-3.3	-13.8
1980	397.9	-14.0	395.7	-11.8	-.6	-2.2
1981	401.8	-.3	384.6	2.0	-4.3	-17.2
1982	389.8	-8.4	390.2	-7.4	.1	.4
1983	418.4	-1.3	418.4	-1.3	.0	.0
1984	394.1	.6	394.0	.5	.0	-.1
1985	415.2	2.0	408.3	1.6	-1.7	-6.9
1986	397.5	-22.4	397.1	-22.7	-.1	-.4
1987	385.6	4.7	375.0	6.5	-2.7	-10.6
1988	388.1	-6.2	382.7	-5.1	-1.4	-5.4
1989	388.4	-.3	385.2	-1.0	-.8	-3.2
1990	389.9	-.8	384.0	1.3	-1.5	-5.9
1991	348.6	-5.6	341.0	-7.3	-2.2	-7.6
Mean:	405.7	3.3	402.7	3.9	-.8	-3.0
Median:	413.1	-.3	408.3	-.1	-.1	-.3
Min:	348.6	-22.4	341.0	-22.7	-4.5	-18.5
Max:	421.3	45.9	421.3	51.4	2.8	11.1
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	14		12			
X > 412.0	36		32			
X > 405.0	39		38			
X > 395.0	51		49			
X > 375.0	67		64			
X > 360.0	69		68			

FOLSOM RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	424.6	.0	423.6	.0	-.2	-1.0
1923	419.2	.8	421.1	.0	.5	1.9
1924	366.8	-9.0	358.8	-9.1	-2.2	-8.0
1925	423.0	3.4	423.0	3.0	.0	.0
1926	400.8	1.0	410.8	-.1	2.5	10.0
1927	430.8	10.9	430.7	11.1	.0	-.1
1928	429.1	11.6	428.7	29.7	-.1	-.4
1929	386.0	7.2	374.9	7.6	-2.9	-11.1
1930	418.1	19.5	415.1	19.4	-.7	-3.0
1931	376.3	7.4	384.6	8.5	2.2	8.3
1932	428.4	7.1	426.9	6.1	-.4	-1.5
1933	386.6	1.9	380.3	4.2	-1.6	-6.3
1934	410.8	7.8	407.8	9.3	-.7	-3.0
1935	401.1	.6	406.6	-.7	1.4	5.5
1936	431.5	10.2	431.5	10.3	.0	.0
1937	432.0	10.9	432.0	13.9	.0	.0
1938	431.5	12.0	431.5	12.0	.0	.0
1939	402.8	11.6	398.1	11.6	-1.2	-4.7
1940	426.0	6.4	426.9	7.3	.2	.9
1941	431.8	10.5	431.8	10.5	.0	.0
1942	416.3	-2.7	415.4	-3.8	-.2	-.9
1943	426.3	8.3	426.5	8.5	.0	.2
1944	408.5	10.9	394.7	15.0	-3.4	-13.8
1945	427.0	6.7	426.0	5.7	-.2	-1.0
1946	430.8	12.4	430.1	11.7	-.2	-.7
1947	414.7	16.3	412.9	15.9	-.4	-1.8
1948	380.3	-4.6	379.0	-6.5	-.3	-1.3
1949	413.7	23.6	402.5	26.6	-2.7	-11.2
1950	430.7	9.4	431.6	10.3	.2	.9
1951	422.6	30.0	422.6	29.9	.0	.0
1952	432.0	10.7	432.0	10.7	.0	.0
1953	420.1	-.3	419.3	-1.3	-.2	-.8
1954	431.6	10.3	431.6	15.0	.0	.0
1955	399.8	-.2	396.2	-1.4	-.9	-3.6
1956	411.5	13.9	410.0	12.4	-.4	-1.5
1957	431.0	12.5	431.0	17.7	.0	.0
1958	431.7	11.4	431.7	11.4	.0	.0
1959	419.9	4.4	415.7	3.9	-1.0	-4.2
1960	431.5	20.0	426.2	23.4	-1.2	-5.3
1961	386.6	7.4	383.7	9.7	-.8	-2.9
1962	428.9	7.6	423.2	7.3	-1.3	-5.7
1963	411.7	2.5	410.8	1.4	-.2	-.9
1964	406.4	-3.2	410.5	-3.8	1.0	4.1
1965	407.1	12.1	405.5	10.8	-.4	-1.6
1966	420.3	5.7	407.5	7.6	-3.0	-12.8
1967	429.1	10.0	429.1	10.3	.0	.0
1968	429.9	10.5	417.0	-2.4	-3.0	-12.9
1969	424.6	7.4	423.5	6.4	-.3	-1.1
1970	422.7	24.5	423.5	25.3	.2	.8
1971	430.5	10.1	430.5	10.0	.0	.0
1972	430.1	8.8	430.1	12.7	.0	.0
1973	431.6	11.9	431.6	12.0	.0	.0
1974	424.7	11.6	424.9	11.2	.0	.2
1975	432.0	12.2	432.0	17.1	.0	.0
1976	390.8	-2.4	386.9	-2.5	-1.0	-3.9
1977	363.2	-.7	351.1	-.1	-3.3	-12.1
1978	430.7	10.8	430.7	9.4	.0	.0
1979	431.8	12.2	422.9	17.1	-2.1	-8.9
1980	424.6	26.7	423.7	28.0	-.2	-.9
1981	414.0	12.2	401.0	16.4	-3.1	-13.0
1982	422.0	32.2	422.0	31.8	.0	.0
1983	427.7	9.3	427.5	9.1	.0	-.2
1984	422.1	28.0	422.8	28.8	.2	.7
1985	418.6	3.4	413.0	4.7	-1.3	-5.6
1986	421.6	24.1	421.6	24.5	.0	.0
1987	399.3	13.7	391.8	16.8	-1.9	-7.5
1988	386.8	-1.3	383.3	.6	-.9	-3.5
1989	428.4	40.0	430.8	45.6	.6	2.4
1990	402.1	12.2	396.7	12.7	-1.3	-5.4
1991	380.5	31.9	379.1	38.1	-.4	-1.4
Mean:	416.0	10.2	413.8	11.1	-.5	-2.1
Median:	422.1	10.2	422.0	10.3	-.2	-.9
Min:	363.2	-9.0	351.1	-9.1	-3.4	-13.8
Max:	432.0	40.0	432.0	45.6	2.5	10.0
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	40		38			
X > 412.0	48		45			
X > 405.0	54		53			
X > 395.0	60		58			
X > 375.0	68		67			
X > 360.0	70		68			

FOLSOM RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	438.5	.0	436.1	.0	-.5	-2.4
1923	444.5	25.3	444.5	23.4	.0	.0
1924	374.9	8.1	367.3	8.5	-2.0	-7.6
1925	444.5	21.5	444.5	21.5	.0	.0
1926	429.0	28.2	436.2	25.4	1.7	7.2
1927	444.5	13.7	444.5	13.8	.0	.0
1928	444.5	15.4	444.5	15.8	.0	.0
1929	395.3	9.3	391.7	16.8	-.9	-3.6
1930	427.1	9.0	424.8	9.7	-.5	-2.3
1931	384.8	8.5	391.7	7.1	1.8	6.9
1932	434.8	6.4	433.7	6.8	-.3	-1.1
1933	393.5	6.9	388.4	8.1	-1.3	-5.1
1934	399.5	-11.3	399.5	-8.3	.0	.0
1935	444.5	43.4	444.5	37.9	.0	.0
1936	444.5	13.0	444.5	13.0	.0	.0
1937	444.5	12.5	444.5	12.5	.0	.0
1938	444.5	13.0	444.5	13.0	.0	.0
1939	414.1	11.3	412.4	14.3	-.4	-1.7
1940	444.5	18.5	444.5	17.6	.0	.0
1941	444.5	12.7	444.5	12.7	.0	.0
1942	441.0	24.7	438.9	23.5	-.5	-2.1
1943	444.5	18.2	444.5	18.0	.0	.0
1944	411.6	3.1	399.5	4.8	-2.9	-12.1
1945	438.8	11.8	436.5	10.5	-.5	-2.3
1946	444.5	13.7	444.5	14.4	.0	.0
1947	421.1	6.4	418.4	5.5	-.6	-2.7
1948	419.9	39.6	417.8	38.8	-.5	-2.1
1949	434.9	21.2	424.0	21.5	-2.5	-10.9
1950	444.5	13.8	444.5	12.9	.0	.0
1951	444.5	21.9	444.5	21.9	.0	.0
1952	444.5	12.5	444.5	12.5	.0	.0
1953	433.6	13.5	433.1	13.8	-.1	-.5
1954	444.5	12.9	444.5	12.9	.0	.0
1955	407.2	7.4	403.4	7.2	-.9	-3.8
1956	426.2	14.7	423.4	13.4	-.7	-2.8
1957	433.4	2.4	432.0	1.0	-.3	-1.4
1958	444.5	12.8	444.5	12.8	.0	.0
1959	424.2	4.3	420.6	4.9	-.8	-3.6
1960	440.2	8.7	434.2	8.0	-1.4	-6.0
1961	402.1	15.5	398.2	14.5	-1.0	-3.9
1962	444.5	15.6	444.5	21.3	.0	.0
1963	444.5	32.8	444.5	33.7	.0	.0
1964	413.8	7.4	416.4	5.9	.6	2.6
1965	444.5	37.4	444.5	39.0	.0	.0
1966	435.4	15.1	424.6	17.1	-2.5	-10.8
1967	442.0	12.9	440.8	11.7	-.3	-1.2
1968	434.5	4.6	420.7	3.7	-3.2	-13.8
1969	444.5	19.9	444.5	21.0	.0	.0
1970	428.1	5.4	429.2	5.7	.3	1.1
1971	440.2	9.7	440.2	9.7	.0	.0
1972	436.9	6.8	435.8	5.7	-.3	-1.1
1973	444.4	12.8	442.8	11.2	-.4	-1.6
1974	444.5	19.8	444.5	19.6	.0	.0
1975	434.6	2.6	433.0	1.0	-.4	-1.6
1976	398.2	7.4	394.3	7.4	-1.0	-3.9
1977	363.6	.4	352.1	1.0	-3.2	-11.5
1978	444.5	13.8	444.5	13.8	.0	.0
1979	440.7	8.9	432.3	9.4	-1.9	-8.4
1980	443.1	18.5	442.3	18.6	-.2	-.8
1981	420.7	6.7	413.0	12.0	-1.8	-7.7
1982	444.5	22.5	444.5	22.5	.0	.0
1983	444.5	16.8	444.5	17.0	.0	.0
1984	437.2	15.1	436.8	14.0	-.1	-.4
1985	434.7	16.1	430.2	17.2	-1.0	-4.5
1986	444.3	22.7	442.9	21.3	-.3	-1.4
1987	411.4	12.1	403.8	12.0	-1.8	-7.6
1988	397.1	10.3	394.6	11.3	-.6	-2.5
1989	444.5	16.1	444.5	13.7	.0	.0
1990	400.4	-1.7	399.5	2.8	-.2	-.9
1991	396.2	15.7	395.9	16.8	-.1	-.3
Mean:	429.7	13.6	427.7	13.7	-.5	-2.0
Median:	438.5	12.9	436.1	12.9	-.2	-.8
Min:	363.6	-11.3	352.1	-8.3	-3.2	-13.8
Max:	444.5	43.4	444.5	39.0	1.8	7.2

X > 466.0	0	0
X > 455.0	0	0
X > 435.0	39	37
X > 420.0	53	51
X > 412.0	56	56
X > 405.0	59	56
X > 395.0	66	63
X > 375.0	68	68
X > 360.0	70	69

FOLSOM RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	460.7	16.2	460.7	16.2	.0	.0
1924	381.2	6.3	374.7	7.4	-1.7	-6.5
1925	460.7	16.2	460.7	16.2	.0	.0
1926	422.5	-6.5	428.7	-7.5	1.5	6.2
1927	460.7	16.2	460.7	16.2	.0	.0
1928	453.0	8.5	451.0	6.5	-.4	-2.0
1929	400.0	4.7	397.2	5.5	-.7	-2.8
1930	424.1	-3.0	422.1	-2.7	-.5	-2.0
1931	393.9	9.1	397.1	5.4	.8	3.2
1932	452.2	17.4	450.0	16.3	-.5	-2.2
1933	399.4	5.9	393.1	4.7	-1.6	-6.3
1934	402.6	3.1	401.7	2.2	-.2	-.9
1935	459.7	15.2	458.5	14.0	-.3	-1.2
1936	459.1	14.6	457.4	12.9	-.4	-1.7
1937	460.7	16.2	460.7	16.2	.0	.0
1938	460.7	16.2	460.7	16.2	.0	.0
1939	410.8	-3.3	407.6	-4.8	-.8	-3.2
1940	458.1	13.6	457.0	12.5	-.2	-1.1
1941	460.7	16.2	460.7	16.2	.0	.0
1942	460.7	19.7	460.7	21.8	.0	.0
1943	454.3	9.8	452.2	7.7	-.5	-2.1
1944	419.8	8.2	409.0	9.5	-2.6	-10.8
1945	456.1	17.3	452.1	15.6	-.9	-4.0
1946	460.7	16.2	459.0	14.5	-.4	-1.7
1947	416.5	-4.6	413.4	-5.0	-.7	-3.1
1948	440.1	20.2	436.3	18.5	-.9	-3.8
1949	449.7	14.8	441.0	17.0	-1.9	-8.7
1950	460.4	15.9	458.5	14.0	-.4	-1.9
1951	460.2	15.7	459.8	15.3	-.1	-.4
1952	460.7	16.2	460.7	16.2	.0	.0
1953	444.0	10.4	441.4	8.3	-.6	-2.6
1954	449.2	4.7	447.9	3.4	-.3	-1.3
1955	417.8	10.6	414.7	11.3	-.7	-3.1
1956	458.5	32.3	454.5	31.1	-.9	-4.0
1957	453.4	20.0	452.1	20.1	-.3	-1.3
1958	460.7	16.2	460.7	16.2	.0	.0
1959	417.6	-6.6	414.2	-6.4	-.8	-3.4
1960	439.4	-.8	432.1	-2.1	-1.7	-7.3
1961	408.9	6.8	403.8	5.6	-1.2	-5.1
1962	450.6	6.1	448.6	4.1	-.4	-2.0
1963	460.7	16.2	460.7	16.2	.0	.0
1964	421.1	7.3	422.2	5.8	.3	1.1
1965	459.1	14.6	458.6	14.1	-.1	-.5
1966	432.1	-3.3	419.2	-5.4	-3.0	-12.9
1967	460.7	18.7	460.7	19.9	.0	.0
1968	431.2	-3.3	415.3	-5.4	-3.7	-15.9
1969	460.7	16.2	460.7	16.2	.0	.0
1970	434.9	6.8	436.0	6.8	.3	1.1
1971	454.8	14.6	452.8	12.6	-.4	-2.0
1972	443.5	6.6	442.4	6.6	-.2	-1.1
1973	460.7	16.3	460.7	17.9	.0	.0
1974	460.7	16.2	460.7	16.2	.0	.0
1975	459.6	25.0	456.3	23.3	-.7	-3.3
1976	402.3	4.1	402.3	8.0	.0	.0
1977	365.4	1.8	354.2	2.1	-3.1	-11.2
1978	460.7	16.2	458.9	14.4	-.4	-1.8
1979	460.7	20.0	454.2	21.9	-1.4	-6.5
1980	454.6	11.5	453.0	10.7	-.4	-1.6
1981	416.2	-4.5	410.4	-2.6	-1.4	-5.8
1982	460.7	16.2	460.7	16.2	.0	.0
1983	460.7	16.2	460.7	16.2	.0	.0
1984	451.6	14.4	451.4	14.6	.0	-.2
1985	431.7	-3.0	427.2	-3.0	-1.0	-4.5
1986	454.4	10.1	451.1	8.2	-.7	-3.3
1987	408.3	-3.1	406.1	2.3	-.5	-2.2
1988	401.2	4.1	398.1	3.5	-.8	-3.1
1989	446.7	2.2	446.5	2.0	.0	-.2
1990	396.9	-3.5	397.0	-2.5	.0	.1
1991	403.7	7.5	401.6	5.7	-.5	-2.1
Mean:	439.9	9.9	437.6	9.6	-.5	-2.3
Median:	452.2	10.6	451.0	10.7	-.4	-1.7
Min:	365.4	-6.6	354.2	-7.5	-3.7	-15.9
Max:	460.7	32.3	460.7	31.1	1.5	6.2

X > 466.0	0	0
X > 455.0	29	26
X > 435.0	45	45
X > 420.0	52	50
X > 412.0	57	55
X > 405.0	60	59
X > 395.0	67	67
X > 375.0	69	68
X > 360.0	70	69

FOLSOM RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	450.4	-10.3	451.8	-8.9	.3	1.4
1924	384.3	3.1	377.7	3.0	-1.7	-6.6
1925	441.6	-19.1	444.2	-16.5	.6	2.6
1926	414.0	-8.5	416.7	-12.0	.7	2.7
1927	460.7	.0	460.7	.0	.0	.0
1928	424.1	-28.9	430.4	-20.6	1.5	6.3
1929	394.5	-5.5	391.1	-6.1	-.9	-3.4
1930	418.4	-5.7	416.1	-6.0	-.5	-2.3
1931	394.1	.2	400.1	3.0	1.5	6.0
1932	451.3	-.9	447.3	-2.7	-.9	-4.0
1933	402.2	2.8	396.7	3.6	-1.4	-5.5
1934	392.1	-10.5	390.6	-11.1	-.4	-1.5
1935	460.7	1.0	459.2	.7	-.3	-1.5
1936	460.7	1.6	460.7	3.3	.0	.0
1937	454.7	-6.0	453.0	-7.7	-.4	-1.7
1938	460.7	.0	460.7	.0	.0	.0
1939	409.1	-1.7	406.8	-.8	-.6	-2.3
1940	450.0	-8.1	448.6	-8.4	-.3	-1.4
1941	458.0	-2.7	457.1	-3.6	-.2	-.9
1942	460.7	.0	460.7	.0	.0	.0
1943	453.2	-1.1	448.8	-3.4	-1.0	-4.4
1944	416.8	-3.0	407.3	-1.7	-2.3	-9.5
1945	437.7	-18.4	438.3	-13.8	.1	.6
1946	436.6	-24.1	438.7	-20.3	.5	2.1
1947	412.3	-4.2	409.0	-4.4	-.8	-3.3
1948	449.9	9.8	444.9	8.6	-1.1	-5.0
1949	442.2	-7.5	434.0	-7.0	-1.9	-8.2
1950	460.7	.3	458.7	.2	-.4	-2.0
1951	452.9	-7.3	450.0	-9.8	-.6	-2.9
1952	460.7	.0	460.7	.0	.0	.0
1953	457.5	13.5	454.1	12.7	-.7	-3.4
1954	439.8	-9.4	432.2	-15.7	-1.7	-7.6
1955	415.6	-2.2	412.4	-2.3	-.8	-3.2
1956	460.7	2.2	460.7	6.2	.0	.0
1957	448.6	-4.8	443.3	-8.8	-1.2	-5.3
1958	460.7	.0	460.7	.0	.0	.0
1959	413.8	-3.8	410.2	-4.0	-.9	-3.6
1960	433.1	-6.3	423.7	-8.4	-2.2	-9.4
1961	412.4	3.5	406.6	2.8	-1.4	-5.8
1962	447.9	-2.7	442.7	-5.9	-1.2	-5.2
1963	460.1	-.6	457.8	-2.9	-.5	-2.3
1964	418.9	-2.2	418.1	-4.1	-.2	-.8
1965	459.7	.6	456.8	-1.8	-.6	-2.9
1966	423.1	-9.0	410.6	-8.6	-3.0	-12.5
1967	460.7	.0	460.7	.0	.0	.0
1968	422.4	-8.8	408.4	-6.9	-3.3	-14.0
1969	460.7	.0	460.7	.0	.0	.0
1970	426.1	-8.8	427.5	-8.5	.3	1.4
1971	460.7	5.9	458.0	5.2	-.6	-2.7
1972	424.1	-19.4	421.8	-20.6	-.5	-2.3
1973	440.5	-20.2	433.5	-27.2	-1.6	-7.0
1974	460.7	.0	460.7	.0	.0	.0
1975	460.7	1.1	460.7	4.4	.0	.0
1976	392.1	-10.2	390.6	-11.7	-.4	-1.5
1977	361.3	-4.1	349.9	-4.3	-3.2	-11.4
1978	460.7	.0	458.5	-.4	-.5	-2.2
1979	433.6	-27.1	423.4	-30.8	-2.4	-10.2
1980	453.1	-1.5	450.5	-2.5	-.6	-2.6
1981	410.0	-6.2	407.6	-2.8	-.6	-2.4
1982	460.7	.0	460.7	.0	.0	.0
1983	460.7	.0	460.7	.0	.0	.0
1984	438.5	-13.1	442.0	-9.4	.8	3.5
1985	418.1	-13.6	414.3	-12.9	-.9	-3.8
1986	454.1	-.3	450.0	-1.1	-.9	-4.1
1987	408.4	.1	403.9	-2.2	-1.1	-4.5
1988	392.1	-9.1	390.6	-7.5	-.4	-1.5
1989	431.7	-15.0	430.9	-15.6	-.2	-.8
1990	392.1	-4.8	390.6	-6.4	-.4	-1.5
1991	397.9	-5.8	394.9	-6.7	-.8	-3.0
Mean:	435.1	-4.8	432.6	-5.0	-.6	-2.5
Median:	440.5	-2.7	438.7	-3.6	-.5	-2.3
Min:	361.3	-28.9	349.9	-30.8	-3.3	-14.0
Max:	460.7	13.5	460.7	12.7	1.5	6.3

X > 466.0	0	0
X > 455.0	22	21
X > 435.0	40	37
X > 420.0	48	46
X > 412.0	57	51
X > 405.0	60	59
X > 395.0	62	62
X > 375.0	69	69
X > 360.0	70	69

FOLSOM RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	452.1	.0	453.7	.0	.4	1.6
1923	430.7	-19.7	447.2	-4.6	3.8	16.5
1924	383.9	-.4	379.8	2.1	-1.1	-4.1
1925	428.6	-13.0	438.6	-5.6	2.3	10.0
1926	398.5	-15.5	399.5	-17.2	.3	1.0
1927	456.4	-4.3	433.6	-27.1	-5.0	-22.8
1928	419.2	-4.9	422.7	-7.7	.8	3.5
1929	386.7	-7.8	382.2	-8.9	-1.2	-4.5
1930	405.4	-13.0	401.7	-14.4	-.9	-3.7
1931	383.9	-10.2	382.0	-18.1	-.5	-1.9
1932	448.0	-3.3	440.6	-6.7	-1.7	-7.4
1933	391.9	-10.3	385.4	-11.3	-1.7	-6.5
1934	383.9	-8.2	380.3	-10.3	-.9	-3.6
1935	444.6	-16.1	452.7	-6.5	1.8	8.1
1936	451.8	-8.9	449.9	-10.8	-.4	-1.9
1937	450.8	-3.9	447.2	-5.8	-.8	-3.6
1938	458.4	-2.3	458.4	-2.3	.0	.0
1939	399.0	-10.1	395.9	-10.9	-.8	-3.1
1940	424.1	-25.9	423.0	-25.6	-.3	-1.1
1941	458.4	.4	455.5	-1.6	-.6	-2.9
1942	458.4	-2.3	458.4	-2.3	.0	.0
1943	433.7	-19.5	424.1	-24.7	-2.2	-9.6
1944	410.4	-6.4	403.8	-3.5	-1.6	-6.6
1945	424.1	-13.6	421.8	-16.5	-.5	-2.3
1946	424.1	-12.5	421.8	-16.9	-.5	-2.3
1947	402.9	-9.4	400.6	-8.4	-.6	-2.3
1948	441.5	-8.4	441.7	-3.2	.0	.2
1949	428.9	-13.3	421.0	-13.0	-1.8	-7.9
1950	443.7	-17.0	449.9	-8.8	1.4	6.2
1951	424.3	-28.6	423.0	-27.0	-.3	-1.3
1952	458.4	-2.3	458.4	-2.3	.0	.0
1953	458.4	.9	458.2	4.1	.0	-.2
1954	424.1	-15.7	423.0	-9.2	-.3	-1.1
1955	412.1	-3.5	409.0	-3.4	-.8	-3.1
1956	458.4	-2.3	458.4	-2.3	.0	.0
1957	430.6	-18.0	423.0	-20.3	-1.8	-7.6
1958	458.4	-2.3	458.4	-2.3	.0	.0
1959	412.9	-.9	407.8	-2.4	-1.2	-5.1
1960	417.5	-15.6	415.7	-8.0	-.4	-1.8
1961	412.3	-.1	403.3	-3.3	-2.2	-9.0
1962	424.1	-23.8	421.8	-20.9	-.5	-2.3
1963	458.4	-1.7	433.0	-24.8	-5.5	-25.4
1964	409.8	-9.1	407.9	-10.2	-.5	-1.9
1965	442.6	-17.1	431.3	-25.5	-2.6	-11.3
1966	416.1	-7.0	407.0	-3.6	-2.2	-9.1
1967	458.4	-2.3	458.4	-2.3	.0	.0
1968	415.8	-6.6	404.5	-3.9	-2.7	-11.3
1969	458.4	-2.3	458.4	-2.3	.0	.0
1970	424.1	-2.0	424.1	-3.4	.0	.0
1971	458.4	-2.3	458.4	.4	.0	.0
1972	421.4	-2.7	417.0	-4.8	-1.0	-4.4
1973	424.1	-16.4	423.0	-10.5	-.3	-1.1
1974	458.4	-2.3	458.4	-2.3	.0	.0
1975	458.4	-2.3	458.4	-2.3	.0	.0
1976	383.9	-8.2	382.2	-8.4	-.4	-1.7
1977	353.5	-7.8	340.9	-9.0	-3.6	-12.6
1978	438.8	-21.9	436.4	-22.1	-.5	-2.4
1979	424.1	-9.5	420.9	-2.5	-.8	-3.2
1980	447.7	-5.4	441.0	-9.5	-1.5	-6.7
1981	410.8	.8	405.4	-2.2	-1.3	-5.4
1982	458.4	-2.3	458.4	-2.3	.0	.0
1983	459.0	-1.7	458.4	-2.3	-.1	-.6
1984	424.1	-14.4	424.1	-17.9	.0	.0
1985	405.9	-12.2	402.2	-12.1	-.9	-3.7
1986	433.2	-20.9	428.2	-21.8	-1.2	-5.0
1987	396.7	-11.7	395.9	-8.0	-.2	-.8
1988	383.9	-8.2	382.2	-8.4	-.4	-1.7
1989	413.9	-17.8	415.2	-15.7	.3	1.3
1990	383.9	-8.2	382.2	-8.4	-.4	-1.7
1991	390.2	-7.7	383.0	-11.9	-1.8	-7.2
Mean:	426.1	-8.9	423.3	-9.2	-.7	-2.8
Median:	424.1	-8.2	423.0	-8.4	-.5	-1.9
Min:	353.5	-28.6	340.9	-27.1	-5.5	-25.4
Max:	459.0	.9	458.4	4.1	3.8	16.5

X > 466.0	0	0
X > 455.0	16	14
X > 435.0	26	25
X > 420.0	43	43
X > 412.0	51	46
X > 405.0	56	51
X > 395.0	60	60
X > 375.0	69	69
X > 360.0	69	69

FOLSOM RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	444.5	.0	444.0	.0	-.1	-.5
1923	425.1	-5.6	427.3	-19.9	.5	2.2
1924	386.3	2.4	381.2	1.4	-1.3	-5.1
1925	414.6	-14.0	435.7	-2.9	5.1	21.1
1926	401.1	2.6	399.5	.0	-.4	-1.6
1927	444.5	-11.9	417.7	-15.9	-6.0	-26.8
1928	406.2	-13.0	399.5	-23.2	-1.6	-6.7
1929	394.1	7.4	386.5	4.3	-1.9	-7.6
1930	410.4	5.0	404.6	2.9	-1.4	-5.8
1931	386.8	2.9	382.0	.0	-1.2	-4.8
1932	444.5	-3.5	437.2	-3.4	-1.6	-7.3
1933	399.9	8.0	393.7	8.3	-1.6	-6.2
1934	383.0	-.9	374.8	-5.5	-2.1	-8.2
1935	436.1	-8.5	436.4	-16.3	.1	.3
1936	444.1	-7.7	444.5	-5.4	.1	.4
1937	444.5	-6.3	442.9	-4.3	-.4	-1.6
1938	444.5	-13.9	444.5	-13.9	.0	.0
1939	400.5	1.5	393.9	-2.0	-1.6	-6.6
1940	407.4	-16.7	408.4	-14.6	.2	1.0
1941	444.5	-13.9	444.5	-11.0	.0	.0
1942	444.5	-13.9	444.5	-13.9	.0	.0
1943	428.8	-4.9	412.2	-11.9	-3.9	-16.6
1944	391.1	-19.3	407.3	3.5	4.1	16.2
1945	421.5	-2.6	413.8	-8.0	-1.8	-7.7
1946	421.3	-2.8	414.1	-7.7	-1.7	-7.2
1947	404.5	1.6	404.3	3.7	.0	-.2
1948	432.6	-8.9	431.1	-10.6	-.3	-1.5
1949	423.1	-5.8	408.6	-12.4	-3.4	-14.5
1950	435.9	-7.8	441.1	-8.8	1.2	5.2
1951	413.4	-10.9	409.4	-13.6	-1.0	-4.0
1952	444.5	-13.9	444.5	-13.9	.0	.0
1953	444.5	-13.9	444.5	-13.7	.0	.0
1954	411.0	-13.1	403.2	-19.8	-1.9	-7.8
1955	398.4	-13.7	404.6	-4.4	1.6	6.2
1956	444.5	-13.9	444.5	-13.9	.0	.0
1957	430.6	.0	413.5	-9.5	-4.0	-17.1
1958	444.5	-13.9	444.5	-13.9	.0	.0
1959	399.5	-13.4	399.5	-8.3	.0	.0
1960	402.1	-15.4	406.6	-9.1	1.1	4.5
1961	403.9	-8.4	400.0	-3.3	-1.0	-3.9
1962	400.1	-24.0	409.7	-12.1	2.4	9.6
1963	444.5	-13.9	429.0	-4.0	-3.5	-15.5
1964	394.5	-15.3	410.5	2.6	4.1	16.0
1965	443.3	.7	425.2	-6.1	-4.1	-18.1
1966	402.1	-14.0	399.5	-7.5	-.6	-2.6
1967	444.5	-13.9	444.5	-13.9	.0	0
1968	417.6	1.8	399.5	-5.0	-4.3	-18.1
1969	444.5	-13.9	444.5	-13.9	.0	.0
1970	406.2	-17.9	406.2	-17.9	.0	.0
1971	444.5	-13.9	444.5	-13.9	.0	.0
1972	399.5	-21.9	399.5	-17.5	.0	.0
1973	423.8	-.3	403.6	-19.4	-4.8	-20.2
1974	444.5	-13.9	444.5	-13.9	.0	.0
1975	444.5	-13.9	444.5	-13.9	.0	.0
1976	374.6	-9.3	376.4	-5.8	.5	1.8
1977	347.8	-5.7	333.6	-7.3	-4.1	-14.2
1978	438.2	-.6	422.4	-14.0	-3.6	-15.8
1979	418.8	-5.3	406.4	-14.5	-3.0	-12.4
1980	444.5	-3.2	423.9	-17.1	-4.6	-20.6
1981	404.5	-6.3	403.4	-2.0	-.3	-1.1
1982	444.5	-13.9	444.5	-13.9	.0	.0
1983	447.2	-11.8	444.5	-13.9	-.6	-2.7
1984	425.6	1.5	412.6	-11.5	-3.1	-13.0
1985	390.2	-15.7	389.6	-12.6	-.2	-.6
1986	419.3	-13.9	412.8	-15.4	-1.6	-6.5
1987	383.2	-13.5	382.4	-13.5	-.2	-.8
1988	374.6	-9.3	375.9	-6.3	.3	1.3
1989	396.7	-17.2	396.0	-19.2	-.2	-.7
1990	374.6	-9.3	376.4	-5.8	.5	1.8
1991	387.5	-2.7	387.5	4.5	.0	.0
Mean:	417.6	-8.4	414.1	-9.1	-.8	-3.5
Median:	418.8	-9.3	409.7	-11.0	-.2	-.8
Min:	347.8	-24.0	333.6	-23.2	-6.0	-26.8
Max:	447.2	8.0	444.5	8.3	5.1	21.1

X > 466.0	0	0
X > 455.0	0	0
X > 435.0	25	21
X > 420.0	34	27
X > 412.0	39	34
X > 405.0	44	43
X > 395.0	57	57
X > 375.0	66	68
X > 360.0	69	69

FOLSOM RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	429.4	.0	429.4	.0	.0	.0
1923	422.5	-2.6	422.6	-4.7	.0	.1
1924	382.2	-4.1	379.0	-2.2	-.8	-3.2
1925	412.7	-1.9	427.5	-8.2	3.6	14.8
1926	399.2	-1.9	397.1	-2.4	-.5	-2.1
1927	429.4	-15.1	412.5	-5.2	-3.9	-16.9
1928	406.2	.0	396.0	-3.5	-2.5	-10.2
1929	392.2	-1.9	384.5	-2.0	-2.0	-7.7
1930	410.5	.1	402.7	-1.9	-1.9	-7.8
1931	383.1	-3.7	379.5	-2.5	-.9	-3.6
1932	429.4	-15.1	428.6	-8.6	-.2	-.8
1933	398.6	-1.3	392.2	-1.5	-1.6	-6.4
1934	380.5	-2.5	374.9	.1	-1.5	-5.6
1935	427.5	-8.6	428.0	-8.4	.1	.5
1936	429.4	-14.7	429.4	-15.1	.0	.0
1937	429.4	-15.1	429.4	-13.5	.0	.0
1938	429.4	-15.1	429.4	-15.1	.0	.0
1939	398.8	-1.7	390.0	-3.9	-2.2	-8.8
1940	406.2	-1.2	404.8	-3.6	-.3	-1.4
1941	429.4	-15.1	429.4	-15.1	.0	.0
1942	429.4	-15.1	429.4	-15.1	.0	.0
1943	424.9	-3.9	408.4	-3.8	-3.9	-16.5
1944	385.0	-6.1	403.6	-3.7	4.8	18.6
1945	415.1	-6.4	404.7	-9.1	-2.5	-10.4
1946	411.6	-9.7	402.3	-11.8	-2.3	-9.3
1947	397.3	-7.2	399.1	-5.2	.5	1.8
1948	424.1	-8.5	417.6	-13.5	-1.5	-6.5
1949	419.2	-3.9	405.4	-3.2	-3.3	-13.8
1950	429.4	-6.5	429.4	-11.7	.0	.0
1951	412.1	-1.3	403.6	-5.8	-2.1	-8.5
1952	429.4	-15.1	429.4	-15.1	.0	.0
1953	429.4	-15.1	429.4	-15.1	.0	.0
1954	406.2	-4.8	401.4	-1.8	-1.2	-4.8
1955	397.8	-.6	402.0	-2.6	1.1	4.2
1956	429.4	-15.1	429.4	-15.1	.0	.0
1957	425.7	-4.9	408.5	-5.0	-4.0	-17.2
1958	429.4	-15.1	429.4	-15.1	.0	.0
1959	398.6	-.9	396.6	-2.9	-.5	-2.0
1960	396.0	-6.1	403.5	-3.1	1.9	7.5
1961	399.2	-4.7	395.4	-4.6	-1.0	-3.8
1962	399.2	-.9	401.2	-8.5	.5	2.0
1963	429.4	-15.1	422.5	-6.5	-1.6	-6.9
1964	392.5	-2.0	407.7	-2.8	3.9	15.2
1965	429.4	-13.9	420.2	-5.0	-2.1	-9.2
1966	399.5	-2.6	396.2	-3.3	-.8	-3.3
1967	429.4	-15.1	429.4	-15.1	.0	0
1968	411.9	-5.7	398.5	-1.0	-3.3	-13.4
1969	429.4	-15.1	429.4	-15.1	.0	.0
1970	406.3	.1	404.1	-2.1	-.5	-2.2
1971	429.4	-15.1	429.4	-15.1	.0	.0
1972	399.3	-.2	397.2	-2.3	-.5	-2.1
1973	422.2	-1.6	402.6	-1.0	-4.6	-19.6
1974	429.4	-15.1	429.4	-15.1	.0	.0
1975	429.4	-15.1	429.4	-15.1	.0	.0
1976	375.5	.9	375.4	-1.0	.0	-.1
1977	344.5	-3.3	326.6	-7.0	-5.2	-17.9
1978	429.4	-8.8	419.1	-3.3	-2.4	-10.3
1979	414.7	-4.1	399.5	-6.9	-3.7	-15.2
1980	429.4	-15.1	418.4	-5.5	-2.6	-11.0
1981	400.3	-4.2	397.9	-5.5	-.6	-2.4
1982	429.4	-15.1	429.4	-15.1	.0	.0
1983	434.3	-12.9	429.5	-15.0	-1.1	-4.8
1984	423.1	-2.5	409.6	-3.0	-3.2	-13.5
1985	393.1	2.9	390.5	.9	-.7	-2.6
1986	419.8	.5	410.7	-2.1	-2.2	-9.1
1987	381.7	-1.5	383.6	1.2	.5	1.9
1988	378.1	3.5	377.8	1.9	-.1	-.3
1989	400.2	3.5	397.4	1.4	-.7	-2.8
1990	378.6	4.0	379.0	2.6	.1	.4
1991	386.6	-.9	384.1	-3.4	-.6	-2.5
Mean:	411.0	-6.3	407.4	-6.4	-.9	-3.6
Median:	412.7	-4.2	404.7	-4.7	-.5	-2.2
Min:	344.5	-15.1	326.6	-15.1	-5.2	-19.6
Max:	434.3	4.0	429.5	2.6	4.8	18.6
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	31		24			
X > 412.0	37		28			
X > 405.0	44		34			
X > 395.0	57		57			
X > 375.0	69		68			
X > 360.0	69		69			

RETURN TO TABLE OF CONTENTS

Section 3

FOLSOM RESERVOIR COLD WATER POOL

Not Applicable

RETURN TO TABLE OF CONTENTS

Section 4

FOLSOM RESERVOIR SURFACE AREA

FOLSOM RESERVOIR SURFACE AREA

October

Water Year	Base Area (acre)	Base Change from Prev (acre)	2030 w/ WFP Area (acre)	2030 w/ WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	7630.1	.0	7470.9	.0	-2.1	-159.2
1923	8712.7	-610.9	8605.5	-718.1	-1.2	-107.2
1924	8090.8	-717.4	7984.9	-826.9	-1.3	-105.9
1925	5395.5	-239.7	5296.2	-94.2	-1.8	-99.3
1926	7277.7	-765.7	8443.2	-734.5	16.0	1165.5
1927	6492.3	-475.3	6221.9	-584.1	-4.2	-270.4
1928	8717.8	-605.8	7113.8	-918.6	-18.4	-1604.0
1929	6923.1	-607.9	6017.5	-698.3	-13.1	-905.6
1930	5753.6	-663.4	5218.7	-593.9	-9.3	-534.9
1931	7145.2	-729.4	6700.0	-551.8	-6.2	-445.2
1932	5375.1	-325.2	4996.5	-428.5	-7.0	-378.6
1933	8627.2	-696.4	8441.5	-820.7	-2.2	-185.7
1934	6439.6	-482.5	5839.9	-575.4	-9.3	-599.7
1935	5276.4	-230.6	5316.2	230.9	.8	39.8
1936	8602.1	-581.5	8546.8	-674.0	-.6	-55.3
1937	8659.0	-664.6	8542.0	-781.6	-1.4	-117.0
1938	8705.8	-617.8	8595.7	-727.9	-1.3	-110.1
1939	8740.9	-582.7	8618.6	-705.0	-1.4	-122.3
1940	6562.1	-380.5	5908.5	-330.4	-10.0	-653.6
1941	7043.5	-490.6	6745.7	-674.8	-4.2	-297.8
1942	8730.7	-592.9	8590.6	-733.0	-1.6	-140.1
1943	8712.7	-610.9	8581.0	-742.6	-1.5	-131.7
1944	8315.2	-670.1	6892.3	-811.5	-17.1	-1422.9
1945	5468.4	-384.1	6569.2	-750.9	20.1	1100.8
1946	7667.2	-563.1	6986.2	-421.7	-8.9	-681.0
1947	7349.9	-608.2	6726.9	-488.7	-8.5	-623.0
1948	6734.5	-82.8	6810.5	-149.6	1.1	76.0
1949	8231.8	-694.5	7510.5	-920.7	-8.8	-721.3
1950	7788.0	-768.1	6769.0	-701.3	-13.1	-1019.0
1951	8948.3	-375.3	8851.1	-472.5	-1.1	-97.2
1952	7591.4	-408.4	6896.7	-426.9	-9.2	-694.7
1953	8869.4	-454.2	8734.3	-589.3	-1.5	-135.1
1954	8698.9	-624.7	8560.7	-762.9	-1.6	-138.2
1955	6971.7	-562.4	6618.3	-530.5	-5.1	-353.4
1956	6307.9	-554.3	6532.8	-658.3	3.6	224.9
1957	8851.0	-472.6	8742.0	-581.6	-1.2	-109.0
1958	8459.2	-586.6	6998.5	-714.2	-17.3	-1460.7
1959	8672.2	-651.4	8532.5	-791.1	-1.6	-139.7
1960	6312.5	-610.2	6011.1	-755.3	-4.8	-301.4
1961	6175.0	-538.2	6564.0	-753.6	6.3	389.0
1962	6312.2	-661.1	5851.6	-819.0	-7.3	-460.6
1963	9323.6	2352.3	9323.6	2189.2	.0	.0
1964	8793.7	-529.9	8099.5	-703.4	-7.9	-694.2
1965	6003.6	-434.3	7016.0	-631.8	16.9	1012.4
1966	8766.5	-557.1	7846.7	-784.0	-10.5	-919.8
1967	6445.9	-548.7	6028.1	-699.9	-6.5	-417.8
1968	8832.5	-491.1	8697.4	-626.2	-1.5	-135.1
1969	7351.9	-627.6	6467.3	-445.2	-12.0	-884.6
1970	8862.7	-460.9	8743.7	-579.9	-1.3	-119.0
1971	6970.6	-570.8	6685.6	-678.5	-4.1	-285.0
1972	8698.9	-624.7	8559.9	-763.7	-1.6	-139.0
1973	6702.5	-278.1	6393.5	-417.2	-4.6	-309.0
1974	8252.5	-530.4	6952.1	-291.6	-15.8	-1300.4
1975	8752.0	-571.6	8640.3	-683.3	-1.3	-111.7
1976	9127.0	-196.6	9031.2	-292.4	-1.0	-95.8
1977	5285.2	155.9	5064.2	-58.0	-4.2	-221.0
1978	3162.0	78.8	1974.5	-196.1	-37.6	-1187.5
1979	8573.7	-749.9	7537.3	-1004.6	-12.1	-1036.4
1980	7604.3	-600.2	6674.9	-319.7	-12.2	-929.4
1981	8698.9	-624.7	7609.8	-883.5	-12.5	-1089.1
1982	6797.2	-264.5	6512.3	-353.4	-4.2	-284.9
1983	9323.6	.0	9323.6	.0	.0	.0
1984	9323.6	-354.6	9323.6	-5.0	.0	.0
1985	8334.7	-517.9	7271.5	-530.9	-12.8	-1063.2
1986	6054.4	-430.2	5908.7	-369.3	-2.4	-145.7
1987	8011.4	-589.7	7222.5	-668.5	-9.8	-788.9
1988	4893.6	-700.5	4631.4	-1112.5	-5.4	-262.2
1989	5187.2	-133.9	5065.8	-236.0	-2.3	-121.4
1990	6878.1	-170.5	6531.7	-297.3	-5.0	-346.4
1991	5053.1	-309.4	4970.4	-418.9	-1.6	-82.7
Mean:	7477.2	-446.0	7129.4	-523.5	-4.7	-347.8
Median:	7630.1	-557.1	6952.1	-631.8	-4.2	-262.2
Min:	3162.0	-768.1	1974.5	-1112.5	-37.6	-1604.0
Max:	9323.6	2352.3	9323.6	2189.2	20.1	1165.5
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	67		67			
X < 8223.8	39		48			
X < 7614.2	34		45			
X < 7074.2	28		38			
X < 6301.3	13		17			
X < 4805.3	1		2			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

November

Water Year	Base Area (acre)	Base Change from Prev (acre)	2030 w/ WFP Area (acre)	2030 w/ WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	6822.0	.0	6545.7	.0	-4.1	-276.3
1923	8438.5	-274.2	8278.9	-326.6	-1.9	-159.6
1924	7239.8	-851.0	7012.9	-972.0	-3.1	-226.9
1925	5462.7	67.2	5558.5	262.3	1.8	95.8
1926	6553.4	-724.3	7768.1	-675.1	18.5	1214.7
1927	7841.6	1349.3	7621.4	1399.5	-2.8	-220.2
1928	8712.8	-5.0	7244.7	130.9	-16.8	-1468.1
1929	6275.7	-647.4	5375.0	-642.5	-14.4	-900.7
1930	4942.4	-811.2	4500.9	-717.8	-8.9	-441.5
1931	6608.5	-536.7	6445.7	-254.3	-2.5	-162.8
1932	5161.3	-213.8	4753.8	-242.7	-7.9	-407.5
1933	7917.4	-709.8	7624.7	-816.8	-3.7	-292.7
1934	5986.0	-453.6	5273.0	-566.9	-11.9	-713.0
1935	5685.9	409.5	6243.2	927.0	9.8	557.3
1936	8073.6	-528.5	7940.0	-606.8	-1.7	-133.6
1937	7964.0	-695.0	7738.9	-803.1	-2.8	-225.1
1938	8300.5	-405.3	8125.5	-470.2	-2.1	-175.0
1939	8230.2	-510.7	8012.4	-606.2	-2.6	-217.8
1940	6003.0	-559.1	5422.1	-486.4	-9.7	-580.9
1941	6866.2	-177.3	6463.2	-282.5	-5.9	-403.0
1942	8327.0	-403.7	8102.2	-488.4	-2.7	-224.8
1943	8712.8	.1	8712.8	131.8	.0	.0
1944	7678.5	-636.7	6171.8	-720.5	-19.6	-1506.7
1945	6456.9	988.5	7097.0	527.8	9.9	640.1
1946	8098.9	431.7	7722.9	736.7	-4.6	-376.0
1947	7463.0	113.1	7124.6	397.7	-4.5	-338.4
1948	6469.5	-265.0	6489.2	-321.3	.3	19.7
1949	7635.5	-596.3	6738.7	-771.8	-11.7	-896.8
1950	6958.3	-829.7	6089.7	-679.3	-12.5	-868.6
1951	6949.5	-1998.8	6949.5	-1901.6	.0	.0
1952	7808.4	217.0	7247.2	350.5	-7.2	-561.2
1953	8434.8	-434.6	8218.5	-515.8	-2.6	-216.3
1954	8432.3	-266.6	8226.2	-334.5	-2.4	-206.1
1955	6415.3	-556.4	6162.0	-456.3	-3.9	-253.3
1956	5893.1	-414.8	6079.8	-453.0	3.2	186.7
1957	8341.5	-509.5	8113.4	-628.6	-2.7	-228.1
1958	7949.2	-510.0	6431.4	-567.1	-19.1	-1517.8
1959	8146.1	-526.1	7899.9	-632.6	-3.0	-246.2
1960	5616.6	-695.9	5179.0	-832.1	-7.8	-437.6
1961	5939.9	-235.1	6130.0	-434.0	3.2	190.1
1962	5675.3	-636.9	5084.4	-767.2	-10.4	-590.9
1963	8712.8	-610.8	8712.8	-610.8	.0	.0
1964	8712.8	-80.9	8712.8	613.3	.0	.0
1965	6226.3	222.7	7008.3	-7.7	12.6	782.0
1966	8684.1	-82.4	7715.0	-131.7	-11.2	-969.1
1967	6675.4	229.5	6261.0	232.9	-6.2	-414.4
1968	8675.4	-157.1	8459.5	-237.9	-2.5	-215.9
1969	7399.8	47.9	6826.4	359.1	-7.7	-573.4
1970	8456.3	-406.4	8248.2	-495.5	-2.5	-208.1
1971	8002.5	1031.9	7742.8	1057.2	-3.2	-259.7
1972	8332.6	-366.3	8112.6	-447.3	-2.6	-220.0
1973	7210.2	507.7	6881.0	487.5	-4.6	-329.2
1974	8695.6	443.1	8678.4	1726.3	-.2	-17.2
1975	8095.0	-657.0	7876.3	-764.0	-2.7	-218.7
1976	8712.8	-414.2	8712.8	-318.4	.0	.0
1977	5245.1	-40.1	4856.9	-207.3	-7.4	-388.2
1978	3445.7	283.7	2105.7	131.2	-38.9	-1340.0
1979	8013.0	-560.7	6760.7	-776.6	-15.6	-1252.3
1980	7262.5	-341.8	6704.8	29.9	-7.7	-557.7
1981	8148.0	-550.9	6816.6	-793.2	-16.3	-1331.4
1982	8556.3	1759.1	8520.9	2008.6	-.4	-35.4
1983	8704.2	-619.4	8704.2	-619.4	.0	.0
1984	7106.1	-2217.5	7028.3	-2295.3	-1.1	-77.8
1985	8712.8	378.1	8190.2	918.7	-6.0	-522.6
1986	6208.9	154.5	6244.0	335.3	.6	35.1
1987	7320.0	-691.4	6501.3	-721.2	-11.2	-818.7
1988	4587.1	-306.5	3974.8	-656.6	-13.3	-612.3
1989	6100.2	913.0	6009.2	943.4	-1.5	-91.0
1990	6822.2	-55.9	6382.8	-148.9	-6.4	-439.4
1991	4700.6	-352.5	4535.7	-434.7	-3.5	-164.9
Mean:	7228.7	-236.9	6902.9	-213.3	-4.7	-325.8
Median:	7399.8	-366.3	6949.5	-434.7	-3.1	-228.1
Min:	3445.7	-2217.5	2105.7	-2295.3	-38.9	-1517.8
Max:	8712.8	1759.1	8712.8	2008.6	18.5	1214.7
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	50		59			
X < 7614.2	36		42			
X < 7074.2	29		38			
X < 6301.3	18		21			
X < 4805.3	3		5			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

December

Water Year	Base Area (acre)	Base Change from Prev (acre)	2030 w/ WFP Area (acre)	2030 w/ WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	7061.4	.0	6760.3	.0	-4.3	-301.1
1923	8712.8	274.3	8712.8	433.9	.0	.0
1924	6185.1	-1054.7	5849.1	-1163.8	-5.4	-336.0
1925	5771.8	309.1	6066.0	507.5	5.1	294.2
1926	5755.1	-798.3	7035.9	-732.2	22.3	1280.8
1927	8475.4	633.8	8227.8	606.4	-2.9	-247.6
1928	8598.8	-114.0	7036.1	-208.6	-18.2	-1562.7
1929	5613.6	-662.1	4752.6	-622.4	-15.3	-861.0
1930	6237.0	1294.6	6091.7	1590.8	-2.3	-145.3
1931	5476.4	-1132.1	5642.9	-802.8	3.0	166.5
1932	6489.0	1327.7	6145.2	1391.4	-5.3	-343.8
1933	7038.1	-879.3	6630.0	-994.7	-5.8	-408.1
1934	6456.2	470.2	5800.7	527.7	-10.2	-655.5
1935	5876.5	190.6	6797.3	554.1	15.7	920.8
1936	7325.6	-748.0	7112.8	-827.2	-2.9	-212.8
1937	7126.3	-837.7	6821.4	-917.5	-4.3	-304.9
1938	8617.6	317.1	8617.6	492.1	.0	.0
1939	7570.6	-659.6	7234.3	-778.1	-4.4	-336.3
1940	5496.6	-506.4	5054.4	-367.7	-8.0	-442.2
1941	8585.0	1718.8	8243.0	1779.8	-4.0	-342.0
1942	8712.8	385.8	8712.8	610.6	.0	.0
1943	8704.2	-8.6	8704.2	-8.6	.0	.0
1944	6788.0	-890.5	5173.0	-998.8	-23.8	-1615.0
1945	7195.4	738.5	7400.6	303.6	2.9	205.2
1946	8712.8	613.9	8712.8	989.9	.0	.0
1947	7315.5	-147.5	7238.8	114.2	-1.0	-76.7
1948	5913.0	-556.5	5866.0	-623.2	-.8	-47.0
1949	7144.2	-491.3	6128.3	-610.4	-14.2	-1015.9
1950	5852.4	-1105.9	5187.9	-901.8	-11.4	-664.5
1951	6004.6	-944.9	6017.6	-931.9	.2	13.0
1952	8712.8	904.4	8712.8	1465.6	.0	.0
1953	8470.3	35.5	8232.3	13.8	-2.8	-238.0
1954	8027.9	-404.4	7744.2	-482.0	-3.5	-283.7
1955	6795.0	379.7	6729.4	567.4	-1.0	-65.6
1956	8467.5	2574.4	8467.5	2387.7	.0	.0
1957	7764.3	-577.2	7435.9	-677.5	-4.2	-328.4
1958	7853.1	-96.1	6455.1	23.7	-17.8	-1398.0
1959	7318.7	-827.4	6943.0	-956.9	-5.1	-375.7
1960	4861.6	-755.0	4064.4	-1114.6	-16.4	-797.2
1961	5657.0	-282.9	5563.4	-566.6	-1.7	-93.6
1962	5414.7	-260.6	4737.9	-346.5	-12.5	-676.8
1963	8712.8	.0	8712.8	.0	.0	.0
1964	7996.5	-716.3	8387.1	-325.7	4.9	390.6
1965	7193.9	967.6	7215.7	207.4	.3	21.8
1966	8419.1	-265.0	7314.1	-400.9	-13.1	-1105.0
1967	8611.7	1936.3	8251.9	1990.9	-4.2	-359.8
1968	8352.0	-323.4	8072.3	-387.2	-3.3	-279.7
1969	7751.6	351.8	7473.4	647.0	-3.6	-278.2
1970	8687.0	230.7	8695.6	447.4	.1	8.6
1971	8712.8	710.3	8712.8	970.0	.0	.0
1972	8558.3	225.7	8305.5	192.9	-3.0	-252.8
1973	8482.9	1272.7	8159.8	1278.8	-3.8	-323.1
1974	8635.1	-60.5	8617.6	-60.8	-.2	-17.5
1975	7693.1	-401.9	7380.2	-496.1	-4.1	-312.9
1976	8129.9	-582.9	8059.8	-653.0	-.9	-70.1
1977	4755.4	-489.7	4160.8	-696.1	-12.5	-594.6
1978	5757.1	2311.4	4795.6	2689.9	-16.7	-961.5
1979	7289.9	-723.1	5762.8	-997.9	-20.9	-1527.1
1980	7069.9	-192.6	6970.2	265.4	-1.4	-99.7
1981	7512.7	-635.3	5931.8	-884.8	-21.0	-1580.9
1982	7083.9	-1472.4	6983.4	-1537.5	-1.4	-100.5
1983	8669.7	-34.5	8669.7	-34.5	.0	.0
1984	6456.9	-649.2	6444.7	-583.6	-.2	-12.2
1985	8712.8	.0	8311.0	120.8	-4.6	-401.8
1986	7088.8	879.9	7232.2	988.2	2.0	143.4
1987	6276.8	-1043.2	5383.3	-1118.0	-14.2	-893.5
1988	5327.7	740.6	4775.9	801.1	-10.4	-551.8
1989	6603.8	503.6	6478.3	469.1	-1.9	-125.5
1990	6395.8	-426.4	5817.9	-564.9	-9.0	-577.9
1991	4240.5	-460.1	4006.6	-529.1	-5.5	-233.9
Mean:	7219.0	-13.1	6913.5	7.5	-4.4	-305.6
Median:	7195.4	-147.5	6983.4	-60.8	-3.3	-252.8
Min:	4240.5	-1472.4	4006.6	-1537.5	-23.8	-1615.0
Max:	8712.8	2574.4	8712.8	2689.9	22.3	1280.8
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	48		51			
X < 7614.2	41		47			
X < 7074.2	29		37			
X < 6301.3	19		24			
X < 4805.3	2		7			
X < 3782.9	0		0			

FOLSOM RESERVOIR SURFACE AREA

January

Water Year	Base Area (acre)	Base Change from Prev (acre)	2030 w/ WFP Area (acre)	2030 w/ WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	7092.2	.0	6681.7	.0	-5.8	-410.5
1923	8712.8	.0	8712.8	.0	.0	.0
1924	5160.6	-1024.5	4676.8	-1172.3	-9.4	-483.8
1925	5195.8	-576.0	5475.4	-590.6	5.4	279.6
1926	4910.4	-844.7	6266.5	-769.4	27.6	1356.1
1927	8712.8	237.4	8695.6	467.8	-.2	-17.2
1928	8265.8	-333.0	6858.3	-177.8	-17.0	-1407.5
1929	4954.2	-659.4	4071.5	-681.1	-17.8	-882.7
1930	6725.0	488.0	6531.2	439.5	-2.9	-193.8
1931	4843.3	-633.1	5270.8	-372.1	8.8	427.5
1932	6978.1	489.1	6794.2	649.0	-2.6	-183.9
1933	6350.8	-687.3	5849.7	-780.3	-7.9	-501.1
1934	6897.6	441.4	6403.5	602.8	-7.2	-494.1
1935	6677.3	800.8	7293.3	496.0	9.2	616.0
1936	8712.8	1387.2	8712.8	1600.0	.0	.0
1937	6493.9	-632.4	6095.7	-725.7	-6.1	-398.2
1938	8600.2	-17.4	8600.2	-17.4	.0	.0
1939	6796.3	-774.3	6539.0	-695.3	-3.8	-257.3
1940	8695.6	3199.0	8687.0	3632.6	-.1	-8.6
1941	8712.8	127.8	8712.8	469.8	.0	.0
1942	8617.6	-95.2	8635.1	-77.7	.2	17.5
1943	8556.3	-147.9	8556.3	-147.9	.0	.0
1944	6264.2	-523.8	4604.1	-568.9	-26.5	-1660.1
1945	7020.3	-175.1	7008.4	-392.2	-.2	-11.9
1946	8635.1	-77.7	8635.1	-77.7	.0	.0
1947	6422.0	-893.5	6414.2	-824.6	-.1	-7.8
1948	6466.5	553.5	6391.3	525.3	-1.2	-75.2
1949	6492.5	-651.7	5234.9	-893.4	-19.4	-1257.6
1950	8002.0	2149.6	7734.9	2547.0	-3.3	-267.1
1951	6297.0	292.4	6309.4	291.8	.2	12.4
1952	8712.8	.0	8712.8	.0	.0	.0
1953	8695.6	225.3	8704.2	471.9	.1	8.6
1954	7999.5	-28.4	7642.9	-101.3	-4.5	-356.6
1955	7206.8	411.8	7077.8	348.4	-1.8	-129.0
1956	6904.1	-1563.4	6904.1	-1563.4	.0	.0
1957	7123.5	-640.8	6689.9	-746.0	-6.1	-433.6
1958	8247.5	394.4	7020.1	565.0	-14.9	-1227.4
1959	7543.7	225.0	7302.3	359.3	-3.2	-241.4
1960	4881.0	19.4	3878.5	-185.9	-20.5	-1002.5
1961	4955.1	-701.9	4655.0	-908.4	-6.1	-300.1
1962	5121.1	-293.6	4341.5	-396.4	-15.2	-779.6
1963	8529.8	-183.0	8538.6	-174.2	.1	8.8
1964	7999.8	3.3	8393.2	6.1	4.9	393.4
1965	6648.8	-545.1	6625.1	-590.6	-.4	-23.7
1966	8227.5	-191.6	7165.7	-148.4	-12.9	-1061.8
1967	8643.7	32.0	8608.9	357.0	-.4	-34.8
1968	8204.2	-147.8	7827.5	-244.8	-4.6	-376.7
1969	8529.8	778.2	8529.8	1056.4	.0	.0
1970	7193.9	-1493.1	7215.7	-1479.9	.3	21.8
1971	8712.8	.0	8712.8	.0	.0	.0
1972	8275.8	-282.5	7912.3	-393.2	-4.4	-363.5
1973	8626.4	143.5	8617.6	457.8	-.1	-8.8
1974	8127.6	-507.5	8080.2	-537.4	-.6	-47.4
1975	7365.2	-327.9	6955.3	-424.9	-5.6	-409.9
1976	7089.7	-1040.2	6904.7	-1155.1	-2.6	-185.0
1977	4520.0	-235.4	3758.6	-402.2	-16.8	-761.4
1978	8661.1	2904.0	8712.8	3917.2	.6	51.7
1979	7708.4	418.5	6395.2	632.4	-17.0	-1313.2
1980	7984.3	914.4	7636.9	666.7	-4.4	-347.4
1981	7205.0	-307.7	5666.3	-265.5	-21.4	-1538.7
1982	6892.7	-191.2	6846.9	-136.5	-.7	-45.8
1983	8591.4	-78.3	8591.4	-78.3	.0	.0
1984	6517.5	60.6	6517.5	72.8	.0	.0
1985	8083.5	-629.3	7573.1	-737.9	-6.3	-510.4
1986	8608.9	1520.1	8600.2	1368.0	-.1	-8.7
1987	5536.1	-740.7	4618.3	-765.0	-16.6	-917.8
1988	6580.3	1252.6	6065.8	1289.9	-7.8	-514.5
1989	6134.4	-469.4	5941.6	-536.7	-3.1	-192.8
1990	6296.5	-99.3	5672.5	-145.4	-9.9	-624.0
1991	3661.1	-579.4	3300.0	-706.6	-9.9	-361.1
Mean:	7211.6	-7.9	6933.8	21.5	-4.2	-277.8
Median:	7193.9	-99.3	6904.7	-145.4	-2.6	-183.9
Min:	3661.1	-1563.4	3300.0	-1563.4	-26.5	-1660.1
Max:	8712.8	3199.0	8712.8	3917.2	27.6	1356.1
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	47		50			
X < 7614.2	39		44			
X < 7074.2	31		38			
X < 6301.3	15		19			
X < 4805.3	2		9			
X < 3782.9	1		2			

FOLSOM RESERVOIR SURFACE AREA

February

Water Year	Base Area (acre)	Base Change from Prev (acre)	2030 w/ WFP Area (acre)	2030 w/ WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	8712.8	.0	8712.8	.0	.0	.0
1923	8494.3	-218.5	8695.6	-17.2	2.4	201.3
1924	5152.9	-7.7	4578.5	-98.3	-11.1	-574.4
1925	8582.7	3386.9	8617.6	3142.2	.4	34.9
1926	7019.3	2108.9	7903.0	1636.5	12.6	883.7
1927	8608.9	-103.9	8582.7	-112.9	-.3	-26.2
1928	8419.0	153.2	6955.7	97.4	-17.4	-1463.3
1929	5371.4	417.2	4537.1	465.6	-15.5	-834.3
1930	6923.8	198.8	6690.2	159.0	-3.4	-233.6
1931	4645.3	-198.0	5171.5	-99.3	11.3	526.2
1932	8712.8	1734.7	8674.7	1880.5	-.4	-38.1
1933	5824.6	-526.2	5174.9	-674.8	-11.2	-649.7
1934	7274.8	377.2	6913.2	509.7	-5.0	-361.6
1935	7076.9	399.6	7614.2	320.9	7.6	537.3
1936	8712.8	.0	8704.2	-8.6	-.1	-8.6
1937	8696.3	2202.4	8469.9	2374.2	-2.6	-226.4
1938	8573.9	-26.3	8573.9	-26.3	.0	.0
1939	6333.6	-462.7	5963.9	-575.1	-5.8	-369.7
1940	8582.7	-112.9	8582.7	-104.3	.0	.0
1941	8712.8	.0	8712.8	.0	.0	.0
1942	8538.6	-79.0	8556.3	-78.8	.2	17.7
1943	8458.6	-97.7	8458.6	-97.7	.0	.0
1944	6840.7	576.5	5443.3	839.2	-20.4	-1397.4
1945	8635.1	1614.8	8635.1	1626.7	.0	.0
1946	8494.3	-140.8	8494.3	-140.8	.0	.0
1947	6907.8	485.8	6798.5	384.3	-1.6	-109.3
1948	5845.2	-621.3	5886.8	-504.5	.7	41.6
1949	6250.8	-241.7	5153.8	-81.1	-17.5	-1097.0
1950	8712.8	710.8	8712.8	977.9	.0	.0
1951	6444.7	147.7	6456.9	147.5	.2	12.2
1952	8712.8	.0	8712.8	.0	.0	.0
1953	8643.7	-51.9	8661.1	-43.1	.2	17.4
1954	8712.8	713.3	8348.9	706.0	-4.2	-363.9
1955	7033.7	-173.1	6843.0	-234.8	-2.7	-190.7
1956	6846.9	-57.2	6846.9	-57.2	.0	.0
1957	8495.1	1371.6	8089.3	1399.4	-4.8	-405.8
1958	8635.1	387.6	8635.1	1615.0	.0	.0
1959	8264.9	721.2	7973.0	670.7	-3.5	-291.9
1960	7953.4	3072.4	7256.7	3378.2	-8.8	-696.7
1961	5402.2	447.1	5014.3	359.3	-7.2	-387.9
1962	8712.8	3591.7	8298.5	3957.0	-4.8	-414.3
1963	7768.1	-761.7	7788.1	-750.5	.3	20.0
1964	7796.7	-203.1	8171.2	-222.0	4.8	374.5
1965	6637.0	-11.8	6613.2	-11.9	-.4	-23.8
1966	8195.8	-31.7	7027.6	-138.1	-14.3	-1168.2
1967	8547.5	-96.2	8520.9	-88.0	-.3	-26.6
1968	8565.1	360.9	8565.1	737.6	.0	.0
1969	8395.6	-134.2	8386.5	-143.3	-.1	-9.1
1970	6892.7	-301.2	6892.7	-323.0	.0	.0
1971	8643.7	-69.1	8652.4	-60.4	.1	8.7
1972	8712.8	437.0	8413.1	500.8	-3.4	-299.7
1973	8591.4	-35.0	8582.7	-34.9	-.1	-8.7
1974	8080.2	-47.4	8127.6	47.4	.6	47.4
1975	8600.1	1234.9	8217.2	1261.9	-4.5	-382.9
1976	6495.0	-594.7	6192.9	-711.8	-4.7	-302.1
1977	4300.0	-220.0	3473.0	-285.6	-19.2	-827.0
1978	8608.9	-52.2	8712.8	.0	1.2	103.9
1979	8585.3	876.9	7502.3	1107.1	-12.6	-1083.0
1980	6869.9	-1114.4	6695.9	-941.0	-2.5	-174.0
1981	7175.6	-29.4	5819.8	153.5	-18.9	-1355.8
1982	6221.9	-670.8	6259.5	-587.4	.6	37.6
1983	8494.3	-97.1	8494.3	-97.1	.0	.0
1984	6565.5	48.0	6553.5	36.0	-.2	-12.0
1985	8244.2	160.7	7695.2	122.1	-6.7	-549.0
1986	6835.4	-1773.5	6800.8	-1799.4	-.5	-34.6
1987	5899.7	363.6	5088.6	470.3	-13.7	-811.1
1988	6091.1	-489.2	5668.7	-397.1	-6.9	-422.4
1989	6115.2	-19.2	5864.0	-77.6	-4.1	-251.2
1990	6228.7	-67.8	5773.6	101.1	-7.3	-455.1
1991	3320.6	-340.5	2886.0	-414.0	-13.1	-434.6
Mean:	7492.2	257.5	7264.9	302.1	-3.4	-227.2
Median:	8080.2	-26.3	7695.2	-8.6	-.4	-26.6
Min:	3320.6	-1773.5	2886.0	-1799.4	-20.4	-1463.3
Max:	8712.8	3591.7	8712.8	3957.0	12.6	883.7
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	36		42			
X < 7614.2	31		33			
X < 7074.2	28		31			
X < 6301.3	14		18			
X < 4805.3	3		4			
X < 3782.9	1		2			

FOLSOM RESERVOIR SURFACE AREA

March

Water Year	Base Area (acre)	Base Change from Prev (acre)	2030 w/ WFP Area (acre)	2030 w/ WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	8963.7	.0	8885.1	.0	-.9	-78.6
1923	8551.3	57.0	8697.0	1.4	1.7	145.7
1924	4496.3	-656.6	3953.5	-625.0	-12.1	-542.8
1925	8840.2	257.5	8840.2	222.6	.0	.0
1926	7103.1	83.8	7894.4	-8.6	11.1	791.3
1927	9423.1	814.2	9415.5	832.8	-.1	-7.6
1928	9300.4	881.4	9269.3	2313.6	-.3	-31.1
1929	5924.3	552.9	5082.9	545.8	-14.2	-841.4
1930	8470.0	1546.2	8230.3	1540.1	-2.8	-239.7
1931	5186.9	541.6	5820.7	649.2	12.2	633.8
1932	9245.8	533.0	9136.2	461.5	-1.2	-109.6
1933	5975.9	151.3	5486.6	311.7	-8.2	-489.3
1934	7893.6	618.8	7657.3	744.1	-3.0	-236.3
1935	7121.4	44.5	7563.0	-51.2	6.2	441.6
1936	9476.0	763.2	9476.0	771.8	.0	.0
1937	9513.4	817.1	9513.4	1043.5	.0	.0
1938	9476.0	902.1	9476.0	902.1	.0	.0
1939	7262.4	928.8	6886.6	922.7	-5.2	-375.8
1940	9070.8	488.1	9135.1	552.4	.7	64.3
1941	9498.5	785.7	9498.5	785.7	.0	.0
1942	8330.0	-208.6	8253.8	-302.5	-.9	-76.2
1943	9095.0	636.4	9103.1	644.5	.1	8.1
1944	7713.4	872.7	6613.8	1170.5	-14.3	-1099.6
1945	9141.2	506.1	9068.3	433.2	-.8	-72.9
1946	9423.1	928.8	9375.2	880.9	-.5	-47.9
1947	8202.4	1294.6	8064.3	1265.8	-1.7	-138.1
1948	5488.3	-356.9	5389.1	-497.7	-1.8	-99.2
1949	8127.6	1876.8	7231.8	2078.0	-11.0	-895.8
1950	9419.3	706.5	9482.7	769.9	.7	63.4
1951	8814.9	2370.2	8814.9	2358.0	.0	.0
1952	9513.4	800.6	9513.4	800.6	.0	.0
1953	8624.6	-19.1	8562.5	-98.6	-.7	-62.1
1954	9483.5	770.7	9483.5	1134.6	.0	.0
1955	7016.1	-17.6	6733.3	-109.7	-4.0	-282.8
1956	7954.2	1107.3	7834.8	987.9	-1.5	-119.4
1957	9438.3	943.2	9438.3	1349.0	.0	.0
1958	9491.0	855.9	9491.0	855.9	.0	.0
1959	8609.2	344.3	8278.8	305.8	-3.8	-330.4
1960	9476.0	1522.6	9081.0	1824.3	-4.2	-395.0
1961	5977.2	575.0	5747.2	732.9	-3.8	-230.0
1962	9285.8	573.0	8860.8	562.3	-4.6	-425.0
1963	7967.0	198.9	7897.1	109.0	-.9	-69.9
1964	7546.0	-250.7	7873.3	-297.9	4.3	327.3
1965	7598.8	961.8	7472.7	859.5	-1.7	-126.1
1966	8636.2	440.4	7630.8	603.2	-11.6	-1005.4
1967	9300.4	752.9	9300.4	779.5	.0	0
1968	9354.4	789.3	8385.4	-179.7	-10.4	-969.0
1969	8962.5	566.9	8878.1	491.6	-.9	-84.4
1970	8820.6	1927.9	8882.1	1989.4	.7	61.5
1971	9400.3	756.6	9400.3	747.9	.0	.0
1972	9369.8	657.0	9369.8	956.7	.0	.0
1973	9483.5	892.1	9483.5	900.8	.0	.0
1974	8973.1	892.9	8989.5	861.9	.2	16.4
1975	9513.4	913.3	9513.4	1296.2	.0	.0
1976	6305.2	-189.8	6000.0	-192.9	-4.8	-305.2
1977	4249.8	-50.2	3468.2	-4.8	-18.4	-781.6
1978	9415.5	806.6	9415.5	702.7	.0	.0
1979	9498.5	913.2	8838.5	1336.2	-6.9	-660.0
1980	8964.9	2095.0	8898.7	2202.8	-.7	-66.2
1981	8150.2	974.6	7114.0	1294.2	-12.7	-1036.2
1982	8764.1	2542.2	8764.1	2504.6	.0	0
1983	9198.6	704.3	9182.8	688.5	-.2	-15.8
1984	8776.5	2211.0	8831.8	2278.3	.6	55.3
1985	8504.0	259.8	8068.8	373.6	-5.1	-435.2
1986	8738.5	1903.1	8738.5	1937.7	.0	.0
1987	6978.9	1079.2	6384.2	1295.6	-8.5	-594.7
1988	5989.1	-102.0	5715.4	46.7	-4.6	-273.7
1989	9245.8	3130.6	9423.1	3559.1	1.9	177.3
1990	7205.5	976.8	6768.0	994.4	-6.1	-437.5
1991	5506.8	2186.2	5399.5	2513.5	-1.9	-107.3
Mean:	8283.4	787.6	8120.4	853.0	-2.2	-163.0
Median:	8776.5	763.2	8764.1	771.8	-.7	-66.2
Min:	4249.8	-656.6	3468.2	-625.0	-18.4	-1099.6
Max:	9513.4	3130.6	9513.4	3559.1	12.2	791.3
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	51		53			
X < 8223.8	25		27			
X < 7614.2	18		19			
X < 7074.2	12		15			
X < 6301.3	9		10			
X < 4805.3	2		2			
X < 3782.9	0		1			

FOLSOM RESERVOIR SURFACE AREA

April

	Base		2030 w/ WFP			
Water Year	Area (acre)	Change from Prev (acre)	Area (acre)	Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	9971.1	.0	9800.3	.0	-1.7	-170.8
1923	10372.4	1821.1	10372.4	1675.4	.0	.0
1924	5082.2	585.9	4536.6	583.1	-10.7	-545.6
1925	10372.4	1532.2	10372.4	1532.2	.0	.0
1926	9293.5	2190.4	9810.5	1916.1	5.6	517.0
1927	10372.4	949.3	10372.4	956.9	.0	.0
1928	10372.4	1072.0	10372.4	1103.1	.0	.0
1929	6658.9	734.6	6378.2	1295.3	-4.2	-280.7
1930	9148.3	678.3	8976.5	746.2	-1.9	-171.8
1931	5836.1	649.2	6376.9	556.2	9.3	540.8
1932	9713.5	467.7	9633.5	497.3	-.8	-80.0
1933	6515.9	540.0	6118.0	631.4	-6.1	-397.9
1934	6994.6	-899.0	6994.6	-662.7	.0	.0
1935	10372.4	3251.0	10372.4	2809.4	.0	.0
1936	10372.4	896.4	10372.4	896.4	.0	.0
1937	10372.4	859.0	10372.4	859.0	.0	.0
1938	10372.4	896.4	10372.4	896.4	.0	.0
1939	8152.7	890.3	8023.8	1137.2	-1.6	-128.9
1940	10372.4	1301.6	10372.4	1237.3	.0	.0
1941	10372.4	873.9	10372.4	873.9	.0	.0
1942	10140.3	1810.3	9999.0	1745.2	-1.4	-141.3
1943	10372.4	1277.4	10372.4	1269.3	.0	.0
1944	7960.7	247.3	6996.7	382.9	-12.1	-964.0
1945	9990.2	849.0	9827.0	758.7	-1.6	-163.2
1946	10372.4	949.3	10372.4	997.2	.0	.0
1947	8699.2	496.8	8491.8	427.5	-2.4	-207.4
1948	8610.0	3121.7	8443.6	3054.5	-1.9	-166.4
1949	9714.3	1586.7	8921.0	1689.2	-8.2	-793.3
1950	10372.4	953.1	10372.4	889.7	.0	.0
1951	10372.4	1557.5	10372.4	1557.5	.0	.0
1952	10372.4	859.0	10372.4	859.0	.0	.0
1953	9623.2	998.6	9588.2	1025.7	-.4	-35.0
1954	10372.4	888.9	10372.4	888.9	.0	.0
1955	7613.6	597.5	7304.2	570.9	-4.1	-309.4
1956	9084.6	1130.4	8871.9	1037.1	-2.3	-212.7
1957	9612.1	173.8	9510.9	72.6	-1.1	-101.2
1958	10372.4	881.4	10372.4	881.4	.0	.0
1959	8932.3	323.1	8662.9	384.1	-3.0	-269.4
1960	10086.2	610.2	9671.3	590.3	-4.1	-414.9
1961	7203.5	1226.3	6891.3	1144.1	-4.3	-312.2
1962	10372.4	1086.6	10372.4	1511.6	.0	.0
1963	10372.4	2405.4	10372.4	2475.3	.0	.0
1964	8136.0	590.0	8333.4	460.1	2.4	197.4
1965	10372.4	2773.6	10372.4	2899.7	.0	.0
1966	9754.7	1118.5	8961.7	1330.9	-8.1	-793.0
1967	10207.6	907.2	10124.0	823.6	-.8	-83.6
1968	9688.9	334.5	8671.1	285.7	-10.5	-1017.8
1969	10372.4	1409.9	10372.4	1494.3	.0	.0
1970	9226.0	405.4	9305.5	423.4	.9	79.5
1971	10087.0	686.7	10087.7	687.4	.0	.7
1972	9859.9	490.1	9783.0	413.2	-.8	-76.9
1973	10365.6	882.1	10259.6	776.1	-1.0	-106.0
1974	10372.4	1399.3	10372.4	1382.9	.0	.0
1975	9697.2	183.8	9583.6	70.2	-1.2	-113.6
1976	6887.6	582.4	6583.8	583.8	-4.4	-303.8
1977	4281.0	31.2	3532.7	64.5	-17.5	-748.3
1978	10372.4	956.9	10372.4	956.9	.0	.0
1979	10121.7	623.2	9534.4	695.9	-5.8	-587.3
1980	10283.2	1318.3	10225.7	1327.0	-.6	-57.5
1981	8668.3	518.1	8072.6	958.6	-6.9	-595.7
1982	10372.4	1608.3	10372.4	1608.3	.0	.0
1983	10372.4	1173.8	10372.4	1189.6	.0	.0
1984	9879.9	1103.4	9849.3	1017.5	-.3	-30.6
1985	9702.4	1198.4	9381.2	1312.4	-3.3	-321.2
1986	10361.4	1622.9	10267.5	1529.0	-.9	-93.9
1987	7942.4	963.5	7340.2	956.0	-7.6	-602.2
1988	6806.5	817.4	6607.3	891.9	-2.9	-199.2
1989	10372.4	1126.6	10372.4	949.3	.0	.0
1990	7069.7	-135.8	6994.6	226.6	-1.1	-75.1
1991	6734.2	1227.4	6708.1	1308.6	-.4	-26.1
Mean:	9286.9	989.1	9138.8	1005.4	-1.9	-148.0
Median:	9971.1	896.4	9800.3	896.4	-.6	-57.5
Min:	4281.0	-899.0	3532.7	-662.7	-17.5	-1017.8
Max:	10372.4	3251.0	10372.4	3054.5	9.3	540.8
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	24		26			
X < 8223.8	16		16			
X < 7614.2	12		14			
X < 7074.2	10		12			
X < 6301.3	3		3			
X < 4805.3	1		2			
X < 3782.9	0		1			

FOLSOM RESERVOIR SURFACE AREA

May

Water Year	Base Area (acre)	Base Change from Prev (acre)	2030 w/ WFP Area (acre)	2030 w/ WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	11361.7	.0	11361.7	.0	.0	.0
1923	11361.7	989.3	11361.7	989.3	.0	.0
1924	5553.3	471.1	5067.4	530.8	-8.7	-485.9
1925	11361.7	989.3	11361.7	989.3	.0	.0
1926	8807.5	-486.0	9270.7	-539.8	5.3	463.2
1927	11361.7	989.3	11361.7	989.3	.0	.0
1928	10911.6	539.2	10789.3	416.9	-1.1	-122.3
1929	7037.1	378.2	6812.8	434.6	-3.2	-224.3
1930	8925.0	-223.3	8772.5	-204.0	-1.7	-152.5
1931	6545.5	709.4	6802.2	425.3	3.9	256.7
1932	10860.9	1147.4	10726.4	1092.9	-1.2	-134.5
1933	6984.8	468.9	6485.9	367.9	-7.1	-498.9
1934	7243.8	249.2	7168.0	173.4	-1.0	-75.8
1935	11305.5	933.1	11239.8	867.4	-.6	-65.7
1936	11270.9	898.5	11171.3	798.9	-.9	-99.6
1937	11361.7	989.3	11361.7	989.3	.0	.0
1938	11361.7	989.3	11361.7	989.3	.0	.0
1939	7899.2	-253.5	7643.7	-380.1	-3.2	-255.5
1940	11216.7	844.3	11153.5	781.1	-.6	-63.2
1941	11361.7	989.3	11361.7	989.3	.0	.0
1942	11361.7	1221.4	11361.7	1362.7	.0	.0
1943	10989.5	617.1	10864.8	492.4	-1.1	-124.7
1944	8598.9	638.2	7756.5	759.8	-9.8	-842.4
1945	11097.8	1107.6	10858.6	1031.6	-2.2	-239.2
1946	11361.7	989.3	11268.7	896.3	-.8	-93.0
1947	8345.8	-353.4	8103.4	-388.4	-2.9	-242.4
1948	10081.7	1471.7	9814.2	1370.6	-2.7	-267.5
1949	10710.8	996.5	10142.2	1221.2	-5.3	-568.6
1950	11343.9	971.5	11239.3	866.9	-.9	-104.6
1951	11335.6	963.2	11310.7	938.3	-.2	-24.9
1952	11361.7	989.3	11361.7	989.3	.0	.0
1953	10339.6	716.4	10165.9	577.7	-1.7	-173.7
1954	10679.2	306.8	10591.9	219.5	-.8	-87.3
1955	8442.3	828.7	8200.7	896.5	-2.9	-241.6
1956	11236.1	2151.5	11001.3	2129.4	-2.1	-234.8
1957	10933.4	1321.3	10858.3	1347.4	-.7	-75.1
1958	11361.7	989.3	11361.7	989.3	.0	.0
1959	8429.5	-502.8	8163.5	-499.4	-3.2	-266.0
1960	10031.3	-54.9	9515.1	-156.2	-5.1	-516.2
1961	7742.1	538.6	7340.3	449.0	-5.2	-401.8
1962	10763.2	390.8	10640.7	268.3	-1.1	-122.5
1963	11361.7	989.3	11361.7	989.3	.0	.0
1964	8699.6	563.6	8781.6	448.2	.9	82.0
1965	11272.5	900.1	11242.5	870.1	-.3	-30.0
1966	9515.3	-239.4	8551.0	-410.7	-10.1	-964.3
1967	11361.7	1154.1	11361.7	1237.7	.0	0
1968	9455.1	-233.8	8251.9	-419.2	-12.7	-1203.2
1969	11361.7	989.3	11361.7	989.3	.0	.0
1970	9716.3	490.3	9792.8	487.3	.8	76.5
1971	11019.3	932.3	10902.2	814.5	-1.1	-117.1
1972	10304.6	444.7	10232.3	449.3	-.7	-72.3
1973	11361.7	996.1	11361.7	1102.1	.0	.0
1974	11361.7	989.3	11361.7	989.3	.0	.0
1975	11302.8	1605.6	11111.6	1528.0	-1.7	-191.2
1976	7215.3	327.7	7219.1	635.3	.1	3.8
1977	4404.2	123.2	3658.1	125.4	-16.9	-746.1
1978	11361.7	989.3	11258.6	886.2	-.9	-103.1
1979	11361.7	1240.0	10987.4	1453.0	-3.3	-374.3
1980	11007.5	724.3	10912.4	686.7	-.9	-95.1
1981	8318.4	-349.9	7863.8	-208.8	-5.5	-454.6
1982	11361.7	989.3	11361.7	989.3	.0	.0
1983	11361.7	989.3	11361.7	989.3	.0	.0
1984	10828.4	948.5	10813.0	963.7	-.1	-15.4
1985	9486.5	-215.9	9161.2	-220.0	-3.4	-325.3
1986	10994.2	632.8	10792.8	525.3	-1.8	-201.4
1987	7696.1	-246.3	7521.1	180.9	-2.3	-175.0
1988	7131.3	324.8	6880.4	273.1	-3.5	-250.9
1989	10519.0	146.6	10501.5	129.1	-.2	-17.5
1990	6788.4	-281.3	6799.0	-195.6	.2	10.6
1991	7329.2	595.0	7165.9	457.8	-2.2	-163.3
Mean:	9941.4	634.7	9778.4	617.3	-1.9	-163.0
Median:	10860.9	724.3	10789.3	759.8	-.9	-99.6
Min:	4404.2	-502.8	3658.1	-539.8	-16.9	-1203.2
Max:	11361.7	2151.5	11361.7	2129.4	5.3	463.2
X > 11267.9	26		19			
X > 10638.3	40		38			
X < 9318.8	21		24			
X < 8223.8	13		18			
X < 7614.2	10		12			
X < 7074.2	6		7			
X < 6301.3	2		2			
X < 4805.3	1		1			
X < 3782.9	0		1			

FOLSOM RESERVOIR SURFACE AREA

June

Water Year	Base Area (acre)	Base Change from Prev (acre)	2030 w/ WFP Area (acre)	2030 w/ WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	11361.7	.0	11361.7	.0	.0	.0
1923	10754.8	-606.9	10837.9	-523.8	.8	83.1
1924	5796.0	242.7	5294.0	226.6	-8.7	-502.0
1925	10182.1	-1179.6	10355.2	-1006.5	1.7	173.1
1926	8147.0	-660.5	8357.0	-913.7	2.6	210.0
1927	11361.7	.0	11361.7	.0	.0	.0
1928	8923.6	-1988.0	9397.2	-1392.1	5.3	473.6
1929	6594.6	-442.5	6324.4	-488.4	-4.1	-270.2
1930	8491.7	-433.3	8314.7	-457.8	-2.1	-177.0
1931	6565.1	19.6	7039.8	237.6	7.2	474.7
1932	10809.1	-51.8	10553.6	-172.8	-2.4	-255.5
1933	7208.7	223.9	6770.8	284.9	-6.1	-437.9
1934	6408.1	-835.7	6284.5	-883.5	-1.9	-123.6
1935	11361.7	56.2	11275.6	35.8	-.8	-86.1
1936	11361.7	90.8	11361.7	190.4	.0	.0
1937	11013.6	-348.1	10914.2	-447.5	-.9	-99.4
1938	11361.7	.0	11361.7	.0	.0	.0
1939	7758.0	-141.2	7576.0	-67.7	-2.3	-182.0
1940	10730.0	-486.7	10637.8	-515.7	-.9	-92.2
1941	11208.3	-153.4	11153.6	-208.1	-.5	-54.7
1942	11361.7	.0	11361.7	.0	.0	.0
1943	10926.3	-63.2	10652.2	-212.6	-2.5	-274.1
1944	8362.9	-236.0	7616.0	-140.5	-8.9	-746.9
1945	9915.4	-1182.4	9958.7	-899.9	.4	43.3
1946	9837.0	-1524.7	9982.4	-1286.3	1.5	145.4
1947	8014.7	-331.1	7752.4	-351.0	-3.3	-262.3
1948	10717.8	636.1	10402.6	588.4	-2.9	-315.2
1949	10220.9	-489.9	9651.8	-490.4	-5.6	-569.1
1950	11361.7	17.8	11247.3	8.0	-1.0	-114.4
1951	10903.1	-432.5	10730.1	-580.6	-1.6	-173.0
1952	11361.7	.0	11361.7	.0	.0	.0
1953	11178.7	839.1	10979.8	813.9	-1.8	-198.9
1954	10057.4	-621.8	9527.9	-1064.0	-5.3	-529.5
1955	8277.0	-165.3	8023.4	-177.3	-3.1	-253.6
1956	11361.7	125.6	11361.7	360.4	.0	.0
1957	10638.8	-294.6	10297.8	-560.5	-3.2	-341.0
1958	11361.7	.0	11361.7	.0	.0	.0
1959	8134.6	-294.9	7847.0	-316.5	-3.5	-287.6
1960	9591.3	-440.0	8895.7	-619.4	-7.3	-695.6
1961	8020.9	278.8	7559.8	219.5	-5.7	-461.1
1962	10592.3	-170.9	10257.6	-383.1	-3.2	-334.7
1963	11330.0	-31.7	11195.3	-166.4	-1.2	-134.7
1964	8531.9	-167.7	8468.5	-313.1	-.7	-63.4
1965	11303.3	30.8	11136.5	-106.0	-1.5	-166.8
1966	8847.2	-668.1	7877.2	-673.8	-11.0	-970.0
1967	11361.7	.0	11361.7	.0	.0	.0
1968	8797.8	-657.3	7708.8	-543.1	-12.4	-1089.0
1969	11361.7	.0	11361.7	.0	.0	.0
1970	9075.3	-641.0	9180.1	-612.7	1.2	104.8
1971	11361.7	342.4	11208.3	306.1	-1.4	-153.4
1972	8923.6	-1381.0	8755.6	-1476.7	-1.9	-168.0
1973	10104.9	-1256.8	9617.8	-1743.9	-4.8	-487.1
1974	11361.7	.0	11361.7	.0	.0	.0
1975	11361.7	58.9	11361.7	250.1	.0	.0
1976	6408.1	-807.2	6284.5	-934.6	-1.9	-123.6
1977	4124.2	-280.0	3396.3	-261.8	-17.6	-727.9
1978	11361.7	.0	11237.0	-21.6	-1.1	-124.7
1979	9626.3	-1735.4	8873.6	-2113.8	-7.8	-752.7
1980	10919.6	-87.9	10757.6	-154.8	-1.5	-162.0
1981	7829.3	-489.1	7644.1	-219.7	-2.4	-185.2
1982	11361.7	.0	11361.7	.0	.0	.0
1983	11361.7	.0	11361.7	.0	.0	.0
1984	9970.9	-857.5	10208.6	-604.4	2.4	237.7
1985	8465.7	-1020.8	8171.2	-990.0	-3.5	-294.5
1986	10979.5	-14.7	10725.2	-67.6	-2.3	-254.3
1987	7703.3	7.2	7349.3	-171.8	-4.6	-354.0
1988	6408.1	-723.2	6284.5	-595.9	-1.9	-123.6
1989	9489.9	-1029.1	9429.9	-1071.6	-.6	-60.0
1990	6408.1	-380.3	6284.5	-514.5	-1.9	-123.6
1991	6867.8	-461.4	6628.5	-537.4	-3.5	-239.3
Mean:	9608.6	-332.8	9427.9	-350.5	-2.2	-180.7
Median:	10104.9	-170.9	9982.4	-219.7	-1.6	-134.7
Min:	4124.2	-1988.0	3396.3	-2113.8	-17.6	-1089.0
Max:	11361.7	839.1	11361.7	813.9	7.2	474.7
X > 11267.9	20		15			
X > 10638.3	32		28			
X < 9318.8	27		28			
X < 8223.8	17		21			
X < 7614.2	10		13			
X < 7074.2	9		10			
X < 6301.3	2		6			
X < 4805.3	1		1			
X < 3782.9	0		1			

FOLSOM RESERVOIR SURFACE AREA

July

Water Year	Base Area (acre)	Base Change from Prev (acre)	2030 w/ WFP Area (acre)	2030 w/ WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	10858.4	.0	10952.9	.0	.9	94.5
1923	9416.6	-1338.2	10547.5	-290.4	12.0	1130.9
1924	5766.9	-29.1	5448.3	154.3	-5.5	-318.6
1925	9261.5	-920.6	9976.5	-378.7	7.7	715.0
1926	6913.7	-1233.3	6997.7	-1359.3	1.2	84.0
1927	11116.3	-245.4	9628.6	-1733.1	-13.4	-1487.7
1928	8554.6	-369.0	8820.2	-577.0	3.1	265.6
1929	5982.5	-612.1	5631.3	-693.1	-5.9	-351.2
1930	7465.9	-1025.8	7169.8	-1144.9	-4.0	-296.1
1931	5766.9	-798.2	5620.6	-1419.2	-2.5	-146.3
1932	10600.1	-209.0	10115.4	-438.2	-4.6	-484.7
1933	6388.2	-820.5	5877.5	-893.3	-8.0	-510.7
1934	5766.9	-641.2	5485.4	-799.1	-4.9	-281.5
1935	10382.1	-979.6	10890.8	-384.8	4.9	508.7
1936	10837.6	-524.1	10720.6	-641.1	-1.1	-117.0
1937	10776.6	-237.0	10547.4	-366.8	-2.1	-229.2
1938	11233.7	-128.0	11233.7	-128.0	.0	.0
1939	6953.9	-804.1	6707.7	-868.3	-3.5	-246.2
1940	8923.6	-1806.4	8840.2	-1797.6	-.9	-83.4
1941	11233.7	25.4	11061.8	-91.8	-1.5	-171.9
1942	11233.7	-128.0	11233.7	-128.0	.0	.0
1943	9635.7	-1290.6	8923.6	-1728.6	-7.4	-712.1
1944	7867.3	-495.6	7342.3	-273.7	-6.7	-525.0
1945	8923.6	-991.8	8755.6	-1203.1	-1.9	-168.0
1946	8923.6	-913.4	8755.6	-1226.8	-1.9	-168.0
1947	7264.4	-750.3	7081.3	-671.1	-2.5	-183.1
1948	10176.0	-541.8	10186.2	-216.4	.1	10.2
1949	9286.5	-934.4	8691.7	-960.1	-6.4	-594.8
1950	10321.3	-1040.4	10723.1	-524.2	3.9	401.8
1951	8941.9	-1961.2	8840.2	-1889.9	-1.1	-101.7
1952	11233.7	-128.0	11233.7	-128.0	.0	.0
1953	11233.7	55.0	11220.7	240.9	-.1	-13.0
1954	8923.6	-1133.8	8840.2	-687.7	-.9	-83.4
1955	7998.1	-278.9	7752.1	-271.3	-3.1	-246.0
1956	11233.7	-128.0	11233.7	-128.0	.0	.0
1957	9411.3	-1227.5	8840.2	-1457.6	-6.1	-571.1
1958	11233.7	-128.0	11233.7	-128.0	.0	.0
1959	8062.2	-72.4	7655.4	-191.6	-5.0	-406.8
1960	8420.3	-1171.0	8278.4	-617.3	-1.7	-141.9
1961	8013.6	-7.3	7302.8	-257.0	-8.9	-710.8
1962	8923.6	-1668.7	8755.6	-1502.0	-1.9	-168.0
1963	11233.7	-96.3	9582.8	-1612.5	-14.7	-1650.9
1964	7815.3	-716.6	7664.0	-804.5	-1.9	-151.3
1965	10246.7	-1056.6	9457.9	-1678.6	-7.7	-788.8
1966	8310.0	-537.2	7591.9	-285.3	-8.6	-718.1
1967	11233.7	-128.0	11233.7	-128.0	.0	.0
1968	8292.2	-505.6	7393.3	-315.5	-10.8	-898.9
1969	11233.7	-128.0	11233.7	-128.0	.0	.0
1970	8923.6	-151.7	8923.6	-256.5	.0	.0
1971	11233.7	-128.0	11233.7	25.4	.0	.0
1972	8718.1	-205.5	8383.2	-372.4	-3.8	-334.9
1973	8923.6	-1181.3	8840.2	-777.6	-.9	-83.4
1974	11233.7	-128.0	11233.7	-128.0	.0	.0
1975	11233.7	-128.0	11233.7	-128.0	.0	.0
1976	5766.9	-641.2	5631.3	-653.2	-2.4	-135.6
1977	3619.5	-504.7	2881.0	-515.3	-20.4	-738.5
1978	9992.3	-1369.4	9825.2	-1411.8	-1.7	-167.1
1979	8923.6	-702.7	8686.7	-186.9	-2.7	-236.9
1980	10581.4	-338.2	10139.7	-617.9	-4.2	-441.7
1981	7892.9	63.6	7462.5	-181.6	-5.5	-430.4
1982	11233.7	-128.0	11233.7	-128.0	.0	.0
1983	11266.7	-95.0	11233.7	-128.0	-.3	-33.0
1984	8923.6	-1047.3	8923.6	-1285.0	.0	.0
1985	7508.1	-957.6	7211.2	-960.0	-4.0	-296.9
1986	9599.6	-1379.9	9232.9	-1492.3	-3.8	-366.7
1987	6768.0	-935.3	6707.7	-641.6	-.9	-60.3
1988	5766.9	-641.2	5631.3	-653.2	-2.4	-135.6
1989	8137.6	-1352.3	8243.2	-1186.7	1.3	105.6
1990	5766.9	-641.2	5631.3	-653.2	-2.4	-135.6
1991	6255.5	-612.3	5695.6	-932.9	-9.0	-559.9
Mean:	8972.8	-628.7	8764.7	-657.4	-2.7	-208.1
Median:	8923.6	-612.3	8840.2	-617.3	-1.9	-151.3
Min:	3619.5	-1961.2	2881.0	-1889.9	-20.4	-1650.9
Max:	11266.7	63.6	11233.7	240.9	12.0	1130.9
X > 11267.9	0		0			
X > 10638.3	19		18			
X < 9318.8	40		42			
X < 8223.8	23		24			
X < 7614.2	16		21			
X < 7074.2	13		13			
X < 6301.3	9		10			
X < 4805.3	1		1			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

August

Water Year	Base Area (acre)	Base Change from Prev (acre)	2030 w/ WFP Area (acre)	2030 w/ WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	10372.4	.0	10338.8	.0	-.3	-33.6
1923	9003.6	-413.0	9164.9	-1382.6	1.8	161.3
1924	5952.4	185.5	5553.4	105.1	-6.7	-399.0
1925	8193.6	-1067.9	9777.2	-199.3	19.3	1583.6
1926	7120.0	206.3	6998.2	.5	-1.7	-121.8
1927	10372.4	-743.9	8439.6	-1189.0	-18.6	-1932.8
1928	7534.1	-1020.5	6994.6	-1825.6	-7.2	-539.5
1929	6568.5	586.0	5968.4	337.1	-9.1	-600.1
1930	7866.8	400.9	7401.8	232.0	-5.9	-465.0
1931	5992.9	226.0	5620.6	.0	-6.2	-372.3
1932	10372.4	-227.7	9880.6	-234.8	-4.7	-491.8
1933	7030.3	642.1	6532.4	654.9	-7.1	-497.9
1934	5698.0	-68.9	5076.6	-408.8	-10.9	-621.4
1935	9803.9	-578.2	9821.1	-1069.7	.2	17.2
1936	10348.6	-489.0	10372.4	-348.2	.2	23.8
1937	10372.4	-404.2	10270.2	-277.2	-1.0	-102.2
1938	10372.4	-861.3	10372.4	-861.3	.0	.0
1939	7074.5	120.6	6548.9	-158.8	-7.4	-525.6
1940	7628.3	-1295.3	7707.0	-1133.2	1.0	78.7
1941	10372.4	-861.3	10372.4	-689.4	.0	.0
1942	10372.4	-861.3	10372.4	-861.3	.0	.0
1943	9278.0	-357.7	8004.2	-919.4	-13.7	-1273.8
1944	6324.3	-1543.0	7616.6	274.3	20.4	1292.3
1945	8727.5	-196.1	8131.5	-624.1	-6.8	-596.0
1946	8715.5	-208.1	8154.8	-600.8	-6.4	-560.7
1947	7397.7	133.3	7380.6	299.3	-.2	-17.1
1948	9554.6	-621.4	9445.3	-740.9	-1.1	-109.3
1949	8853.0	-433.5	7718.5	-973.2	-12.8	-1134.5
1950	9791.4	-529.9	10149.9	-573.2	3.7	358.5
1951	8098.3	-843.6	7785.3	-1054.9	-3.9	-313.0
1952	10373.3	-860.4	10372.4	-861.3	.0	-.9
1953	10372.4	-861.3	10372.4	-848.3	.0	.0
1954	7911.4	-1012.2	7292.0	-1548.2	-7.8	-619.4
1955	6905.8	-1092.3	7398.8	-353.3	7.1	493.0
1956	10372.4	-861.3	10372.4	-861.3	.0	.0
1957	9407.2	-4.1	8106.5	-733.7	-13.8	-1300.7
1958	10372.4	-861.3	10372.4	-861.3	.0	.0
1959	6994.6	-1067.6	6994.6	-660.8	.0	.0
1960	7203.2	-1217.1	7564.7	-713.7	5.0	361.5
1961	7345.7	-667.9	7035.4	-267.4	-4.2	-310.3
1962	7043.8	-1879.8	7806.4	-949.2	10.8	762.6
1963	10372.4	-861.3	9291.0	-291.8	-10.4	-1081.4
1964	6596.3	-1219.0	7873.5	209.5	19.4	1277.2
1965	10295.5	48.8	9011.7	-446.2	-12.5	-1283.8
1966	7200.3	-1109.7	6994.6	-597.3	-2.9	-205.7
1967	10372.4	-861.3	10372.4	-861.3	.0	.0
1968	8429.6	137.4	6994.6	-398.7	-17.0	-1435.0
1969	10372.4	-861.3	10372.4	-861.3	.0	.0
1970	7534.1	-1389.5	7534.1	-1389.5	.0	.0
1971	10372.4	-861.3	10372.4	-861.3	.0	.0
1972	6994.6	-1723.5	6994.6	-1388.6	.0	.0
1973	8900.5	-23.1	7322.9	-1517.3	-17.7	-1577.6
1974	10372.4	-861.3	10372.4	-861.3	.0	.0
1975	10372.4	-861.3	10372.4	-861.3	.0	.0
1976	5061.2	-705.7	5193.5	-437.8	2.6	132.3
1977	3270.1	-349.4	2499.1	-381.9	-23.6	-771.0
1978	9945.8	-46.5	8795.5	-1029.7	-11.6	-1150.3
1979	8523.1	-400.5	7545.5	-1141.2	-11.5	-977.6
1980	10372.4	-209.0	8908.3	-1231.4	-14.1	-1464.1
1981	7393.9	-499.0	7308.9	-153.6	-1.1	-85.0
1982	10372.4	-861.3	10372.4	-861.3	.0	.0
1983	10549.0	-717.7	10372.4	-861.3	-1.7	-176.6
1984	9037.9	114.3	8036.7	-886.9	-11.1	-1001.2
1985	6252.7	-1255.4	6209.0	-1002.2	-.7	-43.7
1986	8562.2	-1037.4	8057.3	-1175.6	-5.9	-504.9
1987	5708.4	-1059.6	5651.1	-1056.6	-1.0	-57.3
1988	5061.2	-705.7	5154.7	-476.6	1.8	93.5
1989	6774.7	-1362.9	6713.2	-1530.0	-.9	-61.5
1990	5061.2	-705.7	5193.5	-437.8	2.6	132.3
1991	6045.7	-209.8	6045.3	349.7	.0	-.4
Mean:	8366.3	-599.5	8108.5	-647.5	-2.9	-257.8
Median:	8523.1	-705.7	7806.4	-740.9	-1.0	-61.5
Min:	3270.1	-1879.8	2499.1	-1825.6	-23.6	-1932.8
Max:	10549.0	642.1	10372.4	654.9	20.4	1583.6
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	43		48			
X < 8223.8	33		42			
X < 7614.2	28		30			
X < 7074.2	19		21			
X < 6301.3	10		11			
X < 4805.3	1		1			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

September

Water Year	Base Area (acre)	Base Change from Prev (acre)	2030 w/ WFP Area (acre)	2030 w/ WFP Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	9323.6	.0	9323.6	.0	.0	.0
1923	8808.2	-195.4	8811.8	-353.1	.0	3.6
1924	5635.2	-317.2	5390.4	-163.0	-4.3	-244.8
1925	8043.4	-150.2	9177.7	-599.5	14.1	1134.3
1926	6967.6	-152.4	6806.0	-192.2	-2.3	-161.6
1927	9323.6	-1048.8	8032.4	-407.2	-13.8	-1291.2
1928	7531.0	-3.1	6715.8	-278.8	-10.8	-815.2
1929	6417.0	-151.5	5812.6	-155.8	-9.4	-604.4
1930	7874.6	7.8	7251.8	-150.0	-7.9	-622.8
1931	5700.3	-292.6	5425.0	-195.6	-4.8	-275.3
1932	9323.6	-1048.8	9262.2	-618.4	-.7	-61.4
1933	6922.1	-108.2	6415.3	-117.1	-7.3	-506.8
1934	5507.0	-191.0	5085.3	8.7	-7.7	-421.7
1935	9183.6	-620.3	9220.8	-600.3	.4	37.2
1936	9323.6	-1025.0	9323.6	-1048.8	.0	.0
1937	9323.6	-1048.8	9323.6	-946.6	.0	.0
1938	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1939	6942.6	-131.9	6238.9	-310.0	-10.1	-703.7
1940	7534.1	-94.2	7420.5	-286.5	-1.5	-113.6
1941	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1942	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1943	8985.3	-292.7	7703.8	-300.4	-14.3	-1281.5
1944	5852.5	-471.8	7320.1	-296.5	25.1	1467.6
1945	8230.3	-497.2	7407.9	-723.6	-10.0	-822.4
1946	7958.1	-757.4	7215.6	-939.2	-9.3	-742.5
1947	6817.3	-580.4	6960.1	-420.5	2.1	142.8
1948	8926.3	-628.3	8431.2	-1014.1	-5.5	-495.1
1949	8556.1	-296.9	7470.3	-248.2	-12.7	-1085.8
1950	9323.6	-467.8	9323.6	-826.3	.0	.0
1951	7999.8	-98.5	7323.6	-461.7	-8.5	-676.2
1952	9323.6	-1049.7	9323.6	-1048.8	.0	.0
1953	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1954	7534.1	-377.3	7148.8	-143.2	-5.1	-385.3
1955	6862.2	-43.6	7191.1	-207.7	4.8	328.9
1956	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1957	9045.8	-361.4	7712.7	-393.8	-14.7	-1333.1
1958	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1959	6922.7	-71.9	6766.4	-228.2	-2.3	-156.3
1960	6713.2	-490.0	7317.6	-247.1	9.0	604.4
1961	6973.3	-372.4	6670.6	-364.8	-4.3	-302.7
1962	6971.3	-72.5	7134.4	-672.0	2.3	163.1
1963	9323.6	-1048.8	8802.9	-488.1	-5.6	-520.7
1964	6437.9	-158.4	7647.8	-225.7	18.8	1209.9
1965	9323.6	-971.9	8630.7	-381.0	-7.4	-692.9
1966	6994.6	-205.7	6728.0	-266.6	-3.8	-266.6
1967	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1968	7979.5	-450.1	6912.5	-82.1	-13.4	-1067.0
1969	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1970	7541.4	7.3	7364.1	-170.0	-2.4	-177.3
1971	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1972	6980.6	-14.0	6810.7	-183.9	-2.4	-169.9
1973	8782.9	-117.6	7243.7	-79.2	-17.5	-1539.2
1974	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1975	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1976	5129.3	68.1	5122.2	-71.3	-.1	-7.1
1977	3083.2	-186.9	2170.6	-328.5	-29.6	-912.6
1978	9323.6	-622.2	8541.9	-253.6	-8.4	-781.7
1979	8204.5	-318.6	6994.6	-550.9	-14.7	-1209.9
1980	9323.6	-1048.8	8493.3	-415.0	-8.9	-830.3
1981	7061.7	-332.2	6865.7	-443.2	-2.8	-196.0
1982	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1983	9678.2	-870.8	9328.6	-1043.8	-3.6	-349.6
1984	8852.6	-185.3	7802.4	-234.3	-11.9	-1050.2
1985	6484.6	231.9	6278.0	69.0	-3.2	-206.6
1986	8601.1	38.9	7891.0	-166.3	-8.3	-710.1
1987	5594.1	-114.3	5743.9	92.8	2.7	149.8
1988	5321.1	259.9	5301.8	147.1	-.4	-19.3
1989	7048.6	273.9	6829.0	115.8	-3.1	-219.6
1990	5362.5	301.3	5389.3	195.8	.5	26.8
1991	5970.4	-75.3	5779.0	-266.3	-3.2	-191.4
Mean:	7899.5	-451.8	7628.8	-465.2	-3.4	-270.8
Median:	8043.4	-332.2	7407.9	-353.1	-2.4	-177.3
Min:	3083.2	-1049.7	2170.6	-1048.8	-29.6	-1539.2
Max:	9678.2	301.3	9328.6	195.8	25.1	1467.6
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	46		52			
X < 8223.8	36		43			
X < 7614.2	30		37			
X < 7074.2	26		24			
X < 6301.3	10		12			
X < 4805.3	1		1			
X < 3782.9	1		1			

RETURN TO TABLE OF CONTENTS

Section 5

LOWER AMERICAN TEMPERATURE BELOW NIMBUS DAM
5.1 Fisheries

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

January

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	43.5	43.5	.0	.0
1923	44.3	44.2	-.2	-.1
1924	46.6	46.5	-.2	-.1
1925	46.7	47.3	1.3	.6
1926	44.7	45.1	.9	.4
1927	47.9	47.8	-.2	-.1
1928	47.4	46.9	-1.1	-.5
1929	43.9	43.7	-.5	-.2
1930	46.5	46.4	-.2	-.1
1931	48.1	48.0	-.2	-.1
1932	45.7	45.6	-.2	-.1
1933	44.5	44.4	-.2	-.1
1934	47.2	47.2	.0	.0
1935	47.5	47.7	.4	.2
1936	48.1	47.9	-.4	-.2
1937	42.9	42.8	-.2	-.1
1938	47.0	47.0	.0	.0
1939	47.7	47.6	-.2	-.1
1940	48.1	47.9	-.4	-.2
1941	48.8	48.7	-.2	-.1
1942	46.3	46.3	.0	.0
1943	46.4	46.4	.0	.0
1944	48.2	47.7	-1.0	-.5
1945	46.1	46.3	.4	.2
1946	45.7	45.6	-.2	-.1
1947	45.2	45.1	-.2	-.1
1948	48.2	48.2	.0	.0
1949	42.4	42.1	-.7	-.3
1950	44.7	44.4	-.7	-.3
1951	45.0	45.0	.0	.0
1952	45.3	45.2	-.2	-.1
1953	48.9	48.8	-.2	-.1
1954	48.2	48.1	-.2	-.1
1955	44.0	43.9	-.2	-.1
1956	46.0	46.0	.0	.0
1957	47.8	47.7	-.2	-.1
1958	47.7	47.2	-1.0	-.5
1959	51.3	51.1	-.4	-.2
1960	48.2	47.9	-.6	-.3
1961	45.4	45.5	.2	.1
1962	44.7	44.5	-.4	-.2
1963	45.8	45.8	.0	.0
1964	44.9	44.9	.0	.0
1965	44.8	44.9	.2	.1
1966	46.5	46.2	-.6	-.3
1967	46.7	46.7	.0	.0
1968	46.8	46.7	-.2	-.1
1969	45.1	45.0	-.2	-.1
1970	47.2	47.2	.0	.0
1971	45.9	45.8	-.2	-.1
1972	44.6	44.5	-.2	-.1
1973	44.8	44.8	.0	.0
1974	46.7	46.7	.0	.0
1975	45.9	45.8	-.2	-.1
1976	48.7	48.7	.0	.0
1977	46.1	46.3	.4	.2
1978	48.2	47.8	-.8	-.4
1979	46.6	46.3	-.6	-.3
1980	46.8	46.2	-1.3	-.6
1981	49.6	49.0	-1.2	-.6
1982	45.3	45.3	.0	.0
1983	45.5	45.5	.0	.0
1984	46.2	46.2	.0	.0
1985	46.0	45.8	-.4	-.2
1986	47.3	47.2	-.2	-.1
1987	47.9	47.5	-.8	-.4
1988	48.1	48.0	-.2	-.1
1989	46.8	46.8	.0	.0
1990	47.8	47.7	-.2	-.1
Mean:	46.5	46.4	-.2	-.1
Median:	46.5	46.3	-.2	-.1
Min:	42.4	42.1	-1.3	-.6
Max:	51.3	51.1	1.3	.6
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0		7		
X < 0.0		43		
0.0 < X <= .5		5		
.5 < X <= 1.0		1		
X > 1.0		1		
0.0 > X >= -.5		31		
-.5 > X > -1.0		9		
X < -1.0		3		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

February

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	45.9	46.0	.2	.1
1923	46.3	46.3	.0	.0
1924	50.3	50.8	1.0	.5
1925	48.2	48.1	-.2	-.1
1926	49.3	48.7	-1.2	-.6
1927	48.7	48.7	.0	.0
1928	48.5	49.3	1.6	.8
1929	46.7	47.3	1.3	.6
1930	52.1	52.4	.6	.3
1931	50.9	50.5	-.8	-.4
1932	46.9	47.0	.2	.1
1933	46.2	45.8	-.9	-.4
1934	49.8	50.1	.6	.3
1935	48.4	48.3	-.2	-.1
1936	47.7	47.7	.0	.0
1937	45.7	45.9	.4	.2
1938	48.2	48.2	.0	.0
1939	47.7	47.7	.0	.0
1940	49.1	49.1	.0	.0
1941	49.7	49.7	.0	.0
1942	46.6	46.6	.0	.0
1943	49.3	49.3	.0	.0
1944	48.3	47.6	-1.4	-.7
1945	47.4	47.5	.2	.1
1946	46.1	46.1	.0	.0
1947	48.7	48.7	.0	.0
1948	47.5	47.5	.0	.0
1949	45.0	44.2	-1.8	-.8
1950	47.2	47.1	-.2	-.1
1951	46.4	46.4	.0	.0
1952	47.3	47.3	.0	.0
1953	50.3	50.3	.0	.0
1954	48.2	47.9	-.6	-.3
1955	46.4	46.5	.2	.1
1956	46.6	46.6	.0	.0
1957	49.3	49.3	.0	.0
1958	51.2	49.1	-4.1	-2.1
1959	49.9	49.7	-.4	-.2
1960	48.9	48.8	-.2	-.1
1961	49.5	49.7	.4	.2
1962	47.1	47.0	-.2	-.1
1963	49.5	49.5	.0	.0
1964	47.3	46.9	-.8	-.4
1965	47.1	47.2	.2	.1
1966	47.5	47.8	.6	.3
1967	48.2	48.2	.0	.0
1968	50.2	49.2	-2.0	-1.0
1969	46.3	46.3	.0	.0
1970	48.2	48.1	-.2	-.1
1971	47.2	47.2	.0	.0
1972	47.9	46.8	-2.3	-1.1
1973	49.4	49.4	.0	.0
1974	46.7	46.6	-.2	-.1
1975	47.4	47.4	.0	.0
1976	50.5	50.7	.4	.2
1977	52.5	50.3	-4.2	-2.2
1978	50.9	50.8	-.2	-.1
1979	47.6	47.7	.2	.1
1980	47.3	47.5	.4	.2
1981	50.8	52.2	2.8	1.4
1982	46.6	46.6	.0	.0
1983	49.0	49.0	.0	.0
1984	47.9	47.9	.0	.0
1985	47.6	48.1	1.1	.5
1986	48.0	48.0	.0	.0
1987	51.7	50.0	-3.3	-1.7
1988	53.4	54.2	1.5	.8
1989	47.6	47.7	.2	.1
1990	48.2	48.2	.0	.0
Mean:	48.3	48.3	-.2	-.1
Median:	48.0	47.9	.0	.0
Min:	45.0	44.2	-4.2	-2.2
Max:	53.4	54.2	2.8	1.4

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0			20	
X < 0.0			21	
0.0 < X <= .5			11	
.5 < X <= 1.0			4	
X > 1.0			5	
0.0 > X >= -.5			9	
-.5 > X > -1.0			4	
X < -1.0			8	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

March

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	50.9	50.9	.0	.0
1923	52.2	53.7	2.9	1.5
1924	53.3	53.5	.4	.2
1925	54.0	54.0	.0	.0
1926	55.1	53.3	-3.3	-1.8
1927	51.5	51.5	.0	.0
1928	52.0	51.8	-.4	-.2
1929	53.2	51.9	-2.4	-1.3
1930	52.8	52.8	.0	.0
1931	54.6	55.7	2.0	1.1
1932	53.7	53.8	.2	.1
1933	53.3	51.9	-2.6	-1.4
1934	55.8	56.4	1.1	.6
1935	50.0	49.8	-.4	-.2
1936	52.7	52.7	.0	.0
1937	51.9	52.2	.6	.3
1938	49.8	49.8	.0	.0
1939	52.2	52.4	.4	.2
1940	51.8	51.8	.0	.0
1941	53.0	53.0	.0	.0
1942	49.4	49.2	-.4	-.2
1943	51.1	51.1	.0	.0
1944	51.7	52.6	1.7	.9
1945	50.0	50.0	.0	.0
1946	51.3	51.4	.2	.1
1947	52.4	52.4	.0	.0
1948	49.9	49.9	.0	.0
1949	50.1	50.3	.4	.2
1950	51.6	51.6	.0	.0
1951	50.6	50.6	.0	.0
1952	49.5	49.5	.0	.0
1953	52.7	52.7	.0	.0
1954	50.6	50.7	.2	.1
1955	51.6	51.7	.2	.1
1956	51.3	51.3	.0	.0
1957	53.7	53.4	-.6	-.3
1958	50.7	50.9	.4	.2
1959	53.4	53.3	-.2	-.1
1960	53.4	53.2	-.4	-.2
1961	53.5	53.0	-.9	-.5
1962	51.4	50.4	-1.9	-1.0
1963	50.9	50.9	.0	.0
1964	50.6	50.1	-1.0	-.5
1965	51.3	51.3	.0	.0
1966	51.4	52.4	1.9	1.0
1967	51.0	51.0	.0	.0
1968	54.9	53.0	-3.5	-1.9
1969	51.8	51.4	-.8	-.4
1970	52.6	52.6	.0	.0
1971	50.7	50.7	.0	.0
1972	55.0	55.6	1.1	.6
1973	50.5	50.5	.0	.0
1974	51.6	51.6	.0	.0
1975	50.6	50.6	.0	.0
1976	53.1	53.3	.4	.2
1977	53.5	52.5	-1.9	-1.0
1978	54.3	54.2	-.2	-.1
1979	53.3	52.0	-2.4	-1.3
1980	51.4	51.4	.0	.0
1981	52.5	53.0	1.0	.5
1982	50.4	50.4	.0	.0
1983	50.5	50.5	.0	.0
1984	53.2	53.3	.2	.1
1985	50.2	50.6	.8	.4
1986	52.2	52.2	.0	.0
1987	52.8	52.9	.2	.1
1988	57.3	57.8	.9	.5
1989	51.5	51.5	.0	.0
1990	54.1	54.6	.9	.5
Mean:	52.1	52.1	-.1	.0
Median:	51.8	51.8	.0	.0
Min:	49.4	49.2	-3.5	-1.9
Max:	57.3	57.8	2.9	1.5
X > 56.0	1	2		
Mean X > 56.0	57.3	57.1	-.3	-.2
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0		22		
X < 0.0		17		
0.0 < X <= .5		11		
.5 < X <= 1.0		5		
X > 1.0		6		
0.0 > X >= -.5		6		
-.5 > X > -1.0		4		
X < -1.0		7		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

April

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	54.1	54.2	.2	.1
1923	55.3	55.0	-.5	-.3
1924	61.4	61.2	-.3	-.2
1925	55.3	55.5	.4	.2
1926	59.2	59.6	.7	.4
1927	53.8	53.8	.0	.0
1928	54.5	54.5	.0	.0
1929	55.7	56.6	1.6	.9
1930	58.6	57.6	-1.7	-1.0
1931	63.1	63.8	1.1	.7
1932	55.9	56.1	.4	.2
1933	57.2	58.1	1.6	.9
1934	59.5	59.8	.5	.3
1935	54.7	54.5	-.4	-.2
1936	55.3	55.3	.0	.0
1937	54.1	54.1	.0	.0
1938	53.8	53.8	.0	.0
1939	59.2	61.2	3.4	2.0
1940	55.0	55.0	.0	.0
1941	54.6	54.6	.0	.0
1942	54.4	54.5	.2	.1
1943	54.6	54.6	.0	.0
1944	54.2	54.9	1.3	.7
1945	55.9	56.1	.4	.2
1946	55.3	55.4	.2	.1
1947	57.2	56.0	-2.1	-1.2
1948	53.3	53.1	-.4	-.2
1949	57.9	57.0	-1.6	-.9
1950	55.5	55.5	.0	.0
1951	55.9	56.0	.2	.1
1952	54.0	54.0	.0	.0
1953	55.9	56.0	.2	.1
1954	56.1	56.2	.2	.1
1955	53.6	53.6	.0	.0
1956	56.3	56.1	-.4	-.2
1957	57.7	57.7	.0	.0
1958	54.1	54.1	.0	.0
1959	62.7	59.0	-5.9	-3.7
1960	57.3	57.9	1.0	.6
1961	60.4	60.5	.2	.1
1962	57.0	57.8	1.4	.8
1963	53.2	53.2	.0	.0
1964	54.5	53.9	-1.1	-.6
1965	54.9	54.8	-.2	-.1
1966	60.6	58.6	-3.3	-2.0
1967	51.6	51.6	.0	.0
1968	58.3	57.1	-2.1	-1.2
1969	54.2	54.3	.2	.1
1970	56.2	56.2	.0	.0
1971	54.1	54.2	.2	.1
1972	56.7	56.9	.4	.2
1973	56.4	56.4	.0	.0
1974	53.8	53.8	.0	.0
1975	52.9	52.9	.0	.0
1976	57.6	57.7	.2	.1
1977	64.7	61.8	-4.5	-2.9
1978	54.8	54.9	.2	.1
1979	56.2	57.1	1.6	.9
1980	56.2	56.4	.4	.2
1981	56.4	57.9	2.7	1.5
1982	53.1	53.1	.0	.0
1983	53.5	53.5	.0	.0
1984	56.7	56.7	.0	.0
1985	59.5	58.8	-1.2	-.7
1986	56.7	56.7	.0	.0
1987	63.2	63.4	.3	.2
1988	62.3	62.7	.6	.4
1989	57.2	57.4	.3	.2
1990	58.9	59.5	1.0	.6
Mean:	56.4	56.4	.0	.0
Median:	55.9	56.0	.0	.0
Min:	51.6	51.6	-5.9	-3.7
Max:	64.7	63.8	3.4	2.0
X > 56.0	33	35		
Mean X > 56.0	58.6	58.4	-.3	-.2
X > 60.0	8	7		
Mean X > 60.0	62.3	62.1	-.3	-.2
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0			31	
X < 0.0			15	
0.0 < X <= .5			19	
.5 < X <= 1.0			4	
X > 1.0			8	
0.0 > X >= -.5			6	
-.5 > X > -1.0			0	
X < -1.0			9	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

May

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	58.1	58.2	.2	.1
1923	58.3	58.2	-.2	-.1
1924	69.8	69.7	-.1	-.1
1925	58.9	59.0	.2	.1
1926	65.0	64.1	-1.4	-.9
1927	58.1	58.0	-.2	-.1
1928	60.2	60.1	-.2	-.1
1929	61.9	62.5	1.0	.6
1930	61.1	61.5	.7	.4
1931	70.6	69.1	-2.1	-1.5
1932	59.9	60.0	.2	.1
1933	59.1	59.5	.7	.4
1934	68.2	68.1	-.1	-.1
1935	58.4	58.3	-.2	-.1
1936	59.4	59.3	-.2	-.1
1937	58.7	58.6	-.2	-.1
1938	58.4	58.3	-.2	-.1
1939	62.6	62.7	.2	.1
1940	60.0	59.9	-.2	-.1
1941	58.2	58.1	-.2	-.1
1942	57.1	57.2	.2	.1
1943	59.5	59.4	-.2	-.1
1944	60.0	60.8	1.3	.8
1945	58.5	58.7	.3	.2
1946	58.7	58.6	-.2	-.1
1947	63.0	61.5	-2.4	-1.5
1948	58.1	58.3	.3	.2
1949	60.7	61.6	1.5	.9
1950	59.3	59.2	-.2	-.1
1951	59.5	59.4	-.2	-.1
1952	58.4	58.3	-.2	-.1
1953	58.2	58.2	.0	.0
1954	60.8	60.7	-.2	-.1
1955	58.7	59.3	1.0	.6
1956	59.6	59.8	.3	.2
1957	59.5	59.5	.0	.0
1958	58.8	58.7	-.2	-.1
1959	61.9	60.8	-1.8	-1.1
1960	61.0	61.9	1.5	.9
1961	60.6	60.7	.2	.1
1962	59.5	59.6	.2	.1
1963	56.9	56.9	.0	.0
1964	58.7	59.6	1.5	.9
1965	58.5	58.5	.0	.0
1966	64.2	65.9	2.6	1.7
1967	57.3	57.3	.0	.0
1968	62.2	59.6	-4.2	-2.6
1969	58.4	58.4	.0	.0
1970	62.5	62.6	.2	.1
1971	57.0	56.9	-.2	-.1
1972	61.4	61.6	.3	.2
1973	60.4	60.5	.2	.1
1974	58.2	58.1	-.2	-.1
1975	58.9	59.1	.3	.2
1976	64.7	66.7	3.1	2.0
1977	63.0	61.6	-2.2	-1.4
1978	59.0	59.0	.0	.0
1979	59.8	60.7	1.5	.9
1980	58.9	58.9	.0	.0
1981	61.4	61.5	.2	.1
1982	58.3	58.2	-.2	-.1
1983	57.7	57.7	.0	.0
1984	61.6	61.7	.2	.1
1985	63.0	63.8	1.3	.8
1986	60.1	60.2	.2	.1
1987	64.7	67.3	4.0	2.6
1988	65.2	65.3	.2	.1
1989	61.2	61.3	.2	.1
1990	63.7	63.9	.3	.2
Mean:	60.5	60.6	.1	.1
Median:	59.5	59.5	.0	.0
Min:	56.9	56.9	-4.2	-2.6
Max:	70.6	69.7	4.0	2.6

X > 56.0	69	69		
Mean X > 56.0	60.5	60.6	.2	.1
X > 60.0	29	30		
Mean X > 60.0	63.0	63.0	.0	.0
X > 65.0	4	7		
Mean X > 65.0	68.4	67.4	-1.5	-1.0
X > 68.0	3	3		
Mean X > 68.0	69.5	69.0	-.7	-.5
X > 70.0	1	0		
Mean X > 70.0	70.6	.0	-100.0	-70.6
X > 0.0		33		
X < 0.0		27		
0.0 < X <= .5		20		
.5 < X <= 1.0		4		
X > 1.0		9		
0.0 > X >= -.5		21		
-.5 > X > -1.0		0		
X < -1.0		6		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

June

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	62.5	61.0	-2.4	-1.5
1923	61.6	61.2	-.6	-.4
1924	69.4	68.1	-1.9	-1.3
1925	63.5	61.9	-2.5	-1.6
1926	65.8	63.7	-3.2	-2.1
1927	61.8	62.1	.5	.3
1928	64.9	61.6	-5.1	-3.3
1929	67.6	65.6	-3.0	-2.0
1930	65.2	62.5	-4.1	-2.7
1931	68.2	63.1	-7.5	-5.1
1932	64.4	64.1	-.5	-.3
1933	65.8	65.9	.2	.1
1934	68.7	65.4	-4.8	-3.3
1935	62.7	60.9	-2.9	-1.8
1936	63.3	63.2	-.2	-.1
1937	62.6	62.2	-.6	-.4
1938	63.3	62.1	-1.9	-1.2
1939	66.2	63.8	-3.6	-2.4
1940	64.7	65.0	.5	.3
1941	61.4	59.1	-3.7	-2.3
1942	61.4	61.2	-.3	-.2
1943	62.9	62.9	.0	.0
1944	63.4	64.7	2.1	1.3
1945	63.6	63.8	.3	.2
1946	62.5	62.9	.6	.4
1947	66.9	67.5	.9	.6
1948	63.6	61.4	-3.5	-2.2
1949	64.5	64.1	-.6	-.4
1950	62.5	61.8	-1.1	-.7
1951	63.3	63.0	-.5	-.3
1952	61.7	61.6	-.2	-.1
1953	62.2	62.4	.3	.2
1954	63.7	63.7	.0	.0
1955	63.8	64.0	.3	.2
1956	63.3	63.0	-.5	-.3
1957	64.1	64.4	.5	.3
1958	62.6	62.4	-.3	-.2
1959	65.4	62.3	-4.7	-3.1
1960	66.4	62.9	-5.3	-3.5
1961	64.1	65.0	1.4	.9
1962	64.1	64.1	.0	.0
1963	61.1	59.9	-2.0	-1.2
1964	65.7	62.9	-4.3	-2.8
1965	61.6	61.6	.0	.0
1966	67.6	63.7	-5.8	-3.9
1967	61.9	61.8	-.2	-.1
1968	65.1	65.2	.2	.1
1969	62.0	61.8	-.3	-.2
1970	65.5	66.0	.8	.5
1971	60.7	59.6	-1.8	-1.1
1972	64.0	65.4	2.2	1.4
1973	63.8	65.0	1.9	1.2
1974	62.6	61.8	-1.3	-.8
1975	61.8	60.1	-2.8	-1.7
1976	67.8	64.9	-4.3	-2.9
1977	70.4	71.0	.9	.6
1978	62.7	62.7	.0	.0
1979	64.5	65.3	1.2	.8
1980	62.0	62.0	.0	.0
1981	67.0	65.1	-2.8	-1.9
1982	61.9	60.5	-2.3	-1.4
1983	62.6	62.5	-.2	-.1
1984	66.0	65.6	-.6	-.4
1985	67.0	63.0	-6.0	-4.0
1986	64.5	64.7	.3	.2
1987	66.0	64.3	-2.6	-1.7
1988	67.5	63.2	-6.4	-4.3
1989	65.0	65.0	.0	.0
1990	67.7	64.6	-4.6	-3.1
Mean:	64.3	63.3	-1.4	-.9
Median:	63.8	63.0	-.6	-.4
Min:	60.7	59.1	-7.5	-5.1
Max:	70.4	71.0	2.2	1.4
X > 56.0	69	69		
Mean X > 56.0	64.3	63.3	-1.6	-1.0
X > 60.0	69	66		
Mean X > 60.0	64.3	63.5	-1.2	-.8
X > 65.0	23	12		
Mean X > 65.0	66.9	66.3	-.9	-.6
X > 68.0	4	2		
Mean X > 68.0	69.2	69.6	.6	.4
X > 70.0	1	1		
Mean X > 70.0	70.4	71.0	.9	.6
X > 0.0		18		
X < 0.0		44		
0.0 < X <= .5		9		
.5 < X <= 1.0		4		
X > 1.0		5		
0.0 > X >= -.5		10		
-.5 > X > -1.0		4		
X < -1.0		30		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

July

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	65.5	63.1	-3.7	-2.4
1923	68.1	67.6	-.7	-.5
1924	69.6	71.4	2.6	1.8
1925	66.2	63.5	-4.1	-2.7
1926	70.0	68.7	-1.9	-1.3
1927	64.7	68.5	5.9	3.8
1928	65.1	62.7	-3.7	-2.4
1929	69.4	66.9	-3.6	-2.5
1930	68.8	69.8	1.5	1.0
1931	68.6	67.8	-1.2	-.8
1932	67.7	65.5	-3.2	-2.2
1933	69.0	66.0	-4.3	-3.0
1934	68.4	66.1	-3.4	-2.3
1935	67.0	64.0	-4.5	-3.0
1936	67.3	65.4	-2.8	-1.9
1937	66.0	62.9	-4.7	-3.1
1938	66.2	64.0	-3.3	-2.2
1939	68.8	66.3	-3.6	-2.5
1940	68.0	68.7	1.0	.7
1941	63.5	61.2	-3.6	-2.3
1942	66.2	63.2	-4.5	-3.0
1943	67.0	65.5	-2.2	-1.5
1944	68.3	68.2	-.1	-.1
1945	66.9	67.9	1.5	1.0
1946	65.4	65.9	.8	.5
1947	70.6	70.3	-.4	-.3
1948	66.7	64.0	-4.0	-2.7
1949	67.4	66.5	-1.3	-.9
1950	66.9	64.1	-4.2	-2.8
1951	67.9	66.5	-2.1	-1.4
1952	66.1	64.9	-1.8	-1.2
1953	65.8	62.8	-4.6	-3.0
1954	65.9	63.9	-3.0	-2.0
1955	68.8	68.9	.1	.1
1956	67.6	64.8	-4.1	-2.8
1957	66.8	66.9	.1	.1
1958	66.9	65.6	-1.9	-1.3
1959	66.9	67.9	1.5	1.0
1960	68.4	62.6	-8.5	-5.8
1961	71.2	68.5	-3.8	-2.7
1962	67.8	66.5	-1.9	-1.3
1963	65.1	64.6	-.8	-.5
1964	67.4	67.4	.0	.0
1965	66.2	65.2	-1.5	-1.0
1966	66.7	62.1	-6.9	-4.6
1967	67.2	65.5	-2.5	-1.7
1968	65.2	63.4	-2.8	-1.8
1969	65.9	63.3	-3.9	-2.6
1970	65.6	66.1	.8	.5
1971	64.9	61.4	-5.4	-3.5
1972	63.3	64.6	2.1	1.3
1973	66.0	65.8	-.3	-.2
1974	66.5	64.2	-3.5	-2.3
1975	64.1	62.0	-3.3	-2.1
1976	67.9	65.3	-3.8	-2.6
1977	73.2	74.1	1.2	.9
1978	67.0	68.5	2.2	1.5
1979	66.9	64.3	-3.9	-2.6
1980	66.4	67.9	2.3	1.5
1981	68.8	67.1	-2.5	-1.7
1982	65.6	63.3	-3.5	-2.3
1983	66.4	65.9	-.8	-.5
1984	66.9	67.9	1.5	1.0
1985	69.7	64.4	-7.6	-5.3
1986	69.7	69.1	-.9	-.6
1987	70.6	67.1	-5.0	-3.5
1988	66.0	67.3	2.0	1.3
1989	65.9	65.8	-.2	-.1
1990	67.1	64.6	-3.7	-2.5
Mean:	67.2	65.9	-2.0	-1.3
Median:	66.9	65.6	-2.7	-1.8
Min:	63.3	61.2	-8.5	-5.8
Max:	73.2	74.1	5.9	3.8

X > 56.0	69	69		
Mean X > 56.0	67.2	65.9	-1.9	-1.3
X > 60.0	69	69		
Mean X > 60.0	67.2	65.9	-1.9	-1.3
X > 65.0	64	42		
Mean X > 65.0	67.4	67.4	.0	.0
X > 68.0	19	12		
Mean X > 68.0	69.5	69.6	.1	.1
X > 70.0	4	3		
Mean X > 70.0	71.4	71.9	.7	.5
X > 0.0		16		
X < 0.0		52		
0.0 < X <= .5		2		
.5 < X <= 1.0		3		
X > 1.0		11		
0.0 > X >= -.5		4		
-.5 > X > -1.0		4		
X < -1.0		44		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

August

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	65.4	64.3	-1.7	-1.1
1923	67.4	67.8	.6	.4
1924	72.9	71.8	-1.5	-1.1
1925	66.9	64.3	-3.9	-2.6
1926	66.2	62.1	-6.2	-4.1
1927	65.7	68.0	3.5	2.3
1928	69.1	68.6	-.7	-.5
1929	70.1	68.2	-2.7	-1.9
1930	65.6	63.8	-2.7	-1.8
1931	74.5	73.1	-1.9	-1.4
1932	67.3	65.5	-2.7	-1.8
1933	65.7	68.3	4.0	2.6
1934	70.3	68.5	-2.6	-1.8
1935	65.8	65.0	-1.2	-.8
1936	66.9	65.0	-2.8	-1.9
1937	65.5	63.1	-3.7	-2.4
1938	66.0	64.7	-2.0	-1.3
1939	68.2	67.2	-1.5	-1.0
1940	68.6	66.8	-2.6	-1.8
1941	65.6	64.1	-2.3	-1.5
1942	66.3	64.8	-2.3	-1.5
1943	66.2	65.6	-.9	-.6
1944	69.1	64.4	-6.8	-4.7
1945	65.7	66.2	.8	.5
1946	64.7	65.7	1.5	1.0
1947	68.1	64.4	-5.4	-3.7
1948	66.5	65.3	-1.8	-1.2
1949	67.3	68.1	1.2	.8
1950	66.0	64.4	-2.4	-1.6
1951	67.1	67.1	.0	.0
1952	66.7	65.1	-2.4	-1.6
1953	67.0	65.8	-1.8	-1.2
1954	67.8	67.7	-.1	-.1
1955	69.2	69.3	.1	.1
1956	67.1	65.6	-2.2	-1.5
1957	65.7	68.1	3.7	2.4
1958	67.2	65.9	-1.9	-1.3
1959	68.6	66.5	-3.1	-2.1
1960	70.7	66.7	-5.7	-4.0
1961	66.8	68.7	2.8	1.9
1962	66.8	66.3	-.7	-.5
1963	65.9	62.4	-5.3	-3.5
1964	69.4	61.8	-11.0	-7.6
1965	65.0	64.4	-.9	-.6
1966	70.9	65.6	-7.5	-5.3
1967	67.3	65.7	-2.4	-1.6
1968	66.2	67.0	1.2	.8
1969	66.0	64.6	-2.1	-1.4
1970	68.5	68.7	.3	.2
1971	65.3	63.6	-2.6	-1.7
1972	68.4	70.0	2.3	1.6
1973	65.1	66.9	2.8	1.8
1974	66.7	65.4	-1.9	-1.3
1975	65.0	63.9	-1.7	-1.1
1976	68.0	66.0	-2.9	-2.0
1977	74.5	74.8	.4	.3
1978	64.9	67.4	3.9	2.5
1979	66.2	68.2	3.0	2.0
1980	66.6	68.1	2.3	1.5
1981	68.0	65.6	-3.5	-2.4
1982	65.9	64.5	-2.1	-1.4
1983	66.4	65.2	-1.8	-1.2
1984	65.8	68.9	4.7	3.1
1985	71.1	66.3	-6.8	-4.8
1986	68.7	66.0	-3.9	-2.7
1987	67.7	66.0	-2.5	-1.7
1988	70.4	71.2	1.1	.8
1989	70.0	70.0	.0	.0
1990	69.4	69.1	-.4	-.3
Mean:	67.5	66.5	-1.4	-1.0
Median:	66.9	65.9	-1.9	-1.3
Min:	64.7	61.8	-11.0	-7.6
Max:	74.5	74.8	4.7	3.1
X > 56.0	69	69		
Mean X > 56.0	67.5	66.5	-1.5	-1.0
X > 60.0	69	69		
Mean X > 60.0	67.5	66.5	-1.5	-1.0
X > 65.0	65	49		
Mean X > 65.0	67.7	67.5	-.3	-.2
X > 68.0	22	19		
Mean X > 68.0	70.0	69.6	-.6	-.4
X > 70.0	9	4		
Mean X > 70.0	71.7	72.7	1.4	1.0
X > 0.0		19		
X < 0.0		48		
0.0 < X <= .5		3		
.5 < X <= 1.0		2		
X > 1.0		14		
0.0 > X >= -.5		2		
-.5 > X > -1.0		4		
X < -1.0		42		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

September

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	65.7	64.5	-1.8	-1.2
1923	67.9	67.9	.0	.0
1924	70.3	69.6	-1.0	-.7
1925	67.6	66.2	-2.1	-1.4
1926	69.6	68.0	-2.3	-1.6
1927	66.5	62.7	-5.7	-3.8
1928	67.1	65.2	-2.8	-1.9
1929	69.7	68.1	-2.3	-1.6
1930	68.8	68.2	-.9	-.6
1931	70.5	70.0	-.7	-.5
1932	67.9	66.4	-2.2	-1.5
1933	69.5	69.0	-.7	-.5
1934	68.9	68.4	-.7	-.5
1935	67.1	65.9	-1.8	-1.2
1936	68.1	66.9	-1.8	-1.2
1937	67.2	66.0	-1.8	-1.2
1938	66.4	65.2	-1.8	-1.2
1939	68.8	67.8	-1.5	-1.0
1940	68.2	67.8	-.6	-.4
1941	66.3	65.0	-2.0	-1.3
1942	67.0	65.7	-1.9	-1.3
1943	66.6	68.8	3.3	2.2
1944	67.3	66.9	-.6	-.4
1945	66.7	68.7	3.0	2.0
1946	66.2	68.1	2.9	1.9
1947	68.8	67.1	-2.5	-1.7
1948	67.1	66.2	-1.3	-.9
1949	67.7	69.2	2.2	1.5
1950	67.1	65.8	-1.9	-1.3
1951	69.8	69.5	-.4	-.3
1952	67.1	65.5	-2.4	-1.6
1953	67.1	65.8	-1.9	-1.3
1954	67.7	67.5	-.3	-.2
1955	68.0	68.1	.1	.1
1956	67.5	66.0	-2.2	-1.5
1957	67.0	69.7	4.0	2.7
1958	68.1	66.8	-1.9	-1.3
1959	70.1	68.7	-2.0	-1.4
1960	70.4	67.8	-3.7	-2.6
1961	69.9	68.4	-2.1	-1.5
1962	68.5	68.5	.0	.0
1963	66.4	64.1	-3.5	-2.3
1964	68.5	67.0	-2.2	-1.5
1965	67.7	66.5	-1.8	-1.2
1966	70.1	67.8	-3.3	-2.3
1967	68.2	66.7	-2.2	-1.5
1968	68.1	67.7	-.6	-.4
1969	66.9	65.7	-1.8	-1.2
1970	67.0	69.3	3.4	2.3
1971	66.3	64.7	-2.4	-1.6
1972	67.3	68.0	1.0	.7
1973	67.1	67.4	.4	.3
1974	67.1	66.0	-1.6	-1.1
1975	65.3	64.2	-1.7	-1.1
1976	68.8	68.4	-.6	-.4
1977	70.3	69.8	-.7	-.5
1978	67.4	68.1	1.0	.7
1979	66.6	70.8	6.3	4.2
1980	67.5	67.3	-.3	-.2
1981	70.0	68.7	-1.9	-1.3
1982	66.5	65.3	-1.8	-1.2
1983	66.9	65.7	-1.8	-1.2
1984	67.1	71.6	6.7	4.5
1985	67.7	67.7	.0	.0
1986	65.5	66.0	.8	.5
1987	69.4	67.6	-2.6	-1.8
1988	71.5	70.2	-1.8	-1.3
1989	67.3	68.0	1.0	.7
1990	71.0	71.1	.1	.1
Mean:	67.9	67.4	-.8	-.6
Median:	67.5	67.6	-1.8	-1.2
Min:	65.3	62.7	-5.7	-3.8
Max:	71.5	71.6	6.7	4.5
X > 56.0	69	69		
Mean X > 56.0	67.9	67.4	-.7	-.5
X > 60.0	69	69		
Mean X > 60.0	67.9	67.4	-.7	-.5
X > 65.0	69	63		
Mean X > 65.0	67.9	67.7	-.3	-.2
X > 68.0	27	25		
Mean X > 68.0	69.4	69.2	-.3	-.2
X > 70.0	8	4		
Mean X > 70.0	70.5	70.9	.6	.4
X > 0.0		15		
X < 0.0		51		
0.0 < X <= .5		3		
.5 < X <= 1.0		4		
X > 1.0		8		
0.0 > X >= -.5		3		
-.5 > X > -1.0		10		
X < -1.0		38		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

October"

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	56.9	56.9	.0	.0
1923	61.5	56.6	-8.0	-4.9
1924	63.4	62.9	-.8	-.5
1925	58.2	57.5	-1.2	-.7
1926	62.1	60.8	-2.1	-1.3
1927	57.2	54.4	-4.9	-2.8
1928	58.5	57.4	-1.9	-1.1
1929	64.3	65.1	1.2	.8
1930	60.3	59.0	-2.2	-1.3
1931	64.5	64.3	-.3	-.2
1932	60.6	59.4	-2.0	-1.2
1933	65.6	65.2	-.6	-.4
1934	65.1	64.6	-.8	-.5
1935	58.3	58.4	.2	.1
1936	60.3	58.8	-2.5	-1.5
1937	58.8	58.1	-1.2	-.7
1938	57.7	57.8	.2	.1
1939	65.2	65.1	-.2	-.1
1940	55.9	55.1	-1.4	-.8
1941	57.4	57.4	.0	.0
1942	56.5	56.1	-.7	-.4
1943	57.9	55.0	-5.0	-2.9
1944	61.4	61.8	.7	.4
1945	60.2	54.5	-9.5	-5.7
1946	57.6	54.6	-5.2	-3.0
1947	59.2	58.6	-1.0	-.6
1948	57.3	58.3	1.7	1.0
1949	59.3	57.1	-3.7	-2.2
1950	57.1	56.5	-1.1	-.6
1951	57.4	54.5	-5.1	-2.9
1952	57.7	57.0	-1.2	-.7
1953	58.9	57.8	-1.9	-1.1
1954	56.3	55.3	-1.8	-1.0
1955	60.1	56.6	-5.8	-3.5
1956	59.8	59.4	-.7	-.4
1957	59.6	55.7	-6.5	-3.9
1958	60.6	59.7	-1.5	-.9
1959	64.9	65.5	.9	.6
1960	56.7	61.3	8.1	4.6
1961	66.3	65.2	-1.7	-1.1
1962	57.7	55.2	-4.3	-2.5
1963	57.3	57.2	-.2	-.1
1964	59.5	59.8	.5	.3
1965	58.0	57.4	-1.0	-.6
1966	61.1	62.4	2.1	1.3
1967	61.1	60.7	-.7	-.4
1968	60.3	61.4	1.8	1.1
1969	59.1	58.4	-1.2	-.7
1970	59.2	55.0	-7.1	-4.2
1971	57.2	57.6	.7	.4
1972	58.0	54.4	-6.2	-3.6
1973	57.9	54.0	-6.7	-3.9
1974	58.5	57.2	-2.2	-1.3
1975	56.8	56.9	.2	.1
1976	65.0	66.3	2.0	1.3
1977	65.2	65.0	-.3	-.2
1978	58.8	55.0	-6.5	-3.8
1979	60.0	55.3	-7.8	-4.7
1980	58.8	56.1	-4.6	-2.7
1981	63.5	64.1	.9	.6
1982	57.3	57.3	.0	.0
1983	57.7	56.8	-1.6	-.9
1984	61.1	55.1	-9.8	-6.0
1985	57.2	60.4	5.6	3.2
1986	61.0	57.5	-5.7	-3.5
1987	65.2	66.8	2.5	1.6
1988	67.3	67.1	-.3	-.2
1989	58.6	55.8	-4.8	-2.8
1990	67.6	67.6	.0	.0
Mean:	60.0	59.0	-1.8	-1.1
Median:	59.0	57.5	-1.2	-.7
Min:	55.9	54.0	-9.8	-6.0
Max:	67.6	67.6	8.1	4.6

X > 56.0	68	53		
Mean X > 56.0	60.1	60.2	.2	.1
X > 60.0	28	21		
Mean X > 60.0	63.0	64.0	1.6	1.0
X > 65.0	8	9		
Mean X > 65.0	65.9	66.0	.2	.1
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0		16		
X < 0.0		49		
0.0 < X <= .5		4		
.5 < X <= 1.0		4		
X > 1.0		8		
0.0 > X >= -.5		5		
-.5 > X > -1.0		8		
X < -1.0		36		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

November

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922	54.5	54.5	.0	.0
1923	57.3	55.7	-2.8	-1.6
1924	55.6	55.3	-.5	-.3
1925	56.6	56.8	.4	.2
1926	58.9	58.5	-.7	-.4
1927	56.3	54.0	-4.1	-2.3
1928	57.1	56.7	-.7	-.4
1929	59.4	59.1	-.5	-.3
1930	58.0	57.2	-1.4	-.8
1931	55.6	55.4	-.4	-.2
1932	57.0	57.1	.2	.1
1933	59.6	59.2	-.7	-.4
1934	57.3	56.6	-1.2	-.7
1935	56.4	56.4	.0	.0
1936	58.0	57.7	-.5	-.3
1937	57.7	56.9	-1.4	-.8
1938	56.7	56.7	.0	.0
1939	59.2	58.8	-.7	-.4
1940	56.2	54.6	-2.8	-1.6
1941	56.3	56.3	.0	.0
1942	56.5	56.5	.0	.0
1943	56.9	56.2	-1.2	-.7
1944	54.7	55.7	1.8	1.0
1945	56.5	54.8	-3.0	-1.7
1946	55.1	52.4	-4.9	-2.7
1947	53.4	53.4	.0	.0
1948	56.7	56.7	.0	.0
1949	57.9	56.1	-3.1	-1.8
1950	56.4	56.2	-.4	-.2
1951	56.5	55.6	-1.6	-.9
1952	57.1	56.8	-.5	-.3
1953	57.4	57.4	.0	.0
1954	56.0	54.6	-2.5	-1.4
1955	56.1	55.8	-.5	-.3
1956	58.1	58.2	.2	.1
1957	58.5	56.8	-2.9	-1.7
1958	58.6	57.6	-1.7	-1.0
1959	61.0	60.9	-.2	-.1
1960	56.6	57.3	1.2	.7
1961	58.0	57.7	-.5	-.3
1962	56.4	56.4	.0	.0
1963	56.4	56.3	-.2	-.1
1964	55.4	56.3	1.6	.9
1965	57.3	57.0	-.5	-.3
1966	56.4	58.1	3.0	1.7
1967	58.0	57.6	-.7	-.4
1968	56.9	56.3	-1.1	-.6
1969	57.6	56.6	-1.7	-1.0
1970	57.0	55.5	-2.6	-1.5
1971	57.1	57.0	-.2	-.1
1972	54.4	52.8	-2.9	-1.6
1973	55.7	53.3	-4.3	-2.4
1974	57.6	57.8	.3	.2
1975	56.0	55.8	-.4	-.2
1976	59.5	59.9	.7	.4
1977	56.9	56.2	-1.2	-.7
1978	58.1	56.1	-3.4	-2.0
1979	57.9	56.1	-3.1	-1.8
1980	57.8	56.3	-2.6	-1.5
1981	56.6	56.4	-.4	-.2
1982	56.4	56.4	.0	.0
1983	57.1	56.5	-1.1	-.6
1984	56.5	54.9	-2.8	-1.6
1985	54.8	54.9	.2	.1
1986	56.0	56.0	.0	.0
1987	58.6	58.8	.3	.2
1988	57.6	57.5	-.2	-.1
1989	57.8	56.4	-2.4	-1.4
1990	58.1	58.1	.0	.0
Mean:	57.0	56.5	-.9	-.5
Median:	56.9	56.4	-.5	-.3
Min:	53.4	52.4	-4.9	-2.7
Max:	61.0	60.9	3.0	1.7
X > 56.0	56	49		
Mean X > 56.0	57.4	57.2	-.3	-.2
X > 60.0	1	1		
Mean X > 60.0	61.0	60.9	-.2	-.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0			11	
X < 0.0			46	
0.0 < X <= .5			6	
.5 < X <= 1.0			1	
X > 1.0			4	
0.0 > X >= -.5			15	
-.5 > X > -1.0			5	
X < -1.0			26	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

December

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	47.8	47.7	-.2	-.1
1923	51.4	51.2	-.4	-.2
1924	47.0	46.7	-.6	-.3
1925	49.5	50.1	1.2	.6
1926	50.9	50.7	-.4	-.2
1927	49.7	48.9	-1.6	-.8
1928	48.9	48.4	-1.0	-.5
1929	51.3	51.0	-.6	-.3
1930	50.4	50.1	-.6	-.3
1931	47.9	47.8	-.2	-.1
1932	50.0	49.9	-.2	-.1
1933	49.6	49.2	-.8	-.4
1934	50.1	49.6	-1.0	-.5
1935	50.3	50.3	.0	.0
1936	50.4	50.3	-.2	-.1
1937	51.6	51.4	-.4	-.2
1938	50.7	50.6	-.2	-.1
1939	52.7	52.4	-.6	-.3
1940	51.0	50.7	-.6	-.3
1941	50.3	50.2	-.2	-.1
1942	49.5	49.4	-.2	-.1
1943	51.8	51.0	-1.5	-.8
1944	49.4	49.9	1.0	.5
1945	49.0	48.7	-.6	-.3
1946	49.1	48.6	-1.0	-.5
1947	47.6	47.6	.0	.0
1948	48.4	48.0	-.8	-.4
1949	50.4	49.7	-1.4	-.7
1950	48.8	48.8	.0	.0
1951	49.4	49.0	-.8	-.4
1952	51.0	50.8	-.4	-.2
1953	52.0	51.9	-.2	-.1
1954	47.7	47.3	-.8	-.4
1955	48.4	48.4	.0	.0
1956	52.2	52.1	-.2	-.1
1957	50.8	49.9	-1.8	-.9
1958	55.8	55.7	-.2	-.1
1959	53.0	52.9	-.2	-.1
1960	49.8	50.1	.6	.3
1961	48.8	48.5	-.6	-.3
1962	51.1	51.1	.0	.0
1963	47.4	47.2	-.4	-.2
1964	47.4	47.7	.6	.3
1965	49.3	48.7	-1.2	-.6
1966	49.2	49.1	-.2	-.1
1967	51.7	51.6	-.2	-.1
1968	49.0	48.6	-.8	-.4
1969	52.4	52.2	-.4	-.2
1970	49.3	49.0	-.6	-.3
1971	48.9	48.8	-.2	-.1
1972	45.5	45.2	-.7	-.3
1973	49.5	49.3	-.4	-.2
1974	50.6	50.5	-.2	-.1
1975	50.2	50.2	.0	.0
1976	52.6	52.8	.4	.2
1977	50.7	49.9	-1.6	-.8
1978	49.4	48.6	-1.6	-.8
1979	52.3	51.8	-1.0	-.5
1980	53.3	52.5	-1.5	-.8
1981	50.3	50.3	.0	.0
1982	49.2	49.2	.0	.0
1983	48.7	48.6	-.2	-.1
1984	50.1	49.6	-1.0	-.5
1985	46.4	46.4	.0	.0
1986	52.2	51.8	-.8	-.4
1987	50.0	49.7	-.6	-.3
1988	50.4	50.3	-.2	-.1
1989	50.4	50.1	-.6	-.3
1990	47.6	47.5	-.2	-.1
Mean:	50.0	49.8	-.5	-.2
Median:	49.9	49.7	-.4	-.2
Min:	45.5	45.2	-1.8	-.9
Max:	55.8	55.7	1.2	.6

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0			5	
X < 0.0			55	
0.0 < X <= .5			1	
.5 < X <= 1.0			3	
X > 1.0			1	
0.0 > X >= -.5			25	
-.5 > X > -1.0			22	
X < -1.0			8	

RETURN TO TABLE OF CONTENTS

Section 5

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM
5.2 Fisheries

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

January

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	43.5	43.5	.0	.0
1923.	44.3	44.2	-.2	-.1
1924.	46.6	46.5	-.2	-.1
1925.	46.7	47.3	1.3	.6
1926.	44.7	45.1	.9	.4
1927.	47.9	47.8	-.2	-.1
1928.	47.4	46.9	-1.1	-.5
1929.	43.9	43.7	-.5	-.2
1930.	46.5	46.4	-.2	-.1
1931.	48.1	48.0	-.2	-.1
1932.	45.7	45.6	-.2	-.1
1933.	44.5	44.4	-.2	-.1
1934.	47.2	47.2	.0	.0
1935.	47.5	47.7	.4	.2
1936.	48.1	47.9	-.4	-.2
1937.	42.9	42.8	-.2	-.1
1938.	47.0	47.0	.0	.0
1939.	47.7	47.6	-.2	-.1
1940.	48.1	47.9	-.4	-.2
1941.	48.8	48.7	-.2	-.1
1942.	46.3	46.3	.0	.0
1943.	46.4	46.4	.0	.0
1944.	48.2	47.7	-1.0	-.5
1945.	46.1	46.3	.4	.2
1946.	45.7	45.6	-.2	-.1
1947.	45.2	45.1	-.2	-.1
1948.	48.2	48.2	.0	.0
1949.	42.4	42.1	-.7	-.3
1950.	44.7	44.4	-.7	-.3
1951.	45.0	45.0	.0	.0
1952.	45.3	45.2	-.2	-.1
1953.	48.9	48.8	-.2	-.1
1954.	48.2	48.1	-.2	-.1
1955.	44.0	43.9	-.2	-.1
1956.	46.0	46.0	.0	.0
1957.	47.8	47.7	-.2	-.1
1958.	47.7	47.2	-1.0	-.5
1959.	51.3	51.1	-.4	-.2
1960.	48.2	47.9	-.6	-.3
1961.	45.4	45.5	.2	.1
1962.	44.7	44.5	-.4	-.2
1963.	45.8	45.8	.0	.0
1964.	44.9	44.9	.0	.0
1965.	44.8	44.9	.2	.1
1966.	46.5	46.2	-.6	-.3
1967.	46.7	46.7	.0	.0
1968.	46.8	46.7	-.2	-.1
1969.	45.1	45.0	-.2	-.1
1970.	47.2	47.2	.0	.0
1971.	45.9	45.8	-.2	-.1
1972.	44.6	44.5	-.2	-.1
1973.	44.8	44.8	.0	.0
1974.	46.7	46.7	.0	.0
1975.	45.9	45.8	-.2	-.1
1976.	48.7	48.7	.0	.0
1977.	46.1	46.3	.4	.2
1978.	48.2	47.8	-.8	-.4
1979.	46.6	46.3	-.6	-.3
1980.	46.8	46.2	-1.3	-.6
1981.	49.6	49.0	-1.2	-.6
1982.	45.3	45.3	.0	.0
1983.	45.5	45.5	.0	.0
1984.	46.2	46.2	.0	.0
1985.	46.0	45.8	-.4	-.2
1986.	47.3	47.2	-.2	-.1
1987.	47.9	47.5	-.8	-.4
1988.	48.1	48.0	-.2	-.1
1989.	46.8	46.8	.0	.0
1990.	47.8	47.7	-.2	-.1
Mean:	46.5	46.4	-.2	-.1
Median:	46.5	46.3	-.2	-.1
Min:	42.4	42.1	-1.3	-.6
Max:	51.3	51.1	1.3	.6
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	14	9		
No. Years inc (avg):		7	(	.3)
No. Years dec (avg):		43	(	-.2)
No. Years no change		19		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

February

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	45.9	46.0	.2	.1
1923.	46.3	46.3	.0	.0
1924.	50.3	50.8	1.0	.5
1925.	48.2	48.1	-.2	-.1
1926.	49.3	48.7	-1.2	-.6
1927.	48.7	48.7	.0	.0
1928.	48.5	49.3	1.6	.8
1929.	46.7	47.3	1.3	.6
1930.	52.1	52.4	.6	.3
1931.	50.9	50.5	-.8	-.4
1932.	46.9	47.0	.2	.1
1933.	46.2	45.8	-.9	-.4
1934.	49.8	50.1	.6	.3
1935.	48.4	48.3	-.2	-.1
1936.	47.7	47.7	.0	.0
1937.	45.7	45.9	.4	.2
1938.	48.2	48.2	.0	.0
1939.	47.7	47.7	.0	.0
1940.	49.1	49.1	.0	.0
1941.	49.7	49.7	.0	.0
1942.	46.6	46.6	.0	.0
1943.	49.3	49.3	.0	.0
1944.	48.3	47.6	-1.4	-.7
1945.	47.4	47.5	.2	.1
1946.	46.1	46.1	.0	.0
1947.	48.7	48.7	.0	.0
1948.	47.5	47.5	.0	.0
1949.	45.0	44.2	-1.8	-.8
1950.	47.2	47.1	-.2	-.1
1951.	46.4	46.4	.0	.0
1952.	47.3	47.3	.0	.0
1953.	50.3	50.3	.0	.0
1954.	48.2	47.9	-.6	-.3
1955.	46.4	46.5	.2	.1
1956.	46.6	46.6	.0	.0
1957.	49.3	49.3	.0	.0
1958.	51.2	49.1	-4.1	-2.1
1959.	49.9	49.7	-.4	-.2
1960.	48.9	48.8	-.2	-.1
1961.	49.5	49.7	.4	.2
1962.	47.1	47.0	-.2	-.1
1963.	49.5	49.5	.0	.0
1964.	47.3	46.9	-.8	-.4
1965.	47.1	47.2	.2	.1
1966.	47.5	47.8	.6	.3
1967.	48.2	48.2	.0	.0
1968.	50.2	49.2	-2.0	-1.0
1969.	46.3	46.3	.0	.0
1970.	48.2	48.1	-.2	-.1
1971.	47.2	47.2	.0	.0
1972.	47.9	46.8	-2.3	-1.1
1973.	49.4	49.4	.0	.0
1974.	46.7	46.6	-.2	-.1
1975.	47.4	47.4	.0	.0
1976.	50.5	50.7	.4	.2
1977.	52.5	50.3	-4.2	-2.2
1978.	50.9	50.8	-.2	-.1
1979.	47.6	47.7	.2	.1
1980.	47.3	47.5	.4	.2
1981.	50.8	52.2	2.8	1.4
1982.	46.6	46.6	.0	.0
1983.	49.0	49.0	.0	.0
1984.	47.9	47.9	.0	.0
1985.	47.6	48.1	1.1	.5
1986.	48.0	48.0	.0	.0
1987.	51.7	50.0	-3.3	-1.7
1988.	53.4	54.2	1.5	.8
1989.	47.6	47.7	.2	.1
1990.	48.2	48.2	.0	.0
Mean:	48.3	48.3	-.2	-.1
Median:	48.0	47.9	.0	.0
Min:	45.0	44.2	-4.2	-2.2
Max:	53.4	54.2	2.8	1.4

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	36	35		

No. Years inc (avg):		20	(.4)
No. Years dec (avg):		21	(-.6)
No. Years no change		28	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

March

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.9	50.9	.0	.0
1923.	52.2	53.7	2.9	1.5
1924.	53.3	53.5	.4	.2
1925.	54.0	54.0	.0	.0
1926.	55.1	53.3	-3.3	-1.8
1927.	51.5	51.5	.0	.0
1928.	52.0	51.8	-.4	-.2
1929.	53.2	51.9	-2.4	-1.3
1930.	52.8	52.8	.0	.0
1931.	54.6	55.7	2.0	1.1
1932.	53.7	53.8	.2	.1
1933.	53.3	51.9	-2.6	-1.4
1934.	55.8	56.4	1.1	.6
1935.	50.0	49.8	-.4	-.2
1936.	52.7	52.7	.0	.0
1937.	51.9	52.2	.6	.3
1938.	49.8	49.8	.0	.0
1939.	52.2	52.4	.4	.2
1940.	51.8	51.8	.0	.0
1941.	53.0	53.0	.0	.0
1942.	49.4	49.2	-.4	-.2
1943.	51.1	51.1	.0	.0
1944.	51.7	52.6	1.7	.9
1945.	50.0	50.0	.0	.0
1946.	51.3	51.4	.2	.1
1947.	52.4	52.4	.0	.0
1948.	49.9	49.9	.0	.0
1949.	50.1	50.3	.4	.2
1950.	51.6	51.6	.0	.0
1951.	50.6	50.6	.0	.0
1952.	49.5	49.5	.0	.0
1953.	52.7	52.7	.0	.0
1954.	50.6	50.7	.2	.1
1955.	51.6	51.7	.2	.1
1956.	51.3	51.3	.0	.0
1957.	53.7	53.4	-.6	-.3
1958.	50.7	50.9	.4	.2
1959.	53.4	53.3	-.2	-.1
1960.	53.4	53.2	-.4	-.2
1961.	53.5	53.0	-.9	-.5
1962.	51.4	50.4	-1.9	-1.0
1963.	50.9	50.9	.0	.0
1964.	50.6	50.1	-1.0	-.5
1965.	51.3	51.3	.0	.0
1966.	51.4	52.4	1.9	1.0
1967.	51.0	51.0	.0	.0
1968.	54.9	53.0	-3.5	-1.9
1969.	51.8	51.4	-.8	-.4
1970.	52.6	52.6	.0	.0
1971.	50.7	50.7	.0	.0
1972.	55.0	55.6	1.1	.6
1973.	50.5	50.5	.0	.0
1974.	51.6	51.6	.0	.0
1975.	50.6	50.6	.0	.0
1976.	53.1	53.3	.4	.2
1977.	53.5	52.5	-1.9	-1.0
1978.	54.3	54.2	-.2	-.1
1979.	53.3	52.0	-2.4	-1.3
1980.	51.4	51.4	.0	.0
1981.	52.5	53.0	1.0	.5
1982.	50.4	50.4	.0	.0
1983.	50.5	50.5	.0	.0
1984.	53.2	53.3	.2	.1
1985.	50.2	50.6	.8	.4
1986.	52.2	52.2	.0	.0
1987.	52.8	52.9	.2	.1
1988.	57.3	57.8	.9	.5
1989.	51.5	51.5	.0	.0
1990.	54.1	54.6	.9	.5
Mean:	52.1	52.1	-.1	.0
Median:	51.8	51.8	.0	.0
Min:	49.4	49.2	-3.5	-1.9
Max:	57.3	57.8	2.9	1.5

X > 56.0	1	2		
Mean X > 56.0	57.3	57.1	-.3	-.2
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		

No. Years inc (avg):		22	(.4)
No. Years dec (avg):		17	(-.7)
No. Years no change		30	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

April

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.1	54.2	.2	.1
1923.	55.3	55.0	-.5	-.3
1924.	61.4	61.2	-.3	-.2
1925.	55.3	55.5	.4	.2
1926.	59.2	59.6	.7	.4
1927.	53.8	53.8	.0	.0
1928.	54.5	54.5	.0	.0
1929.	55.7	56.6	1.6	.9
1930.	58.6	57.6	-1.7	-1.0
1931.	63.1	63.8	1.1	.7
1932.	55.9	56.1	.4	.2
1933.	57.2	58.1	1.6	.9
1934.	59.5	59.8	.5	.3
1935.	54.7	54.5	-.4	-.2
1936.	55.3	55.3	.0	.0
1937.	54.1	54.1	.0	.0
1938.	53.8	53.8	.0	.0
1939.	59.2	61.2	3.4	2.0
1940.	55.0	55.0	.0	.0
1941.	54.6	54.6	.0	.0
1942.	54.4	54.5	.2	.1
1943.	54.6	54.6	.0	.0
1944.	54.2	54.9	1.3	.7
1945.	55.9	56.1	.4	.2
1946.	55.3	55.4	.2	.1
1947.	57.2	56.0	-2.1	-1.2
1948.	53.3	53.1	-.4	-.2
1949.	57.9	57.0	-1.6	-.9
1950.	55.5	55.5	.0	.0
1951.	55.9	56.0	.2	.1
1952.	54.0	54.0	.0	.0
1953.	55.9	56.0	.2	.1
1954.	56.1	56.2	.2	.1
1955.	53.6	53.6	.0	.0
1956.	56.3	56.1	-.4	-.2
1957.	57.7	57.7	.0	.0
1958.	54.1	54.1	.0	.0
1959.	62.7	59.0	-5.9	-3.7
1960.	57.3	57.9	1.0	.6
1961.	60.4	60.5	.2	.1
1962.	57.0	57.8	1.4	.8
1963.	53.2	53.2	.0	.0
1964.	54.5	53.9	-1.1	-.6
1965.	54.9	54.8	-.2	-.1
1966.	60.6	58.6	-3.3	-2.0
1967.	51.6	51.6	.0	.0
1968.	58.3	57.1	-2.1	-1.2
1969.	54.2	54.3	.2	.1
1970.	56.2	56.2	.0	.0
1971.	54.1	54.2	.2	.1
1972.	56.7	56.9	.4	.2
1973.	56.4	56.4	.0	.0
1974.	53.8	53.8	.0	.0
1975.	52.9	52.9	.0	.0
1976.	57.6	57.7	.2	.1
1977.	64.7	61.8	-4.5	-2.9
1978.	54.8	54.9	.2	.1
1979.	56.2	57.1	1.6	.9
1980.	56.2	56.4	.4	.2
1981.	56.4	57.9	2.7	1.5
1982.	53.1	53.1	.0	.0
1983.	53.5	53.5	.0	.0
1984.	56.7	56.7	.0	.0
1985.	59.5	58.8	-1.2	-.7
1986.	56.7	56.7	.0	.0
1987.	63.2	63.4	.3	.2
1988.	62.3	62.7	.6	.4
1989.	57.2	57.4	.3	.2
1990.	58.9	59.5	1.0	.6
Mean:	56.4	56.4	.0	.0
Median:	55.9	56.0	.0	.0
Min:	51.6	51.6	-5.9	-3.7
Max:	64.7	63.8	3.4	2.0
X > 56.0	33	35		
Mean X > 56.0	58.6	58.4	-.3	-.2
X > 60.0	8	7		
Mean X > 60.0	62.3	62.1	-.3	-.2
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	8	7		
61.0 <= X <= 73.0	6	6		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		31	(.4)	
No. Years dec (avg):		15	(-1.0)	
No. Years no change		23		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

May

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	58.1	58.2	.2	.1
1923.	58.3	58.2	-.2	-.1
1924.	69.8	69.7	-.1	-.1
1925.	58.9	59.0	.2	.1
1926.	65.0	64.1	-1.4	-.9
1927.	58.1	58.0	-.2	-.1
1928.	60.2	60.1	-.2	-.1
1929.	61.9	62.5	1.0	.6
1930.	61.1	61.5	.7	.4
1931.	70.6	69.1	-2.1	-1.5
1932.	59.9	60.0	.2	.1
1933.	59.1	59.5	.7	.4
1934.	68.2	68.1	-.1	-.1
1935.	58.4	58.3	-.2	-.1
1936.	59.4	59.3	-.2	-.1
1937.	58.7	58.6	-.2	-.1
1938.	58.4	58.3	-.2	-.1
1939.	62.6	62.7	.2	.1
1940.	60.0	59.9	-.2	-.1
1941.	58.2	58.1	-.2	-.1
1942.	57.1	57.2	.2	.1
1943.	59.5	59.4	-.2	-.1
1944.	60.0	60.8	1.3	.8
1945.	58.5	58.7	.3	.2
1946.	58.7	58.6	-.2	-.1
1947.	63.0	61.5	-2.4	-1.5
1948.	58.1	58.3	.3	.2
1949.	60.7	61.6	1.5	.9
1950.	59.3	59.2	-.2	-.1
1951.	59.5	59.4	-.2	-.1
1952.	58.4	58.3	-.2	-.1
1953.	58.2	58.2	.0	.0
1954.	60.8	60.7	-.2	-.1
1955.	58.7	59.3	1.0	.6
1956.	59.6	59.8	.3	.2
1957.	59.5	59.5	.0	.0
1958.	58.8	58.7	-.2	-.1
1959.	61.9	60.8	-1.8	-1.1
1960.	61.0	61.9	1.5	.9
1961.	60.6	60.7	.2	.1
1962.	59.5	59.6	.2	.1
1963.	56.9	56.9	.0	.0
1964.	58.7	59.6	1.5	.9
1965.	58.5	58.5	.0	.0
1966.	64.2	65.9	2.6	1.7
1967.	57.3	57.3	.0	.0
1968.	62.2	59.6	-4.2	-2.6
1969.	58.4	58.4	.0	.0
1970.	62.5	62.6	.2	.1
1971.	57.0	56.9	-.2	-.1
1972.	61.4	61.6	.3	.2
1973.	60.4	60.5	.2	.1
1974.	58.2	58.1	-.2	-.1
1975.	58.9	59.1	.3	.2
1976.	64.7	66.7	3.1	2.0
1977.	63.0	61.6	-2.2	-1.4
1978.	59.0	59.0	.0	.0
1979.	59.8	60.7	1.5	.9
1980.	58.9	58.9	.0	.0
1981.	61.4	61.5	.2	.1
1982.	58.3	58.2	-.2	-.1
1983.	57.7	57.7	.0	.0
1984.	61.6	61.7	.2	.1
1985.	63.0	63.8	1.3	.8
1986.	60.1	60.2	.2	.1
1987.	64.7	67.3	4.0	2.6
1988.	65.2	65.3	.2	.1
1989.	61.2	61.3	.2	.1
1990.	63.7	63.9	.3	.2
Mean:	60.5	60.6	.1	.1
Median:	59.5	59.5	.0	.0
Min:	56.9	56.9	-4.2	-2.6
Max:	70.6	69.7	4.0	2.6
X > 56.0	69	69		
Mean X > 56.0	60.5	60.6	.2	.1
X > 60.0	29	30		
Mean X > 60.0	63.0	63.0	.0	.0
X > 65.0	4	7		
Mean X > 65.0	68.4	67.4	-1.5	-1.0
X > 68.0	3	3		
Mean X > 68.0	69.5	69.0	-.7	-.5
X > 70.0	1	0		
Mean X > 70.0	70.6	.0	-100.0	-70.6
60.0 <= X <= 70.0	30	31		
61.0 <= X <= 73.0	23	22		
48.0 <= X <= 68.0	66	66		
No. Years inc (avg):		33	(	.5)
No. Years dec (avg):		27	(	-.4)
No. Years no change		9		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

June

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	62.5	61.0	-2.4	-1.5
1923.	61.6	61.2	-.6	-.4
1924.	69.4	68.1	-1.9	-1.3
1925.	63.5	61.9	-2.5	-1.6
1926.	65.8	63.7	-3.2	-2.1
1927.	61.8	62.1	.5	.3
1928.	64.9	61.6	-5.1	-3.3
1929.	67.6	65.6	-3.0	-2.0
1930.	65.2	62.5	-4.1	-2.7
1931.	68.2	63.1	-7.5	-5.1
1932.	64.4	64.1	-.5	-.3
1933.	65.8	65.9	.2	.1
1934.	68.7	65.4	-4.8	-3.3
1935.	62.7	60.9	-2.9	-1.8
1936.	63.3	63.2	-.2	-.1
1937.	62.6	62.2	-.6	-.4
1938.	63.3	62.1	-1.9	-1.2
1939.	66.2	63.8	-3.6	-2.4
1940.	64.7	65.0	.5	.3
1941.	61.4	59.1	-3.7	-2.3
1942.	61.4	61.2	-.3	-.2
1943.	62.9	62.9	.0	.0
1944.	63.4	64.7	2.1	1.3
1945.	63.6	63.8	.3	.2
1946.	62.5	62.9	.6	.4
1947.	66.9	67.5	.9	.6
1948.	63.6	61.4	-3.5	-2.2
1949.	64.5	64.1	-.6	-.4
1950.	62.5	61.8	-1.1	-.7
1951.	63.3	63.0	-.5	-.3
1952.	61.7	61.6	-.2	-.1
1953.	62.2	62.4	.3	.2
1954.	63.7	63.7	.0	.0
1955.	63.8	64.0	.3	.2
1956.	63.3	63.0	-.5	-.3
1957.	64.1	64.4	.5	.3
1958.	62.6	62.4	-.3	-.2
1959.	65.4	62.3	-4.7	-3.1
1960.	66.4	62.9	-5.3	-3.5
1961.	64.1	65.0	1.4	.9
1962.	64.1	64.1	.0	.0
1963.	61.1	59.9	-2.0	-1.2
1964.	65.7	62.9	-4.3	-2.8
1965.	61.6	61.6	.0	.0
1966.	67.6	63.7	-5.8	-3.9
1967.	61.9	61.8	-.2	-.1
1968.	65.1	65.2	.2	.1
1969.	62.0	61.8	-.3	-.2
1970.	65.5	66.0	.8	.5
1971.	60.7	59.6	-1.8	-1.1
1972.	64.0	65.4	2.2	1.4
1973.	63.8	65.0	1.9	1.2
1974.	62.6	61.8	-1.3	-.8
1975.	61.8	60.1	-2.8	-1.7
1976.	67.8	64.9	-4.3	-2.9
1977.	70.4	71.0	.9	.6
1978.	62.7	62.7	.0	.0
1979.	64.5	65.3	1.2	.8
1980.	62.0	62.0	.0	.0
1981.	67.0	65.1	-2.8	-1.9
1982.	61.9	60.5	-2.3	-1.4
1983.	62.6	62.5	-.2	-.1
1984.	66.0	65.6	-.6	-.4
1985.	67.0	63.0	-6.0	-4.0
1986.	64.5	64.7	.3	.2
1987.	66.0	64.3	-2.6	-1.7
1988.	67.5	63.2	-6.4	-4.3
1989.	65.0	65.0	.0	.0
1990.	67.7	64.6	-4.6	-3.1
Mean:	64.3	63.3	-1.4	-.9
Median:	63.8	63.0	-.6	-.4
Min:	60.7	59.1	-7.5	-5.1
Max:	70.4	71.0	2.2	1.4
X > 56.0	69	69		
Mean X > 56.0	64.3	63.3	-1.6	-1.0
X > 60.0	69	66		
Mean X > 60.0	64.3	63.5	-1.2	-.8
X > 65.0	23	12		
Mean X > 65.0	66.9	66.3	-.9	-.6
X > 68.0	4	2		
Mean X > 68.0	69.2	69.6	.6	.4
X > 70.0	1	1		
Mean X > 70.0	70.4	71.0	.9	.6
60.0 <= X <= 70.0	68	65		
61.0 <= X <= 73.0	68	63		
48.0 <= X <= 68.0	65	67		
No. Years inc (avg):		18		(.5)
No. Years dec (avg):		44		(-1.7)
No. Years no change		7		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

July

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	65.5	63.1	-3.7	-2.4
1923.	68.1	67.6	-.7	-.5
1924.	69.6	71.4	2.6	1.8
1925.	66.2	63.5	-4.1	-2.7
1926.	70.0	68.7	-1.9	-1.3
1927.	64.7	68.5	5.9	3.8
1928.	65.1	62.7	-3.7	-2.4
1929.	69.4	66.9	-3.6	-2.5
1930.	68.8	69.8	1.5	1.0
1931.	68.6	67.8	-1.2	-.8
1932.	67.7	65.5	-3.2	-2.2
1933.	69.0	66.0	-4.3	-3.0
1934.	68.4	66.1	-3.4	-2.3
1935.	67.0	64.0	-4.5	-3.0
1936.	67.3	65.4	-2.8	-1.9
1937.	66.0	62.9	-4.7	-3.1
1938.	66.2	64.0	-3.3	-2.2
1939.	68.8	66.3	-3.6	-2.5
1940.	68.0	68.7	1.0	.7
1941.	63.5	61.2	-3.6	-2.3
1942.	66.2	63.2	-4.5	-3.0
1943.	67.0	65.5	-2.2	-1.5
1944.	68.3	68.2	-.1	-.1
1945.	66.9	67.9	1.5	1.0
1946.	65.4	65.9	.8	.5
1947.	70.6	70.3	-.4	-.3
1948.	66.7	64.0	-4.0	-2.7
1949.	67.4	66.5	-1.3	-.9
1950.	66.9	64.1	-4.2	-2.8
1951.	67.9	66.5	-2.1	-1.4
1952.	66.1	64.9	-1.8	-1.2
1953.	65.8	62.8	-4.6	-3.0
1954.	65.9	63.9	-3.0	-2.0
1955.	68.8	68.9	.1	.1
1956.	67.6	64.8	-4.1	-2.8
1957.	66.8	66.9	.1	.1
1958.	66.9	65.6	-1.9	-1.3
1959.	66.9	67.9	1.5	1.0
1960.	68.4	62.6	-8.5	-5.8
1961.	71.2	68.5	-3.8	-2.7
1962.	67.8	66.5	-1.9	-1.3
1963.	65.1	64.6	-.8	-.5
1964.	67.4	67.4	.0	.0
1965.	66.2	65.2	-1.5	-1.0
1966.	66.7	62.1	-6.9	-4.6
1967.	67.2	65.5	-2.5	-1.7
1968.	65.2	63.4	-2.8	-1.8
1969.	65.9	63.3	-3.9	-2.6
1970.	65.6	66.1	.8	.5
1971.	64.9	61.4	-5.4	-3.5
1972.	63.3	64.6	2.1	1.3
1973.	66.0	65.8	-.3	-.2
1974.	66.5	64.2	-3.5	-2.3
1975.	64.1	62.0	-3.3	-2.1
1976.	67.9	65.3	-3.8	-2.6
1977.	73.2	74.1	1.2	.9
1978.	67.0	68.5	2.2	1.5
1979.	66.9	64.3	-3.9	-2.6
1980.	66.4	67.9	2.3	1.5
1981.	68.8	67.1	-2.5	-1.7
1982.	65.6	63.3	-3.5	-2.3
1983.	66.4	65.9	-.8	-.5
1984.	66.9	67.9	1.5	1.0
1985.	69.7	64.4	-7.6	-5.3
1986.	69.7	69.1	-.9	-.6
1987.	70.6	67.1	-5.0	-3.5
1988.	66.0	67.3	2.0	1.3
1989.	65.9	65.8	-.2	-.1
1990.	67.1	64.6	-3.7	-2.5
Mean:	67.2	65.9	-2.0	-1.3
Median:	66.9	65.6	-2.7	-1.8
Min:	63.3	61.2	-8.5	-5.8
Max:	73.2	74.1	5.9	3.8
X > 56.0	69	69		
Mean X > 56.0	67.2	65.9	-1.9	-1.3
X > 60.0	69	69		
Mean X > 60.0	67.2	65.9	-1.9	-1.3
X > 65.0	64	42		
Mean X > 65.0	67.4	67.4	.0	.0
X > 68.0	19	12		
Mean X > 68.0	69.5	69.6	.1	.1
X > 70.0	4	3		
Mean X > 70.0	71.4	71.9	.7	.5
60.0 <= X <= 70.0	65	66		
61.0 <= X <= 73.0	68	68		
48.0 <= X <= 68.0	50	57		
No. Years inc (avg):		16		(1.1)
No. Years dec (avg):		52		(-2.1)
No. Years no change		1		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

August

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	65.4	64.3	-1.7	-1.1
1923.	67.4	67.8	.6	.4
1924.	72.9	71.8	-1.5	-1.1
1925.	66.9	64.3	-3.9	-2.6
1926.	66.2	62.1	-6.2	-4.1
1927.	65.7	68.0	3.5	2.3
1928.	69.1	68.6	-.7	-.5
1929.	70.1	68.2	-2.7	-1.9
1930.	65.6	63.8	-2.7	-1.8
1931.	74.5	73.1	-1.9	-1.4
1932.	67.3	65.5	-2.7	-1.8
1933.	65.7	68.3	4.0	2.6
1934.	70.3	68.5	-2.6	-1.8
1935.	65.8	65.0	-1.2	-.8
1936.	66.9	65.0	-2.8	-1.9
1937.	65.5	63.1	-3.7	-2.4
1938.	66.0	64.7	-2.0	-1.3
1939.	68.2	67.2	-1.5	-1.0
1940.	68.6	66.8	-2.6	-1.8
1941.	65.6	64.1	-2.3	-1.5
1942.	66.3	64.8	-2.3	-1.5
1943.	66.2	65.6	-.9	-.6
1944.	69.1	64.4	-6.8	-4.7
1945.	65.7	66.2	.8	.5
1946.	64.7	65.7	1.5	1.0
1947.	68.1	64.4	-5.4	-3.7
1948.	66.5	65.3	-1.8	-1.2
1949.	67.3	68.1	1.2	.8
1950.	66.0	64.4	-2.4	-1.6
1951.	67.1	67.1	.0	.0
1952.	66.7	65.1	-2.4	-1.6
1953.	67.0	65.8	-1.8	-1.2
1954.	67.8	67.7	-.1	-.1
1955.	69.2	69.3	.1	.1
1956.	67.1	65.6	-2.2	-1.5
1957.	65.7	68.1	3.7	2.4
1958.	67.2	65.9	-1.9	-1.3
1959.	68.6	66.5	-3.1	-2.1
1960.	70.7	66.7	-5.7	-4.0
1961.	66.8	68.7	2.8	1.9
1962.	66.8	66.3	-.7	-.5
1963.	65.9	62.4	-5.3	-3.5
1964.	69.4	61.8	-11.0	-7.6
1965.	65.0	64.4	-.9	-.6
1966.	70.9	65.6	-7.5	-5.3
1967.	67.3	65.7	-2.4	-1.6
1968.	66.2	67.0	1.2	.8
1969.	66.0	64.6	-2.1	-1.4
1970.	68.5	68.7	.3	.2
1971.	65.3	63.6	-2.6	-1.7
1972.	68.4	70.0	2.3	1.6
1973.	65.1	66.9	2.8	1.8
1974.	66.7	65.4	-1.9	-1.3
1975.	65.0	63.9	-1.7	-1.1
1976.	68.0	66.0	-2.9	-2.0
1977.	74.5	74.8	.4	.3
1978.	64.9	67.4	3.9	2.5
1979.	66.2	68.2	3.0	2.0
1980.	66.6	68.1	2.3	1.5
1981.	68.0	65.6	-3.5	-2.4
1982.	65.9	64.5	-2.1	-1.4
1983.	66.4	65.2	-1.8	-1.2
1984.	65.8	68.9	4.7	3.1
1985.	71.1	66.3	-6.8	-4.8
1986.	68.7	66.0	-3.9	-2.7
1987.	67.7	66.0	-2.5	-1.7
1988.	70.4	71.2	1.1	.8
1989.	70.0	70.0	.0	.0
1990.	69.4	69.1	-.4	-.3
Mean:	67.5	66.5	-1.4	-1.0
Median:	66.9	65.9	-1.9	-1.3
Min:	64.7	61.8	-11.0	-7.6
Max:	74.5	74.8	4.7	3.1
X > 56.0	69	69		
Mean X > 56.0	67.5	66.5	-1.5	-1.0
X > 60.0	69	69		
Mean X > 60.0	67.5	66.5	-1.5	-1.0
X > 65.0	65	49		
Mean X > 65.0	67.7	67.5	-.3	-.2
X > 68.0	22	19		
Mean X > 68.0	70.0	69.6	-.6	-.4
X > 70.0	9	4		
Mean X > 70.0	71.7	72.7	1.4	1.0
60.0 <= X <= 70.0	60	65		
61.0 <= X <= 73.0	67	67		
48.0 <= X <= 68.0	47	50		
No. Years inc (avg):		19		(1.4)
No. Years dec (avg):		48		(-2.0)
No. Years no change		2		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

September

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	65.7	64.5	-1.8	-1.2
1923.	67.9	67.9	.0	.0
1924.	70.3	69.6	-1.0	-.7
1925.	67.6	66.2	-2.1	-1.4
1926.	69.6	68.0	-2.3	-1.6
1927.	66.5	62.7	-5.7	-3.8
1928.	67.1	65.2	-2.8	-1.9
1929.	69.7	68.1	-2.3	-1.6
1930.	68.8	68.2	-.9	-.6
1931.	70.5	70.0	-.7	-.5
1932.	67.9	66.4	-2.2	-1.5
1933.	69.5	69.0	-.7	-.5
1934.	68.9	68.4	-.7	-.5
1935.	67.1	65.9	-1.8	-1.2
1936.	68.1	66.9	-1.8	-1.2
1937.	67.2	66.0	-1.8	-1.2
1938.	66.4	65.2	-1.8	-1.2
1939.	68.8	67.8	-1.5	-1.0
1940.	68.2	67.8	-.6	-.4
1941.	66.3	65.0	-2.0	-1.3
1942.	67.0	65.7	-1.9	-1.3
1943.	66.6	68.8	3.3	2.2
1944.	67.3	66.9	-.6	-.4
1945.	66.7	68.7	3.0	2.0
1946.	66.2	68.1	2.9	1.9
1947.	68.8	67.1	-2.5	-1.7
1948.	67.1	66.2	-1.3	-.9
1949.	67.7	69.2	2.2	1.5
1950.	67.1	65.8	-1.9	-1.3
1951.	69.8	69.5	-.4	-.3
1952.	67.1	65.5	-2.4	-1.6
1953.	67.1	65.8	-1.9	-1.3
1954.	67.7	67.5	-.3	-.2
1955.	68.0	68.1	.1	.1
1956.	67.5	66.0	-2.2	-1.5
1957.	67.0	69.7	4.0	2.7
1958.	68.1	66.8	-1.9	-1.3
1959.	70.1	68.7	-2.0	-1.4
1960.	70.4	67.8	-3.7	-2.6
1961.	69.9	68.4	-2.1	-1.5
1962.	68.5	68.5	.0	.0
1963.	66.4	64.1	-3.5	-2.3
1964.	68.5	67.0	-2.2	-1.5
1965.	67.7	66.5	-1.8	-1.2
1966.	70.1	67.8	-3.3	-2.3
1967.	68.2	66.7	-2.2	-1.5
1968.	68.1	67.7	-.6	-.4
1969.	66.9	65.7	-1.8	-1.2
1970.	67.0	69.3	3.4	2.3
1971.	66.3	64.7	-2.4	-1.6
1972.	67.3	68.0	1.0	.7
1973.	67.1	67.4	.4	.3
1974.	67.1	66.0	-1.6	-1.1
1975.	65.3	64.2	-1.7	-1.1
1976.	68.8	68.4	-.6	-.4
1977.	70.3	69.8	-.7	-.5
1978.	67.4	68.1	1.0	.7
1979.	66.6	70.8	6.3	4.2
1980.	67.5	67.3	-.3	-.2
1981.	70.0	68.7	-1.9	-1.3
1982.	66.5	65.3	-1.8	-1.2
1983.	66.9	65.7	-1.8	-1.2
1984.	67.1	71.6	6.7	4.5
1985.	67.7	67.7	.0	.0
1986.	65.5	66.0	.8	.5
1987.	69.4	67.6	-2.6	-1.8
1988.	71.5	70.2	-1.8	-1.3
1989.	67.3	68.0	1.0	.7
1990.	71.0	71.1	.1	.1
Mean:	67.9	67.4	-.8	-.6
Median:	67.5	67.6	-1.8	-1.2
Min:	65.3	62.7	-5.7	-3.8
Max:	71.5	71.6	6.7	4.5
X > 56.0	69	69		
Mean X > 56.0	67.9	67.4	-.7	-.5
X > 60.0	69	69		
Mean X > 60.0	67.9	67.4	-.7	-.5
X > 65.0	69	63		
Mean X > 65.0	67.9	67.7	-.3	-.2
X > 68.0	27	25		
Mean X > 68.0	69.4	69.2	-.3	-.2
X > 70.0	8	4		
Mean X > 70.0	70.5	70.9	.6	.4
60.0 <= X <= 70.0	61	65		
61.0 <= X <= 73.0	69	69		
48.0 <= X <= 68.0	42	44		
No. Years inc (avg):		15		(1.6)
No. Years dec (avg):		51		(-1.2)
No. Years no change		3		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

October"

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	56.9	56.9	.0	.0
1923.	61.5	56.6	-8.0	-4.9
1924.	63.4	62.9	-.8	-.5
1925.	58.2	57.5	-1.2	-.7
1926.	62.1	60.8	-2.1	-1.3
1927.	57.2	54.4	-4.9	-2.8
1928.	58.5	57.4	-1.9	-1.1
1929.	64.3	65.1	1.2	.8
1930.	60.3	59.0	-2.2	-1.3
1931.	64.5	64.3	-.3	-.2
1932.	60.6	59.4	-2.0	-1.2
1933.	65.6	65.2	-.6	-.4
1934.	65.1	64.6	-.8	-.5
1935.	58.3	58.4	.2	.1
1936.	60.3	58.8	-2.5	-1.5
1937.	58.8	58.1	-1.2	-.7
1938.	57.7	57.8	.2	.1
1939.	65.2	65.1	-.2	-.1
1940.	55.9	55.1	-1.4	-.8
1941.	57.4	57.4	.0	.0
1942.	56.5	56.1	-.7	-.4
1943.	57.9	55.0	-5.0	-2.9
1944.	61.4	61.8	.7	.4
1945.	60.2	54.5	-9.5	-5.7
1946.	57.6	54.6	-5.2	-3.0
1947.	59.2	58.6	-1.0	-.6
1948.	57.3	58.3	1.7	1.0
1949.	59.3	57.1	-3.7	-2.2
1950.	57.1	56.5	-1.1	-.6
1951.	57.4	54.5	-5.1	-2.9
1952.	57.7	57.0	-1.2	-.7
1953.	58.9	57.8	-1.9	-1.1
1954.	56.3	55.3	-1.8	-1.0
1955.	60.1	56.6	-5.8	-3.5
1956.	59.8	59.4	-.7	-.4
1957.	59.6	55.7	-6.5	-3.9
1958.	60.6	59.7	-1.5	-.9
1959.	64.9	65.5	.9	.6
1960.	56.7	61.3	8.1	4.6
1961.	66.3	65.2	-1.7	-1.1
1962.	57.7	55.2	-4.3	-2.5
1963.	57.3	57.2	-.2	-.1
1964.	59.5	59.8	.5	.3
1965.	58.0	57.4	-1.0	-.6
1966.	61.1	62.4	2.1	1.3
1967.	61.1	60.7	-.7	-.4
1968.	60.3	61.4	1.8	1.1
1969.	59.1	58.4	-1.2	-.7
1970.	59.2	55.0	-7.1	-4.2
1971.	57.2	57.6	.7	.4
1972.	58.0	54.4	-6.2	-3.6
1973.	57.9	54.0	-6.7	-3.9
1974.	58.5	57.2	-2.2	-1.3
1975.	56.8	56.9	.2	.1
1976.	65.0	66.3	2.0	1.3
1977.	65.2	65.0	-.3	-.2
1978.	58.8	55.0	-6.5	-3.8
1979.	60.0	55.3	-7.8	-4.7
1980.	58.8	56.1	-4.6	-2.7
1981.	63.5	64.1	.9	.6
1982.	57.3	57.3	.0	.0
1983.	57.7	56.8	-1.6	-.9
1984.	61.1	55.1	-9.8	-6.0
1985.	57.2	60.4	5.6	3.2
1986.	61.0	57.5	-5.7	-3.5
1987.	65.2	66.8	2.5	1.6
1988.	67.3	67.1	-.3	-.2
1989.	58.6	55.8	-4.8	-2.8
1990.	67.6	67.6	.0	.0
Mean:	60.0	59.0	-1.8	-1.1
Median:	59.0	57.5	-1.2	-.7
Min:	55.9	54.0	-9.8	-6.0
Max:	67.6	67.6	8.1	4.6
X > 56.0	68	53		
Mean X > 56.0	60.1	60.2	.2	.1
X > 60.0	28	21		
Mean X > 60.0	63.0	64.0	1.6	1.0
X > 65.0	8	9		
Mean X > 65.0	65.9	66.0	.2	.1
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	29	21		
61.0 <= X <= 73.0	21	18		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		16		(1.1)
No. Years dec (avg):		49		(-1.9)
No. Years no change		4		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

November

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.5	54.5	.0	.0
1923.	57.3	55.7	-2.8	-1.6
1924.	55.6	55.3	-.5	-.3
1925.	56.6	56.8	.4	.2
1926.	58.9	58.5	-.7	-.4
1927.	56.3	54.0	-4.1	-2.3
1928.	57.1	56.7	-.7	-.4
1929.	59.4	59.1	-.5	-.3
1930.	58.0	57.2	-1.4	-.8
1931.	55.6	55.4	-.4	-.2
1932.	57.0	57.1	.2	.1
1933.	59.6	59.2	-.7	-.4
1934.	57.3	56.6	-1.2	-.7
1935.	56.4	56.4	.0	.0
1936.	58.0	57.7	-.5	-.3
1937.	57.7	56.9	-1.4	-.8
1938.	56.7	56.7	.0	.0
1939.	59.2	58.8	-.7	-.4
1940.	56.2	54.6	-2.8	-1.6
1941.	56.3	56.3	.0	.0
1942.	56.5	56.5	.0	.0
1943.	56.9	56.2	-1.2	-.7
1944.	54.7	55.7	1.8	1.0
1945.	56.5	54.8	-3.0	-1.7
1946.	55.1	52.4	-4.9	-2.7
1947.	53.4	53.4	.0	.0
1948.	56.7	56.7	.0	.0
1949.	57.9	56.1	-3.1	-1.8
1950.	56.4	56.2	-.4	-.2
1951.	56.5	55.6	-1.6	-.9
1952.	57.1	56.8	-.5	-.3
1953.	57.4	57.4	.0	.0
1954.	56.0	54.6	-2.5	-1.4
1955.	56.1	55.8	-.5	-.3
1956.	58.1	58.2	.2	.1
1957.	58.5	56.8	-2.9	-1.7
1958.	58.6	57.6	-1.7	-1.0
1959.	61.0	60.9	-.2	-.1
1960.	56.6	57.3	1.2	.7
1961.	58.0	57.7	-.5	-.3
1962.	56.4	56.4	.0	.0
1963.	56.4	56.3	-.2	-.1
1964.	55.4	56.3	1.6	.9
1965.	57.3	57.0	-.5	-.3
1966.	56.4	58.1	3.0	1.7
1967.	58.0	57.6	-.7	-.4
1968.	56.9	56.3	-1.1	-.6
1969.	57.6	56.6	-1.7	-1.0
1970.	57.0	55.5	-2.6	-1.5
1971.	57.1	57.0	-.2	-.1
1972.	54.4	52.8	-2.9	-1.6
1973.	55.7	53.3	-4.3	-2.4
1974.	57.6	57.8	.3	.2
1975.	56.0	55.8	-.4	-.2
1976.	59.5	59.9	.7	.4
1977.	56.9	56.2	-1.2	-.7
1978.	58.1	56.1	-3.4	-2.0
1979.	57.9	56.1	-3.1	-1.8
1980.	57.8	56.3	-2.6	-1.5
1981.	56.6	56.4	-.4	-.2
1982.	56.4	56.4	.0	.0
1983.	57.1	56.5	-1.1	-.6
1984.	56.5	54.9	-2.8	-1.6
1985.	54.8	54.9	.2	.1
1986.	56.0	56.0	.0	.0
1987.	58.6	58.8	.3	.2
1988.	57.6	57.5	-.2	-.1
1989.	57.8	56.4	-2.4	-1.4
1990.	58.1	58.1	.0	.0
Mean:	57.0	56.5	-.9	-.5
Median:	56.9	56.4	-.5	-.3
Min:	53.4	52.4	-4.9	-2.7
Max:	61.0	60.9	3.0	1.7
X > 56.0	56	49		
Mean X > 56.0	57.4	57.2	-.3	-.2
X > 60.0	1	1		
Mean X > 60.0	61.0	60.9	-.2	-.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	1	1		
61.0 <= X <= 73.0	1	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		11	(	.5)
No. Years dec (avg):		46	(	-.9)
No. Years no change		12		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

December

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.8	47.7	-.2	-.1
1923.	51.4	51.2	-.4	-.2
1924.	47.0	46.7	-.6	-.3
1925.	49.5	50.1	1.2	.6
1926.	50.9	50.7	-.4	-.2
1927.	49.7	48.9	-1.6	-.8
1928.	48.9	48.4	-1.0	-.5
1929.	51.3	51.0	-.6	-.3
1930.	50.4	50.1	-.6	-.3
1931.	47.9	47.8	-.2	-.1
1932.	50.0	49.9	-.2	-.1
1933.	49.6	49.2	-.8	-.4
1934.	50.1	49.6	-1.0	-.5
1935.	50.3	50.3	.0	.0
1936.	50.4	50.3	-.2	-.1
1937.	51.6	51.4	-.4	-.2
1938.	50.7	50.6	-.2	-.1
1939.	52.7	52.4	-.6	-.3
1940.	51.0	50.7	-.6	-.3
1941.	50.3	50.2	-.2	-.1
1942.	49.5	49.4	-.2	-.1
1943.	51.8	51.0	-1.5	-.8
1944.	49.4	49.9	1.0	.5
1945.	49.0	48.7	-.6	-.3
1946.	49.1	48.6	-1.0	-.5
1947.	47.6	47.6	.0	.0
1948.	48.4	48.0	-.8	-.4
1949.	50.4	49.7	-1.4	-.7
1950.	48.8	48.8	.0	.0
1951.	49.4	49.0	-.8	-.4
1952.	51.0	50.8	-.4	-.2
1953.	52.0	51.9	-.2	-.1
1954.	47.7	47.3	-.8	-.4
1955.	48.4	48.4	.0	.0
1956.	52.2	52.1	-.2	-.1
1957.	50.8	49.9	-1.8	-.9
1958.	55.8	55.7	-.2	-.1
1959.	53.0	52.9	-.2	-.1
1960.	49.8	50.1	.6	.3
1961.	48.8	48.5	-.6	-.3
1962.	51.1	51.1	.0	.0
1963.	47.4	47.2	-.4	-.2
1964.	47.4	47.7	.6	.3
1965.	49.3	48.7	-1.2	-.6
1966.	49.2	49.1	-.2	-.1
1967.	51.7	51.6	-.2	-.1
1968.	49.0	48.6	-.8	-.4
1969.	52.4	52.2	-.4	-.2
1970.	49.3	49.0	-.6	-.3
1971.	48.9	48.8	-.2	-.1
1972.	45.5	45.2	-.7	-.3
1973.	49.5	49.3	-.4	-.2
1974.	50.6	50.5	-.2	-.1
1975.	50.2	50.2	.0	.0
1976.	52.6	52.8	.4	.2
1977.	50.7	49.9	-1.6	-.8
1978.	49.4	48.6	-1.6	-.8
1979.	52.3	51.8	-1.0	-.5
1980.	53.3	52.5	-1.5	-.8
1981.	50.3	50.3	.0	.0
1982.	49.2	49.2	.0	.0
1983.	48.7	48.6	-.2	-.1
1984.	50.1	49.6	-1.0	-.5
1985.	46.4	46.4	.0	.0
1986.	52.2	51.8	-.8	-.4
1987.	50.0	49.7	-.6	-.3
1988.	50.4	50.3	-.2	-.1
1989.	50.4	50.1	-.6	-.3
1990.	47.6	47.5	-.2	-.1
Mean:	50.0	49.8	-.5	-.2
Median:	49.9	49.7	-.4	-.2
Min:	45.5	45.2	-1.8	-.9
Max:	55.8	55.7	1.2	.6
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	59	59		
No. Years inc (avg):		5	(	.4)
No. Years dec (avg):		55	(	-.3)
No. Years no change		9		

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.1 Recreation and Fisheries

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	1750.0	-22.2	-500.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	1250.0	634.5	-49.2	-615.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	2000.0	.0	.0
	1942	2500.0	2500.0	.0	.0
	1943	2500.0	2500.0	.0	.0
	1944	2500.0	2250.0	-10.0	-250.0
	1945	1500.0	2000.0	33.3	500.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	1750.0	-22.2	-500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2000.0	-20.0	-500.0
	1951	2500.0	2500.0	.0	.0
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	1750.0	-12.5	-250.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2250.0	-10.0	-250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	2000.0	14.3	250.0
	1962	1750.0	1750.0	.0	.0
	1963	2155.5	2376.5	10.3	221.0
	1964	2500.0	2500.0	.0	.0
	1965	1750.0	2000.0	14.3	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	2500.0	1750.0	-30.0	-750.0
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	524.6	671.5	28.0	146.9
	1978	521.4	593.4	13.8	72.0
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	1750.0	-30.0	-750.0
	1981	2500.0	2500.0	.0	.0
	1982	1750.0	1750.0	.0	.0
	1983	3387.7	3173.4	-6.3	-214.3
	1984	3545.6	2509.0	-29.2	-1036.6
	1985	2500.0	2250.0	-10.0	-250.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1617.9	1936.4	19.7	318.5
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2139.3	2041.4	-3.7	-98.0
	Median	2500.0	2000.0	.0	.0
	Min	521.4	593.4	-49.2	-1036.6
	Max	3545.6	3173.4	33.3	500.0
X <	1500.0	7	7		
X <	1750.0	9	10		
X <	1765.0	24	27		
X <	2000.0	24	28		
X <	3000.0	68	69		
X >=	2500.0	37	29		
2500.0 > X >=	2000.0	9	13		
2000.0 > X >=	1750.0	15	18		
1750.0 > X >=	800.0	7	7		
800.0 > X		2	3		
X <	3450.0	69	70		
Mean of X >=	3450.0	3545.6	.0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2875.8	2500.0	-13.1	-375.8
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	1750.0	-22.2	-500.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	1250.0	566.5	-54.7	-683.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	2000.0	.0	.0
	1942	2500.0	2500.0	.0	.0
	1943	3699.3	3396.1	-8.2	-303.2
	1944	2500.0	2250.0	-10.0	-250.0
	1945	1500.0	2000.0	33.3	500.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	1750.0	-22.2	-500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2000.0	-20.0	-500.0
	1951	16968.6	16700.3	-1.6	-268.3
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	1750.0	-12.5	-250.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2250.0	-10.0	-250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	2000.0	14.3	250.0
	1962	1750.0	1750.0	.0	.0
	1963	3138.8	3022.9	-3.7	-115.9
	1964	4151.3	2787.4	-32.9	-1363.9
	1965	1750.0	2000.0	14.3	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	6087.9	3927.1	-35.5	-2160.8
	1975	2500.0	2500.0	.0	.0
	1976	3028.0	2699.5	-10.8	-328.5
	1977	516.2	659.0	27.7	142.8
	1978	500.0	540.5	8.1	40.5
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	1750.0	-30.0	-750.0
	1981	2500.0	2500.0	.0	.0
	1982	4649.4	4296.5	-7.6	-352.9
	1983	6809.2	6710.3	-1.5	-98.9
	1984	14312.9	14353.5	.3	40.6
	1985	3113.9	2250.0	-27.7	-863.9
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1294.3	1549.1	19.7	254.8
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2712.8	2553.0	-4.9	-159.8
	Median	2500.0	2250.0	.0	.0
	Min	500.0	540.5	-54.7	-2160.8
	Max	16968.6	16700.3	33.3	500.0
X < 1500.0		8	7		
X < 1750.0		9	11		
X < 1765.0		23	26		
X < 2000.0		23	26		
X < 3000.0		60	63		
X >= 2500.0		39	32		
2500.0 > X >= 2000.0		8	12		
2000.0 > X >= 1750.0		14	15		
1750.0 > X >= 1200.0		5	5		
1200.0 > X		4	6		
X < 3450.0		63	65		
Mean of X >= 3450.0		8096.9	9197.5	13.6	1100.6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	6439.4	6042.1	-6.2	-397.3
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	1750.0	-22.2	-500.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	1250.0	699.2	-44.1	-550.8
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	6197.2	5812.1	-6.2	-385.1
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	2000.0	.0	.0
	1942	4941.6	4487.5	-9.2	-454.1
	1943	4771.1	4644.5	-2.7	-126.6
	1944	2500.0	2250.0	-10.0	-250.0
	1945	1500.0	2000.0	33.3	500.0
	1946	7851.5	7091.1	-9.7	-760.4
	1947	2250.0	1750.0	-22.2	-500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2000.0	-20.0	-500.0
	1951	16431.8	16300.2	-.8	-131.6
	1952	4213.0	3209.6	-23.8	-1003.4
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	1750.0	-12.5	-250.0
	1956	14566.6	14751.3	1.3	184.7
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2250.0	-10.0	-250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1981.1	13.2	231.1
	1961	1750.0	2000.0	14.3	250.0
	1962	1750.0	1750.0	.0	.0
	1963	3476.5	3414.7	-1.8	-61.8
	1964	3321.0	2500.0	-24.7	-821.0
	1965	19334.4	20275.2	4.9	940.8
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	5316.9	4871.0	-8.4	-445.9
	1971	4901.6	4363.3	-11.0	-538.3
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	7527.8	7406.0	-1.6	-121.8
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	638.2	760.6	19.2	122.4
	1978	574.8	617.5	7.4	42.7
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	1750.0	-30.0	-750.0
	1981	2500.0	2500.0	.0	.0
	1982	14208.7	14207.3	.0	-1.4
	1983	9173.6	9016.1	-1.7	-157.5
	1984	15350.2	15132.5	-1.4	-217.7
	1985	2556.0	2250.0	-12.0	-306.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1250.0	1250.0	.0	.0
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	3664.9	3533.3	-4.4	-131.6
	Median	2500.0	2500.0	.0	.0
	Min	574.8	617.5	-44.1	-1003.4
	Max	19334.4	20275.2	33.3	940.8
X <	1500.0	8	8		
X <	1750.0	9	11		
X <	1765.0	21	24		
X <	2000.0	21	25		
X <	3000.0	53	54		
X >=	2500.0	43	37		
2500.0 > X >=	2000.0	6	8		
2000.0 > X >=	1750.0	12	14		
1750.0 > X >=	1200.0	5	5		
1200.0 > X		4	6		
X <	3450.0	54	56		
Mean of X >=	3450.0	9043.9	9600.0	6.1	556.1

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2000.0	2000.0	.0	.0
	1923	4580.8	4424.9	-3.4	-155.9
	1924	2000.0	2000.0	.0	.0
	1925	1750.0	1750.0	.0	.0
	1926	2000.0	2000.0	.0	.0
	1927	3164.1	2678.4	-15.4	-485.7
	1928	2500.0	2000.0	-20.0	-500.0
	1929	1600.0	1400.0	-12.5	-200.0
	1930	1750.0	1750.0	.0	.0
	1931	1800.0	1500.0	-16.7	-300.0
	1932	2000.0	1750.0	-12.5	-250.0
	1933	2000.0	2000.0	.0	.0
	1934	2000.0	1750.0	-12.5	-250.0
	1935	1750.0	2000.0	14.3	250.0
	1936	4350.9	3964.3	-8.9	-386.6
	1937	2000.0	2000.0	.0	.0
	1938	2883.0	2744.8	-4.8	-138.2
	1939	2250.0	2000.0	-11.1	-250.0
	1940	2494.4	2003.5	-19.7	-490.9
	1941	5538.3	4769.0	-13.9	-769.3
	1942	9376.9	9209.6	-1.8	-167.3
	1943	10957.7	10792.1	-1.5	-165.6
	1944	2000.0	1800.0	-10.0	-200.0
	1945	2000.0	2250.0	12.5	250.0
	1946	5270.4	5109.6	-3.1	-160.8
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2000.0	2000.0	.0	.0
	1950	2000.0	1600.0	-20.0	-400.0
	1951	10172.8	10028.2	-1.4	-144.6
	1952	9038.6	8889.3	-1.7	-149.3
	1953	6806.0	6217.4	-8.6	-588.6
	1954	2250.0	2250.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	16384.9	16313.5	-.4	-71.4
	1957	2250.0	2250.0	.0	.0
	1958	2250.0	2000.0	-11.1	-250.0
	1959	2250.0	2000.0	-11.1	-250.0
	1960	1400.0	1584.8	13.2	184.8
	1961	1500.0	1600.0	6.7	100.0
	1962	1400.0	1400.0	.0	.0
	1963	3961.2	3842.5	-3.0	-118.7
	1964	2656.8	2500.0	-5.9	-156.8
	1965	13252.0	13180.5	-.5	-71.5
	1966	2500.0	2250.0	-10.0	-250.0
	1967	6737.8	6049.8	-10.2	-688.0
	1968	2500.0	2500.0	.0	.0
	1969	14755.2	14196.3	-3.8	-558.9
	1970	21000.4	20839.7	-.8	-160.7
	1971	4798.8	4699.6	-2.1	-99.2
	1972	2500.0	2500.0	.0	.0
	1973	8920.5	8263.8	-7.4	-656.7
	1974	11390.4	11276.8	-1.0	-113.6
	1975	2250.0	2250.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	510.6	608.5	19.2	97.9
	1978	3351.3	2127.3	-36.5	-1224.0
	1979	2250.0	2000.0	-11.1	-250.0
	1980	14953.9	15232.2	1.9	278.3
	1981	2250.0	2000.0	-11.1	-250.0
	1982	8291.7	8155.3	-1.6	-136.4
	1983	7631.9	7482.5	-2.0	-149.4
	1984	6644.9	6513.4	-2.0	-131.5
	1985	2500.0	2500.0	.0	.0
	1986	2214.7	2352.6	6.2	137.9
	1987	2000.0	1800.0	-10.0	-200.0
	1988	1000.0	1000.0	.0	.0
	1989	2000.0	2000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	800.0	800.0	.0	.0
	Mean	4337.0	4181.4	-4.0	-155.6
	Median	2250.0	2188.6	-1.5	-133.9
	Min	510.6	608.5	-36.5	-1224.0
	Max	21000.4	20839.7	19.2	278.3
X <	1500.0	5	5		
X <	1750.0	7	9		
X <	1765.0	12	15		
X <	2000.0	13	17		
X <	3000.0	46	48		
X >=	2500.0	32	29		
2500.0 > X >=	2000.0	25	24		
2000.0 > X >=	1750.0	6	8		
1750.0 > X >=	1200.0	4	6		
1200.0 > X		3	3		
X <	3450.0	48	48		
Mean of X >=	3450.0	9309.8	9065.9	-2.6	-243.9

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3299.3	2483.4	-24.7	-815.9
	1923	3547.7	2962.8	-16.5	-584.9
	1924	1600.0	1600.0	.0	.0
	1925	3646.8	3876.6	6.3	229.8
	1926	1600.0	1750.0	9.4	150.0
	1927	13432.9	13368.2	-.5	-64.7
	1928	2000.0	2000.0	.0	.0
	1929	1280.0	1120.0	-12.5	-160.0
	1930	2000.0	2000.0	.0	.0
	1931	1440.0	1250.0	-13.2	-190.0
	1932	2278.2	2000.0	-12.2	-278.2
	1933	1750.0	1750.0	.0	.0
	1934	2000.0	1750.0	-12.5	-250.0
	1935	2000.0	2000.0	.0	.0
	1936	13433.0	13305.1	-1.0	-127.9
	1937	2000.0	1750.0	-12.5	-250.0
	1938	9824.8	9671.7	-1.6	-153.1
	1939	2000.0	2000.0	.0	.0
	1940	10595.2	10480.0	-1.1	-115.2
	1941	8043.8	7876.6	-2.1	-167.2
	1942	10042.6	9859.2	-1.8	-183.4
	1943	6947.5	6782.1	-2.4	-165.4
	1944	1750.0	1440.0	-17.7	-310.0
	1945	6184.7	6027.1	-2.5	-157.6
	1946	2764.6	2620.7	-5.2	-143.9
	1947	2000.0	2000.0	.0	.0
	1948	2000.0	1750.0	-12.5	-250.0
	1949	2000.0	1600.0	-20.0	-400.0
	1950	4142.0	3513.1	-15.2	-628.9
	1951	8208.4	8068.1	-1.7	-140.3
	1952	9586.9	9423.3	-1.7	-163.6
	1953	2328.7	2150.7	-7.6	-178.0
	1954	2052.3	2000.0	-2.5	-52.3
	1955	2000.0	2000.0	.0	.0
	1956	6239.2	6142.0	-1.6	-97.2
	1957	2000.0	2000.0	.0	.0
	1958	9139.8	6827.5	-25.3	-2312.3
	1959	2000.0	2000.0	.0	.0
	1960	1250.0	1267.9	1.4	17.9
	1961	1250.0	1280.0	2.4	30.0
	1962	1259.4	1120.0	-11.1	-139.4
	1963	12081.0	11949.6	-1.1	-131.4
	1964	2125.4	2000.0	-5.9	-125.4
	1965	5501.4	5420.5	-1.5	-80.9
	1966	2000.0	2000.0	.0	.0
	1967	4473.3	4341.9	-2.9	-131.4
	1968	5766.3	4915.7	-14.8	-850.6
	1969	9286.5	9192.9	-1.0	-93.6
	1970	6352.2	6244.3	-1.7	-107.9
	1971	3436.1	3308.2	-3.7	-127.9
	1972	2239.2	2000.0	-10.7	-239.2
	1973	7194.1	7086.0	-1.5	-108.1
	1974	4409.4	4065.9	-7.8	-343.5
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	500.0	501.2	.2	1.2
	1978	4754.0	4617.2	-2.9	-136.8
	1979	2000.0	1750.0	-12.5	-250.0
	1980	14140.1	13584.5	-3.9	-555.6
	1981	2000.0	1600.0	-20.0	-400.0
	1982	15555.5	15316.1	-1.5	-239.4
	1983	12410.4	12264.9	-1.2	-145.5
	1984	5698.0	5572.2	-2.2	-125.8
	1985	2000.0	2000.0	.0	.0
	1986	33196.4	33122.7	-.2	-73.7
	1987	1600.0	1440.0	-10.0	-160.0
	1988	2000.0	1750.0	-12.5	-250.0
	1989	1750.0	1750.0	.0	.0
	1990	1750.0	1400.0	-20.0	-350.0
	1991	640.0	640.0	.0	.0
	Mean	4882.5	4695.7	-5.1	-186.8
	Median	2182.3	2000.0	-1.7	-131.4
	Min	500.0	501.2	-25.3	-2312.3
	Max	33196.4	33122.7	9.4	229.8
X < 1500.0		7	10		
X < 1750.0		10	13		
X < 1765.0		14	21		
X < 2000.0		14	21		
X < 3000.0		39	41		
X >= 2500.0		32	31		
2500.0 > X >= 2000.0		24	18		
2000.0 > X >= 1750.0		4	8		
1750.0 > X >= 1200.0		8	9		
1200.0 > X		2	4		
X < 3450.0		41	42		
Mean of X >= 3450.0		9097.7	9032.7	-.7	-65.0

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

		Base	2030 w/ WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	2838.2	2750.0	-3.1	-88.2
	1924	1280.0	1280.0	.0	.0
	1925	3251.2	3177.3	-2.3	-73.9
	1926	2000.0	2000.0	.0	.0
	1927	4600.3	4399.1	-4.4	-201.2
	1928	12207.3	9750.6	-20.1	-2456.7
	1929	1500.0	1500.0	.0	.0
	1930	2000.0	2000.0	.0	.0
	1931	1152.0	1000.0	-13.2	-152.0
	1932	2750.0	2750.0	.0	.0
	1933	2000.0	1750.0	-12.5	-250.0
	1934	1600.0	1400.0	-12.5	-200.0
	1935	3250.0	3250.0	.0	.0
	1936	4222.1	4082.9	-3.3	-139.2
	1937	4381.7	3827.6	-12.6	-554.1
	1938	10863.5	10681.7	-1.7	-181.8
	1939	1600.0	1600.0	.0	.0
	1940	10956.2	10642.6	-2.9	-313.6
	1941	4870.0	4686.5	-3.8	-183.5
	1942	4500.0	4500.0	.0	.0
	1943	12491.8	12327.9	-1.3	-163.9
	1944	2250.0	2000.0	-11.1	-250.0
	1945	2750.0	2750.0	.0	.0
	1946	2808.5	2750.0	-2.1	-58.5
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	3313.6	3000.0	-9.5	-313.6
	1951	3802.0	3652.6	-3.9	-149.4
	1952	6187.3	6023.4	-2.6	-163.9
	1953	3000.0	3000.0	.0	.0
	1954	4435.8	3673.5	-17.2	-762.3
	1955	2000.0	2000.0	.0	.0
	1956	3500.0	3500.0	.0	.0
	1957	4181.0	3300.5	-21.1	-880.5
	1958	6699.9	6537.5	-2.4	-162.4
	1959	1750.0	1750.0	.0	.0
	1960	2626.1	2250.0	-14.3	-376.1
	1961	1250.0	1024.0	-18.1	-226.0
	1962	2500.0	2500.0	.0	.0
	1963	3500.0	3500.0	.0	.0
	1964	2000.0	2000.0	.0	.0
	1965	3000.0	3000.0	.0	.0
	1966	2000.0	1750.0	-12.5	-250.0
	1967	5978.1	5749.1	-3.8	-229.0
	1968	2170.7	3932.5	81.2	1761.8
	1969	4500.0	4500.0	.0	.0
	1970	2500.0	2268.6	-9.3	-231.4
	1971	4087.9	3941.8	-3.6	-146.1
	1972	4239.0	3542.9	-16.4	-696.1
	1973	3424.6	3229.7	-5.7	-194.9
	1974	9627.4	9531.6	-1.0	-95.8
	1975	4432.8	3579.8	-19.2	-853.0
	1976	1600.0	1600.0	.0	.0
	1977	400.0	411.4	2.8	11.4
	1978	5512.7	5556.6	.8	43.9
	1979	3151.4	2500.0	-20.7	-651.4
	1980	3509.6	3230.7	-7.9	-278.9
	1981	1750.0	1500.0	-14.3	-250.0
	1982	7605.1	7506.0	-1.3	-99.1
	1983	16237.2	16107.4	-.8	-129.8
	1984	2750.0	2515.2	-8.5	-234.8
	1985	2250.0	2000.0	-11.1	-250.0
	1986	11231.6	11023.8	-1.9	-207.8
	1987	1280.0	1152.0	-10.0	-128.0
	1988	1600.0	1400.0	-12.5	-200.0
	1989	6394.2	5586.0	-12.6	-808.2
	1990	1500.0	1500.0	.0	.0
	1991	2000.0	1750.0	-12.5	-250.0
	Mean	3990.7	3809.8	-4.2	-181.0
	Median	3000.0	3000.0	-2.3	-142.6
	Min	400.0	411.4	-21.1	-2456.7
	Max	16237.2	16107.4	81.2	1761.8
X < 1500.0		5	7		
X < 1750.0		11	12		
X < 1765.0		13	16		
X < 2000.0		13	16		
X < 3000.0		34	34		
X >= 4500.0		18	17		
4500.0 > X >= 3000.0		18	19		
3000.0 > X >= 2000.0		21	18		
2000.0 > X >= 1500.0		8	9		
1500.0 > X		5	7		
X < 3450.0		41	42		
Mean of X >= 3450.0		6526.0	6315.8	-3.2	-210.2

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	3251.2	3407.5	4.8	156.3
	1924	335.9	398.9	18.8	63.0
	1925	4138.4	3444.5	-16.8	-693.9
	1926	2000.0	2000.0	.0	.0
	1927	7967.2	7814.6	-1.9	-152.6
	1928	4914.2	4645.9	-5.5	-268.3
	1929	1500.0	750.0	-50.0	-750.0
	1930	2250.0	2000.0	-11.1	-250.0
	1931	500.0	500.0	.0	.0
	1932	3000.0	2750.0	-8.3	-250.0
	1933	2000.0	1750.0	-12.5	-250.0
	1934	3232.0	2734.7	-15.4	-497.3
	1935	4411.1	4941.6	12.0	530.5
	1936	5894.3	5686.4	-3.5	-207.9
	1937	4469.5	4227.5	-5.4	-242.0
	1938	8020.7	7772.3	-3.1	-248.4
	1939	1250.0	750.0	-40.0	-500.0
	1940	6207.8	6073.4	-2.2	-134.4
	1941	3825.9	3626.3	-5.2	-199.6
	1942	4500.0	4500.0	.0	.0
	1943	5280.0	5048.4	-4.4	-231.6
	1944	2250.0	2000.0	-11.1	-250.0
	1945	2750.0	2750.0	.0	.0
	1946	4059.9	3665.6	-9.7	-394.3
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	5073.2	4977.3	-1.9	-95.9
	1951	3170.7	2905.5	-8.4	-265.2
	1952	9104.4	8844.3	-2.9	-260.1
	1953	3500.0	3250.0	-7.1	-250.0
	1954	4572.1	4407.4	-3.6	-164.7
	1955	2000.0	2000.0	.0	.0
	1956	4000.0	4000.0	.0	.0
	1957	2750.0	2750.0	.0	.0
	1958	10433.9	10224.2	-2.0	-209.7
	1959	2000.0	1750.0	-12.5	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	500.0	554.2	10.8	54.2
	1962	3825.7	2774.8	-27.5	-1050.9
	1963	4666.0	4332.6	-7.1	-333.4
	1964	2000.0	2000.0	.0	.0
	1965	3803.4	3401.5	-10.6	-401.9
	1966	2000.0	1750.0	-12.5	-250.0
	1967	4500.0	4500.0	.0	.0
	1968	2000.0	2000.0	.0	.0
	1969	5973.2	5574.4	-6.7	-398.8
	1970	2500.0	2250.0	-10.0	-250.0
	1971	3500.0	3250.0	-7.1	-250.0
	1972	2500.0	2500.0	.0	.0
	1973	2750.0	2750.0	.0	.0
	1974	6280.5	6102.7	-2.8	-177.8
	1975	4000.0	4000.0	.0	.0
	1976	500.0	500.0	.0	.0
	1977	346.0	403.9	16.7	57.9
	1978	4703.6	4031.7	-14.3	-671.9
	1979	2750.0	2500.0	-9.1	-250.0
	1980	3000.0	2750.0	-8.3	-250.0
	1981	1750.0	1000.0	-42.9	-750.0
	1982	14373.5	14180.6	-1.3	-192.9
	1983	6684.4	6471.4	-3.2	-213.0
	1984	2750.0	2750.0	.0	.0
	1985	2250.0	2000.0	-11.1	-250.0
	1986	2750.0	2750.0	.0	.0
	1987	500.0	544.7	8.9	44.7
	1988	500.0	432.0	-13.6	-68.0
	1989	4623.6	4083.4	-11.7	-540.2
	1990	2726.0	2059.9	-24.4	-666.1
	1991	2000.0	1750.0	-12.5	-250.0
	Mean	3594.5	3404.2	-5.8	-190.3
	Median	3000.0	2750.0	-3.2	-203.8
	Min	335.9	398.9	-50.0	-1050.9
	Max	14373.5	14180.6	18.8	530.5
X <	1500.0	8	10		
X <	1750.0	9	10		
X <	1765.0	10	14		
X <	2000.0	10	14		
X <	3000.0	34	39		
X >=	4500.0	20	17		
4500.0 > X >=	3000.0	16	14		
3000.0 > X >=	2000.0	24	25		
2000.0 > X >=	1500.0	2	4		
1500.0 > X		8	10		
X <	3450.0	39	44		
Mean of X >=	3450.0	5542.1	5701.2	2.9	159.1

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	9140.3	8375.6	-8.4	-764.7
	1923	5004.5	4692.3	-6.2	-312.2
	1924	353.9	429.1	21.2	75.2
	1925	4680.6	4095.4	-12.5	-585.2
	1926	2500.0	2500.0	.0	.0
	1927	4957.4	4525.2	-8.7	-432.2
	1928	3000.0	3000.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	2750.0	2500.0	-9.1	-250.0
	1931	500.0	750.0	50.0	250.0
	1932	4000.0	3750.0	-6.3	-250.0
	1933	2500.0	2500.0	.0	.0
	1934	500.0	500.0	.0	.0
	1935	4992.9	4635.7	-7.2	-357.2
	1936	4250.0	4250.0	.0	.0
	1937	4650.0	4332.9	-6.8	-317.1
	1938	10029.9	9682.4	-3.5	-347.5
	1939	1750.0	1750.0	.0	.0
	1940	3750.0	3500.0	-6.7	-250.0
	1941	5533.1	5201.8	-6.0	-331.3
	1942	6303.1	5697.5	-9.6	-605.6
	1943	3750.0	3750.0	.0	.0
	1944	2750.0	2500.0	-9.1	-250.0
	1945	3750.0	3750.0	.0	.0
	1946	3770.1	3750.0	-.5	-20.1
	1947	2500.0	2500.0	.0	.0
	1948	3750.0	3750.0	.0	.0
	1949	3250.0	2750.0	-15.4	-500.0
	1950	4000.0	4000.0	.0	.0
	1951	3750.0	3500.0	-6.7	-250.0
	1952	11376.6	11032.2	-3.0	-344.4
	1953	4250.0	4250.0	.0	.0
	1954	3000.0	3000.0	.0	.0
	1955	2750.0	2500.0	-9.1	-250.0
	1956	4500.0	4500.0	.0	.0
	1957	3750.0	3500.0	-6.7	-250.0
	1958	10304.8	9963.7	-3.3	-341.1
	1959	2500.0	2250.0	-10.0	-250.0
	1960	2750.0	2750.0	.0	.0
	1961	1500.0	1500.0	.0	.0
	1962	3250.0	3250.0	.0	.0
	1963	7367.6	6958.3	-5.6	-409.3
	1964	2500.0	2500.0	.0	.0
	1965	4250.0	4000.0	-5.9	-250.0
	1966	2500.0	2500.0	.0	.0
	1967	8246.3	7698.1	-6.6	-548.2
	1968	2500.0	2500.0	.0	.0
	1969	9403.8	9028.6	-4.0	-375.2
	1970	3000.0	2750.0	-8.3	-250.0
	1971	4250.0	4250.0	.0	.0
	1972	3000.0	2750.0	-8.3	-250.0
	1973	4533.3	3921.9	-13.5	-611.4
	1974	5124.9	4733.4	-7.6	-391.5
	1975	4500.0	4500.0	.0	.0
	1976	1000.0	507.3	-49.3	-492.7
	1977	337.6	406.4	20.4	68.8
	1978	4508.5	4000.0	-11.3	-508.5
	1979	4167.7	3500.0	-16.0	-667.7
	1980	4000.0	4000.0	.0	.0
	1981	2250.0	1750.0	-22.2	-500.0
	1982	9423.3	9145.7	-2.9	-277.6
	1983	10683.7	10357.3	-3.1	-326.4
	1984	3750.0	3500.0	-6.7	-250.0
	1985	2750.0	2500.0	-9.1	-250.0
	1986	3750.0	3750.0	.0	.0
	1987	1500.0	750.0	-50.0	-750.0
	1988	500.0	500.0	.0	.0
	1989	3538.0	3033.4	-14.3	-504.6
	1990	1750.0	1500.0	-14.3	-250.0
	1991	2500.0	2500.0	.0	.0
	Mean	4027.6	3813.6	-4.8	-214.0
	Median	3750.0	3500.0	-3.8	-250.0
	Min	337.6	406.4	-50.0	-764.7
	Max	11376.6	11032.2	50.0	250.0
X <	1500.0	6	7		
X <	1750.0	8	9		
X <	1765.0	10	12		
X <	2000.0	10	12		
X <	3000.0	25	28		
X >=	4500.0	21	17		
4500.0 > X >=	3000.0	24	25		
3000.0 > X >=	2000.0	15	16		
2000.0 > X >=	1500.0	4	5		
1500.0 > X		6	7		
X <	3450.0	31	32		
Mean of X >=	3450.0	5531.8	5311.3	-4.0	-220.5

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

		Base	2030 w/ WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	9160.4	8698.9	-5.0	-461.5
	1923	4770.6	4136.6	-13.3	-634.0
	1924	377.9	452.6	19.8	74.7
	1925	6486.9	5532.4	-14.7	-954.5
	1926	1928.5	2224.7	15.4	296.2
	1927	5528.7	5119.3	-7.4	-409.4
	1928	5914.0	4126.6	-30.2	-1787.4
	1929	2336.3	2151.7	-7.9	-184.6
	1930	2250.0	2000.0	-11.1	-250.0
	1931	1255.3	806.8	-35.7	-448.5
	1932	5010.1	4897.3	-2.3	-112.8
	1933	2546.1	2246.8	-11.8	-299.3
	1934	1806.6	1682.7	-6.9	-123.9
	1935	4131.4	3750.0	-9.2	-381.4
	1936	4645.9	3969.3	-14.6	-676.6
	1937	3500.0	3500.0	.0	.0
	1938	8792.4	8351.0	-5.0	-441.4
	1939	1000.0	620.5	-38.0	-379.5
	1940	3630.2	3250.0	-10.5	-380.2
	1941	3750.0	3500.0	-6.7	-250.0
	1942	7550.5	7093.9	-6.0	-456.6
	1943	3500.0	3500.0	.0	.0
	1944	2250.0	1750.0	-22.2	-500.0
	1945	6030.8	4770.9	-20.9	-1259.9
	1946	6461.8	5378.8	-16.8	-1083.0
	1947	1750.0	1500.0	-14.3	-250.0
	1948	3500.0	3250.0	-7.1	-250.0
	1949	3000.0	2500.0	-16.7	-500.0
	1950	4155.4	3750.0	-9.8	-405.4
	1951	3250.0	3250.0	.0	.0
	1952	10693.1	10238.3	-4.3	-454.8
	1953	4000.0	3750.0	-6.3	-250.0
	1954	2886.0	3595.8	24.6	709.8
	1955	2250.0	2000.0	-11.1	-250.0
	1956	5726.0	4552.8	-20.5	-1173.2
	1957	3986.7	4235.9	6.3	249.2
	1958	7918.5	7498.9	-5.3	-419.6
	1959	1500.0	1250.0	-16.7	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	750.0	624.9	-16.7	-125.1
	1962	3000.0	3074.6	2.5	74.6
	1963	3500.0	3500.0	.0	.0
	1964	2250.0	2250.0	.0	.0
	1965	3750.0	3750.0	.0	.0
	1966	2000.0	1500.0	-25.0	-500.0
	1967	10609.1	10219.8	-3.7	-389.3
	1968	2250.0	1500.0	-33.3	-750.0
	1969	6794.2	6389.8	-6.0	-404.4
	1970	3420.1	3054.9	-10.7	-365.2
	1971	4071.1	3750.0	-7.9	-321.1
	1972	4604.0	4448.6	-3.4	-155.4
	1973	5752.3	6486.9	12.8	734.6
	1974	4443.1	4006.8	-9.8	-436.3
	1975	5954.3	4908.3	-17.6	-1046.0
	1976	2022.0	2070.2	2.4	48.2
	1977	386.3	454.3	17.6	68.0
	1978	4661.6	3750.0	-19.6	-911.6
	1979	6486.9	6486.9	.0	.0
	1980	3750.0	3500.0	-6.7	-250.0
	1981	1500.0	750.0	-50.0	-750.0
	1982	6448.0	5991.5	-7.1	-456.5
	1983	14729.8	14274.9	-3.1	-454.9
	1984	4892.4	3927.3	-19.7	-965.1
	1985	2986.2	2526.7	-15.4	-459.5
	1986	3500.0	3250.0	-7.1	-250.0
	1987	500.0	600.3	20.1	100.3
	1988	1646.8	1309.0	-20.5	-337.8
	1989	4069.9	3788.2	-6.9	-281.7
	1990	1824.0	1782.4	-2.3	-41.6
	1991	3041.6	2869.5	-5.7	-172.1
	Mean	4101.1	3770.4	-8.4	-330.7
	Median	3565.1	3500.0	-7.1	-310.2
	Min	377.9	452.6	-50.0	-1787.4
	Max	14729.8	14274.9	24.6	734.6
X <	1500.0	6	9		
X <	1750.0	9	13		
X <	1765.0	10	14		
X <	2000.0	13	15		
X <	3000.0	25	26		
X >=	4500.0	24	18		
4500.0 > X >=	3000.0	21	26		
3000.0 > X >=	2000.0	12	11		
2000.0 > X >=	500.0	11	13		
500.0 > X		2	2		
X <	3450.0	30	32		
Mean of X >=	3450.0	5671.5	5345.4	-5.7	-326.1

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

		Base	2030 w/ WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4236.9	3466.8	-18.2	-770.1
	1923	5838.6	2967.0	-49.2	-2871.6
	1924	727.0	464.9	-36.1	-262.1
	1925	4211.4	2658.0	-36.9	-1553.4
	1926	2639.6	2605.5	-1.3	-34.1
	1927	3094.9	6489.1	109.7	3394.2
	1928	1500.0	1500.0	.0	.0
	1929	1663.7	1471.0	-11.6	-192.7
	1930	2878.7	2715.8	-5.7	-162.9
	1931	1928.2	2638.8	36.9	710.6
	1932	3177.2	3151.3	-.8	-25.9
	1933	2240.6	2020.5	-9.8	-220.1
	1934	1507.7	1483.3	-1.6	-24.4
	1935	5066.6	3007.9	-40.6	-2058.7
	1936	4129.1	4070.4	-1.4	-58.7
	1937	2608.9	2510.8	-3.8	-98.1
	1938	3748.1	3286.8	-12.3	-461.3
	1939	1967.3	1752.0	-10.9	-215.3
	1940	6056.4	5488.8	-9.4	-567.6
	1941	2369.7	2250.0	-5.1	-119.7
	1942	3731.8	3255.9	-12.8	-475.9
	1943	5747.2	5991.6	4.3	244.4
	1944	2314.8	1612.5	-30.3	-702.3
	1945	4359.7	4325.2	-.8	-34.5
	1946	3854.3	4075.5	5.7	221.2
	1947	1978.2	1533.8	-22.5	-444.4
	1948	3864.0	2523.6	-34.7	-1340.4
	1949	3270.8	2720.3	-16.8	-550.5
	1950	5381.5	3509.2	-34.8	-1872.3
	1951	5978.6	5229.3	-12.5	-749.3
	1952	4852.4	4394.4	-9.4	-458.0
	1953	3363.0	2336.1	-30.5	-1026.9
	1954	3393.9	2037.2	-40.0	-1356.7
	1955	1811.3	1500.0	-17.2	-311.3
	1956	3404.9	2930.7	-13.9	-474.2
	1957	4856.0	4669.6	-3.8	-186.4
	1958	3387.0	2930.7	-13.5	-456.3
	1959	750.0	650.6	-13.3	-99.4
	1960	2950.8	1500.0	-49.2	-1450.8
	1961	500.0	629.4	25.9	129.4
	1962	5401.2	4528.8	-16.2	-872.4
	1963	2351.7	5777.1	145.7	3425.4
	1964	2347.3	2190.6	-6.7	-156.7
	1965	5645.6	6489.1	14.9	843.5
	1966	1500.0	663.1	-55.8	-836.9
	1967	4536.9	4080.5	-10.1	-456.4
	1968	1500.0	750.0	-50.0	-750.0
	1969	3191.9	2717.6	-14.9	-474.3
	1970	1961.2	1844.6	-5.9	-116.6
	1971	3208.1	2251.5	-29.8	-956.6
	1972	1500.0	1500.0	.0	.0
	1973	4209.3	2771.6	-34.2	-1437.7
	1974	3648.9	3194.1	-12.5	-454.8
	1975	3136.6	2681.8	-14.5	-454.8
	1976	1562.8	1451.7	-7.1	-111.1
	1977	401.1	466.5	16.3	65.4
	1978	6325.7	5666.7	-10.4	-659.0
	1979	3048.4	1500.0	-50.8	-1548.4
	1980	3858.1	4077.3	5.7	219.2
	1981	500.0	627.8	25.6	127.8
	1982	3601.7	3127.4	-13.2	-474.3
	1983	6414.3	6043.5	-5.8	-370.8
	1984	4386.1	4650.9	6.0	264.8
	1985	2315.4	1964.8	-15.1	-350.6
	1986	5556.0	5161.3	-7.1	-394.7
	1987	1900.7	1209.0	-36.4	-691.7
	1988	1094.4	913.4	-16.5	-181.0
	1989	3765.7	3072.5	-18.4	-693.2
	1990	1447.3	1207.8	-16.5	-239.5
	1991	2436.4	2519.2	3.4	82.8
	Mean	3201.3	2849.3	-9.4	-352.0
	Median	3184.5	2669.9	-12.0	-360.7
	Min	401.1	464.9	-55.8	-2871.6
	Max	6414.3	6489.1	145.7	3425.4
X < 1500.0		7	13		
X < 1750.0		14	20		
X < 1765.0		14	21		
X < 2000.0		20	23		
X < 3000.0		31	43		
X >= 2500.0		43	41		
2500.0 > X >= 1500.0		20	16		
1500.0 > X >= 500.0		6	11		
500.0 > X >= .0		1	2		
.0 > X		0	0		
X < 3450.0		42	50		
Mean of X >= 3450.0		4759.4	4909.3	3.1	149.9

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

		Base	2030 w/ WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2922.7	2818.1	-3.6	-104.6
	1923	2556.6	4565.9	78.6	2009.3
	1924	389.7	460.0	18.0	70.3
	1925	3786.9	1750.0	-53.8	-2036.9
	1926	750.0	750.0	.0	.0
	1927	3884.9	3729.1	-4.0	-155.8
	1928	3282.1	4114.5	25.4	832.4
	1929	392.9	536.5	36.5	143.6
	1930	1000.0	1000.0	.0	.0
	1931	399.4	536.9	34.4	137.5
	1932	2338.0	1750.0	-25.1	-588.0
	1933	750.0	541.8	-27.8	-208.2
	1934	402.7	540.2	34.1	137.5
	1935	3108.1	4034.9	29.8	926.8
	1936	3115.5	2308.4	-25.9	-807.1
	1937	2800.9	2000.0	-28.6	-800.9
	1938	4414.5	3937.0	-10.8	-477.5
	1939	500.0	621.7	24.3	121.7
	1940	3989.6	3224.2	-19.2	-765.4
	1941	4266.5	3266.2	-23.4	-1000.3
	1942	4494.2	4018.3	-10.6	-475.9
	1943	2632.4	3066.4	16.5	434.0
	1944	3996.6	1000.0	-75.0	-2996.6
	1945	2063.1	2354.7	14.1	291.6
	1946	2103.7	2335.6	11.0	231.9
	1947	1295.2	750.0	-42.1	-545.2
	1948	3214.9	3003.6	-6.6	-211.3
	1949	2505.1	2925.8	16.8	420.7
	1950	3011.3	2781.3	-7.6	-230.0
	1951	3354.5	3204.5	-4.5	-150.0
	1952	4913.2	4441.1	-9.6	-472.1
	1953	4523.4	4012.1	-11.3	-511.3
	1954	3530.2	4039.2	14.4	509.0
	1955	3398.2	1963.3	-42.2	-1434.9
	1956	4460.0	3987.4	-10.6	-472.6
	1957	1720.7	2582.4	50.1	861.7
	1958	4556.0	4099.6	-10.0	-456.4
	1959	2542.2	1617.8	-36.4	-924.4
	1960	3318.6	2261.8	-31.8	-1056.8
	1961	1506.2	626.2	-58.4	-880.0
	1962	4634.7	2817.3	-39.2	-1817.4
	1963	4095.7	1843.5	-55.0	-2252.2
	1964	3466.3	1000.0	-71.2	-2466.3
	1965	2000.0	2598.3	29.9	598.3
	1966	2991.9	1784.0	-40.4	-1207.9
	1967	4536.4	4062.2	-10.5	-474.2
	1968	1250.0	1819.4	45.6	569.4
	1969	4344.5	3886.5	-10.5	-458.0
	1970	4112.5	3798.6	-7.6	-313.9
	1971	4281.1	3808.5	-11.0	-472.6
	1972	4396.1	3485.7	-20.7	-910.4
	1973	1697.2	3783.1	122.9	2085.9
	1974	4541.3	4068.7	-10.4	-472.6
	1975	4323.4	3868.6	-10.5	-454.8
	1976	1496.9	1060.5	-29.2	-436.4
	1977	396.2	461.7	16.5	65.5
	1978	1750.0	3250.0	85.7	1500.0
	1979	2311.3	3055.9	32.2	744.6
	1980	2538.0	4150.9	63.6	1612.9
	1981	1769.9	931.4	-47.4	-838.5
	1982	4526.7	4052.4	-10.5	-474.3
	1983	4919.7	4805.4	-2.3	-114.3
	1984	1500.0	3015.6	101.0	1515.6
	1985	3291.7	2596.2	-21.1	-695.5
	1986	3859.6	3500.9	-9.3	-358.7
	1987	1678.9	1504.2	-10.4	-174.7
	1988	898.4	532.9	-40.7	-365.5
	1989	3655.9	3545.1	-3.0	-110.8
	1990	2210.9	1629.7	-26.3	-581.2
	1991	1529.5	553.6	-63.8	-975.9
	Mean	2817.1	2554.7	-3.3	-262.4
	Median	3001.6	2799.3	-10.2	-362.1
	Min	389.7	460.0	-75.0	-2996.6
	Max	4919.7	4805.4	122.9	2085.9
X < 1500.0		13	17		
X < 1750.0		19	20		
X < 1765.0		20	22		
X < 2000.0		21	26		
X < 3000.0		35	38		
X >= 2500.0		43	39		
2500.0 > X >= 2000.0		6	5		
2000.0 > X >= 1000.0		12	13		
1000.0 > X >= 500.0		4	11		
500.0 > X		5	2		
X < 3450.0		44	46		
Mean of X >= 3450.0		4250.4	3991.5	-6.1	-258.9

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3927.9	3446.4	-12.3	-481.5
	1923	2000.0	2000.0	.0	.0
	1924	1000.0	750.0	-25.0	-250.0
	1925	1779.4	2500.0	40.5	720.6
	1926	1500.0	1250.0	-16.7	-250.0
	1927	4087.5	1894.7	-53.6	-2192.8
	1928	1500.0	1500.0	.0	.0
	1929	1250.0	1000.0	-20.0	-250.0
	1930	1500.0	1500.0	.0	.0
	1931	1000.0	750.0	-25.0	-250.0
	1932	3960.5	2500.0	-36.9	-1460.5
	1933	1500.0	1250.0	-16.7	-250.0
	1934	1000.0	588.6	-41.1	-411.4
	1935	2915.4	2505.5	-14.1	-409.9
	1936	4028.2	3763.2	-6.6	-265.0
	1937	4022.0	3399.1	-15.5	-622.9
	1938	4211.9	3805.8	-9.6	-406.1
	1939	1250.0	1250.0	.0	.0
	1940	1727.1	1633.4	-5.4	-93.7
	1941	4159.8	3755.3	-9.7	-404.5
	1942	4193.4	3789.0	-9.6	-404.4
	1943	2250.0	1750.0	-22.2	-500.0
	1944	1911.8	1500.0	-21.5	-411.8
	1945	2469.5	2342.3	-5.2	-127.2
	1946	2978.3	2755.8	-7.5	-222.5
	1947	2148.1	1500.0	-30.2	-648.1
	1948	2872.5	3187.6	11.0	315.1
	1949	2061.9	1562.3	-24.2	-499.6
	1950	2596.5	3082.7	18.7	486.2
	1951	1816.7	1976.3	8.8	159.6
	1952	4412.5	3990.6	-9.6	-421.9
	1953	4158.1	3757.0	-9.6	-401.1
	1954	2202.9	1500.0	-31.9	-702.9
	1955	1534.6	1500.0	-2.3	-34.6
	1956	4126.2	3723.4	-9.8	-402.8
	1957	2250.0	1763.2	-21.6	-486.8
	1958	4223.7	3822.6	-9.5	-401.1
	1959	1250.0	1250.0	.0	.0
	1960	2076.0	1500.0	-27.7	-576.0
	1961	1500.0	1250.0	-16.7	-250.0
	1962	1500.0	2179.8	45.3	679.8
	1963	4153.1	2250.0	-45.8	-1903.1
	1964	1628.1	1500.0	-7.9	-128.1
	1965	3950.9	2000.0	-49.4	-1950.9
	1966	1504.1	1250.0	-16.9	-254.1
	1967	4438.8	4069.6	-8.3	-369.2
	1968	2194.9	1250.0	-43.0	-944.9
	1969	4173.2	3787.3	-9.2	-385.9
	1970	1500.0	1500.0	.0	.0
	1971	3990.1	3605.8	-9.6	-384.3
	1972	1500.0	1500.0	.0	.0
	1973	2000.0	1500.0	-25.0	-500.0
	1974	4292.6	3891.5	-9.3	-401.1
	1975	4084.2	3668.0	-10.2	-416.2
	1976	500.0	600.4	20.1	100.4
	1977	454.1	522.1	15.0	68.0
	1978	3072.7	1750.0	-43.0	-1322.7
	1979	2036.0	1935.6	-4.9	-100.4
	1980	4084.2	2000.0	-51.0	-2084.2
	1981	1545.9	1500.0	-3.0	-45.9
	1982	4578.3	4207.4	-8.1	-370.9
	1983	4920.7	4826.7	-1.9	-94.0
	1984	2000.0	1750.0	-12.5	-250.0
	1985	1250.0	1250.0	.0	.0
	1986	1750.0	1750.0	.0	.0
	1987	1356.8	1000.0	-26.3	-356.8
	1988	750.0	750.0	.0	.0
	1989	1250.0	1250.0	.0	.0
	1990	750.0	750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2479.4	2133.4	-11.3	-346.0
	Median	2048.9	1750.0	-9.6	-252.1
	Min	454.1	522.1	-53.6	-2192.8
	Max	4920.7	4826.7	45.3	720.6
X <	1500.0	14	19		
X <	1750.0	27	33		
X <	1765.0	28	38		
X <	2000.0	31	41		
X <	3000.0	47	51		
X >=	2500.0	27	23		
2500.0 > X >=	1500.0	29	28		
1500.0 > X >=	500.0	13	19		
500.0 > X >=	.0	1	0		
.0 > X		0	0		
X <	3450.0	48	55		
Mean of X >=	3450.0	4189.9	3897.5	-7.0	-292.4

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.2 Terrestrial

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	1750.0	-22.2	-500.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	1250.0	634.5	-49.2	-615.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	2000.0	.0	.0
	1942	2500.0	2500.0	.0	.0
	1943	2500.0	2500.0	.0	.0
	1944	2500.0	2250.0	-10.0	-250.0
	1945	1500.0	2000.0	33.3	500.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	1750.0	-22.2	-500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2000.0	-20.0	-500.0
	1951	2500.0	2500.0	.0	.0
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	1750.0	-12.5	-250.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2250.0	-10.0	-250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	2000.0	14.3	250.0
	1962	1750.0	1750.0	.0	.0
	1963	2155.5	2376.5	10.3	221.0
	1964	2500.0	2500.0	.0	.0
	1965	1750.0	2000.0	14.3	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	2500.0	1750.0	-30.0	-750.0
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	524.6	671.5	28.0	146.9
	1978	521.4	593.4	13.8	72.0
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	1750.0	-30.0	-750.0
	1981	2500.0	2500.0	.0	.0
	1982	1750.0	1750.0	.0	.0
	1983	3387.7	3173.4	-6.3	-214.3
	1984	3545.6	2509.0	-29.2	-1036.6
	1985	2500.0	2250.0	-10.0	-250.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1617.9	1936.4	19.7	318.5
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2139.3	2041.4	-3.7	-98.0
	Median	2500.0	2000.0	.0	.0
	Min	521.4	593.4	-49.2	-1036.6
	Max	3545.6	3173.4	33.3	500.0
X <	1300.0	7	7		
X <	1765.0	24	27		
X <	2000.0	24	28		
X <	2700.0	68	69		
X <	3000.0	68	69		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2500.0	2500.0	.0	.0
1923	2500.0	2500.0	.0	.0
1924	2500.0	2500.0	.0	.0
1925	1250.0	1000.0	-20.0	-250.0
1926	2500.0	2500.0	.0	.0
1927	1750.0	1750.0	.0	.0
1928	2875.8	2500.0	-13.1	-375.8
1929	2000.0	1750.0	-12.5	-250.0
1930	1750.0	1500.0	-14.3	-250.0
1931	2250.0	1750.0	-22.2	-500.0
1932	1250.0	1250.0	.0	.0
1933	2500.0	2500.0	.0	.0
1934	1750.0	1750.0	.0	.0
1935	1250.0	566.5	-54.7	-683.5
1936	2500.0	2500.0	.0	.0
1937	2500.0	2500.0	.0	.0
1938	2500.0	2500.0	.0	.0
1939	2500.0	2500.0	.0	.0
1940	1750.0	1500.0	-14.3	-250.0
1941	2000.0	2000.0	.0	.0
1942	2500.0	2500.0	.0	.0
1943	3699.3	3396.1	-8.2	-303.2
1944	2500.0	2250.0	-10.0	-250.0
1945	1500.0	2000.0	33.3	500.0
1946	2500.0	2000.0	-20.0	-500.0
1947	2250.0	1750.0	-22.2	-500.0
1948	1750.0	1750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	2500.0	2000.0	-20.0	-500.0
1951	16968.6	16700.3	-1.6	-268.3
1952	2250.0	2000.0	-11.1	-250.0
1953	2500.0	2500.0	.0	.0
1954	2500.0	2500.0	.0	.0
1955	2000.0	1750.0	-12.5	-250.0
1956	1750.0	1750.0	.0	.0
1957	2500.0	2500.0	.0	.0
1958	2500.0	2250.0	-10.0	-250.0
1959	2500.0	2500.0	.0	.0
1960	1750.0	1750.0	.0	.0
1961	1750.0	2000.0	14.3	250.0
1962	1750.0	1750.0	.0	.0
1963	3138.8	3022.9	-3.7	-115.9
1964	4151.3	2787.4	-32.9	-1363.9
1965	1750.0	2000.0	14.3	250.0
1966	2500.0	2500.0	.0	.0
1967	1750.0	1750.0	.0	.0
1968	2500.0	2500.0	.0	.0
1969	2250.0	1750.0	-22.2	-500.0
1970	2500.0	2500.0	.0	.0
1971	2000.0	2000.0	.0	.0
1972	2500.0	2500.0	.0	.0
1973	1750.0	1750.0	.0	.0
1974	6087.9	3927.1	-35.5	-2160.8
1975	2500.0	2500.0	.0	.0
1976	3028.0	2699.5	-10.8	-328.5
1977	516.2	659.0	27.7	142.8
1978	500.0	540.5	8.1	40.5
1979	2500.0	2500.0	.0	.0
1980	2500.0	1750.0	-30.0	-750.0
1981	2500.0	2500.0	.0	.0
1982	4649.4	4296.5	-7.6	-352.9
1983	6809.2	6710.3	-1.5	-98.9
1984	14312.9	14353.5	.3	40.6
1985	3113.9	2250.0	-27.7	-863.9
1986	1750.0	1500.0	-14.3	-250.0
1987	2500.0	2250.0	-10.0	-250.0
1988	1294.3	1549.1	19.7	254.8
1989	1000.0	1000.0	.0	.0
1990	1750.0	1750.0	.0	.0
1991	1000.0	1000.0	.0	.0
Mean	2712.8	2553.0	-4.9	-159.8
Median	2500.0	2250.0	.0	.0
Min	500.0	540.5	-54.7	-2160.8
Max	16968.6	16700.3	33.3	500.0
X < 1300.0	8	7		
X < 1765.0	23	26		
X < 2000.0	23	26		
X < 2700.0	59	62		
X < 3000.0	60	63		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2500.0	2500.0	.0	.0
1923	6439.4	6042.1	-6.2	-397.3
1924	2500.0	2500.0	.0	.0
1925	1250.0	1000.0	-20.0	-250.0
1926	2500.0	2500.0	.0	.0
1927	1750.0	1750.0	.0	.0
1928	2500.0	2500.0	.0	.0
1929	2000.0	1750.0	-12.5	-250.0
1930	1750.0	1500.0	-14.3	-250.0
1931	2250.0	1750.0	-22.2	-500.0
1932	1250.0	1250.0	.0	.0
1933	2500.0	2500.0	.0	.0
1934	1750.0	1750.0	.0	.0
1935	1250.0	699.2	-44.1	-550.8
1936	2500.0	2500.0	.0	.0
1937	2500.0	2500.0	.0	.0
1938	6197.2	5812.1	-6.2	-385.1
1939	2500.0	2500.0	.0	.0
1940	1750.0	1500.0	-14.3	-250.0
1941	2000.0	2000.0	.0	.0
1942	4941.6	4487.5	-9.2	-454.1
1943	4771.1	4644.5	-2.7	-126.6
1944	2500.0	2250.0	-10.0	-250.0
1945	1500.0	2000.0	33.3	500.0
1946	7851.5	7091.1	-9.7	-760.4
1947	2250.0	1750.0	-22.2	-500.0
1948	1750.0	1750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	2500.0	2000.0	-20.0	-500.0
1951	16431.8	16300.2	-.8	-131.6
1952	4213.0	3209.6	-23.8	-1003.4
1953	2500.0	2500.0	.0	.0
1954	2500.0	2500.0	.0	.0
1955	2000.0	1750.0	-12.5	-250.0
1956	14566.6	14751.3	1.3	184.7
1957	2500.0	2500.0	.0	.0
1958	2500.0	2250.0	-10.0	-250.0
1959	2500.0	2500.0	.0	.0
1960	1750.0	1981.1	13.2	231.1
1961	1750.0	2000.0	14.3	250.0
1962	1750.0	1750.0	.0	.0
1963	3476.5	3414.7	-1.8	-61.8
1964	3321.0	2500.0	-24.7	-821.0
1965	19334.4	20275.2	4.9	940.8
1966	2500.0	2500.0	.0	.0
1967	1750.0	1750.0	.0	.0
1968	2500.0	2500.0	.0	.0
1969	2250.0	1750.0	-22.2	-500.0
1970	5316.9	4871.0	-8.4	-445.9
1971	4901.6	4363.3	-11.0	-538.3
1972	2500.0	2500.0	.0	.0
1973	1750.0	1750.0	.0	.0
1974	7527.8	7406.0	-1.6	-121.8
1975	2500.0	2500.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	638.2	760.6	19.2	122.4
1978	574.8	617.5	7.4	42.7
1979	2500.0	2500.0	.0	.0
1980	2500.0	1750.0	-30.0	-750.0
1981	2500.0	2500.0	.0	.0
1982	14208.7	14207.3	.0	-1.4
1983	9173.6	9016.1	-1.7	-157.5
1984	15350.2	15132.5	-1.4	-217.7
1985	2556.0	2250.0	-12.0	-306.0
1986	1750.0	1500.0	-14.3	-250.0
1987	2500.0	2250.0	-10.0	-250.0
1988	1250.0	1250.0	.0	.0
1989	1000.0	1000.0	.0	.0
1990	1750.0	1750.0	.0	.0
1991	1000.0	1000.0	.0	.0
Mean	3664.9	3533.3	-4.4	-131.6
Median	2500.0	2500.0	.0	.0
Min	574.8	617.5	-44.1	-1003.4
Max	19334.4	20275.2	33.3	940.8
X < 1300.0	8	8		
X < 1765.0	21	24		
X < 2000.0	21	25		
X < 2700.0	53	54		
X < 3000.0	53	54		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2000.0	2000.0	.0	.0
	1923	4580.8	4424.9	-3.4	-155.9
	1924	2000.0	2000.0	.0	.0
	1925	1750.0	1750.0	.0	.0
	1926	2000.0	2000.0	.0	.0
	1927	3164.1	2678.4	-15.4	-485.7
	1928	2500.0	2000.0	-20.0	-500.0
	1929	1600.0	1400.0	-12.5	-200.0
	1930	1750.0	1750.0	.0	.0
	1931	1800.0	1500.0	-16.7	-300.0
	1932	2000.0	1750.0	-12.5	-250.0
	1933	2000.0	2000.0	.0	.0
	1934	2000.0	1750.0	-12.5	-250.0
	1935	1750.0	2000.0	14.3	250.0
	1936	4350.9	3964.3	-8.9	-386.6
	1937	2000.0	2000.0	.0	.0
	1938	2883.0	2744.8	-4.8	-138.2
	1939	2250.0	2000.0	-11.1	-250.0
	1940	2494.4	2003.5	-19.7	-490.9
	1941	5538.3	4769.0	-13.9	-769.3
	1942	9376.9	9209.6	-1.8	-167.3
	1943	10957.7	10792.1	-1.5	-165.6
	1944	2000.0	1800.0	-10.0	-200.0
	1945	2000.0	2250.0	12.5	250.0
	1946	5270.4	5109.6	-3.1	-160.8
	1947	2250.0	2000.0	-11.1	-250.0
	1948	1750.0	1750.0	.0	.0
	1949	2000.0	2000.0	.0	.0
	1950	2000.0	1600.0	-20.0	-400.0
	1951	10172.8	10028.2	-1.4	-144.6
	1952	9038.6	8889.3	-1.7	-149.3
	1953	6806.0	6217.4	-8.6	-588.6
	1954	2250.0	2250.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	16384.9	16313.5	-.4	-71.4
	1957	2250.0	2250.0	.0	.0
	1958	2250.0	2000.0	-11.1	-250.0
	1959	2250.0	2000.0	-11.1	-250.0
	1960	1400.0	1584.8	13.2	184.8
	1961	1500.0	1600.0	6.7	100.0
	1962	1400.0	1400.0	.0	.0
	1963	3961.2	3842.5	-3.0	-118.7
	1964	2656.8	2500.0	-5.9	-156.8
	1965	13252.0	13180.5	-.5	-71.5
	1966	2500.0	2250.0	-10.0	-250.0
	1967	6737.8	6049.8	-10.2	-688.0
	1968	2500.0	2500.0	.0	.0
	1969	14755.2	14196.3	-3.8	-558.9
	1970	21000.4	20839.7	-.8	-160.7
	1971	4798.8	4699.6	-2.1	-99.2
	1972	2500.0	2500.0	.0	.0
	1973	8920.5	8263.8	-7.4	-656.7
	1974	11390.4	11276.8	-1.0	-113.6
	1975	2250.0	2250.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	510.6	608.5	19.2	97.9
	1978	3351.3	2127.3	-36.5	-1224.0
	1979	2250.0	2000.0	-11.1	-250.0
	1980	14953.9	15232.2	1.9	278.3
	1981	2250.0	2000.0	-11.1	-250.0
	1982	8291.7	8155.3	-1.6	-136.4
	1983	7631.9	7482.5	-2.0	-149.4
	1984	6644.9	6513.4	-2.0	-131.5
	1985	2500.0	2500.0	.0	.0
	1986	2214.7	2352.6	6.2	137.9
	1987	2000.0	1800.0	-10.0	-200.0
	1988	1000.0	1000.0	.0	.0
	1989	2000.0	2000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	800.0	800.0	.0	.0
	Mean	4337.0	4181.4	-4.0	-155.6
	Median	2250.0	2188.6	-1.5	-133.9
	Min	510.6	608.5	-36.5	-1224.0
	Max	21000.4	20839.7	19.2	278.3
X <	1300.0	3	3		
X <	1765.0	12	15		
X <	2000.0	13	17		
X <	2700.0	45	47		
X <	3000.0	46	48		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3299.3	2483.4	-24.7	-815.9
	1923	3547.7	2962.8	-16.5	-584.9
	1924	1600.0	1600.0	.0	.0
	1925	3646.8	3876.6	6.3	229.8
	1926	1600.0	1750.0	9.4	150.0
	1927	13432.9	13368.2	-.5	-64.7
	1928	2000.0	2000.0	.0	.0
	1929	1280.0	1120.0	-12.5	-160.0
	1930	2000.0	2000.0	.0	.0
	1931	1440.0	1250.0	-13.2	-190.0
	1932	2278.2	2000.0	-12.2	-278.2
	1933	1750.0	1750.0	.0	.0
	1934	2000.0	1750.0	-12.5	-250.0
	1935	2000.0	2000.0	.0	.0
	1936	13433.0	13305.1	-1.0	-127.9
	1937	2000.0	1750.0	-12.5	-250.0
	1938	9824.8	9671.7	-1.6	-153.1
	1939	2000.0	2000.0	.0	.0
	1940	10595.2	10480.0	-1.1	-115.2
	1941	8043.8	7876.6	-2.1	-167.2
	1942	10042.6	9859.2	-1.8	-183.4
	1943	6947.5	6782.1	-2.4	-165.4
	1944	1750.0	1440.0	-17.7	-310.0
	1945	6184.7	6027.1	-2.5	-157.6
	1946	2764.6	2620.7	-5.2	-143.9
	1947	2000.0	2000.0	.0	.0
	1948	2000.0	1750.0	-12.5	-250.0
	1949	2000.0	1600.0	-20.0	-400.0
	1950	4142.0	3513.1	-15.2	-628.9
	1951	8208.4	8068.1	-1.7	-140.3
	1952	9586.9	9423.3	-1.7	-163.6
	1953	2328.7	2150.7	-7.6	-178.0
	1954	2052.3	2000.0	-2.5	-52.3
	1955	2000.0	2000.0	.0	.0
	1956	6239.2	6142.0	-1.6	-97.2
	1957	2000.0	2000.0	.0	.0
	1958	9139.8	6827.5	-25.3	-2312.3
	1959	2000.0	2000.0	.0	.0
	1960	1250.0	1267.9	1.4	17.9
	1961	1250.0	1280.0	2.4	30.0
	1962	1259.4	1120.0	-11.1	-139.4
	1963	12081.0	11949.6	-1.1	-131.4
	1964	2125.4	2000.0	-5.9	-125.4
	1965	5501.4	5420.5	-1.5	-80.9
	1966	2000.0	2000.0	.0	.0
	1967	4473.3	4341.9	-2.9	-131.4
	1968	5766.3	4915.7	-14.8	-850.6
	1969	9286.5	9192.9	-1.0	-93.6
	1970	6352.2	6244.3	-1.7	-107.9
	1971	3436.1	3308.2	-3.7	-127.9
	1972	2239.2	2000.0	-10.7	-239.2
	1973	7194.1	7086.0	-1.5	-108.1
	1974	4409.4	4065.9	-7.8	-343.5
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	500.0	501.2	.2	1.2
	1978	4754.0	4617.2	-2.9	-136.8
	1979	2000.0	1750.0	-12.5	-250.0
	1980	14140.1	13584.5	-3.9	-555.6
	1981	2000.0	1600.0	-20.0	-400.0
	1982	15555.5	15316.1	-1.5	-239.4
	1983	12410.4	12264.9	-1.2	-145.5
	1984	5698.0	5572.2	-2.2	-125.8
	1985	2000.0	2000.0	.0	.0
	1986	33196.4	33122.7	-.2	-73.7
	1987	1600.0	1440.0	-10.0	-160.0
	1988	2000.0	1750.0	-12.5	-250.0
	1989	1750.0	1750.0	.0	.0
	1990	1750.0	1400.0	-20.0	-350.0
	1991	640.0	640.0	.0	.0
	Mean	4882.5	4695.7	-5.1	-186.8
	Median	2182.3	2000.0	-1.7	-131.4
	Min	500.0	501.2	-25.3	-2312.3
	Max	33196.4	33122.7	9.4	229.8
X <	1300.0	6	7		
X <	1765.0	14	21		
X <	2000.0	14	21		
X <	2700.0	38	40		
X <	3000.0	39	41		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	2838.2	2750.0	-3.1	-88.2
	1924	1280.0	1280.0	.0	.0
	1925	3251.2	3177.3	-2.3	-73.9
	1926	2000.0	2000.0	.0	.0
	1927	4600.3	4399.1	-4.4	-201.2
	1928	12207.3	9750.6	-20.1	-2456.7
	1929	1500.0	1500.0	.0	.0
	1930	2000.0	2000.0	.0	.0
	1931	1152.0	1000.0	-13.2	-152.0
	1932	2750.0	2750.0	.0	.0
	1933	2000.0	1750.0	-12.5	-250.0
	1934	1600.0	1400.0	-12.5	-200.0
	1935	3250.0	3250.0	.0	.0
	1936	4222.1	4082.9	-3.3	-139.2
	1937	4381.7	3827.6	-12.6	-554.1
	1938	10863.5	10681.7	-1.7	-181.8
	1939	1600.0	1600.0	.0	.0
	1940	10956.2	10642.6	-2.9	-313.6
	1941	4870.0	4686.5	-3.8	-183.5
	1942	4500.0	4500.0	.0	.0
	1943	12491.8	12327.9	-1.3	-163.9
	1944	2250.0	2000.0	-11.1	-250.0
	1945	2750.0	2750.0	.0	.0
	1946	2808.5	2750.0	-2.1	-58.5
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	3313.6	3000.0	-9.5	-313.6
	1951	3802.0	3652.6	-3.9	-149.4
	1952	6187.3	6023.4	-2.6	-163.9
	1953	3000.0	3000.0	.0	.0
	1954	4435.8	3673.5	-17.2	-762.3
	1955	2000.0	2000.0	.0	.0
	1956	3500.0	3500.0	.0	.0
	1957	4181.0	3300.5	-21.1	-880.5
	1958	6699.9	6537.5	-2.4	-162.4
	1959	1750.0	1750.0	.0	.0
	1960	2626.1	2250.0	-14.3	-376.1
	1961	1250.0	1024.0	-18.1	-226.0
	1962	2500.0	2500.0	.0	.0
	1963	3500.0	3500.0	.0	.0
	1964	2000.0	2000.0	.0	.0
	1965	3000.0	3000.0	.0	.0
	1966	2000.0	1750.0	-12.5	-250.0
	1967	5978.1	5749.1	-3.8	-229.0
	1968	2170.7	3932.5	81.2	1761.8
	1969	4500.0	4500.0	.0	.0
	1970	2500.0	2268.6	-9.3	-231.4
	1971	4087.9	3941.8	-3.6	-146.1
	1972	4239.0	3542.9	-16.4	-696.1
	1973	3424.6	3229.7	-5.7	-194.9
	1974	9627.4	9531.6	-1.0	-95.8
	1975	4432.8	3579.8	-19.2	-853.0
	1976	1600.0	1600.0	.0	.0
	1977	400.0	411.4	2.8	11.4
	1978	5512.7	5556.6	.8	43.9
	1979	3151.4	2500.0	-20.7	-651.4
	1980	3509.6	3230.7	-7.9	-278.9
	1981	1750.0	1500.0	-14.3	-250.0
	1982	7605.1	7506.0	-1.3	-99.1
	1983	16237.2	16107.4	-.8	-129.8
	1984	2750.0	2515.2	-8.5	-234.8
	1985	2250.0	2000.0	-11.1	-250.0
	1986	11231.6	11023.8	-1.9	-207.8
	1987	1280.0	1152.0	-10.0	-128.0
	1988	1600.0	1400.0	-12.5	-200.0
	1989	6394.2	5586.0	-12.6	-808.2
	1990	1500.0	1500.0	.0	.0
	1991	2000.0	1750.0	-12.5	-250.0
	Mean	3990.7	3809.8	-4.2	-181.0
	Median	3000.0	3000.0	-2.3	-142.6
	Min	400.0	411.4	-21.1	-2456.7
	Max	16237.2	16107.4	81.2	1761.8
X <	1300.0	5	5		
X <	1765.0	13	16		
X <	2000.0	13	16		
X <	2700.0	28	29		
X <	3000.0	34	34		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	3251.2	3407.5	4.8	156.3
	1924	335.9	398.9	18.8	63.0
	1925	4138.4	3444.5	-16.8	-693.9
	1926	2000.0	2000.0	.0	.0
	1927	7967.2	7814.6	-1.9	-152.6
	1928	4914.2	4645.9	-5.5	-268.3
	1929	1500.0	750.0	-50.0	-750.0
	1930	2250.0	2000.0	-11.1	-250.0
	1931	500.0	500.0	.0	.0
	1932	3000.0	2750.0	-8.3	-250.0
	1933	2000.0	1750.0	-12.5	-250.0
	1934	3232.0	2734.7	-15.4	-497.3
	1935	4411.1	4941.6	12.0	530.5
	1936	5894.3	5686.4	-3.5	-207.9
	1937	4469.5	4227.5	-5.4	-242.0
	1938	8020.7	7772.3	-3.1	-248.4
	1939	1250.0	750.0	-40.0	-500.0
	1940	6207.8	6073.4	-2.2	-134.4
	1941	3825.9	3626.3	-5.2	-199.6
	1942	4500.0	4500.0	.0	.0
	1943	5280.0	5048.4	-4.4	-231.6
	1944	2250.0	2000.0	-11.1	-250.0
	1945	2750.0	2750.0	.0	.0
	1946	4059.9	3665.6	-9.7	-394.3
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	5073.2	4977.3	-1.9	-95.9
	1951	3170.7	2905.5	-8.4	-265.2
	1952	9104.4	8844.3	-2.9	-260.1
	1953	3500.0	3250.0	-7.1	-250.0
	1954	4572.1	4407.4	-3.6	-164.7
	1955	2000.0	2000.0	.0	.0
	1956	4000.0	4000.0	.0	.0
	1957	2750.0	2750.0	.0	.0
	1958	10433.9	10224.2	-2.0	-209.7
	1959	2000.0	1750.0	-12.5	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	500.0	554.2	10.8	54.2
	1962	3825.7	2774.8	-27.5	-1050.9
	1963	4666.0	4332.6	-7.1	-333.4
	1964	2000.0	2000.0	.0	.0
	1965	3803.4	3401.5	-10.6	-401.9
	1966	2000.0	1750.0	-12.5	-250.0
	1967	4500.0	4500.0	.0	.0
	1968	2000.0	2000.0	.0	.0
	1969	5973.2	5574.4	-6.7	-398.8
	1970	2500.0	2250.0	-10.0	-250.0
	1971	3500.0	3250.0	-7.1	-250.0
	1972	2500.0	2500.0	.0	.0
	1973	2750.0	2750.0	.0	.0
	1974	6280.5	6102.7	-2.8	-177.8
	1975	4000.0	4000.0	.0	.0
	1976	500.0	500.0	.0	.0
	1977	346.0	403.9	16.7	57.9
	1978	4703.6	4031.7	-14.3	-671.9
	1979	2750.0	2500.0	-9.1	-250.0
	1980	3000.0	2750.0	-8.3	-250.0
	1981	1750.0	1000.0	-42.9	-750.0
	1982	14373.5	14180.6	-1.3	-192.9
	1983	6684.4	6471.4	-3.2	-213.0
	1984	2750.0	2750.0	.0	.0
	1985	2250.0	2000.0	-11.1	-250.0
	1986	2750.0	2750.0	.0	.0
	1987	500.0	544.7	8.9	44.7
	1988	500.0	432.0	-13.6	-68.0
	1989	4623.6	4083.4	-11.7	-540.2
	1990	2726.0	2059.9	-24.4	-666.1
	1991	2000.0	1750.0	-12.5	-250.0
	Mean	3594.5	3404.2	-5.8	-190.3
	Median	3000.0	2750.0	-3.2	-203.8
	Min	335.9	398.9	-50.0	-1050.9
	Max	14373.5	14180.6	18.8	530.5
X <	1300.0	8	10		
X <	1765.0	10	14		
X <	2000.0	10	14		
X <	2700.0	26	28		
X <	3000.0	34	39		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	9140.3	8375.6	-8.4	-764.7
	1923	5004.5	4692.3	-6.2	-312.2
	1924	353.9	429.1	21.2	75.2
	1925	4680.6	4095.4	-12.5	-585.2
	1926	2500.0	2500.0	.0	.0
	1927	4957.4	4525.2	-8.7	-432.2
	1928	3000.0	3000.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	2750.0	2500.0	-9.1	-250.0
	1931	500.0	750.0	50.0	250.0
	1932	4000.0	3750.0	-6.3	-250.0
	1933	2500.0	2500.0	.0	.0
	1934	500.0	500.0	.0	.0
	1935	4992.9	4635.7	-7.2	-357.2
	1936	4250.0	4250.0	.0	.0
	1937	4650.0	4332.9	-6.8	-317.1
	1938	10029.9	9682.4	-3.5	-347.5
	1939	1750.0	1750.0	.0	.0
	1940	3750.0	3500.0	-6.7	-250.0
	1941	5533.1	5201.8	-6.0	-331.3
	1942	6303.1	5697.5	-9.6	-605.6
	1943	3750.0	3750.0	.0	.0
	1944	2750.0	2500.0	-9.1	-250.0
	1945	3750.0	3750.0	.0	.0
	1946	3770.1	3750.0	-.5	-20.1
	1947	2500.0	2500.0	.0	.0
	1948	3750.0	3750.0	.0	.0
	1949	3250.0	2750.0	-15.4	-500.0
	1950	4000.0	4000.0	.0	.0
	1951	3750.0	3500.0	-6.7	-250.0
	1952	11376.6	11032.2	-3.0	-344.4
	1953	4250.0	4250.0	.0	.0
	1954	3000.0	3000.0	.0	.0
	1955	2750.0	2500.0	-9.1	-250.0
	1956	4500.0	4500.0	.0	.0
	1957	3750.0	3500.0	-6.7	-250.0
	1958	10304.8	9963.7	-3.3	-341.1
	1959	2500.0	2250.0	-10.0	-250.0
	1960	2750.0	2750.0	.0	.0
	1961	1500.0	1500.0	.0	.0
	1962	3250.0	3250.0	.0	.0
	1963	7367.6	6958.3	-5.6	-409.3
	1964	2500.0	2500.0	.0	.0
	1965	4250.0	4000.0	-5.9	-250.0
	1966	2500.0	2500.0	.0	.0
	1967	8246.3	7698.1	-6.6	-548.2
	1968	2500.0	2500.0	.0	.0
	1969	9403.8	9028.6	-4.0	-375.2
	1970	3000.0	2750.0	-8.3	-250.0
	1971	4250.0	4250.0	.0	.0
	1972	3000.0	2750.0	-8.3	-250.0
	1973	4533.3	3921.9	-13.5	-611.4
	1974	5124.9	4733.4	-7.6	-391.5
	1975	4500.0	4500.0	.0	.0
	1976	1000.0	507.3	-49.3	-492.7
	1977	337.6	406.4	20.4	68.8
	1978	4508.5	4000.0	-11.3	-508.5
	1979	4167.7	3500.0	-16.0	-667.7
	1980	4000.0	4000.0	.0	.0
	1981	2250.0	1750.0	-22.2	-500.0
	1982	9423.3	9145.7	-2.9	-277.6
	1983	10683.7	10357.3	-3.1	-326.4
	1984	3750.0	3500.0	-6.7	-250.0
	1985	2750.0	2500.0	-9.1	-250.0
	1986	3750.0	3750.0	.0	.0
	1987	1500.0	750.0	-50.0	-750.0
	1988	500.0	500.0	.0	.0
	1989	3538.0	3033.4	-14.3	-504.6
	1990	1750.0	1500.0	-14.3	-250.0
	1991	2500.0	2500.0	.0	.0
	Mean	4027.6	3813.6	-4.8	-214.0
	Median	3750.0	3500.0	-3.8	-250.0
	Min	337.6	406.4	-50.0	-764.7
	Max	11376.6	11032.2	50.0	250.0
X <	1300.0	6	7		
X <	1765.0	10	12		
X <	2000.0	10	12		
X <	2700.0	20	24		
X <	3000.0	25	28		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	9160.4	8698.9	-5.0	-461.5
	1923	4770.6	4136.6	-13.3	-634.0
	1924	377.9	452.6	19.8	74.7
	1925	6486.9	5532.4	-14.7	-954.5
	1926	1928.5	2224.7	15.4	296.2
	1927	5528.7	5119.3	-7.4	-409.4
	1928	5914.0	4126.6	-30.2	-1787.4
	1929	2336.3	2151.7	-7.9	-184.6
	1930	2250.0	2000.0	-11.1	-250.0
	1931	1255.3	806.8	-35.7	-448.5
	1932	5010.1	4897.3	-2.3	-112.8
	1933	2546.1	2246.8	-11.8	-299.3
	1934	1806.6	1682.7	-6.9	-123.9
	1935	4131.4	3750.0	-9.2	-381.4
	1936	4645.9	3969.3	-14.6	-676.6
	1937	3500.0	3500.0	.0	.0
	1938	8792.4	8351.0	-5.0	-441.4
	1939	1000.0	620.5	-38.0	-379.5
	1940	3630.2	3250.0	-10.5	-380.2
	1941	3750.0	3500.0	-6.7	-250.0
	1942	7550.5	7093.9	-6.0	-456.6
	1943	3500.0	3500.0	.0	.0
	1944	2250.0	1750.0	-22.2	-500.0
	1945	6030.8	4770.9	-20.9	-1259.9
	1946	6461.8	5378.8	-16.8	-1083.0
	1947	1750.0	1500.0	-14.3	-250.0
	1948	3500.0	3250.0	-7.1	-250.0
	1949	3000.0	2500.0	-16.7	-500.0
	1950	4155.4	3750.0	-9.8	-405.4
	1951	3250.0	3250.0	.0	.0
	1952	10693.1	10238.3	-4.3	-454.8
	1953	4000.0	3750.0	-6.3	-250.0
	1954	2886.0	3595.8	24.6	709.8
	1955	2250.0	2000.0	-11.1	-250.0
	1956	5726.0	4552.8	-20.5	-1173.2
	1957	3986.7	4235.9	6.3	249.2
	1958	7918.5	7498.9	-5.3	-419.6
	1959	1500.0	1250.0	-16.7	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	750.0	624.9	-16.7	-125.1
	1962	3000.0	3074.6	2.5	74.6
	1963	3500.0	3500.0	.0	.0
	1964	2250.0	2250.0	.0	.0
	1965	3750.0	3750.0	.0	.0
	1966	2000.0	1500.0	-25.0	-500.0
	1967	10609.1	10219.8	-3.7	-389.3
	1968	2250.0	1500.0	-33.3	-750.0
	1969	6794.2	6389.8	-6.0	-404.4
	1970	3420.1	3054.9	-10.7	-365.2
	1971	4071.1	3750.0	-7.9	-321.1
	1972	4604.0	4448.6	-3.4	-155.4
	1973	5752.3	6486.9	12.8	734.6
	1974	4443.1	4006.8	-9.8	-436.3
	1975	5954.3	4908.3	-17.6	-1046.0
	1976	2022.0	2070.2	2.4	48.2
	1977	386.3	454.3	17.6	68.0
	1978	4661.6	3750.0	-19.6	-911.6
	1979	6486.9	6486.9	.0	.0
	1980	3750.0	3500.0	-6.7	-250.0
	1981	1500.0	750.0	-50.0	-750.0
	1982	6448.0	5991.5	-7.1	-456.5
	1983	14729.8	14274.9	-3.1	-454.9
	1984	4892.4	3927.3	-19.7	-965.1
	1985	2986.2	2526.7	-15.4	-459.5
	1986	3500.0	3250.0	-7.1	-250.0
	1987	500.0	600.3	20.1	100.3
	1988	1646.8	1309.0	-20.5	-337.8
	1989	4069.9	3788.2	-6.9	-281.7
	1990	1824.0	1782.4	-2.3	-41.6
	1991	3041.6	2869.5	-5.7	-172.1
	Mean	4101.1	3770.4	-8.4	-330.7
	Median	3565.1	3500.0	-7.1	-310.2
	Min	377.9	452.6	-50.0	-1787.4
	Max	14729.8	14274.9	24.6	734.6
X <	1300.0	6	8		
X <	1765.0	10	14		
X <	2000.0	13	15		
X <	2700.0	23	25		
X <	3000.0	25	26		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4236.9	3466.8	-18.2	-770.1
	1923	5838.6	2967.0	-49.2	-2871.6
	1924	727.0	464.9	-36.1	-262.1
	1925	4211.4	2658.0	-36.9	-1553.4
	1926	2639.6	2605.5	-1.3	-34.1
	1927	3094.9	6489.1	109.7	3394.2
	1928	1500.0	1500.0	.0	.0
	1929	1663.7	1471.0	-11.6	-192.7
	1930	2878.7	2715.8	-5.7	-162.9
	1931	1928.2	2638.8	36.9	710.6
	1932	3177.2	3151.3	-.8	-25.9
	1933	2240.6	2020.5	-9.8	-220.1
	1934	1507.7	1483.3	-1.6	-24.4
	1935	5066.6	3007.9	-40.6	-2058.7
	1936	4129.1	4070.4	-1.4	-58.7
	1937	2608.9	2510.8	-3.8	-98.1
	1938	3748.1	3286.8	-12.3	-461.3
	1939	1967.3	1752.0	-10.9	-215.3
	1940	6056.4	5488.8	-9.4	-567.6
	1941	2369.7	2250.0	-5.1	-119.7
	1942	3731.8	3255.9	-12.8	-475.9
	1943	5747.2	5991.6	4.3	244.4
	1944	2314.8	1612.5	-30.3	-702.3
	1945	4359.7	4325.2	-.8	-34.5
	1946	3854.3	4075.5	5.7	221.2
	1947	1978.2	1533.8	-22.5	-444.4
	1948	3864.0	2523.6	-34.7	-1340.4
	1949	3270.8	2720.3	-16.8	-550.5
	1950	5381.5	3509.2	-34.8	-1872.3
	1951	5978.6	5229.3	-12.5	-749.3
	1952	4852.4	4394.4	-9.4	-458.0
	1953	3363.0	2336.1	-30.5	-1026.9
	1954	3393.9	2037.2	-40.0	-1356.7
	1955	1811.3	1500.0	-17.2	-311.3
	1956	3404.9	2930.7	-13.9	-474.2
	1957	4856.0	4669.6	-3.8	-186.4
	1958	3387.0	2930.7	-13.5	-456.3
	1959	750.0	650.6	-13.3	-99.4
	1960	2950.8	1500.0	-49.2	-1450.8
	1961	500.0	629.4	25.9	129.4
	1962	5401.2	4528.8	-16.2	-872.4
	1963	2351.7	5777.1	145.7	3425.4
	1964	2347.3	2190.6	-6.7	-156.7
	1965	5645.6	6489.1	14.9	843.5
	1966	1500.0	663.1	-55.8	-836.9
	1967	4536.9	4080.5	-10.1	-456.4
	1968	1500.0	750.0	-50.0	-750.0
	1969	3191.9	2717.6	-14.9	-474.3
	1970	1961.2	1844.6	-5.9	-116.6
	1971	3208.1	2251.5	-29.8	-956.6
	1972	1500.0	1500.0	.0	.0
	1973	4209.3	2771.6	-34.2	-1437.7
	1974	3648.9	3194.1	-12.5	-454.8
	1975	3136.6	2681.8	-14.5	-454.8
	1976	1562.8	1451.7	-7.1	-111.1
	1977	401.1	466.5	16.3	65.4
	1978	6325.7	5666.7	-10.4	-659.0
	1979	3048.4	1500.0	-50.8	-1548.4
	1980	3858.1	4077.3	5.7	219.2
	1981	500.0	627.8	25.6	127.8
	1982	3601.7	3127.4	-13.2	-474.3
	1983	6414.3	6043.5	-5.8	-370.8
	1984	4386.1	4650.9	6.0	264.8
	1985	2315.4	1964.8	-15.1	-350.6
	1986	5556.0	5161.3	-7.1	-394.7
	1987	1900.7	1209.0	-36.4	-691.7
	1988	1094.4	913.4	-16.5	-181.0
	1989	3765.7	3072.5	-18.4	-693.2
	1990	1447.3	1207.8	-16.5	-239.5
	1991	2436.4	2519.2	3.4	82.8
	Mean	3201.3	2849.3	-9.4	-352.0
	Median	3184.5	2669.9	-12.0	-360.7
	Min	401.1	464.9	-55.8	-2871.6
	Max	6414.3	6489.1	145.7	3425.4
X <	1300.0	6	10		
X <	1765.0	14	21		
X <	2000.0	20	23		
X <	2700.0	29	36		
X <	3000.0	31	43		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2922.7	2818.1	-3.6	-104.6
	1923	2556.6	4565.9	78.6	2009.3
	1924	389.7	460.0	18.0	70.3
	1925	3786.9	1750.0	-53.8	-2036.9
	1926	750.0	750.0	.0	.0
	1927	3884.9	3729.1	-4.0	-155.8
	1928	3282.1	4114.5	25.4	832.4
	1929	392.9	536.5	36.5	143.6
	1930	1000.0	1000.0	.0	.0
	1931	399.4	536.9	34.4	137.5
	1932	2338.0	1750.0	-25.1	-588.0
	1933	750.0	541.8	-27.8	-208.2
	1934	402.7	540.2	34.1	137.5
	1935	3108.1	4034.9	29.8	926.8
	1936	3115.5	2308.4	-25.9	-807.1
	1937	2800.9	2000.0	-28.6	-800.9
	1938	4414.5	3937.0	-10.8	-477.5
	1939	500.0	621.7	24.3	121.7
	1940	3989.6	3224.2	-19.2	-765.4
	1941	4266.5	3266.2	-23.4	-1000.3
	1942	4494.2	4018.3	-10.6	-475.9
	1943	2632.4	3066.4	16.5	434.0
	1944	3996.6	1000.0	-75.0	-2996.6
	1945	2063.1	2354.7	14.1	291.6
	1946	2103.7	2335.6	11.0	231.9
	1947	1295.2	750.0	-42.1	-545.2
	1948	3214.9	3003.6	-6.6	-211.3
	1949	2505.1	2925.8	16.8	420.7
	1950	3011.3	2781.3	-7.6	-230.0
	1951	3354.5	3204.5	-4.5	-150.0
	1952	4913.2	4441.1	-9.6	-472.1
	1953	4523.4	4012.1	-11.3	-511.3
	1954	3530.2	4039.2	14.4	509.0
	1955	3398.2	1963.3	-42.2	-1434.9
	1956	4460.0	3987.4	-10.6	-472.6
	1957	1720.7	2582.4	50.1	861.7
	1958	4556.0	4099.6	-10.0	-456.4
	1959	2542.2	1617.8	-36.4	-924.4
	1960	3318.6	2261.8	-31.8	-1056.8
	1961	1506.2	626.2	-58.4	-880.0
	1962	4634.7	2817.3	-39.2	-1817.4
	1963	4095.7	1843.5	-55.0	-2252.2
	1964	3466.3	1000.0	-71.2	-2466.3
	1965	2000.0	2598.3	29.9	598.3
	1966	2991.9	1784.0	-40.4	-1207.9
	1967	4536.4	4062.2	-10.5	-474.2
	1968	1250.0	1819.4	45.6	569.4
	1969	4344.5	3886.5	-10.5	-458.0
	1970	4112.5	3798.6	-7.6	-313.9
	1971	4281.1	3808.5	-11.0	-472.6
	1972	4396.1	3485.7	-20.7	-910.4
	1973	1697.2	3783.1	122.9	2085.9
	1974	4541.3	4068.7	-10.4	-472.6
	1975	4323.4	3868.6	-10.5	-454.8
	1976	1496.9	1060.5	-29.2	-436.4
	1977	396.2	461.7	16.5	65.5
	1978	1750.0	3250.0	85.7	1500.0
	1979	2311.3	3055.9	32.2	744.6
	1980	2538.0	4150.9	63.6	1612.9
	1981	1769.9	931.4	-47.4	-838.5
	1982	4526.7	4052.4	-10.5	-474.3
	1983	4919.7	4805.4	-2.3	-114.3
	1984	1500.0	3015.6	101.0	1515.6
	1985	3291.7	2596.2	-21.1	-695.5
	1986	3859.6	3500.9	-9.3	-358.7
	1987	1678.9	1504.2	-10.4	-174.7
	1988	898.4	532.9	-40.7	-365.5
	1989	3655.9	3545.1	-3.0	-110.8
	1990	2210.9	1629.7	-26.3	-581.2
	1991	1529.5	553.6	-63.8	-975.9
	Mean	2817.1	2554.7	-3.3	-262.4
	Median	3001.6	2799.3	-10.2	-362.1
	Min	389.7	460.0	-75.0	-2996.6
	Max	4919.7	4805.4	122.9	2085.9
X <	1300.0	12	17		
X <	1765.0	20	22		
X <	2000.0	21	26		
X <	2700.0	32	34		
X <	3000.0	35	38		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	3927.9	3446.4	-12.3	-481.5
1923	2000.0	2000.0	.0	.0
1924	1000.0	750.0	-25.0	-250.0
1925	1779.4	2500.0	40.5	720.6
1926	1500.0	1250.0	-16.7	-250.0
1927	4087.5	1894.7	-53.6	-2192.8
1928	1500.0	1500.0	.0	.0
1929	1250.0	1000.0	-20.0	-250.0
1930	1500.0	1500.0	.0	.0
1931	1000.0	750.0	-25.0	-250.0
1932	3960.5	2500.0	-36.9	-1460.5
1933	1500.0	1250.0	-16.7	-250.0
1934	1000.0	588.6	-41.1	-411.4
1935	2915.4	2505.5	-14.1	-409.9
1936	4028.2	3763.2	-6.6	-265.0
1937	4022.0	3399.1	-15.5	-622.9
1938	4211.9	3805.8	-9.6	-406.1
1939	1250.0	1250.0	.0	.0
1940	1727.1	1633.4	-5.4	-93.7
1941	4159.8	3755.3	-9.7	-404.5
1942	4193.4	3789.0	-9.6	-404.4
1943	2250.0	1750.0	-22.2	-500.0
1944	1911.8	1500.0	-21.5	-411.8
1945	2469.5	2342.3	-5.2	-127.2
1946	2978.3	2755.8	-7.5	-222.5
1947	2148.1	1500.0	-30.2	-648.1
1948	2872.5	3187.6	11.0	315.1
1949	2061.9	1562.3	-24.2	-499.6
1950	2596.5	3082.7	18.7	486.2
1951	1816.7	1976.3	8.8	159.6
1952	4412.5	3990.6	-9.6	-421.9
1953	4158.1	3757.0	-9.6	-401.1
1954	2202.9	1500.0	-31.9	-702.9
1955	1534.6	1500.0	-2.3	-34.6
1956	4126.2	3723.4	-9.8	-402.8
1957	2250.0	1763.2	-21.6	-486.8
1958	4223.7	3822.6	-9.5	-401.1
1959	1250.0	1250.0	.0	.0
1960	2076.0	1500.0	-27.7	-576.0
1961	1500.0	1250.0	-16.7	-250.0
1962	1500.0	2179.8	45.3	679.8
1963	4153.1	2250.0	-45.8	-1903.1
1964	1628.1	1500.0	-7.9	-128.1
1965	3950.9	2000.0	-49.4	-1950.9
1966	1504.1	1250.0	-16.9	-254.1
1967	4438.8	4069.6	-8.3	-369.2
1968	2194.9	1250.0	-43.0	-944.9
1969	4173.2	3787.3	-9.2	-385.9
1970	1500.0	1500.0	.0	.0
1971	3990.1	3605.8	-9.6	-384.3
1972	1500.0	1500.0	.0	.0
1973	2000.0	1500.0	-25.0	-500.0
1974	4292.6	3891.5	-9.3	-401.1
1975	4084.2	3668.0	-10.2	-416.2
1976	500.0	600.4	20.1	100.4
1977	454.1	522.1	15.0	68.0
1978	3072.7	1750.0	-43.0	-1322.7
1979	2036.0	1935.6	-4.9	-100.4
1980	4084.2	2000.0	-51.0	-2084.2
1981	1545.9	1500.0	-3.0	-45.9
1982	4578.3	4207.4	-8.1	-370.9
1983	4920.7	4826.7	-1.9	-94.0
1984	2000.0	1750.0	-12.5	-250.0
1985	1250.0	1250.0	.0	.0
1986	1750.0	1750.0	.0	.0
1987	1356.8	1000.0	-26.3	-356.8
1988	750.0	750.0	.0	.0
1989	1250.0	1250.0	.0	.0
1990	750.0	750.0	.0	.0
1991	1000.0	1000.0	.0	.0
Mean	2479.4	2133.4	-11.3	-346.0
Median	2048.9	1750.0	-9.6	-252.1
Min	454.1	522.1	-53.6	-2192.8
Max	4920.7	4826.7	45.3	720.6
X < 1300.0	13	19		
X < 1765.0	28	38		
X < 2000.0	31	41		
X < 2700.0	44	50		
X < 3000.0	47	51		

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.3 Terrestrial

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	1750.0	-22.2	-500.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	1250.0	634.5	-49.2	-615.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	2000.0	.0	.0
	1942	2500.0	2500.0	.0	.0
	1943	2500.0	2500.0	.0	.0
	1944	2500.0	2250.0	-10.0	-250.0
	1945	1500.0	2000.0	33.3	500.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	1750.0	-22.2	-500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2000.0	-20.0	-500.0
	1951	2500.0	2500.0	.0	.0
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	1750.0	-12.5	-250.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2250.0	-10.0	-250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	2000.0	14.3	250.0
	1962	1750.0	1750.0	.0	.0
	1963	2155.5	2376.5	10.3	221.0
	1964	2500.0	2500.0	.0	.0
	1965	1750.0	2000.0	14.3	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	2500.0	1750.0	-30.0	-750.0
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	524.6	671.5	28.0	146.9
	1978	521.4	593.4	13.8	72.0
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	1750.0	-30.0	-750.0
	1981	2500.0	2500.0	.0	.0
	1982	1750.0	1750.0	.0	.0
	1983	3387.7	3173.4	-6.3	-214.3
	1984	3545.6	2509.0	-29.2	-1036.6
	1985	2500.0	2250.0	-10.0	-250.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1617.9	1936.4	19.7	318.5
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2139.3	2041.4	-3.7	-98.0
	Median	2500.0	2000.0	.0	.0
	Min	521.4	593.4	-49.2	-1036.6
	Max	3545.6	3173.4	33.3	500.0
X <	4000.0	70	70		
X <	4500.0	70	70		
X <	5000.0	70	70		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2875.8	2500.0	-13.1	-375.8
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	1750.0	-22.2	-500.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	1250.0	566.5	-54.7	-683.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	2000.0	.0	.0
	1942	2500.0	2500.0	.0	.0
	1943	3699.3	3396.1	-8.2	-303.2
	1944	2500.0	2250.0	-10.0	-250.0
	1945	1500.0	2000.0	33.3	500.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	1750.0	-22.2	-500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2000.0	-20.0	-500.0
	1951	16968.6	16700.3	-1.6	-268.3
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	1750.0	-12.5	-250.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2250.0	-10.0	-250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	2000.0	14.3	250.0
	1962	1750.0	1750.0	.0	.0
	1963	3138.8	3022.9	-3.7	-115.9
	1964	4151.3	2787.4	-32.9	-1363.9
	1965	1750.0	2000.0	14.3	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	6087.9	3927.1	-35.5	-2160.8
	1975	2500.0	2500.0	.0	.0
	1976	3028.0	2699.5	-10.8	-328.5
	1977	516.2	659.0	27.7	142.8
	1978	500.0	540.5	8.1	40.5
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	1750.0	-30.0	-750.0
	1981	2500.0	2500.0	.0	.0
	1982	4649.4	4296.5	-7.6	-352.9
	1983	6809.2	6710.3	-1.5	-98.9
	1984	14312.9	14353.5	.3	40.6
	1985	3113.9	2250.0	-27.7	-863.9
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1294.3	1549.1	19.7	254.8
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2712.8	2553.0	-4.9	-159.8
	Median	2500.0	2250.0	.0	.0
	Min	500.0	540.5	-54.7	-2160.8
	Max	16968.6	16700.3	33.3	500.0
X <	4000.0	64	66		
X <	4500.0	65	67		
X <	5000.0	66	67		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	6439.4	6042.1	-6.2	-397.3
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	1750.0	-22.2	-500.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	1250.0	699.2	-44.1	-550.8
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	6197.2	5812.1	-6.2	-385.1
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	2000.0	.0	.0
	1942	4941.6	4487.5	-9.2	-454.1
	1943	4771.1	4644.5	-2.7	-126.6
	1944	2500.0	2250.0	-10.0	-250.0
	1945	1500.0	2000.0	33.3	500.0
	1946	7851.5	7091.1	-9.7	-760.4
	1947	2250.0	1750.0	-22.2	-500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2000.0	-20.0	-500.0
	1951	16431.8	16300.2	-.8	-131.6
	1952	4213.0	3209.6	-23.8	-1003.4
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	1750.0	-12.5	-250.0
	1956	14566.6	14751.3	1.3	184.7
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2250.0	-10.0	-250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1981.1	13.2	231.1
	1961	1750.0	2000.0	14.3	250.0
	1962	1750.0	1750.0	.0	.0
	1963	3476.5	3414.7	-1.8	-61.8
	1964	3321.0	2500.0	-24.7	-821.0
	1965	19334.4	20275.2	4.9	940.8
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	5316.9	4871.0	-8.4	-445.9
	1971	4901.6	4363.3	-11.0	-538.3
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	7527.8	7406.0	-1.6	-121.8
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	638.2	760.6	19.2	122.4
	1978	574.8	617.5	7.4	42.7
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	1750.0	-30.0	-750.0
	1981	2500.0	2500.0	.0	.0
	1982	14208.7	14207.3	.0	-1.4
	1983	9173.6	9016.1	-1.7	-157.5
	1984	15350.2	15132.5	-1.4	-217.7
	1985	2556.0	2250.0	-12.0	-306.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1250.0	1250.0	.0	.0
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	3664.9	3533.3	-4.4	-131.6
	Median	2500.0	2500.0	.0	.0
	Min	574.8	617.5	-44.1	-1003.4
	Max	19334.4	20275.2	33.3	940.8
X <	4000.0	55	56		
X <	4500.0	56	58		
X <	5000.0	59	60		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2000.0	2000.0	.0	.0
1923	4580.8	4424.9	-3.4	-155.9
1924	2000.0	2000.0	.0	.0
1925	1750.0	1750.0	.0	.0
1926	2000.0	2000.0	.0	.0
1927	3164.1	2678.4	-15.4	-485.7
1928	2500.0	2000.0	-20.0	-500.0
1929	1600.0	1400.0	-12.5	-200.0
1930	1750.0	1750.0	.0	.0
1931	1800.0	1500.0	-16.7	-300.0
1932	2000.0	1750.0	-12.5	-250.0
1933	2000.0	2000.0	.0	.0
1934	2000.0	1750.0	-12.5	-250.0
1935	1750.0	2000.0	14.3	250.0
1936	4350.9	3964.3	-8.9	-386.6
1937	2000.0	2000.0	.0	.0
1938	2883.0	2744.8	-4.8	-138.2
1939	2250.0	2000.0	-11.1	-250.0
1940	2494.4	2003.5	-19.7	-490.9
1941	5538.3	4769.0	-13.9	-769.3
1942	9376.9	9209.6	-1.8	-167.3
1943	10957.7	10792.1	-1.5	-165.6
1944	2000.0	1800.0	-10.0	-200.0
1945	2000.0	2250.0	12.5	250.0
1946	5270.4	5109.6	-3.1	-160.8
1947	2250.0	2000.0	-11.1	-250.0
1948	1750.0	1750.0	.0	.0
1949	2000.0	2000.0	.0	.0
1950	2000.0	1600.0	-20.0	-400.0
1951	10172.8	10028.2	-1.4	-144.6
1952	9038.6	8889.3	-1.7	-149.3
1953	6806.0	6217.4	-8.6	-588.6
1954	2250.0	2250.0	.0	.0
1955	2000.0	2000.0	.0	.0
1956	16384.9	16313.5	-.4	-71.4
1957	2250.0	2250.0	.0	.0
1958	2250.0	2000.0	-11.1	-250.0
1959	2250.0	2000.0	-11.1	-250.0
1960	1400.0	1584.8	13.2	184.8
1961	1500.0	1600.0	6.7	100.0
1962	1400.0	1400.0	.0	.0
1963	3961.2	3842.5	-3.0	-118.7
1964	2656.8	2500.0	-5.9	-156.8
1965	13252.0	13180.5	-.5	-71.5
1966	2500.0	2250.0	-10.0	-250.0
1967	6737.8	6049.8	-10.2	-688.0
1968	2500.0	2500.0	.0	.0
1969	14755.2	14196.3	-3.8	-558.9
1970	21000.4	20839.7	-.8	-160.7
1971	4798.8	4699.6	-2.1	-99.2
1972	2500.0	2500.0	.0	.0
1973	8920.5	8263.8	-7.4	-656.7
1974	11390.4	11276.8	-1.0	-113.6
1975	2250.0	2250.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	510.6	608.5	19.2	97.9
1978	3351.3	2127.3	-36.5	-1224.0
1979	2250.0	2000.0	-11.1	-250.0
1980	14953.9	15232.2	1.9	278.3
1981	2250.0	2000.0	-11.1	-250.0
1982	8291.7	8155.3	-1.6	-136.4
1983	7631.9	7482.5	-2.0	-149.4
1984	6644.9	6513.4	-2.0	-131.5
1985	2500.0	2500.0	.0	.0
1986	2214.7	2352.6	6.2	137.9
1987	2000.0	1800.0	-10.0	-200.0
1988	1000.0	1000.0	.0	.0
1989	2000.0	2000.0	.0	.0
1990	1750.0	1750.0	.0	.0
1991	800.0	800.0	.0	.0
Mean	4337.0	4181.4	-4.0	-155.6
Median	2250.0	2188.6	-1.5	-133.9
Min	510.6	608.5	-36.5	-1224.0
Max	21000.4	20839.7	19.2	278.3
X < 4000.0	49	50		
X < 4500.0	50	51		
X < 5000.0	52	53		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3299.3	2483.4	-24.7	-815.9
	1923	3547.7	2962.8	-16.5	-584.9
	1924	1600.0	1600.0	.0	.0
	1925	3646.8	3876.6	6.3	229.8
	1926	1600.0	1750.0	9.4	150.0
	1927	13432.9	13368.2	-.5	-64.7
	1928	2000.0	2000.0	.0	.0
	1929	1280.0	1120.0	-12.5	-160.0
	1930	2000.0	2000.0	.0	.0
	1931	1440.0	1250.0	-13.2	-190.0
	1932	2278.2	2000.0	-12.2	-278.2
	1933	1750.0	1750.0	.0	.0
	1934	2000.0	1750.0	-12.5	-250.0
	1935	2000.0	2000.0	.0	.0
	1936	13433.0	13305.1	-1.0	-127.9
	1937	2000.0	1750.0	-12.5	-250.0
	1938	9824.8	9671.7	-1.6	-153.1
	1939	2000.0	2000.0	.0	.0
	1940	10595.2	10480.0	-1.1	-115.2
	1941	8043.8	7876.6	-2.1	-167.2
	1942	10042.6	9859.2	-1.8	-183.4
	1943	6947.5	6782.1	-2.4	-165.4
	1944	1750.0	1440.0	-17.7	-310.0
	1945	6184.7	6027.1	-2.5	-157.6
	1946	2764.6	2620.7	-5.2	-143.9
	1947	2000.0	2000.0	.0	.0
	1948	2000.0	1750.0	-12.5	-250.0
	1949	2000.0	1600.0	-20.0	-400.0
	1950	4142.0	3513.1	-15.2	-628.9
	1951	8208.4	8068.1	-1.7	-140.3
	1952	9586.9	9423.3	-1.7	-163.6
	1953	2328.7	2150.7	-7.6	-178.0
	1954	2052.3	2000.0	-2.5	-52.3
	1955	2000.0	2000.0	.0	.0
	1956	6239.2	6142.0	-1.6	-97.2
	1957	2000.0	2000.0	.0	.0
	1958	9139.8	6827.5	-25.3	-2312.3
	1959	2000.0	2000.0	.0	.0
	1960	1250.0	1267.9	1.4	17.9
	1961	1250.0	1280.0	2.4	30.0
	1962	1259.4	1120.0	-11.1	-139.4
	1963	12081.0	11949.6	-1.1	-131.4
	1964	2125.4	2000.0	-5.9	-125.4
	1965	5501.4	5420.5	-1.5	-80.9
	1966	2000.0	2000.0	.0	.0
	1967	4473.3	4341.9	-2.9	-131.4
	1968	5766.3	4915.7	-14.8	-850.6
	1969	9286.5	9192.9	-1.0	-93.6
	1970	6352.2	6244.3	-1.7	-107.9
	1971	3436.1	3308.2	-3.7	-127.9
	1972	2239.2	2000.0	-10.7	-239.2
	1973	7194.1	7086.0	-1.5	-108.1
	1974	4409.4	4065.9	-7.8	-343.5
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	500.0	501.2	.2	1.2
	1978	4754.0	4617.2	-2.9	-136.8
	1979	2000.0	1750.0	-12.5	-250.0
	1980	14140.1	13584.5	-3.9	-555.6
	1981	2000.0	1600.0	-20.0	-400.0
	1982	15555.5	15316.1	-1.5	-239.4
	1983	12410.4	12264.9	-1.2	-145.5
	1984	5698.0	5572.2	-2.2	-125.8
	1985	2000.0	2000.0	.0	.0
	1986	33196.4	33122.7	-.2	-73.7
	1987	1600.0	1440.0	-10.0	-160.0
	1988	2000.0	1750.0	-12.5	-250.0
	1989	1750.0	1750.0	.0	.0
	1990	1750.0	1400.0	-20.0	-350.0
	1991	640.0	640.0	.0	.0
	Mean	4882.5	4695.7	-5.1	-186.8
	Median	2182.3	2000.0	-1.7	-131.4
	Min	500.0	501.2	-25.3	-2312.3
	Max	33196.4	33122.7	9.4	229.8
X <	4000.0	43	44		
X <	4500.0	46	46		
X <	5000.0	47	48		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	2838.2	2750.0	-3.1	-88.2
1924	1280.0	1280.0	.0	.0
1925	3251.2	3177.3	-2.3	-73.9
1926	2000.0	2000.0	.0	.0
1927	4600.3	4399.1	-4.4	-201.2
1928	12207.3	9750.6	-20.1	-2456.7
1929	1500.0	1500.0	.0	.0
1930	2000.0	2000.0	.0	.0
1931	1152.0	1000.0	-13.2	-152.0
1932	2750.0	2750.0	.0	.0
1933	2000.0	1750.0	-12.5	-250.0
1934	1600.0	1400.0	-12.5	-200.0
1935	3250.0	3250.0	.0	.0
1936	4222.1	4082.9	-3.3	-139.2
1937	4381.7	3827.6	-12.6	-554.1
1938	10863.5	10681.7	-1.7	-181.8
1939	1600.0	1600.0	.0	.0
1940	10956.2	10642.6	-2.9	-313.6
1941	4870.0	4686.5	-3.8	-183.5
1942	4500.0	4500.0	.0	.0
1943	12491.8	12327.9	-1.3	-163.9
1944	2250.0	2000.0	-11.1	-250.0
1945	2750.0	2750.0	.0	.0
1946	2808.5	2750.0	-2.1	-58.5
1947	2000.0	2000.0	.0	.0
1948	2750.0	2750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	3313.6	3000.0	-9.5	-313.6
1951	3802.0	3652.6	-3.9	-149.4
1952	6187.3	6023.4	-2.6	-163.9
1953	3000.0	3000.0	.0	.0
1954	4435.8	3673.5	-17.2	-762.3
1955	2000.0	2000.0	.0	.0
1956	3500.0	3500.0	.0	.0
1957	4181.0	3300.5	-21.1	-880.5
1958	6699.9	6537.5	-2.4	-162.4
1959	1750.0	1750.0	.0	.0
1960	2626.1	2250.0	-14.3	-376.1
1961	1250.0	1024.0	-18.1	-226.0
1962	2500.0	2500.0	.0	.0
1963	3500.0	3500.0	.0	.0
1964	2000.0	2000.0	.0	.0
1965	3000.0	3000.0	.0	.0
1966	2000.0	1750.0	-12.5	-250.0
1967	5978.1	5749.1	-3.8	-229.0
1968	2170.7	3932.5	81.2	1761.8
1969	4500.0	4500.0	.0	.0
1970	2500.0	2268.6	-9.3	-231.4
1971	4087.9	3941.8	-3.6	-146.1
1972	4239.0	3542.9	-16.4	-696.1
1973	3424.6	3229.7	-5.7	-194.9
1974	9627.4	9531.6	-1.0	-95.8
1975	4432.8	3579.8	-19.2	-853.0
1976	1600.0	1600.0	.0	.0
1977	400.0	411.4	2.8	11.4
1978	5512.7	5556.6	.8	43.9
1979	3151.4	2500.0	-20.7	-651.4
1980	3509.6	3230.7	-7.9	-278.9
1981	1750.0	1500.0	-14.3	-250.0
1982	7605.1	7506.0	-1.3	-99.1
1983	16237.2	16107.4	-.8	-129.8
1984	2750.0	2515.2	-8.5	-234.8
1985	2250.0	2000.0	-11.1	-250.0
1986	11231.6	11023.8	-1.9	-207.8
1987	1280.0	1152.0	-10.0	-128.0
1988	1600.0	1400.0	-12.5	-200.0
1989	6394.2	5586.0	-12.6	-808.2
1990	1500.0	1500.0	.0	.0
1991	2000.0	1750.0	-12.5	-250.0
Mean	3990.7	3809.8	-4.2	-181.0
Median	3000.0	3000.0	-2.3	-142.6
Min	400.0	411.4	-21.1	-2456.7
Max	16237.2	16107.4	81.2	1761.8
X < 4000.0	45	51		
X < 4500.0	52	53		
X < 5000.0	57	57		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	3251.2	3407.5	4.8	156.3
	1924	335.9	398.9	18.8	63.0
	1925	4138.4	3444.5	-16.8	-693.9
	1926	2000.0	2000.0	.0	.0
	1927	7967.2	7814.6	-1.9	-152.6
	1928	4914.2	4645.9	-5.5	-268.3
	1929	1500.0	750.0	-50.0	-750.0
	1930	2250.0	2000.0	-11.1	-250.0
	1931	500.0	500.0	.0	.0
	1932	3000.0	2750.0	-8.3	-250.0
	1933	2000.0	1750.0	-12.5	-250.0
	1934	3232.0	2734.7	-15.4	-497.3
	1935	4411.1	4941.6	12.0	530.5
	1936	5894.3	5686.4	-3.5	-207.9
	1937	4469.5	4227.5	-5.4	-242.0
	1938	8020.7	7772.3	-3.1	-248.4
	1939	1250.0	750.0	-40.0	-500.0
	1940	6207.8	6073.4	-2.2	-134.4
	1941	3825.9	3626.3	-5.2	-199.6
	1942	4500.0	4500.0	.0	.0
	1943	5280.0	5048.4	-4.4	-231.6
	1944	2250.0	2000.0	-11.1	-250.0
	1945	2750.0	2750.0	.0	.0
	1946	4059.9	3665.6	-9.7	-394.3
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	5073.2	4977.3	-1.9	-95.9
	1951	3170.7	2905.5	-8.4	-265.2
	1952	9104.4	8844.3	-2.9	-260.1
	1953	3500.0	3250.0	-7.1	-250.0
	1954	4572.1	4407.4	-3.6	-164.7
	1955	2000.0	2000.0	.0	.0
	1956	4000.0	4000.0	.0	.0
	1957	2750.0	2750.0	.0	.0
	1958	10433.9	10224.2	-2.0	-209.7
	1959	2000.0	1750.0	-12.5	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	500.0	554.2	10.8	54.2
	1962	3825.7	2774.8	-27.5	-1050.9
	1963	4666.0	4332.6	-7.1	-333.4
	1964	2000.0	2000.0	.0	.0
	1965	3803.4	3401.5	-10.6	-401.9
	1966	2000.0	1750.0	-12.5	-250.0
	1967	4500.0	4500.0	.0	.0
	1968	2000.0	2000.0	.0	.0
	1969	5973.2	5574.4	-6.7	-398.8
	1970	2500.0	2250.0	-10.0	-250.0
	1971	3500.0	3250.0	-7.1	-250.0
	1972	2500.0	2500.0	.0	.0
	1973	2750.0	2750.0	.0	.0
	1974	6280.5	6102.7	-2.8	-177.8
	1975	4000.0	4000.0	.0	.0
	1976	500.0	500.0	.0	.0
	1977	346.0	403.9	16.7	57.9
	1978	4703.6	4031.7	-14.3	-671.9
	1979	2750.0	2500.0	-9.1	-250.0
	1980	3000.0	2750.0	-8.3	-250.0
	1981	1750.0	1000.0	-42.9	-750.0
	1982	14373.5	14180.6	-1.3	-192.9
	1983	6684.4	6471.4	-3.2	-213.0
	1984	2750.0	2750.0	.0	.0
	1985	2250.0	2000.0	-11.1	-250.0
	1986	2750.0	2750.0	.0	.0
	1987	500.0	544.7	8.9	44.7
	1988	500.0	432.0	-13.6	-68.0
	1989	4623.6	4083.4	-11.7	-540.2
	1990	2726.0	2059.9	-24.4	-666.1
	1991	2000.0	1750.0	-12.5	-250.0
	Mean	3594.5	3404.2	-5.8	-190.3
	Median	3000.0	2750.0	-3.2	-203.8
	Min	335.9	398.9	-50.0	-1050.9
	Max	14373.5	14180.6	18.8	530.5
X <	4000.0	44	46		
X <	4500.0	50	53		
X <	5000.0	58	59		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	9140.3	8375.6	-8.4	-764.7
1923	5004.5	4692.3	-6.2	-312.2
1924	353.9	429.1	21.2	75.2
1925	4680.6	4095.4	-12.5	-585.2
1926	2500.0	2500.0	.0	.0
1927	4957.4	4525.2	-8.7	-432.2
1928	3000.0	3000.0	.0	.0
1929	2000.0	1750.0	-12.5	-250.0
1930	2750.0	2500.0	-9.1	-250.0
1931	500.0	750.0	50.0	250.0
1932	4000.0	3750.0	-6.3	-250.0
1933	2500.0	2500.0	.0	.0
1934	500.0	500.0	.0	.0
1935	4992.9	4635.7	-7.2	-357.2
1936	4250.0	4250.0	.0	.0
1937	4650.0	4332.9	-6.8	-317.1
1938	10029.9	9682.4	-3.5	-347.5
1939	1750.0	1750.0	.0	.0
1940	3750.0	3500.0	-6.7	-250.0
1941	5533.1	5201.8	-6.0	-331.3
1942	6303.1	5697.5	-9.6	-605.6
1943	3750.0	3750.0	.0	.0
1944	2750.0	2500.0	-9.1	-250.0
1945	3750.0	3750.0	.0	.0
1946	3770.1	3750.0	-.5	-20.1
1947	2500.0	2500.0	.0	.0
1948	3750.0	3750.0	.0	.0
1949	3250.0	2750.0	-15.4	-500.0
1950	4000.0	4000.0	.0	.0
1951	3750.0	3500.0	-6.7	-250.0
1952	11376.6	11032.2	-3.0	-344.4
1953	4250.0	4250.0	.0	.0
1954	3000.0	3000.0	.0	.0
1955	2750.0	2500.0	-9.1	-250.0
1956	4500.0	4500.0	.0	.0
1957	3750.0	3500.0	-6.7	-250.0
1958	10304.8	9963.7	-3.3	-341.1
1959	2500.0	2250.0	-10.0	-250.0
1960	2750.0	2750.0	.0	.0
1961	1500.0	1500.0	.0	.0
1962	3250.0	3250.0	.0	.0
1963	7367.6	6958.3	-5.6	-409.3
1964	2500.0	2500.0	.0	.0
1965	4250.0	4000.0	-5.9	-250.0
1966	2500.0	2500.0	.0	.0
1967	8246.3	7698.1	-6.6	-548.2
1968	2500.0	2500.0	.0	.0
1969	9403.8	9028.6	-4.0	-375.2
1970	3000.0	2750.0	-8.3	-250.0
1971	4250.0	4250.0	.0	.0
1972	3000.0	2750.0	-8.3	-250.0
1973	4533.3	3921.9	-13.5	-611.4
1974	5124.9	4733.4	-7.6	-391.5
1975	4500.0	4500.0	.0	.0
1976	1000.0	507.3	-49.3	-492.7
1977	337.6	406.4	20.4	68.8
1978	4508.5	4000.0	-11.3	-508.5
1979	4167.7	3500.0	-16.0	-667.7
1980	4000.0	4000.0	.0	.0
1981	2250.0	1750.0	-22.2	-500.0
1982	9423.3	9145.7	-2.9	-277.6
1983	10683.7	10357.3	-3.1	-326.4
1984	3750.0	3500.0	-6.7	-250.0
1985	2750.0	2500.0	-9.1	-250.0
1986	3750.0	3750.0	.0	.0
1987	1500.0	750.0	-50.0	-750.0
1988	500.0	500.0	.0	.0
1989	3538.0	3033.4	-14.3	-504.6
1990	1750.0	1500.0	-14.3	-250.0
1991	2500.0	2500.0	.0	.0
Mean	4027.6	3813.6	-4.8	-214.0
Median	3750.0	3500.0	-3.8	-250.0
Min	337.6	406.4	-50.0	-764.7
Max	11376.6	11032.2	50.0	250.0
X < 4000.0	41	44		
X < 4500.0	49	53		
X < 5000.0	57	59		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	9160.4	8698.9	-5.0	-461.5
1923	4770.6	4136.6	-13.3	-634.0
1924	377.9	452.6	19.8	74.7
1925	6486.9	5532.4	-14.7	-954.5
1926	1928.5	2224.7	15.4	296.2
1927	5528.7	5119.3	-7.4	-409.4
1928	5914.0	4126.6	-30.2	-1787.4
1929	2336.3	2151.7	-7.9	-184.6
1930	2250.0	2000.0	-11.1	-250.0
1931	1255.3	806.8	-35.7	-448.5
1932	5010.1	4897.3	-2.3	-112.8
1933	2546.1	2246.8	-11.8	-299.3
1934	1806.6	1682.7	-6.9	-123.9
1935	4131.4	3750.0	-9.2	-381.4
1936	4645.9	3969.3	-14.6	-676.6
1937	3500.0	3500.0	.0	.0
1938	8792.4	8351.0	-5.0	-441.4
1939	1000.0	620.5	-38.0	-379.5
1940	3630.2	3250.0	-10.5	-380.2
1941	3750.0	3500.0	-6.7	-250.0
1942	7550.5	7093.9	-6.0	-456.6
1943	3500.0	3500.0	.0	.0
1944	2250.0	1750.0	-22.2	-500.0
1945	6030.8	4770.9	-20.9	-1259.9
1946	6461.8	5378.8	-16.8	-1083.0
1947	1750.0	1500.0	-14.3	-250.0
1948	3500.0	3250.0	-7.1	-250.0
1949	3000.0	2500.0	-16.7	-500.0
1950	4155.4	3750.0	-9.8	-405.4
1951	3250.0	3250.0	.0	.0
1952	10693.1	10238.3	-4.3	-454.8
1953	4000.0	3750.0	-6.3	-250.0
1954	2886.0	3595.8	24.6	709.8
1955	2250.0	2000.0	-11.1	-250.0
1956	5726.0	4552.8	-20.5	-1173.2
1957	3986.7	4235.9	6.3	249.2
1958	7918.5	7498.9	-5.3	-419.6
1959	1500.0	1250.0	-16.7	-250.0
1960	2250.0	2250.0	.0	.0
1961	750.0	624.9	-16.7	-125.1
1962	3000.0	3074.6	2.5	74.6
1963	3500.0	3500.0	.0	.0
1964	2250.0	2250.0	.0	.0
1965	3750.0	3750.0	.0	.0
1966	2000.0	1500.0	-25.0	-500.0
1967	10609.1	10219.8	-3.7	-389.3
1968	2250.0	1500.0	-33.3	-750.0
1969	6794.2	6389.8	-6.0	-404.4
1970	3420.1	3054.9	-10.7	-365.2
1971	4071.1	3750.0	-7.9	-321.1
1972	4604.0	4448.6	-3.4	-155.4
1973	5752.3	6486.9	12.8	734.6
1974	4443.1	4006.8	-9.8	-436.3
1975	5954.3	4908.3	-17.6	-1046.0
1976	2022.0	2070.2	2.4	48.2
1977	386.3	454.3	17.6	68.0
1978	4661.6	3750.0	-19.6	-911.6
1979	6486.9	6486.9	.0	.0
1980	3750.0	3500.0	-6.7	-250.0
1981	1500.0	750.0	-50.0	-750.0
1982	6448.0	5991.5	-7.1	-456.5
1983	14729.8	14274.9	-3.1	-454.9
1984	4892.4	3927.3	-19.7	-965.1
1985	2986.2	2526.7	-15.4	-459.5
1986	3500.0	3250.0	-7.1	-250.0
1987	500.0	600.3	20.1	100.3
1988	1646.8	1309.0	-20.5	-337.8
1989	4069.9	3788.2	-6.9	-281.7
1990	1824.0	1782.4	-2.3	-41.6
1991	3041.6	2869.5	-5.7	-172.1
Mean	4101.1	3770.4	-8.4	-330.7
Median	3565.1	3500.0	-7.1	-310.2
Min	377.9	452.6	-50.0	-1787.4
Max	14729.8	14274.9	24.6	734.6
X < 4000.0	40	47		
X < 4500.0	46	52		
X < 5000.0	51	56		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4236.9	3466.8	-18.2	-770.1
1923	5838.6	2967.0	-49.2	-2871.6
1924	727.0	464.9	-36.1	-262.1
1925	4211.4	2658.0	-36.9	-1553.4
1926	2639.6	2605.5	-1.3	-34.1
1927	3094.9	6489.1	109.7	3394.2
1928	1500.0	1500.0	.0	.0
1929	1663.7	1471.0	-11.6	-192.7
1930	2878.7	2715.8	-5.7	-162.9
1931	1928.2	2638.8	36.9	710.6
1932	3177.2	3151.3	-.8	-25.9
1933	2240.6	2020.5	-9.8	-220.1
1934	1507.7	1483.3	-1.6	-24.4
1935	5066.6	3007.9	-40.6	-2058.7
1936	4129.1	4070.4	-1.4	-58.7
1937	2608.9	2510.8	-3.8	-98.1
1938	3748.1	3286.8	-12.3	-461.3
1939	1967.3	1752.0	-10.9	-215.3
1940	6056.4	5488.8	-9.4	-567.6
1941	2369.7	2250.0	-5.1	-119.7
1942	3731.8	3255.9	-12.8	-475.9
1943	5747.2	5991.6	4.3	244.4
1944	2314.8	1612.5	-30.3	-702.3
1945	4359.7	4325.2	-.8	-34.5
1946	3854.3	4075.5	5.7	221.2
1947	1978.2	1533.8	-22.5	-444.4
1948	3864.0	2523.6	-34.7	-1340.4
1949	3270.8	2720.3	-16.8	-550.5
1950	5381.5	3509.2	-34.8	-1872.3
1951	5978.6	5229.3	-12.5	-749.3
1952	4852.4	4394.4	-9.4	-458.0
1953	3363.0	2336.1	-30.5	-1026.9
1954	3393.9	2037.2	-40.0	-1356.7
1955	1811.3	1500.0	-17.2	-311.3
1956	3404.9	2930.7	-13.9	-474.2
1957	4856.0	4669.6	-3.8	-186.4
1958	3387.0	2930.7	-13.5	-456.3
1959	750.0	650.6	-13.3	-99.4
1960	2950.8	1500.0	-49.2	-1450.8
1961	500.0	629.4	25.9	129.4
1962	5401.2	4528.8	-16.2	-872.4
1963	2351.7	5777.1	145.7	3425.4
1964	2347.3	2190.6	-6.7	-156.7
1965	5645.6	6489.1	14.9	843.5
1966	1500.0	663.1	-55.8	-836.9
1967	4536.9	4080.5	-10.1	-456.4
1968	1500.0	750.0	-50.0	-750.0
1969	3191.9	2717.6	-14.9	-474.3
1970	1961.2	1844.6	-5.9	-116.6
1971	3208.1	2251.5	-29.8	-956.6
1972	1500.0	1500.0	.0	.0
1973	4209.3	2771.6	-34.2	-1437.7
1974	3648.9	3194.1	-12.5	-454.8
1975	3136.6	2681.8	-14.5	-454.8
1976	1562.8	1451.7	-7.1	-111.1
1977	401.1	466.5	16.3	65.4
1978	6325.7	5666.7	-10.4	-659.0
1979	3048.4	1500.0	-50.8	-1548.4
1980	3858.1	4077.3	5.7	219.2
1981	500.0	627.8	25.6	127.8
1982	3601.7	3127.4	-13.2	-474.3
1983	6414.3	6043.5	-5.8	-370.8
1984	4386.1	4650.9	6.0	264.8
1985	2315.4	1964.8	-15.1	-350.6
1986	5556.0	5161.3	-7.1	-394.7
1987	1900.7	1209.0	-36.4	-691.7
1988	1094.4	913.4	-16.5	-181.0
1989	3765.7	3072.5	-18.4	-693.2
1990	1447.3	1207.8	-16.5	-239.5
1991	2436.4	2519.2	3.4	82.8
Mean	3201.3	2849.3	-9.4	-352.0
Median	3184.5	2669.9	-12.0	-360.7
Min	401.1	464.9	-55.8	-2871.6
Max	6414.3	6489.1	145.7	3425.4
X < 4000.0	50	52		
X < 4500.0	56	58		
X < 5000.0	59	61		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2922.7	2818.1	-3.6	-104.6
1923	2556.6	4565.9	78.6	2009.3
1924	389.7	460.0	18.0	70.3
1925	3786.9	1750.0	-53.8	-2036.9
1926	750.0	750.0	.0	.0
1927	3884.9	3729.1	-4.0	-155.8
1928	3282.1	4114.5	25.4	832.4
1929	392.9	536.5	36.5	143.6
1930	1000.0	1000.0	.0	.0
1931	399.4	536.9	34.4	137.5
1932	2338.0	1750.0	-25.1	-588.0
1933	750.0	541.8	-27.8	-208.2
1934	402.7	540.2	34.1	137.5
1935	3108.1	4034.9	29.8	926.8
1936	3115.5	2308.4	-25.9	-807.1
1937	2800.9	2000.0	-28.6	-800.9
1938	4414.5	3937.0	-10.8	-477.5
1939	500.0	621.7	24.3	121.7
1940	3989.6	3224.2	-19.2	-765.4
1941	4266.5	3266.2	-23.4	-1000.3
1942	4494.2	4018.3	-10.6	-475.9
1943	2632.4	3066.4	16.5	434.0
1944	3996.6	1000.0	-75.0	-2996.6
1945	2063.1	2354.7	14.1	291.6
1946	2103.7	2335.6	11.0	231.9
1947	1295.2	750.0	-42.1	-545.2
1948	3214.9	3003.6	-6.6	-211.3
1949	2505.1	2925.8	16.8	420.7
1950	3011.3	2781.3	-7.6	-230.0
1951	3354.5	3204.5	-4.5	-150.0
1952	4913.2	4441.1	-9.6	-472.1
1953	4523.4	4012.1	-11.3	-511.3
1954	3530.2	4039.2	14.4	509.0
1955	3398.2	1963.3	-42.2	-1434.9
1956	4460.0	3987.4	-10.6	-472.6
1957	1720.7	2582.4	50.1	861.7
1958	4556.0	4099.6	-10.0	-456.4
1959	2542.2	1617.8	-36.4	-924.4
1960	3318.6	2261.8	-31.8	-1056.8
1961	1506.2	626.2	-58.4	-880.0
1962	4634.7	2817.3	-39.2	-1817.4
1963	4095.7	1843.5	-55.0	-2252.2
1964	3466.3	1000.0	-71.2	-2466.3
1965	2000.0	2598.3	29.9	598.3
1966	2991.9	1784.0	-40.4	-1207.9
1967	4536.4	4062.2	-10.5	-474.2
1968	1250.0	1819.4	45.6	569.4
1969	4344.5	3886.5	-10.5	-458.0
1970	4112.5	3798.6	-7.6	-313.9
1971	4281.1	3808.5	-11.0	-472.6
1972	4396.1	3485.7	-20.7	-910.4
1973	1697.2	3783.1	122.9	2085.9
1974	4541.3	4068.7	-10.4	-472.6
1975	4323.4	3868.6	-10.5	-454.8
1976	1496.9	1060.5	-29.2	-436.4
1977	396.2	461.7	16.5	65.5
1978	1750.0	3250.0	85.7	1500.0
1979	2311.3	3055.9	32.2	744.6
1980	2538.0	4150.9	63.6	1612.9
1981	1769.9	931.4	-47.4	-838.5
1982	4526.7	4052.4	-10.5	-474.3
1983	4919.7	4805.4	-2.3	-114.3
1984	1500.0	3015.6	101.0	1515.6
1985	3291.7	2596.2	-21.1	-695.5
1986	3859.6	3500.9	-9.3	-358.7
1987	1678.9	1504.2	-10.4	-174.7
1988	898.4	532.9	-40.7	-365.5
1989	3655.9	3545.1	-3.0	-110.8
1990	2210.9	1629.7	-26.3	-581.2
1991	1529.5	553.6	-63.8	-975.9
Mean	2817.1	2554.7	-3.3	-262.4
Median	3001.6	2799.3	-10.2	-362.1
Min	389.7	460.0	-75.0	-2996.6
Max	4919.7	4805.4	122.9	2085.9
X < 4000.0	52	57		
X < 4500.0	62	68		
X < 5000.0	70	70		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	3927.9	3446.4	-12.3	-481.5
1923	2000.0	2000.0	.0	.0
1924	1000.0	750.0	-25.0	-250.0
1925	1779.4	2500.0	40.5	720.6
1926	1500.0	1250.0	-16.7	-250.0
1927	4087.5	1894.7	-53.6	-2192.8
1928	1500.0	1500.0	.0	.0
1929	1250.0	1000.0	-20.0	-250.0
1930	1500.0	1500.0	.0	.0
1931	1000.0	750.0	-25.0	-250.0
1932	3960.5	2500.0	-36.9	-1460.5
1933	1500.0	1250.0	-16.7	-250.0
1934	1000.0	588.6	-41.1	-411.4
1935	2915.4	2505.5	-14.1	-409.9
1936	4028.2	3763.2	-6.6	-265.0
1937	4022.0	3399.1	-15.5	-622.9
1938	4211.9	3805.8	-9.6	-406.1
1939	1250.0	1250.0	.0	.0
1940	1727.1	1633.4	-5.4	-93.7
1941	4159.8	3755.3	-9.7	-404.5
1942	4193.4	3789.0	-9.6	-404.4
1943	2250.0	1750.0	-22.2	-500.0
1944	1911.8	1500.0	-21.5	-411.8
1945	2469.5	2342.3	-5.2	-127.2
1946	2978.3	2755.8	-7.5	-222.5
1947	2148.1	1500.0	-30.2	-648.1
1948	2872.5	3187.6	11.0	315.1
1949	2061.9	1562.3	-24.2	-499.6
1950	2596.5	3082.7	18.7	486.2
1951	1816.7	1976.3	8.8	159.6
1952	4412.5	3990.6	-9.6	-421.9
1953	4158.1	3757.0	-9.6	-401.1
1954	2202.9	1500.0	-31.9	-702.9
1955	1534.6	1500.0	-2.3	-34.6
1956	4126.2	3723.4	-9.8	-402.8
1957	2250.0	1763.2	-21.6	-486.8
1958	4223.7	3822.6	-9.5	-401.1
1959	1250.0	1250.0	.0	.0
1960	2076.0	1500.0	-27.7	-576.0
1961	1500.0	1250.0	-16.7	-250.0
1962	1500.0	2179.8	45.3	679.8
1963	4153.1	2250.0	-45.8	-1903.1
1964	1628.1	1500.0	-7.9	-128.1
1965	3950.9	2000.0	-49.4	-1950.9
1966	1504.1	1250.0	-16.9	-254.1
1967	4438.8	4069.6	-8.3	-369.2
1968	2194.9	1250.0	-43.0	-944.9
1969	4173.2	3787.3	-9.2	-385.9
1970	1500.0	1500.0	.0	.0
1971	3990.1	3605.8	-9.6	-384.3
1972	1500.0	1500.0	.0	.0
1973	2000.0	1500.0	-25.0	-500.0
1974	4292.6	3891.5	-9.3	-401.1
1975	4084.2	3668.0	-10.2	-416.2
1976	500.0	600.4	20.1	100.4
1977	454.1	522.1	15.0	68.0
1978	3072.7	1750.0	-43.0	-1322.7
1979	2036.0	1935.6	-4.9	-100.4
1980	4084.2	2000.0	-51.0	-2084.2
1981	1545.9	1500.0	-3.0	-45.9
1982	4578.3	4207.4	-8.1	-370.9
1983	4920.7	4826.7	-1.9	-94.0
1984	2000.0	1750.0	-12.5	-250.0
1985	1250.0	1250.0	.0	.0
1986	1750.0	1750.0	.0	.0
1987	1356.8	1000.0	-26.3	-356.8
1988	750.0	750.0	.0	.0
1989	1250.0	1250.0	.0	.0
1990	750.0	750.0	.0	.0
1991	1000.0	1000.0	.0	.0
Mean	2479.4	2133.4	-11.3	-346.0
Median	2048.9	1750.0	-9.6	-252.1
Min	454.1	522.1	-53.6	-2192.8
Max	4920.7	4826.7	45.3	720.6
X < 4000.0	52	67		
X < 4500.0	68	69		
X < 5000.0	70	70		
X < .0	0	0		
X < .0	0	0		

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.4 Recreation and Fisheries

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	1750.0	-22.2	-500.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	1250.0	634.5	-49.2	-615.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	2000.0	.0	.0
	1942	2500.0	2500.0	.0	.0
	1943	2500.0	2500.0	.0	.0
	1944	2500.0	2250.0	-10.0	-250.0
	1945	1500.0	2000.0	33.3	500.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	1750.0	-22.2	-500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2000.0	-20.0	-500.0
	1951	2500.0	2500.0	.0	.0
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	1750.0	-12.5	-250.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2250.0	-10.0	-250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	2000.0	14.3	250.0
	1962	1750.0	1750.0	.0	.0
	1963	2155.5	2376.5	10.3	221.0
	1964	2500.0	2500.0	.0	.0
	1965	1750.0	2000.0	14.3	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	2500.0	1750.0	-30.0	-750.0
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	524.6	671.5	28.0	146.9
	1978	521.4	593.4	13.8	72.0
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	1750.0	-30.0	-750.0
	1981	2500.0	2500.0	.0	.0
	1982	1750.0	1750.0	.0	.0
	1983	3387.7	3173.4	-6.3	-214.3
	1984	3545.6	2509.0	-29.2	-1036.6
	1985	2500.0	2250.0	-10.0	-250.0
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1617.9	1936.4	19.7	318.5
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2139.3	2041.4	-3.7	-98.0
	Median	2500.0	2000.0	.0	.0
	Min	521.4	593.4	-49.2	-1036.6
	Max	3545.6	3173.4	33.3	500.0
X >	6000.0	0	0		
X <	3000.0	68	69		
X <	2000.0	24	28		
X <	1750.0	9	10		
X <	1500.0	7	7		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1250.0	1000.0	-20.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2875.8	2500.0	-13.1	-375.8
	1929	2000.0	1750.0	-12.5	-250.0
	1930	1750.0	1500.0	-14.3	-250.0
	1931	2250.0	1750.0	-22.2	-500.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	1250.0	566.5	-54.7	-683.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1750.0	1500.0	-14.3	-250.0
	1941	2000.0	2000.0	.0	.0
	1942	2500.0	2500.0	.0	.0
	1943	3699.3	3396.1	-8.2	-303.2
	1944	2500.0	2250.0	-10.0	-250.0
	1945	1500.0	2000.0	33.3	500.0
	1946	2500.0	2000.0	-20.0	-500.0
	1947	2250.0	1750.0	-22.2	-500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2500.0	2000.0	-20.0	-500.0
	1951	16968.6	16700.3	-1.6	-268.3
	1952	2250.0	2000.0	-11.1	-250.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	2000.0	1750.0	-12.5	-250.0
	1956	1750.0	1750.0	.0	.0
	1957	2500.0	2500.0	.0	.0
	1958	2500.0	2250.0	-10.0	-250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	1750.0	2000.0	14.3	250.0
	1962	1750.0	1750.0	.0	.0
	1963	3138.8	3022.9	-3.7	-115.9
	1964	4151.3	2787.4	-32.9	-1363.9
	1965	1750.0	2000.0	14.3	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	2250.0	1750.0	-22.2	-500.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	6087.9	3927.1	-35.5	-2160.8
	1975	2500.0	2500.0	.0	.0
	1976	3028.0	2699.5	-10.8	-328.5
	1977	516.2	659.0	27.7	142.8
	1978	500.0	540.5	8.1	40.5
	1979	2500.0	2500.0	.0	.0
	1980	2500.0	1750.0	-30.0	-750.0
	1981	2500.0	2500.0	.0	.0
	1982	4649.4	4296.5	-7.6	-352.9
	1983	6809.2	6710.3	-1.5	-98.9
	1984	14312.9	14353.5	.3	40.6
	1985	3113.9	2250.0	-27.7	-863.9
	1986	1750.0	1500.0	-14.3	-250.0
	1987	2500.0	2250.0	-10.0	-250.0
	1988	1294.3	1549.1	19.7	254.8
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2712.8	2553.0	-4.9	-159.8
	Median	2500.0	2250.0	.0	.0
	Min	500.0	540.5	-54.7	-2160.8
	Max	16968.6	16700.3	33.3	500.0
X >	6000.0	4	3		
X <	3000.0	60	63		
X <	2000.0	23	26		
X <	1750.0	9	11		
X <	1500.0	8	7		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2500.0	2500.0	.0	.0
1923	6439.4	6042.1	-6.2	-397.3
1924	2500.0	2500.0	.0	.0
1925	1250.0	1000.0	-20.0	-250.0
1926	2500.0	2500.0	.0	.0
1927	1750.0	1750.0	.0	.0
1928	2500.0	2500.0	.0	.0
1929	2000.0	1750.0	-12.5	-250.0
1930	1750.0	1500.0	-14.3	-250.0
1931	2250.0	1750.0	-22.2	-500.0
1932	1250.0	1250.0	.0	.0
1933	2500.0	2500.0	.0	.0
1934	1750.0	1750.0	.0	.0
1935	1250.0	699.2	-44.1	-550.8
1936	2500.0	2500.0	.0	.0
1937	2500.0	2500.0	.0	.0
1938	6197.2	5812.1	-6.2	-385.1
1939	2500.0	2500.0	.0	.0
1940	1750.0	1500.0	-14.3	-250.0
1941	2000.0	2000.0	.0	.0
1942	4941.6	4487.5	-9.2	-454.1
1943	4771.1	4644.5	-2.7	-126.6
1944	2500.0	2250.0	-10.0	-250.0
1945	1500.0	2000.0	33.3	500.0
1946	7851.5	7091.1	-9.7	-760.4
1947	2250.0	1750.0	-22.2	-500.0
1948	1750.0	1750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	2500.0	2000.0	-20.0	-500.0
1951	16431.8	16300.2	-.8	-131.6
1952	4213.0	3209.6	-23.8	-1003.4
1953	2500.0	2500.0	.0	.0
1954	2500.0	2500.0	.0	.0
1955	2000.0	1750.0	-12.5	-250.0
1956	14566.6	14751.3	1.3	184.7
1957	2500.0	2500.0	.0	.0
1958	2500.0	2250.0	-10.0	-250.0
1959	2500.0	2500.0	.0	.0
1960	1750.0	1981.1	13.2	231.1
1961	1750.0	2000.0	14.3	250.0
1962	1750.0	1750.0	.0	.0
1963	3476.5	3414.7	-1.8	-61.8
1964	3321.0	2500.0	-24.7	-821.0
1965	19334.4	20275.2	4.9	940.8
1966	2500.0	2500.0	.0	.0
1967	1750.0	1750.0	.0	.0
1968	2500.0	2500.0	.0	.0
1969	2250.0	1750.0	-22.2	-500.0
1970	5316.9	4871.0	-8.4	-445.9
1971	4901.6	4363.3	-11.0	-538.3
1972	2500.0	2500.0	.0	.0
1973	1750.0	1750.0	.0	.0
1974	7527.8	7406.0	-1.6	-121.8
1975	2500.0	2500.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	638.2	760.6	19.2	122.4
1978	574.8	617.5	7.4	42.7
1979	2500.0	2500.0	.0	.0
1980	2500.0	1750.0	-30.0	-750.0
1981	2500.0	2500.0	.0	.0
1982	14208.7	14207.3	.0	-1.4
1983	9173.6	9016.1	-1.7	-157.5
1984	15350.2	15132.5	-1.4	-217.7
1985	2556.0	2250.0	-12.0	-306.0
1986	1750.0	1500.0	-14.3	-250.0
1987	2500.0	2250.0	-10.0	-250.0
1988	1250.0	1250.0	.0	.0
1989	1000.0	1000.0	.0	.0
1990	1750.0	1750.0	.0	.0
1991	1000.0	1000.0	.0	.0
Mean	3664.9	3533.3	-4.4	-131.6
Median	2500.0	2500.0	.0	.0
Min	574.8	617.5	-44.1	-1003.4
Max	19334.4	20275.2	33.3	940.8
X > 6000.0	10	9		
X < 3000.0	53	54		
X < 2000.0	21	25		
X < 1750.0	9	11		
X < 1500.0	8	8		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2000.0	2000.0	.0	.0
1923	4580.8	4424.9	-3.4	-155.9
1924	2000.0	2000.0	.0	.0
1925	1750.0	1750.0	.0	.0
1926	2000.0	2000.0	.0	.0
1927	3164.1	2678.4	-15.4	-485.7
1928	2500.0	2000.0	-20.0	-500.0
1929	1600.0	1400.0	-12.5	-200.0
1930	1750.0	1750.0	.0	.0
1931	1800.0	1500.0	-16.7	-300.0
1932	2000.0	1750.0	-12.5	-250.0
1933	2000.0	2000.0	.0	.0
1934	2000.0	1750.0	-12.5	-250.0
1935	1750.0	2000.0	14.3	250.0
1936	4350.9	3964.3	-8.9	-386.6
1937	2000.0	2000.0	.0	.0
1938	2883.0	2744.8	-4.8	-138.2
1939	2250.0	2000.0	-11.1	-250.0
1940	2494.4	2003.5	-19.7	-490.9
1941	5538.3	4769.0	-13.9	-769.3
1942	9376.9	9209.6	-1.8	-167.3
1943	10957.7	10792.1	-1.5	-165.6
1944	2000.0	1800.0	-10.0	-200.0
1945	2000.0	2250.0	12.5	250.0
1946	5270.4	5109.6	-3.1	-160.8
1947	2250.0	2000.0	-11.1	-250.0
1948	1750.0	1750.0	.0	.0
1949	2000.0	2000.0	.0	.0
1950	2000.0	1600.0	-20.0	-400.0
1951	10172.8	10028.2	-1.4	-144.6
1952	9038.6	8889.3	-1.7	-149.3
1953	6806.0	6217.4	-8.6	-588.6
1954	2250.0	2250.0	.0	.0
1955	2000.0	2000.0	.0	.0
1956	16384.9	16313.5	-.4	-71.4
1957	2250.0	2250.0	.0	.0
1958	2250.0	2000.0	-11.1	-250.0
1959	2250.0	2000.0	-11.1	-250.0
1960	1400.0	1584.8	13.2	184.8
1961	1500.0	1600.0	6.7	100.0
1962	1400.0	1400.0	.0	.0
1963	3961.2	3842.5	-3.0	-118.7
1964	2656.8	2500.0	-5.9	-156.8
1965	13252.0	13180.5	-.5	-71.5
1966	2500.0	2250.0	-10.0	-250.0
1967	6737.8	6049.8	-10.2	-688.0
1968	2500.0	2500.0	.0	.0
1969	14755.2	14196.3	-3.8	-558.9
1970	21000.4	20839.7	-.8	-160.7
1971	4798.8	4699.6	-2.1	-99.2
1972	2500.0	2500.0	.0	.0
1973	8920.5	8263.8	-7.4	-656.7
1974	11390.4	11276.8	-1.0	-113.6
1975	2250.0	2250.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	510.6	608.5	19.2	97.9
1978	3351.3	2127.3	-36.5	-1224.0
1979	2250.0	2000.0	-11.1	-250.0
1980	14953.9	15232.2	1.9	278.3
1981	2250.0	2000.0	-11.1	-250.0
1982	8291.7	8155.3	-1.6	-136.4
1983	7631.9	7482.5	-2.0	-149.4
1984	6644.9	6513.4	-2.0	-131.5
1985	2500.0	2500.0	.0	.0
1986	2214.7	2352.6	6.2	137.9
1987	2000.0	1800.0	-10.0	-200.0
1988	1000.0	1000.0	.0	.0
1989	2000.0	2000.0	.0	.0
1990	1750.0	1750.0	.0	.0
1991	800.0	800.0	.0	.0
Mean	4337.0	4181.4	-4.0	-155.6
Median	2250.0	2188.6	-1.5	-133.9
Min	510.6	608.5	-36.5	-1224.0
Max	21000.4	20839.7	19.2	278.3
X > 6000.0	16	16		
X < 3000.0	46	48		
X < 2000.0	13	17		
X < 1750.0	7	9		
X < 1500.0	5	5		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3299.3	2483.4	-24.7	-815.9
	1923	3547.7	2962.8	-16.5	-584.9
	1924	1600.0	1600.0	.0	.0
	1925	3646.8	3876.6	6.3	229.8
	1926	1600.0	1750.0	9.4	150.0
	1927	13432.9	13368.2	-.5	-64.7
	1928	2000.0	2000.0	.0	.0
	1929	1280.0	1120.0	-12.5	-160.0
	1930	2000.0	2000.0	.0	.0
	1931	1440.0	1250.0	-13.2	-190.0
	1932	2278.2	2000.0	-12.2	-278.2
	1933	1750.0	1750.0	.0	.0
	1934	2000.0	1750.0	-12.5	-250.0
	1935	2000.0	2000.0	.0	.0
	1936	13433.0	13305.1	-1.0	-127.9
	1937	2000.0	1750.0	-12.5	-250.0
	1938	9824.8	9671.7	-1.6	-153.1
	1939	2000.0	2000.0	.0	.0
	1940	10595.2	10480.0	-1.1	-115.2
	1941	8043.8	7876.6	-2.1	-167.2
	1942	10042.6	9859.2	-1.8	-183.4
	1943	6947.5	6782.1	-2.4	-165.4
	1944	1750.0	1440.0	-17.7	-310.0
	1945	6184.7	6027.1	-2.5	-157.6
	1946	2764.6	2620.7	-5.2	-143.9
	1947	2000.0	2000.0	.0	.0
	1948	2000.0	1750.0	-12.5	-250.0
	1949	2000.0	1600.0	-20.0	-400.0
	1950	4142.0	3513.1	-15.2	-628.9
	1951	8208.4	8068.1	-1.7	-140.3
	1952	9586.9	9423.3	-1.7	-163.6
	1953	2328.7	2150.7	-7.6	-178.0
	1954	2052.3	2000.0	-2.5	-52.3
	1955	2000.0	2000.0	.0	.0
	1956	6239.2	6142.0	-1.6	-97.2
	1957	2000.0	2000.0	.0	.0
	1958	9139.8	6827.5	-25.3	-2312.3
	1959	2000.0	2000.0	.0	.0
	1960	1250.0	1267.9	1.4	17.9
	1961	1250.0	1280.0	2.4	30.0
	1962	1259.4	1120.0	-11.1	-139.4
	1963	12081.0	11949.6	-1.1	-131.4
	1964	2125.4	2000.0	-5.9	-125.4
	1965	5501.4	5420.5	-1.5	-80.9
	1966	2000.0	2000.0	.0	.0
	1967	4473.3	4341.9	-2.9	-131.4
	1968	5766.3	4915.7	-14.8	-850.6
	1969	9286.5	9192.9	-1.0	-93.6
	1970	6352.2	6244.3	-1.7	-107.9
	1971	3436.1	3308.2	-3.7	-127.9
	1972	2239.2	2000.0	-10.7	-239.2
	1973	7194.1	7086.0	-1.5	-108.1
	1974	4409.4	4065.9	-7.8	-343.5
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	500.0	501.2	.2	1.2
	1978	4754.0	4617.2	-2.9	-136.8
	1979	2000.0	1750.0	-12.5	-250.0
	1980	14140.1	13584.5	-3.9	-555.6
	1981	2000.0	1600.0	-20.0	-400.0
	1982	15555.5	15316.1	-1.5	-239.4
	1983	12410.4	12264.9	-1.2	-145.5
	1984	5698.0	5572.2	-2.2	-125.8
	1985	2000.0	2000.0	.0	.0
	1986	33196.4	33122.7	-.2	-73.7
	1987	1600.0	1440.0	-10.0	-160.0
	1988	2000.0	1750.0	-12.5	-250.0
	1989	1750.0	1750.0	.0	.0
	1990	1750.0	1400.0	-20.0	-350.0
	1991	640.0	640.0	.0	.0
	Mean	4882.5	4695.7	-5.1	-186.8
	Median	2182.3	2000.0	-1.7	-131.4
	Min	500.0	501.2	-25.3	-2312.3
	Max	33196.4	33122.7	9.4	229.8
X >	6000.0	20	20		
X <	3000.0	39	41		
X <	2000.0	14	21		
X <	1750.0	10	13		
X <	1500.0	7	10		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

	Base	2030 w/ WFP		
			Rel	Abs
Water Year	Flow (cfs)	Flow (cfs)	Change (%)	Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	2838.2	2750.0	-3.1	-88.2
1924	1280.0	1280.0	.0	.0
1925	3251.2	3177.3	-2.3	-73.9
1926	2000.0	2000.0	.0	.0
1927	4600.3	4399.1	-4.4	-201.2
1928	12207.3	9750.6	-20.1	-2456.7
1929	1500.0	1500.0	.0	.0
1930	2000.0	2000.0	.0	.0
1931	1152.0	1000.0	-13.2	-152.0
1932	2750.0	2750.0	.0	.0
1933	2000.0	1750.0	-12.5	-250.0
1934	1600.0	1400.0	-12.5	-200.0
1935	3250.0	3250.0	.0	.0
1936	4222.1	4082.9	-3.3	-139.2
1937	4381.7	3827.6	-12.6	-554.1
1938	10863.5	10681.7	-1.7	-181.8
1939	1600.0	1600.0	.0	.0
1940	10956.2	10642.6	-2.9	-313.6
1941	4870.0	4686.5	-3.8	-183.5
1942	4500.0	4500.0	.0	.0
1943	12491.8	12327.9	-1.3	-163.9
1944	2250.0	2000.0	-11.1	-250.0
1945	2750.0	2750.0	.0	.0
1946	2808.5	2750.0	-2.1	-58.5
1947	2000.0	2000.0	.0	.0
1948	2750.0	2750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	3313.6	3000.0	-9.5	-313.6
1951	3802.0	3652.6	-3.9	-149.4
1952	6187.3	6023.4	-2.6	-163.9
1953	3000.0	3000.0	.0	.0
1954	4435.8	3673.5	-17.2	-762.3
1955	2000.0	2000.0	.0	.0
1956	3500.0	3500.0	.0	.0
1957	4181.0	3300.5	-21.1	-880.5
1958	6699.9	6537.5	-2.4	-162.4
1959	1750.0	1750.0	.0	.0
1960	2626.1	2250.0	-14.3	-376.1
1961	1250.0	1024.0	-18.1	-226.0
1962	2500.0	2500.0	.0	.0
1963	3500.0	3500.0	.0	.0
1964	2000.0	2000.0	.0	.0
1965	3000.0	3000.0	.0	.0
1966	2000.0	1750.0	-12.5	-250.0
1967	5978.1	5749.1	-3.8	-229.0
1968	2170.7	3932.5	81.2	1761.8
1969	4500.0	4500.0	.0	.0
1970	2500.0	2268.6	-9.3	-231.4
1971	4087.9	3941.8	-3.6	-146.1
1972	4239.0	3542.9	-16.4	-696.1
1973	3424.6	3229.7	-5.7	-194.9
1974	9627.4	9531.6	-1.0	-95.8
1975	4432.8	3579.8	-19.2	-853.0
1976	1600.0	1600.0	.0	.0
1977	400.0	411.4	2.8	11.4
1978	5512.7	5556.6	.8	43.9
1979	3151.4	2500.0	-20.7	-651.4
1980	3509.6	3230.7	-7.9	-278.9
1981	1750.0	1500.0	-14.3	-250.0
1982	7605.1	7506.0	-1.3	-99.1
1983	16237.2	16107.4	-.8	-129.8
1984	2750.0	2515.2	-8.5	-234.8
1985	2250.0	2000.0	-11.1	-250.0
1986	11231.6	11023.8	-1.9	-207.8
1987	1280.0	1152.0	-10.0	-128.0
1988	1600.0	1400.0	-12.5	-200.0
1989	6394.2	5586.0	-12.6	-808.2
1990	1500.0	1500.0	.0	.0
1991	2000.0	1750.0	-12.5	-250.0
Mean	3990.7	3809.8	-4.2	-181.0
Median	3000.0	3000.0	-2.3	-142.6
Min	400.0	411.4	-21.1	-2456.7
Max	16237.2	16107.4	81.2	1761.8
X > 6000.0	11	10		
X < 3000.0	34	34		
X < 2000.0	13	16		
X < 1750.0	11	12		
X < 1500.0	5	7		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	3251.2	3407.5	4.8	156.3
	1924	335.9	398.9	18.8	63.0
	1925	4138.4	3444.5	-16.8	-693.9
	1926	2000.0	2000.0	.0	.0
	1927	7967.2	7814.6	-1.9	-152.6
	1928	4914.2	4645.9	-5.5	-268.3
	1929	1500.0	750.0	-50.0	-750.0
	1930	2250.0	2000.0	-11.1	-250.0
	1931	500.0	500.0	.0	.0
	1932	3000.0	2750.0	-8.3	-250.0
	1933	2000.0	1750.0	-12.5	-250.0
	1934	3232.0	2734.7	-15.4	-497.3
	1935	4411.1	4941.6	12.0	530.5
	1936	5894.3	5686.4	-3.5	-207.9
	1937	4469.5	4227.5	-5.4	-242.0
	1938	8020.7	7772.3	-3.1	-248.4
	1939	1250.0	750.0	-40.0	-500.0
	1940	6207.8	6073.4	-2.2	-134.4
	1941	3825.9	3626.3	-5.2	-199.6
	1942	4500.0	4500.0	.0	.0
	1943	5280.0	5048.4	-4.4	-231.6
	1944	2250.0	2000.0	-11.1	-250.0
	1945	2750.0	2750.0	.0	.0
	1946	4059.9	3665.6	-9.7	-394.3
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	5073.2	4977.3	-1.9	-95.9
	1951	3170.7	2905.5	-8.4	-265.2
	1952	9104.4	8844.3	-2.9	-260.1
	1953	3500.0	3250.0	-7.1	-250.0
	1954	4572.1	4407.4	-3.6	-164.7
	1955	2000.0	2000.0	.0	.0
	1956	4000.0	4000.0	.0	.0
	1957	2750.0	2750.0	.0	.0
	1958	10433.9	10224.2	-2.0	-209.7
	1959	2000.0	1750.0	-12.5	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	500.0	554.2	10.8	54.2
	1962	3825.7	2774.8	-27.5	-1050.9
	1963	4666.0	4332.6	-7.1	-333.4
	1964	2000.0	2000.0	.0	.0
	1965	3803.4	3401.5	-10.6	-401.9
	1966	2000.0	1750.0	-12.5	-250.0
	1967	4500.0	4500.0	.0	.0
	1968	2000.0	2000.0	.0	.0
	1969	5973.2	5574.4	-6.7	-398.8
	1970	2500.0	2250.0	-10.0	-250.0
	1971	3500.0	3250.0	-7.1	-250.0
	1972	2500.0	2500.0	.0	.0
	1973	2750.0	2750.0	.0	.0
	1974	6280.5	6102.7	-2.8	-177.8
	1975	4000.0	4000.0	.0	.0
	1976	500.0	500.0	.0	.0
	1977	346.0	403.9	16.7	57.9
	1978	4703.6	4031.7	-14.3	-671.9
	1979	2750.0	2500.0	-9.1	-250.0
	1980	3000.0	2750.0	-8.3	-250.0
	1981	1750.0	1000.0	-42.9	-750.0
	1982	14373.5	14180.6	-1.3	-192.9
	1983	6684.4	6471.4	-3.2	-213.0
	1984	2750.0	2750.0	.0	.0
	1985	2250.0	2000.0	-11.1	-250.0
	1986	2750.0	2750.0	.0	.0
	1987	500.0	544.7	8.9	44.7
	1988	500.0	432.0	-13.6	-68.0
	1989	4623.6	4083.4	-11.7	-540.2
	1990	2726.0	2059.9	-24.4	-666.1
	1991	2000.0	1750.0	-12.5	-250.0
	Mean	3594.5	3404.2	-5.8	-190.3
	Median	3000.0	2750.0	-3.2	-203.8
	Min	335.9	398.9	-50.0	-1050.9
	Max	14373.5	14180.6	18.8	530.5
X >	6000.0	8	8		
X <	3000.0	34	39		
X <	2000.0	10	14		
X <	1750.0	9	10		
X <	1500.0	8	10		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	9140.3	8375.6	-8.4	-764.7
	1923	5004.5	4692.3	-6.2	-312.2
	1924	353.9	429.1	21.2	75.2
	1925	4680.6	4095.4	-12.5	-585.2
	1926	2500.0	2500.0	.0	.0
	1927	4957.4	4525.2	-8.7	-432.2
	1928	3000.0	3000.0	.0	.0
	1929	2000.0	1750.0	-12.5	-250.0
	1930	2750.0	2500.0	-9.1	-250.0
	1931	500.0	750.0	50.0	250.0
	1932	4000.0	3750.0	-6.3	-250.0
	1933	2500.0	2500.0	.0	.0
	1934	500.0	500.0	.0	.0
	1935	4992.9	4635.7	-7.2	-357.2
	1936	4250.0	4250.0	.0	.0
	1937	4650.0	4332.9	-6.8	-317.1
	1938	10029.9	9682.4	-3.5	-347.5
	1939	1750.0	1750.0	.0	.0
	1940	3750.0	3500.0	-6.7	-250.0
	1941	5533.1	5201.8	-6.0	-331.3
	1942	6303.1	5697.5	-9.6	-605.6
	1943	3750.0	3750.0	.0	.0
	1944	2750.0	2500.0	-9.1	-250.0
	1945	3750.0	3750.0	.0	.0
	1946	3770.1	3750.0	-.5	-20.1
	1947	2500.0	2500.0	.0	.0
	1948	3750.0	3750.0	.0	.0
	1949	3250.0	2750.0	-15.4	-500.0
	1950	4000.0	4000.0	.0	.0
	1951	3750.0	3500.0	-6.7	-250.0
	1952	11376.6	11032.2	-3.0	-344.4
	1953	4250.0	4250.0	.0	.0
	1954	3000.0	3000.0	.0	.0
	1955	2750.0	2500.0	-9.1	-250.0
	1956	4500.0	4500.0	.0	.0
	1957	3750.0	3500.0	-6.7	-250.0
	1958	10304.8	9963.7	-3.3	-341.1
	1959	2500.0	2250.0	-10.0	-250.0
	1960	2750.0	2750.0	.0	.0
	1961	1500.0	1500.0	.0	.0
	1962	3250.0	3250.0	.0	.0
	1963	7367.6	6958.3	-5.6	-409.3
	1964	2500.0	2500.0	.0	.0
	1965	4250.0	4000.0	-5.9	-250.0
	1966	2500.0	2500.0	.0	.0
	1967	8246.3	7698.1	-6.6	-548.2
	1968	2500.0	2500.0	.0	.0
	1969	9403.8	9028.6	-4.0	-375.2
	1970	3000.0	2750.0	-8.3	-250.0
	1971	4250.0	4250.0	.0	.0
	1972	3000.0	2750.0	-8.3	-250.0
	1973	4533.3	3921.9	-13.5	-611.4
	1974	5124.9	4733.4	-7.6	-391.5
	1975	4500.0	4500.0	.0	.0
	1976	1000.0	507.3	-49.3	-492.7
	1977	337.6	406.4	20.4	68.8
	1978	4508.5	4000.0	-11.3	-508.5
	1979	4167.7	3500.0	-16.0	-667.7
	1980	4000.0	4000.0	.0	.0
	1981	2250.0	1750.0	-22.2	-500.0
	1982	9423.3	9145.7	-2.9	-277.6
	1983	10683.7	10357.3	-3.1	-326.4
	1984	3750.0	3500.0	-6.7	-250.0
	1985	2750.0	2500.0	-9.1	-250.0
	1986	3750.0	3750.0	.0	.0
	1987	1500.0	750.0	-50.0	-750.0
	1988	500.0	500.0	.0	.0
	1989	3538.0	3033.4	-14.3	-504.6
	1990	1750.0	1500.0	-14.3	-250.0
	1991	2500.0	2500.0	.0	.0
	Mean	4027.6	3813.6	-4.8	-214.0
	Median	3750.0	3500.0	-3.8	-250.0
	Min	337.6	406.4	-50.0	-764.7
	Max	11376.6	11032.2	50.0	250.0
X >	6000.0	10	9		
X <	3000.0	25	28		
X <	2000.0	10	12		
X <	1750.0	8	9		
X <	1500.0	6	7		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	9160.4	8698.9	-5.0	-461.5
	1923	4770.6	4136.6	-13.3	-634.0
	1924	377.9	452.6	19.8	74.7
	1925	6486.9	5532.4	-14.7	-954.5
	1926	1928.5	2224.7	15.4	296.2
	1927	5528.7	5119.3	-7.4	-409.4
	1928	5914.0	4126.6	-30.2	-1787.4
	1929	2336.3	2151.7	-7.9	-184.6
	1930	2250.0	2000.0	-11.1	-250.0
	1931	1255.3	806.8	-35.7	-448.5
	1932	5010.1	4897.3	-2.3	-112.8
	1933	2546.1	2246.8	-11.8	-299.3
	1934	1806.6	1682.7	-6.9	-123.9
	1935	4131.4	3750.0	-9.2	-381.4
	1936	4645.9	3969.3	-14.6	-676.6
	1937	3500.0	3500.0	.0	.0
	1938	8792.4	8351.0	-5.0	-441.4
	1939	1000.0	620.5	-38.0	-379.5
	1940	3630.2	3250.0	-10.5	-380.2
	1941	3750.0	3500.0	-6.7	-250.0
	1942	7550.5	7093.9	-6.0	-456.6
	1943	3500.0	3500.0	.0	.0
	1944	2250.0	1750.0	-22.2	-500.0
	1945	6030.8	4770.9	-20.9	-1259.9
	1946	6461.8	5378.8	-16.8	-1083.0
	1947	1750.0	1500.0	-14.3	-250.0
	1948	3500.0	3250.0	-7.1	-250.0
	1949	3000.0	2500.0	-16.7	-500.0
	1950	4155.4	3750.0	-9.8	-405.4
	1951	3250.0	3250.0	.0	.0
	1952	10693.1	10238.3	-4.3	-454.8
	1953	4000.0	3750.0	-6.3	-250.0
	1954	2886.0	3595.8	24.6	709.8
	1955	2250.0	2000.0	-11.1	-250.0
	1956	5726.0	4552.8	-20.5	-1173.2
	1957	3986.7	4235.9	6.3	249.2
	1958	7918.5	7498.9	-5.3	-419.6
	1959	1500.0	1250.0	-16.7	-250.0
	1960	2250.0	2250.0	.0	.0
	1961	750.0	624.9	-16.7	-125.1
	1962	3000.0	3074.6	2.5	74.6
	1963	3500.0	3500.0	.0	.0
	1964	2250.0	2250.0	.0	.0
	1965	3750.0	3750.0	.0	.0
	1966	2000.0	1500.0	-25.0	-500.0
	1967	10609.1	10219.8	-3.7	-389.3
	1968	2250.0	1500.0	-33.3	-750.0
	1969	6794.2	6389.8	-6.0	-404.4
	1970	3420.1	3054.9	-10.7	-365.2
	1971	4071.1	3750.0	-7.9	-321.1
	1972	4604.0	4448.6	-3.4	-155.4
	1973	5752.3	6486.9	12.8	734.6
	1974	4443.1	4006.8	-9.8	-436.3
	1975	5954.3	4908.3	-17.6	-1046.0
	1976	2022.0	2070.2	2.4	48.2
	1977	386.3	454.3	17.6	68.0
	1978	4661.6	3750.0	-19.6	-911.6
	1979	6486.9	6486.9	.0	.0
	1980	3750.0	3500.0	-6.7	-250.0
	1981	1500.0	750.0	-50.0	-750.0
	1982	6448.0	5991.5	-7.1	-456.5
	1983	14729.8	14274.9	-3.1	-454.9
	1984	4892.4	3927.3	-19.7	-965.1
	1985	2986.2	2526.7	-15.4	-459.5
	1986	3500.0	3250.0	-7.1	-250.0
	1987	500.0	600.3	20.1	100.3
	1988	1646.8	1309.0	-20.5	-337.8
	1989	4069.9	3788.2	-6.9	-281.7
	1990	1824.0	1782.4	-2.3	-41.6
	1991	3041.6	2869.5	-5.7	-172.1
	Mean	4101.1	3770.4	-8.4	-330.7
	Median	3565.1	3500.0	-7.1	-310.2
	Min	377.9	452.6	-50.0	-1787.4
	Max	14729.8	14274.9	24.6	734.6
X >	6000.0	13	10		
X <	3000.0	25	26		
X <	2000.0	13	15		
X <	1750.0	9	13		
X <	1500.0	6	9		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4236.9	3466.8	-18.2	-770.1
	1923	5838.6	2967.0	-49.2	-2871.6
	1924	727.0	464.9	-36.1	-262.1
	1925	4211.4	2658.0	-36.9	-1553.4
	1926	2639.6	2605.5	-1.3	-34.1
	1927	3094.9	6489.1	109.7	3394.2
	1928	1500.0	1500.0	.0	.0
	1929	1663.7	1471.0	-11.6	-192.7
	1930	2878.7	2715.8	-5.7	-162.9
	1931	1928.2	2638.8	36.9	710.6
	1932	3177.2	3151.3	-.8	-25.9
	1933	2240.6	2020.5	-9.8	-220.1
	1934	1507.7	1483.3	-1.6	-24.4
	1935	5066.6	3007.9	-40.6	-2058.7
	1936	4129.1	4070.4	-1.4	-58.7
	1937	2608.9	2510.8	-3.8	-98.1
	1938	3748.1	3286.8	-12.3	-461.3
	1939	1967.3	1752.0	-10.9	-215.3
	1940	6056.4	5488.8	-9.4	-567.6
	1941	2369.7	2250.0	-5.1	-119.7
	1942	3731.8	3255.9	-12.8	-475.9
	1943	5747.2	5991.6	4.3	244.4
	1944	2314.8	1612.5	-30.3	-702.3
	1945	4359.7	4325.2	-.8	-34.5
	1946	3854.3	4075.5	5.7	221.2
	1947	1978.2	1533.8	-22.5	-444.4
	1948	3864.0	2523.6	-34.7	-1340.4
	1949	3270.8	2720.3	-16.8	-550.5
	1950	5381.5	3509.2	-34.8	-1872.3
	1951	5978.6	5229.3	-12.5	-749.3
	1952	4852.4	4394.4	-9.4	-458.0
	1953	3363.0	2336.1	-30.5	-1026.9
	1954	3393.9	2037.2	-40.0	-1356.7
	1955	1811.3	1500.0	-17.2	-311.3
	1956	3404.9	2930.7	-13.9	-474.2
	1957	4856.0	4669.6	-3.8	-186.4
	1958	3387.0	2930.7	-13.5	-456.3
	1959	750.0	650.6	-13.3	-99.4
	1960	2950.8	1500.0	-49.2	-1450.8
	1961	500.0	629.4	25.9	129.4
	1962	5401.2	4528.8	-16.2	-872.4
	1963	2351.7	5777.1	145.7	3425.4
	1964	2347.3	2190.6	-6.7	-156.7
	1965	5645.6	6489.1	14.9	843.5
	1966	1500.0	663.1	-55.8	-836.9
	1967	4536.9	4080.5	-10.1	-456.4
	1968	1500.0	750.0	-50.0	-750.0
	1969	3191.9	2717.6	-14.9	-474.3
	1970	1961.2	1844.6	-5.9	-116.6
	1971	3208.1	2251.5	-29.8	-956.6
	1972	1500.0	1500.0	.0	.0
	1973	4209.3	2771.6	-34.2	-1437.7
	1974	3648.9	3194.1	-12.5	-454.8
	1975	3136.6	2681.8	-14.5	-454.8
	1976	1562.8	1451.7	-7.1	-111.1
	1977	401.1	466.5	16.3	65.4
	1978	6325.7	5666.7	-10.4	-659.0
	1979	3048.4	1500.0	-50.8	-1548.4
	1980	3858.1	4077.3	5.7	219.2
	1981	500.0	627.8	25.6	127.8
	1982	3601.7	3127.4	-13.2	-474.3
	1983	6414.3	6043.5	-5.8	-370.8
	1984	4386.1	4650.9	6.0	264.8
	1985	2315.4	1964.8	-15.1	-350.6
	1986	5556.0	5161.3	-7.1	-394.7
	1987	1900.7	1209.0	-36.4	-691.7
	1988	1094.4	913.4	-16.5	-181.0
	1989	3765.7	3072.5	-18.4	-693.2
	1990	1447.3	1207.8	-16.5	-239.5
	1991	2436.4	2519.2	3.4	82.8
	Mean	3201.3	2849.3	-9.4	-352.0
	Median	3184.5	2669.9	-12.0	-360.7
	Min	401.1	464.9	-55.8	-2871.6
	Max	6414.3	6489.1	145.7	3425.4
X >	6000.0	3	3		
X <	3000.0	31	43		
X <	2000.0	20	23		
X <	1750.0	14	20		
X <	1500.0	7	13		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2922.7	2818.1	-3.6	-104.6
	1923	2556.6	4565.9	78.6	2009.3
	1924	389.7	460.0	18.0	70.3
	1925	3786.9	1750.0	-53.8	-2036.9
	1926	750.0	750.0	.0	.0
	1927	3884.9	3729.1	-4.0	-155.8
	1928	3282.1	4114.5	25.4	832.4
	1929	392.9	536.5	36.5	143.6
	1930	1000.0	1000.0	.0	.0
	1931	399.4	536.9	34.4	137.5
	1932	2338.0	1750.0	-25.1	-588.0
	1933	750.0	541.8	-27.8	-208.2
	1934	402.7	540.2	34.1	137.5
	1935	3108.1	4034.9	29.8	926.8
	1936	3115.5	2308.4	-25.9	-807.1
	1937	2800.9	2000.0	-28.6	-800.9
	1938	4414.5	3937.0	-10.8	-477.5
	1939	500.0	621.7	24.3	121.7
	1940	3989.6	3224.2	-19.2	-765.4
	1941	4266.5	3266.2	-23.4	-1000.3
	1942	4494.2	4018.3	-10.6	-475.9
	1943	2632.4	3066.4	16.5	434.0
	1944	3996.6	1000.0	-75.0	-2996.6
	1945	2063.1	2354.7	14.1	291.6
	1946	2103.7	2335.6	11.0	231.9
	1947	1295.2	750.0	-42.1	-545.2
	1948	3214.9	3003.6	-6.6	-211.3
	1949	2505.1	2925.8	16.8	420.7
	1950	3011.3	2781.3	-7.6	-230.0
	1951	3354.5	3204.5	-4.5	-150.0
	1952	4913.2	4441.1	-9.6	-472.1
	1953	4523.4	4012.1	-11.3	-511.3
	1954	3530.2	4039.2	14.4	509.0
	1955	3398.2	1963.3	-42.2	-1434.9
	1956	4460.0	3987.4	-10.6	-472.6
	1957	1720.7	2582.4	50.1	861.7
	1958	4556.0	4099.6	-10.0	-456.4
	1959	2542.2	1617.8	-36.4	-924.4
	1960	3318.6	2261.8	-31.8	-1056.8
	1961	1506.2	626.2	-58.4	-880.0
	1962	4634.7	2817.3	-39.2	-1817.4
	1963	4095.7	1843.5	-55.0	-2252.2
	1964	3466.3	1000.0	-71.2	-2466.3
	1965	2000.0	2598.3	29.9	598.3
	1966	2991.9	1784.0	-40.4	-1207.9
	1967	4536.4	4062.2	-10.5	-474.2
	1968	1250.0	1819.4	45.6	569.4
	1969	4344.5	3886.5	-10.5	-458.0
	1970	4112.5	3798.6	-7.6	-313.9
	1971	4281.1	3808.5	-11.0	-472.6
	1972	4396.1	3485.7	-20.7	-910.4
	1973	1697.2	3783.1	122.9	2085.9
	1974	4541.3	4068.7	-10.4	-472.6
	1975	4323.4	3868.6	-10.5	-454.8
	1976	1496.9	1060.5	-29.2	-436.4
	1977	396.2	461.7	16.5	65.5
	1978	1750.0	3250.0	85.7	1500.0
	1979	2311.3	3055.9	32.2	744.6
	1980	2538.0	4150.9	63.6	1612.9
	1981	1769.9	931.4	-47.4	-838.5
	1982	4526.7	4052.4	-10.5	-474.3
	1983	4919.7	4805.4	-2.3	-114.3
	1984	1500.0	3015.6	101.0	1515.6
	1985	3291.7	2596.2	-21.1	-695.5
	1986	3859.6	3500.9	-9.3	-358.7
	1987	1678.9	1504.2	-10.4	-174.7
	1988	898.4	532.9	-40.7	-365.5
	1989	3655.9	3545.1	-3.0	-110.8
	1990	2210.9	1629.7	-26.3	-581.2
	1991	1529.5	553.6	-63.8	-975.9
	Mean	2817.1	2554.7	-3.3	-262.4
	Median	3001.6	2799.3	-10.2	-362.1
	Min	389.7	460.0	-75.0	-2996.6
	Max	4919.7	4805.4	122.9	2085.9
X >	6000.0	0	0		
X <	3000.0	35	38		
X <	2000.0	21	26		
X <	1750.0	19	20		
X <	1500.0	13	17		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3927.9	3446.4	-12.3	-481.5
	1923	2000.0	2000.0	.0	.0
	1924	1000.0	750.0	-25.0	-250.0
	1925	1779.4	2500.0	40.5	720.6
	1926	1500.0	1250.0	-16.7	-250.0
	1927	4087.5	1894.7	-53.6	-2192.8
	1928	1500.0	1500.0	.0	.0
	1929	1250.0	1000.0	-20.0	-250.0
	1930	1500.0	1500.0	.0	.0
	1931	1000.0	750.0	-25.0	-250.0
	1932	3960.5	2500.0	-36.9	-1460.5
	1933	1500.0	1250.0	-16.7	-250.0
	1934	1000.0	588.6	-41.1	-411.4
	1935	2915.4	2505.5	-14.1	-409.9
	1936	4028.2	3763.2	-6.6	-265.0
	1937	4022.0	3399.1	-15.5	-622.9
	1938	4211.9	3805.8	-9.6	-406.1
	1939	1250.0	1250.0	.0	.0
	1940	1727.1	1633.4	-5.4	-93.7
	1941	4159.8	3755.3	-9.7	-404.5
	1942	4193.4	3789.0	-9.6	-404.4
	1943	2250.0	1750.0	-22.2	-500.0
	1944	1911.8	1500.0	-21.5	-411.8
	1945	2469.5	2342.3	-5.2	-127.2
	1946	2978.3	2755.8	-7.5	-222.5
	1947	2148.1	1500.0	-30.2	-648.1
	1948	2872.5	3187.6	11.0	315.1
	1949	2061.9	1562.3	-24.2	-499.6
	1950	2596.5	3082.7	18.7	486.2
	1951	1816.7	1976.3	8.8	159.6
	1952	4412.5	3990.6	-9.6	-421.9
	1953	4158.1	3757.0	-9.6	-401.1
	1954	2202.9	1500.0	-31.9	-702.9
	1955	1534.6	1500.0	-2.3	-34.6
	1956	4126.2	3723.4	-9.8	-402.8
	1957	2250.0	1763.2	-21.6	-486.8
	1958	4223.7	3822.6	-9.5	-401.1
	1959	1250.0	1250.0	.0	.0
	1960	2076.0	1500.0	-27.7	-576.0
	1961	1500.0	1250.0	-16.7	-250.0
	1962	1500.0	2179.8	45.3	679.8
	1963	4153.1	2250.0	-45.8	-1903.1
	1964	1628.1	1500.0	-7.9	-128.1
	1965	3950.9	2000.0	-49.4	-1950.9
	1966	1504.1	1250.0	-16.9	-254.1
	1967	4438.8	4069.6	-8.3	-369.2
	1968	2194.9	1250.0	-43.0	-944.9
	1969	4173.2	3787.3	-9.2	-385.9
	1970	1500.0	1500.0	.0	.0
	1971	3990.1	3605.8	-9.6	-384.3
	1972	1500.0	1500.0	.0	.0
	1973	2000.0	1500.0	-25.0	-500.0
	1974	4292.6	3891.5	-9.3	-401.1
	1975	4084.2	3668.0	-10.2	-416.2
	1976	500.0	600.4	20.1	100.4
	1977	454.1	522.1	15.0	68.0
	1978	3072.7	1750.0	-43.0	-1322.7
	1979	2036.0	1935.6	-4.9	-100.4
	1980	4084.2	2000.0	-51.0	-2084.2
	1981	1545.9	1500.0	-3.0	-45.9
	1982	4578.3	4207.4	-8.1	-370.9
	1983	4920.7	4826.7	-1.9	-94.0
	1984	2000.0	1750.0	-12.5	-250.0
	1985	1250.0	1250.0	.0	.0
	1986	1750.0	1750.0	.0	.0
	1987	1356.8	1000.0	-26.3	-356.8
	1988	750.0	750.0	.0	.0
	1989	1250.0	1250.0	.0	.0
	1990	750.0	750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2479.4	2133.4	-11.3	-346.0
	Median	2048.9	1750.0	-9.6	-252.1
	Min	454.1	522.1	-53.6	-2192.8
	Max	4920.7	4826.7	45.3	720.6
X >	6000.0	0	0		
X <	3000.0	47	51		
X <	2000.0	31	41		
X <	1750.0	27	33		
X <	1500.0	14	19		

RETURN TO TABLE OF CONTENTS

Section 7

LOWER AMERICAN RIVER FLOW AT WATT AVENUE

LOWER AMERICAN RIVER FLOWS AT WATT AVE

October

	Water Year	Base Flow (cfs)	2030 w WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2436.3	2419.6	-.7	-16.7
	1923	2454.2	2437.5	-.7	-16.7
	1924	2433.1	2418.0	-.6	-15.1
	1925	1253.0	993.0	-20.8	-260.0
	1926	2431.5	2414.7	-.7	-16.8
	1927	1722.1	1707.0	-.9	-15.1
	1928	2444.5	2431.0	-.6	-13.5
	1929	1924.9	1661.5	-13.7	-263.4
	1930	1681.5	1416.3	-15.8	-265.2
	1931	2179.8	1664.7	-23.6	-515.1
	1932	1192.8	1174.5	-1.5	-18.3
	1933	2421.7	2406.6	-.6	-15.1
	1934	1692.8	1676.1	-1.0	-16.7
	1935	1186.3	555.7	-53.2	-630.6
	1936	2452.6	2437.5	-.6	-15.1
	1937	2424.9	2411.5	-.6	-13.4
	1938	2441.2	2429.3	-.5	-11.9
	1939	2429.8	2421.2	-.4	-8.6
	1940	1702.6	1439.1	-15.5	-263.5
	1941	1947.7	1935.8	-.6	-11.9
	1942	2457.5	2447.2	-.4	-10.3
	1943	2434.7	2424.5	-.4	-10.2
	1944	2426.6	2168.0	-10.7	-258.6
	1945	1457.5	1947.2	33.6	489.7
	1946	2472.1	1961.9	-20.6	-510.2
	1947	2176.6	1669.6	-23.3	-507.0
	1948	1715.6	1707.0	-.5	-8.6
	1949	2436.3	2424.5	-.5	-11.8
	1950	2426.6	1918.0	-21.0	-508.6
	1951	2478.6	2470.0	-.3	-8.6
	1952	2222.1	1961.9	-11.7	-260.2
	1953	2426.6	2421.2	-.2	-5.4
	1954	2433.1	2427.7	-.2	-5.4
	1955	1929.8	1672.8	-13.3	-257.0
	1956	1707.5	1697.2	-.6	-10.3
	1957	2449.3	2445.6	-.2	-3.7
	1958	2475.4	2215.1	-10.5	-260.3
	1959	2428.2	2422.8	-.2	-5.4
	1960	1679.8	1671.2	-.5	-8.6
	1961	1678.2	1918.0	14.3	239.8
	1962	1684.7	1672.8	-.7	-11.9
	1963	2241.4	2453.8	9.5	212.4
	1964	2447.7	2439.1	-.4	-8.6
	1965	1723.7	1961.9	13.8	238.2
	1966	2421.7	2413.1	-.4	-8.6
	1967	1691.2	1679.3	-.7	-11.9
	1968	2421.7	2418.0	-.2	-3.7
	1969	2205.8	1694.0	-23.2	-511.8
	1970	2444.5	2437.5	-.3	-7.0
	1971	1955.8	1948.9	-.4	-6.9
	1972	2429.8	2424.5	-.2	-5.3
	1973	1723.7	1715.1	-.5	-8.6
	1974	2470.5	1713.5	-30.6	-757.0
	1975	2452.6	2445.6	-.3	-7.0
	1976	2468.9	2465.1	-.2	-3.8
	1977	457.7	594.3	29.8	136.6
	1978	457.7	524.6	14.6	66.9
	1979	2434.7	2421.2	-.6	-13.5
	1980	2481.9	1720.0	-30.7	-761.9
	1981	2424.9	2414.7	-.4	-10.2
	1982	1741.6	1728.1	-.8	-13.5
	1983	3395.6	3171.1	-6.6	-224.5
	1984	3495.0	2451.4	-29.9	-1043.6
	1985	2464.0	2207.0	-10.4	-257.0
	1986	1717.2	1455.4	-15.2	-261.8
	1987	2433.1	2176.1	-10.6	-257.0
	1988	1567.3	1873.8	19.6	306.5
	1989	938.0	924.5	-1.4	-13.5
	1990	1715.6	1702.1	-.8	-13.5
	1991	939.6	924.5	-1.6	-15.1
	Mean	2088.8	1980.2	-4.3	-108.6
	Median	2421.7	1961.9	-.6	-13.5
	Min	457.7	524.6	-53.2	-1043.6
	Max	3495.0	3171.1	33.6	489.7
X <	1500.0	8	10		
X <	1750.0	24	27		
X <	1765.0	24	27		
X <	2000.0	28	36		
X <	3000.0	68	69		
X >=	2500.0	2	1		
2500.0 > X >=	2000.0	40	33		
2000.0 > X >=	1750.0	4	9		
1750.0 > X >=	800.0	22	24		
800.0 > X		2	3		
X <	3450.0	69	70		
Mean of X >=	3450.0	3495.0	.0	-100.0	-3495.0

LOWER AMERICAN RIVER FLOWS AT WATT AVE

November

	Water Year	Base Flow (cfs)	2030 w WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2454.7	2448.1	-.3	-6.6
	1923	2508.5	2503.5	-.2	-5.0
	1924	2427.8	2424.5	-.1	-3.3
	1925	1199.7	939.7	-21.7	-260.0
	1926	2442.9	2436.3	-.3	-6.6
	1927	1795.5	1790.5	-.3	-5.0
	1928	2842.3	2463.2	-13.3	-379.1
	1929	1968.2	1716.6	-12.8	-251.6
	1930	1669.4	1414.5	-15.3	-254.9
	1931	2192.9	1688.0	-23.0	-504.9
	1932	1209.8	1203.1	-.6	-6.7
	1933	2422.8	2417.8	-.2	-5.0
	1934	1661.0	1656.1	-.3	-4.9
	1935	1246.7	556.6	-55.4	-690.1
	1936	2442.9	2438.0	-.2	-4.9
	1937	2419.4	2417.8	-.1	-1.6
	1938	2498.4	2495.1	-.1	-3.3
	1939	2426.1	2426.2	.0	.1
	1940	1674.5	1421.2	-15.1	-253.3
	1941	1968.2	1964.9	-.2	-3.3
	1942	2466.5	2464.9	-.1	-1.6
	1943	3670.8	3369.3	-8.2	-301.5
	1944	2439.6	2191.3	-10.2	-248.3
	1945	1496.7	1996.8	33.4	500.1
	1946	2464.8	1966.6	-20.2	-498.2
	1947	2218.2	1721.6	-22.4	-496.6
	1948	1696.3	1698.1	.1	1.8
	1949	2436.2	2438.0	.1	1.8
	1950	2439.6	1943.0	-20.4	-496.6
	1951	16950.2	16690.4	-1.5	-259.8
	1952	2229.9	1980.0	-11.2	-249.9
	1953	2464.8	2469.9	.2	5.1
	1954	2459.8	2464.9	.2	5.1
	1955	1979.9	1733.4	-12.5	-246.5
	1956	1721.5	1721.6	.0	.1
	1957	2424.5	2429.6	.2	5.1
	1958	2448.0	2199.8	-10.1	-248.2
	1959	2429.5	2434.6	.2	5.1
	1960	1674.5	1674.5	.0	.0
	1961	1746.7	1998.5	14.4	251.8
	1962	1723.2	1723.3	.0	.1
	1963	3081.8	2965.9	-3.8	-115.9
	1964	4156.4	2794.3	-32.8	-1362.1
	1965	1746.7	1996.8	14.3	250.1
	1966	2485.0	2488.4	.1	3.4
	1967	1803.9	1803.9	.0	.0
	1968	2444.6	2449.8	.2	5.2
	1969	2253.4	1753.5	-22.2	-499.9
	1970	2449.7	2451.4	.1	1.7
	1971	2058.9	2062.3	.2	3.4
	1972	2444.6	2448.1	.1	3.5
	1973	1777.0	1780.4	.2	3.4
	1974	6131.7	3977.7	-35.1	-2154.0
	1975	2463.1	2464.9	.1	1.8
	1976	2962.6	2637.5	-11.0	-325.1
	1977	452.4	595.3	31.6	142.9
	1978	466.5	502.0	7.6	35.5
	1979	2493.4	2491.8	-.1	-1.6
	1980	2473.2	1721.6	-30.4	-751.6
	1981	2427.8	2426.2	-.1	-1.6
	1982	4718.4	4363.9	-7.5	-354.5
	1983	6861.4	6764.3	-1.4	-97.1
	1984	14373.4	14420.9	.3	47.5
	1985	3161.0	2300.6	-27.2	-860.4
	1986	1802.2	1552.3	-13.9	-249.9
	1987	2437.9	2191.3	-10.1	-246.6
	1988	1262.5	1517.3	20.2	254.8
	1989	971.5	968.2	-.3	-3.3
	1990	1706.4	1703.1	-.2	-3.3
	1991	941.3	936.3	-.5	-5.0
	Mean	2683.7	2523.7	-5.0	-160.0
	Median	2427.0	2191.3	-.2	-4.9
	Min	452.4	502.0	-55.4	-2154.0
	Max	16950.2	16690.4	33.4	500.1
X <	1500.0	9	9		
X <	1750.0	19	22		
X <	1765.0	19	23		
X <	2000.0	26	33		
X <	3000.0	61	64		
X >=	2500.0	12	10		
2500.0 > X >=	2000.0	32	27		
2000.0 > X >=	1750.0	7	11		
1750.0 > X >=	1200.0	14	16		
1200.0 > X		5	6		
X <	3450.0	63	65		
Mean of X >=	3450.0	8123.2	9243.4	13.8	1120.3

LOWER AMERICAN RIVER FLOWS AT WATT AVE

December

	Water Year	Base Flow (cfs)	2030 w WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2538.8	2533.7	-.2	-5.1
	1923	6525.4	6121.4	-6.2	-404.0
	1924	2436.3	2431.2	-.2	-5.1
	1925	1266.0	1016.0	-19.7	-250.0
	1926	2457.5	2452.4	-.2	-5.1
	1927	1704.2	1699.1	-.3	-5.1
	1928	2460.7	2457.2	-.1	-3.5
	1929	1968.9	1717.0	-12.8	-251.9
	1930	1756.3	1501.1	-14.5	-255.2
	1931	2171.7	1666.6	-23.3	-505.1
	1932	1321.3	1312.9	-.6	-8.4
	1933	2464.0	2458.9	-.2	-5.1
	1934	1767.6	1760.9	-.4	-6.7
	1935	1215.6	659.7	-45.7	-555.9
	1936	2457.5	2452.4	-.2	-5.1
	1937	2480.2	2478.4	-.1	-1.8
	1938	6179.1	5793.7	-6.2	-385.4
	1939	2441.2	2441.0	.0	-.2
	1940	1694.5	1441.0	-15.0	-253.5
	1941	2089.2	2087.3	-.1	-1.9
	1942	4998.3	4544.0	-9.1	-454.3
	1943	4766.0	4640.8	-2.6	-125.2
	1944	2462.4	2213.7	-10.1	-248.7
	1945	1470.5	1968.6	33.9	498.1
	1946	7864.3	7108.5	-9.6	-755.8
	1947	2218.9	1720.2	-22.5	-498.7
	1948	1688.0	1689.3	.1	1.3
	1949	2493.3	2493.0	.0	-.3
	1950	2452.6	1955.6	-20.3	-497.0
	1951	16412.1	16288.4	-.8	-123.7
	1952	4243.7	3241.7	-23.6	-1002.0
	1953	2551.8	2554.8	.1	3.0
	1954	2438.0	2442.6	.2	4.6
	1955	2009.5	1764.2	-12.2	-245.3
	1956	14677.0	14864.6	1.3	187.6
	1957	2433.1	2436.1	.1	3.0
	1958	2494.9	2244.6	-10.0	-250.3
	1959	2444.5	2449.1	.2	4.6
	1960	1699.3	1931.8	13.7	232.5
	1961	1691.2	1942.6	14.9	251.4
	1962	1720.5	1720.2	.0	-.3
	1963	3451.9	3389.9	-1.8	-62.0
	1964	3254.1	2432.8	-25.2	-821.3
	1965	19356.9	20302.3	4.9	945.4
	1966	2477.0	2478.4	.1	1.4
	1967	1754.6	1754.4	.0	-.2
	1968	2444.5	2447.5	.1	3.0
	1969	2251.4	1751.1	-22.2	-500.3
	1970	5344.3	4899.7	-8.3	-444.6
	1971	4911.2	4375.8	-10.9	-535.4
	1972	2506.3	2509.3	.1	3.0
	1973	1735.1	1736.5	.1	1.4
	1974	7535.7	7420.2	-1.5	-115.5
	1975	2496.5	2497.9	.1	1.4
	1976	2441.2	2444.2	.1	3.0
	1977	576.2	698.4	21.2	122.2
	1978	576.2	623.8	8.3	47.6
	1979	2451.0	2449.1	-.1	-1.9
	1980	2514.4	1762.5	-29.9	-751.9
	1981	2470.5	2470.2	.0	-.3
	1982	14227.9	14224.7	.0	-3.2
	1983	9181.5	9025.4	-1.7	-156.1
	1984	15390.6	15180.8	-1.4	-209.8
	1985	2523.3	2218.6	-12.1	-304.7
	1986	1751.4	1501.1	-14.3	-250.3
	1987	2455.8	2207.2	-10.1	-248.6
	1988	1269.3	1269.0	.0	-.3
	1989	985.1	981.6	-.4	-3.5
	1990	1681.5	1678.0	-.2	-3.5
	1991	954.2	950.7	-.4	-3.5
	Mean	3651.4	3519.7	-4.4	-131.7
	Median	2451.8	2434.5	-.3	-5.1
	Min	576.2	623.8	-45.7	-1002.0
	Max	19356.9	20302.3	33.9	945.4
X < 1500.0		9	9		
X < 1750.0		17	19		
X < 1765.0		20	24		
X < 2000.0		22	28		
X < 3000.0		53	54		
X >= 2500.0		22	19		
2500.0 > X >= 2000.0		26	23		
2000.0 > X >= 1750.0		5	9		
1750.0 > X >= 1200.0		13	13		
1200.0 > X		4	6		
X < 3450.0		54	56		
Mean of X >= 3450.0		9066.6	9627.9	6.2	561.3

LOWER AMERICAN RIVER FLOWS AT WATT AVE

January

		Base	2030 w WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	1983.5	1976.7	-.3	-6.8
	1923	4566.0	4404.9	-3.5	-161.1
	1924	1973.7	1967.0	-.3	-6.7
	1925	1702.6	1702.6	.0	.0
	1926	1980.2	1973.5	-.3	-6.7
	1927	3152.4	2661.7	-15.6	-490.7
	1928	2459.1	1955.6	-20.5	-503.5
	1929	1546.1	1342.6	-13.2	-203.5
	1930	1754.6	1749.5	-.3	-5.1
	1931	1781.9	1478.4	-17.0	-303.5
	1932	1954.2	1695.8	-13.2	-258.4
	1933	1991.6	1986.5	-.3	-5.1
	1934	1946.1	1691.0	-13.1	-255.1
	1935	1764.4	2009.3	13.9	244.9
	1936	4345.8	3954.1	-9.0	-391.7
	1937	1993.3	1989.8	-.2	-3.5
	1938	2877.9	2736.2	-4.9	-141.7
	1939	2209.1	1958.9	-11.3	-250.2
	1940	2565.8	2071.3	-19.3	-494.5
	1941	5567.3	4797.8	-13.8	-769.5
	1942	9363.7	9199.4	-1.8	-164.3
	1943	10978.6	10816.0	-1.5	-162.6
	1944	1978.6	1778.4	-10.1	-200.2
	1945	1951.0	2200.7	12.8	249.7
	1946	5206.7	5048.9	-3.0	-157.8
	1947	2188.0	1937.7	-11.4	-250.3
	1948	1689.6	1691.0	.1	1.4
	1949	1957.5	1957.2	.0	-.3
	1950	2007.9	1609.3	-19.9	-398.6
	1951	10138.4	9996.8	-1.4	-141.6
	1952	9127.8	8981.5	-1.6	-146.3
	1953	6805.7	6220.1	-8.6	-585.6
	1954	2236.7	2241.4	.2	4.7
	1955	1994.9	1997.9	.2	3.0
	1956	16418.8	16355.3	-.4	-63.5
	1957	2225.4	2228.4	.1	3.0
	1958	2279.0	2028.8	-11.0	-250.2
	1959	2279.0	2032.0	-10.8	-247.0
	1960	1399.8	1586.0	13.3	186.2
	1961	1472.1	1573.5	6.9	101.4
	1962	1354.2	1352.4	-.1	-1.8
	1963	3962.6	3843.6	-3.0	-119.0
	1964	2656.6	2499.5	-5.9	-157.1
	1965	13237.1	13170.3	-.5	-66.8
	1966	2462.4	2213.7	-10.1	-248.7
	1967	6814.0	6125.7	-10.1	-688.3
	1968	2501.4	2504.4	.1	3.0
	1969	14863.9	14308.0	-3.7	-555.9
	1970	21014.8	20863.6	-.7	-151.2
	1971	4743.2	4647.0	-2.0	-96.2
	1972	2447.7	2450.7	.1	3.0
	1973	9013.0	8359.2	-7.3	-653.8
	1974	11377.1	11269.8	-.9	-107.3
	1975	2201.0	2202.4	.1	1.4
	1976	2439.6	2442.6	.1	3.0
	1977	463.2	560.9	21.1	97.7
	1978	3447.0	2229.5	-35.3	-1217.5
	1979	2277.4	2025.5	-11.1	-251.9
	1980	14996.0	15274.0	1.9	278.0
	1981	2269.3	2017.4	-11.1	-251.9
	1982	8317.5	8184.1	-1.6	-133.4
	1983	7678.8	7530.8	-1.9	-148.0
	1984	6584.5	6457.6	-1.9	-126.9
	1985	2459.1	2460.5	.1	1.4
	1986	2232.4	2368.4	6.1	136.0
	1987	1983.5	1784.9	-10.0	-198.6
	1988	1001.4	1001.1	.0	-.3
	1989	1949.3	1945.8	-.2	-3.5
	1990	1754.6	1751.1	-.2	-3.5
	1991	742.8	737.7	-.7	-5.1
	Mean	4329.4	4173.8	-4.0	-155.6
	Median	2278.2	2201.5	-1.5	-130.1
	Min	463.2	560.9	-35.3	-1217.5
	Max	21014.8	20863.6	21.1	278.0
X < 1500.0		6	6		
X < 1750.0		9	14		
X < 1765.0		12	15		
X < 2000.0		26	28		
X < 3000.0		46	48		
X >= 2500.0		28	25		
2500.0 > X >= 2000.0		16	17		
2000.0 > X >= 1750.0		17	14		
1750.0 > X >= 1200.0		6	11		
1200.0 > X		3	3		
X < 3450.0		48	48		
Mean of X >= 3450.0		9323.7	9082.2	-2.6	-241.5

LOWER AMERICAN RIVER FLOWS AT WATT AVE

February

	Water Year	Base Flow (cfs)	2030 w WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3339.7	2517.5	-24.6	-822.2
	1923	3492.7	2901.4	-16.9	-591.3
	1924	1591.8	1587.2	-.3	-4.6
	1925	3671.0	3900.8	6.3	229.8
	1926	1654.8	1798.4	8.7	143.6
	1927	13475.1	13405.8	-.5	-69.3
	1928	1963.0	1960.2	-.1	-2.8
	1929	1230.4	1069.4	-13.1	-161.0
	1930	1945.0	1940.4	-.2	-4.6
	1931	1397.6	1203.0	-13.9	-194.6
	1932	2241.2	1956.6	-12.7	-284.6
	1933	1687.8	1683.2	-.3	-4.6
	1934	1972.0	1717.4	-12.9	-254.6
	1935	1943.2	1936.8	-.3	-6.4
	1936	13511.2	13382.3	-1.0	-128.9
	1937	2047.6	1796.6	-12.3	-251.0
	1938	9899.4	9747.1	-1.5	-152.3
	1939	1941.4	1940.4	-.1	-1.0
	1940	10666.2	10550.1	-1.1	-116.1
	1941	8071.6	7907.0	-2.0	-164.6
	1942	10030.8	9850.0	-1.8	-180.8
	1943	6901.5	6740.5	-2.3	-161.0
	1944	1815.6	1508.2	-16.9	-307.4
	1945	6201.7	6043.1	-2.6	-158.6
	1946	2718.6	2575.5	-5.3	-143.1
	1947	1966.6	1969.2	.1	2.6
	1948	1948.6	1699.4	-12.8	-249.2
	1949	1955.8	1556.6	-20.4	-399.2
	1950	4133.8	3507.5	-15.2	-626.3
	1951	8160.6	8022.9	-1.7	-137.7
	1952	9540.9	9381.7	-1.7	-159.2
	1953	2239.5	2069.5	-7.6	-170.0
	1954	2045.9	1999.8	-2.3	-46.1
	1955	1955.8	1958.4	.1	2.6
	1956	6207.6	6114.8	-1.5	-92.8
	1957	2008.0	2012.4	.2	4.4
	1958	9192.8	6886.7	-25.1	-2306.1
	1959	2018.8	2023.2	.2	4.4
	1960	1243.6	1264.1	1.6	20.5
	1961	1204.0	1236.6	2.7	32.6
	1962	1341.2	1202.6	-10.3	-138.6
	1963	12067.4	11936.8	-1.1	-130.6
	1964	2056.0	1931.4	-6.1	-124.6
	1965	5432.0	5353.7	-1.4	-78.3
	1966	1963.0	1965.6	.1	2.6
	1967	4409.3	4278.7	-3.0	-130.6
	1968	5736.5	4890.3	-14.8	-846.2
	1969	9321.5	9234.1	-.9	-87.4
	1970	6289.9	6188.3	-1.6	-101.6
	1971	3363.0	3237.8	-3.7	-125.2
	1972	2198.5	1962.0	-10.8	-236.5
	1973	7227.3	7127.3	-1.4	-100.0
	1974	4363.4	4022.5	-7.8	-340.9
	1975	2063.8	2066.4	.1	2.6
	1976	1945.0	1949.4	.2	4.4
	1977	445.0	445.2	.0	.2
	1978	4749.4	4619.8	-2.7	-129.6
	1979	1999.0	1749.8	-12.5	-249.2
	1980	14187.7	13636.5	-3.9	-551.2
	1981	1946.8	1545.8	-20.6	-401.0
	1982	15523.9	15290.7	-1.5	-233.2
	1983	12465.3	12324.1	-1.1	-141.2
	1984	5641.1	5519.8	-2.2	-121.3
	1985	1977.4	1978.2	.0	.8
	1986	33301.6	33239.5	-.2	-62.1
	1987	1600.8	1441.6	-9.9	-159.2
	1988	1941.4	1692.2	-12.8	-249.2
	1989	1700.4	1697.6	-.2	-2.8
	1990	1747.2	1394.4	-20.2	-352.8
	1991	622.8	620.0	-.4	-2.8
	Mean	4869.4	4683.8	-5.2	-185.7
	Median	2131.1	2017.8	-1.7	-130.1
	Min	445.0	445.2	-25.1	-2306.1
	Max	33301.6	33239.5	8.7	229.8
X <	1500.0	7	9		
X <	1750.0	13	19		
X <	1765.0	13	19		
X <	2000.0	29	34		
X <	3000.0	39	41		
X >=	2500.0	32	32		
2500.0 > X >=	2000.0	9	4		
2000.0 > X >=	1750.0	16	15		
1750.0 > X >=	1200.0	11	16		
1200.0 > X		2	3		
X <	3450.0	41	42		
Mean of X >=	3450.0	9099.1	9039.4	-.7	-59.7

LOWER AMERICAN RIVER FLOWS AT WATT AVE

March

	Water Year	Base Flow (cfs)	2030 w WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4478.6	4471.9	-.1	-6.7
	1923	2774.5	2681.2	-3.4	-93.3
	1924	1229.3	1234.2	.4	4.9
	1925	3213.6	3129.6	-2.6	-84.0
	1926	1933.1	1926.3	-.4	-6.8
	1927	4557.8	4351.4	-4.5	-206.4
	1928	12182.6	9724.1	-20.2	-2458.5
	1929	1462.4	1458.9	-.2	-3.5
	1930	1978.6	1975.1	-.2	-3.5
	1931	1098.1	941.0	-14.3	-157.1
	1932	2681.5	2674.7	-.3	-6.8
	1933	1964.0	1708.9	-13.0	-255.1
	1934	1521.7	1316.6	-13.5	-205.1
	1935	3238.4	3233.3	-.2	-5.1
	1936	4163.3	4020.6	-3.4	-142.7
	1937	4407.5	3851.6	-12.6	-555.9
	1938	10858.4	10676.3	-1.7	-182.1
	1939	1573.7	1573.5	.0	-.2
	1940	10954.3	10638.9	-2.9	-315.4
	1941	4853.5	4669.8	-3.8	-183.7
	1942	4490.0	4488.1	.0	-1.9
	1943	12460.7	12301.4	-1.3	-159.3
	1944	2204.2	1954.0	-11.4	-250.2
	1945	2738.4	2738.1	.0	-.3
	1946	2782.2	2723.5	-2.1	-58.7
	1947	1991.6	1993.0	.1	1.4
	1948	2738.4	2739.8	.1	1.4
	1949	2527.4	2527.2	.0	-.2
	1950	3282.5	2970.2	-9.5	-312.3
	1951	3749.7	3600.1	-4.0	-149.6
	1952	6183.8	6021.3	-2.6	-162.5
	1953	2970.5	2971.9	.0	1.4
	1954	4430.6	3671.4	-17.1	-759.2
	1955	1934.7	1937.7	.2	3.0
	1956	3442.8	3442.6	.0	-.2
	1957	4156.3	3278.9	-21.1	-877.4
	1958	6709.4	6551.7	-2.4	-157.7
	1959	1694.5	1697.5	.2	3.0
	1960	2583.6	2208.9	-14.5	-374.7
	1961	1218.9	992.6	-18.6	-226.3
	1962	2462.4	2460.5	-.1	-1.9
	1963	3494.9	3496.3	.0	1.4
	1964	1951.0	1950.7	.0	-.3
	1965	2964.0	2962.1	-.1	-1.9
	1966	1936.3	1686.1	-12.9	-250.2
	1967	5971.3	5745.4	-3.8	-225.9
	1968	2144.5	3909.3	82.3	1764.8
	1969	4454.2	4457.2	.1	3.0
	1970	2464.0	2234.0	-9.3	-230.0
	1971	4056.8	3913.7	-3.5	-143.1
	1972	4175.3	3480.6	-16.6	-694.7
	1973	3403.2	3213.0	-5.6	-190.2
	1974	9636.9	9547.4	-.9	-89.5
	1975	4453.7	3602.1	-19.1	-851.6
	1976	1552.6	1555.6	.2	3.0
	1977	354.2	375.4	6.0	21.2
	1978	5528.7	5569.1	.7	40.4
	1979	3126.8	2473.5	-20.9	-653.3
	1980	3483.3	3205.8	-8.0	-277.5
	1981	1749.8	1497.9	-14.4	-251.9
	1982	7653.6	7557.6	-1.3	-96.0
	1983	16332.9	16207.7	-.8	-125.2
	1984	2723.7	2490.3	-8.6	-233.4
	1985	2248.1	1997.9	-11.1	-250.2
	1986	11239.4	11037.9	-1.8	-201.5
	1987	1291.1	1164.5	-9.8	-126.6
	1988	1539.6	1339.3	-13.0	-200.3
	1989	6436.2	5626.1	-12.6	-810.1
	1990	1447.7	1444.2	-.2	-3.5
	1991	2086.0	1834.1	-12.1	-251.9
	Mean	3968.2	3787.2	-4.3	-181.1
	Median	2967.3	2966.1	-2.5	-142.9
	Min	354.2	375.4	-21.1	-2458.5
	Max	16332.9	16207.7	82.3	1764.8
X <	1500.0	7	10		
X <	1750.0	13	15		
X <	1765.0	13	15		
X <	2000.0	20	23		
X <	3000.0	36	37		
X >=	4500.0	15	14		
4500.0 > X >=	3000.0	19	19		
3000.0 > X >=	2000.0	16	14		
2000.0 > X >=	1500.0	13	13		
1500.0 > X		7	10		
X <	3450.0	42	43		
Mean of X >=	3450.0	6626.9	6414.4	-3.2	-212.5

LOWER AMERICAN RIVER FLOWS AT WATT AVE

April

	Water Year	Base Flow (cfs)	2030 w WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4442.9	4426.3	-.4	-16.6
	1923	3256.3	3397.7	4.3	141.4
	1924	267.1	325.1	21.7	58.0
	1925	4091.4	3377.5	-17.4	-713.9
	1926	2013.5	1996.9	-.8	-16.6
	1927	7935.3	7767.8	-2.1	-167.5
	1928	4852.1	4570.5	-5.8	-281.6
	1929	1434.5	672.9	-53.1	-761.6
	1930	2189.6	1926.3	-12.0	-263.3
	1931	416.1	401.1	-3.6	-15.0
	1932	2932.9	2666.2	-9.1	-266.7
	1933	1914.4	1649.4	-13.8	-265.0
	1934	3149.7	2635.8	-16.3	-513.9
	1935	4419.5	4935.2	11.7	515.7
	1936	5833.9	5612.7	-3.8	-221.2
	1937	4409.0	4153.8	-5.8	-255.2
	1938	7945.1	7688.5	-3.2	-256.6
	1939	1169.4	659.5	-43.6	-509.9
	1940	6137.3	5989.6	-2.4	-147.7
	1941	3831.0	3619.8	-5.5	-211.2
	1942	4518.6	4508.7	-.2	-9.9
	1943	5241.4	5003.3	-4.5	-238.1
	1944	2209.8	1949.8	-11.8	-260.0
	1945	2681.2	2671.3	-.4	-9.9
	1946	3992.7	3588.5	-10.1	-404.2
	1947	1927.8	1919.6	-.4	-8.2
	1948	2735.0	2728.4	-.2	-6.6
	1949	2417.7	2409.5	-.3	-8.2
	1950	5014.5	4910.3	-2.1	-104.2
	1951	3117.0	2841.9	-8.8	-275.1
	1952	9025.5	8762.2	-2.9	-263.3
	1953	3478.2	3221.7	-7.4	-256.5
	1954	4533.6	4364.0	-3.7	-169.6
	1955	1963.1	1958.2	-.2	-4.9
	1956	3973.2	3963.3	-.2	-9.9
	1957	2709.8	2704.9	-.2	-4.9
	1958	10428.9	10216.0	-2.0	-212.9
	1959	1951.3	1694.8	-13.1	-256.5
	1960	2191.3	2183.0	-.4	-8.3
	1961	434.5	480.5	10.6	46.0
	1962	3750.2	2689.3	-28.3	-1060.9
	1963	4652.7	4312.7	-7.3	-340.0
	1964	1929.5	1919.6	-.5	-9.9
	1965	3800.2	3388.3	-10.8	-411.9
	1966	1936.2	1678.0	-13.3	-258.2
	1967	4491.7	4485.1	-.1	-6.6
	1968	1929.5	1922.9	-.3	-6.6
	1969	5906.1	5502.4	-6.8	-403.7
	1970	2436.2	2176.3	-10.7	-259.9
	1971	3444.6	3186.4	-7.5	-258.2
	1972	2454.7	2448.2	-.3	-6.5
	1973	2687.9	2681.3	-.2	-6.6
	1974	6235.3	6052.5	-2.9	-182.8
	1975	3956.4	3948.2	-.2	-8.2
	1976	449.7	443.1	-1.5	-6.6
	1977	267.1	325.1	21.7	58.0
	1978	4673.4	3988.3	-14.7	-685.1
	1979	2691.3	2431.3	-9.7	-260.0
	1980	2949.7	2689.8	-8.8	-259.9
	1981	1686.2	926.3	-45.1	-759.9
	1982	14375.3	14177.5	-1.4	-197.8
	1983	6694.5	6473.3	-3.3	-221.2
	1984	2709.8	2699.8	-.4	-10.0
	1985	2191.3	1933.0	-11.8	-258.3
	1986	2713.1	2704.9	-.3	-8.2
	1987	436.2	472.7	8.4	36.5
	1988	473.2	395.3	-16.5	-77.9
	1989	4551.5	3999.6	-12.1	-551.9
	1990	2662.2	1982.9	-25.5	-679.3
	1991	1929.5	1667.9	-13.6	-261.6
	Mean	3546.4	3346.5	-6.3	-200.0
	Median	2941.3	2702.4	-3.4	-212.0
	Min	267.1	325.1	-53.1	-1060.9
	Max	14375.3	14177.5	21.7	515.7
X <	1500.0	9	10		
X <	1765.0	10	14		
X <	2000.0	18	23		
X <	3000.0	36	39		
X <	.0	0	0		
X >=	4500.0	18	15		
4500.0 > X >=	3000.0	16	16		
3000.0 > X >=	2000.0	18	16		
2000.0 > X >=	1500.0	9	13		
1500.0 > X		9	10		
X <	3450.0	40	44		
Mean of X >=	3450.0	5573.0	5654.6	1.5	81.6

LOWER AMERICAN RIVER FLOWS AT WATT AVE

May

		Base	2030 w WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	9037.4	8259.2	-8.6	-778.2
	1923	4916.2	4588.9	-6.7	-327.3
	1924	268.8	349.0	29.8	80.2
	1925	4603.7	3996.9	-13.2	-606.8
	1926	2411.7	2394.9	-.7	-16.8
	1927	4860.9	4415.3	-9.2	-445.6
	1928	2905.2	2893.3	-.4	-11.9
	1929	1901.9	1640.1	-13.8	-261.8
	1930	2655.2	2391.7	-9.9	-263.5
	1931	424.7	659.6	55.3	234.9
	1932	3898.7	3631.9	-6.8	-266.8
	1933	2410.1	2394.9	-.6	-15.2
	1934	411.7	394.9	-4.1	-16.8
	1935	4883.4	4511.1	-7.6	-372.3
	1936	4145.4	4135.2	-.2	-10.2
	1937	4545.4	4216.4	-7.2	-329.0
	1938	9925.4	9569.2	-3.6	-356.2
	1939	1673.1	1664.5	-.5	-8.6
	1940	3642.2	3383.6	-7.1	-258.6
	1941	5465.9	5126.0	-6.2	-339.9
	1942	6229.5	5616.8	-9.8	-612.7
	1943	3651.9	3644.9	-.2	-7.0
	1944	2671.5	2414.5	-9.6	-257.0
	1945	3664.9	3656.3	-.2	-8.6
	1946	3686.7	3659.6	-.7	-27.1
	1947	2406.8	2401.5	-.2	-5.3
	1948	3684.5	3679.1	-.1	-5.4
	1949	3163.3	2654.7	-16.1	-508.6
	1950	3901.9	3896.6	-.1	-5.3
	1951	3682.8	3424.2	-7.0	-258.6
	1952	11270.4	10922.3	-3.1	-348.1
	1953	4168.2	4164.5	-.1	-3.7
	1954	2913.3	2909.6	-.1	-3.7
	1955	2666.6	2411.2	-9.6	-255.4
	1956	4424.7	4421.0	-.1	-3.7
	1957	3694.2	3440.5	-6.9	-253.7
	1958	10218.1	9874.9	-3.4	-343.2
	1959	2413.3	2158.0	-10.6	-255.3
	1960	2664.9	2658.0	-.3	-6.9
	1961	1414.9	1406.3	-.6	-8.6
	1962	3147.1	3138.4	-.3	-8.7
	1963	7279.3	6864.6	-5.7	-414.7
	1964	2414.9	2406.3	-.4	-8.6
	1965	4158.4	3901.5	-6.2	-256.9
	1966	2410.1	2403.1	-.3	-7.0
	1967	8130.4	7578.4	-6.8	-552.0
	1968	2411.7	2408.0	-.2	-3.7
	1969	9287.9	8910.5	-4.1	-377.4
	1970	2914.9	2658.0	-8.8	-256.9
	1971	4181.2	4175.8	-.1	-5.4
	1972	2914.9	2659.6	-8.8	-255.3
	1973	4445.0	3828.2	-13.9	-616.8
	1974	5036.6	4641.4	-7.8	-395.2
	1975	4410.1	4406.3	-.1	-3.8
	1976	919.8	420.1	-54.3	-499.7
	1977	268.8	349.0	29.8	80.2
	1978	4417.0	3894.9	-11.8	-522.1
	1979	4076.1	3398.2	-16.6	-677.9
	1980	3905.2	3898.2	-.2	-7.0
	1981	2163.3	1654.7	-23.5	-508.6
	1982	9328.5	9045.5	-3.0	-283.0
	1983	10603.6	10273.4	-3.1	-330.2
	1984	3679.6	3422.6	-7.0	-257.0
	1985	2673.1	2416.1	-9.6	-257.0
	1986	3673.1	3667.7	-.1	-5.4
	1987	1419.8	662.8	-53.3	-757.0
	1988	432.8	422.6	-2.4	-10.2
	1989	3448.1	2931.6	-15.0	-516.5
	1990	1707.2	1445.4	-15.3	-261.8
	1991	2413.3	2401.5	-.5	-11.8
	Mean	3940.7	3718.8	-5.0	-221.9
	Median	3669.0	3423.4	-4.1	-256.9
	Min	268.8	349.0	-54.3	-778.2
	Max	11270.4	10922.3	55.3	234.9
X <	1500.0	8	9		
X <	1765.0	10	12		
X <	2000.0	11	12		
X <	3000.0	29	31		
X <	.0	0	0		
X >=	4500.0	17	14		
4500.0 > X >=	3000.0	24	25		
3000.0 > X >=	2000.0	18	19		
2000.0 > X >=	1500.0	3	3		
1500.0 > X		8	9		
X <	3450.0	32	37		
Mean of X >=	3450.0	5495.1	5487.0	-.1	-8.1

LOWER AMERICAN RIVER FLOWS AT WATT AVE

June

	Water Year	Base Flow (cfs)	2030 w WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	9044.6	8568.1	-5.3	-476.5
	1923	4675.0	4027.7	-13.8	-647.3
	1924	290.7	360.5	24.0	69.8
	1925	6384.6	5410.1	-15.3	-974.5
	1926	1839.6	2119.2	15.2	279.6
	1927	5431.4	5007.0	-7.8	-424.4
	1928	5811.7	4012.6	-31.0	-1799.1
	1929	2264.2	2066.3	-8.7	-197.9
	1930	2154.4	1889.4	-12.3	-265.0
	1931	1176.5	714.7	-39.3	-461.8
	1932	4906.0	4776.7	-2.6	-129.3
	1933	2445.4	2131.2	-12.8	-314.2
	1934	1712.7	1573.8	-8.1	-138.9
	1935	4010.5	3615.9	-9.8	-394.6
	1936	4538.5	3848.7	-15.2	-689.8
	1937	3392.6	3381.0	-.3	-11.6
	1938	8685.0	8235.4	-5.2	-449.6
	1939	907.7	516.6	-43.1	-391.1
	1940	3517.8	3127.7	-11.1	-390.1
	1941	3647.7	3389.4	-7.1	-258.3
	1942	7448.1	6985.0	-6.2	-463.1
	1943	3407.7	3401.2	-.2	-6.5
	1944	2157.7	1651.2	-23.5	-506.5
	1945	5938.5	4670.4	-21.4	-1268.1
	1946	6361.2	5271.6	-17.1	-1089.6
	1947	1671.2	1412.9	-15.5	-258.3
	1948	3399.3	3144.5	-7.5	-254.8
	1949	2894.3	2386.1	-17.6	-508.2
	1950	4044.6	3634.4	-10.1	-410.2
	1951	3156.1	3149.5	-.2	-6.6
	1952	10605.9	10144.5	-4.4	-461.4
	1953	3916.1	3662.9	-6.5	-253.2
	1954	2790.4	3498.6	25.4	708.2
	1955	2162.8	1906.2	-11.9	-256.6
	1956	5632.1	4454.0	-20.9	-1178.1
	1957	3887.7	4135.4	6.4	247.7
	1958	7829.6	7406.9	-5.4	-422.7
	1959	1417.8	1161.3	-18.1	-256.5
	1960	2159.4	2151.2	-.4	-8.2
	1961	659.4	524.4	-20.5	-135.0
	1962	2902.7	2967.4	2.2	64.7
	1963	3392.6	3389.4	-.1	-3.2
	1964	2169.5	2159.6	-.5	-9.9
	1965	3652.7	3646.1	-.2	-6.6
	1966	1912.8	1404.5	-26.6	-508.3
	1967	10521.8	10126.0	-3.8	-395.8
	1968	2166.1	1411.3	-34.8	-754.8
	1969	6696.9	6287.6	-6.1	-409.3
	1970	3336.2	2966.2	-11.1	-370.0
	1971	3978.8	3652.9	-8.2	-325.9
	1972	4510.1	4349.8	-3.6	-160.3
	1973	5658.4	6389.8	12.9	731.4
	1974	4359.2	3919.7	-10.1	-439.5
	1975	5860.4	4811.2	-17.9	-1049.2
	1976	1941.5	1983.1	2.1	41.6
	1977	290.7	360.5	24.0	69.8
	1978	4566.0	3641.1	-20.3	-924.9
	1979	6391.3	6381.4	-.2	-9.9
	1980	3644.3	3389.4	-7.0	-254.9
	1981	1412.8	652.9	-53.8	-759.9
	1982	6365.8	5902.8	-7.3	-463.0
	1983	14645.9	14186.2	-3.1	-459.7
	1984	4827.1	3855.4	-20.1	-971.7
	1985	2905.7	2441.3	-16.0	-464.4
	1986	3422.9	3166.3	-7.5	-256.6
	1987	424.5	516.6	21.7	92.1
	1988	1574.7	1227.0	-22.1	-347.7
	1989	3984.3	3689.4	-7.4	-294.9
	1990	1733.4	1680.2	-3.1	-53.2
	1991	2954.4	2769.0	-6.3	-185.4
	Mean	4008.3	3669.3	-8.8	-339.0
	Median	3470.4	3389.4	-7.5	-320.0
	Min	290.7	360.5	-53.8	-1799.1
	Max	14645.9	14186.2	25.4	731.4
X <	1500.0	8	12		
X <	1765.0	12	15		
X <	2000.0	15	18		
X <	3000.0	28	28		
X <	.0	0	0		
X >=	4500.0	24	17		
4500.0 > X >=	3000.0	18	25		
3000.0 > X >=	2000.0	13	10		
2000.0 > X >=	500.0	12	16		
500.0 > X		3	2		
X <	3450.0	35	37		
Mean of X >=	3450.0	5885.1	5521.4	-6.2	-363.8

LOWER AMERICAN RIVER FLOWS AT WATT AVE

July

		Base	2030 w WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4143.7	3348.5	-19.2	-795.2
	1923	5750.3	2853.5	-50.4	-2896.8
	1924	641.9	374.7	-41.6	-267.2
	1925	4114.9	2531.6	-38.5	-1583.3
	1926	2549.7	2488.8	-2.4	-60.9
	1927	2998.4	6367.6	112.4	3369.2
	1928	1408.4	1384.9	-1.7	-23.5
	1929	1573.7	1359.2	-13.6	-214.5
	1930	2782.2	2595.9	-6.7	-186.3
	1931	1833.4	2518.9	37.4	685.5
	1932	3072.7	3019.9	-1.7	-52.8
	1933	2139.3	1895.7	-11.4	-243.6
	1934	1408.0	1358.5	-3.5	-49.5
	1935	4960.4	2878.3	-42.0	-2082.1
	1936	4027.7	3945.6	-2.0	-82.1
	1937	2507.6	2387.6	-4.8	-120.0
	1938	3658.1	3175.0	-13.2	-483.1
	1939	1875.7	1640.2	-12.6	-235.5
	1940	5956.7	5367.2	-9.9	-589.5
	1941	2278.2	2138.2	-6.1	-140.0
	1942	3643.5	3149.0	-13.6	-494.5
	1943	5658.9	5884.7	4.0	225.8
	1944	2229.7	1508.8	-32.3	-720.9
	1945	4266.6	4213.4	-1.2	-53.2
	1946	3764.3	3967.0	5.4	202.7
	1947	1886.7	1425.3	-24.5	-461.4
	1948	3765.9	2408.6	-36.0	-1357.3
	1949	3177.6	2608.5	-17.9	-569.1
	1950	5280.2	3392.5	-35.8	-1887.7
	1951	5895.2	5127.2	-13.0	-768.0
	1952	4765.7	4290.7	-10.0	-475.0
	1953	3279.6	2237.4	-31.8	-1042.2
	1954	3305.5	1935.2	-41.5	-1370.3
	1955	1723.0	1396.3	-19.0	-326.7
	1956	3323.1	2830.2	-14.8	-492.9
	1957	4767.6	4567.5	-4.2	-200.1
	1958	3305.2	2831.9	-14.3	-473.3
	1959	668.2	551.8	-17.4	-116.4
	1960	2860.8	1391.5	-51.4	-1469.3
	1961	410.1	520.9	27.0	110.8
	1962	5303.1	4412.1	-16.8	-891.0
	1963	2253.6	5663.7	151.3	3410.1
	1964	2259.0	2083.7	-7.8	-175.3
	1965	5555.6	6380.6	14.8	825.0
	1966	1413.3	559.4	-60.4	-853.9
	1967	4442.0	3968.7	-10.7	-473.3
	1968	1411.7	646.3	-54.2	-765.4
	1969	3101.9	2610.7	-15.8	-491.2
	1970	1879.4	1744.2	-7.2	-135.2
	1971	3123.1	2151.1	-31.1	-972.0
	1972	1413.3	1398.0	-1.1	-15.3
	1973	4124.3	2671.2	-35.2	-1453.1
	1974	3586.6	3116.5	-13.1	-470.1
	1975	3048.3	2579.8	-15.4	-468.5
	1976	1481.0	1352.9	-8.6	-128.1
	1977	307.9	374.7	21.7	66.8
	1978	6232.5	5550.0	-11.0	-682.5
	1979	2955.2	1386.6	-53.1	-1568.6
	1980	3766.5	3970.4	5.4	203.9
	1981	413.3	520.9	26.0	107.6
	1982	3521.5	3028.7	-14.0	-492.8
	1983	6342.3	5954.5	-6.1	-387.8
	1984	4317.3	4563.5	5.7	246.2
	1985	2241.8	1874.1	-16.4	-367.7
	1986	5485.6	5072.3	-7.5	-413.3
	1987	1827.0	1116.8	-38.9	-710.2
	1988	1014.2	813.0	-19.8	-201.2
	1989	3672.5	2957.4	-19.5	-715.1
	1990	1357.4	1096.0	-19.3	-261.4
	1991	2343.2	2402.5	2.5	59.3
	Mean	3112.2	2741.3	-10.4	-370.9
	Median	3087.3	2555.7	-13.1	-377.8
	Min	307.9	374.7	-60.4	-2896.8
	Max	6342.3	6380.6	151.3	3410.1
X <	1500.0	13	19		
X <	1765.0	15	22		
X <	2000.0	20	25		
X <	3000.0	33	45		
X <	.0	0	0		
X >=	2500.0	43	37		
2500.0 > X >=	1500.0	14	14		
1500.0 > X >=	500.0	10	17		
500.0 > X >=	.0	3	2		
.0 > X		0	0		
X <	3450.0	42	52		
Mean of X >=	3450.0	4670.3	4959.3	6.2	288.9

LOWER AMERICAN RIVER FLOWS AT WATT AVE

August

		Base	2030 w WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2832.8	2701.5	-4.6	-131.3
	1923	2471.6	4454.1	80.2	1982.5
	1924	306.2	371.5	21.3	65.3
	1925	3695.3	1626.8	-56.0	-2068.5
	1926	663.3	636.6	-4.0	-26.7
	1927	3790.1	3610.8	-4.7	-179.3
	1928	3193.8	4002.7	25.3	808.9
	1929	306.2	426.3	39.2	120.1
	1930	910.1	884.9	-2.8	-25.2
	1931	306.2	418.6	36.7	112.4
	1932	2235.0	1620.3	-27.5	-614.7
	1933	651.9	418.6	-35.8	-233.3
	1934	306.2	418.6	36.7	112.4
	1935	3006.8	3908.5	30.0	901.7
	1936	3015.8	2186.8	-27.5	-829.0
	1937	2702.8	1880.1	-30.4	-822.7
	1938	4326.2	3826.8	-11.5	-499.4
	1939	411.7	511.5	24.2	99.8
	1940	3891.5	3105.9	-20.2	-785.6
	1941	4178.2	3156.0	-24.5	-1022.2
	1942	4407.5	3913.0	-11.2	-494.5
	1943	2545.7	2961.1	16.3	415.4
	1944	3914.8	898.0	-77.1	-3016.8
	1945	1971.5	2244.5	13.8	273.0
	1946	2015.4	2228.7	10.6	213.3
	1947	1206.9	643.1	-46.7	-563.8
	1948	3121.7	2891.8	-7.4	-229.9
	1949	2415.2	2817.2	16.6	402.0
	1950	2913.2	2666.3	-8.5	-246.9
	1951	3272.7	3104.1	-5.2	-168.6
	1952	4828.1	4337.5	-10.2	-490.6
	1953	4448.1	3921.4	-11.8	-526.7
	1954	3448.4	3942.0	14.3	493.6
	1955	3313.2	1862.9	-43.8	-1450.3
	1956	4378.2	3888.6	-11.2	-489.6
	1957	1635.6	2482.0	51.7	846.4
	1958	4474.2	4002.4	-10.5	-471.8
	1959	2462.0	1520.6	-38.2	-941.4
	1960	3230.3	2156.5	-33.2	-1073.8
	1961	1417.9	519.3	-63.4	-898.6
	1962	4541.5	2703.9	-40.5	-1837.6
	1963	3999.3	1731.7	-56.7	-2267.6
	1964	3381.2	894.7	-73.5	-2486.5
	1965	1919.8	2501.1	30.3	581.3
	1966	2906.8	1680.4	-42.2	-1226.4
	1967	4441.6	3950.4	-11.1	-491.2
	1968	1168.2	1720.6	47.3	552.4
	1969	4254.6	3779.6	-11.2	-475.0
	1970	4032.3	3699.8	-8.2	-332.5
	1971	4199.3	3709.7	-11.7	-489.6
	1972	4312.7	3385.3	-21.5	-927.4
	1973	1613.8	3684.3	128.3	2070.5
	1974	4457.9	3969.9	-10.9	-488.0
	1975	4238.3	3769.9	-11.1	-468.4
	1976	1421.6	968.2	-31.9	-453.4
	1977	306.2	371.5	21.3	65.3
	1978	1660.1	3136.5	88.9	1476.4
	1979	2218.1	2942.5	32.7	724.4
	1980	2440.0	4035.8	65.4	1595.8
	1981	1686.4	826.1	-51.0	-860.3
	1982	4448.1	3955.3	-11.1	-492.8
	1983	4850.9	4718.0	-2.7	-132.9
	1984	1436.1	2933.1	104.2	1497.0
	1985	3221.3	2508.8	-22.1	-712.5
	1986	3789.2	3413.5	-9.9	-375.7
	1987	1606.8	1413.5	-12.0	-193.3
	1988	819.9	434.1	-47.1	-385.8
	1989	3569.2	3436.5	-3.7	-132.7
	1990	2124.2	1521.2	-28.4	-603.0
	1991	1441.2	441.8	-69.3	-999.4
	Mean	2730.4	2448.7	-4.0	-281.8
	Median	2910.0	2683.9	-10.7	-380.8
	Min	306.2	371.5	-77.1	-3016.8
	Max	4850.9	4718.0	128.3	2070.5
X <	1500.0	16	18		
X <	1765.0	21	25		
X <	2000.0	23	27		
X <	3000.0	36	42		
X <	.0	0	0		
X >=	2500.0	39	38		
2500.0 > X >=	2000.0	8	5		
2000.0 > X >=	1000.0	13	10		
1000.0 > X >=	500.0	4	9		
500.0 > X		6	8		
X <	3450.0	46	49		
Mean of X >=	3450.0	4227.8	3956.2	-6.4	-271.6

LOWER AMERICAN RIVER FLOWS AT WATT AVE

September

	Water Year	Base Flow (cfs)	2030 w WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3839.0	3340.9	-13.0	-498.1
	1923	1929.6	1914.6	-.8	-15.0
	1924	919.5	662.9	-27.9	-256.6
	1925	1693.8	2394.5	41.4	700.7
	1926	1416.1	1149.5	-18.8	-266.6
	1927	3993.6	1787.5	-55.2	-2206.1
	1928	1414.5	1401.2	-.9	-13.3
	1929	1164.5	902.9	-22.5	-261.6
	1930	1414.5	1399.5	-1.1	-15.0
	1931	909.4	644.5	-29.1	-264.9
	1932	3861.6	2384.4	-38.3	-1477.2
	1933	1406.1	1141.1	-18.8	-265.0
	1934	907.7	479.7	-47.2	-428.0
	1935	2818.1	2391.5	-15.1	-426.6
	1936	3930.9	3652.6	-7.1	-278.3
	1937	3924.7	3290.2	-16.2	-634.5
	1938	4129.7	3712.0	-10.1	-417.7
	1939	1174.5	1162.9	-1.0	-11.6
	1940	1631.5	1526.2	-6.5	-105.3
	1941	4072.6	3656.5	-10.2	-416.1
	1942	4109.5	3695.2	-10.1	-414.3
	1943	2164.5	1656.2	-23.5	-508.3
	1944	1831.3	1411.3	-22.9	-420.0
	1945	2378.9	2243.5	-5.7	-135.4
	1946	2896.1	2665.4	-8.0	-230.7
	1947	2062.5	1406.2	-31.8	-656.3
	1948	2783.6	3090.4	11.0	306.8
	1949	1976.3	1466.8	-25.8	-509.5
	1950	2507.6	2987.2	19.1	479.6
	1951	1736.2	1887.5	8.7	151.3
	1952	4330.3	3901.9	-9.9	-428.4
	1953	4077.6	3670.0	-10.0	-407.6
	1954	2120.7	1412.9	-33.4	-707.8
	1955	1464.2	1423.0	-2.8	-41.2
	1956	4057.4	3646.4	-10.1	-411.0
	1957	2188.0	1694.6	-22.6	-493.4
	1958	4144.8	3737.2	-9.8	-407.6
	1959	1206.5	1199.9	-.5	-6.6
	1960	1992.1	1406.2	-29.4	-585.9
	1961	1417.8	1157.9	-18.3	-259.9
	1962	1409.4	2079.3	47.5	669.9
	1963	4060.8	2152.9	-47.0	-1907.9
	1964	1545.9	1407.9	-8.9	-138.0
	1965	3862.0	1902.9	-50.7	-1959.1
	1966	1421.9	1157.9	-18.6	-264.0
	1967	4344.8	3969.1	-8.6	-375.7
	1968	2111.0	1159.6	-45.1	-951.4
	1969	4084.3	3691.8	-9.6	-392.5
	1970	1421.2	1412.9	-.6	-8.3
	1971	3909.6	3518.7	-10.0	-390.9
	1972	1436.3	1429.8	-.5	-6.5
	1973	1924.5	1418.0	-26.3	-506.5
	1974	4210.4	3804.4	-9.6	-406.0
	1975	3996.9	3577.5	-10.5	-419.4
	1976	426.2	518.4	21.6	92.2
	1977	377.0	445.0	18.0	68.0
	1978	2992.2	1656.2	-44.6	-1336.0
	1979	1947.1	1835.1	-5.8	-112.0
	1980	3986.9	1896.1	-52.4	-2090.8
	1981	1472.1	1414.6	-3.9	-57.5
	1982	4536.4	4157.3	-8.4	-379.1
	1983	4860.3	4758.2	-2.1	-102.1
	1984	1934.6	1676.4	-13.3	-258.2
	1985	1189.7	1181.4	-.7	-8.3
	1986	1698.1	1689.8	-.5	-8.3
	1987	1286.3	919.7	-28.5	-366.6
	1988	672.9	662.9	-1.5	-10.0
	1989	1204.8	1193.2	-1.0	-11.6
	1990	666.1	654.5	-1.7	-11.6
	1991	911.1	897.8	-1.5	-13.3
	Mean	2398.6	2042.8	-12.3	-355.8
	Median	1961.7	1666.3	-9.9	-265.8
	Min	377.0	445.0	-55.2	-2206.1
	Max	4860.3	4758.2	47.5	700.7
X <	1500.0	25	32		
X <	1765.0	30	38		
X <	2000.0	37	44		
X <	3000.0	48	52		
X <	.0	0	0		
X >=	2500.0	27	20		
2500.0 > X >=	1500.0	18	18		
1500.0 > X >=	500.0	23	30		
500.0 > X >=	.0	2	2		
.0 > X		0	0		
X <	3450.0	48	55		
Mean of X >=	3450.0	4105.6	3809.9	-7.2	-295.7

RETURN TO TABLE OF CONTENTS

Section 8

LOWER AMERICAN RIVER FLOW AT H STREET
8.1 Fisheries

LOWER AMERICAN RIVER FLOW AT HST.

October

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2353.6	2280.4	-3.1	-73.2
	1923	2371.5	2298.5	-3.1	-73.0
	1924	2350.4	2279.0	-3.0	-71.4
	1925	1170.3	920.3	-21.4	-250.0
	1926	2348.8	2275.7	-3.1	-73.1
	1927	1639.4	1603.6	-2.2	-35.8
	1928	2361.8	2292.0	-3.0	-69.8
	1929	1842.2	1558.1	-15.4	-284.1
	1930	1598.8	1313.0	-17.9	-285.8
	1931	2097.1	1561.3	-25.5	-535.8
	1932	1110.1	1071.1	-3.5	-39.0
	1933	2339.0	2267.6	-3.1	-71.4
	1934	1610.1	1572.7	-2.3	-37.4
	1935	1103.6	452.3	-59.0	-651.3
	1936	2369.9	2298.5	-3.0	-71.4
	1937	2342.2	2272.5	-3.0	-69.7
	1938	2358.5	2290.3	-2.9	-68.2
	1939	2347.1	2282.2	-2.8	-64.9
	1940	1619.9	1335.7	-17.5	-284.2
	1941	1865.0	1832.5	-1.7	-32.5
	1942	2374.8	2308.2	-2.8	-66.6
	1943	2352.0	2285.5	-2.8	-66.5
	1944	2343.9	2029.0	-13.4	-314.9
	1945	1374.8	1843.9	34.1	469.1
	1946	2389.4	1858.5	-22.2	-530.9
	1947	2093.9	1566.2	-25.2	-527.7
	1948	1632.9	1603.6	-1.8	-29.3
	1949	2353.6	2285.5	-2.9	-68.1
	1950	2343.9	1814.6	-22.6	-529.3
	1951	2395.9	2331.0	-2.7	-64.9
	1952	2139.4	1858.5	-13.1	-280.9
	1953	2343.9	2282.2	-2.6	-61.7
	1954	2350.4	2288.7	-2.6	-61.7
	1955	1847.1	1569.5	-15.0	-277.6
	1956	1624.8	1593.9	-1.9	-30.9
	1957	2366.6	2306.6	-2.5	-60.0
	1958	2392.7	2076.1	-13.2	-316.6
	1959	2345.5	2283.8	-2.6	-61.7
	1960	1597.1	1567.8	-1.8	-29.3
	1961	1595.5	1814.6	13.7	219.1
	1962	1602.0	1569.5	-2.0	-32.5
	1963	2158.7	2314.8	7.2	156.1
	1964	2365.0	2300.1	-2.7	-64.9
	1965	1641.0	1858.5	13.3	217.5
	1966	2339.0	2274.1	-2.8	-64.9
	1967	1608.5	1576.0	-2.0	-32.5
	1968	2339.0	2279.0	-2.6	-60.0
	1969	2123.1	1590.6	-25.1	-532.5
	1970	2361.8	2298.5	-2.7	-63.3
	1971	1873.1	1845.5	-1.5	-27.6
	1972	2347.1	2285.5	-2.6	-61.6
	1973	1641.0	1611.8	-1.8	-29.2
	1974	2387.8	1610.1	-32.6	-777.7
	1975	2369.9	2306.6	-2.7	-63.3
	1976	2386.2	2326.1	-2.5	-60.1
	1977	375.0	491.0	30.9	116.0
	1978	375.0	451.9	20.5	76.9
	1979	2352.0	2282.2	-3.0	-69.8
	1980	2399.2	1616.6	-32.6	-782.6
	1981	2342.2	2275.7	-2.8	-66.5
	1982	1658.9	1624.8	-2.1	-34.1
	1983	3312.9	3032.1	-8.5	-280.8
	1984	3412.3	2312.4	-32.2	-1099.9
	1985	2381.3	2068.0	-13.2	-313.3
	1986	1634.5	1352.0	-17.3	-282.5
	1987	2350.4	2037.1	-13.3	-313.3
	1988	1484.6	1770.5	19.3	285.9
	1989	855.3	821.1	-4.0	-34.2
	1990	1632.9	1598.8	-2.1	-34.1
	1991	856.9	821.1	-4.2	-35.8
	Mean	2006.1	1860.4	-6.1	-145.7
	Median	2339.0	1858.5	-2.8	-65.7
	Min	375.0	451.9	-59.0	-1099.9
	Max	3412.3	3032.1	34.1	469.1
X <	1500.0	9	10		
X <	1750.0	24	27		
X <	1765.0	24	27		
X <	2000.0	28	36		
X <	3000.0	68	69		
X >=	2500.0	2	1		
2500.0 > X >=	2000.0	40	33		
2000.0 > X >=	1750.0	4	9		
1750.0 > X >=	800.0	22	24		
800.0 > X		2	3		
X <	3450.0	70	70		
Mean of X >=	3450.0	.0	.0	.0	.0

LOWER AMERICAN RIVER FLOW AT HST.

November

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2377.3	2343.7	-1.4	-33.6
	1923	2431.1	2399.3	-1.3	-31.8
	1924	2350.4	2320.3	-1.3	-30.1
	1925	1122.3	890.8	-20.6	-231.5
	1926	2365.6	2332.0	-1.4	-33.6
	1927	1718.1	1686.2	-1.9	-31.9
	1928	2764.9	2358.9	-14.7	-406.0
	1929	1890.8	1612.3	-14.7	-278.5
	1930	1592.0	1310.2	-17.7	-281.8
	1931	2115.6	1583.7	-25.1	-531.9
	1932	1132.4	1098.9	-3.0	-33.5
	1933	2345.4	2313.6	-1.4	-31.8
	1934	1583.6	1551.8	-2.0	-31.8
	1935	1169.3	452.4	-61.3	-716.9
	1936	2365.6	2333.7	-1.3	-31.9
	1937	2342.0	2313.6	-1.2	-28.4
	1938	2421.0	2390.9	-1.2	-30.1
	1939	2348.8	2322.0	-1.1	-26.8
	1940	1597.1	1316.9	-17.5	-280.2
	1941	1890.8	1860.6	-1.6	-30.2
	1942	2389.1	2360.6	-1.2	-28.5
	1943	3593.5	3265.1	-9.1	-328.4
	1944	2362.2	2087.1	-11.6	-275.1
	1945	1419.3	1892.5	33.3	473.2
	1946	2387.4	1862.3	-22.0	-525.1
	1947	2140.8	1617.3	-24.5	-523.5
	1948	1618.9	1593.8	-1.6	-25.1
	1949	2358.8	2333.7	-1.1	-25.1
	1950	2362.2	1838.8	-22.2	-523.4
	1951	16872.8	16586.1	-1.7	-286.7
	1952	2152.5	1875.7	-12.9	-276.8
	1953	2387.4	2365.7	-.9	-21.7
	1954	2382.4	2360.6	-.9	-21.8
	1955	1902.5	1629.1	-14.4	-273.4
	1956	1644.1	1617.3	-1.6	-26.8
	1957	2347.1	2325.3	-.9	-21.8
	1958	2370.6	2095.5	-11.6	-275.1
	1959	2352.1	2330.4	-.9	-21.7
	1960	1597.1	1570.3	-1.7	-26.8
	1961	1669.3	1894.2	13.5	224.9
	1962	1645.8	1619.0	-1.6	-26.8
	1963	3004.4	2861.7	-4.7	-142.7
	1964	4079.0	2690.1	-34.1	-1388.9
	1965	1669.3	1892.5	13.4	223.2
	1966	2407.6	2384.1	-1.0	-23.5
	1967	1726.5	1699.7	-1.6	-26.8
	1968	2367.2	2345.5	-.9	-21.7
	1969	2176.1	1649.3	-24.2	-526.8
	1970	2372.3	2347.2	-1.1	-25.1
	1971	1981.5	1958.1	-1.2	-23.4
	1972	2367.2	2343.8	-1.0	-23.4
	1973	1699.6	1676.2	-1.4	-23.4
	1974	6054.3	3873.4	-36.0	-2180.9
	1975	2385.7	2360.6	-1.1	-25.1
	1976	2885.2	2533.2	-12.2	-352.0
	1977	375.0	491.1	31.0	116.1
	1978	389.1	453.1	16.4	64.0
	1979	2416.0	2387.5	-1.2	-28.5
	1980	2395.8	1617.3	-32.5	-778.5
	1981	2350.4	2322.0	-1.2	-28.4
	1982	4641.0	4259.6	-8.2	-381.4
	1983	6784.0	6660.0	-1.8	-124.0
	1984	14296.1	14316.6	.1	20.5
	1985	3083.6	2196.3	-28.8	-887.3
	1986	1724.8	1448.0	-16.0	-276.8
	1987	2360.5	2087.1	-11.6	-273.4
	1988	1185.1	1413.1	19.2	228.0
	1989	894.1	864.0	-3.4	-30.1
	1990	1629.0	1598.9	-1.8	-30.1
	1991	863.9	832.0	-3.7	-31.9
	Mean	2606.3	2421.1	-6.3	-185.3
	Median	2349.6	2087.1	-1.6	-31.8
	Min	375.0	452.4	-61.3	-2180.9
	Max	16872.8	16586.1	33.3	473.2
X < 1500.0		9	11		
X < 1750.0		23	26		
X < 1765.0		23	26		
X < 2000.0		27	34		
X < 3000.0		61	64		
X >= 2500.0		11	9		
2500.0 > X >= 2000.0		32	27		
2000.0 > X >= 1750.0		4	8		
1750.0 > X >= 1200.0		15	19		
1200.0 > X		8	7		
X < 3450.0		63	65		
Mean of X >= 3450.0		8045.8	9139.1	13.6	1093.3

LOWER AMERICAN RIVER FLOW AT HST.

December

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2462.6	2451.2	-.5	-11.4
	1923	6449.2	6039.0	-6.4	-410.2
	1924	2360.1	2348.8	-.5	-11.3
	1925	1189.8	969.1	-18.5	-220.7
	1926	2381.3	2370.0	-.5	-11.3
	1927	1628.0	1616.7	-.7	-11.3
	1928	2384.5	2374.9	-.4	-9.6
	1929	1892.7	1634.6	-13.6	-258.1
	1930	1680.1	1418.8	-15.6	-261.3
	1931	2095.5	1584.2	-24.4	-511.3
	1932	1245.1	1230.6	-1.2	-14.5
	1933	2387.8	2376.5	-.5	-11.3
	1934	1691.5	1678.5	-.8	-13.0
	1935	1139.4	577.3	-49.3	-562.1
	1936	2381.3	2370.0	-.5	-11.3
	1937	2404.0	2396.0	-.3	-8.0
	1938	6102.9	5711.3	-6.4	-391.6
	1939	2365.0	2358.6	-.3	-6.4
	1940	1618.3	1358.6	-16.0	-259.7
	1941	2013.0	2005.0	-.4	-8.0
	1942	4922.1	4461.6	-9.4	-460.5
	1943	4689.8	4558.4	-2.8	-131.4
	1944	2386.2	2131.4	-10.7	-254.8
	1945	1394.3	1886.2	35.3	491.9
	1946	7788.1	7026.1	-9.8	-762.0
	1947	2142.7	1637.9	-23.6	-504.8
	1948	1611.8	1607.0	-.3	-4.8
	1949	2417.1	2410.6	-.3	-6.5
	1950	2376.4	1873.2	-21.2	-503.2
	1951	16335.9	16206.0	-.8	-129.9
	1952	4167.5	3159.3	-24.2	-1008.2
	1953	2475.6	2472.4	-.1	-3.2
	1954	2361.8	2360.2	-.1	-1.6
	1955	1933.3	1681.8	-13.0	-251.5
	1956	14600.8	14782.3	1.2	181.5
	1957	2356.9	2353.7	-.1	-3.2
	1958	2418.7	2162.3	-10.6	-256.4
	1959	2368.3	2366.7	-.1	-1.6
	1960	1623.1	1849.4	13.9	226.3
	1961	1615.0	1860.2	15.2	245.2
	1962	1644.3	1637.9	-.4	-6.4
	1963	3375.7	3307.5	-2.0	-68.2
	1964	3177.9	2350.5	-26.0	-827.4
	1965	19280.7	20219.9	4.9	939.2
	1966	2400.8	2396.0	-.2	-4.8
	1967	1678.4	1672.0	-.4	-6.4
	1968	2368.3	2365.1	-.1	-3.2
	1969	2175.2	1668.8	-23.3	-506.4
	1970	5268.1	4817.4	-8.6	-450.7
	1971	4835.0	4293.4	-11.2	-541.6
	1972	2430.1	2426.9	-.1	-3.2
	1973	1658.9	1654.1	-.3	-4.8
	1974	7459.5	7337.8	-1.6	-121.7
	1975	2420.3	2415.5	-.2	-4.8
	1976	2365.0	2361.8	-.1	-3.2
	1977	500.0	616.0	23.2	116.0
	1978	500.0	576.9	15.4	76.9
	1979	2374.8	2366.7	-.3	-8.1
	1980	2438.2	1680.2	-31.1	-758.0
	1981	2394.3	2387.9	-.3	-6.4
	1982	14151.7	14142.4	-.1	-9.3
	1983	9105.3	8943.0	-1.8	-162.3
	1984	15314.4	15098.5	-1.4	-215.9
	1985	2447.1	2136.2	-12.7	-310.9
	1986	1675.2	1418.8	-15.3	-256.4
	1987	2379.7	2124.9	-10.7	-254.8
	1988	1193.1	1186.7	-.5	-6.4
	1989	908.9	899.3	-1.1	-9.6
	1990	1605.3	1595.6	-.6	-9.7
	1991	878.0	868.4	-1.1	-9.6
	Mean	3575.2	3438.3	-4.7	-136.8
	Median	2375.6	2352.1	-.6	-11.3
	Min	500.0	576.9	-49.3	-1008.2
	Max	19280.7	20219.9	35.3	939.2
X <	1500.0	9	11		
X <	1750.0	21	24		
X <	1765.0	21	24		
X <	2000.0	23	28		
X <	3000.0	53	54		
X >=	2500.0	17	16		
2500.0 > X >=	2000.0	30	26		
2000.0 > X >=	1750.0	2	4		
1750.0 > X >=	1200.0	14	17		
1200.0 > X		7	7		
X <	3450.0	55	56		
Mean of X >=	3450.0	9364.7	9545.5	1.9	180.8

LOWER AMERICAN RIVER FLOW AT HST.

January

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	1908.9	1899.2	-.5	-9.7
	1923	4491.4	4327.4	-3.7	-164.0
	1924	1899.2	1889.5	-.5	-9.7
	1925	1628.0	1658.9	1.9	30.9
	1926	1905.7	1896.0	-.5	-9.7
	1927	3077.9	2584.2	-16.0	-493.7
	1928	2384.5	1878.1	-21.2	-506.4
	1929	1471.5	1265.1	-14.0	-206.4
	1930	1680.1	1672.0	-.5	-8.1
	1931	1707.3	1400.9	-17.9	-306.4
	1932	1879.7	1618.3	-13.9	-261.4
	1933	1917.1	1909.0	-.4	-8.1
	1934	1871.5	1613.5	-13.8	-258.0
	1935	1689.8	1931.8	14.3	242.0
	1936	4271.2	3876.6	-9.2	-394.6
	1937	1918.7	1912.3	-.3	-6.4
	1938	2803.3	2658.7	-5.2	-144.6
	1939	2134.5	1881.4	-11.9	-253.1
	1940	2491.2	1993.8	-20.0	-497.4
	1941	5492.7	4720.3	-14.1	-772.4
	1942	9289.1	9121.9	-1.8	-167.2
	1943	10904.1	10738.5	-1.5	-165.6
	1944	1904.0	1700.9	-10.7	-203.1
	1945	1876.4	2123.2	13.2	246.8
	1946	5132.2	4971.4	-3.1	-160.8
	1947	2113.4	1860.2	-12.0	-253.2
	1948	1615.0	1613.5	-.1	-1.5
	1949	1882.9	1879.7	-.2	-3.2
	1950	1933.3	1531.8	-20.8	-401.5
	1951	10063.8	9919.3	-1.4	-144.5
	1952	9053.3	8904.0	-1.6	-149.3
	1953	6731.2	6142.6	-8.7	-588.6
	1954	2162.2	2163.9	.1	1.7
	1955	1920.3	1920.4	.0	.1
	1956	16344.2	16277.8	-.4	-66.4
	1957	2150.8	2150.9	.0	.1
	1958	2204.5	1951.3	-11.5	-253.2
	1959	2204.5	1954.5	-11.3	-250.0
	1960	1325.2	1508.5	13.8	183.3
	1961	1397.5	1496.0	7.0	98.5
	1962	1279.7	1274.9	-.4	-4.8
	1963	3888.0	3766.1	-3.1	-121.9
	1964	2582.0	2422.0	-6.2	-160.0
	1965	13162.5	13092.8	-.5	-69.7
	1966	2387.8	2136.2	-10.5	-251.6
	1967	6739.4	6048.2	-10.3	-691.2
	1968	2426.8	2426.9	.0	.1
	1969	14789.4	14230.5	-3.8	-558.9
	1970	20940.2	20786.1	-.7	-154.1
	1971	4668.7	4569.5	-2.1	-99.2
	1972	2373.1	2373.2	.0	.1
	1973	8938.4	8281.7	-7.3	-656.7
	1974	11302.6	11192.3	-1.0	-110.3
	1975	2126.4	2124.9	-.1	-1.5
	1976	2365.0	2365.1	.0	.1
	1977	388.6	483.4	24.4	94.8
	1978	3372.5	2185.8	-35.2	-1186.7
	1979	2202.8	1948.0	-11.6	-254.8
	1980	14921.4	15196.5	1.8	275.1
	1981	2194.7	1939.9	-11.6	-254.8
	1982	8242.9	8106.6	-1.7	-136.3
	1983	7604.2	7453.3	-2.0	-150.9
	1984	6509.9	6380.1	-2.0	-129.8
	1985	2384.5	2383.0	-.1	-1.5
	1986	2157.8	2290.9	6.2	133.1
	1987	1908.9	1707.4	-10.6	-201.5
	1988	926.8	923.6	-.3	-3.2
	1989	1874.8	1868.3	-.3	-6.5
	1990	1680.1	1673.6	-.4	-6.5
	1991	668.3	660.2	-1.2	-8.1
	Mean	4254.9	4097.3	-4.1	-157.6
	Median	2203.6	2124.0	-1.5	-133.1
	Min	388.6	483.4	-35.2	-1186.7
	Max	20940.2	20786.1	24.4	275.1
X < 1500.0		7	7		
X < 1750.0		13	17		
X < 1765.0		13	17		
X < 2000.0		27	34		
X < 3000.0		46	48		
X >= 2500.0		26	24		
2500.0 > X >= 2000.0		17	12		
2000.0 > X >= 1750.0		14	17		
1750.0 > X >= 1200.0		10	14		
1200.0 > X		3	3		
X < 3450.0		48	48		
Mean of X >= 3450.0		9249.1	9004.7	-2.6	-244.4

LOWER AMERICAN RIVER FLOW AT HST.

February

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3279.5	2438.4	-25.6	-841.1
	1923	3432.5	2822.4	-17.8	-610.1
	1924	1531.6	1508.3	-1.5	-23.3
	1925	3610.8	3856.8	6.8	246.0
	1926	1594.6	1719.5	7.8	124.9
	1927	13414.9	13326.8	-.7	-88.1
	1928	1902.8	1881.2	-1.1	-21.6
	1929	1170.2	990.4	-15.4	-179.8
	1930	1884.8	1861.4	-1.2	-23.4
	1931	1337.4	1124.0	-16.0	-213.4
	1932	2181.0	1877.6	-13.9	-303.4
	1933	1627.6	1604.2	-1.4	-23.4
	1934	1911.8	1638.4	-14.3	-273.4
	1935	1883.0	1857.8	-1.3	-25.2
	1936	13451.0	13303.4	-1.1	-147.6
	1937	1987.4	1717.7	-13.6	-269.7
	1938	9839.2	9668.2	-1.7	-171.0
	1939	1881.2	1861.4	-1.1	-19.8
	1940	10606.0	10471.1	-1.3	-134.9
	1941	8011.4	7828.1	-2.3	-183.3
	1942	9970.6	9771.0	-2.0	-199.6
	1943	6841.3	6661.6	-2.6	-179.7
	1944	1755.4	1429.3	-18.6	-326.1
	1945	6141.5	5964.1	-2.9	-177.4
	1946	2658.3	2496.5	-6.1	-161.8
	1947	1906.4	1890.2	-.8	-16.2
	1948	1888.4	1620.4	-14.2	-268.0
	1949	1895.6	1477.6	-22.1	-418.0
	1950	4073.6	3428.5	-15.8	-645.1
	1951	8100.3	7943.9	-1.9	-156.4
	1952	9480.7	9302.7	-1.9	-178.0
	1953	2179.3	1990.5	-8.7	-188.8
	1954	1985.7	1920.9	-3.3	-64.8
	1955	1895.6	1879.4	-.9	-16.2
	1956	6147.3	6035.9	-1.8	-111.4
	1957	1947.8	1933.5	-.7	-14.3
	1958	9132.6	6807.8	-25.5	-2324.8
	1959	1958.6	1944.3	-.7	-14.3
	1960	1183.4	1185.1	.1	1.7
	1961	1143.8	1157.6	1.2	13.8
	1962	1281.0	1123.7	-12.3	-157.3
	1963	12007.2	11857.8	-1.2	-149.4
	1964	1995.8	1852.4	-7.2	-143.4
	1965	5371.7	5274.7	-1.8	-97.0
	1966	1902.8	1886.6	-.9	-16.2
	1967	4349.1	4199.8	-3.4	-149.3
	1968	5676.2	4811.3	-15.2	-864.9
	1969	9261.3	9155.2	-1.1	-106.1
	1970	6229.7	6109.4	-1.9	-120.3
	1971	3302.8	3158.8	-4.4	-144.0
	1972	2138.3	1883.0	-11.9	-255.3
	1973	7167.0	7048.3	-1.7	-118.7
	1974	4303.2	3943.5	-8.4	-359.7
	1975	2003.6	1987.5	-.8	-16.1
	1976	1884.8	1870.4	-.8	-14.4
	1977	384.8	366.2	-4.8	-18.6
	1978	4689.2	4575.8	-2.4	-113.4
	1979	1938.8	1670.9	-13.8	-267.9
	1980	14127.5	13557.6	-4.0	-569.9
	1981	1886.6	1466.8	-22.3	-419.8
	1982	15463.6	15211.8	-1.6	-251.8
	1983	12405.0	12245.1	-1.3	-159.9
	1984	5580.9	5440.8	-2.5	-140.1
	1985	1917.2	1899.2	-.9	-18.0
	1986	33241.4	33160.6	-.2	-80.8
	1987	1540.6	1362.7	-11.5	-177.9
	1988	1881.2	1613.2	-14.2	-268.0
	1989	1640.2	1618.6	-1.3	-21.6
	1990	1687.0	1315.5	-22.0	-371.5
	1991	562.6	541.1	-3.8	-21.5
	Mean	4809.2	4605.8	-6.1	-203.4
	Median	2070.9	1938.9	-2.2	-148.5
	Min	384.8	366.2	-25.6	-2324.8
	Max	33241.4	33160.6	7.8	246.0
X < 1500.0		7	12		
X < 1750.0		13	21		
X < 1765.0		14	21		
X < 2000.0		34	38		
X < 3000.0		39	41		
X >= 2500.0		32	30		
2500.0 > X >= 2000.0		4	2		
2000.0 > X >= 1750.0		21	17		
1750.0 > X >= 1200.0		8	14		
1200.0 > X		5	7		
X < 3450.0		42	43		
Mean of X >= 3450.0		9239.1	9167.9	-.8	-71.2

LOWER AMERICAN RIVER FLOW AT HST.

March

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4402.4	4384.6	-.4	-17.8
	1923	2698.3	2594.0	-3.9	-104.3
	1924	1153.1	1185.7	2.8	32.6
	1925	3137.4	3042.4	-3.0	-95.0
	1926	1856.9	1839.1	-1.0	-17.8
	1927	4481.6	4264.2	-4.9	-217.4
	1928	12106.4	9636.8	-20.4	-2469.6
	1929	1386.2	1371.6	-1.1	-14.6
	1930	1902.4	1887.9	-.8	-14.5
	1931	1021.9	853.7	-16.5	-168.2
	1932	2605.3	2587.5	-.7	-17.8
	1933	1887.8	1621.6	-14.1	-266.2
	1934	1445.5	1229.3	-15.0	-216.2
	1935	3162.2	3146.0	-.5	-16.2
	1936	4087.1	3933.3	-3.8	-153.8
	1937	4331.3	3764.3	-13.1	-567.0
	1938	10782.2	10589.0	-1.8	-193.2
	1939	1497.5	1486.2	-.8	-11.3
	1940	10878.1	10551.6	-3.0	-326.5
	1941	4777.3	4582.5	-4.1	-194.8
	1942	4413.8	4400.9	-.3	-12.9
	1943	12384.5	12214.1	-1.4	-170.4
	1944	2128.0	1866.7	-12.3	-261.3
	1945	2662.2	2650.9	-.4	-11.3
	1946	2706.0	2636.2	-2.6	-69.8
	1947	1915.4	1905.8	-.5	-9.6
	1948	2662.2	2652.5	-.4	-9.7
	1949	2451.2	2439.9	-.5	-11.3
	1950	3206.3	2883.0	-10.1	-323.3
	1951	3673.5	3512.9	-4.4	-160.6
	1952	6107.6	5934.0	-2.8	-173.6
	1953	2894.3	2884.6	-.3	-9.7
	1954	4354.4	3584.2	-17.7	-770.2
	1955	1858.5	1850.5	-.4	-8.0
	1956	3366.6	3355.3	-.3	-11.3
	1957	4080.1	3191.6	-21.8	-888.5
	1958	6633.2	6464.4	-2.5	-168.8
	1959	1618.3	1610.2	-.5	-8.1
	1960	2507.4	2121.6	-15.4	-385.8
	1961	1142.7	905.4	-20.8	-237.3
	1962	2386.2	2373.2	-.5	-13.0
	1963	3418.7	3409.0	-.3	-9.7
	1964	1874.8	1863.5	-.6	-11.3
	1965	2887.8	2874.9	-.4	-12.9
	1966	1860.1	1598.8	-14.0	-261.3
	1967	5895.1	5658.1	-4.0	-237.0
	1968	2068.3	3822.0	84.8	1753.7
	1969	4378.0	4370.0	-.2	-8.0
	1970	2387.8	2146.7	-10.1	-241.1
	1971	3980.6	3826.5	-3.9	-154.1
	1972	4099.1	3393.3	-17.2	-705.8
	1973	3327.0	3125.7	-6.1	-201.3
	1974	9560.7	9460.1	-1.1	-100.6
	1975	4377.5	3514.9	-19.7	-862.6
	1976	1476.4	1468.4	-.5	-8.0
	1977	278.0	326.9	17.6	48.9
	1978	5452.6	5481.9	.5	29.3
	1979	3050.6	2386.2	-21.8	-664.4
	1980	3407.1	3118.5	-8.5	-288.6
	1981	1673.6	1410.6	-15.7	-263.0
	1982	7577.4	7470.4	-1.4	-107.0
	1983	16256.7	16120.5	-.8	-136.2
	1984	2647.5	2403.1	-9.2	-244.4
	1985	2171.9	1910.6	-12.0	-261.3
	1986	11163.2	10950.7	-1.9	-212.5
	1987	1214.9	1077.3	-11.3	-137.6
	1988	1463.4	1252.1	-14.4	-211.3
	1989	6360.0	5538.9	-12.9	-821.1
	1990	1371.5	1357.0	-1.1	-14.5
	1991	2009.8	1746.8	-13.1	-263.0
	Mean	3892.0	3701.0	-4.6	-191.0
	Median	2891.1	2878.9	-2.7	-154.0
	Min	278.0	326.9	-21.8	-2469.6
	Max	16256.7	16120.5	84.8	1753.7
X <	1500.0	11	12		
X <	1750.0	13	16		
X <	1765.0	13	16		
X <	2000.0	20	23		
X <	3000.0	36	37		
X >=	4500.0	14	14		
4500.0 > X >=	3000.0	20	19		
3000.0 > X >=	2000.0	16	14		
2000.0 > X >=	1500.0	9	11		
1500.0 > X		11	12		
X <	3450.0	44	45		
Mean of X >=	3450.0	6792.1	6561.2	-3.4	-230.9

LOWER AMERICAN RIVER FLOW AT HST.

April

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4363.9	4311.9	-1.2	-52.0
	1923	3177.2	3283.3	3.3	106.1
	1924	188.0	266.1	41.5	78.1
	1925	4012.4	3263.1	-18.7	-749.3
	1926	1934.5	1882.5	-2.7	-52.0
	1927	7856.2	7653.4	-2.6	-202.8
	1928	4773.1	4456.1	-6.6	-317.0
	1929	1355.5	558.5	-58.8	-797.0
	1930	2110.5	1811.9	-14.1	-298.6
	1931	337.0	286.7	-14.9	-50.3
	1932	2853.8	2551.8	-10.6	-302.0
	1933	1835.3	1535.0	-16.4	-300.3
	1934	3070.6	2521.4	-17.9	-549.2
	1935	4340.5	4820.8	11.1	480.3
	1936	5754.8	5498.3	-4.5	-256.5
	1937	4330.0	4039.4	-6.7	-290.6
	1938	7866.0	7574.1	-3.7	-291.9
	1939	1090.3	545.1	-50.0	-545.2
	1940	6058.2	5875.2	-3.0	-183.0
	1941	3751.9	3505.4	-6.6	-246.5
	1942	4439.5	4394.2	-1.0	-45.3
	1943	5162.3	4888.9	-5.3	-273.4
	1944	2130.7	1835.4	-13.9	-295.3
	1945	2602.1	2556.9	-1.7	-45.2
	1946	3913.7	3474.1	-11.2	-439.6
	1947	1848.8	1805.2	-2.4	-43.6
	1948	2655.9	2614.0	-1.6	-41.9
	1949	2338.7	2295.1	-1.9	-43.6
	1950	4935.4	4795.9	-2.8	-139.5
	1951	3037.9	2727.5	-10.2	-310.4
	1952	8946.5	8647.8	-3.3	-298.7
	1953	3399.2	3107.3	-8.6	-291.9
	1954	4454.5	4249.6	-4.6	-204.9
	1955	1884.0	1843.8	-2.1	-40.2
	1956	3894.1	3848.9	-1.2	-45.2
	1957	2630.7	2590.5	-1.5	-40.2
	1958	10349.8	10101.6	-2.4	-248.2
	1959	1872.3	1580.4	-15.6	-291.9
	1960	2112.2	2068.6	-2.1	-43.6
	1961	355.5	366.1	3.0	10.6
	1962	3671.1	2574.9	-29.9	-1096.2
	1963	4573.6	4198.3	-8.2	-375.3
	1964	1850.4	1805.2	-2.4	-45.2
	1965	3721.1	3273.9	-12.0	-447.2
	1966	1857.2	1563.6	-15.8	-293.6
	1967	4412.6	4370.7	-.9	-41.9
	1968	1850.4	1808.5	-2.3	-41.9
	1969	5827.0	5388.0	-7.5	-439.0
	1970	2357.2	2061.9	-12.5	-295.3
	1971	3365.6	3072.0	-8.7	-293.6
	1972	2375.6	2333.7	-1.8	-41.9
	1973	2608.8	2566.9	-1.6	-41.9
	1974	6156.2	5938.1	-3.5	-218.1
	1975	3877.3	3833.7	-1.1	-43.6
	1976	370.6	328.7	-11.3	-41.9
	1977	188.0	266.1	41.5	78.1
	1978	4594.3	3873.9	-15.7	-720.4
	1979	2612.2	2316.9	-11.3	-295.3
	1980	2870.6	2575.3	-10.3	-295.3
	1981	1607.2	811.9	-49.5	-795.3
	1982	14296.2	14063.1	-1.6	-233.1
	1983	6615.5	6358.9	-3.9	-256.6
	1984	2630.7	2585.4	-1.7	-45.3
	1985	2112.2	1818.6	-13.9	-293.6
	1986	2634.0	2590.5	-1.7	-43.5
	1987	357.2	358.3	.3	1.1
	1988	394.1	280.8	-28.7	-113.3
	1989	4472.4	3885.2	-13.1	-587.2
	1990	2583.2	1868.4	-27.7	-714.8
	1991	1850.4	1553.5	-16.0	-296.9
	Mean	3467.4	3233.7	-7.8	-233.7
	Median	2862.2	2587.9	-4.6	-247.4
	Min	188.0	266.1	-58.8	-1096.2
	Max	14296.2	14063.1	41.5	480.3
X <	1500.0	9	10		
X <	1750.0	10	14		
X <	1765.0	10	14		
X <	2000.0	19	23		
X <	3000.0	36	39		
X >=	4500.0	15	13		
4500.0 > X >=	3000.0	19	18		
3000.0 > X >=	2000.0	17	16		
2000.0 > X >=	1500.0	10	13		
1500.0 > X		9	10		
X <	3450.0	41	44		
Mean of X >=	3450.0	5566.2	5540.2	-.5	-26.0

LOWER AMERICAN RIVER FLOW AT HST.

May

		Base	2030 w/ WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8956.6	8110.7	-9.4	-845.9
	1923	4835.3	4440.4	-8.2	-394.9
	1924	188.0	264.9	40.9	76.9
	1925	4522.8	3848.4	-14.9	-674.4
	1926	2330.9	2278.8	-2.2	-52.1
	1927	4780.1	4266.8	-10.7	-513.3
	1928	2824.4	2777.2	-1.7	-47.2
	1929	1821.1	1523.9	-16.3	-297.2
	1930	2574.4	2275.6	-11.6	-298.8
	1931	343.9	543.5	58.0	199.6
	1932	3817.8	3483.4	-8.8	-334.4
	1933	2329.2	2278.8	-2.2	-50.4
	1934	330.9	278.8	-15.7	-52.1
	1935	4802.6	4362.6	-9.2	-440.0
	1936	4064.6	3986.7	-1.9	-77.9
	1937	4464.6	4067.9	-8.9	-396.7
	1938	9844.5	9420.7	-4.3	-423.8
	1939	1592.2	1548.3	-2.8	-43.9
	1940	3561.3	3235.1	-9.2	-326.2
	1941	5385.1	4977.5	-7.6	-407.6
	1942	6148.6	5468.3	-11.1	-680.3
	1943	3571.1	3496.4	-2.1	-74.7
	1944	2590.6	2298.3	-11.3	-292.3
	1945	3584.1	3507.8	-2.1	-76.3
	1946	3605.9	3511.1	-2.6	-94.8
	1947	2326.0	2285.3	-1.7	-40.7
	1948	3603.6	3530.6	-2.0	-73.0
	1949	3082.5	2538.6	-17.6	-543.9
	1950	3821.1	3748.1	-1.9	-73.0
	1951	3602.0	3275.7	-9.1	-326.3
	1952	11189.5	10773.8	-3.7	-415.7
	1953	4087.4	4016.0	-1.7	-71.4
	1954	2832.5	2793.5	-1.4	-39.0
	1955	2585.7	2295.1	-11.2	-290.6
	1956	4343.9	4272.5	-1.6	-71.4
	1957	3613.4	3292.0	-8.9	-321.4
	1958	10137.3	9726.4	-4.1	-410.9
	1959	2332.5	2041.8	-12.5	-290.7
	1960	2584.1	2541.8	-1.6	-42.3
	1961	1334.1	1290.2	-3.3	-43.9
	1962	3066.2	3000.6	-2.1	-65.6
	1963	7198.5	6716.1	-6.7	-482.4
	1964	2334.1	2290.2	-1.9	-43.9
	1965	4077.6	3753.0	-8.0	-324.6
	1966	2329.2	2286.9	-1.8	-42.3
	1967	8049.5	7429.9	-7.7	-619.6
	1968	2330.9	2291.8	-1.7	-39.1
	1969	9207.0	8762.0	-4.8	-445.0
	1970	2834.1	2541.8	-10.3	-292.3
	1971	4100.4	4027.3	-1.8	-73.1
	1972	2834.1	2543.5	-10.3	-290.6
	1973	4364.2	3679.7	-15.7	-684.5
	1974	4955.8	4492.9	-9.3	-462.9
	1975	4329.2	4257.8	-1.6	-71.4
	1976	839.0	304.0	-63.8	-535.0
	1977	188.0	264.9	40.9	76.9
	1978	4336.1	3746.4	-13.6	-589.7
	1979	3995.3	3249.7	-18.7	-745.6
	1980	3824.4	3749.7	-2.0	-74.7
	1981	2082.5	1538.6	-26.1	-543.9
	1982	9247.7	8897.0	-3.8	-350.7
	1983	10522.7	10124.9	-3.8	-397.8
	1984	3598.8	3274.1	-9.0	-324.7
	1985	2592.2	2300.0	-11.3	-292.2
	1986	3592.2	3519.2	-2.0	-73.0
	1987	1339.0	546.7	-59.2	-792.3
	1988	352.0	306.5	-12.9	-45.5
	1989	3367.2	2815.5	-16.4	-551.7
	1990	1626.4	1329.2	-18.3	-297.2
	1991	2332.5	2285.3	-2.0	-47.2
	Mean	3859.9	3585.7	-6.6	-274.2
	Median	3588.1	3274.9	-7.1	-292.3
	Min	188.0	264.9	-63.8	-845.9
	Max	11189.5	10773.8	58.0	199.6
X <	1500.0	8	9		
X <	1750.0	10	12		
X <	1765.0	10	12		
X <	2000.0	11	12		
X <	3000.0	29	31		
X >=	4500.0	16	11		
4500.0 > X >=	3000.0	25	28		
3000.0 > X >=	2000.0	18	19		
2000.0 > X >=	1500.0	3	3		
1500.0 > X		8	9		
X <	3450.0	32	37		
Mean of X >=	3450.0	5414.3	5338.5	-1.4	-75.7

LOWER AMERICAN RIVER FLOW AT HST.

June

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8942.0	8381.4	-6.3	-560.6
	1923	4572.3	3841.0	-16.0	-731.3
	1924	188.0	266.1	41.5	78.1
	1925	6281.9	5223.4	-16.8	-1058.5
	1926	1737.0	1960.9	12.9	223.9
	1927	5328.8	4820.3	-9.5	-508.5
	1928	5709.0	3825.9	-33.0	-1883.1
	1929	2161.5	1908.0	-11.7	-253.5
	1930	2051.7	1731.1	-15.6	-320.6
	1931	1073.8	556.4	-48.2	-517.4
	1932	4803.4	4590.0	-4.4	-213.4
	1933	2342.7	1972.9	-15.8	-369.8
	1934	1610.0	1415.5	-12.1	-194.5
	1935	3907.9	3429.2	-12.2	-478.7
	1936	4435.8	3662.0	-17.4	-773.8
	1937	3289.9	3194.3	-2.9	-95.6
	1938	8582.3	8048.7	-6.2	-533.6
	1939	805.1	358.3	-55.5	-446.8
	1940	3415.1	2969.3	-13.1	-445.8
	1941	3545.0	3202.7	-9.7	-342.3
	1942	7345.4	6798.3	-7.4	-547.1
	1943	3305.1	3214.5	-2.7	-90.6
	1944	2055.1	1492.9	-27.4	-562.2
	1945	5835.8	4483.7	-23.2	-1352.1
	1946	6258.5	5084.9	-18.8	-1173.6
	1947	1568.5	1254.6	-20.0	-313.9
	1948	3296.7	2986.2	-9.4	-310.5
	1949	2791.6	2227.8	-20.2	-563.8
	1950	3941.9	3447.7	-12.5	-494.2
	1951	3053.4	2991.2	-2.0	-62.2
	1952	10503.2	9957.8	-5.2	-545.4
	1953	3813.5	3476.3	-8.8	-337.2
	1954	2687.7	3311.9	23.2	624.2
	1955	2060.1	1747.9	-15.2	-312.2
	1956	5529.4	4267.3	-22.8	-1262.1
	1957	3785.0	3948.8	4.3	163.8
	1958	7726.9	7220.2	-6.6	-506.7
	1959	1315.1	1003.0	-23.7	-312.1
	1960	2056.7	1992.9	-3.1	-63.8
	1961	556.7	366.1	-34.2	-190.6
	1962	2800.0	2809.1	.3	9.1
	1963	3289.9	3202.7	-2.7	-87.2
	1964	2066.8	2001.3	-3.2	-65.5
	1965	3550.0	3459.5	-2.5	-90.5
	1966	1810.1	1246.2	-31.2	-563.9
	1967	10419.2	9939.3	-4.6	-479.9
	1968	2063.5	1253.0	-39.3	-810.5
	1969	6594.2	6100.9	-7.5	-493.3
	1970	3233.6	2807.9	-13.2	-425.7
	1971	3876.1	3466.2	-10.6	-409.9
	1972	4407.4	4163.1	-5.5	-244.3
	1973	5555.7	6203.1	11.7	647.4
	1974	4256.6	3733.0	-12.3	-523.6
	1975	5757.7	4624.5	-19.7	-1133.2
	1976	1838.8	1824.8	-.8	-14.0
	1977	188.0	266.1	41.5	78.1
	1978	4463.3	3454.4	-22.6	-1008.9
	1979	6288.6	6194.7	-1.5	-93.9
	1980	3541.6	3202.7	-9.6	-338.9
	1981	1310.1	494.6	-62.2	-815.5
	1982	6263.1	5716.1	-8.7	-547.0
	1983	14543.2	13999.5	-3.7	-543.7
	1984	4724.4	3668.7	-22.3	-1055.7
	1985	2803.0	2283.0	-18.6	-520.0
	1986	3320.2	2999.8	-9.7	-320.4
	1987	321.9	358.3	11.3	36.4
	1988	1472.0	1068.7	-27.4	-403.3
	1989	3881.7	3502.7	-9.8	-379.0
	1990	1630.7	1521.9	-6.7	-108.8
	1991	2851.7	2610.6	-8.5	-241.1
	Mean	3905.6	3497.3	-11.2	-408.4
	Median	3367.6	3202.7	-9.7	-391.1
	Min	188.0	266.1	-62.2	-1883.1
	Max	14543.2	13999.5	41.5	647.4
X <	1500.0	9	14		
X <	1750.0	13	17		
X <	1765.0	13	17		
X <	2000.0	15	22		
X <	3000.0	28	32		
X >=	4500.0	21	16		
4500.0 > X >=	3000.0	21	22		
3000.0 > X >=	2000.0	13	10		
2000.0 > X >=	500.0	12	16		
500.0 > X		3	6		
X <	3450.0	36	40		
Mean of X >=	3450.0	5852.1	5528.5	-5.5	-323.6

LOWER AMERICAN RIVER FLOW AT HST.

July

		Base	2030 w/ WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4023.9	3143.4	-21.9	-880.5
	1923	5630.4	2648.4	-53.0	-2982.0
	1924	522.0	264.9	-49.3	-257.1
	1925	3995.1	2326.5	-41.8	-1668.6
	1926	2429.8	2283.7	-6.0	-146.1
	1927	2878.6	6162.4	114.1	3283.8
	1928	1288.6	1230.0	-4.5	-58.6
	1929	1453.9	1204.3	-17.2	-249.6
	1930	2662.4	2390.7	-10.2	-271.7
	1931	1713.5	2313.8	35.0	600.3
	1932	2952.8	2814.8	-4.7	-138.0
	1933	2019.4	1740.8	-13.8	-278.6
	1934	1288.1	1203.6	-6.6	-84.5
	1935	4840.5	2673.1	-44.8	-2167.4
	1936	3907.9	3740.4	-4.3	-167.5
	1937	2387.8	2182.5	-8.6	-205.3
	1938	3538.3	2969.9	-16.1	-568.4
	1939	1755.8	1485.3	-15.4	-270.5
	1940	5836.8	5162.1	-11.6	-674.7
	1941	2158.3	1933.1	-10.4	-225.2
	1942	3523.6	2943.9	-16.5	-579.7
	1943	5539.0	5679.5	2.5	140.5
	1944	2109.9	1353.9	-35.8	-756.0
	1945	4146.7	4008.3	-3.3	-138.4
	1946	3644.5	3761.9	3.2	117.4
	1947	1766.8	1270.4	-28.1	-496.4
	1948	3646.1	2203.5	-39.6	-1442.6
	1949	3057.8	2403.4	-21.4	-654.4
	1950	5160.3	3187.4	-38.2	-1972.9
	1951	5775.3	4922.1	-14.8	-853.2
	1952	4645.8	4085.6	-12.1	-560.2
	1953	3159.8	2032.2	-35.7	-1127.6
	1954	3185.7	1780.2	-44.1	-1405.5
	1955	1603.2	1241.4	-22.6	-361.8
	1956	3203.3	2625.1	-18.1	-578.2
	1957	4647.8	4362.4	-6.1	-285.4
	1958	3185.4	2626.7	-17.5	-558.7
	1959	548.3	396.9	-27.6	-151.4
	1960	2741.0	1236.5	-54.9	-1504.5
	1961	290.2	366.0	26.1	75.8
	1962	5183.2	4207.0	-18.8	-976.2
	1963	2133.8	5458.5	155.8	3324.7
	1964	2139.1	1878.6	-12.2	-260.5
	1965	5435.8	6175.4	13.6	739.6
	1966	1293.5	404.5	-68.7	-889.0
	1967	4322.2	3763.6	-12.9	-558.6
	1968	1291.8	491.4	-62.0	-800.4
	1969	2982.1	2405.6	-19.3	-576.5
	1970	1759.6	1589.3	-9.7	-170.3
	1971	3003.2	1946.0	-35.2	-1057.2
	1972	1293.5	1243.0	-3.9	-50.5
	1973	4004.4	2466.1	-38.4	-1538.3
	1974	3466.7	2911.4	-16.0	-555.3
	1975	2928.4	2374.7	-18.9	-553.7
	1976	1361.1	1198.0	-12.0	-163.1
	1977	188.0	264.9	40.9	76.9
	1978	6112.6	5344.9	-12.6	-767.7
	1979	2835.4	1231.7	-56.6	-1603.7
	1980	3646.6	3765.3	3.3	118.7
	1981	293.5	366.0	24.7	72.5
	1982	3401.7	2823.5	-17.0	-578.2
	1983	6222.4	5749.3	-7.6	-473.1
	1984	4197.4	4358.3	3.8	160.9
	1985	2121.9	1719.2	-19.0	-402.7
	1986	5365.7	4867.2	-9.3	-498.5
	1987	1707.1	961.8	-43.7	-745.3
	1988	894.3	658.1	-26.4	-236.2
	1989	3552.7	2752.3	-22.5	-800.4
	1990	1237.5	941.1	-24.0	-296.4
	1991	2223.4	2197.4	-1.2	-26.0
	Mean	2992.3	2555.4	-13.2	-437.0
	Median	2967.5	2350.6	-15.7	-437.9
	Min	188.0	264.9	-68.7	-2982.0
	Max	6222.4	6175.4	155.8	3324.7
X <	1500.0	14	21		
X <	1750.0	17	24		
X <	1765.0	19	24		
X <	2000.0	20	28		
X <	3000.0	36	50		
X >=	2500.0	41	30		
2500.0 > X >=	1500.0	15	19		
1500.0 > X >=	500.0	11	14		
500.0 > X >=	.0	3	7		
.0 > X		0	0		
X <	3450.0	43	52		
Mean of X >=	3450.0	4593.0	4754.1	3.5	161.1

LOWER AMERICAN RIVER FLOW AT HST.

August

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2714.5	2502.8	-7.8	-211.7
	1923	2353.3	4255.5	80.8	1902.2
	1924	188.0	264.9	40.9	76.9
	1925	3577.1	1473.5	-58.8	-2103.6
	1926	545.1	483.3	-11.3	-61.8
	1927	3671.8	3412.1	-7.1	-259.7
	1928	3075.5	3804.1	23.7	728.6
	1929	188.0	273.1	45.3	85.1
	1930	791.8	731.7	-7.6	-60.1
	1931	188.0	265.3	41.1	77.3
	1932	2116.8	1467.0	-30.7	-649.8
	1933	533.7	265.3	-50.3	-268.4
	1934	188.0	265.3	41.1	77.3
	1935	2888.6	3709.8	28.4	821.2
	1936	2897.6	1988.2	-31.4	-909.4
	1937	2584.6	1726.8	-33.2	-857.8
	1938	4207.9	3628.2	-13.8	-579.7
	1939	293.5	358.2	22.0	64.7
	1940	3773.3	2907.3	-23.0	-866.0
	1941	4059.9	2957.4	-27.2	-1102.5
	1942	4289.2	3714.4	-13.4	-574.8
	1943	2427.5	2762.5	13.8	335.0
	1944	3796.6	744.7	-80.4	-3051.9
	1945	1853.3	2045.9	10.4	192.6
	1946	1897.2	2030.1	7.0	132.9
	1947	1088.6	489.8	-55.0	-598.8
	1948	3003.5	2693.1	-10.3	-310.4
	1949	2296.9	2618.6	14.0	321.7
	1950	2795.0	2467.7	-11.7	-327.3
	1951	3154.5	2905.4	-7.9	-249.1
	1952	4709.9	4138.8	-12.1	-571.1
	1953	4329.9	3722.8	-14.0	-607.1
	1954	3330.2	3743.4	12.4	413.2
	1955	3194.9	1709.6	-46.5	-1485.3
	1956	4260.0	3690.0	-13.4	-570.0
	1957	1517.4	2283.3	50.5	765.9
	1958	4355.9	3803.8	-12.7	-552.1
	1959	2343.8	1367.3	-41.7	-976.5
	1960	3112.1	1957.9	-37.1	-1154.2
	1961	1299.7	366.0	-71.8	-933.7
	1962	4423.2	2505.3	-43.4	-1917.9
	1963	3881.0	1578.4	-59.3	-2302.6
	1964	3263.0	741.4	-77.3	-2521.6
	1965	1801.6	2302.5	27.8	500.9
	1966	2788.6	1527.1	-45.2	-1261.5
	1967	4323.4	3751.8	-13.2	-571.6
	1968	1050.0	1567.3	49.3	517.3
	1969	4136.4	3581.0	-13.4	-555.4
	1970	3914.1	3501.2	-10.5	-412.9
	1971	4081.1	3511.1	-14.0	-570.0
	1972	4194.4	3186.7	-24.0	-1007.7
	1973	1495.5	3485.7	133.1	1990.2
	1974	4339.7	3771.3	-13.1	-568.4
	1975	4120.1	3571.2	-13.3	-548.9
	1976	1303.4	814.9	-37.5	-488.5
	1977	188.0	264.9	40.9	76.9
	1978	1541.8	2937.9	90.5	1396.1
	1979	2099.9	2743.9	30.7	644.0
	1980	2321.7	3837.2	65.3	1515.5
	1981	1568.2	672.8	-57.1	-895.4
	1982	4329.9	3756.6	-13.2	-573.3
	1983	4732.7	4519.4	-4.5	-213.3
	1984	1317.8	2734.4	107.5	1416.6
	1985	3103.1	2310.2	-25.6	-792.9
	1986	3671.0	3214.9	-12.4	-456.1
	1987	1488.6	1260.2	-15.3	-228.4
	1988	701.6	280.8	-60.0	-420.8
	1989	3450.9	3237.9	-6.2	-213.0
	1990	2005.9	1367.9	-31.8	-638.0
	1991	1322.9	288.5	-78.2	-1034.4
	Mean	2612.2	2268.8	-6.0	-343.3
	Median	2791.8	2485.3	-12.9	-438.5
	Min	188.0	264.9	-80.4	-3051.9
	Max	4732.7	4519.4	133.1	1990.2
X <	1500.0	18	22		
X <	1750.0	21	27		
X <	1765.0	21	27		
X <	2000.0	24	29		
X <	3000.0	38	46		
X >=	2500.0	38	35		
2500.0 > X >=	2000.0	8	6		
2000.0 > X >=	1000.0	14	12		
1000.0 > X >=	500.0	4	5		
500.0 > X		6	12		
X <	3450.0	46	50		
Mean of X >=	3450.0	4109.6	3774.9	-8.1	-334.7

LOWER AMERICAN RIVER FLOW AT HST.

September

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3743.0	3167.6	-15.4	-575.4
	1923	1833.6	1749.5	-4.6	-84.1
	1924	823.5	576.9	-29.9	-246.6
	1925	1597.9	2221.2	39.0	623.3
	1926	1320.2	1028.2	-22.1	-292.0
	1927	3897.6	1666.2	-57.3	-2231.4
	1928	1318.5	1279.8	-2.9	-38.7
	1929	1068.5	781.5	-26.9	-287.0
	1930	1318.5	1278.2	-3.1	-40.3
	1931	813.5	523.1	-35.7	-290.4
	1932	3765.6	2211.1	-41.3	-1554.5
	1933	1310.1	1019.8	-22.2	-290.3
	1934	811.8	358.4	-55.9	-453.4
	1935	2722.1	2218.3	-18.5	-503.8
	1936	3834.9	3479.3	-9.3	-355.6
	1937	3828.7	3117.0	-18.6	-711.7
	1938	4033.8	3538.7	-12.3	-495.1
	1939	1078.6	1041.6	-3.4	-37.0
	1940	1535.6	1404.8	-8.5	-130.8
	1941	3976.6	3483.3	-12.4	-493.3
	1942	4013.6	3521.9	-12.3	-491.7
	1943	2068.5	1534.9	-25.8	-533.6
	1944	1735.4	1289.9	-25.7	-445.5
	1945	2282.9	2070.3	-9.3	-212.6
	1946	2800.1	2492.1	-11.0	-308.0
	1947	1966.6	1284.9	-34.7	-681.7
	1948	2687.6	2917.2	8.5	229.6
	1949	1880.4	1345.5	-28.4	-534.9
	1950	2411.7	2814.0	16.7	402.3
	1951	1640.2	1766.2	7.7	126.0
	1952	4234.3	3728.6	-11.9	-505.7
	1953	3981.7	3496.7	-12.2	-485.0
	1954	2024.8	1291.6	-36.2	-733.2
	1955	1368.2	1301.7	-4.9	-66.5
	1956	3961.5	3473.2	-12.3	-488.3
	1957	2092.0	1573.3	-24.8	-518.7
	1958	4048.9	3563.9	-12.0	-485.0
	1959	1110.5	1078.6	-2.9	-31.9
	1960	1896.2	1284.9	-32.2	-611.3
	1961	1321.9	1036.6	-21.6	-285.3
	1962	1313.5	1906.0	45.1	592.5
	1963	3964.8	1979.6	-50.1	-1985.2
	1964	1449.9	1286.6	-11.3	-163.3
	1965	3766.0	1749.5	-53.5	-2016.5
	1966	1325.9	1036.6	-21.8	-289.3
	1967	4248.9	3795.9	-10.7	-453.0
	1968	2015.0	1038.3	-48.5	-976.7
	1969	3988.4	3518.6	-11.8	-469.8
	1970	1325.2	1291.6	-2.5	-33.6
	1971	3813.6	3345.5	-12.3	-468.1
	1972	1340.3	1308.4	-2.4	-31.9
	1973	1828.6	1296.7	-29.1	-531.9
	1974	4114.4	3631.2	-11.7	-483.2
	1975	3901.0	3404.3	-12.7	-496.7
	1976	330.3	397.1	20.2	66.8
	1977	281.0	359.1	27.8	78.1
	1978	2896.2	1534.9	-47.0	-1361.3
	1979	1851.1	1713.7	-7.4	-137.4
	1980	3890.9	1749.5	-55.0	-2141.4
	1981	1376.2	1293.3	-6.0	-82.9
	1982	4440.4	3984.1	-10.3	-456.3
	1983	4764.4	4584.9	-3.8	-179.5
	1984	1838.7	1555.1	-15.4	-283.6
	1985	1093.7	1060.1	-3.1	-33.6
	1986	1602.1	1568.5	-2.1	-33.6
	1987	1190.4	798.3	-32.9	-392.1
	1988	576.9	541.6	-6.1	-35.3
	1989	1108.8	1071.9	-3.3	-36.9
	1990	570.2	533.2	-6.5	-37.0
	1991	815.1	776.5	-4.7	-38.6
	Mean	2302.6	1901.7	-14.8	-400.9
	Median	1865.8	1545.0	-12.1	-300.0
	Min	281.0	358.4	-57.3	-2231.4
	Max	4764.4	4584.9	45.1	623.3
X <	1500.0	26	33		
X <	1750.0	31	43		
X <	1765.0	31	43		
X <	2000.0	38	46		
X <	3000.0	48	53		
X >=	2500.0	26	19		
2500.0 > X >=	1500.0	18	18		
1500.0 > X >=	500.0	24	30		
500.0 > X >=	.0	2	3		
.0 > X		0	0		
X <	3450.0	48	57		
Mean of X >=	3450.0	4009.7	3676.9	-8.3	-332.7

RETURN TO TABLE OF CONTENTS

Section 8

LOWER AMERICAN RIVER FLOW AT H STREET
8.2 Terrestrial

LOWER AMERICAN RIVER FLOW AT H ST.

October

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2353.6	2280.4	-3.1	-73.2
	1923	2371.5	2298.5	-3.1	-73.0
	1924	2350.4	2279.0	-3.0	-71.4
	1925	1170.3	920.3	-21.4	-250.0
	1926	2348.8	2275.7	-3.1	-73.1
	1927	1639.4	1603.6	-2.2	-35.8
	1928	2361.8	2292.0	-3.0	-69.8
	1929	1842.2	1558.1	-15.4	-284.1
	1930	1598.8	1313.0	-17.9	-285.8
	1931	2097.1	1561.3	-25.5	-535.8
	1932	1110.1	1071.1	-3.5	-39.0
	1933	2339.0	2267.6	-3.1	-71.4
	1934	1610.1	1572.7	-2.3	-37.4
	1935	1103.6	452.3	-59.0	-651.3
	1936	2369.9	2298.5	-3.0	-71.4
	1937	2342.2	2272.5	-3.0	-69.7
	1938	2358.5	2290.3	-2.9	-68.2
	1939	2347.1	2282.2	-2.8	-64.9
	1940	1619.9	1335.7	-17.5	-284.2
	1941	1865.0	1832.5	-1.7	-32.5
	1942	2374.8	2308.2	-2.8	-66.6
	1943	2352.0	2285.5	-2.8	-66.5
	1944	2343.9	2029.0	-13.4	-314.9
	1945	1374.8	1843.9	34.1	469.1
	1946	2389.4	1858.5	-22.2	-530.9
	1947	2093.9	1566.2	-25.2	-527.7
	1948	1632.9	1603.6	-1.8	-29.3
	1949	2353.6	2285.5	-2.9	-68.1
	1950	2343.9	1814.6	-22.6	-529.3
	1951	2395.9	2331.0	-2.7	-64.9
	1952	2139.4	1858.5	-13.1	-280.9
	1953	2343.9	2282.2	-2.6	-61.7
	1954	2350.4	2288.7	-2.6	-61.7
	1955	1847.1	1569.5	-15.0	-277.6
	1956	1624.8	1593.9	-1.9	-30.9
	1957	2366.6	2306.6	-2.5	-60.0
	1958	2392.7	2076.1	-13.2	-316.6
	1959	2345.5	2283.8	-2.6	-61.7
	1960	1597.1	1567.8	-1.8	-29.3
	1961	1595.5	1814.6	13.7	219.1
	1962	1602.0	1569.5	-2.0	-32.5
	1963	2158.7	2314.8	7.2	156.1
	1964	2365.0	2300.1	-2.7	-64.9
	1965	1641.0	1858.5	13.3	217.5
	1966	2339.0	2274.1	-2.8	-64.9
	1967	1608.5	1576.0	-2.0	-32.5
	1968	2339.0	2279.0	-2.6	-60.0
	1969	2123.1	1590.6	-25.1	-532.5
	1970	2361.8	2298.5	-2.7	-63.3
	1971	1873.1	1845.5	-1.5	-27.6
	1972	2347.1	2285.5	-2.6	-61.6
	1973	1641.0	1611.8	-1.8	-29.2
	1974	2387.8	1610.1	-32.6	-777.7
	1975	2369.9	2306.6	-2.7	-63.3
	1976	2386.2	2326.1	-2.5	-60.1
	1977	375.0	491.0	30.9	116.0
	1978	375.0	451.9	20.5	76.9
	1979	2352.0	2282.2	-3.0	-69.8
	1980	2399.2	1616.6	-32.6	-782.6
	1981	2342.2	2275.7	-2.8	-66.5
	1982	1658.9	1624.8	-2.1	-34.1
	1983	3312.9	3032.1	-8.5	-280.8
	1984	3412.3	2312.4	-32.2	-1099.9
	1985	2381.3	2068.0	-13.2	-313.3
	1986	1634.5	1352.0	-17.3	-282.5
	1987	2350.4	2037.1	-13.3	-313.3
	1988	1484.6	1770.5	19.3	285.9
	1989	855.3	821.1	-4.0	-34.2
	1990	1632.9	1598.8	-2.1	-34.1
	1991	856.9	821.1	-4.2	-35.8
	Mean	2006.1	1860.4	-6.1	-145.7
	Median	2339.0	1858.5	-2.8	-65.7
	Min	375.0	451.9	-59.0	-1099.9
	Max	3412.3	3032.1	34.1	469.1
X <	1300.0	7	7		
X <	1765.0	24	27		
X <	2000.0	28	36		
X <	2700.0	68	69		
X <	3000.0	68	69		

LOWER AMERICAN RIVER FLOW AT H ST.

November

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2377.3	2343.7	-1.4	-33.6
1923	2431.1	2399.3	-1.3	-31.8
1924	2350.4	2320.3	-1.3	-30.1
1925	1122.3	890.8	-20.6	-231.5
1926	2365.6	2332.0	-1.4	-33.6
1927	1718.1	1686.2	-1.9	-31.9
1928	2764.9	2358.9	-14.7	-406.0
1929	1890.8	1612.3	-14.7	-278.5
1930	1592.0	1310.2	-17.7	-281.8
1931	2115.6	1583.7	-25.1	-531.9
1932	1132.4	1098.9	-3.0	-33.5
1933	2345.4	2313.6	-1.4	-31.8
1934	1583.6	1551.8	-2.0	-31.8
1935	1169.3	452.4	-61.3	-716.9
1936	2365.6	2333.7	-1.3	-31.9
1937	2342.0	2313.6	-1.2	-28.4
1938	2421.0	2390.9	-1.2	-30.1
1939	2348.8	2322.0	-1.1	-26.8
1940	1597.1	1316.9	-17.5	-280.2
1941	1890.8	1860.6	-1.6	-30.2
1942	2389.1	2360.6	-1.2	-28.5
1943	3593.5	3265.1	-9.1	-328.4
1944	2362.2	2087.1	-11.6	-275.1
1945	1419.3	1892.5	33.3	473.2
1946	2387.4	1862.3	-22.0	-525.1
1947	2140.8	1617.3	-24.5	-523.5
1948	1618.9	1593.8	-1.6	-25.1
1949	2358.8	2333.7	-1.1	-25.1
1950	2362.2	1838.8	-22.2	-523.4
1951	16872.8	16586.1	-1.7	-286.7
1952	2152.5	1875.7	-12.9	-276.8
1953	2387.4	2365.7	-.9	-21.7
1954	2382.4	2360.6	-.9	-21.8
1955	1902.5	1629.1	-14.4	-273.4
1956	1644.1	1617.3	-1.6	-26.8
1957	2347.1	2325.3	-.9	-21.8
1958	2370.6	2095.5	-11.6	-275.1
1959	2352.1	2330.4	-.9	-21.7
1960	1597.1	1570.3	-1.7	-26.8
1961	1669.3	1894.2	13.5	224.9
1962	1645.8	1619.0	-1.6	-26.8
1963	3004.4	2861.7	-4.7	-142.7
1964	4079.0	2690.1	-34.1	-1388.9
1965	1669.3	1892.5	13.4	223.2
1966	2407.6	2384.1	-1.0	-23.5
1967	1726.5	1699.7	-1.6	-26.8
1968	2367.2	2345.5	-.9	-21.7
1969	2176.1	1649.3	-24.2	-526.8
1970	2372.3	2347.2	-1.1	-25.1
1971	1981.5	1958.1	-1.2	-23.4
1972	2367.2	2343.8	-1.0	-23.4
1973	1699.6	1676.2	-1.4	-23.4
1974	6054.3	3873.4	-36.0	-2180.9
1975	2385.7	2360.6	-1.1	-25.1
1976	2885.2	2533.2	-12.2	-352.0
1977	375.0	491.1	31.0	116.1
1978	389.1	453.1	16.4	64.0
1979	2416.0	2387.5	-1.2	-28.5
1980	2395.8	1617.3	-32.5	-778.5
1981	2350.4	2322.0	-1.2	-28.4
1982	4641.0	4259.6	-8.2	-381.4
1983	6784.0	6660.0	-1.8	-124.0
1984	14296.1	14316.6	.1	20.5
1985	3083.6	2196.3	-28.8	-887.3
1986	1724.8	1448.0	-16.0	-276.8
1987	2360.5	2087.1	-11.6	-273.4
1988	1185.1	1413.1	19.2	228.0
1989	894.1	864.0	-3.4	-30.1
1990	1629.0	1598.9	-1.8	-30.1
1991	863.9	832.0	-3.7	-31.9
Mean	2606.3	2421.1	-6.3	-185.3
Median	2349.6	2087.1	-1.6	-31.8
Min	375.0	452.4	-61.3	-2180.9
Max	16872.8	16586.1	33.3	473.2
X < 1300.0	8	7		
X < 1765.0	23	26		
X < 2000.0	27	34		
X < 2700.0	59	63		
X < 3000.0	61	64		

LOWER AMERICAN RIVER FLOW AT H ST.

December

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2462.6	2451.2	-.5	-11.4
	1923	6449.2	6039.0	-6.4	-410.2
	1924	2360.1	2348.8	-.5	-11.3
	1925	1189.8	969.1	-18.5	-220.7
	1926	2381.3	2370.0	-.5	-11.3
	1927	1628.0	1616.7	-.7	-11.3
	1928	2384.5	2374.9	-.4	-9.6
	1929	1892.7	1634.6	-13.6	-258.1
	1930	1680.1	1418.8	-15.6	-261.3
	1931	2095.5	1584.2	-24.4	-511.3
	1932	1245.1	1230.6	-1.2	-14.5
	1933	2387.8	2376.5	-.5	-11.3
	1934	1691.5	1678.5	-.8	-13.0
	1935	1139.4	577.3	-49.3	-562.1
	1936	2381.3	2370.0	-.5	-11.3
	1937	2404.0	2396.0	-.3	-8.0
	1938	6102.9	5711.3	-6.4	-391.6
	1939	2365.0	2358.6	-.3	-6.4
	1940	1618.3	1358.6	-16.0	-259.7
	1941	2013.0	2005.0	-.4	-8.0
	1942	4922.1	4461.6	-9.4	-460.5
	1943	4689.8	4558.4	-2.8	-131.4
	1944	2386.2	2131.4	-10.7	-254.8
	1945	1394.3	1886.2	35.3	491.9
	1946	7788.1	7026.1	-9.8	-762.0
	1947	2142.7	1637.9	-23.6	-504.8
	1948	1611.8	1607.0	-.3	-4.8
	1949	2417.1	2410.6	-.3	-6.5
	1950	2376.4	1873.2	-21.2	-503.2
	1951	16335.9	16206.0	-.8	-129.9
	1952	4167.5	3159.3	-24.2	-1008.2
	1953	2475.6	2472.4	-.1	-3.2
	1954	2361.8	2360.2	-.1	-1.6
	1955	1933.3	1681.8	-13.0	-251.5
	1956	14600.8	14782.3	1.2	181.5
	1957	2356.9	2353.7	-.1	-3.2
	1958	2418.7	2162.3	-10.6	-256.4
	1959	2368.3	2366.7	-.1	-1.6
	1960	1623.1	1849.4	13.9	226.3
	1961	1615.0	1860.2	15.2	245.2
	1962	1644.3	1637.9	-.4	-6.4
	1963	3375.7	3307.5	-2.0	-68.2
	1964	3177.9	2350.5	-26.0	-827.4
	1965	19280.7	20219.9	4.9	939.2
	1966	2400.8	2396.0	-.2	-4.8
	1967	1678.4	1672.0	-.4	-6.4
	1968	2368.3	2365.1	-.1	-3.2
	1969	2175.2	1668.8	-23.3	-506.4
	1970	5268.1	4817.4	-8.6	-450.7
	1971	4835.0	4293.4	-11.2	-541.6
	1972	2430.1	2426.9	-.1	-3.2
	1973	1658.9	1654.1	-.3	-4.8
	1974	7459.5	7337.8	-1.6	-121.7
	1975	2420.3	2415.5	-.2	-4.8
	1976	2365.0	2361.8	-.1	-3.2
	1977	500.0	616.0	23.2	116.0
	1978	500.0	576.9	15.4	76.9
	1979	2374.8	2366.7	-.3	-8.1
	1980	2438.2	1680.2	-31.1	-758.0
	1981	2394.3	2387.9	-.3	-6.4
	1982	14151.7	14142.4	-.1	-9.3
	1983	9105.3	8943.0	-1.8	-162.3
	1984	15314.4	15098.5	-1.4	-215.9
	1985	2447.1	2136.2	-12.7	-310.9
	1986	1675.2	1418.8	-15.3	-256.4
	1987	2379.7	2124.9	-10.7	-254.8
	1988	1193.1	1186.7	-.5	-6.4
	1989	908.9	899.3	-1.1	-9.6
	1990	1605.3	1595.6	-.6	-9.7
	1991	878.0	868.4	-1.1	-9.6
	Mean	3575.2	3438.3	-4.7	-136.8
	Median	2375.6	2352.1	-.6	-11.3
	Min	500.0	576.9	-49.3	-1008.2
	Max	19280.7	20219.9	35.3	939.2
X <	1300.0	8	8		
X <	1765.0	21	24		
X <	2000.0	23	28		
X <	2700.0	53	54		
X <	3000.0	53	54		

LOWER AMERICAN RIVER FLOW AT H ST.

January

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	1908.9	1899.2	-.5	-9.7
	1923	4491.4	4327.4	-3.7	-164.0
	1924	1899.2	1889.5	-.5	-9.7
	1925	1628.0	1658.9	1.9	30.9
	1926	1905.7	1896.0	-.5	-9.7
	1927	3077.9	2584.2	-16.0	-493.7
	1928	2384.5	1878.1	-21.2	-506.4
	1929	1471.5	1265.1	-14.0	-206.4
	1930	1680.1	1672.0	-.5	-8.1
	1931	1707.3	1400.9	-17.9	-306.4
	1932	1879.7	1618.3	-13.9	-261.4
	1933	1917.1	1909.0	-.4	-8.1
	1934	1871.5	1613.5	-13.8	-258.0
	1935	1689.8	1931.8	14.3	242.0
	1936	4271.2	3876.6	-9.2	-394.6
	1937	1918.7	1912.3	-.3	-6.4
	1938	2803.3	2658.7	-5.2	-144.6
	1939	2134.5	1881.4	-11.9	-253.1
	1940	2491.2	1993.8	-20.0	-497.4
	1941	5492.7	4720.3	-14.1	-772.4
	1942	9289.1	9121.9	-1.8	-167.2
	1943	10904.1	10738.5	-1.5	-165.6
	1944	1904.0	1700.9	-10.7	-203.1
	1945	1876.4	2123.2	13.2	246.8
	1946	5132.2	4971.4	-3.1	-160.8
	1947	2113.4	1860.2	-12.0	-253.2
	1948	1615.0	1613.5	-.1	-1.5
	1949	1882.9	1879.7	-.2	-3.2
	1950	1933.3	1531.8	-20.8	-401.5
	1951	10063.8	9919.3	-1.4	-144.5
	1952	9053.3	8904.0	-1.6	-149.3
	1953	6731.2	6142.6	-8.7	-588.6
	1954	2162.2	2163.9	.1	1.7
	1955	1920.3	1920.4	.0	.1
	1956	16344.2	16277.8	-.4	-66.4
	1957	2150.8	2150.9	.0	.1
	1958	2204.5	1951.3	-11.5	-253.2
	1959	2204.5	1954.5	-11.3	-250.0
	1960	1325.2	1508.5	13.8	183.3
	1961	1397.5	1496.0	7.0	98.5
	1962	1279.7	1274.9	-.4	-4.8
	1963	3888.0	3766.1	-3.1	-121.9
	1964	2582.0	2422.0	-6.2	-160.0
	1965	13162.5	13092.8	-.5	-69.7
	1966	2387.8	2136.2	-10.5	-251.6
	1967	6739.4	6048.2	-10.3	-691.2
	1968	2426.8	2426.9	.0	.1
	1969	14789.4	14230.5	-3.8	-558.9
	1970	20940.2	20786.1	-.7	-154.1
	1971	4668.7	4569.5	-2.1	-99.2
	1972	2373.1	2373.2	.0	.1
	1973	8938.4	8281.7	-7.3	-656.7
	1974	11302.6	11192.3	-1.0	-110.3
	1975	2126.4	2124.9	-.1	-1.5
	1976	2365.0	2365.1	.0	.1
	1977	388.6	483.4	24.4	94.8
	1978	3372.5	2185.8	-35.2	-1186.7
	1979	2202.8	1948.0	-11.6	-254.8
	1980	14921.4	15196.5	1.8	275.1
	1981	2194.7	1939.9	-11.6	-254.8
	1982	8242.9	8106.6	-1.7	-136.3
	1983	7604.2	7453.3	-2.0	-150.9
	1984	6509.9	6380.1	-2.0	-129.8
	1985	2384.5	2383.0	-.1	-1.5
	1986	2157.8	2290.9	6.2	133.1
	1987	1908.9	1707.4	-10.6	-201.5
	1988	926.8	923.6	-.3	-3.2
	1989	1874.8	1868.3	-.3	-6.5
	1990	1680.1	1673.6	-.4	-6.5
	1991	668.3	660.2	-1.2	-8.1
	Mean	4254.9	4097.3	-4.1	-157.6
	Median	2203.6	2124.0	-1.5	-133.1
	Min	388.6	483.4	-35.2	-1186.7
	Max	20940.2	20786.1	24.4	275.1
X <	1300.0	4	5		
X <	1765.0	13	17		
X <	2000.0	27	34		
X <	2700.0	45	48		
X <	3000.0	46	48		

LOWER AMERICAN RIVER FLOW AT H ST.

February

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3279.5	2438.4	-25.6	-841.1
	1923	3432.5	2822.4	-17.8	-610.1
	1924	1531.6	1508.3	-1.5	-23.3
	1925	3610.8	3856.8	6.8	246.0
	1926	1594.6	1719.5	7.8	124.9
	1927	13414.9	13326.8	-.7	-88.1
	1928	1902.8	1881.2	-1.1	-21.6
	1929	1170.2	990.4	-15.4	-179.8
	1930	1884.8	1861.4	-1.2	-23.4
	1931	1337.4	1124.0	-16.0	-213.4
	1932	2181.0	1877.6	-13.9	-303.4
	1933	1627.6	1604.2	-1.4	-23.4
	1934	1911.8	1638.4	-14.3	-273.4
	1935	1883.0	1857.8	-1.3	-25.2
	1936	13451.0	13303.4	-1.1	-147.6
	1937	1987.4	1717.7	-13.6	-269.7
	1938	9839.2	9668.2	-1.7	-171.0
	1939	1881.2	1861.4	-1.1	-19.8
	1940	10606.0	10471.1	-1.3	-134.9
	1941	8011.4	7828.1	-2.3	-183.3
	1942	9970.6	9771.0	-2.0	-199.6
	1943	6841.3	6661.6	-2.6	-179.7
	1944	1755.4	1429.3	-18.6	-326.1
	1945	6141.5	5964.1	-2.9	-177.4
	1946	2658.3	2496.5	-6.1	-161.8
	1947	1906.4	1890.2	-.8	-16.2
	1948	1888.4	1620.4	-14.2	-268.0
	1949	1895.6	1477.6	-22.1	-418.0
	1950	4073.6	3428.5	-15.8	-645.1
	1951	8100.3	7943.9	-1.9	-156.4
	1952	9480.7	9302.7	-1.9	-178.0
	1953	2179.3	1990.5	-8.7	-188.8
	1954	1985.7	1920.9	-3.3	-64.8
	1955	1895.6	1879.4	-.9	-16.2
	1956	6147.3	6035.9	-1.8	-111.4
	1957	1947.8	1933.5	-.7	-14.3
	1958	9132.6	6807.8	-25.5	-2324.8
	1959	1958.6	1944.3	-.7	-14.3
	1960	1183.4	1185.1	.1	1.7
	1961	1143.8	1157.6	1.2	13.8
	1962	1281.0	1123.7	-12.3	-157.3
	1963	12007.2	11857.8	-1.2	-149.4
	1964	1995.8	1852.4	-7.2	-143.4
	1965	5371.7	5274.7	-1.8	-97.0
	1966	1902.8	1886.6	-.9	-16.2
	1967	4349.1	4199.8	-3.4	-149.3
	1968	5676.2	4811.3	-15.2	-864.9
	1969	9261.3	9155.2	-1.1	-106.1
	1970	6229.7	6109.4	-1.9	-120.3
	1971	3302.8	3158.8	-4.4	-144.0
	1972	2138.3	1883.0	-11.9	-255.3
	1973	7167.0	7048.3	-1.7	-118.7
	1974	4303.2	3943.5	-8.4	-359.7
	1975	2003.6	1987.5	-.8	-16.1
	1976	1884.8	1870.4	-.8	-14.4
	1977	384.8	366.2	-4.8	-18.6
	1978	4689.2	4575.8	-2.4	-113.4
	1979	1938.8	1670.9	-13.8	-267.9
	1980	14127.5	13557.6	-4.0	-569.9
	1981	1886.6	1466.8	-22.3	-419.8
	1982	15463.6	15211.8	-1.6	-251.8
	1983	12405.0	12245.1	-1.3	-159.9
	1984	5580.9	5440.8	-2.5	-140.1
	1985	1917.2	1899.2	-.9	-18.0
	1986	33241.4	33160.6	-.2	-80.8
	1987	1540.6	1362.7	-11.5	-177.9
	1988	1881.2	1613.2	-14.2	-268.0
	1989	1640.2	1618.6	-1.3	-21.6
	1990	1687.0	1315.5	-22.0	-371.5
	1991	562.6	541.1	-3.8	-21.5
	Mean	4809.2	4605.8	-6.1	-203.4
	Median	2070.9	1938.9	-2.2	-148.5
	Min	384.8	366.2	-25.6	-2324.8
	Max	33241.4	33160.6	7.8	246.0
X <	1300.0	6	7		
X <	1765.0	14	21		
X <	2000.0	34	38		
X <	2700.0	39	40		
X <	3000.0	39	41		

LOWER AMERICAN RIVER FLOW AT H ST.

March

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4402.4	4384.6	-.4	-17.8
	1923	2698.3	2594.0	-3.9	-104.3
	1924	1153.1	1185.7	2.8	32.6
	1925	3137.4	3042.4	-3.0	-95.0
	1926	1856.9	1839.1	-1.0	-17.8
	1927	4481.6	4264.2	-4.9	-217.4
	1928	12106.4	9636.8	-20.4	-2469.6
	1929	1386.2	1371.6	-1.1	-14.6
	1930	1902.4	1887.9	-.8	-14.5
	1931	1021.9	853.7	-16.5	-168.2
	1932	2605.3	2587.5	-.7	-17.8
	1933	1887.8	1621.6	-14.1	-266.2
	1934	1445.5	1229.3	-15.0	-216.2
	1935	3162.2	3146.0	-.5	-16.2
	1936	4087.1	3933.3	-3.8	-153.8
	1937	4331.3	3764.3	-13.1	-567.0
	1938	10782.2	10589.0	-1.8	-193.2
	1939	1497.5	1486.2	-.8	-11.3
	1940	10878.1	10551.6	-3.0	-326.5
	1941	4777.3	4582.5	-4.1	-194.8
	1942	4413.8	4400.9	-.3	-12.9
	1943	12384.5	12214.1	-1.4	-170.4
	1944	2128.0	1866.7	-12.3	-261.3
	1945	2662.2	2650.9	-.4	-11.3
	1946	2706.0	2636.2	-2.6	-69.8
	1947	1915.4	1905.8	-.5	-9.6
	1948	2662.2	2652.5	-.4	-9.7
	1949	2451.2	2439.9	-.5	-11.3
	1950	3206.3	2883.0	-10.1	-323.3
	1951	3673.5	3512.9	-4.4	-160.6
	1952	6107.6	5934.0	-2.8	-173.6
	1953	2894.3	2884.6	-.3	-9.7
	1954	4354.4	3584.2	-17.7	-770.2
	1955	1858.5	1850.5	-.4	-8.0
	1956	3366.6	3355.3	-.3	-11.3
	1957	4080.1	3191.6	-21.8	-888.5
	1958	6633.2	6464.4	-2.5	-168.8
	1959	1618.3	1610.2	-.5	-8.1
	1960	2507.4	2121.6	-15.4	-385.8
	1961	1142.7	905.4	-20.8	-237.3
	1962	2386.2	2373.2	-.5	-13.0
	1963	3418.7	3409.0	-.3	-9.7
	1964	1874.8	1863.5	-.6	-11.3
	1965	2887.8	2874.9	-.4	-12.9
	1966	1860.1	1598.8	-14.0	-261.3
	1967	5895.1	5658.1	-4.0	-237.0
	1968	2068.3	3822.0	84.8	1753.7
	1969	4378.0	4370.0	-.2	-8.0
	1970	2387.8	2146.7	-10.1	-241.1
	1971	3980.6	3826.5	-3.9	-154.1
	1972	4099.1	3393.3	-17.2	-705.8
	1973	3327.0	3125.7	-6.1	-201.3
	1974	9560.7	9460.1	-1.1	-100.6
	1975	4377.5	3514.9	-19.7	-862.6
	1976	1476.4	1468.4	-.5	-8.0
	1977	278.0	326.9	17.6	48.9
	1978	5452.6	5481.9	.5	29.3
	1979	3050.6	2386.2	-21.8	-664.4
	1980	3407.1	3118.5	-8.5	-288.6
	1981	1673.6	1410.6	-15.7	-263.0
	1982	7577.4	7470.4	-1.4	-107.0
	1983	16256.7	16120.5	-.8	-136.2
	1984	2647.5	2403.1	-9.2	-244.4
	1985	2171.9	1910.6	-12.0	-261.3
	1986	11163.2	10950.7	-1.9	-212.5
	1987	1214.9	1077.3	-11.3	-137.6
	1988	1463.4	1252.1	-14.4	-211.3
	1989	6360.0	5538.9	-12.9	-821.1
	1990	1371.5	1357.0	-1.1	-14.5
	1991	2009.8	1746.8	-13.1	-263.0
	Mean	3892.0	3701.0	-4.6	-191.0
	Median	2891.1	2878.9	-2.7	-154.0
	Min	278.0	326.9	-21.8	-2469.6
	Max	16256.7	16120.5	84.8	1753.7
X <	1300.0	5	7		
X <	1765.0	13	16		
X <	2000.0	20	23		
X <	2700.0	33	34		
X <	3000.0	36	37		

LOWER AMERICAN RIVER FLOW AT H ST.

April

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4363.9	4311.9	-1.2	-52.0
	1923	3177.2	3283.3	3.3	106.1
	1924	188.0	266.1	41.5	78.1
	1925	4012.4	3263.1	-18.7	-749.3
	1926	1934.5	1882.5	-2.7	-52.0
	1927	7856.2	7653.4	-2.6	-202.8
	1928	4773.1	4456.1	-6.6	-317.0
	1929	1355.5	558.5	-58.8	-797.0
	1930	2110.5	1811.9	-14.1	-298.6
	1931	337.0	286.7	-14.9	-50.3
	1932	2853.8	2551.8	-10.6	-302.0
	1933	1835.3	1535.0	-16.4	-300.3
	1934	3070.6	2521.4	-17.9	-549.2
	1935	4340.5	4820.8	11.1	480.3
	1936	5754.8	5498.3	-4.5	-256.5
	1937	4330.0	4039.4	-6.7	-290.6
	1938	7866.0	7574.1	-3.7	-291.9
	1939	1090.3	545.1	-50.0	-545.2
	1940	6058.2	5875.2	-3.0	-183.0
	1941	3751.9	3505.4	-6.6	-246.5
	1942	4439.5	4394.2	-1.0	-45.3
	1943	5162.3	4888.9	-5.3	-273.4
	1944	2130.7	1835.4	-13.9	-295.3
	1945	2602.1	2556.9	-1.7	-45.2
	1946	3913.7	3474.1	-11.2	-439.6
	1947	1848.8	1805.2	-2.4	-43.6
	1948	2655.9	2614.0	-1.6	-41.9
	1949	2338.7	2295.1	-1.9	-43.6
	1950	4935.4	4795.9	-2.8	-139.5
	1951	3037.9	2727.5	-10.2	-310.4
	1952	8946.5	8647.8	-3.3	-298.7
	1953	3399.2	3107.3	-8.6	-291.9
	1954	4454.5	4249.6	-4.6	-204.9
	1955	1884.0	1843.8	-2.1	-40.2
	1956	3894.1	3848.9	-1.2	-45.2
	1957	2630.7	2590.5	-1.5	-40.2
	1958	10349.8	10101.6	-2.4	-248.2
	1959	1872.3	1580.4	-15.6	-291.9
	1960	2112.2	2068.6	-2.1	-43.6
	1961	355.5	366.1	3.0	10.6
	1962	3671.1	2574.9	-29.9	-1096.2
	1963	4573.6	4198.3	-8.2	-375.3
	1964	1850.4	1805.2	-2.4	-45.2
	1965	3721.1	3273.9	-12.0	-447.2
	1966	1857.2	1563.6	-15.8	-293.6
	1967	4412.6	4370.7	-.9	-41.9
	1968	1850.4	1808.5	-2.3	-41.9
	1969	5827.0	5388.0	-7.5	-439.0
	1970	2357.2	2061.9	-12.5	-295.3
	1971	3365.6	3072.0	-8.7	-293.6
	1972	2375.6	2333.7	-1.8	-41.9
	1973	2608.8	2566.9	-1.6	-41.9
	1974	6156.2	5938.1	-3.5	-218.1
	1975	3877.3	3833.7	-1.1	-43.6
	1976	370.6	328.7	-11.3	-41.9
	1977	188.0	266.1	41.5	78.1
	1978	4594.3	3873.9	-15.7	-720.4
	1979	2612.2	2316.9	-11.3	-295.3
	1980	2870.6	2575.3	-10.3	-295.3
	1981	1607.2	811.9	-49.5	-795.3
	1982	14296.2	14063.1	-1.6	-233.1
	1983	6615.5	6358.9	-3.9	-256.6
	1984	2630.7	2585.4	-1.7	-45.3
	1985	2112.2	1818.6	-13.9	-293.6
	1986	2634.0	2590.5	-1.7	-43.5
	1987	357.2	358.3	.3	1.1
	1988	394.1	280.8	-28.7	-113.3
	1989	4472.4	3885.2	-13.1	-587.2
	1990	2583.2	1868.4	-27.7	-714.8
	1991	1850.4	1553.5	-16.0	-296.9
	Mean	3467.4	3233.7	-7.8	-233.7
	Median	2862.2	2587.9	-4.6	-247.4
	Min	188.0	266.1	-58.8	-1096.2
	Max	14296.2	14063.1	41.5	480.3
X <	1300.0	8	10		
X <	1765.0	10	14		
X <	2000.0	19	23		
X <	2700.0	34	38		
X <	3000.0	36	39		

LOWER AMERICAN RIVER FLOW AT H ST.

May

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8956.6	8110.7	-9.4	-845.9
	1923	4835.3	4440.4	-8.2	-394.9
	1924	188.0	264.9	40.9	76.9
	1925	4522.8	3848.4	-14.9	-674.4
	1926	2330.9	2278.8	-2.2	-52.1
	1927	4780.1	4266.8	-10.7	-513.3
	1928	2824.4	2777.2	-1.7	-47.2
	1929	1821.1	1523.9	-16.3	-297.2
	1930	2574.4	2275.6	-11.6	-298.8
	1931	343.9	543.5	58.0	199.6
	1932	3817.8	3483.4	-8.8	-334.4
	1933	2329.2	2278.8	-2.2	-50.4
	1934	330.9	278.8	-15.7	-52.1
	1935	4802.6	4362.6	-9.2	-440.0
	1936	4064.6	3986.7	-1.9	-77.9
	1937	4464.6	4067.9	-8.9	-396.7
	1938	9844.5	9420.7	-4.3	-423.8
	1939	1592.2	1548.3	-2.8	-43.9
	1940	3561.3	3235.1	-9.2	-326.2
	1941	5385.1	4977.5	-7.6	-407.6
	1942	6148.6	5468.3	-11.1	-680.3
	1943	3571.1	3496.4	-2.1	-74.7
	1944	2590.6	2298.3	-11.3	-292.3
	1945	3584.1	3507.8	-2.1	-76.3
	1946	3605.9	3511.1	-2.6	-94.8
	1947	2326.0	2285.3	-1.7	-40.7
	1948	3603.6	3530.6	-2.0	-73.0
	1949	3082.5	2538.6	-17.6	-543.9
	1950	3821.1	3748.1	-1.9	-73.0
	1951	3602.0	3275.7	-9.1	-326.3
	1952	11189.5	10773.8	-3.7	-415.7
	1953	4087.4	4016.0	-1.7	-71.4
	1954	2832.5	2793.5	-1.4	-39.0
	1955	2585.7	2295.1	-11.2	-290.6
	1956	4343.9	4272.5	-1.6	-71.4
	1957	3613.4	3292.0	-8.9	-321.4
	1958	10137.3	9726.4	-4.1	-410.9
	1959	2332.5	2041.8	-12.5	-290.7
	1960	2584.1	2541.8	-1.6	-42.3
	1961	1334.1	1290.2	-3.3	-43.9
	1962	3066.2	3000.6	-2.1	-65.6
	1963	7198.5	6716.1	-6.7	-482.4
	1964	2334.1	2290.2	-1.9	-43.9
	1965	4077.6	3753.0	-8.0	-324.6
	1966	2329.2	2286.9	-1.8	-42.3
	1967	8049.5	7429.9	-7.7	-619.6
	1968	2330.9	2291.8	-1.7	-39.1
	1969	9207.0	8762.0	-4.8	-445.0
	1970	2834.1	2541.8	-10.3	-292.3
	1971	4100.4	4027.3	-1.8	-73.1
	1972	2834.1	2543.5	-10.3	-290.6
	1973	4364.2	3679.7	-15.7	-684.5
	1974	4955.8	4492.9	-9.3	-462.9
	1975	4329.2	4257.8	-1.6	-71.4
	1976	839.0	304.0	-63.8	-535.0
	1977	188.0	264.9	40.9	76.9
	1978	4336.1	3746.4	-13.6	-589.7
	1979	3995.3	3249.7	-18.7	-745.6
	1980	3824.4	3749.7	-2.0	-74.7
	1981	2082.5	1538.6	-26.1	-543.9
	1982	9247.7	8897.0	-3.8	-350.7
	1983	10522.7	10124.9	-3.8	-397.8
	1984	3598.8	3274.1	-9.0	-324.7
	1985	2592.2	2300.0	-11.3	-292.2
	1986	3592.2	3519.2	-2.0	-73.0
	1987	1339.0	546.7	-59.2	-792.3
	1988	352.0	306.5	-12.9	-45.5
	1989	3367.2	2815.5	-16.4	-551.7
	1990	1626.4	1329.2	-18.3	-297.2
	1991	2332.5	2285.3	-2.0	-47.2
	Mean	3859.9	3585.7	-6.6	-274.2
	Median	3588.1	3274.9	-7.1	-292.3
	Min	188.0	264.9	-63.8	-845.9
	Max	11189.5	10773.8	58.0	199.6
X <	1300.0	6	8		
X <	1765.0	10	12		
X <	2000.0	11	12		
X <	2700.0	25	28		
X <	3000.0	29	31		

LOWER AMERICAN RIVER FLOW AT H ST.

June

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8942.0	8381.4	-6.3	-560.6
	1923	4572.3	3841.0	-16.0	-731.3
	1924	188.0	266.1	41.5	78.1
	1925	6281.9	5223.4	-16.8	-1058.5
	1926	1737.0	1960.9	12.9	223.9
	1927	5328.8	4820.3	-9.5	-508.5
	1928	5709.0	3825.9	-33.0	-1883.1
	1929	2161.5	1908.0	-11.7	-253.5
	1930	2051.7	1731.1	-15.6	-320.6
	1931	1073.8	556.4	-48.2	-517.4
	1932	4803.4	4590.0	-4.4	-213.4
	1933	2342.7	1972.9	-15.8	-369.8
	1934	1610.0	1415.5	-12.1	-194.5
	1935	3907.9	3429.2	-12.2	-478.7
	1936	4435.8	3662.0	-17.4	-773.8
	1937	3289.9	3194.3	-2.9	-95.6
	1938	8582.3	8048.7	-6.2	-533.6
	1939	805.1	358.3	-55.5	-446.8
	1940	3415.1	2969.3	-13.1	-445.8
	1941	3545.0	3202.7	-9.7	-342.3
	1942	7345.4	6798.3	-7.4	-547.1
	1943	3305.1	3214.5	-2.7	-90.6
	1944	2055.1	1492.9	-27.4	-562.2
	1945	5835.8	4483.7	-23.2	-1352.1
	1946	6258.5	5084.9	-18.8	-1173.6
	1947	1568.5	1254.6	-20.0	-313.9
	1948	3296.7	2986.2	-9.4	-310.5
	1949	2791.6	2227.8	-20.2	-563.8
	1950	3941.9	3447.7	-12.5	-494.2
	1951	3053.4	2991.2	-2.0	-62.2
	1952	10503.2	9957.8	-5.2	-545.4
	1953	3813.5	3476.3	-8.8	-337.2
	1954	2687.7	3311.9	23.2	624.2
	1955	2060.1	1747.9	-15.2	-312.2
	1956	5529.4	4267.3	-22.8	-1262.1
	1957	3785.0	3948.8	4.3	163.8
	1958	7726.9	7220.2	-6.6	-506.7
	1959	1315.1	1003.0	-23.7	-312.1
	1960	2056.7	1992.9	-3.1	-63.8
	1961	556.7	366.1	-34.2	-190.6
	1962	2800.0	2809.1	.3	9.1
	1963	3289.9	3202.7	-2.7	-87.2
	1964	2066.8	2001.3	-3.2	-65.5
	1965	3550.0	3459.5	-2.5	-90.5
	1966	1810.1	1246.2	-31.2	-563.9
	1967	10419.2	9939.3	-4.6	-479.9
	1968	2063.5	1253.0	-39.3	-810.5
	1969	6594.2	6100.9	-7.5	-493.3
	1970	3233.6	2807.9	-13.2	-425.7
	1971	3876.1	3466.2	-10.6	-409.9
	1972	4407.4	4163.1	-5.5	-244.3
	1973	5555.7	6203.1	11.7	647.4
	1974	4256.6	3733.0	-12.3	-523.6
	1975	5757.7	4624.5	-19.7	-1133.2
	1976	1838.8	1824.8	-.8	-14.0
	1977	188.0	266.1	41.5	78.1
	1978	4463.3	3454.4	-22.6	-1008.9
	1979	6288.6	6194.7	-1.5	-93.9
	1980	3541.6	3202.7	-9.6	-338.9
	1981	1310.1	494.6	-62.2	-815.5
	1982	6263.1	5716.1	-8.7	-547.0
	1983	14543.2	13999.5	-3.7	-543.7
	1984	4724.4	3668.7	-22.3	-1055.7
	1985	2803.0	2283.0	-18.6	-520.0
	1986	3320.2	2999.8	-9.7	-320.4
	1987	321.9	358.3	11.3	36.4
	1988	1472.0	1068.7	-27.4	-403.3
	1989	3881.7	3502.7	-9.8	-379.0
	1990	1630.7	1521.9	-6.7	-108.8
	1991	2851.7	2610.6	-8.5	-241.1
	Mean	3905.6	3497.3	-11.2	-408.4
	Median	3367.6	3202.7	-9.7	-391.1
	Min	188.0	266.1	-62.2	-1883.1
	Max	14543.2	13999.5	41.5	647.4
X <	1300.0	6	12		
X <	1765.0	13	17		
X <	2000.0	15	22		
X <	2700.0	24	26		
X <	3000.0	28	32		

LOWER AMERICAN RIVER FLOW AT H ST.

July

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4023.9	3143.4	-21.9	-880.5
	1923	5630.4	2648.4	-53.0	-2982.0
	1924	522.0	264.9	-49.3	-257.1
	1925	3995.1	2326.5	-41.8	-1668.6
	1926	2429.8	2283.7	-6.0	-146.1
	1927	2878.6	6162.4	114.1	3283.8
	1928	1288.6	1230.0	-4.5	-58.6
	1929	1453.9	1204.3	-17.2	-249.6
	1930	2662.4	2390.7	-10.2	-271.7
	1931	1713.5	2313.8	35.0	600.3
	1932	2952.8	2814.8	-4.7	-138.0
	1933	2019.4	1740.8	-13.8	-278.6
	1934	1288.1	1203.6	-6.6	-84.5
	1935	4840.5	2673.1	-44.8	-2167.4
	1936	3907.9	3740.4	-4.3	-167.5
	1937	2387.8	2182.5	-8.6	-205.3
	1938	3538.3	2969.9	-16.1	-568.4
	1939	1755.8	1485.3	-15.4	-270.5
	1940	5836.8	5162.1	-11.6	-674.7
	1941	2158.3	1933.1	-10.4	-225.2
	1942	3523.6	2943.9	-16.5	-579.7
	1943	5539.0	5679.5	2.5	140.5
	1944	2109.9	1353.9	-35.8	-756.0
	1945	4146.7	4008.3	-3.3	-138.4
	1946	3644.5	3761.9	3.2	117.4
	1947	1766.8	1270.4	-28.1	-496.4
	1948	3646.1	2203.5	-39.6	-1442.6
	1949	3057.8	2403.4	-21.4	-654.4
	1950	5160.3	3187.4	-38.2	-1972.9
	1951	5775.3	4922.1	-14.8	-853.2
	1952	4645.8	4085.6	-12.1	-560.2
	1953	3159.8	2032.2	-35.7	-1127.6
	1954	3185.7	1780.2	-44.1	-1405.5
	1955	1603.2	1241.4	-22.6	-361.8
	1956	3203.3	2625.1	-18.1	-578.2
	1957	4647.8	4362.4	-6.1	-285.4
	1958	3185.4	2626.7	-17.5	-558.7
	1959	548.3	396.9	-27.6	-151.4
	1960	2741.0	1236.5	-54.9	-1504.5
	1961	290.2	366.0	26.1	75.8
	1962	5183.2	4207.0	-18.8	-976.2
	1963	2133.8	5458.5	155.8	3324.7
	1964	2139.1	1878.6	-12.2	-260.5
	1965	5435.8	6175.4	13.6	739.6
	1966	1293.5	404.5	-68.7	-889.0
	1967	4322.2	3763.6	-12.9	-558.6
	1968	1291.8	491.4	-62.0	-800.4
	1969	2982.1	2405.6	-19.3	-576.5
	1970	1759.6	1589.3	-9.7	-170.3
	1971	3003.2	1946.0	-35.2	-1057.2
	1972	1293.5	1243.0	-3.9	-50.5
	1973	4004.4	2466.1	-38.4	-1538.3
	1974	3466.7	2911.4	-16.0	-555.3
	1975	2928.4	2374.7	-18.9	-553.7
	1976	1361.1	1198.0	-12.0	-163.1
	1977	188.0	264.9	40.9	76.9
	1978	6112.6	5344.9	-12.6	-767.7
	1979	2835.4	1231.7	-56.6	-1603.7
	1980	3646.6	3765.3	3.3	118.7
	1981	293.5	366.0	24.7	72.5
	1982	3401.7	2823.5	-17.0	-578.2
	1983	6222.4	5749.3	-7.6	-473.1
	1984	4197.4	4358.3	3.8	160.9
	1985	2121.9	1719.2	-19.0	-402.7
	1986	5365.7	4867.2	-9.3	-498.5
	1987	1707.1	961.8	-43.7	-745.3
	1988	894.3	658.1	-26.4	-236.2
	1989	3552.7	2752.3	-22.5	-800.4
	1990	1237.5	941.1	-24.0	-296.4
	1991	2223.4	2197.4	-1.2	-26.0
	Mean	2992.3	2555.4	-13.2	-437.0
	Median	2967.5	2350.6	-15.7	-437.9
	Min	188.0	264.9	-68.7	-2982.0
	Max	6222.4	6175.4	155.8	3324.7
X <	1300.0	12	19		
X <	1765.0	19	24		
X <	2000.0	20	28		
X <	2700.0	30	44		
X <	3000.0	36	50		

LOWER AMERICAN RIVER FLOW AT H ST.

August

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2714.5	2502.8	-7.8	-211.7
1923	2353.3	4255.5	80.8	1902.2
1924	188.0	264.9	40.9	76.9
1925	3577.1	1473.5	-58.8	-2103.6
1926	545.1	483.3	-11.3	-61.8
1927	3671.8	3412.1	-7.1	-259.7
1928	3075.5	3804.1	23.7	728.6
1929	188.0	273.1	45.3	85.1
1930	791.8	731.7	-7.6	-60.1
1931	188.0	265.3	41.1	77.3
1932	2116.8	1467.0	-30.7	-649.8
1933	533.7	265.3	-50.3	-268.4
1934	188.0	265.3	41.1	77.3
1935	2888.6	3709.8	28.4	821.2
1936	2897.6	1988.2	-31.4	-909.4
1937	2584.6	1726.8	-33.2	-857.8
1938	4207.9	3628.2	-13.8	-579.7
1939	293.5	358.2	22.0	64.7
1940	3773.3	2907.3	-23.0	-866.0
1941	4059.9	2957.4	-27.2	-1102.5
1942	4289.2	3714.4	-13.4	-574.8
1943	2427.5	2762.5	13.8	335.0
1944	3796.6	744.7	-80.4	-3051.9
1945	1853.3	2045.9	10.4	192.6
1946	1897.2	2030.1	7.0	132.9
1947	1088.6	489.8	-55.0	-598.8
1948	3003.5	2693.1	-10.3	-310.4
1949	2296.9	2618.6	14.0	321.7
1950	2795.0	2467.7	-11.7	-327.3
1951	3154.5	2905.4	-7.9	-249.1
1952	4709.9	4138.8	-12.1	-571.1
1953	4329.9	3722.8	-14.0	-607.1
1954	3330.2	3743.4	12.4	413.2
1955	3194.9	1709.6	-46.5	-1485.3
1956	4260.0	3690.0	-13.4	-570.0
1957	1517.4	2283.3	50.5	765.9
1958	4355.9	3803.8	-12.7	-552.1
1959	2343.8	1367.3	-41.7	-976.5
1960	3112.1	1957.9	-37.1	-1154.2
1961	1299.7	366.0	-71.8	-933.7
1962	4423.2	2505.3	-43.4	-1917.9
1963	3881.0	1578.4	-59.3	-2302.6
1964	3263.0	741.4	-77.3	-2521.6
1965	1801.6	2302.5	27.8	500.9
1966	2788.6	1527.1	-45.2	-1261.5
1967	4323.4	3751.8	-13.2	-571.6
1968	1050.0	1567.3	49.3	517.3
1969	4136.4	3581.0	-13.4	-555.4
1970	3914.1	3501.2	-10.5	-412.9
1971	4081.1	3511.1	-14.0	-570.0
1972	4194.4	3186.7	-24.0	-1007.7
1973	1495.5	3485.7	133.1	1990.2
1974	4339.7	3771.3	-13.1	-568.4
1975	4120.1	3571.2	-13.3	-548.9
1976	1303.4	814.9	-37.5	-488.5
1977	188.0	264.9	40.9	76.9
1978	1541.8	2937.9	90.5	1396.1
1979	2099.9	2743.9	30.7	644.0
1980	2321.7	3837.2	65.3	1515.5
1981	1568.2	672.8	-57.1	-895.4
1982	4329.9	3756.6	-13.2	-573.3
1983	4732.7	4519.4	-4.5	-213.3
1984	1317.8	2734.4	107.5	1416.6
1985	3103.1	2310.2	-25.6	-792.9
1986	3671.0	3214.9	-12.4	-456.1
1987	1488.6	1260.2	-15.3	-228.4
1988	701.6	280.8	-60.0	-420.8
1989	3450.9	3237.9	-6.2	-213.0
1990	2005.9	1367.9	-31.8	-638.0
1991	1322.9	288.5	-78.2	-1034.4
Mean	2612.2	2268.8	-6.0	-343.3
Median	2791.8	2485.3	-12.9	-438.5
Min	188.0	264.9	-80.4	-3051.9
Max	4732.7	4519.4	133.1	1990.2
X < 1300.0	13	18		
X < 1765.0	21	27		
X < 2000.0	24	29		
X < 2700.0	33	39		
X < 3000.0	38	46		

LOWER AMERICAN RIVER FLOW AT H ST.

September

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	3743.0	3167.6	-15.4	-575.4
1923	1833.6	1749.5	-4.6	-84.1
1924	823.5	576.9	-29.9	-246.6
1925	1597.9	2221.2	39.0	623.3
1926	1320.2	1028.2	-22.1	-292.0
1927	3897.6	1666.2	-57.3	-2231.4
1928	1318.5	1279.8	-2.9	-38.7
1929	1068.5	781.5	-26.9	-287.0
1930	1318.5	1278.2	-3.1	-40.3
1931	813.5	523.1	-35.7	-290.4
1932	3765.6	2211.1	-41.3	-1554.5
1933	1310.1	1019.8	-22.2	-290.3
1934	811.8	358.4	-55.9	-453.4
1935	2722.1	2218.3	-18.5	-503.8
1936	3834.9	3479.3	-9.3	-355.6
1937	3828.7	3117.0	-18.6	-711.7
1938	4033.8	3538.7	-12.3	-495.1
1939	1078.6	1041.6	-3.4	-37.0
1940	1535.6	1404.8	-8.5	-130.8
1941	3976.6	3483.3	-12.4	-493.3
1942	4013.6	3521.9	-12.3	-491.7
1943	2068.5	1534.9	-25.8	-533.6
1944	1735.4	1289.9	-25.7	-445.5
1945	2282.9	2070.3	-9.3	-212.6
1946	2800.1	2492.1	-11.0	-308.0
1947	1966.6	1284.9	-34.7	-681.7
1948	2687.6	2917.2	8.5	229.6
1949	1880.4	1345.5	-28.4	-534.9
1950	2411.7	2814.0	16.7	402.3
1951	1640.2	1766.2	7.7	126.0
1952	4234.3	3728.6	-11.9	-505.7
1953	3981.7	3496.7	-12.2	-485.0
1954	2024.8	1291.6	-36.2	-733.2
1955	1368.2	1301.7	-4.9	-66.5
1956	3961.5	3473.2	-12.3	-488.3
1957	2092.0	1573.3	-24.8	-518.7
1958	4048.9	3563.9	-12.0	-485.0
1959	1110.5	1078.6	-2.9	-31.9
1960	1896.2	1284.9	-32.2	-611.3
1961	1321.9	1036.6	-21.6	-285.3
1962	1313.5	1906.0	45.1	592.5
1963	3964.8	1979.6	-50.1	-1985.2
1964	1449.9	1286.6	-11.3	-163.3
1965	3766.0	1749.5	-53.5	-2016.5
1966	1325.9	1036.6	-21.8	-289.3
1967	4248.9	3795.9	-10.7	-453.0
1968	2015.0	1038.3	-48.5	-976.7
1969	3988.4	3518.6	-11.8	-469.8
1970	1325.2	1291.6	-2.5	-33.6
1971	3813.6	3345.5	-12.3	-468.1
1972	1340.3	1308.4	-2.4	-31.9
1973	1828.6	1296.7	-29.1	-531.9
1974	4114.4	3631.2	-11.7	-483.2
1975	3901.0	3404.3	-12.7	-496.7
1976	330.3	397.1	20.2	66.8
1977	281.0	359.1	27.8	78.1
1978	2896.2	1534.9	-47.0	-1361.3
1979	1851.1	1713.7	-7.4	-137.4
1980	3890.9	1749.5	-55.0	-2141.4
1981	1376.2	1293.3	-6.0	-82.9
1982	4440.4	3984.1	-10.3	-456.3
1983	4764.4	4584.9	-3.8	-179.5
1984	1838.7	1555.1	-15.4	-283.6
1985	1093.7	1060.1	-3.1	-33.6
1986	1602.1	1568.5	-2.1	-33.6
1987	1190.4	798.3	-32.9	-392.1
1988	576.9	541.6	-6.1	-35.3
1989	1108.8	1071.9	-3.3	-36.9
1990	570.2	533.2	-6.5	-37.0
1991	815.1	776.5	-4.7	-38.6
Mean	2302.6	1901.7	-14.8	-400.9
Median	1865.8	1545.0	-12.1	-300.0
Min	281.0	358.4	-57.3	-2231.4
Max	4764.4	4584.9	45.1	623.3
X < 1300.0	14	29		
X < 1765.0	31	43		
X < 2000.0	38	46		
X < 2700.0	45	51		
X < 3000.0	48	53		

RETURN TO TABLE OF CONTENTS

Section 8

LOWER AMERICAN RIVER FLOW AT H STREET
8.3 Terrestrial

LOWER AMERICAN RIVER FLOW AT H ST.

October

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2353.6	2280.4	-3.1	-73.2
1923	2371.5	2298.5	-3.1	-73.0
1924	2350.4	2279.0	-3.0	-71.4
1925	1170.3	920.3	-21.4	-250.0
1926	2348.8	2275.7	-3.1	-73.1
1927	1639.4	1603.6	-2.2	-35.8
1928	2361.8	2292.0	-3.0	-69.8
1929	1842.2	1558.1	-15.4	-284.1
1930	1598.8	1313.0	-17.9	-285.8
1931	2097.1	1561.3	-25.5	-535.8
1932	1110.1	1071.1	-3.5	-39.0
1933	2339.0	2267.6	-3.1	-71.4
1934	1610.1	1572.7	-2.3	-37.4
1935	1103.6	452.3	-59.0	-651.3
1936	2369.9	2298.5	-3.0	-71.4
1937	2342.2	2272.5	-3.0	-69.7
1938	2358.5	2290.3	-2.9	-68.2
1939	2347.1	2282.2	-2.8	-64.9
1940	1619.9	1335.7	-17.5	-284.2
1941	1865.0	1832.5	-1.7	-32.5
1942	2374.8	2308.2	-2.8	-66.6
1943	2352.0	2285.5	-2.8	-66.5
1944	2343.9	2029.0	-13.4	-314.9
1945	1374.8	1843.9	34.1	469.1
1946	2389.4	1858.5	-22.2	-530.9
1947	2093.9	1566.2	-25.2	-527.7
1948	1632.9	1603.6	-1.8	-29.3
1949	2353.6	2285.5	-2.9	-68.1
1950	2343.9	1814.6	-22.6	-529.3
1951	2395.9	2331.0	-2.7	-64.9
1952	2139.4	1858.5	-13.1	-280.9
1953	2343.9	2282.2	-2.6	-61.7
1954	2350.4	2288.7	-2.6	-61.7
1955	1847.1	1569.5	-15.0	-277.6
1956	1624.8	1593.9	-1.9	-30.9
1957	2366.6	2306.6	-2.5	-60.0
1958	2392.7	2076.1	-13.2	-316.6
1959	2345.5	2283.8	-2.6	-61.7
1960	1597.1	1567.8	-1.8	-29.3
1961	1595.5	1814.6	13.7	219.1
1962	1602.0	1569.5	-2.0	-32.5
1963	2158.7	2314.8	7.2	156.1
1964	2365.0	2300.1	-2.7	-64.9
1965	1641.0	1858.5	13.3	217.5
1966	2339.0	2274.1	-2.8	-64.9
1967	1608.5	1576.0	-2.0	-32.5
1968	2339.0	2279.0	-2.6	-60.0
1969	2123.1	1590.6	-25.1	-532.5
1970	2361.8	2298.5	-2.7	-63.3
1971	1873.1	1845.5	-1.5	-27.6
1972	2347.1	2285.5	-2.6	-61.6
1973	1641.0	1611.8	-1.8	-29.2
1974	2387.8	1610.1	-32.6	-777.7
1975	2369.9	2306.6	-2.7	-63.3
1976	2386.2	2326.1	-2.5	-60.1
1977	375.0	491.0	30.9	116.0
1978	375.0	451.9	20.5	76.9
1979	2352.0	2282.2	-3.0	-69.8
1980	2399.2	1616.6	-32.6	-782.6
1981	2342.2	2275.7	-2.8	-66.5
1982	1658.9	1624.8	-2.1	-34.1
1983	3312.9	3032.1	-8.5	-280.8
1984	3412.3	2312.4	-32.2	-1099.9
1985	2381.3	2068.0	-13.2	-313.3
1986	1634.5	1352.0	-17.3	-282.5
1987	2350.4	2037.1	-13.3	-313.3
1988	1484.6	1770.5	19.3	285.9
1989	855.3	821.1	-4.0	-34.2
1990	1632.9	1598.8	-2.1	-34.1
1991	856.9	821.1	-4.2	-35.8
Mean	2006.1	1860.4	-6.1	-145.7
Median	2339.0	1858.5	-2.8	-65.7
Min	375.0	451.9	-59.0	-1099.9
Max	3412.3	3032.1	34.1	469.1
X < 4000.0	70	70		
X < 4500.0	70	70		
X < 5000.0	70	70		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

November

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2377.3	2343.7	-1.4	-33.6
1923	2431.1	2399.3	-1.3	-31.8
1924	2350.4	2320.3	-1.3	-30.1
1925	1122.3	890.8	-20.6	-231.5
1926	2365.6	2332.0	-1.4	-33.6
1927	1718.1	1686.2	-1.9	-31.9
1928	2764.9	2358.9	-14.7	-406.0
1929	1890.8	1612.3	-14.7	-278.5
1930	1592.0	1310.2	-17.7	-281.8
1931	2115.6	1583.7	-25.1	-531.9
1932	1132.4	1098.9	-3.0	-33.5
1933	2345.4	2313.6	-1.4	-31.8
1934	1583.6	1551.8	-2.0	-31.8
1935	1169.3	452.4	-61.3	-716.9
1936	2365.6	2333.7	-1.3	-31.9
1937	2342.0	2313.6	-1.2	-28.4
1938	2421.0	2390.9	-1.2	-30.1
1939	2348.8	2322.0	-1.1	-26.8
1940	1597.1	1316.9	-17.5	-280.2
1941	1890.8	1860.6	-1.6	-30.2
1942	2389.1	2360.6	-1.2	-28.5
1943	3593.5	3265.1	-9.1	-328.4
1944	2362.2	2087.1	-11.6	-275.1
1945	1419.3	1892.5	33.3	473.2
1946	2387.4	1862.3	-22.0	-525.1
1947	2140.8	1617.3	-24.5	-523.5
1948	1618.9	1593.8	-1.6	-25.1
1949	2358.8	2333.7	-1.1	-25.1
1950	2362.2	1838.8	-22.2	-523.4
1951	16872.8	16586.1	-1.7	-286.7
1952	2152.5	1875.7	-12.9	-276.8
1953	2387.4	2365.7	-.9	-21.7
1954	2382.4	2360.6	-.9	-21.8
1955	1902.5	1629.1	-14.4	-273.4
1956	1644.1	1617.3	-1.6	-26.8
1957	2347.1	2325.3	-.9	-21.8
1958	2370.6	2095.5	-11.6	-275.1
1959	2352.1	2330.4	-.9	-21.7
1960	1597.1	1570.3	-1.7	-26.8
1961	1669.3	1894.2	13.5	224.9
1962	1645.8	1619.0	-1.6	-26.8
1963	3004.4	2861.7	-4.7	-142.7
1964	4079.0	2690.1	-34.1	-1388.9
1965	1669.3	1892.5	13.4	223.2
1966	2407.6	2384.1	-1.0	-23.5
1967	1726.5	1699.7	-1.6	-26.8
1968	2367.2	2345.5	-.9	-21.7
1969	2176.1	1649.3	-24.2	-526.8
1970	2372.3	2347.2	-1.1	-25.1
1971	1981.5	1958.1	-1.2	-23.4
1972	2367.2	2343.8	-1.0	-23.4
1973	1699.6	1676.2	-1.4	-23.4
1974	6054.3	3873.4	-36.0	-2180.9
1975	2385.7	2360.6	-1.1	-25.1
1976	2885.2	2533.2	-12.2	-352.0
1977	375.0	491.1	31.0	116.1
1978	389.1	453.1	16.4	64.0
1979	2416.0	2387.5	-1.2	-28.5
1980	2395.8	1617.3	-32.5	-778.5
1981	2350.4	2322.0	-1.2	-28.4
1982	4641.0	4259.6	-8.2	-381.4
1983	6784.0	6660.0	-1.8	-124.0
1984	14296.1	14316.6	.1	20.5
1985	3083.6	2196.3	-28.8	-887.3
1986	1724.8	1448.0	-16.0	-276.8
1987	2360.5	2087.1	-11.6	-273.4
1988	1185.1	1413.1	19.2	228.0
1989	894.1	864.0	-3.4	-30.1
1990	1629.0	1598.9	-1.8	-30.1
1991	863.9	832.0	-3.7	-31.9
Mean	2606.3	2421.1	-6.3	-185.3
Median	2349.6	2087.1	-1.6	-31.8
Min	375.0	452.4	-61.3	-2180.9
Max	16872.8	16586.1	33.3	473.2
X < 4000.0	64	66		
X < 4500.0	65	67		
X < 5000.0	66	67		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

December

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2462.6	2451.2	-.5	-11.4
1923	6449.2	6039.0	-6.4	-410.2
1924	2360.1	2348.8	-.5	-11.3
1925	1189.8	969.1	-18.5	-220.7
1926	2381.3	2370.0	-.5	-11.3
1927	1628.0	1616.7	-.7	-11.3
1928	2384.5	2374.9	-.4	-9.6
1929	1892.7	1634.6	-13.6	-258.1
1930	1680.1	1418.8	-15.6	-261.3
1931	2095.5	1584.2	-24.4	-511.3
1932	1245.1	1230.6	-1.2	-14.5
1933	2387.8	2376.5	-.5	-11.3
1934	1691.5	1678.5	-.8	-13.0
1935	1139.4	577.3	-49.3	-562.1
1936	2381.3	2370.0	-.5	-11.3
1937	2404.0	2396.0	-.3	-8.0
1938	6102.9	5711.3	-6.4	-391.6
1939	2365.0	2358.6	-.3	-6.4
1940	1618.3	1358.6	-16.0	-259.7
1941	2013.0	2005.0	-.4	-8.0
1942	4922.1	4461.6	-9.4	-460.5
1943	4689.8	4558.4	-2.8	-131.4
1944	2386.2	2131.4	-10.7	-254.8
1945	1394.3	1886.2	35.3	491.9
1946	7788.1	7026.1	-9.8	-762.0
1947	2142.7	1637.9	-23.6	-504.8
1948	1611.8	1607.0	-.3	-4.8
1949	2417.1	2410.6	-.3	-6.5
1950	2376.4	1873.2	-21.2	-503.2
1951	16335.9	16206.0	-.8	-129.9
1952	4167.5	3159.3	-24.2	-1008.2
1953	2475.6	2472.4	-.1	-3.2
1954	2361.8	2360.2	-.1	-1.6
1955	1933.3	1681.8	-13.0	-251.5
1956	14600.8	14782.3	1.2	181.5
1957	2356.9	2353.7	-.1	-3.2
1958	2418.7	2162.3	-10.6	-256.4
1959	2368.3	2366.7	-.1	-1.6
1960	1623.1	1849.4	13.9	226.3
1961	1615.0	1860.2	15.2	245.2
1962	1644.3	1637.9	-.4	-6.4
1963	3375.7	3307.5	-2.0	-68.2
1964	3177.9	2350.5	-26.0	-827.4
1965	19280.7	20219.9	4.9	939.2
1966	2400.8	2396.0	-.2	-4.8
1967	1678.4	1672.0	-.4	-6.4
1968	2368.3	2365.1	-.1	-3.2
1969	2175.2	1668.8	-23.3	-506.4
1970	5268.1	4817.4	-8.6	-450.7
1971	4835.0	4293.4	-11.2	-541.6
1972	2430.1	2426.9	-.1	-3.2
1973	1658.9	1654.1	-.3	-4.8
1974	7459.5	7337.8	-1.6	-121.7
1975	2420.3	2415.5	-.2	-4.8
1976	2365.0	2361.8	-.1	-3.2
1977	500.0	616.0	23.2	116.0
1978	500.0	576.9	15.4	76.9
1979	2374.8	2366.7	-.3	-8.1
1980	2438.2	1680.2	-31.1	-758.0
1981	2394.3	2387.9	-.3	-6.4
1982	14151.7	14142.4	-.1	-9.3
1983	9105.3	8943.0	-1.8	-162.3
1984	15314.4	15098.5	-1.4	-215.9
1985	2447.1	2136.2	-12.7	-310.9
1986	1675.2	1418.8	-15.3	-256.4
1987	2379.7	2124.9	-10.7	-254.8
1988	1193.1	1186.7	-.5	-6.4
1989	908.9	899.3	-1.1	-9.6
1990	1605.3	1595.6	-.6	-9.7
1991	878.0	868.4	-1.1	-9.6
Mean	3575.2	3438.3	-4.7	-136.8
Median	2375.6	2352.1	-.6	-11.3
Min	500.0	576.9	-49.3	-1008.2
Max	19280.7	20219.9	35.3	939.2
X < 4000.0	55	56		
X < 4500.0	56	58		
X < 5000.0	59	60		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

January

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	1908.9	1899.2	-.5	-9.7
1923	4491.4	4327.4	-3.7	-164.0
1924	1899.2	1889.5	-.5	-9.7
1925	1628.0	1658.9	1.9	30.9
1926	1905.7	1896.0	-.5	-9.7
1927	3077.9	2584.2	-16.0	-493.7
1928	2384.5	1878.1	-21.2	-506.4
1929	1471.5	1265.1	-14.0	-206.4
1930	1680.1	1672.0	-.5	-8.1
1931	1707.3	1400.9	-17.9	-306.4
1932	1879.7	1618.3	-13.9	-261.4
1933	1917.1	1909.0	-.4	-8.1
1934	1871.5	1613.5	-13.8	-258.0
1935	1689.8	1931.8	14.3	242.0
1936	4271.2	3876.6	-9.2	-394.6
1937	1918.7	1912.3	-.3	-6.4
1938	2803.3	2658.7	-5.2	-144.6
1939	2134.5	1881.4	-11.9	-253.1
1940	2491.2	1993.8	-20.0	-497.4
1941	5492.7	4720.3	-14.1	-772.4
1942	9289.1	9121.9	-1.8	-167.2
1943	10904.1	10738.5	-1.5	-165.6
1944	1904.0	1700.9	-10.7	-203.1
1945	1876.4	2123.2	13.2	246.8
1946	5132.2	4971.4	-3.1	-160.8
1947	2113.4	1860.2	-12.0	-253.2
1948	1615.0	1613.5	-.1	-1.5
1949	1882.9	1879.7	-.2	-3.2
1950	1933.3	1531.8	-20.8	-401.5
1951	10063.8	9919.3	-1.4	-144.5
1952	9053.3	8904.0	-1.6	-149.3
1953	6731.2	6142.6	-8.7	-588.6
1954	2162.2	2163.9	.1	1.7
1955	1920.3	1920.4	.0	.1
1956	16344.2	16277.8	-.4	-66.4
1957	2150.8	2150.9	.0	.1
1958	2204.5	1951.3	-11.5	-253.2
1959	2204.5	1954.5	-11.3	-250.0
1960	1325.2	1508.5	13.8	183.3
1961	1397.5	1496.0	7.0	98.5
1962	1279.7	1274.9	-.4	-4.8
1963	3888.0	3766.1	-3.1	-121.9
1964	2582.0	2422.0	-6.2	-160.0
1965	13162.5	13092.8	-.5	-69.7
1966	2387.8	2136.2	-10.5	-251.6
1967	6739.4	6048.2	-10.3	-691.2
1968	2426.8	2426.9	.0	.1
1969	14789.4	14230.5	-3.8	-558.9
1970	20940.2	20786.1	-.7	-154.1
1971	4668.7	4569.5	-2.1	-99.2
1972	2373.1	2373.2	.0	.1
1973	8938.4	8281.7	-7.3	-656.7
1974	11302.6	11192.3	-1.0	-110.3
1975	2126.4	2124.9	-.1	-1.5
1976	2365.0	2365.1	.0	.1
1977	388.6	483.4	24.4	94.8
1978	3372.5	2185.8	-35.2	-1186.7
1979	2202.8	1948.0	-11.6	-254.8
1980	14921.4	15196.5	1.8	275.1
1981	2194.7	1939.9	-11.6	-254.8
1982	8242.9	8106.6	-1.7	-136.3
1983	7604.2	7453.3	-2.0	-150.9
1984	6509.9	6380.1	-2.0	-129.8
1985	2384.5	2383.0	-.1	-1.5
1986	2157.8	2290.9	6.2	133.1
1987	1908.9	1707.4	-10.6	-201.5
1988	926.8	923.6	-.3	-3.2
1989	1874.8	1868.3	-.3	-6.5
1990	1680.1	1673.6	-.4	-6.5
1991	668.3	660.2	-1.2	-8.1
Mean	4254.9	4097.3	-4.1	-157.6
Median	2203.6	2124.0	-1.5	-133.1
Min	388.6	483.4	-35.2	-1186.7
Max	20940.2	20786.1	24.4	275.1
X < 4000.0	49	50		
X < 4500.0	51	51		
X < 5000.0	52	54		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

February

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3279.5	2438.4	-25.6	-841.1
	1923	3432.5	2822.4	-17.8	-610.1
	1924	1531.6	1508.3	-1.5	-23.3
	1925	3610.8	3856.8	6.8	246.0
	1926	1594.6	1719.5	7.8	124.9
	1927	13414.9	13326.8	-.7	-88.1
	1928	1902.8	1881.2	-1.1	-21.6
	1929	1170.2	990.4	-15.4	-179.8
	1930	1884.8	1861.4	-1.2	-23.4
	1931	1337.4	1124.0	-16.0	-213.4
	1932	2181.0	1877.6	-13.9	-303.4
	1933	1627.6	1604.2	-1.4	-23.4
	1934	1911.8	1638.4	-14.3	-273.4
	1935	1883.0	1857.8	-1.3	-25.2
	1936	13451.0	13303.4	-1.1	-147.6
	1937	1987.4	1717.7	-13.6	-269.7
	1938	9839.2	9668.2	-1.7	-171.0
	1939	1881.2	1861.4	-1.1	-19.8
	1940	10606.0	10471.1	-1.3	-134.9
	1941	8011.4	7828.1	-2.3	-183.3
	1942	9970.6	9771.0	-2.0	-199.6
	1943	6841.3	6661.6	-2.6	-179.7
	1944	1755.4	1429.3	-18.6	-326.1
	1945	6141.5	5964.1	-2.9	-177.4
	1946	2658.3	2496.5	-6.1	-161.8
	1947	1906.4	1890.2	-.8	-16.2
	1948	1888.4	1620.4	-14.2	-268.0
	1949	1895.6	1477.6	-22.1	-418.0
	1950	4073.6	3428.5	-15.8	-645.1
	1951	8100.3	7943.9	-1.9	-156.4
	1952	9480.7	9302.7	-1.9	-178.0
	1953	2179.3	1990.5	-8.7	-188.8
	1954	1985.7	1920.9	-3.3	-64.8
	1955	1895.6	1879.4	-.9	-16.2
	1956	6147.3	6035.9	-1.8	-111.4
	1957	1947.8	1933.5	-.7	-14.3
	1958	9132.6	6807.8	-25.5	-2324.8
	1959	1958.6	1944.3	-.7	-14.3
	1960	1183.4	1185.1	.1	1.7
	1961	1143.8	1157.6	1.2	13.8
	1962	1281.0	1123.7	-12.3	-157.3
	1963	12007.2	11857.8	-1.2	-149.4
	1964	1995.8	1852.4	-7.2	-143.4
	1965	5371.7	5274.7	-1.8	-97.0
	1966	1902.8	1886.6	-.9	-16.2
	1967	4349.1	4199.8	-3.4	-149.3
	1968	5676.2	4811.3	-15.2	-864.9
	1969	9261.3	9155.2	-1.1	-106.1
	1970	6229.7	6109.4	-1.9	-120.3
	1971	3302.8	3158.8	-4.4	-144.0
	1972	2138.3	1883.0	-11.9	-255.3
	1973	7167.0	7048.3	-1.7	-118.7
	1974	4303.2	3943.5	-8.4	-359.7
	1975	2003.6	1987.5	-.8	-16.1
	1976	1884.8	1870.4	-.8	-14.4
	1977	384.8	366.2	-4.8	-18.6
	1978	4689.2	4575.8	-2.4	-113.4
	1979	1938.8	1670.9	-13.8	-267.9
	1980	14127.5	13557.6	-4.0	-569.9
	1981	1886.6	1466.8	-22.3	-419.8
	1982	15463.6	15211.8	-1.6	-251.8
	1983	12405.0	12245.1	-1.3	-159.9
	1984	5580.9	5440.8	-2.5	-140.1
	1985	1917.2	1899.2	-.9	-18.0
	1986	33241.4	33160.6	-.2	-80.8
	1987	1540.6	1362.7	-11.5	-177.9
	1988	1881.2	1613.2	-14.2	-268.0
	1989	1640.2	1618.6	-1.3	-21.6
	1990	1687.0	1315.5	-22.0	-371.5
	1991	562.6	541.1	-3.8	-21.5
	Mean	4809.2	4605.8	-6.1	-203.4
	Median	2070.9	1938.9	-2.2	-148.5
	Min	384.8	366.2	-25.6	-2324.8
	Max	33241.4	33160.6	7.8	246.0
X <	4000.0	43	45		
X <	4500.0	46	46		
X <	5000.0	47	48		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

March

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4402.4	4384.6	-.4	-17.8
1923	2698.3	2594.0	-3.9	-104.3
1924	1153.1	1185.7	2.8	32.6
1925	3137.4	3042.4	-3.0	-95.0
1926	1856.9	1839.1	-1.0	-17.8
1927	4481.6	4264.2	-4.9	-217.4
1928	12106.4	9636.8	-20.4	-2469.6
1929	1386.2	1371.6	-1.1	-14.6
1930	1902.4	1887.9	-.8	-14.5
1931	1021.9	853.7	-16.5	-168.2
1932	2605.3	2587.5	-.7	-17.8
1933	1887.8	1621.6	-14.1	-266.2
1934	1445.5	1229.3	-15.0	-216.2
1935	3162.2	3146.0	-.5	-16.2
1936	4087.1	3933.3	-3.8	-153.8
1937	4331.3	3764.3	-13.1	-567.0
1938	10782.2	10589.0	-1.8	-193.2
1939	1497.5	1486.2	-.8	-11.3
1940	10878.1	10551.6	-3.0	-326.5
1941	4777.3	4582.5	-4.1	-194.8
1942	4413.8	4400.9	-.3	-12.9
1943	12384.5	12214.1	-1.4	-170.4
1944	2128.0	1866.7	-12.3	-261.3
1945	2662.2	2650.9	-.4	-11.3
1946	2706.0	2636.2	-2.6	-69.8
1947	1915.4	1905.8	-.5	-9.6
1948	2662.2	2652.5	-.4	-9.7
1949	2451.2	2439.9	-.5	-11.3
1950	3206.3	2883.0	-10.1	-323.3
1951	3673.5	3512.9	-4.4	-160.6
1952	6107.6	5934.0	-2.8	-173.6
1953	2894.3	2884.6	-.3	-9.7
1954	4354.4	3584.2	-17.7	-770.2
1955	1858.5	1850.5	-.4	-8.0
1956	3366.6	3355.3	-.3	-11.3
1957	4080.1	3191.6	-21.8	-888.5
1958	6633.2	6464.4	-2.5	-168.8
1959	1618.3	1610.2	-.5	-8.1
1960	2507.4	2121.6	-15.4	-385.8
1961	1142.7	905.4	-20.8	-237.3
1962	2386.2	2373.2	-.5	-13.0
1963	3418.7	3409.0	-.3	-9.7
1964	1874.8	1863.5	-.6	-11.3
1965	2887.8	2874.9	-.4	-12.9
1966	1860.1	1598.8	-14.0	-261.3
1967	5895.1	5658.1	-4.0	-237.0
1968	2068.3	3822.0	84.8	1753.7
1969	4378.0	4370.0	-.2	-8.0
1970	2387.8	2146.7	-10.1	-241.1
1971	3980.6	3826.5	-3.9	-154.1
1972	4099.1	3393.3	-17.2	-705.8
1973	3327.0	3125.7	-6.1	-201.3
1974	9560.7	9460.1	-1.1	-100.6
1975	4377.5	3514.9	-19.7	-862.6
1976	1476.4	1468.4	-.5	-8.0
1977	278.0	326.9	17.6	48.9
1978	5452.6	5481.9	.5	29.3
1979	3050.6	2386.2	-21.8	-664.4
1980	3407.1	3118.5	-8.5	-288.6
1981	1673.6	1410.6	-15.7	-263.0
1982	7577.4	7470.4	-1.4	-107.0
1983	16256.7	16120.5	-.8	-136.2
1984	2647.5	2403.1	-9.2	-244.4
1985	2171.9	1910.6	-12.0	-261.3
1986	11163.2	10950.7	-1.9	-212.5
1987	1214.9	1077.3	-11.3	-137.6
1988	1463.4	1252.1	-14.4	-211.3
1989	6360.0	5538.9	-12.9	-821.1
1990	1371.5	1357.0	-1.1	-14.5
1991	2009.8	1746.8	-13.1	-263.0
Mean	3892.0	3701.0	-4.6	-191.0
Median	2891.1	2878.9	-2.7	-154.0
Min	278.0	326.9	-21.8	-2469.6
Max	16256.7	16120.5	84.8	1753.7
X < 4000.0	46	52		
X < 4500.0	56	56		
X < 5000.0	57	57		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

April

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4363.9	4311.9	-1.2	-52.0
	1923	3177.2	3283.3	3.3	106.1
	1924	188.0	266.1	41.5	78.1
	1925	4012.4	3263.1	-18.7	-749.3
	1926	1934.5	1882.5	-2.7	-52.0
	1927	7856.2	7653.4	-2.6	-202.8
	1928	4773.1	4456.1	-6.6	-317.0
	1929	1355.5	558.5	-58.8	-797.0
	1930	2110.5	1811.9	-14.1	-298.6
	1931	337.0	286.7	-14.9	-50.3
	1932	2853.8	2551.8	-10.6	-302.0
	1933	1835.3	1535.0	-16.4	-300.3
	1934	3070.6	2521.4	-17.9	-549.2
	1935	4340.5	4820.8	11.1	480.3
	1936	5754.8	5498.3	-4.5	-256.5
	1937	4330.0	4039.4	-6.7	-290.6
	1938	7866.0	7574.1	-3.7	-291.9
	1939	1090.3	545.1	-50.0	-545.2
	1940	6058.2	5875.2	-3.0	-183.0
	1941	3751.9	3505.4	-6.6	-246.5
	1942	4439.5	4394.2	-1.0	-45.3
	1943	5162.3	4888.9	-5.3	-273.4
	1944	2130.7	1835.4	-13.9	-295.3
	1945	2602.1	2556.9	-1.7	-45.2
	1946	3913.7	3474.1	-11.2	-439.6
	1947	1848.8	1805.2	-2.4	-43.6
	1948	2655.9	2614.0	-1.6	-41.9
	1949	2338.7	2295.1	-1.9	-43.6
	1950	4935.4	4795.9	-2.8	-139.5
	1951	3037.9	2727.5	-10.2	-310.4
	1952	8946.5	8647.8	-3.3	-298.7
	1953	3399.2	3107.3	-8.6	-291.9
	1954	4454.5	4249.6	-4.6	-204.9
	1955	1884.0	1843.8	-2.1	-40.2
	1956	3894.1	3848.9	-1.2	-45.2
	1957	2630.7	2590.5	-1.5	-40.2
	1958	10349.8	10101.6	-2.4	-248.2
	1959	1872.3	1580.4	-15.6	-291.9
	1960	2112.2	2068.6	-2.1	-43.6
	1961	355.5	366.1	3.0	10.6
	1962	3671.1	2574.9	-29.9	-1096.2
	1963	4573.6	4198.3	-8.2	-375.3
	1964	1850.4	1805.2	-2.4	-45.2
	1965	3721.1	3273.9	-12.0	-447.2
	1966	1857.2	1563.6	-15.8	-293.6
	1967	4412.6	4370.7	-.9	-41.9
	1968	1850.4	1808.5	-2.3	-41.9
	1969	5827.0	5388.0	-7.5	-439.0
	1970	2357.2	2061.9	-12.5	-295.3
	1971	3365.6	3072.0	-8.7	-293.6
	1972	2375.6	2333.7	-1.8	-41.9
	1973	2608.8	2566.9	-1.6	-41.9
	1974	6156.2	5938.1	-3.5	-218.1
	1975	3877.3	3833.7	-1.1	-43.6
	1976	370.6	328.7	-11.3	-41.9
	1977	188.0	266.1	41.5	78.1
	1978	4594.3	3873.9	-15.7	-720.4
	1979	2612.2	2316.9	-11.3	-295.3
	1980	2870.6	2575.3	-10.3	-295.3
	1981	1607.2	811.9	-49.5	-795.3
	1982	14296.2	14063.1	-1.6	-233.1
	1983	6615.5	6358.9	-3.9	-256.6
	1984	2630.7	2585.4	-1.7	-45.3
	1985	2112.2	1818.6	-13.9	-293.6
	1986	2634.0	2590.5	-1.7	-43.5
	1987	357.2	358.3	.3	1.1
	1988	394.1	280.8	-28.7	-113.3
	1989	4472.4	3885.2	-13.1	-587.2
	1990	2583.2	1868.4	-27.7	-714.8
	1991	1850.4	1553.5	-16.0	-296.9
	Mean	3467.4	3233.7	-7.8	-233.7
	Median	2862.2	2587.9	-4.6	-247.4
	Min	188.0	266.1	-58.8	-1096.2
	Max	14296.2	14063.1	41.5	480.3
X <	4000.0	47	50		
X <	4500.0	55	57		
X <	5000.0	59	60		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

May

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8956.6	8110.7	-9.4	-845.9
	1923	4835.3	4440.4	-8.2	-394.9
	1924	188.0	264.9	40.9	76.9
	1925	4522.8	3848.4	-14.9	-674.4
	1926	2330.9	2278.8	-2.2	-52.1
	1927	4780.1	4266.8	-10.7	-513.3
	1928	2824.4	2777.2	-1.7	-47.2
	1929	1821.1	1523.9	-16.3	-297.2
	1930	2574.4	2275.6	-11.6	-298.8
	1931	343.9	543.5	58.0	199.6
	1932	3817.8	3483.4	-8.8	-334.4
	1933	2329.2	2278.8	-2.2	-50.4
	1934	330.9	278.8	-15.7	-52.1
	1935	4802.6	4362.6	-9.2	-440.0
	1936	4064.6	3986.7	-1.9	-77.9
	1937	4464.6	4067.9	-8.9	-396.7
	1938	9844.5	9420.7	-4.3	-423.8
	1939	1592.2	1548.3	-2.8	-43.9
	1940	3561.3	3235.1	-9.2	-326.2
	1941	5385.1	4977.5	-7.6	-407.6
	1942	6148.6	5468.3	-11.1	-680.3
	1943	3571.1	3496.4	-2.1	-74.7
	1944	2590.6	2298.3	-11.3	-292.3
	1945	3584.1	3507.8	-2.1	-76.3
	1946	3605.9	3511.1	-2.6	-94.8
	1947	2326.0	2285.3	-1.7	-40.7
	1948	3603.6	3530.6	-2.0	-73.0
	1949	3082.5	2538.6	-17.6	-543.9
	1950	3821.1	3748.1	-1.9	-73.0
	1951	3602.0	3275.7	-9.1	-326.3
	1952	11189.5	10773.8	-3.7	-415.7
	1953	4087.4	4016.0	-1.7	-71.4
	1954	2832.5	2793.5	-1.4	-39.0
	1955	2585.7	2295.1	-11.2	-290.6
	1956	4343.9	4272.5	-1.6	-71.4
	1957	3613.4	3292.0	-8.9	-321.4
	1958	10137.3	9726.4	-4.1	-410.9
	1959	2332.5	2041.8	-12.5	-290.7
	1960	2584.1	2541.8	-1.6	-42.3
	1961	1334.1	1290.2	-3.3	-43.9
	1962	3066.2	3000.6	-2.1	-65.6
	1963	7198.5	6716.1	-6.7	-482.4
	1964	2334.1	2290.2	-1.9	-43.9
	1965	4077.6	3753.0	-8.0	-324.6
	1966	2329.2	2286.9	-1.8	-42.3
	1967	8049.5	7429.9	-7.7	-619.6
	1968	2330.9	2291.8	-1.7	-39.1
	1969	9207.0	8762.0	-4.8	-445.0
	1970	2834.1	2541.8	-10.3	-292.3
	1971	4100.4	4027.3	-1.8	-73.1
	1972	2834.1	2543.5	-10.3	-290.6
	1973	4364.2	3679.7	-15.7	-684.5
	1974	4955.8	4492.9	-9.3	-462.9
	1975	4329.2	4257.8	-1.6	-71.4
	1976	839.0	304.0	-63.8	-535.0
	1977	188.0	264.9	40.9	76.9
	1978	4336.1	3746.4	-13.6	-589.7
	1979	3995.3	3249.7	-18.7	-745.6
	1980	3824.4	3749.7	-2.0	-74.7
	1981	2082.5	1538.6	-26.1	-543.9
	1982	9247.7	8897.0	-3.8	-350.7
	1983	10522.7	10124.9	-3.8	-397.8
	1984	3598.8	3274.1	-9.0	-324.7
	1985	2592.2	2300.0	-11.3	-292.2
	1986	3592.2	3519.2	-2.0	-73.0
	1987	1339.0	546.7	-59.2	-792.3
	1988	352.0	306.5	-12.9	-45.5
	1989	3367.2	2815.5	-16.4	-551.7
	1990	1626.4	1329.2	-18.3	-297.2
	1991	2332.5	2285.3	-2.0	-47.2
	Mean	3859.9	3585.7	-6.6	-274.2
	Median	3588.1	3274.9	-7.1	-292.3
	Min	188.0	264.9	-63.8	-845.9
	Max	11189.5	10773.8	58.0	199.6
X <	4000.0	45	50		
X <	4500.0	54	59		
X <	5000.0	59	60		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

June

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8942.0	8381.4	-6.3	-560.6
	1923	4572.3	3841.0	-16.0	-731.3
	1924	188.0	266.1	41.5	78.1
	1925	6281.9	5223.4	-16.8	-1058.5
	1926	1737.0	1960.9	12.9	223.9
	1927	5328.8	4820.3	-9.5	-508.5
	1928	5709.0	3825.9	-33.0	-1883.1
	1929	2161.5	1908.0	-11.7	-253.5
	1930	2051.7	1731.1	-15.6	-320.6
	1931	1073.8	556.4	-48.2	-517.4
	1932	4803.4	4590.0	-4.4	-213.4
	1933	2342.7	1972.9	-15.8	-369.8
	1934	1610.0	1415.5	-12.1	-194.5
	1935	3907.9	3429.2	-12.2	-478.7
	1936	4435.8	3662.0	-17.4	-773.8
	1937	3289.9	3194.3	-2.9	-95.6
	1938	8582.3	8048.7	-6.2	-533.6
	1939	805.1	358.3	-55.5	-446.8
	1940	3415.1	2969.3	-13.1	-445.8
	1941	3545.0	3202.7	-9.7	-342.3
	1942	7345.4	6798.3	-7.4	-547.1
	1943	3305.1	3214.5	-2.7	-90.6
	1944	2055.1	1492.9	-27.4	-562.2
	1945	5835.8	4483.7	-23.2	-1352.1
	1946	6258.5	5084.9	-18.8	-1173.6
	1947	1568.5	1254.6	-20.0	-313.9
	1948	3296.7	2986.2	-9.4	-310.5
	1949	2791.6	2227.8	-20.2	-563.8
	1950	3941.9	3447.7	-12.5	-494.2
	1951	3053.4	2991.2	-2.0	-62.2
	1952	10503.2	9957.8	-5.2	-545.4
	1953	3813.5	3476.3	-8.8	-337.2
	1954	2687.7	3311.9	23.2	624.2
	1955	2060.1	1747.9	-15.2	-312.2
	1956	5529.4	4267.3	-22.8	-1262.1
	1957	3785.0	3948.8	4.3	163.8
	1958	7726.9	7220.2	-6.6	-506.7
	1959	1315.1	1003.0	-23.7	-312.1
	1960	2056.7	1992.9	-3.1	-63.8
	1961	556.7	366.1	-34.2	-190.6
	1962	2800.0	2809.1	.3	9.1
	1963	3289.9	3202.7	-2.7	-87.2
	1964	2066.8	2001.3	-3.2	-65.5
	1965	3550.0	3459.5	-2.5	-90.5
	1966	1810.1	1246.2	-31.2	-563.9
	1967	10419.2	9939.3	-4.6	-479.9
	1968	2063.5	1253.0	-39.3	-810.5
	1969	6594.2	6100.9	-7.5	-493.3
	1970	3233.6	2807.9	-13.2	-425.7
	1971	3876.1	3466.2	-10.6	-409.9
	1972	4407.4	4163.1	-5.5	-244.3
	1973	5555.7	6203.1	11.7	647.4
	1974	4256.6	3733.0	-12.3	-523.6
	1975	5757.7	4624.5	-19.7	-1133.2
	1976	1838.8	1824.8	-.8	-14.0
	1977	188.0	266.1	41.5	78.1
	1978	4463.3	3454.4	-22.6	-1008.9
	1979	6288.6	6194.7	-1.5	-93.9
	1980	3541.6	3202.7	-9.6	-338.9
	1981	1310.1	494.6	-62.2	-815.5
	1982	6263.1	5716.1	-8.7	-547.0
	1983	14543.2	13999.5	-3.7	-543.7
	1984	4724.4	3668.7	-22.3	-1055.7
	1985	2803.0	2283.0	-18.6	-520.0
	1986	3320.2	2999.8	-9.7	-320.4
	1987	321.9	358.3	11.3	36.4
	1988	1472.0	1068.7	-27.4	-403.3
	1989	3881.7	3502.7	-9.8	-379.0
	1990	1630.7	1521.9	-6.7	-108.8
	1991	2851.7	2610.6	-8.5	-241.1
	Mean	3905.6	3497.3	-11.2	-408.4
	Median	3367.6	3202.7	-9.7	-391.1
	Min	188.0	266.1	-62.2	-1883.1
	Max	14543.2	13999.5	41.5	647.4
X <	4000.0	45	51		
X <	4500.0	49	54		
X <	5000.0	52	57		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

July

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4023.9	3143.4	-21.9	-880.5
	1923	5630.4	2648.4	-53.0	-2982.0
	1924	522.0	264.9	-49.3	-257.1
	1925	3995.1	2326.5	-41.8	-1668.6
	1926	2429.8	2283.7	-6.0	-146.1
	1927	2878.6	6162.4	114.1	3283.8
	1928	1288.6	1230.0	-4.5	-58.6
	1929	1453.9	1204.3	-17.2	-249.6
	1930	2662.4	2390.7	-10.2	-271.7
	1931	1713.5	2313.8	35.0	600.3
	1932	2952.8	2814.8	-4.7	-138.0
	1933	2019.4	1740.8	-13.8	-278.6
	1934	1288.1	1203.6	-6.6	-84.5
	1935	4840.5	2673.1	-44.8	-2167.4
	1936	3907.9	3740.4	-4.3	-167.5
	1937	2387.8	2182.5	-8.6	-205.3
	1938	3538.3	2969.9	-16.1	-568.4
	1939	1755.8	1485.3	-15.4	-270.5
	1940	5836.8	5162.1	-11.6	-674.7
	1941	2158.3	1933.1	-10.4	-225.2
	1942	3523.6	2943.9	-16.5	-579.7
	1943	5539.0	5679.5	2.5	140.5
	1944	2109.9	1353.9	-35.8	-756.0
	1945	4146.7	4008.3	-3.3	-138.4
	1946	3644.5	3761.9	3.2	117.4
	1947	1766.8	1270.4	-28.1	-496.4
	1948	3646.1	2203.5	-39.6	-1442.6
	1949	3057.8	2403.4	-21.4	-654.4
	1950	5160.3	3187.4	-38.2	-1972.9
	1951	5775.3	4922.1	-14.8	-853.2
	1952	4645.8	4085.6	-12.1	-560.2
	1953	3159.8	2032.2	-35.7	-1127.6
	1954	3185.7	1780.2	-44.1	-1405.5
	1955	1603.2	1241.4	-22.6	-361.8
	1956	3203.3	2625.1	-18.1	-578.2
	1957	4647.8	4362.4	-6.1	-285.4
	1958	3185.4	2626.7	-17.5	-558.7
	1959	548.3	396.9	-27.6	-151.4
	1960	2741.0	1236.5	-54.9	-1504.5
	1961	290.2	366.0	26.1	75.8
	1962	5183.2	4207.0	-18.8	-976.2
	1963	2133.8	5458.5	155.8	3324.7
	1964	2139.1	1878.6	-12.2	-260.5
	1965	5435.8	6175.4	13.6	739.6
	1966	1293.5	404.5	-68.7	-889.0
	1967	4322.2	3763.6	-12.9	-558.6
	1968	1291.8	491.4	-62.0	-800.4
	1969	2982.1	2405.6	-19.3	-576.5
	1970	1759.6	1589.3	-9.7	-170.3
	1971	3003.2	1946.0	-35.2	-1057.2
	1972	1293.5	1243.0	-3.9	-50.5
	1973	4004.4	2466.1	-38.4	-1538.3
	1974	3466.7	2911.4	-16.0	-555.3
	1975	2928.4	2374.7	-18.9	-553.7
	1976	1361.1	1198.0	-12.0	-163.1
	1977	188.0	264.9	40.9	76.9
	1978	6112.6	5344.9	-12.6	-767.7
	1979	2835.4	1231.7	-56.6	-1603.7
	1980	3646.6	3765.3	3.3	118.7
	1981	293.5	366.0	24.7	72.5
	1982	3401.7	2823.5	-17.0	-578.2
	1983	6222.4	5749.3	-7.6	-473.1
	1984	4197.4	4358.3	3.8	160.9
	1985	2121.9	1719.2	-19.0	-402.7
	1986	5365.7	4867.2	-9.3	-498.5
	1987	1707.1	961.8	-43.7	-745.3
	1988	894.3	658.1	-26.4	-236.2
	1989	3552.7	2752.3	-22.5	-800.4
	1990	1237.5	941.1	-24.0	-296.4
	1991	2223.4	2197.4	-1.2	-26.0
	Mean	2992.3	2555.4	-13.2	-437.0
	Median	2967.5	2350.6	-15.7	-437.9
	Min	188.0	264.9	-68.7	-2982.0
	Max	6222.4	6175.4	155.8	3324.7
X <	4000.0	52	56		
X <	4500.0	57	61		
X <	5000.0	60	63		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

August

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2714.5	2502.8	-7.8	-211.7
1923	2353.3	4255.5	80.8	1902.2
1924	188.0	264.9	40.9	76.9
1925	3577.1	1473.5	-58.8	-2103.6
1926	545.1	483.3	-11.3	-61.8
1927	3671.8	3412.1	-7.1	-259.7
1928	3075.5	3804.1	23.7	728.6
1929	188.0	273.1	45.3	85.1
1930	791.8	731.7	-7.6	-60.1
1931	188.0	265.3	41.1	77.3
1932	2116.8	1467.0	-30.7	-649.8
1933	533.7	265.3	-50.3	-268.4
1934	188.0	265.3	41.1	77.3
1935	2888.6	3709.8	28.4	821.2
1936	2897.6	1988.2	-31.4	-909.4
1937	2584.6	1726.8	-33.2	-857.8
1938	4207.9	3628.2	-13.8	-579.7
1939	293.5	358.2	22.0	64.7
1940	3773.3	2907.3	-23.0	-866.0
1941	4059.9	2957.4	-27.2	-1102.5
1942	4289.2	3714.4	-13.4	-574.8
1943	2427.5	2762.5	13.8	335.0
1944	3796.6	744.7	-80.4	-3051.9
1945	1853.3	2045.9	10.4	192.6
1946	1897.2	2030.1	7.0	132.9
1947	1088.6	489.8	-55.0	-598.8
1948	3003.5	2693.1	-10.3	-310.4
1949	2296.9	2618.6	14.0	321.7
1950	2795.0	2467.7	-11.7	-327.3
1951	3154.5	2905.4	-7.9	-249.1
1952	4709.9	4138.8	-12.1	-571.1
1953	4329.9	3722.8	-14.0	-607.1
1954	3330.2	3743.4	12.4	413.2
1955	3194.9	1709.6	-46.5	-1485.3
1956	4260.0	3690.0	-13.4	-570.0
1957	1517.4	2283.3	50.5	765.9
1958	4355.9	3803.8	-12.7	-552.1
1959	2343.8	1367.3	-41.7	-976.5
1960	3112.1	1957.9	-37.1	-1154.2
1961	1299.7	366.0	-71.8	-933.7
1962	4423.2	2505.3	-43.4	-1917.9
1963	3881.0	1578.4	-59.3	-2302.6
1964	3263.0	741.4	-77.3	-2521.6
1965	1801.6	2302.5	27.8	500.9
1966	2788.6	1527.1	-45.2	-1261.5
1967	4323.4	3751.8	-13.2	-571.6
1968	1050.0	1567.3	49.3	517.3
1969	4136.4	3581.0	-13.4	-555.4
1970	3914.1	3501.2	-10.5	-412.9
1971	4081.1	3511.1	-14.0	-570.0
1972	4194.4	3186.7	-24.0	-1007.7
1973	1495.5	3485.7	133.1	1990.2
1974	4339.7	3771.3	-13.1	-568.4
1975	4120.1	3571.2	-13.3	-548.9
1976	1303.4	814.9	-37.5	-488.5
1977	188.0	264.9	40.9	76.9
1978	1541.8	2937.9	90.5	1396.1
1979	2099.9	2743.9	30.7	644.0
1980	2321.7	3837.2	65.3	1515.5
1981	1568.2	672.8	-57.1	-895.4
1982	4329.9	3756.6	-13.2	-573.3
1983	4732.7	4519.4	-4.5	-213.3
1984	1317.8	2734.4	107.5	1416.6
1985	3103.1	2310.2	-25.6	-792.9
1986	3671.0	3214.9	-12.4	-456.1
1987	1488.6	1260.2	-15.3	-228.4
1988	701.6	280.8	-60.0	-420.8
1989	3450.9	3237.9	-6.2	-213.0
1990	2005.9	1367.9	-31.8	-638.0
1991	1322.9	288.5	-78.2	-1034.4
Mean	2612.2	2268.8	-6.0	-343.3
Median	2791.8	2485.3	-12.9	-438.5
Min	188.0	264.9	-80.4	-3051.9
Max	4732.7	4519.4	133.1	1990.2
X < 4000.0	54	67		
X < 4500.0	68	69		
X < 5000.0	70	70		
X < .0	0	0		
X < .0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

September

	Base	2030 w/ WFP		
Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	3743.0	3167.6	-15.4	-575.4
1923	1833.6	1749.5	-4.6	-84.1
1924	823.5	576.9	-29.9	-246.6
1925	1597.9	2221.2	39.0	623.3
1926	1320.2	1028.2	-22.1	-292.0
1927	3897.6	1666.2	-57.3	-2231.4
1928	1318.5	1279.8	-2.9	-38.7
1929	1068.5	781.5	-26.9	-287.0
1930	1318.5	1278.2	-3.1	-40.3
1931	813.5	523.1	-35.7	-290.4
1932	3765.6	2211.1	-41.3	-1554.5
1933	1310.1	1019.8	-22.2	-290.3
1934	811.8	358.4	-55.9	-453.4
1935	2722.1	2218.3	-18.5	-503.8
1936	3834.9	3479.3	-9.3	-355.6
1937	3828.7	3117.0	-18.6	-711.7
1938	4033.8	3538.7	-12.3	-495.1
1939	1078.6	1041.6	-3.4	-37.0
1940	1535.6	1404.8	-8.5	-130.8
1941	3976.6	3483.3	-12.4	-493.3
1942	4013.6	3521.9	-12.3	-491.7
1943	2068.5	1534.9	-25.8	-533.6
1944	1735.4	1289.9	-25.7	-445.5
1945	2282.9	2070.3	-9.3	-212.6
1946	2800.1	2492.1	-11.0	-308.0
1947	1966.6	1284.9	-34.7	-681.7
1948	2687.6	2917.2	8.5	229.6
1949	1880.4	1345.5	-28.4	-534.9
1950	2411.7	2814.0	16.7	402.3
1951	1640.2	1766.2	7.7	126.0
1952	4234.3	3728.6	-11.9	-505.7
1953	3981.7	3496.7	-12.2	-485.0
1954	2024.8	1291.6	-36.2	-733.2
1955	1368.2	1301.7	-4.9	-66.5
1956	3961.5	3473.2	-12.3	-488.3
1957	2092.0	1573.3	-24.8	-518.7
1958	4048.9	3563.9	-12.0	-485.0
1959	1110.5	1078.6	-2.9	-31.9
1960	1896.2	1284.9	-32.2	-611.3
1961	1321.9	1036.6	-21.6	-285.3
1962	1313.5	1906.0	45.1	592.5
1963	3964.8	1979.6	-50.1	-1985.2
1964	1449.9	1286.6	-11.3	-163.3
1965	3766.0	1749.5	-53.5	-2016.5
1966	1325.9	1036.6	-21.8	-289.3
1967	4248.9	3795.9	-10.7	-453.0
1968	2015.0	1038.3	-48.5	-976.7
1969	3988.4	3518.6	-11.8	-469.8
1970	1325.2	1291.6	-2.5	-33.6
1971	3813.6	3345.5	-12.3	-468.1
1972	1340.3	1308.4	-2.4	-31.9
1973	1828.6	1296.7	-29.1	-531.9
1974	4114.4	3631.2	-11.7	-483.2
1975	3901.0	3404.3	-12.7	-496.7
1976	330.3	397.1	20.2	66.8
1977	281.0	359.1	27.8	78.1
1978	2896.2	1534.9	-47.0	-1361.3
1979	1851.1	1713.7	-7.4	-137.4
1980	3890.9	1749.5	-55.0	-2141.4
1981	1376.2	1293.3	-6.0	-82.9
1982	4440.4	3984.1	-10.3	-456.3
1983	4764.4	4584.9	-3.8	-179.5
1984	1838.7	1555.1	-15.4	-283.6
1985	1093.7	1060.1	-3.1	-33.6
1986	1602.1	1568.5	-2.1	-33.6
1987	1190.4	798.3	-32.9	-392.1
1988	576.9	541.6	-6.1	-35.3
1989	1108.8	1071.9	-3.3	-36.9
1990	570.2	533.2	-6.5	-37.0
1991	815.1	776.5	-4.7	-38.6
Mean	2302.6	1901.7	-14.8	-400.9
Median	1865.8	1545.0	-12.1	-300.0
Min	281.0	358.4	-57.3	-2231.4
Max	4764.4	4584.9	45.1	623.3
X < 4000.0	62	69		
X < 4500.0	69	69		
X < 5000.0	70	70		
X < .0	0	0		
X < .0	0	0		

RETURN TO TABLE OF CONTENTS

Section 9

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVENUE

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

January

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	43.0	42.9	-.2	-.1
1923.	44.2	44.1	-.2	-.1
1924.	46.2	46.1	-.2	-.1
1925.	46.6	47.1	1.1	.5
1926.	44.2	44.5	.7	.3
1927.	47.7	47.6	-.2	-.1
1928.	47.2	46.8	-.8	-.4
1929.	43.3	43.0	-.7	-.3
1930.	46.0	45.9	-.2	-.1
1931.	47.8	47.7	-.2	-.1
1932.	45.3	45.2	-.2	-.1
1933.	44.0	43.9	-.2	-.1
1934.	47.2	47.1	-.2	-.1
1935.	47.2	47.4	.4	.2
1936.	48.2	48.0	-.4	-.2
1937.	42.2	42.1	-.2	-.1
1938.	46.7	46.7	.0	.0
1939.	47.4	47.3	-.2	-.1
1940.	48.1	47.9	-.4	-.2
1941.	48.8	48.7	-.2	-.1
1942.	46.3	46.3	.0	.0
1943.	46.4	46.4	.0	.0
1944.	47.9	47.4	-1.0	-.5
1945.	45.8	45.9	.2	.1
1946.	45.6	45.6	.0	.0
1947.	44.8	44.6	-.4	-.2
1948.	48.0	48.0	.0	.0
1949.	41.7	41.5	-.5	-.2
1950.	44.2	43.8	-.9	-.4
1951.	45.0	45.0	.0	.0
1952.	45.2	45.2	.0	.0
1953.	48.9	48.9	.0	.0
1954.	47.8	47.7	-.2	-.1
1955.	43.6	43.5	-.2	-.1
1956.	46.0	46.0	.0	.0
1957.	47.1	47.0	-.2	-.1
1958.	47.3	46.8	-1.1	-.5
1959.	50.8	50.6	-.4	-.2
1960.	47.6	47.5	-.2	-.1
1961.	44.7	44.8	.2	.1
1962.	43.9	43.8	-.2	-.1
1963.	45.3	45.3	.0	.0
1964.	44.8	44.8	.0	.0
1965.	44.8	44.9	.2	.1
1966.	46.3	46.0	-.6	-.3
1967.	46.6	46.6	.0	.0
1968.	46.3	46.2	-.2	-.1
1969.	45.0	44.9	-.2	-.1
1970.	47.2	47.2	.0	.0
1971.	45.8	45.7	-.2	-.1
1972.	44.0	44.0	.0	.0
1973.	44.8	44.7	-.2	-.1
1974.	46.7	46.7	.0	.0
1975.	45.5	45.4	-.2	-.1
1976.	48.3	48.3	.0	.0
1977.	44.7	45.0	.7	.3
1978.	48.3	48.0	-.6	-.3
1979.	46.3	46.0	-.6	-.3
1980.	46.8	46.2	-1.3	-.6
1981.	49.0	48.5	-1.0	-.5
1982.	45.1	45.1	.0	.0
1983.	45.3	45.3	.0	.0
1984.	46.3	46.3	.0	.0
1985.	45.4	45.3	-.2	-.1
1986.	47.8	47.7	-.2	-.1
1987.	47.3	47.0	-.6	-.3
1988.	47.8	47.7	-.2	-.1
1989.	46.3	46.3	.0	.0
1990.	47.6	47.5	-.2	-.1
Mean:	46.2	46.1	-.2	-.1
Median:	46.3	46.0	-.2	-.1
Min:	41.7	41.5	-1.3	-.6
Max:	50.8	50.6	1.1	.5
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	9	8		
No. Years inc (avg):		7	(	.2)
No. Years dec (avg):		42	(	-.2)
No. Years no change		20		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

February

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	46.2	46.3	.2	.1
1923.	46.8	46.9	.2	.1
1924.	51.5	51.8	.6	.3
1925.	48.7	48.5	-.4	-.2
1926.	50.2	49.7	-1.0	-.5
1927.	48.8	48.8	.0	.0
1928.	49.3	49.9	1.2	.6
1929.	47.7	48.3	1.3	.6
1930.	52.4	52.7	.6	.3
1931.	51.6	51.4	-.4	-.2
1932.	47.3	47.4	.2	.1
1933.	46.6	46.3	-.6	-.3
1934.	50.5	50.8	.6	.3
1935.	48.9	48.7	-.4	-.2
1936.	47.9	47.9	.0	.0
1937.	46.3	46.6	.6	.3
1938.	48.3	48.3	.0	.0
1939.	47.9	47.9	.0	.0
1940.	49.3	49.3	.0	.0
1941.	49.9	49.9	.0	.0
1942.	46.8	46.8	.0	.0
1943.	49.5	49.5	.0	.0
1944.	48.6	48.2	-.8	-.4
1945.	47.8	47.8	.0	.0
1946.	46.5	46.5	.0	.0
1947.	49.2	49.2	.0	.0
1948.	47.7	47.7	.0	.0
1949.	45.3	44.7	-1.3	-.6
1950.	47.6	47.5	-.2	-.1
1951.	46.6	46.6	.0	.0
1952.	47.4	47.4	.0	.0
1953.	50.5	50.5	.0	.0
1954.	48.5	48.2	-.6	-.3
1955.	46.8	46.9	.2	.1
1956.	46.7	46.7	.0	.0
1957.	49.9	49.9	.0	.0
1958.	51.4	49.5	-3.7	-1.9
1959.	50.0	49.8	-.4	-.2
1960.	49.6	49.5	-.2	-.1
1961.	50.2	50.4	.4	.2
1962.	47.5	47.5	.0	.0
1963.	49.8	49.8	.0	.0
1964.	47.8	47.5	-.6	-.3
1965.	47.4	47.4	.0	.0
1966.	47.7	47.9	.4	.2
1967.	48.3	48.4	.2	.1
1968.	50.5	49.7	-1.6	-.8
1969.	46.4	46.4	.0	.0
1970.	48.5	48.4	-.2	-.1
1971.	47.4	47.4	.0	.0
1972.	48.6	47.8	-1.6	-.8
1973.	49.6	49.7	.2	.1
1974.	46.9	46.9	.0	.0
1975.	47.9	47.9	.0	.0
1976.	50.9	51.0	.2	.1
1977.	52.8	51.7	-2.1	-1.1
1978.	51.1	50.9	-.4	-.2
1979.	48.0	48.1	.2	.1
1980.	47.4	47.6	.4	.2
1981.	50.9	52.0	2.2	1.1
1982.	46.7	46.7	.0	.0
1983.	49.1	49.1	.0	.0
1984.	48.1	48.1	.0	.0
1985.	48.4	48.8	.8	.4
1986.	48.1	48.1	.0	.0
1987.	51.8	50.4	-2.7	-1.4
1988.	53.7	54.3	1.1	.6
1989.	47.8	47.9	.2	.1
1990.	48.5	48.6	.2	.1
Mean:	48.7	48.6	-.1	-.1
Median:	48.3	48.2	.0	.0
Min:	45.3	44.7	-3.7	-1.9
Max:	53.7	54.3	2.2	1.1

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	40	40		

No. Years inc (avg):		22	(.3)
No. Years dec (avg):		19	(-.5)
No. Years no change		28	

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

March

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	51.1	51.2	.2	.1
1923.	53.2	54.4	2.3	1.2
1924.	53.8	54.0	.4	.2
1925.	54.4	54.4	.0	.0
1926.	56.5	55.1	-2.5	-1.4
1927.	51.9	52.0	.2	.1
1928.	52.3	52.1	-.4	-.2
1929.	54.0	53.0	-1.9	-1.0
1930.	54.0	54.0	.0	.0
1931.	56.1	57.0	1.6	.9
1932.	54.6	54.6	.0	.0
1933.	53.9	52.9	-1.9	-1.0
1934.	57.6	58.3	1.2	.7
1935.	50.4	50.2	-.4	-.2
1936.	53.3	53.3	.0	.0
1937.	52.5	52.8	.6	.3
1938.	50.1	50.0	-.2	-.1
1939.	53.2	53.4	.4	.2
1940.	52.1	52.1	.0	.0
1941.	53.6	53.6	.0	.0
1942.	50.1	49.8	-.6	-.3
1943.	51.4	51.4	.0	.0
1944.	52.8	53.7	1.7	.9
1945.	50.5	50.5	.0	.0
1946.	52.0	52.1	.2	.1
1947.	53.6	53.6	.0	.0
1948.	50.3	50.2	-.2	-.1
1949.	50.9	51.1	.4	.2
1950.	51.9	52.0	.2	.1
1951.	51.2	51.2	.0	.0
1952.	49.8	49.8	.0	.0
1953.	53.0	53.0	.0	.0
1954.	50.9	51.0	.2	.1
1955.	52.5	52.6	.2	.1
1956.	52.0	52.0	.0	.0
1957.	54.0	53.8	-.4	-.2
1958.	50.9	51.1	.4	.2
1959.	54.7	54.6	-.2	-.1
1960.	54.2	54.2	.0	.0
1961.	54.1	53.7	-.7	-.4
1962.	51.8	51.0	-1.5	-.8
1963.	51.2	51.2	.0	.0
1964.	51.4	51.0	-.8	-.4
1965.	51.9	51.8	-.2	-.1
1966.	52.4	53.3	1.7	.9
1967.	51.2	51.2	.0	.0
1968.	55.3	53.5	-3.3	-1.8
1969.	52.1	51.8	-.6	-.3
1970.	53.4	53.4	.0	.0
1971.	51.2	51.2	.0	.0
1972.	55.6	56.2	1.1	.6
1973.	50.9	50.9	.0	.0
1974.	51.8	51.8	.0	.0
1975.	50.9	50.9	.0	.0
1976.	54.0	54.1	.2	.1
1977.	53.6	53.2	-.7	-.4
1978.	54.7	54.6	-.2	-.1
1979.	53.8	52.8	-1.9	-1.0
1980.	51.7	51.8	.2	.1
1981.	52.8	53.2	.8	.4
1982.	50.6	50.6	.0	.0
1983.	50.6	50.6	.0	.0
1984.	54.3	54.4	.2	.1
1985.	50.8	51.1	.6	.3
1986.	52.6	52.6	.0	.0
1987.	53.7	53.9	.4	.2
1988.	57.9	58.3	.7	.4
1989.	52.0	52.0	.0	.0
1990.	55.0	55.3	.5	.3
Mean:	52.7	52.7	.0	.0
Median:	52.3	52.3	.0	.0
Min:	49.8	49.8	-3.3	-1.8
Max:	57.9	58.3	2.3	1.2
X > 56.0	4	4		
Mean X > 56.0	57.0	57.5	.9	.5
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		25	(.4)	
No. Years dec (avg):		19	(-.5)	
No. Years no change		25		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

April

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.8	54.9	.2	.1
1923.	56.1	55.9	-.4	-.2
1924.	63.0	62.8	-.3	-.2
1925.	56.1	56.4	.5	.3
1926.	60.6	60.9	.5	.3
1927.	54.4	54.4	.0	.0
1928.	55.2	55.3	.2	.1
1929.	56.7	57.8	1.9	1.1
1930.	59.4	58.7	-1.2	-.7
1931.	64.9	65.2	.5	.3
1932.	56.7	56.9	.4	.2
1933.	58.3	59.0	1.2	.7
1934.	60.7	61.1	.7	.4
1935.	55.6	55.4	-.4	-.2
1936.	56.0	56.0	.0	.0
1937.	54.9	55.0	.2	.1
1938.	54.4	54.4	.0	.0
1939.	61.8	63.9	3.4	2.1
1940.	55.7	55.7	.0	.0
1941.	55.5	55.5	.0	.0
1942.	55.2	55.3	.2	.1
1943.	55.4	55.5	.2	.1
1944.	55.4	56.1	1.3	.7
1945.	57.3	57.4	.2	.1
1946.	56.3	56.5	.4	.2
1947.	59.0	58.1	-1.5	-.9
1948.	54.1	54.0	-.2	-.1
1949.	59.1	58.4	-1.2	-.7
1950.	56.3	56.3	.0	.0
1951.	56.8	57.0	.4	.2
1952.	54.5	54.5	.0	.0
1953.	56.7	56.8	.2	.1
1954.	57.1	57.2	.2	.1
1955.	54.6	54.7	.2	.1
1956.	57.1	56.9	-.4	-.2
1957.	58.7	58.7	.0	.0
1958.	54.6	54.6	.0	.0
1959.	63.5	60.9	-4.1	-2.6
1960.	58.5	59.0	.9	.5
1961.	61.9	61.8	-.2	-.1
1962.	58.0	58.9	1.6	.9
1963.	53.7	53.8	.2	.1
1964.	56.3	55.9	-.7	-.4
1965.	55.7	55.7	.0	.0
1966.	61.7	60.4	-2.1	-1.3
1967.	52.0	52.0	.0	.0
1968.	59.3	58.4	-1.5	-.9
1969.	54.8	54.9	.2	.1
1970.	57.0	57.0	.0	.0
1971.	55.0	55.1	.2	.1
1972.	57.7	57.9	.3	.2
1973.	57.7	57.7	.0	.0
1974.	54.4	54.4	.0	.0
1975.	53.3	53.3	.0	.0
1976.	60.0	60.0	.0	.0
1977.	64.8	63.9	-1.4	-.9
1978.	55.3	55.5	.4	.2
1979.	57.0	57.8	1.4	.8
1980.	57.3	57.5	.3	.2
1981.	57.7	59.3	2.8	1.6
1982.	53.3	53.4	.2	.1
1983.	54.0	54.0	.0	.0
1984.	57.7	57.7	.0	.0
1985.	60.5	60.1	-.7	-.4
1986.	57.6	57.6	.0	.0
1987.	64.5	64.5	.0	.0
1988.	63.2	63.4	.3	.2
1989.	58.2	58.5	.5	.3
1990.	60.2	61.0	1.3	.8
Mean:	57.4	57.5	.1	.1
Median:	56.7	56.9	.0	.0
Min:	52.0	52.0	-4.1	-2.6
Max:	64.9	65.2	3.4	2.1
X > 56.0	43	42		
Mean X > 56.0	59.0	59.2	.3	.2
X > 60.0	13	13		
Mean X > 60.0	62.4	62.3	-.2	-.1
X > 65.0	0	1		
Mean X > 65.0	.0	65.2	.0	65.2
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	14	14		
61.0 <= X <= 73.0	9	9		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		34	(	.4)
No. Years dec (avg):		15	(	-.7)
No. Years no change		20		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

May

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	58.9	59.0	.2	.1
1923.	59.3	59.2	-.2	-.1
1924.	70.2	70.2	.0	.0
1925.	59.9	60.1	.3	.2
1926.	65.8	65.1	-1.1	-.7
1927.	59.1	59.1	.0	.0
1928.	61.9	61.9	.0	.0
1929.	63.3	63.9	.9	.6
1930.	61.7	62.0	.5	.3
1931.	70.9	70.2	-1.0	-.7
1932.	60.9	61.1	.3	.2
1933.	60.0	60.3	.5	.3
1934.	69.5	69.5	.0	.0
1935.	59.4	59.4	.0	.0
1936.	60.8	60.7	-.2	-.1
1937.	60.0	60.1	.2	.1
1938.	59.1	59.1	.0	.0
1939.	64.5	64.5	.0	.0
1940.	61.4	61.5	.2	.1
1941.	59.3	59.3	.0	.0
1942.	57.8	58.0	.3	.2
1943.	61.1	61.0	-.2	-.1
1944.	61.5	62.3	1.3	.8
1945.	59.5	59.6	.2	.1
1946.	60.0	59.9	-.2	-.1
1947.	64.8	63.6	-1.9	-1.2
1948.	59.0	59.1	.2	.1
1949.	61.8	62.7	1.5	.9
1950.	60.5	60.4	-.2	-.1
1951.	60.8	60.8	.0	.0
1952.	59.0	59.0	.0	.0
1953.	58.9	58.9	.0	.0
1954.	62.2	62.1	-.2	-.1
1955.	60.5	61.2	1.2	.7
1956.	60.7	60.8	.2	.1
1957.	60.7	60.8	.2	.1
1958.	59.4	59.4	.0	.0
1959.	63.1	62.4	-1.1	-.7
1960.	62.3	63.1	1.3	.8
1961.	62.2	62.3	.2	.1
1962.	60.8	60.8	.0	.0
1963.	57.6	57.7	.2	.1
1964.	60.3	61.0	1.2	.7
1965.	59.8	59.8	.0	.0
1966.	65.2	66.5	2.0	1.3
1967.	58.1	58.2	.2	.1
1968.	63.4	61.3	-3.3	-2.1
1969.	59.2	59.2	.0	.0
1970.	63.9	64.1	.3	.2
1971.	58.1	58.0	-.2	-.1
1972.	62.9	63.2	.5	.3
1973.	61.9	62.1	.3	.2
1974.	59.2	59.2	.0	.0
1975.	60.4	60.6	.3	.2
1976.	67.8	70.0	3.2	2.2
1977.	63.3	62.9	-.6	-.4
1978.	60.3	60.5	.3	.2
1979.	61.1	62.1	1.6	1.0
1980.	59.9	59.9	.0	.0
1981.	62.8	63.2	.6	.4
1982.	58.9	58.9	.0	.0
1983.	58.3	58.3	.0	.0
1984.	63.2	63.4	.3	.2
1985.	63.6	64.3	1.1	.7
1986.	61.4	61.4	.0	.0
1987.	66.7	69.2	3.7	2.5
1988.	66.7	66.8	.1	.1
1989.	62.4	62.7	.5	.3
1990.	65.0	65.3	.5	.3
Mean:	61.7	61.8	.2	.1
Median:	60.8	60.9	.1	.0
Min:	57.6	57.7	-3.3	-2.1
Max:	70.9	70.2	3.7	2.5
X > 56.0	69	69		
Mean X > 56.0	61.7	61.8	.2	.1
X > 60.0	44	47		
Mean X > 60.0	63.1	63.1	.0	.0
X > 65.0	8	9		
Mean X > 65.0	67.8	68.1	.4	.3
X > 68.0	3	5		
Mean X > 68.0	70.2	69.8	-.6	-.4
X > 70.0	2	2		
Mean X > 70.0	70.6	70.2	-.6	-.4
60.0 <= X <= 70.0	45	45		
61.0 <= X <= 73.0	33	36		
48.0 <= X <= 68.0	66	64		
No. Years inc (avg):		36	(.5)	
No. Years dec (avg):		13	(-.5)	
No. Years no change		20		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

June

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	63.3	61.9	-2.2	-1.4
1923.	62.5	62.3	-.3	-.2
1924.	71.4	71.0	-.6	-.4
1925.	64.5	63.3	-1.9	-1.2
1926.	68.2	66.4	-2.6	-1.8
1927.	63.0	63.4	.6	.4
1928.	65.7	63.3	-3.7	-2.4
1929.	68.7	67.4	-1.9	-1.3
1930.	67.1	65.3	-2.7	-1.8
1931.	69.3	67.4	-2.7	-1.9
1932.	65.5	65.2	-.5	-.3
1933.	66.8	67.0	.3	.2
1934.	69.8	67.7	-3.0	-2.1
1935.	64.6	63.3	-2.0	-1.3
1936.	64.7	64.8	.2	.1
1937.	64.4	64.1	-.5	-.3
1938.	64.0	63.0	-1.6	-1.0
1939.	69.6	69.9	.4	.3
1940.	66.6	67.0	.6	.4
1941.	63.1	61.3	-2.9	-1.8
1942.	62.5	62.3	-.3	-.2
1943.	64.1	64.1	.0	.0
1944.	65.0	66.3	2.0	1.3
1945.	64.8	65.2	.6	.4
1946.	63.4	63.9	.8	.5
1947.	68.7	69.3	.9	.6
1948.	64.8	63.2	-2.5	-1.6
1949.	66.3	66.3	.0	.0
1950.	63.7	63.2	-.8	-.5
1951.	64.7	64.4	-.5	-.3
1952.	62.1	62.0	-.2	-.1
1953.	63.3	63.5	.3	.2
1954.	65.2	64.9	-.5	-.3
1955.	65.5	65.9	.6	.4
1956.	64.5	64.4	-.2	-.1
1957.	66.0	66.1	.2	.1
1958.	63.4	63.3	-.2	-.1
1959.	68.7	67.3	-2.0	-1.4
1960.	69.2	66.7	-3.6	-2.5
1961.	71.2	72.3	1.5	1.1
1962.	65.8	65.8	.0	.0
1963.	63.0	62.0	-1.6	-1.0
1964.	67.1	65.0	-3.1	-2.1
1965.	62.9	62.8	-.2	-.1
1966.	69.2	67.2	-2.9	-2.0
1967.	62.6	62.4	-.3	-.2
1968.	67.5	68.5	1.5	1.0
1969.	62.9	62.7	-.3	-.2
1970.	66.8	67.3	.7	.5
1971.	62.5	61.7	-1.3	-.8
1972.	65.3	66.5	1.8	1.2
1973.	65.2	66.1	1.4	.9
1974.	63.9	63.4	-.8	-.5
1975.	63.2	62.0	-1.9	-1.2
1976.	69.6	67.5	-3.0	-2.1
1977.	72.4	72.4	.0	.0
1978.	63.9	64.2	.5	.3
1979.	65.4	66.1	1.1	.7
1980.	63.1	63.2	.2	.1
1981.	69.9	70.8	1.3	.9
1982.	62.6	61.4	-1.9	-1.2
1983.	63.1	63.0	-.2	-.1
1984.	66.9	66.7	-.3	-.2
1985.	68.7	66.0	-3.9	-2.7
1986.	66.0	66.2	.3	.2
1987.	71.0	70.0	-1.4	-1.0
1988.	69.5	67.3	-3.2	-2.2
1989.	66.2	66.3	.2	.1
1990.	69.3	67.3	-2.9	-2.0
Mean:	65.9	65.4	-.7	-.5
Median:	65.2	65.1	-.3	-.2
Min:	62.1	61.3	-3.9	-2.7
Max:	72.4	72.4	2.0	1.3
X > 56.0	69	69		
Mean X > 56.0	65.9	65.4	-.8	-.5
X > 60.0	69	69		
Mean X > 60.0	65.9	65.4	-.8	-.5
X > 65.0	37	36		
Mean X > 65.0	67.9	67.4	-.7	-.5
X > 68.0	18	8		
Mean X > 68.0	69.7	70.5	1.1	.8
X > 70.0	4	4		
Mean X > 70.0	71.5	71.6	.1	.1
60.0 <= X <= 70.0	65	65		
61.0 <= X <= 73.0	69	69		
48.0 <= X <= 68.0	51	61		
No. Years inc (avg):		23	(.5)	
No. Years dec (avg):		42	(-1.1)	
No. Years no change		4		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

July

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	67.1	65.4	-2.5	-1.7
1923.	68.8	68.9	.1	.1
1924.	71.5	72.5	1.4	1.0
1925.	67.6	66.2	-2.1	-1.4
1926.	71.5	70.5	-1.4	-1.0
1927.	66.7	69.2	3.7	2.5
1928.	67.8	66.3	-2.2	-1.5
1929.	70.8	69.3	-2.1	-1.5
1930.	69.8	70.7	1.3	.9
1931.	71.6	70.4	-1.7	-1.2
1932.	68.9	67.2	-2.5	-1.7
1933.	71.2	69.2	-2.8	-2.0
1934.	70.8	69.3	-2.1	-1.5
1935.	68.0	66.2	-2.6	-1.8
1936.	69.0	67.4	-2.3	-1.6
1937.	68.4	66.2	-3.2	-2.2
1938.	67.7	66.2	-2.2	-1.5
1939.	70.8	69.2	-2.3	-1.6
1940.	68.8	69.4	.9	.6
1941.	66.7	65.2	-2.2	-1.5
1942.	67.9	65.7	-3.2	-2.2
1943.	68.0	66.6	-2.1	-1.4
1944.	69.5	69.8	.4	.3
1945.	68.4	69.3	1.3	.9
1946.	67.0	67.4	.6	.4
1947.	71.5	71.5	.0	.0
1948.	67.8	66.2	-2.4	-1.6
1949.	68.6	68.2	-.6	-.4
1950.	68.0	66.2	-2.6	-1.8
1951.	68.5	67.4	-1.6	-1.1
1952.	67.3	66.4	-1.3	-.9
1953.	67.7	66.2	-2.2	-1.5
1954.	67.7	67.2	-.7	-.5
1955.	70.1	70.4	.4	.3
1956.	68.9	66.8	-3.0	-2.1
1957.	68.0	68.1	.1	.1
1958.	68.3	67.5	-1.2	-.8
1959.	72.8	73.7	1.2	.9
1960.	70.5	68.3	-3.1	-2.2
1961.	76.3	74.8	-2.0	-1.5
1962.	68.7	67.7	-1.5	-1.0
1963.	67.3	65.7	-2.4	-1.6
1964.	69.5	69.6	.1	.1
1965.	67.2	66.2	-1.5	-1.0
1966.	69.0	68.9	-.1	-.1
1967.	68.7	67.4	-1.9	-1.3
1968.	69.0	70.6	2.3	1.6
1969.	67.9	66.2	-2.5	-1.7
1970.	68.7	69.3	.9	.6
1971.	67.1	65.2	-2.8	-1.9
1972.	67.8	68.6	1.2	.8
1973.	67.7	68.2	.7	.5
1974.	67.9	66.1	-2.7	-1.8
1975.	66.6	65.4	-1.8	-1.2
1976.	70.8	69.3	-2.1	-1.5
1977.	74.2	74.3	.1	.1
1978.	67.9	69.3	2.1	1.4
1979.	68.7	68.3	-.6	-.4
1980.	67.8	69.0	1.8	1.2
1981.	73.2	72.1	-1.5	-1.1
1982.	66.9	65.2	-2.5	-1.7
1983.	67.1	66.7	-.6	-.4
1984.	68.6	69.3	1.0	.7
1985.	71.5	68.0	-4.9	-3.5
1986.	70.4	69.8	-.9	-.6
1987.	71.2	69.3	-2.7	-1.9
1988.	72.1	73.5	1.9	1.4
1989.	67.7	67.8	.1	.1
1990.	70.8	69.9	-1.3	-.9
Mean:	69.1	68.4	-1.0	-.7
Median:	68.6	68.1	-1.5	-1.1
Min:	66.6	65.2	-4.9	-3.5
Max:	76.3	74.8	3.7	2.5
X > 56.0	69	69		
Mean X > 56.0	69.1	68.4	-1.0	-.7
X > 60.0	69	69		
Mean X > 60.0	69.1	68.4	-1.0	-.7
X > 65.0	69	69		
Mean X > 65.0	69.1	68.4	-1.0	-.7
X > 68.0	40	37		
Mean X > 68.0	70.3	70.1	-.3	-.2
X > 70.0	20	12		
Mean X > 70.0	71.7	72.1	.6	.4
60.0 <= X <= 70.0	49	57		
61.0 <= X <= 73.0	66	65		
48.0 <= X <= 68.0	29	32		
No. Years inc (avg):		22	(.8)	
No. Years dec (avg):		46	(-1.4)	
No. Years no change		1		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

August

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	66.9	66.0	-1.3	-.9
1923.	68.7	68.6	-.1	-.1
1924.	72.5	72.2	-.4	-.3
1925.	67.6	66.3	-1.9	-1.3
1926.	69.9	68.1	-2.6	-1.8
1927.	66.6	68.6	3.0	2.0
1928.	69.8	69.3	-.7	-.5
1929.	73.5	72.4	-1.5	-1.1
1930.	68.8	67.8	-1.5	-1.0
1931.	74.2	73.8	-.5	-.4
1932.	68.7	67.8	-1.3	-.9
1933.	70.7	72.7	2.8	2.0
1934.	73.7	72.7	-1.4	-1.0
1935.	67.7	66.7	-1.5	-1.0
1936.	68.7	67.7	-1.5	-1.0
1937.	67.7	66.7	-1.5	-1.0
1938.	67.1	66.1	-1.5	-1.0
1939.	72.5	71.7	-1.1	-.8
1940.	69.4	68.1	-1.9	-1.3
1941.	66.6	65.7	-1.4	-.9
1942.	67.3	66.1	-1.8	-1.2
1943.	67.7	67.1	-.9	-.6
1944.	69.9	68.9	-1.4	-1.0
1945.	67.7	67.9	.3	.2
1946.	67.0	67.6	.9	.6
1947.	69.8	68.9	-1.3	-.9
1948.	67.5	66.6	-1.3	-.9
1949.	68.3	68.8	.7	.5
1950.	67.7	66.5	-1.8	-1.2
1951.	68.1	68.1	.0	.0
1952.	67.6	66.3	-1.9	-1.3
1953.	67.6	66.6	-1.5	-1.0
1954.	68.3	68.1	-.3	-.2
1955.	70.1	70.7	.9	.6
1956.	67.8	66.6	-1.8	-1.2
1957.	67.8	69.1	1.9	1.3
1958.	68.6	67.7	-1.3	-.9
1959.	69.7	68.8	-1.3	-.9
1960.	71.5	68.7	-3.9	-2.8
1961.	70.1	73.3	4.6	3.2
1962.	67.8	67.9	.1	.1
1963.	67.2	65.9	-1.9	-1.3
1964.	70.4	67.8	-3.7	-2.6
1965.	67.7	66.7	-1.5	-1.0
1966.	71.9	68.7	-4.5	-3.2
1967.	68.8	67.6	-1.7	-1.2
1968.	68.8	68.7	-.1	-.1
1969.	67.6	66.6	-1.5	-1.0
1970.	69.3	69.6	.4	.3
1971.	66.9	65.6	-1.9	-1.3
1972.	69.3	70.9	2.3	1.6
1973.	67.7	68.0	.4	.3
1974.	67.6	66.6	-1.5	-1.0
1975.	66.6	65.8	-1.2	-.8
1976.	69.8	69.1	-1.0	-.7
1977.	73.8	73.9	.1	.1
1978.	67.8	68.7	1.3	.9
1979.	67.8	69.1	1.9	1.3
1980.	67.7	68.6	1.3	.9
1981.	69.8	69.6	-.3	-.2
1982.	66.7	65.6	-1.6	-1.1
1983.	67.6	66.6	-1.5	-1.0
1984.	68.8	70.1	1.9	1.3
1985.	71.4	67.7	-5.2	-3.7
1986.	69.6	67.5	-3.0	-2.1
1987.	69.8	68.8	-1.4	-1.0
1988.	72.7	73.8	1.5	1.1
1989.	70.6	70.6	.0	.0
1990.	71.0	71.2	.3	.2
Mean:	69.0	68.5	-.7	-.5
Median:	68.4	68.1	-1.3	-.9
Min:	66.6	65.6	-5.2	-3.7
Max:	74.2	73.9	4.6	3.2
X > 56.0	69	69		
Mean X > 56.0	69.0	68.5	-.7	-.5
X > 60.0	69	69		
Mean X > 60.0	69.0	68.5	-.7	-.5
X > 65.0	69	69		
Mean X > 65.0	69.0	68.5	-.7	-.5
X > 68.0	39	36		
Mean X > 68.0	70.3	70.1	-.3	-.2
X > 70.0	16	14		
Mean X > 70.0	71.9	72.1	.3	.2
60.0 <= X <= 70.0	53	55		
61.0 <= X <= 73.0	65	65		
48.0 <= X <= 68.0	30	33		
No. Years inc (avg):		19		(1.0)
No. Years dec (avg):		48		(-1.1)
No. Years no change		2		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

September

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	66.8	65.9	-1.3	-.9
1923.	68.7	68.7	.0	.0
1924.	70.1	69.7	-.6	-.4
1925.	67.4	66.3	-1.6	-1.1
1926.	68.9	67.8	-1.6	-1.1
1927.	66.6	63.9	-4.1	-2.7
1928.	68.0	66.7	-1.9	-1.3
1929.	69.8	68.8	-1.4	-1.0
1930.	68.0	67.5	-.7	-.5
1931.	69.3	68.7	-.9	-.6
1932.	68.6	67.7	-1.3	-.9
1933.	69.0	68.6	-.6	-.4
1934.	69.8	70.0	.3	.2
1935.	67.6	66.7	-1.3	-.9
1936.	68.6	67.6	-1.5	-1.0
1937.	67.6	66.6	-1.5	-1.0
1938.	67.1	66.1	-1.5	-1.0
1939.	69.8	69.2	-.9	-.6
1940.	68.4	68.0	-.6	-.4
1941.	66.6	65.6	-1.5	-1.0
1942.	67.2	66.1	-1.6	-1.1
1943.	67.7	69.6	2.8	1.9
1944.	68.7	68.7	.0	.0
1945.	67.7	69.2	2.2	1.5
1946.	66.9	68.5	2.4	1.6
1947.	69.7	68.8	-1.3	-.9
1948.	67.5	66.6	-1.3	-.9
1949.	68.3	69.5	1.8	1.2
1950.	67.7	66.5	-1.8	-1.2
1951.	69.8	69.6	-.3	-.2
1952.	67.6	66.3	-1.9	-1.3
1953.	67.6	66.6	-1.5	-1.0
1954.	67.8	67.7	-.1	-.1
1955.	68.7	68.7	.0	.0
1956.	67.8	66.6	-1.8	-1.2
1957.	67.7	69.8	3.1	2.1
1958.	68.6	67.6	-1.5	-1.0
1959.	69.7	68.7	-1.4	-1.0
1960.	70.6	68.8	-2.5	-1.8
1961.	69.8	68.7	-1.6	-1.1
1962.	68.9	68.8	-.1	-.1
1963.	67.2	65.9	-1.9	-1.3
1964.	68.8	67.7	-1.6	-1.1
1965.	67.6	66.7	-1.3	-.9
1966.	70.3	68.8	-2.1	-1.5
1967.	68.8	67.6	-1.7	-1.2
1968.	68.7	68.8	.1	.1
1969.	67.6	66.6	-1.5	-1.0
1970.	68.3	69.9	2.3	1.6
1971.	66.9	65.6	-1.9	-1.3
1972.	67.7	68.3	.9	.6
1973.	67.7	68.1	.6	.4
1974.	67.6	66.6	-1.5	-1.0
1975.	66.6	65.8	-1.2	-.8
1976.	69.9	69.6	-.4	-.3
1977.	68.9	68.9	.0	.0
1978.	67.7	68.3	.9	.6
1979.	68.1	71.3	4.7	3.2
1980.	67.6	67.6	.0	.0
1981.	69.7	68.7	-1.4	-1.0
1982.	66.7	65.6	-1.6	-1.1
1983.	67.6	66.6	-1.5	-1.0
1984.	68.7	72.1	4.9	3.4
1985.	67.8	67.8	.0	.0
1986.	65.6	66.1	.8	.5
1987.	69.8	68.8	-1.4	-1.0
1988.	71.4	70.7	-1.0	-.7
1989.	67.8	68.2	.6	.4
1990.	71.7	71.7	.0	.0
Mean:	68.3	68.0	-.5	-.4
Median:	67.9	67.9	-1.3	-.9
Min:	65.6	63.9	-4.1	-2.7
Max:	71.7	72.1	4.9	3.4
X > 56.0	69	69		
Mean X > 56.0	68.3	68.0	-.4	-.3
X > 60.0	69	69		
Mean X > 60.0	68.3	68.0	-.4	-.3
X > 65.0	69	68		
Mean X > 65.0	68.3	68.0	-.4	-.3
X > 68.0	34	35		
Mean X > 68.0	69.3	69.2	-.1	-.1
X > 70.0	5	4		
Mean X > 70.0	70.8	71.4	.8	.6
60.0 <= X <= 70.0	64	65		
61.0 <= X <= 73.0	69	69		
48.0 <= X <= 68.0	35	34		
No. Years inc (avg):		15		(1.3)
No. Years dec (avg):		47		(-1.0)
No. Years no change		7		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

October"

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	57.4	57.5	.2	.1
1923.	61.5	57.4	-6.7	-4.1
1924.	62.2	61.7	-.8	-.5
1925.	58.6	58.1	-.9	-.5
1926.	62.3	61.3	-1.6	-1.0
1927.	58.2	55.8	-4.1	-2.4
1928.	59.0	58.2	-1.4	-.8
1929.	64.4	65.0	.9	.6
1930.	60.5	59.6	-1.5	-.9
1931.	63.5	63.4	-.2	-.1
1932.	60.9	59.9	-1.6	-1.0
1933.	65.7	65.4	-.5	-.3
1934.	64.5	63.9	-.9	-.6
1935.	58.8	58.8	.0	.0
1936.	60.9	59.7	-2.0	-1.2
1937.	59.5	58.9	-1.0	-.6
1938.	58.2	58.3	.2	.1
1939.	64.7	64.6	-.2	-.1
1940.	57.2	56.6	-1.0	-.6
1941.	58.0	58.0	.0	.0
1942.	57.6	57.3	-.5	-.3
1943.	58.5	56.1	-4.1	-2.4
1944.	62.0	62.2	.3	.2
1945.	60.8	56.3	-7.4	-4.5
1946.	58.0	55.7	-4.0	-2.3
1947.	59.6	59.1	-.8	-.5
1948.	57.9	58.7	1.4	.8
1949.	59.5	57.7	-3.0	-1.8
1950.	57.8	57.4	-.7	-.4
1951.	58.0	55.7	-4.0	-2.3
1952.	58.7	58.1	-1.0	-.6
1953.	59.2	58.3	-1.5	-.9
1954.	57.1	56.4	-1.2	-.7
1955.	60.5	57.7	-4.6	-2.8
1956.	59.8	59.5	-.5	-.3
1957.	59.6	56.4	-5.4	-3.2
1958.	61.4	60.6	-1.3	-.8
1959.	64.8	65.3	.8	.5
1960.	58.2	61.8	6.2	3.6
1961.	65.5	64.7	-1.2	-.8
1962.	58.3	56.1	-3.8	-2.2
1963.	58.2	58.1	-.2	-.1
1964.	60.6	60.8	.3	.2
1965.	59.0	58.4	-1.0	-.6
1966.	61.5	62.5	1.6	1.0
1967.	61.5	61.2	-.5	-.3
1968.	60.4	61.3	1.5	.9
1969.	59.2	58.6	-1.0	-.6
1970.	59.5	56.1	-5.7	-3.4
1971.	57.6	57.9	.5	.3
1972.	58.6	55.7	-4.9	-2.9
1973.	58.5	55.7	-4.8	-2.8
1974.	59.5	58.3	-2.0	-1.2
1975.	57.8	57.9	.2	.1
1976.	64.6	65.4	1.2	.8
1977.	63.8	63.8	.0	.0
1978.	59.7	56.5	-5.4	-3.2
1979.	60.4	56.8	-6.0	-3.6
1980.	59.3	57.0	-3.9	-2.3
1981.	63.2	63.7	.8	.5
1982.	57.6	57.6	.0	.0
1983.	58.6	58.1	-.9	-.5
1984.	61.2	56.1	-8.3	-5.1
1985.	58.2	60.8	4.5	2.6
1986.	61.4	58.5	-4.7	-2.9
1987.	65.3	66.6	2.0	1.3
1988.	66.4	66.3	-.2	-.1
1989.	59.1	56.9	-3.7	-2.2
1990.	66.6	66.6	.0	.0
Mean:	60.4	59.5	-1.4	-.9
Median:	59.5	58.3	-1.0	-.6
Min:	57.1	55.7	-8.3	-5.1
Max:	66.6	66.6	6.2	3.6
X > 56.0	69	64		
Mean X > 56.0	60.4	59.8	-1.0	-.6
X > 60.0	30	23		
Mean X > 60.0	62.8	63.4	1.0	.6
X > 65.0	5	6		
Mean X > 65.0	65.9	65.9	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	30	23		
61.0 <= X <= 73.0	22	20		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		16		(.8)
No. Years dec (avg):		48		(-1.5)
No. Years no change		5		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

November

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	53.9	53.9	.0	.0
1923.	57.3	55.9	-2.4	-1.4
1924.	54.6	54.2	-.7	-.4
1925.	56.1	56.2	.2	.1
1926.	58.6	58.3	-.5	-.3
1927.	56.0	54.0	-3.6	-2.0
1928.	56.5	56.0	-.9	-.5
1929.	58.8	58.4	-.7	-.4
1930.	57.4	56.6	-1.4	-.8
1931.	54.4	54.2	-.4	-.2
1932.	57.1	57.2	.2	.1
1933.	58.8	58.5	-.5	-.3
1934.	56.6	55.7	-1.6	-.9
1935.	55.6	55.7	.2	.1
1936.	57.5	57.3	-.3	-.2
1937.	57.3	56.6	-1.2	-.7
1938.	56.1	56.0	-.2	-.1
1939.	58.5	58.0	-.9	-.5
1940.	55.5	54.1	-2.5	-1.4
1941.	56.1	56.1	.0	.0
1942.	56.1	56.1	.0	.0
1943.	56.6	55.9	-1.2	-.7
1944.	54.0	55.0	1.9	1.0
1945.	56.0	54.5	-2.7	-1.5
1946.	54.5	52.1	-4.4	-2.4
1947.	52.9	52.9	.0	.0
1948.	56.0	56.0	.0	.0
1949.	57.4	55.8	-2.8	-1.6
1950.	56.4	56.2	-.4	-.2
1951.	56.1	55.2	-1.6	-.9
1952.	56.2	55.9	-.5	-.3
1953.	56.9	56.9	.0	.0
1954.	55.2	53.9	-2.4	-1.3
1955.	55.3	55.0	-.5	-.3
1956.	57.4	57.5	.2	.1
1957.	57.6	56.0	-2.8	-1.6
1958.	57.9	57.1	-1.4	-.8
1959.	59.7	59.7	.0	.0
1960.	55.9	56.6	1.3	.7
1961.	56.9	56.7	-.4	-.2
1962.	56.1	56.1	.0	.0
1963.	55.9	55.7	-.4	-.2
1964.	54.5	55.4	1.7	.9
1965.	56.9	56.6	-.5	-.3
1966.	55.9	57.4	2.7	1.5
1967.	57.6	57.2	-.7	-.4
1968.	56.2	55.5	-1.2	-.7
1969.	57.1	56.2	-1.6	-.9
1970.	56.6	55.3	-2.3	-1.3
1971.	56.5	56.4	-.2	-.1
1972.	53.5	52.2	-2.4	-1.3
1973.	55.4	53.1	-4.2	-2.3
1974.	56.9	57.1	.4	.2
1975.	55.7	55.6	-.2	-.1
1976.	57.7	58.2	.9	.5
1977.	55.4	55.1	-.5	-.3
1978.	57.0	55.3	-3.0	-1.7
1979.	57.1	55.3	-3.2	-1.8
1980.	57.2	55.8	-2.4	-1.4
1981.	56.8	56.6	-.4	-.2
1982.	56.0	55.9	-.2	-.1
1983.	57.0	56.4	-1.1	-.6
1984.	56.1	54.6	-2.7	-1.5
1985.	54.0	53.9	-.2	-.1
1986.	55.8	55.8	.0	.0
1987.	57.3	57.6	.5	.3
1988.	56.4	56.3	-.2	-.1
1989.	57.0	55.9	-1.9	-1.1
1990.	56.5	56.5	.0	.0
Mean:	56.4	55.9	-.8	-.5
Median:	56.3	55.9	-.5	-.3
Min:	52.9	52.1	-4.4	-2.4
Max:	59.7	59.7	2.7	1.5
X > 56.0	45	31		
Mean X > 56.0	57.1	57.1	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		11	(.5)	
No. Years dec (avg):		48	(-.8)	
No. Years no change		10		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

December

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.7	47.6	-.2	-.1
1923.	50.5	50.3	-.4	-.2
1924.	45.7	45.3	-.9	-.4
1925.	48.9	49.4	1.0	.5
1926.	49.9	49.7	-.4	-.2
1927.	49.1	48.4	-1.4	-.7
1928.	47.9	47.3	-1.3	-.6
1929.	50.7	50.4	-.6	-.3
1930.	49.6	49.1	-1.0	-.5
1931.	47.0	46.9	-.2	-.1
1932.	48.9	48.7	-.4	-.2
1933.	48.7	48.3	-.8	-.4
1934.	49.2	48.4	-1.6	-.8
1935.	49.8	49.8	.0	.0
1936.	49.6	49.5	-.2	-.1
1937.	51.3	51.2	-.2	-.1
1938.	50.1	50.0	-.2	-.1
1939.	51.9	51.5	-.8	-.4
1940.	50.7	50.4	-.6	-.3
1941.	50.1	50.0	-.2	-.1
1942.	49.1	49.1	.0	.0
1943.	51.1	50.4	-1.4	-.7
1944.	48.8	49.3	1.0	.5
1945.	48.9	48.6	-.6	-.3
1946.	48.4	47.9	-1.0	-.5
1947.	47.1	47.1	.0	.0
1948.	47.5	47.2	-.6	-.3
1949.	49.4	48.5	-1.8	-.9
1950.	48.8	48.8	.0	.0
1951.	49.0	48.5	-1.0	-.5
1952.	50.3	50.1	-.4	-.2
1953.	51.2	51.1	-.2	-.1
1954.	46.9	46.5	-.9	-.4
1955.	48.4	48.4	.0	.0
1956.	51.0	51.0	.0	.0
1957.	50.0	49.1	-1.8	-.9
1958.	54.9	54.8	-.2	-.1
1959.	51.7	51.7	.0	.0
1960.	48.9	49.2	.6	.3
1961.	47.8	47.5	-.6	-.3
1962.	50.5	50.5	.0	.0
1963.	46.7	46.3	-.9	-.4
1964.	47.4	47.7	.6	.3
1965.	48.2	47.6	-1.2	-.6
1966.	48.4	48.3	-.2	-.1
1967.	50.6	50.5	-.2	-.1
1968.	48.1	47.6	-1.0	-.5
1969.	52.0	51.8	-.4	-.2
1970.	49.0	48.7	-.6	-.3
1971.	48.1	48.0	-.2	-.1
1972.	44.5	44.3	-.4	-.2
1973.	49.3	49.1	-.4	-.2
1974.	49.9	49.8	-.2	-.1
1975.	49.7	49.7	.0	.0
1976.	49.7	50.2	1.0	.5
1977.	49.6	49.1	-1.0	-.5
1978.	48.4	47.6	-1.7	-.8
1979.	51.4	50.7	-1.4	-.7
1980.	52.1	51.4	-1.3	-.7
1981.	50.2	50.2	.0	.0
1982.	48.9	48.9	.0	.0
1983.	48.7	48.6	-.2	-.1
1984.	49.3	48.8	-1.0	-.5
1985.	45.6	45.4	-.4	-.2
1986.	51.3	50.8	-1.0	-.5
1987.	49.0	48.8	-.4	-.2
1988.	48.9	48.8	-.2	-.1
1989.	49.1	48.9	-.4	-.2
1990.	45.6	45.6	.0	.0
Mean:	49.2	49.0	-.5	-.2
Median:	49.0	48.8	-.4	-.2
Min:	44.5	44.3	-1.8	-.9
Max:	54.9	54.8	1.0	.5
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	56	52		
No. Years inc (avg):		5	(.4)	
No. Years dec (avg):		52	(-.3)	
No. Years no change		12		

RETURN TO TABLE OF CONTENTS

Section 10

LOWER AMERICAN RIVER SALMON SURVIVAL

LOWER AMERICAN RIVER SALMON SURVIVAL

Water Year	Base Survival (%)	2030 w/ WFP Survival (%)	Rel Change (%)	Abs Diff (%)
1922	92.4	92.7	.3	.3
1923	80.7	91.3	13.1	10.6
1924	83.0	84.0	1.2	1.0
1925	88.0	89.1	1.2	1.1
1926	75.2	77.4	2.9	2.2
1927	89.9	95.1	5.8	5.2
1928	86.5	89.4	3.4	2.9
1929	72.7	73.5	1.1	.8
1930	80.3	85.2	6.1	4.9
1931	81.8	82.3	.6	.5
1932	82.6	83.9	1.6	1.3
1933	72.0	73.6	2.2	1.6
1934	78.3	80.0	2.2	1.7
1935	88.3	88.3	.0	.0
1936	80.4	84.0	4.5	3.6
1937	83.8	87.2	4.1	3.4
1938	88.7	88.9	.2	.2
1939	72.7	74.5	2.5	1.8
1940	91.8	93.1	1.4	1.3
1941	89.7	90.0	.3	.3
1942	90.6	91.5	1.0	.9
1943	87.5	92.3	5.5	4.8
1944	85.4	83.9	-1.8	-1.5
1945	84.4	93.1	10.3	8.7
1946	91.1	93.8	3.0	2.7
1947	89.3	90.3	1.1	1.0
1948	89.3	88.0	-1.5	-1.3
1949	82.7	90.1	8.9	7.4
1950	89.8	91.3	1.7	1.5
1951	88.9	92.9	4.5	4.0
1952	87.7	89.9	2.5	2.2
1953	84.8	86.9	2.5	2.1
1954	91.9	93.2	1.4	1.3
1955	85.4	91.3	6.9	5.9
1956	80.8	81.5	.9	.7
1957	80.3	91.2	13.6	10.9
1958	74.5	80.1	7.5	5.6
1959	66.2	66.3	.2	.1
1960	89.5	81.6	-8.8	-7.9
1961	76.6	77.8	1.6	1.2
1962	88.7	92.2	3.9	3.5
1963	89.8	90.7	1.0	.9
1964	87.2	85.4	-2.1	-1.8
1965	86.5	88.4	2.2	1.9
1966	83.7	78.3	-6.5	-5.4
1967	79.1	81.1	2.5	2.0
1968	83.7	83.9	.2	.2
1969	84.0	87.8	4.5	3.8
1970	85.4	92.6	8.4	7.2
1971	89.1	89.0	-.1	-.1
1972	90.7	93.9	3.5	3.2
1973	89.8	94.0	4.7	4.2
1974	84.9	87.0	2.5	2.1
1975	91.3	91.5	.2	.2
1976	73.4	71.2	-3.0	-2.2
1977	79.6	80.5	1.1	.9
1978	83.6	92.7	10.9	9.1
1979	80.7	91.9	13.9	11.2
1980	83.6	91.5	9.4	7.9
1981	80.0	79.9	-.1	-.1
1982	90.0	90.4	.4	.4
1983	87.4	90.1	3.1	2.7
1984	83.5	92.4	10.7	8.9
1985	91.4	86.7	-5.1	-4.7
1986	84.3	89.9	6.6	5.6
1987	75.8	74.5	-1.7	-1.3
1988	77.0	77.3	.4	.3
1989	84.7	91.6	8.1	6.9
1990	76.4	76.4	.0	.0
Mean	84.1	86.4	2.8	2.4
Median	84.4	88.4	1.7	1.5
Min	66.2	66.3	-8.8	-7.9
Max	92.4	95.1	13.9	11.2
Abs Diff < -1.0 &Rel Diff < signif				3
Abs Diff > 1.0 &Rel Diff > signif				45
No measurable Change				21
Check				69

RETURN TO TABLE OF CONTENTS

Section 11

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

October

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2353.6	2125.9	-9.7	-227.7
	1923	2371.5	2144.0	-9.6	-227.5
	1924	2350.4	2163.0	-8.0	-187.4
	1925	1170.3	843.4	-27.9	-326.9
	1926	2348.8	2159.7	-8.1	-189.1
	1927	1639.4	1495.4	-8.8	-144.0
	1928	2361.8	2137.5	-9.5	-224.3
	1929	1842.2	1403.6	-23.8	-438.6
	1930	1598.8	1227.9	-23.2	-370.9
	1931	2097.1	1453.1	-30.7	-644.0
	1932	1110.1	993.8	-10.5	-116.3
	1933	2339.0	2151.6	-8.0	-187.4
	1934	1610.1	1495.4	-7.1	-114.7
	1935	1103.6	375.0	-66.0	-728.6
	1936	2369.9	2174.8	-8.2	-195.1
	1937	2342.2	2156.5	-7.9	-185.7
	1938	2358.5	2158.9	-8.5	-199.6
	1939	2347.1	2127.7	-9.3	-219.4
	1940	1619.9	1227.5	-24.2	-392.4
	1941	1865.0	1678.0	-10.0	-187.0
	1942	2374.8	2153.7	-9.3	-221.1
	1943	2352.0	2131.0	-9.4	-221.0
	1944	2343.9	1874.5	-20.0	-469.4
	1945	1374.8	1727.9	25.7	353.1
	1946	2389.4	1704.0	-28.7	-685.4
	1947	2093.9	1411.7	-32.6	-682.2
	1948	1632.9	1487.6	-8.9	-145.3
	1949	2353.6	2131.0	-9.5	-222.6
	1950	2343.9	1698.6	-27.5	-645.3
	1951	2395.9	2176.5	-9.2	-219.4
	1952	2139.4	1704.0	-20.4	-435.4
	1953	2343.9	2127.7	-9.2	-216.2
	1954	2350.4	2134.2	-9.2	-216.2
	1955	1847.1	1415.0	-23.4	-432.1
	1956	1624.8	1477.9	-9.0	-146.9
	1957	2366.6	2152.1	-9.1	-214.5
	1958	2392.7	1921.6	-19.7	-471.1
	1959	2345.5	2129.3	-9.2	-216.2
	1960	1597.1	1420.9	-11.0	-176.2
	1961	1595.5	1698.6	6.5	103.1
	1962	1602.0	1453.5	-9.3	-148.5
	1963	2158.7	2160.3	.1	1.6
	1964	2365.0	2145.6	-9.3	-219.4
	1965	1641.0	1742.5	6.2	101.5
	1966	2339.0	2119.6	-9.4	-219.4
	1967	1608.5	1421.5	-11.6	-187.0
	1968	2339.0	2124.5	-9.2	-214.5
	1969	2123.1	1436.1	-32.4	-687.0
	1970	2361.8	2144.0	-9.2	-217.8
	1971	1873.1	1691.0	-9.7	-182.1
	1972	2347.1	2131.0	-9.2	-216.1
	1973	1641.0	1457.3	-11.2	-183.7
	1974	2387.8	1455.6	-39.0	-932.2
	1975	2369.9	2152.1	-9.2	-217.8
	1976	2386.2	2171.6	-9.0	-214.6
	1977	375.0	375.0	.0	.0
	1978	375.0	375.0	.0	.0
	1979	2352.0	2127.7	-9.5	-224.3
	1980	2399.2	1462.1	-39.1	-937.1
	1981	2342.2	2121.2	-9.4	-221.0
	1982	1658.9	1508.8	-9.0	-150.1
	1983	3312.9	2877.6	-13.1	-435.3
	1984	3412.3	2157.8	-36.8	-1254.5
	1985	2381.3	1913.5	-19.6	-467.8
	1986	1634.5	1236.0	-24.4	-398.5
	1987	2350.4	1882.6	-19.9	-467.8
	1988	1484.6	1662.2	12.0	177.6
	1989	855.3	728.3	-14.8	-127.0
	1990	1632.9	1482.8	-9.2	-150.1
	1991	856.9	736.0	-14.1	-120.9
	Mean	2006.1	1726.0	-13.4	-280.0
	Median	2339.0	1735.2	-9.4	-217.0
	Min	375.0	375.0	-66.0	-1254.5
	Max	3412.3	2877.6	25.7	353.1
X <	1500.0	9	26		
X <	1750.0	24	36		
X <	1765.0	24	36		
X <	2000.0	28	40		
X <	3000.0	68	70		
X >=	2500.0	2	1		
2500.0 > X >=	2000.0	40	29		
2000.0 > X >=	1750.0	4	4		
1750.0 > X >=	800.0	22	31		
800.0 > X		2	5		
X <	3450.0	70	70		
Mean of X >=	3450.0	.0	.0	.0	.0

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

November

		Base	2030 w/ WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2377.3	2189.1	-7.9	-188.2
	1923	2431.1	2244.7	-7.7	-186.4
	1924	2350.4	2204.2	-6.2	-146.2
	1925	1122.3	812.7	-27.6	-309.6
	1926	2365.6	2216.0	-6.3	-149.6
	1927	1718.1	1577.9	-8.2	-140.2
	1928	2764.9	2204.3	-20.3	-560.6
	1929	1890.8	1457.7	-22.9	-433.1
	1930	1592.0	1225.1	-23.0	-366.9
	1931	2115.6	1475.4	-30.3	-640.2
	1932	1132.4	1021.5	-9.8	-110.9
	1933	2345.4	2197.5	-6.3	-147.9
	1934	1583.6	1474.4	-6.9	-109.2
	1935	1169.3	375.0	-67.9	-794.3
	1936	2365.6	2209.9	-6.6	-155.7
	1937	2342.0	2197.5	-6.2	-144.5
	1938	2421.0	2259.3	-6.7	-161.7
	1939	2348.8	2167.4	-7.7	-181.4
	1940	1597.1	1208.6	-24.3	-388.5
	1941	1890.8	1706.0	-9.8	-184.8
	1942	2389.1	2206.0	-7.7	-183.1
	1943	3593.5	3110.5	-13.4	-483.0
	1944	2362.2	1932.5	-18.2	-429.7
	1945	1419.3	1776.5	25.2	357.2
	1946	2387.4	1707.7	-28.5	-679.7
	1947	2140.8	1462.7	-31.7	-678.1
	1948	1618.9	1477.8	-8.7	-141.1
	1949	2358.8	2179.1	-7.6	-179.7
	1950	2362.2	1722.7	-27.1	-639.5
	1951	16872.8	16431.5	-2.6	-441.3
	1952	2152.5	1721.1	-20.0	-431.4
	1953	2387.4	2211.0	-7.4	-176.4
	1954	2382.4	2206.0	-7.4	-176.4
	1955	1902.5	1474.5	-22.5	-428.0
	1956	1644.1	1501.3	-8.7	-142.8
	1957	2347.1	2170.7	-7.5	-176.4
	1958	2370.6	1940.9	-18.1	-429.7
	1959	2352.1	2175.8	-7.5	-176.3
	1960	1597.1	1423.3	-10.9	-173.8
	1961	1669.3	1778.2	6.5	108.9
	1962	1645.8	1503.0	-8.7	-142.8
	1963	3004.4	2707.0	-9.9	-297.4
	1964	4079.0	2535.5	-37.8	-1543.5
	1965	1669.3	1776.5	6.4	107.2
	1966	2407.6	2229.5	-7.4	-178.1
	1967	1726.5	1545.1	-10.5	-181.4
	1968	2367.2	2190.9	-7.4	-176.3
	1969	2176.1	1494.7	-31.3	-681.4
	1970	2372.3	2192.6	-7.6	-179.7
	1971	1981.5	1803.5	-9.0	-178.0
	1972	2367.2	2189.2	-7.5	-178.0
	1973	1699.6	1521.5	-10.5	-178.1
	1974	6054.3	3718.8	-38.6	-2335.5
	1975	2385.7	2206.0	-7.5	-179.7
	1976	2885.2	2378.6	-17.6	-506.6
	1977	375.0	375.0	.0	.0
	1978	389.1	375.0	-3.6	-14.1
	1979	2416.0	2232.9	-7.6	-183.1
	1980	2395.8	1462.7	-38.9	-933.1
	1981	2350.4	2167.4	-7.8	-183.0
	1982	4641.0	4143.5	-10.7	-497.5
	1983	6784.0	6505.4	-4.1	-278.6
	1984	14296.1	14162.0	-.9	-134.1
	1985	3083.6	2041.7	-33.8	-1041.9
	1986	1724.8	1331.9	-22.8	-392.9
	1987	2360.5	1932.5	-18.1	-428.0
	1988	1185.1	1304.7	10.1	119.6
	1989	894.1	771.1	-13.8	-123.0
	1990	1629.0	1482.8	-9.0	-146.2
	1991	863.9	746.9	-13.5	-117.0
	Mean	2606.3	2286.6	-13.1	-319.7
	Median	2349.6	1932.5	-8.7	-180.5
	Min	375.0	375.0	-67.9	-2335.5
	Max	16872.8	16431.5	25.2	357.2
X <	1500.0	9	21		
X <	1750.0	23	30		
X <	2000.0	27	37		
X <	3000.0	61	64		
X <	.0	0	0		
X >=	2500.0	11	8		
2500.0 > X >=	2000.0	32	25		
2000.0 > X >=	1750.0	4	7		
1750.0 > X >=	1200.0	15	23		
1200.0 > X		8	7		
X <	3450.0	63	65		
Mean of X >=	3450.0	8045.8	8992.2	11.8	946.4

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

December

		Base	2030 w/ WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2462.6	2296.7	-6.7	-165.9
	1923	6449.2	5884.5	-8.8	-564.7
	1924	2360.1	2232.9	-5.4	-127.2
	1925	1189.8	892.2	-25.0	-297.6
	1926	2381.3	2254.0	-5.3	-127.3
	1927	1628.0	1508.5	-7.3	-119.5
	1928	2384.5	2220.4	-6.9	-164.1
	1929	1892.7	1480.1	-21.8	-412.6
	1930	1680.1	1333.7	-20.6	-346.4
	1931	2095.5	1476.0	-29.6	-619.5
	1932	1245.1	1153.2	-7.4	-91.9
	1933	2387.8	2260.5	-5.3	-127.3
	1934	1691.5	1601.2	-5.3	-90.3
	1935	1139.4	500.0	-56.1	-639.4
	1936	2381.3	2246.3	-5.7	-135.0
	1937	2404.0	2280.0	-5.2	-124.0
	1938	6102.9	5579.9	-8.6	-523.0
	1939	2365.0	2204.1	-6.8	-160.9
	1940	1618.3	1250.3	-22.7	-368.0
	1941	2013.0	1850.5	-8.1	-162.5
	1942	4922.1	4307.1	-12.5	-615.0
	1943	4689.8	4403.9	-6.1	-285.9
	1944	2386.2	1976.9	-17.2	-409.3
	1945	1394.3	1770.3	27.0	376.0
	1946	7788.1	6871.6	-11.8	-916.5
	1947	2142.7	1483.4	-30.8	-659.3
	1948	1611.8	1491.0	-7.5	-120.8
	1949	2417.1	2256.1	-6.7	-161.0
	1950	2376.4	1757.3	-26.1	-619.1
	1951	16335.9	16051.5	-1.7	-284.4
	1952	4167.5	3004.8	-27.9	-1162.7
	1953	2475.6	2317.9	-6.4	-157.7
	1954	2361.8	2205.7	-6.6	-156.1
	1955	1933.3	1527.3	-21.0	-406.0
	1956	14600.8	14666.3	.4	65.5
	1957	2356.9	2199.2	-6.7	-157.7
	1958	2418.7	2007.8	-17.0	-410.9
	1959	2368.3	2212.2	-6.6	-156.1
	1960	1623.1	1702.5	4.9	79.4
	1961	1615.0	1744.2	8.0	129.2
	1962	1644.3	1521.9	-7.4	-122.4
	1963	3375.7	3153.0	-6.6	-222.7
	1964	3177.9	2196.0	-30.9	-981.9
	1965	19280.7	20104.0	4.3	823.3
	1966	2400.8	2241.5	-6.6	-159.3
	1967	1678.4	1517.5	-9.6	-160.9
	1968	2368.3	2210.6	-6.7	-157.7
	1969	2175.2	1514.3	-30.4	-660.9
	1970	5268.1	4662.9	-11.5	-605.2
	1971	4835.0	4138.9	-14.4	-696.1
	1972	2430.1	2272.4	-6.5	-157.7
	1973	1658.9	1499.6	-9.6	-159.3
	1974	7459.5	7183.3	-3.7	-276.2
	1975	2420.3	2261.0	-6.6	-159.3
	1976	2365.0	2207.3	-6.7	-157.7
	1977	500.0	500.0	.0	.0
	1978	500.0	500.0	.0	.0
	1979	2374.8	2212.2	-6.8	-162.6
	1980	2438.2	1525.7	-37.4	-912.5
	1981	2394.3	2233.4	-6.7	-160.9
	1982	14151.7	14026.4	-.9	-125.3
	1983	9105.3	8788.5	-3.5	-316.8
	1984	15314.4	14944.0	-2.4	-370.4
	1985	2447.1	1981.7	-19.0	-465.4
	1986	1675.2	1302.8	-22.2	-372.4
	1987	2379.7	1970.4	-17.2	-409.3
	1988	1193.1	1078.4	-9.6	-114.7
	1989	908.9	806.5	-11.3	-102.4
	1990	1605.3	1479.6	-7.8	-125.7
	1991	878.0	783.3	-10.8	-94.7
	Mean	3575.2	3304.0	-10.7	-271.2
	Median	2375.6	2201.6	-7.1	-160.9
	Min	500.0	500.0	-56.1	-1162.7
	Max	19280.7	20104.0	27.0	823.3
X <	1500.0	9	17		
X <	1750.0	21	26		
X <	2000.0	23	32		
X <	3000.0	53	54		
X <	.0	0	0		
X >=	2500.0	17	16		
2500.0 > X >=	2000.0	30	22		
2000.0 > X >=	1750.0	2	6		
1750.0 > X >=	1200.0	14	18		
1200.0 > X		7	8		
X <	3450.0	55	56		
Mean of X >=	3450.0	9364.7	9400.9	.4	36.2

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

January

		Base	2030 w/ WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	1908.9	1744.7	-8.6	-164.2
	1923	4491.4	4172.9	-7.1	-318.5
	1924	1899.2	1773.5	-6.6	-125.7
	1925	1628.0	1582.1	-2.8	-45.9
	1926	1905.7	1780.0	-6.6	-125.7
	1927	3077.9	2475.9	-19.6	-602.0
	1928	2384.5	1723.6	-27.7	-660.9
	1929	1471.5	1110.6	-24.5	-360.9
	1930	1680.1	1587.0	-5.5	-93.1
	1931	1707.3	1292.6	-24.3	-414.7
	1932	1879.7	1541.0	-18.0	-338.7
	1933	1917.1	1793.0	-6.5	-124.1
	1934	1871.5	1536.1	-17.9	-335.4
	1935	1689.8	1854.5	9.7	164.7
	1936	4271.2	3752.9	-12.1	-518.3
	1937	1918.7	1796.3	-6.4	-122.4
	1938	2803.3	2527.2	-9.8	-276.1
	1939	2134.5	1726.9	-19.1	-407.6
	1940	2491.2	1885.6	-24.3	-605.6
	1941	5492.7	4565.8	-16.9	-926.9
	1942	9289.1	8967.4	-3.5	-321.7
	1943	10904.1	10584.0	-2.9	-320.1
	1944	1904.0	1546.4	-18.8	-357.6
	1945	1876.4	2007.2	7.0	130.8
	1946	5132.2	4816.9	-6.1	-315.3
	1947	2113.4	1705.7	-19.3	-407.7
	1948	1615.0	1497.5	-7.3	-117.5
	1949	1882.9	1725.2	-8.4	-157.7
	1950	1933.3	1415.8	-26.8	-517.5
	1951	10063.8	9764.8	-3.0	-299.0
	1952	9053.3	8749.5	-3.4	-303.8
	1953	6731.2	5988.1	-11.0	-743.1
	1954	2162.2	2009.4	-7.1	-152.8
	1955	1920.3	1765.9	-8.0	-154.4
	1956	16344.2	16161.8	-1.1	-182.4
	1957	2150.8	1996.4	-7.2	-154.4
	1958	2204.5	1796.8	-18.5	-407.7
	1959	2204.5	1800.0	-18.3	-404.5
	1960	1325.2	1361.6	2.7	36.4
	1961	1397.5	1380.0	-1.3	-17.5
	1962	1279.7	1158.9	-9.4	-120.8
	1963	3888.0	3611.6	-7.1	-276.4
	1964	2582.0	2267.5	-12.2	-314.5
	1965	13162.5	12976.8	-1.4	-185.7
	1966	2387.8	1981.7	-17.0	-406.1
	1967	6739.4	5893.7	-12.5	-845.7
	1968	2426.8	2272.4	-6.4	-154.4
	1969	14789.4	14076.0	-4.8	-713.4
	1970	20940.2	20631.6	-1.5	-308.6
	1971	4668.7	4415.0	-5.4	-253.7
	1972	2373.1	2218.7	-6.5	-154.4
	1973	8938.4	8127.2	-9.1	-811.2
	1974	11302.6	11037.8	-2.3	-264.8
	1975	2126.4	1970.4	-7.3	-156.0
	1976	2365.0	2210.6	-6.5	-154.4
	1977	388.6	367.4	-5.5	-21.2
	1978	3372.5	2108.9	-37.5	-1263.6
	1979	2202.8	1793.5	-18.6	-409.3
	1980	14921.4	15042.0	.8	120.6
	1981	2194.7	1785.4	-18.6	-409.3
	1982	8242.9	7990.6	-3.1	-252.3
	1983	7604.2	7298.8	-4.0	-305.4
	1984	6509.9	6225.6	-4.4	-284.3
	1985	2384.5	2228.5	-6.5	-156.0
	1986	2157.8	2174.9	.8	17.1
	1987	1908.9	1552.9	-18.6	-356.0
	1988	926.8	815.4	-12.0	-111.4
	1989	1874.8	1775.6	-5.3	-99.2
	1990	1680.1	1557.7	-7.3	-122.4
	1991	668.3	575.2	-13.9	-93.1
	Mean	4254.9	3962.9	-9.7	-291.9
	Median	2203.6	1976.1	-7.1	-276.3
	Min	388.6	367.4	-37.5	-1263.6
	Max	20940.2	20631.6	9.7	164.7
X < 1500.0		7	10		
X < 1750.0		13	22		
X < 2000.0		27	37		
X < 3000.0		46	48		
X < .0		0	0		
X >= 2500.0		26	23		
2500.0 > X >= 2000.0		17	10		
2000.0 > X >= 1750.0		14	15		
1750.0 > X >= 1200.0		10	17		
1200.0 > X		3	5		
X < 3450.0		48	48		
Mean of X >= 3450.0		9249.1	8856.9	-4.2	-392.3

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

February

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3279.5	2283.6	-30.4	-995.9
	1923	3432.5	2667.6	-22.3	-764.9
	1924	1531.6	1392.0	-9.1	-139.6
	1925	3610.8	3778.9	4.7	168.1
	1926	1594.6	1603.2	.5	8.6
	1927	13414.9	13218.3	-1.5	-196.6
	1928	1902.8	1726.4	-9.3	-176.4
	1929	1170.2	835.6	-28.6	-334.6
	1930	1884.8	1776.2	-5.8	-108.6
	1931	1337.4	1015.5	-24.1	-321.9
	1932	2181.0	1800.1	-17.5	-380.9
	1933	1627.6	1488.0	-8.6	-139.6
	1934	1911.8	1561.0	-18.3	-350.8
	1935	1883.0	1780.3	-5.5	-102.7
	1936	13451.0	13179.4	-2.0	-271.6
	1937	1987.4	1601.4	-19.4	-386.0
	1938	9839.2	9536.5	-3.1	-302.7
	1939	1881.2	1706.6	-9.3	-174.6
	1940	10606.0	10362.6	-2.3	-243.4
	1941	8011.4	7673.2	-4.2	-338.2
	1942	9970.6	9616.2	-3.6	-354.4
	1943	6841.3	6506.7	-4.9	-334.6
	1944	1755.4	1274.4	-27.4	-481.0
	1945	6141.5	5847.9	-4.8	-293.6
	1946	2658.3	2341.7	-11.9	-316.6
	1947	1906.4	1735.4	-9.0	-171.0
	1948	1888.4	1504.2	-20.3	-384.2
	1949	1895.6	1322.8	-30.2	-572.8
	1950	4073.6	3312.3	-18.7	-761.3
	1951	8100.3	7789.1	-3.8	-311.2
	1952	9480.7	9147.9	-3.5	-332.8
	1953	2179.3	1835.7	-15.8	-343.6
	1954	1985.7	1766.0	-11.1	-219.7
	1955	1895.6	1724.6	-9.0	-171.0
	1956	6147.3	5919.6	-3.7	-227.7
	1957	1947.8	1778.6	-8.7	-169.2
	1958	9132.6	6652.9	-27.2	-2479.7
	1959	1958.6	1789.4	-8.6	-169.2
	1960	1183.4	1037.9	-12.3	-145.5
	1961	1143.8	1041.4	-9.0	-102.4
	1962	1281.0	1007.4	-21.4	-273.6
	1963	12007.2	11703.0	-2.5	-304.2
	1964	1995.8	1697.6	-14.9	-298.2
	1965	5371.7	5158.5	-4.0	-213.2
	1966	1902.8	1731.8	-9.0	-171.0
	1967	4349.1	4044.9	-7.0	-304.2
	1968	5676.2	4656.5	-18.0	-1019.7
	1969	9261.3	9000.3	-2.8	-261.0
	1970	6229.7	5954.5	-4.4	-275.2
	1971	3302.8	3004.0	-9.0	-298.8
	1972	2138.3	1728.2	-19.2	-410.1
	1973	7167.0	6893.4	-3.8	-273.6
	1974	4303.2	3788.7	-12.0	-514.5
	1975	2003.6	1832.6	-8.5	-171.0
	1976	1884.8	1715.6	-9.0	-169.2
	1977	384.8	250.0	-35.0	-134.8
	1978	4689.2	4497.9	-4.1	-191.3
	1979	1938.8	1516.0	-21.8	-422.8
	1980	14127.5	13402.7	-5.1	-724.8
	1981	1886.6	1312.0	-30.5	-574.6
	1982	15463.6	15095.5	-2.4	-368.1
	1983	12405.0	12090.3	-2.5	-314.7
	1984	5580.9	5286.0	-5.3	-294.9
	1985	1917.2	1744.4	-9.0	-172.8
	1986	33241.4	33044.3	-.6	-197.1
	1987	1540.6	1207.8	-21.6	-332.8
	1988	1881.2	1504.7	-20.0	-376.5
	1989	1640.2	1525.6	-7.0	-114.6
	1990	1687.0	1199.2	-28.9	-487.8
	1991	562.6	455.8	-19.0	-106.8
	Mean	4809.2	4471.1	-11.7	-338.1
	Median	2070.9	1794.8	-9.0	-296.5
	Min	384.8	250.0	-35.0	-2479.7
	Max	33241.4	33044.3	4.7	168.1
X <	1500.0	7	14		
X <	1750.0	13	30		
X <	2000.0	34	38		
X <	3000.0	39	41		
X <	.0	0	0		
X >=	2500.0	32	30		
2500.0 > X >=	2000.0	4	2		
2000.0 > X >=	1750.0	21	8		
1750.0 > X >=	1200.0	8	22		
1200.0 > X		5	8		
X <	3450.0	42	43		
Mean of X >=	3450.0	9239.1	9031.3	-2.2	-207.8

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

March

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4402.4	4230.1	-3.9	-172.3
	1923	2698.3	2478.0	-8.2	-220.3
	1924	1153.1	1108.8	-3.8	-44.3
	1925	3137.4	2926.4	-6.7	-211.0
	1926	1856.9	1730.8	-6.8	-126.1
	1927	4481.6	4109.7	-8.3	-371.9
	1928	12106.4	9482.3	-21.7	-2624.1
	1929	1386.2	1286.6	-7.2	-99.6
	1930	1902.4	1779.6	-6.5	-122.8
	1931	1021.9	776.4	-24.0	-245.5
	1932	2605.3	2471.5	-5.1	-133.8
	1933	1887.8	1544.3	-18.2	-343.5
	1934	1445.5	1152.0	-20.3	-293.5
	1935	3162.2	3022.3	-4.4	-139.9
	1936	4087.1	3817.4	-6.6	-269.7
	1937	4331.3	3632.9	-16.1	-698.4
	1938	10782.2	10434.5	-3.2	-347.7
	1939	1497.5	1378.0	-8.0	-119.5
	1940	10878.1	10397.1	-4.4	-481.0
	1941	4777.3	4428.0	-7.3	-349.3
	1942	4413.8	4246.4	-3.8	-167.4
	1943	12384.5	12059.6	-2.6	-324.9
	1944	2128.0	1750.7	-17.7	-377.3
	1945	2662.2	2496.4	-6.2	-165.8
	1946	2706.0	2481.7	-8.3	-224.3
	1947	1915.4	1789.8	-6.6	-125.6
	1948	2662.2	2498.0	-6.2	-164.2
	1949	2451.2	2323.9	-5.2	-127.3
	1950	3206.3	2728.5	-14.9	-477.8
	1951	3673.5	3358.4	-8.6	-315.1
	1952	6107.6	5779.5	-5.4	-328.1
	1953	2894.3	2730.1	-5.7	-164.2
	1954	4354.4	3429.7	-21.2	-924.7
	1955	1858.5	1734.5	-6.7	-124.0
	1956	3366.6	3200.8	-4.9	-165.8
	1957	4080.1	3037.1	-25.6	-1043.0
	1958	6633.2	6309.9	-4.9	-323.3
	1959	1618.3	1463.3	-9.6	-155.0
	1960	2507.4	2005.6	-20.0	-501.8
	1961	1142.7	789.4	-30.9	-353.3
	1962	2386.2	2218.7	-7.0	-167.5
	1963	3418.7	3254.5	-4.8	-164.2
	1964	1874.8	1747.5	-6.8	-127.3
	1965	2887.8	2720.4	-5.8	-167.4
	1966	1860.1	1444.3	-22.4	-415.8
	1967	5895.1	5503.6	-6.6	-391.5
	1968	2068.3	3667.5	77.3	1599.2
	1969	4378.0	4215.5	-3.7	-162.5
	1970	2387.8	1992.2	-16.6	-395.6
	1971	3980.6	3672.0	-7.8	-308.6
	1972	4099.1	3238.8	-21.0	-860.3
	1973	3327.0	2971.2	-10.7	-355.8
	1974	9560.7	9305.6	-2.7	-255.1
	1975	4377.5	3360.4	-23.2	-1017.1
	1976	1476.4	1352.4	-8.4	-124.0
	1977	278.0	250.0	-10.1	-28.0
	1978	5452.6	5327.4	-2.3	-125.2
	1979	3050.6	2231.7	-26.8	-818.9
	1980	3407.1	2964.0	-13.0	-443.1
	1981	1673.6	1294.7	-22.6	-378.9
	1982	7577.4	7315.9	-3.5	-261.5
	1983	16256.7	15966.0	-1.8	-290.7
	1984	2647.5	2248.6	-15.1	-398.9
	1985	2171.9	1794.7	-17.4	-377.2
	1986	11163.2	10796.2	-3.3	-367.0
	1987	1214.9	969.0	-20.2	-245.9
	1988	1463.4	1159.3	-20.8	-304.1
	1989	6360.0	5422.9	-14.7	-937.1
	1990	1371.5	1271.9	-7.3	-99.6
	1991	2009.8	1646.3	-18.1	-363.5
	Mean	3892.0	3567.5	-9.6	-324.6
	Median	2891.1	2724.4	-7.3	-280.2
	Min	278.0	250.0	-30.9	-2624.1
	Max	16256.7	15966.0	77.3	1599.2
X <	1500.0	11	14		
X <	1750.0	13	19		
X <	2000.0	20	24		
X <	3000.0	36	40		
X <	.0	0	0		
X >=	4500.0	14	13		
4500.0 > X >=	3000.0	20	17		
3000.0 > X >=	2000.0	16	16		
2000.0 > X >=	1500.0	9	10		
1500.0 > X		11	14		
X <	3450.0	44	48		
Mean of X >=	3450.0	6792.1	6823.6	.5	31.5

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

April

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4363.9	4157.3	-4.7	-206.6
	1923	3177.2	3167.2	-.3	-10.0
	1924	188.0	188.0	.0	.0
	1925	4012.4	3147.0	-21.6	-865.4
	1926	1934.5	1774.2	-8.3	-160.3
	1927	7856.2	7498.8	-4.5	-357.4
	1928	4773.1	4301.5	-9.9	-471.6
	1929	1355.5	473.4	-65.1	-882.1
	1930	2110.5	1703.6	-19.3	-406.9
	1931	337.0	209.3	-37.9	-127.7
	1932	2853.8	2435.8	-14.6	-418.0
	1933	1835.3	1457.6	-20.6	-377.7
	1934	3070.6	2444.0	-20.4	-626.6
	1935	4340.5	4697.0	8.2	356.5
	1936	5754.8	5382.2	-6.5	-372.6
	1937	4330.0	3907.8	-9.8	-422.2
	1938	7866.0	7419.5	-5.7	-446.5
	1939	1090.3	436.8	-59.9	-653.5
	1940	6058.2	5720.6	-5.6	-337.6
	1941	3751.9	3350.8	-10.7	-401.1
	1942	4439.5	4239.6	-4.5	-199.9
	1943	5162.3	4734.3	-8.3	-428.0
	1944	2130.7	1719.4	-19.3	-411.3
	1945	2602.1	2402.2	-7.7	-199.9
	1946	3913.7	3319.5	-15.2	-594.2
	1947	1848.8	1689.1	-8.6	-159.7
	1948	2655.9	2459.4	-7.4	-196.5
	1949	2338.7	2179.0	-6.8	-159.7
	1950	4935.4	4641.3	-6.0	-294.1
	1951	3037.9	2572.9	-15.3	-465.0
	1952	8946.5	8493.2	-5.1	-453.3
	1953	3399.2	2952.7	-13.1	-446.5
	1954	4454.5	4095.0	-8.1	-359.5
	1955	1884.0	1727.8	-8.3	-156.2
	1956	3894.1	3694.3	-5.1	-199.8
	1957	2630.7	2435.9	-7.4	-194.8
	1958	10349.8	9947.0	-3.9	-402.8
	1959	1872.3	1433.4	-23.4	-438.9
	1960	2112.2	1952.6	-7.6	-159.6
	1961	355.5	250.0	-29.7	-105.5
	1962	3671.1	2420.3	-34.1	-1250.8
	1963	4573.6	4043.6	-11.6	-530.0
	1964	1850.4	1689.1	-8.7	-161.3
	1965	3721.1	3119.3	-16.2	-601.8
	1966	1857.2	1409.0	-24.1	-448.2
	1967	4412.6	4216.1	-4.5	-196.5
	1968	1850.4	1653.9	-10.6	-196.5
	1969	5827.0	5233.4	-10.2	-593.6
	1970	2357.2	1907.3	-19.1	-449.9
	1971	3365.6	2917.4	-13.3	-448.2
	1972	2375.6	2179.1	-8.3	-196.5
	1973	2608.8	2412.3	-7.5	-196.5
	1974	6156.2	5783.5	-6.1	-372.7
	1975	3877.3	3679.1	-5.1	-198.2
	1976	370.6	212.6	-42.6	-158.0
	1977	188.0	188.0	.0	.0
	1978	4594.3	3719.3	-19.0	-875.0
	1979	2612.2	2162.3	-17.2	-449.9
	1980	2870.6	2420.7	-15.7	-449.9
	1981	1607.2	695.8	-56.7	-911.4
	1982	14296.2	13908.5	-2.7	-387.7
	1983	6615.5	6204.3	-6.2	-411.2
	1984	2630.7	2430.8	-7.6	-199.9
	1985	2112.2	1702.6	-19.4	-409.6
	1986	2634.0	2435.9	-7.5	-198.1
	1987	357.2	250.0	-30.0	-107.2
	1988	394.1	188.0	-52.3	-206.1
	1989	4472.4	3769.1	-15.7	-703.3
	1990	2583.2	1783.3	-31.0	-799.9
	1991	1850.4	1452.9	-21.5	-397.5
	Mean	3467.4	3100.0	-15.0	-367.4
	Median	2862.2	2435.9	-9.9	-382.7
	Min	188.0	188.0	-65.1	-1250.8
	Max	14296.2	13908.5	8.2	356.5
X < 1500.0		9	14		
X < 1750.0		10	21		
X < 2000.0		19	25		
X < 3000.0		36	41		
X < .0		0	0		
X >= 4500.0		15	13		
4500.0 > X >= 3000.0		19	16		
3000.0 > X >= 2000.0		17	16		
2000.0 > X >= 1500.0		10	11		
1500.0 > X		9	14		
X < 3450.0		41	46		
Mean of X >= 3450.0		5566.2	5561.9	-.1	-4.3

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

May

		Base	2030 w/ WFP		
	Water Year	Flow (cfs)	Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8956.6	7956.2	-11.2	-1000.4
	1923	4835.3	4324.4	-10.6	-510.9
	1924	188.0	188.0	.0	.0
	1925	4522.8	3732.4	-17.5	-790.4
	1926	2330.9	2170.6	-6.9	-160.3
	1927	4780.1	4112.3	-14.0	-667.8
	1928	2824.4	2622.7	-7.1	-201.7
	1929	1821.1	1438.9	-21.0	-382.2
	1930	2574.4	2167.3	-15.8	-407.1
	1931	343.9	466.1	35.5	122.2
	1932	3817.8	3367.5	-11.8	-450.3
	1933	2329.2	2201.5	-5.5	-127.7
	1934	330.9	201.5	-39.1	-129.4
	1935	4802.6	4238.9	-11.7	-563.7
	1936	4064.6	3870.7	-4.8	-193.9
	1937	4464.6	3936.5	-11.8	-528.1
	1938	9844.5	9266.2	-5.9	-578.3
	1939	1592.2	1440.1	-9.6	-152.1
	1940	3561.3	3080.6	-13.5	-480.7
	1941	5385.1	4823.0	-10.4	-562.1
	1942	6148.6	5313.8	-13.6	-834.8
	1943	3571.1	3341.9	-6.4	-229.2
	1944	2590.6	2182.4	-15.8	-408.2
	1945	3584.1	3353.3	-6.4	-230.8
	1946	3605.9	3356.6	-6.9	-249.3
	1947	2326.0	2169.3	-6.7	-156.7
	1948	3603.6	3376.1	-6.3	-227.5
	1949	3082.5	2422.6	-21.4	-659.9
	1950	3821.1	3593.6	-6.0	-227.5
	1951	3602.0	3121.2	-13.3	-480.8
	1952	11189.5	10619.3	-5.1	-570.2
	1953	4087.4	3861.5	-5.5	-225.9
	1954	2832.5	2639.0	-6.8	-193.5
	1955	2585.7	2179.1	-15.7	-406.6
	1956	4343.9	4118.0	-5.2	-225.9
	1957	3613.4	3137.5	-13.2	-475.9
	1958	10137.3	9571.9	-5.6	-565.4
	1959	2332.5	1894.9	-18.8	-437.6
	1960	2584.1	2425.8	-6.1	-158.3
	1961	1334.1	1174.2	-12.0	-159.9
	1962	3066.2	2846.1	-7.2	-220.1
	1963	7198.5	6561.6	-8.8	-636.9
	1964	2334.1	2174.2	-6.9	-159.9
	1965	4077.6	3598.5	-11.7	-479.1
	1966	2329.2	2132.4	-8.4	-196.8
	1967	8049.5	7275.4	-9.6	-774.1
	1968	2330.9	2137.3	-8.3	-193.6
	1969	9207.0	8607.5	-6.5	-599.5
	1970	2834.1	2387.3	-15.8	-446.8
	1971	4100.4	3872.8	-5.6	-227.6
	1972	2834.1	2389.0	-15.7	-445.1
	1973	4364.2	3525.2	-19.2	-839.0
	1974	4955.8	4338.4	-12.5	-617.4
	1975	4329.2	4103.3	-5.2	-225.9
	1976	839.0	188.0	-77.6	-651.0
	1977	188.0	188.0	.0	.0
	1978	4336.1	3591.9	-17.2	-744.2
	1979	3995.3	3095.2	-22.5	-900.1
	1980	3824.4	3595.2	-6.0	-229.2
	1981	2082.5	1422.6	-31.7	-659.9
	1982	9247.7	8742.5	-5.5	-505.2
	1983	10522.7	9970.4	-5.2	-552.3
	1984	3598.8	3119.6	-13.3	-479.2
	1985	2592.2	2184.0	-15.7	-408.2
	1986	3592.2	3364.7	-6.3	-227.5
	1987	1339.0	438.5	-67.3	-900.5
	1988	352.0	213.7	-39.3	-138.3
	1989	3367.2	2699.5	-19.8	-667.7
	1990	1626.4	1244.2	-23.5	-382.2
	1991	2332.5	2184.8	-6.3	-147.7
	Mean	3859.9	3452.1	-12.7	-407.8
	Median	3588.1	3120.4	-10.0	-408.2
	Min	188.0	188.0	-77.6	-1000.4
	Max	11189.5	10619.3	35.5	122.2
X < 1500.0		8	12		
X < 1750.0		10	12		
X < 2000.0		11	13		
X < 3000.0		29	32		
X < .0		0	0		
X >= 4500.0		16	11		
4500.0 > X >= 3000.0		25	27		
3000.0 > X >= 2000.0		18	19		
2000.0 > X >= 1500.0		3	1		
1500.0 > X		8	12		
X < 3450.0		32	43		
Mean of X >= 3450.0		5414.3	5597.1	3.4	182.8

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

June

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8942.0	8226.8	-8.0	-715.2
	1923	4572.3	3724.9	-18.5	-847.4
	1924	188.0	188.0	.0	.0
	1925	6281.9	5107.3	-18.7	-1174.6
	1926	1737.0	1852.5	6.6	115.5
	1927	5328.8	4665.7	-12.4	-663.1
	1928	5709.0	3671.3	-35.7	-2037.7
	1929	2161.5	1822.9	-15.7	-338.6
	1930	2051.7	1622.8	-20.9	-428.9
	1931	1073.8	479.0	-55.4	-594.8
	1932	4803.4	4473.9	-6.9	-329.5
	1933	2342.7	1895.5	-19.1	-447.2
	1934	1610.0	1338.1	-16.9	-271.9
	1935	3907.9	3305.4	-15.4	-602.5
	1936	4435.8	3545.9	-20.1	-889.9
	1937	3289.9	3062.8	-6.9	-227.1
	1938	8582.3	7894.1	-8.0	-688.2
	1939	805.1	250.0	-68.9	-555.1
	1940	3415.1	2814.7	-17.6	-600.4
	1941	3545.0	3048.1	-14.0	-496.9
	1942	7345.4	6643.7	-9.6	-701.7
	1943	3305.1	3059.9	-7.4	-245.2
	1944	2055.1	1376.8	-33.0	-678.3
	1945	5835.8	4329.1	-25.8	-1506.7
	1946	6258.5	4930.3	-21.2	-1328.2
	1947	1568.5	1138.6	-27.4	-429.9
	1948	3296.7	2831.5	-14.1	-465.2
	1949	2791.6	2111.7	-24.4	-679.9
	1950	3941.9	3293.1	-16.5	-648.8
	1951	3053.4	2836.6	-7.1	-216.8
	1952	10503.2	9803.2	-6.7	-700.0
	1953	3813.5	3321.6	-12.9	-491.9
	1954	2687.7	3157.3	17.5	469.6
	1955	2060.1	1631.9	-20.8	-428.2
	1956	5529.4	4112.7	-25.6	-1416.7
	1957	3785.0	3794.1	.2	9.1
	1958	7726.9	7065.6	-8.6	-661.3
	1959	1315.1	855.9	-34.9	-459.2
	1960	2056.7	1876.8	-8.7	-179.9
	1961	556.7	250.0	-55.1	-306.7
	1962	2800.0	2654.5	-5.2	-145.5
	1963	3289.9	3048.1	-7.3	-241.8
	1964	2066.8	1885.2	-8.8	-181.6
	1965	3550.0	3304.8	-6.9	-245.2
	1966	1810.1	1091.6	-39.7	-718.5
	1967	10419.2	9784.7	-6.1	-634.5
	1968	2063.5	1098.3	-46.8	-965.2
	1969	6594.2	5946.3	-9.8	-647.9
	1970	3233.6	2653.2	-17.9	-580.4
	1971	3876.1	3311.6	-14.6	-564.5
	1972	4407.4	4008.5	-9.1	-398.9
	1973	5555.7	6048.5	8.9	492.8
	1974	4256.6	3578.4	-15.9	-678.2
	1975	5757.7	4469.9	-22.4	-1287.8
	1976	1838.8	1708.8	-7.1	-130.0
	1977	188.0	188.0	.0	.0
	1978	4463.3	3299.8	-26.1	-1163.5
	1979	6288.6	6040.1	-4.0	-248.5
	1980	3541.6	3048.1	-13.9	-493.5
	1981	1310.1	378.5	-71.1	-931.6
	1982	6263.1	5561.5	-11.2	-701.6
	1983	14543.2	13844.9	-4.8	-698.3
	1984	4724.4	3514.1	-25.6	-1210.3
	1985	2803.0	2166.9	-22.7	-636.1
	1986	3320.2	2845.2	-14.3	-475.0
	1987	321.9	250.0	-22.3	-71.9
	1988	1472.0	975.9	-33.7	-496.1
	1989	3881.7	3386.6	-12.8	-495.1
	1990	1630.7	1436.8	-11.9	-193.9
	1991	2851.7	2510.1	-12.0	-341.6
	Mean	3905.6	3363.6	-17.3	-542.1
	Median	3367.6	3054.0	-14.2	-496.5
	Min	188.0	188.0	-71.1	-2037.7
	Max	14543.2	13844.9	17.5	492.8
X <	1500.0	9	15		
X <	1750.0	13	18		
X <	2000.0	15	23		
X <	3000.0	28	32		
X <	.0	0	0		
X >=	4500.0	21	14		
4500.0 > X >=	3000.0	21	24		
3000.0 > X >=	2000.0	13	9		
2000.0 > X >=	500.0	12	16		
500.0 > X		3	7		
X <	3450.0	36	45		
Mean of X >=	3450.0	5852.1	5791.4	-1.0	-60.7

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

July

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4023.9	2988.9	-25.7	-1035.0
	1923	5630.4	2532.4	-55.0	-3098.0
	1924	522.0	188.0	-64.0	-334.0
	1925	3995.1	2210.5	-44.7	-1784.6
	1926	2429.8	2175.4	-10.5	-254.4
	1927	2878.6	6007.9	108.7	3129.3
	1928	1288.6	1075.5	-16.5	-213.1
	1929	1453.9	1119.2	-23.0	-334.7
	1930	2662.4	2282.5	-14.3	-379.9
	1931	1713.5	2236.4	30.5	522.9
	1932	2952.8	2698.8	-8.6	-254.0
	1933	2019.4	1663.5	-17.6	-355.9
	1934	1288.1	1126.3	-12.6	-161.8
	1935	4840.5	2549.4	-47.3	-2291.1
	1936	3907.9	3624.5	-7.3	-283.4
	1937	2387.8	2051.1	-14.1	-336.7
	1938	3538.3	2815.4	-20.4	-722.9
	1939	1755.8	1377.1	-21.6	-378.7
	1940	5836.8	5007.6	-14.2	-829.2
	1941	2158.3	1778.6	-17.6	-379.7
	1942	3523.6	2789.4	-20.8	-734.2
	1943	5539.0	5525.0	-.3	-14.0
	1944	2109.9	1237.9	-41.3	-872.0
	1945	4146.7	3853.8	-7.1	-292.9
	1946	3644.5	3607.4	-1.0	-37.1
	1947	1766.8	1154.4	-34.7	-612.4
	1948	3646.1	2049.0	-43.8	-1597.1
	1949	3057.8	2287.4	-25.2	-770.4
	1950	5160.3	3032.9	-41.2	-2127.4
	1951	5775.3	4767.6	-17.4	-1007.7
	1952	4645.8	3931.1	-15.4	-714.7
	1953	3159.8	1877.7	-40.6	-1282.1
	1954	3185.7	1625.7	-49.0	-1560.0
	1955	1603.2	1125.4	-29.8	-477.8
	1956	3203.3	2470.6	-22.9	-732.7
	1957	4647.8	4207.9	-9.5	-439.9
	1958	3185.4	2472.2	-22.4	-713.2
	1959	548.3	250.0	-54.4	-298.3
	1960	2741.0	1120.6	-59.1	-1620.4
	1961	290.2	250.0	-13.9	-40.2
	1962	5183.2	4052.5	-21.8	-1130.7
	1963	2133.8	5304.0	148.6	3170.2
	1964	2139.1	1762.6	-17.6	-376.5
	1965	5435.8	6020.9	10.8	585.1
	1966	1293.5	250.0	-80.7	-1043.5
	1967	4322.2	3609.1	-16.5	-713.1
	1968	1291.8	336.9	-73.9	-954.9
	1969	2982.1	2251.1	-24.5	-731.0
	1970	1759.6	1434.8	-18.5	-324.8
	1971	3003.2	1791.5	-40.3	-1211.7
	1972	1293.5	1088.5	-15.8	-205.0
	1973	4004.4	2311.6	-42.3	-1692.8
	1974	3466.7	2756.9	-20.5	-709.8
	1975	2928.4	2220.2	-24.2	-708.2
	1976	1361.1	1082.0	-20.5	-279.1
	1977	188.0	188.0	.0	.0
	1978	6112.6	5190.4	-15.1	-922.2
	1979	2835.4	1077.2	-62.0	-1758.2
	1980	3646.6	3610.8	-1.0	-35.8
	1981	293.5	250.0	-14.8	-43.5
	1982	3401.7	2669.0	-21.5	-732.7
	1983	6222.4	5594.8	-10.1	-627.6
	1984	4197.4	4203.8	.2	6.4
	1985	2121.9	1603.2	-24.4	-518.7
	1986	5365.7	4712.7	-12.2	-653.0
	1987	1707.1	853.6	-50.0	-853.5
	1988	894.3	565.3	-36.8	-329.0
	1989	3552.7	2636.3	-25.8	-916.4
	1990	1237.5	856.0	-30.8	-381.5
	1991	2223.4	2096.9	-5.7	-126.5
	Mean	2992.3	2421.8	-20.2	-570.5
	Median	2967.5	2228.3	-20.5	-565.6
	Min	188.0	188.0	-80.7	-3098.0
	Max	6222.4	6020.9	148.6	3170.2
X <	1500.0	14	22		
X <	1750.0	17	25		
X <	2000.0	20	29		
X <	3000.0	36	51		
X <	.0	0	0		
X >=	2500.0	41	28		
2500.0 > X >=	1500.0	15	20		
1500.0 > X >=	500.0	11	15		
500.0 > X >=	.0	3	7		
.0 > X		0	0		
X <	3450.0	43	52		
Mean of X >=	3450.0	4593.0	4601.8	.2	8.7

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

August

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2714.5	2348.3	-13.5	-366.2
	1923	2353.3	4139.5	75.9	1786.2
	1924	188.0	188.0	.0	.0
	1925	3577.1	1357.5	-62.1	-2219.6
	1926	545.1	375.0	-31.2	-170.1
	1927	3671.8	3257.6	-11.3	-414.2
	1928	3075.5	3649.6	18.7	574.1
	1929	188.0	188.0	.0	.0
	1930	791.8	623.4	-21.3	-168.4
	1931	188.0	188.0	.0	.0
	1932	2116.8	1351.0	-36.2	-765.8
	1933	533.7	188.0	-64.8	-345.7
	1934	188.0	188.0	.0	.0
	1935	2888.6	3586.1	24.1	697.5
	1936	2897.6	1872.2	-35.4	-1025.4
	1937	2584.6	1595.3	-38.3	-989.3
	1938	4207.9	3473.7	-17.4	-734.2
	1939	293.5	250.0	-14.8	-43.5
	1940	3773.3	2752.8	-27.0	-1020.5
	1941	4059.9	2802.9	-31.0	-1257.0
	1942	4289.2	3559.8	-17.0	-729.4
	1943	2427.5	2608.0	7.4	180.5
	1944	3796.6	628.7	-83.4	-3167.9
	1945	1853.3	1891.4	2.1	38.1
	1946	1897.2	1875.6	-1.1	-21.6
	1947	1088.6	373.8	-65.7	-714.8
	1948	3003.5	2538.6	-15.5	-464.9
	1949	2296.9	2502.6	9.0	205.7
	1950	2795.0	2313.2	-17.2	-481.8
	1951	3154.5	2750.9	-12.8	-403.6
	1952	4709.9	3984.3	-15.4	-725.6
	1953	4329.9	3568.3	-17.6	-761.6
	1954	3330.2	3588.9	7.8	258.7
	1955	3194.9	1593.6	-50.1	-1601.3
	1956	4260.0	3535.5	-17.0	-724.5
	1957	1517.4	2128.8	40.3	611.4
	1958	4355.9	3649.3	-16.2	-706.6
	1959	2343.8	1220.4	-47.9	-1123.4
	1960	3112.1	1841.9	-40.8	-1270.2
	1961	1299.7	250.0	-80.8	-1049.7
	1962	4423.2	2350.8	-46.9	-2072.4
	1963	3881.0	1423.9	-63.3	-2457.1
	1964	3263.0	625.4	-80.8	-2637.6
	1965	1801.6	2148.0	19.2	346.4
	1966	2788.6	1372.6	-50.8	-1416.0
	1967	4323.4	3597.3	-16.8	-726.1
	1968	1050.0	1412.8	34.6	362.8
	1969	4136.4	3426.5	-17.2	-709.9
	1970	3914.1	3346.7	-14.5	-567.4
	1971	4081.1	3356.6	-17.8	-724.5
	1972	4194.4	3032.2	-27.7	-1162.2
	1973	1495.5	3331.2	122.7	1835.7
	1974	4339.7	3616.8	-16.7	-722.9
	1975	4120.1	3416.7	-17.1	-703.4
	1976	1303.4	699.0	-46.4	-604.4
	1977	188.0	188.0	.0	.0
	1978	1541.8	2783.4	80.5	1241.6
	1979	2099.9	2589.4	23.3	489.5
	1980	2321.7	3682.7	58.6	1361.0
	1981	1568.2	556.8	-64.5	-1011.4
	1982	4329.9	3602.1	-16.8	-727.8
	1983	4732.7	4364.9	-7.8	-367.8
	1984	1317.8	2579.9	95.8	1262.1
	1985	3103.1	2194.2	-29.3	-908.9
	1986	3671.0	3060.4	-16.6	-610.6
	1987	1488.6	1152.0	-22.6	-336.6
	1988	701.6	188.0	-73.2	-513.6
	1989	3450.9	3121.9	-9.5	-329.0
	1990	2005.9	1282.8	-36.0	-723.1
	1991	1322.9	188.0	-85.8	-1134.9
	Mean	2612.2	2135.3	-15.2	-476.9
	Median	2791.8	2330.8	-16.9	-585.9
	Min	188.0	188.0	-85.8	-3167.9
	Max	4732.7	4364.9	122.7	1835.7
X <	1500.0	18	25		
X <	1750.0	21	27		
X <	2000.0	24	31		
X <	3000.0	38	46		
X <	.0	0	0		
X >=	2500.0	38	33		
2500.0 > X >=	2000.0	8	6		
2000.0 > X >=	1000.0	14	14		
1000.0 > X >=	500.0	4	5		
500.0 > X		6	12		
X <	3450.0	46	55		
Mean of X >=	3450.0	4109.6	3706.6	-9.8	-403.0

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

September

	Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3743.0	3013.0	-19.5	-730.0
	1923	1833.6	1633.4	-10.9	-200.2
	1924	823.5	498.8	-39.4	-324.7
	1925	1597.9	2105.1	31.7	507.2
	1926	1320.2	919.8	-30.3	-400.4
	1927	3897.6	1511.6	-61.2	-2386.0
	1928	1318.5	1125.2	-14.7	-193.3
	1929	1068.5	696.4	-34.8	-372.1
	1930	1318.5	1169.8	-11.3	-148.7
	1931	813.5	445.8	-45.2	-367.7
	1932	3765.6	2095.1	-44.4	-1670.5
	1933	1310.1	942.4	-28.1	-367.7
	1934	811.8	281.0	-65.4	-530.8
	1935	2722.1	2094.5	-23.1	-627.6
	1936	3834.9	3363.3	-12.3	-471.6
	1937	3828.7	2985.4	-22.0	-843.3
	1938	4033.8	3384.1	-16.1	-649.7
	1939	1078.6	933.3	-13.5	-145.3
	1940	1535.6	1250.2	-18.6	-285.4
	1941	3976.6	3328.7	-16.3	-647.9
	1942	4013.6	3367.3	-16.1	-646.3
	1943	2068.5	1380.3	-33.3	-688.2
	1944	1735.4	1173.9	-32.4	-561.5
	1945	2282.9	1915.7	-16.1	-367.2
	1946	2800.1	2337.5	-16.5	-462.6
	1947	1966.6	1168.8	-40.6	-797.8
	1948	2687.6	2762.6	2.8	75.0
	1949	1880.4	1229.4	-34.6	-651.0
	1950	2411.7	2659.4	10.3	247.7
	1951	1640.2	1611.6	-1.7	-28.6
	1952	4234.3	3574.0	-15.6	-660.3
	1953	3981.7	3342.1	-16.1	-639.6
	1954	2024.8	1137.0	-43.8	-887.8
	1955	1368.2	1185.6	-13.3	-182.6
	1956	3961.5	3318.6	-16.2	-642.9
	1957	2092.0	1418.7	-32.2	-673.3
	1958	4048.9	3409.3	-15.8	-639.6
	1959	1110.5	931.6	-16.1	-178.9
	1960	1896.2	1168.8	-38.4	-727.4
	1961	1321.9	920.5	-30.4	-401.4
	1962	1313.5	1751.4	33.3	437.9
	1963	3964.8	1825.0	-54.0	-2139.8
	1964	1449.9	1170.5	-19.3	-279.4
	1965	3766.0	1594.8	-57.7	-2171.2
	1966	1325.9	882.0	-33.5	-443.9
	1967	4248.9	3641.2	-14.3	-607.7
	1968	2015.0	883.6	-56.1	-1131.4
	1969	3988.4	3363.9	-15.7	-624.5
	1970	1325.2	1137.0	-14.2	-188.2
	1971	3813.6	3190.9	-16.3	-622.7
	1972	1340.3	1153.8	-13.9	-186.5
	1973	1828.6	1142.0	-37.5	-686.6
	1974	4114.4	3476.5	-15.5	-637.9
	1975	3901.0	3249.7	-16.7	-651.3
	1976	330.3	281.0	-14.9	-49.3
	1977	281.0	281.0	.0	.0
	1978	2896.2	1380.3	-52.3	-1515.9
	1979	1851.1	1559.1	-15.8	-292.0
	1980	3890.9	1594.8	-59.0	-2296.1
	1981	1376.2	1177.2	-14.5	-199.0
	1982	4440.4	3829.5	-13.8	-610.9
	1983	4764.4	4430.3	-7.0	-334.1
	1984	1838.7	1400.4	-23.8	-438.3
	1985	1093.7	944.0	-13.7	-149.7
	1986	1602.1	1413.9	-11.7	-188.2
	1987	1190.4	690.0	-42.0	-500.4
	1988	576.9	448.8	-22.2	-128.1
	1989	1108.8	955.8	-13.8	-153.0
	1990	570.2	448.1	-21.4	-122.1
	1991	815.1	675.9	-17.1	-139.2
	Mean	2302.6	1768.0	-22.7	-534.6
	Median	1865.8	1390.4	-16.4	-453.3
	Min	281.0	281.0	-65.4	-2386.0
	Max	4764.4	4430.3	33.3	507.2
X <	1500.0	26	38		
X <	1750.0	31	44		
X <	2000.0	38	47		
X <	3000.0	48	54		
X <	.0	0	0		
X >=	2500.0	26	19		
2500.0 > X >=	1500.0	18	13		
1500.0 > X >=	500.0	24	31		
500.0 > X >=	.0	2	7		
.0 > X		0	0		
X <	3450.0	48	65		
Mean of X >=	3450.0	4009.7	3790.3	-5.5	-219.4

RETURN TO TABLE OF CONTENTS

Section 12

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

January

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	42.7	42.6	-.2	-.1
1923.	44.1	44.1	.0	.0
1924.	46.0	45.9	-.2	-.1
1925.	46.6	46.9	.6	.3
1926.	44.0	44.2	.5	.2
1927.	47.7	47.5	-.4	-.2
1928.	47.1	46.7	-.8	-.4
1929.	43.0	42.7	-.7	-.3
1930.	45.7	45.6	-.2	-.1
1931.	47.6	47.5	-.2	-.1
1932.	45.1	45.0	-.2	-.1
1933.	43.8	43.7	-.2	-.1
1934.	47.1	47.1	.0	.0
1935.	47.0	47.2	.4	.2
1936.	48.2	48.1	-.2	-.1
1937.	41.8	41.7	-.2	-.1
1938.	46.6	46.5	-.2	-.1
1939.	47.3	47.1	-.4	-.2
1940.	48.1	47.9	-.4	-.2
1941.	48.8	48.7	-.2	-.1
1942.	46.3	46.3	.0	.0
1943.	46.4	46.4	.0	.0
1944.	47.7	47.2	-1.0	-.5
1945.	45.6	45.7	.2	.1
1946.	45.6	45.5	-.2	-.1
1947.	44.5	44.3	-.4	-.2
1948.	47.9	47.9	.0	.0
1949.	41.4	41.1	-.7	-.3
1950.	43.9	43.5	-.9	-.4
1951.	45.0	45.0	.0	.0
1952.	45.2	45.1	-.2	-.1
1953.	49.0	48.9	-.2	-.1
1954.	47.6	47.5	-.2	-.1
1955.	43.4	43.3	-.2	-.1
1956.	46.0	46.0	.0	.0
1957.	46.7	46.6	-.2	-.1
1958.	47.1	46.6	-1.1	-.5
1959.	50.6	50.3	-.6	-.3
1960.	47.3	47.2	-.2	-.1
1961.	44.3	44.4	.2	.1
1962.	43.5	43.4	-.2	-.1
1963.	45.1	45.0	-.2	-.1
1964.	44.7	44.7	.0	.0
1965.	44.8	44.9	.2	.1
1966.	46.1	45.9	-.4	-.2
1967.	46.5	46.5	.0	.0
1968.	46.0	45.9	-.2	-.1
1969.	45.0	44.9	-.2	-.1
1970.	47.3	47.2	-.2	-.1
1971.	45.7	45.7	.0	.0
1972.	43.7	43.7	.0	.0
1973.	44.7	44.7	.0	.0
1974.	46.7	46.6	-.2	-.1
1975.	45.2	45.1	-.2	-.1
1976.	48.2	48.2	.0	.0
1977.	44.1	44.3	.5	.2
1978.	48.4	48.1	-.6	-.3
1979.	46.1	45.9	-.4	-.2
1980.	46.8	46.1	-1.5	-.7
1981.	48.7	48.2	-1.0	-.5
1982.	45.0	45.0	.0	.0
1983.	45.3	45.2	-.2	-.1
1984.	46.3	46.3	.0	.0
1985.	45.1	45.0	-.2	-.1
1986.	48.0	47.9	-.2	-.1
1987.	47.0	46.6	-.9	-.4
1988.	47.6	47.6	.0	.0
1989.	46.0	45.9	-.2	-.1
1990.	47.5	47.4	-.2	-.1
Mean:	46.0	45.9	-.2	-.1
Median:	46.0	45.9	-.2	-.1
Min:	41.4	41.1	-1.5	-.7
Max:	50.6	50.3	.6	.3
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	9	7		
No. Years inc (avg):		7	(	.2)
No. Years dec (avg):		46	(	-.2)
No. Years no change		16		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

February

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	46.3	46.5	.4	.2
1923.	47.1	47.2	.2	.1
1924.	52.1	52.4	.6	.3
1925.	49.0	48.8	-.4	-.2
1926.	50.7	50.2	-1.0	-.5
1927.	48.9	48.9	.0	.0
1928.	49.7	50.3	1.2	.6
1929.	48.3	48.9	1.2	.6
1930.	52.6	52.9	.6	.3
1931.	52.0	51.9	-.2	-.1
1932.	47.6	47.7	.2	.1
1933.	46.9	46.6	-.6	-.3
1934.	50.8	51.2	.8	.4
1935.	49.1	49.0	-.2	-.1
1936.	47.9	47.9	.0	.0
1937.	46.7	46.9	.4	.2
1938.	48.4	48.4	.0	.0
1939.	48.1	48.1	.0	.0
1940.	49.4	49.4	.0	.0
1941.	50.0	50.0	.0	.0
1942.	46.9	46.9	.0	.0
1943.	49.6	49.6	.0	.0
1944.	48.8	48.4	-.8	-.4
1945.	48.0	48.0	.0	.0
1946.	46.6	46.7	.2	.1
1947.	49.5	49.5	.0	.0
1948.	47.8	47.8	.0	.0
1949.	45.4	45.0	-.9	-.4
1950.	47.8	47.7	-.2	-.1
1951.	46.7	46.7	.0	.0
1952.	47.5	47.5	.0	.0
1953.	50.5	50.6	.2	.1
1954.	48.6	48.4	-.4	-.2
1955.	47.1	47.1	.0	.0
1956.	46.7	46.7	.0	.0
1957.	50.3	50.3	.0	.0
1958.	51.5	49.7	-3.5	-1.8
1959.	50.0	49.9	-.2	-.1
1960.	49.9	49.9	.0	.0
1961.	50.6	50.8	.4	.2
1962.	47.7	47.7	.0	.0
1963.	49.9	49.9	.0	.0
1964.	48.1	47.8	-.6	-.3
1965.	47.5	47.5	.0	.0
1966.	47.8	48.0	.4	.2
1967.	48.4	48.4	.0	.0
1968.	50.7	50.0	-1.4	-.7
1969.	46.5	46.5	.0	.0
1970.	48.6	48.6	.0	.0
1971.	47.5	47.6	.2	.1
1972.	49.0	48.3	-1.4	-.7
1973.	49.8	49.8	.0	.0
1974.	47.1	47.1	.0	.0
1975.	48.1	48.2	.2	.1
1976.	51.1	51.2	.2	.1
1977.	52.9	52.5	-.8	-.4
1978.	51.1	51.0	-.2	-.1
1979.	48.2	48.3	.2	.1
1980.	47.5	47.7	.4	.2
1981.	50.9	51.9	2.0	1.0
1982.	46.8	46.8	.0	.0
1983.	49.2	49.2	.0	.0
1984.	48.2	48.2	.0	.0
1985.	48.8	49.3	1.0	.5
1986.	48.1	48.1	.0	.0
1987.	51.8	50.7	-2.1	-1.1
1988.	53.8	54.4	1.1	.6
1989.	47.9	47.9	.0	.0
1990.	48.6	48.8	.4	.2
Mean:	48.9	48.9	.0	.0
Median:	48.4	48.4	.0	.0
Min:	45.4	45.0	-3.5	-1.8
Max:	53.8	54.4	2.0	1.0

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	45	45		

No. Years inc (avg):		22	(.3)
No. Years dec (avg):		17	(-.4)
No. Years no change		30	

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

March

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	51.3	51.3	.0	.0
1923.	53.7	54.9	2.2	1.2
1924.	54.1	54.2	.2	.1
1925.	54.6	54.6	.0	.0
1926.	57.3	56.1	-2.1	-1.2
1927.	52.2	52.2	.0	.0
1928.	52.4	52.3	-.2	-.1
1929.	54.5	53.7	-1.5	-.8
1930.	54.6	54.6	.0	.0
1931.	56.9	57.7	1.4	.8
1932.	55.0	55.1	.2	.1
1933.	54.3	53.5	-1.5	-.8
1934.	58.6	59.2	1.0	.6
1935.	50.6	50.5	-.2	-.1
1936.	53.6	53.7	.2	.1
1937.	52.9	53.2	.6	.3
1938.	50.2	50.2	.0	.0
1939.	53.7	53.9	.4	.2
1940.	52.3	52.3	.0	.0
1941.	53.9	54.0	.2	.1
1942.	50.5	50.2	-.6	-.3
1943.	51.5	51.5	.0	.0
1944.	53.5	54.3	1.5	.8
1945.	50.8	50.8	.0	.0
1946.	52.4	52.5	.2	.1
1947.	54.2	54.2	.0	.0
1948.	50.5	50.5	.0	.0
1949.	51.3	51.6	.6	.3
1950.	52.1	52.2	.2	.1
1951.	51.5	51.6	.2	.1
1952.	50.0	50.0	.0	.0
1953.	53.2	53.2	.0	.0
1954.	51.1	51.2	.2	.1
1955.	53.0	53.1	.2	.1
1956.	52.3	52.3	.0	.0
1957.	54.2	54.0	-.4	-.2
1958.	51.0	51.2	.4	.2
1959.	55.4	55.4	.0	.0
1960.	54.7	54.7	.0	.0
1961.	54.3	54.2	-.2	-.1
1962.	52.0	51.3	-1.3	-.7
1963.	51.4	51.4	.0	.0
1964.	51.9	51.5	-.8	-.4
1965.	52.2	52.2	.0	.0
1966.	53.0	53.9	1.7	.9
1967.	51.3	51.3	.0	.0
1968.	55.6	53.8	-3.2	-1.8
1969.	52.2	52.0	-.4	-.2
1970.	53.8	53.9	.2	.1
1971.	51.4	51.5	.2	.1
1972.	55.9	56.5	1.1	.6
1973.	51.1	51.2	.2	.1
1974.	52.0	52.0	.0	.0
1975.	51.0	51.1	.2	.1
1976.	54.5	54.6	.2	.1
1977.	53.6	53.4	-.4	-.2
1978.	55.0	54.8	-.4	-.2
1979.	54.0	53.3	-1.3	-.7
1980.	51.9	52.0	.2	.1
1981.	52.9	53.3	.8	.4
1982.	50.7	50.7	.0	.0
1983.	50.7	50.7	.0	.0
1984.	54.9	55.1	.4	.2
1985.	51.1	51.5	.8	.4
1986.	52.9	52.9	.0	.0
1987.	54.2	54.4	.4	.2
1988.	58.2	58.6	.7	.4
1989.	52.3	52.3	.0	.0
1990.	55.4	55.7	.5	.3
Mean:	53.1	53.1	.0	.0
Median:	52.7	52.7	.0	.0
Min:	50.0	50.0	-3.2	-1.8
Max:	58.6	59.2	2.2	1.2
X > 56.0	4	5		
Mean X > 56.0	57.7	57.6	-.2	-.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		31	(.3)	
No. Years dec (avg):		15	(-.5)	
No. Years no change		23		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

April

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	55.2	55.3	.2	.1
1923.	56.6	56.4	-.4	-.2
1924.	63.4	63.3	-.2	-.1
1925.	56.5	56.9	.7	.4
1926.	61.4	61.7	.5	.3
1927.	54.7	54.7	.0	.0
1928.	55.6	55.7	.2	.1
1929.	57.2	58.5	2.3	1.3
1930.	59.9	59.4	-.8	-.5
1931.	65.5	65.7	.3	.2
1932.	57.2	57.4	.3	.2
1933.	58.8	59.5	1.2	.7
1934.	61.4	61.8	.7	.4
1935.	56.0	55.8	-.4	-.2
1936.	56.4	56.5	.2	.1
1937.	55.4	55.5	.2	.1
1938.	54.7	54.7	.0	.0
1939.	63.1	65.2	3.3	2.1
1940.	56.1	56.2	.2	.1
1941.	56.0	56.1	.2	.1
1942.	55.6	55.7	.2	.1
1943.	55.9	55.9	.0	.0
1944.	56.0	56.7	1.3	.7
1945.	58.1	58.2	.2	.1
1946.	56.9	57.2	.5	.3
1947.	59.9	59.2	-1.2	-.7
1948.	54.5	54.4	-.2	-.1
1949.	59.7	59.2	-.8	-.5
1950.	56.8	56.8	.0	.0
1951.	57.3	57.5	.3	.2
1952.	54.8	54.8	.0	.0
1953.	57.1	57.3	.4	.2
1954.	57.6	57.7	.2	.1
1955.	55.2	55.2	.0	.0
1956.	57.5	57.3	-.3	-.2
1957.	59.3	59.3	.0	.0
1958.	54.9	54.9	.0	.0
1959.	63.9	61.9	-3.1	-2.0
1960.	59.1	59.6	.8	.5
1961.	62.4	62.4	.0	.0
1962.	58.6	59.6	1.7	1.0
1963.	54.0	54.1	.2	.1
1964.	57.2	56.9	-.5	-.3
1965.	56.2	56.2	.0	.0
1966.	62.3	61.4	-1.4	-.9
1967.	52.2	52.2	.0	.0
1968.	59.9	59.2	-1.2	-.7
1969.	55.2	55.3	.2	.1
1970.	57.4	57.5	.2	.1
1971.	55.5	55.7	.4	.2
1972.	58.3	58.4	.2	.1
1973.	58.4	58.5	.2	.1
1974.	54.7	54.8	.2	.1
1975.	53.6	53.6	.0	.0
1976.	60.8	61.1	.5	.3
1977.	64.8	64.6	-.3	-.2
1978.	55.7	55.9	.4	.2
1979.	57.4	58.2	1.4	.8
1980.	57.9	58.2	.5	.3
1981.	58.4	60.1	2.9	1.7
1982.	53.5	53.5	.0	.0
1983.	54.2	54.2	.0	.0
1984.	58.2	58.2	.0	.0
1985.	61.1	60.8	-.5	-.3
1986.	58.1	58.1	.0	.0
1987.	64.9	65.0	.2	.1
1988.	63.5	63.7	.3	.2
1989.	58.8	59.1	.5	.3
1990.	60.9	61.8	1.5	.9
Mean:	57.9	58.0	.2	.1
Median:	57.2	57.3	.2	.1
Min:	52.2	52.2	-3.1	-2.0
Max:	65.5	65.7	3.3	2.1
X > 56.0	46	48		
Mean X > 56.0	59.4	59.4	.0	.0
X > 60.0	14	15		
Mean X > 60.0	62.8	62.7	-.2	-.1
X > 65.0	1	2		
Mean X > 65.0	65.5	65.4	-.2	-.1
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	14	15		
61.0 <= X <= 73.0	12	13		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		39	(	.4)
No. Years dec (avg):		14	(	-.5)
No. Years no change		16		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

May

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	59.3	59.5	.3	.2
1923.	59.8	59.8	.0	.0
1924.	70.3	70.3	.0	.0
1925.	60.5	60.7	.3	.2
1926.	66.3	65.7	-.9	-.6
1927.	59.7	59.8	.2	.1
1928.	62.9	62.9	.0	.0
1929.	64.0	64.6	.9	.6
1930.	62.0	62.3	.5	.3
1931.	71.0	70.7	-.4	-.3
1932.	61.5	61.7	.3	.2
1933.	60.5	60.8	.5	.3
1934.	69.9	70.0	.1	.1
1935.	59.9	60.1	.3	.2
1936.	61.5	61.5	.0	.0
1937.	60.8	60.9	.2	.1
1938.	59.5	59.5	.0	.0
1939.	65.4	65.5	.2	.1
1940.	62.2	62.4	.3	.2
1941.	59.9	59.9	.0	.0
1942.	58.2	58.4	.3	.2
1943.	62.0	62.0	.0	.0
1944.	62.3	63.1	1.3	.8
1945.	60.0	60.2	.3	.2
1946.	60.7	60.7	.0	.0
1947.	65.7	64.8	-1.4	-.9
1948.	59.4	59.6	.3	.2
1949.	62.4	63.3	1.4	.9
1950.	61.1	61.1	.0	.0
1951.	61.4	61.6	.3	.2
1952.	59.3	59.3	.0	.0
1953.	59.3	59.3	.0	.0
1954.	62.9	62.9	.0	.0
1955.	61.5	62.2	1.1	.7
1956.	61.3	61.4	.2	.1
1957.	61.3	61.5	.3	.2
1958.	59.8	59.8	.0	.0
1959.	63.7	63.2	-.8	-.5
1960.	63.1	63.7	1.0	.6
1961.	63.0	63.1	.2	.1
1962.	61.4	61.5	.2	.1
1963.	58.0	58.1	.2	.1
1964.	61.1	61.8	1.1	.7
1965.	60.4	60.5	.2	.1
1966.	65.7	66.9	1.8	1.2
1967.	58.6	58.7	.2	.1
1968.	64.0	62.3	-2.7	-1.7
1969.	59.6	59.6	.0	.0
1970.	64.7	64.9	.3	.2
1971.	58.7	58.7	.0	.0
1972.	63.7	64.0	.5	.3
1973.	62.7	63.1	.6	.4
1974.	59.8	59.8	.0	.0
1975.	61.3	61.5	.3	.2
1976.	69.1	71.2	3.0	2.1
1977.	63.4	63.3	-.2	-.1
1978.	61.0	61.3	.5	.3
1979.	61.8	62.9	1.8	1.1
1980.	60.5	60.5	.0	.0
1981.	63.6	64.1	.8	.5
1982.	59.3	59.3	.0	.0
1983.	58.6	58.6	.0	.0
1984.	64.1	64.3	.3	.2
1985.	64.0	64.6	.9	.6
1986.	62.0	62.1	.2	.1
1987.	67.7	70.1	3.5	2.4
1988.	67.2	67.3	.1	.1
1989.	63.0	63.4	.6	.4
1990.	65.6	66.0	.6	.4
Mean:	62.3	62.5	.3	.2
Median:	61.5	61.7	.2	.1
Min:	58.0	58.1	-2.7	-1.7
Max:	71.0	71.2	3.5	2.4
X > 56.0	69	69		
Mean X > 56.0	62.3	62.5	.3	.2
X > 60.0	50	52		
Mean X > 60.0	63.4	63.5	.2	.1
X > 65.0	11	10		
Mean X > 65.0	67.6	68.4	1.2	.8
X > 68.0	4	5		
Mean X > 68.0	70.1	70.5	.6	.4
X > 70.0	2	4		
Mean X > 70.0	70.7	70.6	-.1	-.1
60.0 <= X <= 70.0	49	48		
61.0 <= X <= 73.0	44	44		
48.0 <= X <= 68.0	65	64		
No. Years inc (avg):		44	(.4)	
No. Years dec (avg):		6	(-.7)	
No. Years no change		19		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

June

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	63.7	62.4	-2.0	-1.3
1923.	63.0	62.9	-.2	-.1
1924.	71.8	71.7	-.1	-.1
1925.	65.1	64.1	-1.5	-1.0
1926.	69.4	67.9	-2.2	-1.5
1927.	63.7	64.1	.6	.4
1928.	66.2	64.2	-3.0	-2.0
1929.	69.3	68.3	-1.4	-1.0
1930.	68.1	66.9	-1.8	-1.2
1931.	69.8	69.3	-.7	-.5
1932.	66.1	65.9	-.3	-.2
1933.	67.4	67.6	.3	.2
1934.	70.3	68.8	-2.1	-1.5
1935.	65.6	64.6	-1.5	-1.0
1936.	65.5	65.7	.3	.2
1937.	65.3	65.1	-.3	-.2
1938.	64.5	63.5	-1.6	-1.0
1939.	70.9	72.3	2.0	1.4
1940.	67.6	68.1	.7	.5
1941.	64.0	62.6	-2.2	-1.4
1942.	63.0	63.0	.0	.0
1943.	64.7	64.7	.0	.0
1944.	65.8	67.1	2.0	1.3
1945.	65.4	66.0	.9	.6
1946.	63.8	64.5	1.1	.7
1947.	69.6	70.3	1.0	.7
1948.	65.5	64.1	-2.1	-1.4
1949.	67.2	67.4	.3	.2
1950.	64.4	64.0	-.6	-.4
1951.	65.4	65.2	-.3	-.2
1952.	62.4	62.3	-.2	-.1
1953.	63.9	64.2	.5	.3
1954.	66.0	65.6	-.6	-.4
1955.	66.4	66.9	.8	.5
1956.	65.1	65.3	.3	.2
1957.	66.9	67.1	.3	.2
1958.	63.9	63.8	-.2	-.1
1959.	70.2	69.8	-.6	-.4
1960.	70.6	68.7	-2.7	-1.9
1961.	73.6	75.0	1.9	1.4
1962.	66.7	66.7	.0	.0
1963.	63.9	63.1	-1.3	-.8
1964.	67.8	66.2	-2.4	-1.6
1965.	63.5	63.5	.0	.0
1966.	70.0	69.0	-1.4	-1.0
1967.	62.9	62.8	-.2	-.1
1968.	68.7	70.2	2.2	1.5
1969.	63.3	63.3	.0	.0
1970.	67.4	68.0	.9	.6
1971.	63.4	62.8	-.9	-.6
1972.	66.0	67.2	1.8	1.2
1973.	65.9	66.7	1.2	.8
1974.	64.6	64.3	-.5	-.3
1975.	64.0	63.1	-1.4	-.9
1976.	70.5	68.9	-2.3	-1.6
1977.	72.7	72.7	.0	.0
1978.	64.6	65.0	.6	.4
1979.	65.9	66.5	.9	.6
1980.	63.8	63.9	.2	.1
1981.	71.2	73.1	2.7	1.9
1982.	63.0	61.9	-1.7	-1.1
1983.	63.3	63.3	.0	.0
1984.	67.3	67.4	.1	.1
1985.	69.6	67.6	-2.9	-2.0
1986.	66.7	67.0	.4	.3
1987.	72.3	72.1	-.3	-.2
1988.	70.4	69.3	-1.6	-1.1
1989.	66.9	67.0	.1	.1
1990.	70.1	68.6	-2.1	-1.5
Mean:	66.6	66.4	-.3	-.2
Median:	65.9	65.9	-.2	-.1
Min:	62.4	61.9	-3.0	-2.0
Max:	73.6	75.0	2.7	1.9
X > 56.0	69	69		
Mean X > 56.0	66.6	66.4	-.3	-.2
X > 60.0	69	69		
Mean X > 60.0	66.6	66.4	-.3	-.2
X > 65.0	46	42		
Mean X > 65.0	68.1	68.2	.1	.1
X > 68.0	20	18		
Mean X > 68.0	70.5	70.3	-.3	-.2
X > 70.0	12	8		
Mean X > 70.0	71.2	72.2	1.4	1.0
60.0 <= X <= 70.0	57	61		
61.0 <= X <= 73.0	68	67		
48.0 <= X <= 68.0	49	51		
No. Years inc (avg):		26	(.6)	
No. Years dec (avg):		36	(-.9)	
No. Years no change		7		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

July

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	68.0	66.7	-1.9	-1.3
1923.	69.2	69.6	.6	.4
1924.	72.2	72.8	.8	.6
1925.	68.4	67.7	-1.0	-.7
1926.	72.3	71.6	-1.0	-.7
1927.	67.7	69.5	2.7	1.8
1928.	69.2	68.2	-1.4	-1.0
1929.	71.5	70.5	-1.4	-1.0
1930.	70.3	71.1	1.1	.8
1931.	73.1	71.8	-1.8	-1.3
1932.	69.5	68.1	-2.0	-1.4
1933.	72.2	70.9	-1.8	-1.3
1934.	71.9	70.9	-1.4	-1.0
1935.	68.5	67.4	-1.6	-1.1
1936.	69.9	68.6	-1.9	-1.3
1937.	69.7	68.0	-2.4	-1.7
1938.	68.6	67.4	-1.7	-1.2
1939.	71.7	70.8	-1.3	-.9
1940.	69.2	69.9	1.0	.7
1941.	68.4	67.4	-1.5	-1.0
1942.	68.8	67.1	-2.5	-1.7
1943.	68.5	67.3	-1.8	-1.2
1944.	70.1	70.7	.9	.6
1945.	69.2	70.0	1.2	.8
1946.	67.8	68.2	.6	.4
1947.	71.9	72.1	.3	.2
1948.	68.4	67.5	-1.3	-.9
1949.	69.3	69.1	-.3	-.2
1950.	68.6	67.3	-1.9	-1.3
1951.	68.8	67.9	-1.3	-.9
1952.	67.9	67.2	-1.0	-.7
1953.	68.8	68.1	-1.0	-.7
1954.	68.6	69.0	.6	.4
1955.	70.8	71.1	.4	.3
1956.	69.5	67.9	-2.3	-1.6
1957.	68.6	68.8	.3	.2
1958.	69.1	68.5	-.9	-.6
1959.	74.9	76.1	1.6	1.2
1960.	71.6	71.2	-.6	-.4
1961.	77.6	77.3	-.4	-.3
1962.	69.2	68.4	-1.2	-.8
1963.	68.4	66.4	-2.9	-2.0
1964.	70.5	70.8	.4	.3
1965.	67.8	66.8	-1.5	-1.0
1966.	70.1	72.1	2.9	2.0
1967.	69.6	68.5	-1.6	-1.1
1968.	70.8	73.9	4.4	3.1
1969.	68.9	67.8	-1.6	-1.1
1970.	70.3	71.0	1.0	.7
1971.	68.3	67.3	-1.5	-1.0
1972.	69.9	70.7	1.1	.8
1973.	68.5	69.5	1.5	1.0
1974.	68.6	67.2	-2.0	-1.4
1975.	68.0	67.3	-1.0	-.7
1976.	72.1	71.3	-1.1	-.8
1977.	74.4	74.4	.0	.0
1978.	68.4	69.7	1.9	1.3
1979.	69.6	70.4	1.1	.8
1980.	68.6	69.7	1.6	1.1
1981.	74.5	74.2	-.4	-.3
1982.	67.5	66.2	-1.9	-1.3
1983.	67.5	67.1	-.6	-.4
1984.	69.5	70.1	.9	.6
1985.	72.4	69.9	-3.5	-2.5
1986.	70.7	70.3	-.6	-.4
1987.	71.5	70.4	-1.5	-1.1
1988.	74.7	76.2	2.0	1.5
1989.	68.6	69.0	.6	.4
1990.	72.5	72.5	.0	.0
Mean:	70.0	69.7	-.4	-.3
Median:	69.2	69.3	-1.0	-.7
Min:	67.5	66.2	-3.5	-2.5
Max:	77.6	77.3	4.4	3.1
X > 56.0	69	69		
Mean X > 56.0	70.0	69.7	-.4	-.3
X > 60.0	69	69		
Mean X > 60.0	70.0	69.7	-.4	-.3
X > 65.0	69	69		
Mean X > 65.0	70.0	69.7	-.4	-.3
X > 68.0	61	48		
Mean X > 68.0	70.3	70.8	.7	.5
X > 70.0	26	28		
Mean X > 70.0	72.2	72.0	-.3	-.2
60.0 <= X <= 70.0	43	41		
61.0 <= X <= 73.0	63	63		
48.0 <= X <= 68.0	8	21		
No. Years inc (avg):		25	(.9)	
No. Years dec (avg):		42	(-1.0)	
No. Years no change		2		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

August

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	67.6	67.0	-.9	-.6
1923.	69.4	69.0	-.6	-.4
1924.	72.4	72.4	.0	.0
1925.	68.0	67.5	-.7	-.5
1926.	71.3	70.9	-.6	-.4
1927.	67.1	69.0	2.8	1.9
1928.	70.2	69.7	-.7	-.5
1929.	74.2	74.0	-.3	-.2
1930.	70.3	69.9	-.6	-.4
1931.	74.1	74.0	-.1	-.1
1932.	69.4	69.0	-.6	-.4
1933.	72.6	74.3	2.3	1.7
1934.	74.5	74.3	-.3	-.2
1935.	68.7	67.6	-1.6	-1.1
1936.	69.6	69.2	-.6	-.4
1937.	68.9	68.7	-.3	-.2
1938.	67.7	66.9	-1.2	-.8
1939.	73.8	73.6	-.3	-.2
1940.	69.8	68.8	-1.4	-1.0
1941.	67.2	66.5	-1.0	-.7
1942.	67.8	66.9	-1.3	-.9
1943.	68.5	67.9	-.9	-.6
1944.	70.3	71.1	1.1	.8
1945.	68.8	68.9	.1	.1
1946.	68.2	68.7	.7	.5
1947.	70.6	71.0	.6	.4
1948.	68.0	67.4	-.9	-.6
1949.	68.8	69.2	.6	.4
1950.	68.6	67.8	-1.2	-.8
1951.	68.6	68.7	.1	.1
1952.	68.1	67.0	-1.6	-1.1
1953.	67.9	67.1	-1.2	-.8
1954.	68.5	68.4	-.1	-.1
1955.	70.6	71.4	1.1	.8
1956.	68.2	67.2	-1.5	-1.0
1957.	68.8	69.7	1.3	.9
1958.	69.4	68.7	-1.0	-.7
1959.	70.3	70.0	-.4	-.3
1960.	71.9	69.8	-2.9	-2.1
1961.	71.6	75.3	5.2	3.7
1962.	68.4	68.9	.7	.5
1963.	67.9	67.9	.0	.0
1964.	70.9	70.9	.0	.0
1965.	69.1	68.0	-1.6	-1.1
1966.	72.4	70.4	-2.8	-2.0
1967.	69.6	68.7	-1.3	-.9
1968.	70.0	69.7	-.4	-.3
1969.	68.5	67.8	-1.0	-.7
1970.	69.8	70.1	.4	.3
1971.	67.8	66.8	-1.5	-1.0
1972.	69.9	71.4	2.1	1.5
1973.	69.1	68.7	-.6	-.4
1974.	68.1	67.3	-1.2	-.8
1975.	67.5	66.9	-.9	-.6
1976.	70.6	70.6	.0	.0
1977.	73.6	73.7	.1	.1
1978.	69.2	69.4	.3	.2
1979.	68.7	69.6	1.3	.9
1980.	68.3	68.9	.9	.6
1981.	70.7	71.6	1.3	.9
1982.	67.2	66.3	-1.3	-.9
1983.	68.3	67.4	-1.3	-.9
1984.	70.2	70.7	.7	.5
1985.	71.6	68.5	-4.3	-3.1
1986.	70.1	68.3	-2.6	-1.8
1987.	70.8	70.3	-.7	-.5
1988.	73.6	74.7	1.5	1.1
1989.	70.9	71.0	.1	.1
1990.	71.8	72.3	.7	.5
Mean:	69.8	69.6	-.3	-.2
Median:	69.3	68.9	-.6	-.4
Min:	67.1	66.3	-4.3	-3.1
Max:	74.5	75.3	5.2	3.7
X > 56.0	69	69		
Mean X > 56.0	69.8	69.6	-.3	-.2
X > 60.0	69	69		
Mean X > 60.0	69.8	69.6	-.3	-.2
X > 65.0	69	69		
Mean X > 65.0	69.8	69.6	-.3	-.2
X > 68.0	57	49		
Mean X > 68.0	70.2	70.5	.4	.3
X > 70.0	27	23		
Mean X > 70.0	71.7	72.2	.7	.5
60.0 <= X <= 70.0	42	46		
61.0 <= X <= 73.0	63	61		
48.0 <= X <= 68.0	12	20		
No. Years inc (avg):		23	(.8)	
No. Years dec (avg):		42	(-.8)	
No. Years no change		4		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

September

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	67.4	66.7	-1.0	-.7
1923.	69.1	69.2	.1	.1
1924.	70.0	69.7	-.4	-.3
1925.	67.2	66.3	-1.3	-.9
1926.	68.6	67.6	-1.5	-1.0
1927.	66.7	64.6	-3.1	-2.1
1928.	68.5	67.5	-1.5	-1.0
1929.	69.8	69.2	-.9	-.6
1930.	67.5	67.1	-.6	-.4
1931.	68.7	68.1	-.9	-.6
1932.	69.0	68.4	-.9	-.6
1933.	68.8	68.4	-.6	-.4
1934.	70.2	70.7	.7	.5
1935.	67.9	67.1	-1.2	-.8
1936.	69.0	68.1	-1.3	-.9
1937.	67.9	67.0	-1.3	-.9
1938.	67.5	66.7	-1.2	-.8
1939.	70.2	69.9	-.4	-.3
1940.	68.4	68.2	-.3	-.2
1941.	66.8	65.9	-1.3	-.9
1942.	67.4	66.4	-1.5	-1.0
1943.	68.3	70.0	2.5	1.7
1944.	69.5	69.7	.3	.2
1945.	68.2	69.6	2.1	1.4
1946.	67.3	68.8	2.2	1.5
1947.	70.1	69.7	-.6	-.4
1948.	67.6	66.9	-1.0	-.7
1949.	68.6	69.6	1.5	1.0
1950.	68.0	66.9	-1.6	-1.1
1951.	69.9	69.7	-.3	-.2
1952.	68.0	66.8	-1.8	-1.2
1953.	67.9	67.1	-1.2	-.8
1954.	67.8	67.8	.0	.0
1955.	69.1	69.1	.0	.0
1956.	68.0	66.9	-1.6	-1.1
1957.	68.0	69.9	2.8	1.9
1958.	68.9	68.0	-1.3	-.9
1959.	69.5	68.8	-1.0	-.7
1960.	70.7	69.3	-2.0	-1.4
1961.	69.7	69.0	-1.0	-.7
1962.	69.1	69.0	-.1	-.1
1963.	67.6	66.9	-1.0	-.7
1964.	68.9	68.1	-1.2	-.8
1965.	67.6	66.8	-1.2	-.8
1966.	70.4	69.4	-1.4	-1.0
1967.	69.1	68.1	-1.4	-1.0
1968.	69.0	69.4	.6	.4
1969.	68.0	67.2	-1.2	-.8
1970.	69.0	70.2	1.7	1.2
1971.	67.3	66.1	-1.8	-1.2
1972.	68.0	68.4	.6	.4
1973.	68.0	68.5	.7	.5
1974.	67.9	67.0	-1.3	-.9
1975.	67.3	66.8	-.7	-.5
1976.	70.3	70.2	-.1	-.1
1977.	68.5	68.5	.0	.0
1978.	67.8	68.4	.9	.6
1979.	68.9	71.6	3.9	2.7
1980.	67.7	67.8	.1	.1
1981.	69.6	68.8	-1.1	-.8
1982.	66.8	65.8	-1.5	-1.0
1983.	68.0	67.1	-1.3	-.9
1984.	69.5	72.4	4.2	2.9
1985.	67.9	67.8	-.1	-.1
1986.	65.7	66.1	.6	.4
1987.	69.9	69.4	-.7	-.5
1988.	71.3	70.9	-.6	-.4
1989.	68.0	68.4	.6	.4
1990.	72.0	72.1	.1	.1
Mean:	68.6	68.3	-.4	-.2
Median:	68.3	68.1	-.9	-.6
Min:	65.7	64.6	-3.1	-2.1
Max:	72.0	72.4	4.2	2.9
X > 56.0	69	69		
Mean X > 56.0	68.6	68.3	-.4	-.3
X > 60.0	69	69		
Mean X > 60.0	68.6	68.3	-.4	-.3
X > 65.0	69	68		
Mean X > 65.0	68.6	68.4	-.3	-.2
X > 68.0	37	40		
Mean X > 68.0	69.4	69.4	.0	.0
X > 70.0	8	7		
Mean X > 70.0	70.7	71.2	.7	.5
60.0 <= X <= 70.0	61	62		
61.0 <= X <= 73.0	69	69		
48.0 <= X <= 68.0	32	29		
No. Years inc (avg):		19	(.9)	
No. Years dec (avg):		47	(-.7)	
No. Years no change		3		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

October"

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	57.8	57.8	.0	.0
1923.	61.5	57.8	-6.0	-3.7
1924.	61.6	61.0	-1.0	-.6
1925.	58.9	58.4	-.8	-.5
1926.	62.4	61.5	-1.4	-.9
1927.	58.7	56.7	-3.4	-2.0
1928.	59.4	58.8	-1.0	-.6
1929.	64.4	64.9	.8	.5
1930.	60.7	59.9	-1.3	-.8
1931.	63.0	62.9	-.2	-.1
1932.	61.1	60.2	-1.5	-.9
1933.	65.8	65.5	-.5	-.3
1934.	64.3	63.6	-1.1	-.7
1935.	59.0	59.0	.0	.0
1936.	61.2	60.2	-1.6	-1.0
1937.	60.0	59.5	-.8	-.5
1938.	58.5	58.6	.2	.1
1939.	64.5	64.3	-.3	-.2
1940.	58.0	57.5	-.9	-.5
1941.	58.3	58.3	.0	.0
1942.	58.2	58.0	-.3	-.2
1943.	58.9	56.9	-3.4	-2.0
1944.	62.4	62.4	.0	.0
1945.	61.1	57.3	-6.2	-3.8
1946.	58.2	56.3	-3.3	-1.9
1947.	59.8	59.4	-.7	-.4
1948.	58.3	59.0	1.2	.7
1949.	59.5	58.0	-2.5	-1.5
1950.	58.3	57.9	-.7	-.4
1951.	58.3	56.4	-3.3	-1.9
1952.	59.2	58.7	-.8	-.5
1953.	59.4	58.6	-1.3	-.8
1954.	57.6	57.1	-.9	-.5
1955.	60.8	58.4	-3.9	-2.4
1956.	59.8	59.6	-.3	-.2
1957.	59.7	56.8	-4.9	-2.9
1958.	61.8	61.1	-1.1	-.7
1959.	64.7	65.1	.6	.4
1960.	59.0	62.1	5.3	3.1
1961.	65.1	64.4	-1.1	-.7
1962.	58.6	56.7	-3.2	-1.9
1963.	58.6	58.6	.0	.0
1964.	61.2	61.3	.2	.1
1965.	59.5	59.1	-.7	-.4
1966.	61.6	62.5	1.5	.9
1967.	61.8	61.5	-.5	-.3
1968.	60.5	61.2	1.2	.7
1969.	59.3	58.7	-1.0	-.6
1970.	59.7	56.7	-5.0	-3.0
1971.	57.9	58.2	.5	.3
1972.	58.9	56.4	-4.2	-2.5
1973.	58.9	56.6	-3.9	-2.3
1974.	60.0	59.0	-1.7	-1.0
1975.	58.4	58.5	.2	.1
1976.	64.4	64.9	.8	.5
1977.	63.2	63.3	.2	.1
1978.	60.1	57.3	-4.7	-2.8
1979.	60.6	57.6	-5.0	-3.0
1980.	59.6	57.6	-3.4	-2.0
1981.	63.1	63.5	.6	.4
1982.	57.8	57.8	.0	.0
1983.	59.1	58.9	-.3	-.2
1984.	61.2	56.8	-7.2	-4.4
1985.	58.7	61.0	3.9	2.3
1986.	61.5	59.0	-4.1	-2.5
1987.	65.3	66.4	1.7	1.1
1988.	66.0	65.8	-.3	-.2
1989.	59.4	57.5	-3.2	-1.9
1990.	66.1	66.1	.0	.0
Mean:	60.6	59.8	-1.2	-.8
Median:	59.7	58.8	-.9	-.5
Min:	57.6	56.3	-7.2	-4.4
Max:	66.1	66.4	5.3	3.1
X > 56.0	69	69		
Mean X > 56.0	60.6	59.8	-1.3	-.8
X > 60.0	31	25		
Mean X > 60.0	62.7	63.1	.6	.4
X > 65.0	5	5		
Mean X > 65.0	65.7	65.8	.2	.1
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	33	25		
61.0 <= X <= 73.0	26	23		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		15		(.8)
No. Years dec (avg):		47		(-1.3)
No. Years no change		7		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

November

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	53.6	53.5	-.2	-.1
1923.	57.3	56.0	-2.3	-1.3
1924.	54.1	53.6	-.9	-.5
1925.	55.8	55.9	.2	.1
1926.	58.5	58.2	-.5	-.3
1927.	55.9	53.9	-3.6	-2.0
1928.	56.1	55.6	-.9	-.5
1929.	58.4	58.0	-.7	-.4
1930.	57.1	56.2	-1.6	-.9
1931.	53.7	53.6	-.2	-.1
1932.	57.1	57.3	.4	.2
1933.	58.4	58.1	-.5	-.3
1934.	56.3	55.1	-2.1	-1.2
1935.	55.2	55.2	.0	.0
1936.	57.2	57.0	-.3	-.2
1937.	57.1	56.4	-1.2	-.7
1938.	55.7	55.6	-.2	-.1
1939.	58.0	57.6	-.7	-.4
1940.	55.1	53.9	-2.2	-1.2
1941.	56.0	56.0	.0	.0
1942.	55.9	55.9	.0	.0
1943.	56.4	55.7	-1.2	-.7
1944.	53.7	54.6	1.7	.9
1945.	55.7	54.2	-2.7	-1.5
1946.	54.1	51.9	-4.1	-2.2
1947.	52.7	52.6	-.2	-.1
1948.	55.7	55.6	-.2	-.1
1949.	57.2	55.6	-2.8	-1.6
1950.	56.3	56.2	-.2	-.1
1951.	55.8	54.9	-1.6	-.9
1952.	55.7	55.4	-.5	-.3
1953.	56.6	56.5	-.2	-.1
1954.	54.7	53.5	-2.2	-1.2
1955.	54.8	54.5	-.5	-.3
1956.	56.9	57.0	.2	.1
1957.	57.0	55.5	-2.6	-1.5
1958.	57.6	56.7	-1.6	-.9
1959.	59.0	58.9	-.2	-.1
1960.	55.5	56.1	1.1	.6
1961.	56.3	56.1	-.4	-.2
1962.	55.9	55.9	.0	.0
1963.	55.7	55.4	-.5	-.3
1964.	54.0	54.8	1.5	.8
1965.	56.6	56.4	-.4	-.2
1966.	55.7	56.9	2.2	1.2
1967.	57.4	57.0	-.7	-.4
1968.	55.8	55.1	-1.3	-.7
1969.	56.7	55.9	-1.4	-.8
1970.	56.4	55.2	-2.1	-1.2
1971.	56.1	56.0	-.2	-.1
1972.	53.1	51.9	-2.3	-1.2
1973.	55.3	53.0	-4.2	-2.3
1974.	56.6	56.7	.2	.1
1975.	55.6	55.4	-.4	-.2
1976.	56.8	57.2	.7	.4
1977.	54.8	54.6	-.4	-.2
1978.	56.4	54.8	-2.8	-1.6
1979.	56.6	54.8	-3.2	-1.8
1980.	56.8	55.6	-2.1	-1.2
1981.	56.9	56.8	-.2	-.1
1982.	55.7	55.6	-.2	-.1
1983.	56.9	56.3	-1.1	-.6
1984.	55.9	54.5	-2.5	-1.4
1985.	53.5	53.3	-.4	-.2
1986.	55.6	55.6	.0	.0
1987.	56.6	57.0	.7	.4
1988.	55.7	55.6	-.2	-.1
1989.	56.6	55.6	-1.8	-1.0
1990.	55.7	55.6	-.2	-.1
Mean:	56.0	55.5	-.9	-.5
Median:	55.9	55.6	-.5	-.3
Min:	52.7	51.9	-4.2	-2.3
Max:	59.0	58.9	2.2	1.2
X > 56.0	34	23		
Mean X > 56.0	57.0	57.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		10	(	.5)
No. Years dec (avg):		54	(	-.7)
No. Years no change		5		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

December

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.6	47.5	-.2	-.1
1923.	50.0	49.8	-.4	-.2
1924.	45.0	44.5	-1.1	-.5
1925.	48.5	49.0	1.0	.5
1926.	49.3	49.1	-.4	-.2
1927.	48.7	48.1	-1.2	-.6
1928.	47.3	46.7	-1.3	-.6
1929.	50.4	50.1	-.6	-.3
1930.	49.1	48.6	-1.0	-.5
1931.	46.6	46.4	-.4	-.2
1932.	48.2	48.1	-.2	-.1
1933.	48.2	47.9	-.6	-.3
1934.	48.7	47.7	-2.1	-1.0
1935.	49.5	49.5	.0	.0
1936.	49.1	49.0	-.2	-.1
1937.	51.2	51.0	-.4	-.2
1938.	49.8	49.7	-.2	-.1
1939.	51.5	51.0	-1.0	-.5
1940.	50.5	50.3	-.4	-.2
1941.	50.0	49.9	-.2	-.1
1942.	48.9	48.9	.0	.0
1943.	50.8	50.0	-1.6	-.8
1944.	48.4	49.0	1.2	.6
1945.	48.8	48.5	-.6	-.3
1946.	48.1	47.5	-1.2	-.6
1947.	46.7	46.7	.0	.0
1948.	47.0	46.7	-.6	-.3
1949.	48.8	47.8	-2.0	-1.0
1950.	48.8	48.8	.0	.0
1951.	48.7	48.1	-1.2	-.6
1952.	49.9	49.7	-.4	-.2
1953.	50.8	50.6	-.4	-.2
1954.	46.4	46.0	-.9	-.4
1955.	48.4	48.4	.0	.0
1956.	50.4	50.3	-.2	-.1
1957.	49.5	48.6	-1.8	-.9
1958.	54.3	54.2	-.2	-.1
1959.	50.9	51.0	.2	.1
1960.	48.4	48.7	.6	.3
1961.	47.2	47.0	-.4	-.2
1962.	50.2	50.1	-.2	-.1
1963.	46.3	45.8	-1.1	-.5
1964.	47.4	47.7	.6	.3
1965.	47.6	47.0	-1.3	-.6
1966.	48.0	47.9	-.2	-.1
1967.	50.0	49.8	-.4	-.2
1968.	47.6	47.0	-1.3	-.6
1969.	51.7	51.6	-.2	-.1
1970.	48.8	48.5	-.6	-.3
1971.	47.6	47.5	-.2	-.1
1972.	43.9	43.7	-.5	-.2
1973.	49.2	48.9	-.6	-.3
1974.	49.5	49.3	-.4	-.2
1975.	49.3	49.3	.0	.0
1976.	48.2	48.7	1.0	.5
1977.	49.0	48.7	-.6	-.3
1978.	47.8	47.0	-1.7	-.8
1979.	50.9	50.0	-1.8	-.9
1980.	51.5	50.8	-1.4	-.7
1981.	50.2	50.1	-.2	-.1
1982.	48.7	48.7	.0	.0
1983.	48.7	48.6	-.2	-.1
1984.	48.9	48.3	-1.2	-.6
1985.	45.1	44.9	-.4	-.2
1986.	50.7	50.2	-1.0	-.5
1987.	48.5	48.3	-.4	-.2
1988.	48.0	47.9	-.2	-.1
1989.	48.4	48.2	-.4	-.2
1990.	44.5	44.4	-.2	-.1
Mean:	48.8	48.5	-.5	-.3
Median:	48.7	48.6	-.4	-.2
Min:	43.9	43.7	-2.1	-1.0
Max:	54.3	54.2	1.2	.6
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	52	46		
No. Years inc (avg):		6	(	.4)
No. Years dec (avg):		56	(	-.4)
No. Years no change		7		

RETURN TO TABLE OF CONTENTS

Section 13

SHASTA RESERVOIR STORAGE

SHASTA RESERVOIR STORAGE
October

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2835.6	2837.8	.1	2.2
1923	3100.7	2994.4	-3.4	-106.3
1924	2262.0	2384.1	5.4	122.1
1925	923.3	947.7	2.6	24.4
1926	2503.1	2697.7	7.8	194.6
1927	2259.0	2262.5	.2	3.5
1928	3250.0	3092.5	-4.8	-157.5
1929	2686.1	2646.2	-1.5	-39.9
1930	1999.6	1901.4	-4.9	-98.2
1931	2337.6	2239.2	-4.2	-98.4
1932	1006.6	793.4	-21.2	-213.2
1933	1355.6	1091.4	-19.5	-264.2
1934	1388.8	1070.0	-23.0	-318.8
1935	1124.0	639.4	-43.1	-484.6
1936	1841.7	1484.4	-19.4	-357.3
1937	1982.2	2129.7	7.4	147.5
1938	2138.7	2268.2	6.1	129.5
1939	3250.0	3250.0	.0	.0
1940	2128.1	2007.9	-5.6	-120.2
1941	2984.8	2737.6	-8.3	-247.2
1942	3250.0	3250.0	.0	.0
1943	3250.0	3250.0	.0	.0
1944	3250.0	3135.5	-3.5	-114.5
1945	2486.6	2452.4	-1.4	-34.2
1946	2806.8	2729.4	-2.8	-77.4
1947	2879.8	2692.3	-6.5	-187.5
1948	2505.1	2398.5	-4.3	-106.6
1949	3238.4	3086.3	-4.7	-152.1
1950	2908.6	2712.7	-6.7	-195.9
1951	2874.5	2701.9	-6.0	-172.6
1952	3089.7	2884.9	-6.6	-204.8
1953	3250.0	3250.0	.0	.0
1954	3250.0	3250.0	.0	.0
1955	3244.6	3150.2	-2.9	-94.4
1956	2616.5	2720.0	4.0	103.5
1957	3250.0	3250.0	.0	.0
1958	3250.0	3250.0	.0	.0
1959	3250.0	3250.0	.0	.0
1960	2657.3	2487.8	-6.4	-169.5
1961	2701.9	2788.5	3.2	86.6
1962	2729.5	2895.3	6.1	165.8
1963	3250.0	3250.0	.0	.0
1964	3250.0	3250.0	.0	.0
1965	2538.5	2516.1	-.9	-22.4
1966	3250.0	3127.5	-3.8	-122.5
1967	2963.3	2742.5	-7.5	-220.8
1968	3250.0	3250.0	.0	.0
1969	2922.4	2834.4	-3.0	-88.0
1970	3250.0	3250.0	.0	.0
1971	2885.9	2786.2	-3.5	-99.7
1972	3250.0	3250.0	.0	.0
1973	2978.1	2843.7	-4.5	-134.4
1974	3250.0	3203.9	-1.4	-46.1
1975	3250.0	3250.0	.0	.0
1976	3250.0	3250.0	.0	.0
1977	2488.3	2434.4	-2.2	-53.9
1978	660.6	593.6	-10.1	-67.0
1979	3207.8	3144.6	-2.0	-63.2
1980	2889.9	2662.5	-7.9	-227.4
1981	3135.4	3113.6	-.7	-21.8
1982	2746.1	2722.2	-.9	-23.9
1983	3250.0	3250.0	.0	.0
1984	3250.0	3250.0	.0	.0
1985	3250.0	3214.9	-1.1	-35.1
1986	2541.4	2524.8	-.7	-16.6
1987	2917.6	2705.2	-7.3	-212.4
1988	2359.5	2082.4	-11.7	-277.1
1989	2144.9	2045.4	-4.6	-99.5
1990	2714.4	2701.7	-.5	-12.7
1991	2112.9	2058.5	-2.6	-54.4
Mean:	2704.3	2633.8	-3.5	-70.5
Median:	2885.9	2737.6	-1.5	-46.1
Min:	660.6	593.6	-43.1	-484.6
Max:	3250.0	3250.0	7.8	194.6
Littoral Habitat(ac)	1025.8	655.4	-36.1	-370.4

SHASTA RESERVOIR STORAGE
November

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2797.9	2800.0	.1	2.1
1923	3039.1	2933.0	-3.5	-106.1
1924	2237.7	2379.1	6.3	141.4
1925	1071.4	1095.8	2.3	24.4
1926	2510.3	2675.0	6.6	164.7
1927	2736.0	2739.5	.1	3.5
1928	3252.0	3224.1	-.9	-27.9
1929	2655.5	2615.6	-1.5	-39.9
1930	1978.2	1890.6	-4.4	-87.6
1931	2316.7	2224.3	-4.0	-92.4
1932	991.6	778.6	-21.5	-213.0
1933	1315.8	1053.8	-19.9	-262.0
1934	1369.5	1050.9	-23.3	-318.6
1935	1252.9	768.8	-38.6	-484.1
1936	1776.6	1443.3	-18.8	-333.3
1937	1890.4	2090.2	10.6	199.8
1938	2708.6	2823.2	4.2	114.6
1939	3206.0	3195.3	-.3	-10.7
1940	2123.8	2018.0	-5.0	-105.8
1941	2920.4	2703.1	-7.4	-217.3
1942	3201.5	3190.8	-.3	-10.7
1943	3252.0	3242.9	-.3	-9.1
1944	3181.9	3071.9	-3.5	-110.0
1945	2632.8	2613.5	-.7	-19.3
1946	3012.2	2967.5	-1.5	-44.7
1947	2876.2	2718.6	-5.5	-157.6
1948	2517.2	2443.4	-2.9	-73.8
1949	3157.4	3012.7	-4.6	-144.7
1950	2798.1	2632.2	-5.9	-165.9
1951	3231.6	3106.7	-3.9	-124.9
1952	3158.3	2983.4	-5.5	-174.9
1953	3158.5	3158.5	.0	.0
1954	3252.0	3252.0	.0	.0
1955	3252.0	3179.7	-2.2	-72.3
1956	2657.8	2731.5	2.8	73.7
1957	3184.9	3179.5	-.2	-5.4
1958	3252.0	3252.0	.0	.0
1959	3181.7	3181.5	.0	-.2
1960	2625.5	2481.9	-5.5	-143.6
1961	2754.3	2825.9	2.6	71.6
1962	2796.8	2932.8	4.9	136.0
1963	3236.5	3251.3	.5	14.8
1964	3252.0	3252.0	.0	.0
1965	2633.7	2611.3	-.9	-22.4
1966	3252.0	3252.0	.0	.0
1967	3202.0	3025.9	-5.5	-176.1
1968	3185.7	3178.5	-.2	-7.2
1969	2907.9	2834.8	-2.5	-73.1
1970	3189.8	3188.5	.0	-1.3
1971	3252.0	3173.7	-2.4	-78.3
1972	3230.0	3219.3	-.3	-10.7
1973	3136.6	3032.0	-3.3	-104.6
1974	3252.0	3252.0	.0	.0
1975	3223.5	3223.5	.0	.0
1976	3252.0	3252.0	.0	.0
1977	2501.3	2447.5	-2.2	-53.8
1978	610.7	546.0	-10.6	-64.7
1979	3129.2	3066.0	-2.0	-63.2
1980	2943.3	2763.7	-6.1	-179.6
1981	3086.8	3065.1	-.7	-21.7
1982	3252.0	3252.0	.0	.0
1983	3252.0	3252.0	.0	.0
1984	3252.0	3252.0	.0	.0
1985	3252.0	3252.0	.0	.0
1986	2556.6	2540.0	-.6	-16.6
1987	2855.0	2675.5	-6.3	-179.5
1988	2378.9	2134.4	-10.3	-244.5
1989	2346.2	2260.3	-3.7	-85.9
1990	2689.6	2679.9	-.4	-9.7
1991	2072.3	2047.5	-1.2	-24.8
Mean:	2738.1	2680.6	-3.0	-57.5
Median:	2920.4	2834.8	-.9	-22.4
Min:	610.7	546.0	-38.6	-484.1
Max:	3252.0	3252.0	10.6	199.8
Littoral Habitat(ac)	1202.2	901.4	-25.0	-300.8

SHASTA RESERVOIR STORAGE
December

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2840.8	2842.9	.1	2.1
1923	3032.9	2933.7	-3.3	-99.2
1924	2231.4	2367.8	6.1	136.4
1925	1164.2	1188.6	2.1	24.4
1926	2496.9	2630.8	5.4	133.9
1927	3221.4	3224.9	.1	3.5
1928	3270.9	3224.8	-1.4	-46.1
1929	2623.4	2583.6	-1.5	-39.8
1930	2499.6	2412.0	-3.5	-87.6
1931	2279.3	2195.5	-3.7	-83.8
1932	1190.8	978.0	-17.9	-212.8
1933	1295.4	1035.4	-20.1	-260.0
1934	1492.4	1174.1	-21.3	-318.3
1935	1291.6	807.8	-37.5	-483.8
1936	1752.9	1447.4	-17.4	-305.5
1937	1819.6	2068.0	13.7	248.4
1938	3310.0	3310.0	.0	.0
1939	3238.8	3215.8	-.7	-23.0
1940	2281.3	2175.5	-4.6	-105.8
1941	3293.0	3293.0	.0	.0
1942	3316.0	3316.0	.0	.0
1943	3356.0	3356.0	.0	.0
1944	3088.6	2985.6	-3.3	-103.0
1945	2884.5	2880.6	-.1	-3.9
1946	3265.0	3265.0	.0	.0
1947	2869.3	2742.5	-4.4	-126.8
1948	2510.3	2470.4	-1.6	-39.9
1949	3084.9	2947.4	-4.5	-137.5
1950	2667.9	2532.8	-5.1	-135.1
1951	3322.0	3322.0	.0	.0
1952	3306.0	3306.0	.0	.0
1953	3345.0	3345.0	.0	.0
1954	3331.3	3320.5	-.3	-10.8
1955	3360.0	3354.0	-.2	-6.0
1956	3252.0	3252.0	.0	.0
1957	3105.6	3100.2	-.2	-5.4
1958	3338.0	3338.0	.0	.0
1959	3130.4	3130.2	.0	-.2
1960	2597.9	2427.8	-6.5	-170.1
1961	3122.0	3172.1	1.6	50.1
1962	3044.5	3149.7	3.5	105.2
1963	3349.0	3349.0	.0	.0
1964	3249.1	3236.8	-.4	-12.3
1965	3252.0	3252.0	.0	.0
1966	3305.7	3293.4	-.4	-12.3
1967	3335.0	3335.0	.0	.0
1968	3189.0	3166.0	-.7	-23.0
1969	3136.7	3079.1	-1.8	-57.6
1970	3317.0	3317.0	.0	.0
1971	3319.0	3319.0	.0	.0
1972	3285.2	3262.2	-.7	-23.0
1973	3319.8	3246.1	-2.2	-73.7
1974	3267.0	3267.0	.0	.0
1975	3266.9	3245.7	-.6	-21.2
1976	3241.9	3231.1	-.3	-10.8
1977	2389.7	2383.9	-.2	-5.8
1978	994.5	931.9	-6.3	-62.6
1979	3019.6	2965.7	-1.8	-53.9
1980	2986.4	2853.0	-4.5	-133.4
1981	3128.2	3088.5	-1.3	-39.7
1982	3276.0	3276.0	.0	.0
1983	3331.0	3331.0	.0	.0
1984	3285.0	3285.0	.0	.0
1985	3362.0	3362.0	.0	.0
1986	2689.3	2672.7	-.6	-16.6
1987	2794.1	2633.4	-5.8	-160.7
1988	2876.6	2662.9	-7.4	-213.7
1989	2445.4	2368.8	-3.1	-76.6
1990	2625.9	2610.3	-.6	-15.6
1991	1973.9	1953.4	-1.0	-20.5
Mean:	2841.9	2797.2	-2.4	-44.8
Median:	3122.0	3100.2	-.4	-12.3
Min:	994.5	807.8	-37.5	-483.8
Max:	3362.0	3362.0	13.7	248.4
Littoral Habitat(ac)	1739.7	1508.7	-13.3	-231.0

SHASTA RESERVOIR STORAGE
January

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2869.0	2871.2	.1	2.2
1923	3125.1	3041.3	-2.7	-83.8
1924	2232.2	2368.5	6.1	136.3
1925	1285.2	1309.5	1.9	24.3
1926	2515.5	2637.0	4.8	121.5
1927	3613.7	3617.2	.1	3.5
1928	3416.2	3363.2	-1.6	-53.0
1929	2653.6	2626.0	-1.0	-27.6
1930	2683.2	2595.7	-3.3	-87.5
1931	2332.1	2239.0	-4.0	-93.1
1932	1332.9	1120.2	-16.0	-212.7
1933	1326.4	1066.5	-19.6	-259.9
1934	1789.2	1464.8	-18.1	-324.4
1935	1590.4	1100.8	-30.8	-489.6
1936	2367.9	2077.9	-12.2	-290.0
1937	1793.9	2017.6	12.5	223.7
1938	3574.2	3574.2	.0	.0
1939	3227.2	3204.2	-.7	-23.0
1940	3128.7	3023.0	-3.4	-105.7
1941	3317.0	3317.0	.0	.0
1942	3389.0	3389.0	.0	.0
1943	3541.0	3541.0	.0	.0
1944	3062.1	2983.4	-2.6	-78.7
1945	3008.8	3004.9	-.1	-3.9
1946	3622.0	3622.0	.0	.0
1947	2826.6	2715.2	-3.9	-111.4
1948	3041.6	3010.9	-1.0	-30.7
1949	3000.3	2878.3	-4.1	-122.0
1950	2887.4	2776.9	-3.8	-110.5
1951	3624.0	3624.0	.0	.0
1952	3604.0	3604.0	.0	.0
1953	3366.0	3366.0	.0	.0
1954	3552.0	3552.0	.0	.0
1955	3366.3	3360.3	-.2	-6.0
1956	3252.0	3252.0	.0	.0
1957	3096.4	3091.0	-.2	-5.4
1958	3531.0	3531.0	.0	.0
1959	3648.0	3648.0	.0	.0
1960	2776.0	2578.7	-7.1	-197.3
1961	3209.8	3259.8	1.6	50.0
1962	3060.7	3150.4	2.9	89.7
1963	3398.3	3398.3	.0	.0
1964	3559.5	3528.8	-.9	-30.7
1965	3369.0	3369.0	.0	.0
1966	3725.0	3721.9	-.1	-3.1
1967	3551.0	3551.0	.0	.0
1968	3326.3	3284.8	-1.2	-41.5
1969	3358.0	3358.0	.0	.0
1970	3252.0	3252.0	.0	.0
1971	3515.0	3515.0	.0	.0
1972	3564.8	3523.4	-1.2	-41.4
1973	3552.0	3552.0	.0	.0
1974	3252.0	3252.0	.0	.0
1975	3277.3	3256.0	-.6	-21.3
1976	3185.3	3174.4	-.3	-10.9
1977	2287.2	2289.4	.1	2.2
1978	2900.2	2839.0	-2.1	-61.2
1979	3071.8	3033.3	-1.3	-38.5
1980	3528.0	3528.0	.0	.0
1981	3382.0	3300.7	-2.4	-81.3
1982	3616.0	3616.0	.0	.0
1983	3373.0	3373.0	.0	.0
1984	3650.0	3650.0	.0	.0
1985	3345.3	3345.3	.0	.0
1986	3209.2	3192.6	-.5	-16.6
1987	2871.8	2726.5	-5.1	-145.3
1988	3234.6	3051.8	-5.7	-182.8
1989	2529.1	2452.4	-3.0	-76.7
1990	2834.0	2821.5	-.4	-12.5
1991	1874.3	1863.9	-.6	-10.4
Mean:	3031.9	2991.3	-1.9	-40.5
Median:	3227.2	3204.2	-.1	-3.9
Min:	1285.2	1066.5	-30.8	-489.6
Max:	3725.0	3721.9	12.5	223.7
Littoral Habitat(ac)	2707.1	2502.4	-7.6	-204.7

SHASTA RESERVOIR STORAGE
February

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3173.8	3176.0	.1	2.2
1923	3116.8	3087.2	-.9	-29.6
1924	2357.9	2494.1	5.8	136.2
1925	2554.5	2578.8	1.0	24.3
1926	3207.2	3325.9	3.7	118.7
1927	3462.0	3462.0	.0	.0
1928	3776.1	3712.3	-1.7	-63.8
1929	2821.6	2794.0	-1.0	-27.6
1930	3024.1	2942.2	-2.7	-81.9
1931	2390.7	2297.7	-3.9	-93.0
1932	1465.2	1250.4	-14.7	-214.8
1933	1363.4	1103.8	-19.0	-259.6
1934	2102.8	1792.6	-14.8	-310.2
1935	1921.1	1431.8	-25.5	-489.3
1936	3229.8	2959.4	-8.4	-270.4
1937	1882.1	2097.3	11.4	215.2
1938	3560.0	3560.0	.0	.0
1939	3231.2	3208.3	-.7	-22.9
1940	3252.0	3252.0	.0	.0
1941	3423.0	3423.0	.0	.0
1942	3516.0	3516.0	.0	.0
1943	3848.0	3848.0	.0	.0
1944	3292.7	3228.2	-2.0	-64.5
1945	3702.7	3698.8	-.1	-3.9
1946	3707.7	3679.1	-.8	-28.6
1947	3032.4	2943.3	-2.9	-89.1
1948	3044.5	3013.9	-1.0	-30.6
1949	3113.2	3017.6	-3.1	-95.6
1950	3241.2	3144.7	-3.0	-96.5
1951	3794.0	3794.0	.0	.0
1952	3739.0	3739.0	.0	.0
1953	3593.9	3577.2	-.5	-16.7
1954	3661.0	3661.0	.0	.0
1955	3391.4	3385.4	-.2	-6.0
1956	3288.0	3288.0	.0	.0
1957	3675.0	3675.0	.0	.0
1958	3252.0	3252.0	.0	.0
1959	3777.0	3777.0	.0	.0
1960	3459.7	3271.4	-5.4	-188.3
1961	3813.3	3863.3	1.3	50.0
1962	3675.0	3675.0	.0	.0
1963	3944.0	3944.0	.0	.0
1964	3622.5	3591.8	-.8	-30.7
1965	3658.1	3658.1	.0	.0
1966	4037.0	4037.0	.0	.0
1967	3920.0	3920.0	.0	.0
1968	3659.0	3659.0	.0	.0
1969	3480.0	3480.0	.0	.0
1970	3431.0	3431.0	.0	.0
1971	3830.0	3794.0	-.9	-36.0
1972	3842.7	3789.4	-1.4	-53.3
1973	3636.0	3636.0	.0	.0
1974	3694.0	3694.0	.0	.0
1975	3878.7	3857.5	-.5	-21.2
1976	3281.2	3270.4	-.3	-10.8
1977	2119.1	2119.0	.0	-.1
1978	3650.0	3650.0	.0	.0
1979	3340.7	3302.2	-1.2	-38.5
1980	3292.0	3292.0	.0	.0
1981	3706.2	3584.8	-3.3	-121.4
1982	3530.0	3530.0	.0	.0
1983	3252.0	3252.0	.0	.0
1984	3944.4	3944.4	.0	.0
1985	3394.4	3394.4	.0	.0
1986	3252.0	3252.0	.0	.0
1987	3149.6	3018.2	-4.2	-131.4
1988	3312.6	3157.7	-4.7	-154.9
1989	2610.6	2534.0	-2.9	-76.6
1990	2881.2	2863.1	-.6	-18.1
1991	1758.6	1764.2	.3	5.6
Mean:	3257.7	3220.2	-1.6	-37.5
Median:	3391.4	3325.9	.0	.0
Min:	1363.4	1103.8	-25.5	-489.3
Max:	4037.0	4037.0	11.4	215.2
Littoral Habitat(ac)	3832.4	3647.4	-4.8	-185.0

SHASTA RESERVOIR STORAGE
March

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3465.0	3467.1	.1	2.1
1923	3135.4	3159.9	.8	24.5
1924	2348.9	2443.4	4.0	94.5
1925	2692.8	2727.9	1.3	35.1
1926	3297.0	3403.2	3.2	106.2
1927	3983.6	3975.8	-.2	-7.8
1928	3965.0	3965.0	.0	.0
1929	2969.7	2942.2	-.9	-27.5
1930	3455.6	3389.1	-1.9	-66.5
1931	2492.8	2383.4	-4.4	-109.4
1932	1890.5	1674.5	-11.4	-216.0
1933	1949.2	1689.9	-13.3	-259.3
1934	2352.0	2057.5	-12.5	-294.5
1935	2312.8	1824.1	-21.1	-488.7
1936	3476.5	3283.3	-5.6	-193.2
1937	2545.0	2747.7	8.0	202.7
1938	3416.0	3416.0	.0	.0
1939	3526.9	3504.0	-.6	-22.9
1940	3435.0	3435.0	.0	.0
1941	3940.0	3940.0	.0	.0
1942	3731.7	3731.7	.0	.0
1943	4118.0	4118.0	.0	.0
1944	3498.4	3434.0	-1.8	-64.4
1945	3875.3	3871.4	-.1	-3.9
1946	3958.1	3935.7	-.6	-22.4
1947	3512.8	3439.2	-2.1	-73.6
1948	3307.0	3276.3	-.9	-30.7
1949	4063.8	3999.0	-1.6	-64.8
1950	3583.9	3518.2	-1.8	-65.7
1951	4127.5	4122.5	-.1	-5.0
1952	4022.0	4022.0	.0	.0
1953	3959.3	3925.0	-.9	-34.3
1954	4106.0	4106.0	.0	.0
1955	3439.2	3433.1	-.2	-6.1
1956	3929.8	3907.5	-.6	-22.3
1957	4129.0	4129.0	.0	.0
1958	3416.0	3416.0	.0	.0
1959	4078.5	3969.8	-2.7	-108.7
1960	4012.5	3855.1	-3.9	-157.4
1961	4213.7	4263.7	1.2	50.0
1962	3990.9	3990.6	.0	-.3
1963	4226.0	4226.0	.0	.0
1964	3635.7	3605.0	-.8	-30.7
1965	3757.2	3757.2	.0	.0
1966	4229.0	4229.0	.0	.0
1967	4033.0	4033.0	.0	.0
1968	4119.8	4107.9	-.3	-11.9
1969	4030.0	4030.0	.0	.0
1970	3971.4	3953.8	-.4	-17.6
1971	3873.0	3873.0	.0	.0
1972	4249.0	4249.0	.0	.0
1973	4162.0	4162.0	.0	.0
1974	3416.0	3416.0	.0	.0
1975	3800.0	3800.0	.0	.0
1976	3405.4	3394.6	-.3	-10.8
1977	1874.9	1891.0	.9	16.1
1978	3960.0	3960.0	.0	.0
1979	3727.0	3688.5	-1.0	-38.5
1980	3947.3	3909.7	-1.0	-37.6
1981	4193.1	4051.5	-3.4	-141.6
1982	3953.0	3953.0	.0	.0
1983	3416.0	3416.0	.0	.0
1984	4487.6	4453.3	-.8	-34.3
1985	3484.2	3484.2	.0	.0
1986	3534.0	3534.0	.0	.0
1987	3802.1	3701.6	-2.6	-100.5
1988	3322.0	3160.1	-4.9	-161.9
1989	3841.0	3841.0	.0	.0
1990	3118.7	3103.7	-.5	-15.0
1991	2191.5	2030.2	-7.4	-161.3
Mean:	3564.0	3527.2	-1.3	-36.8
Median:	3731.7	3701.6	-.1	-3.9
Min:	1874.9	1674.5	-21.1	-488.7
Max:	4487.6	4453.3	8.0	202.7
Littoral Habitat(ac)	5319.3	5142.9	-3.3	-176.4

SHASTA RESERVOIR STORAGE
April

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3946.0	3948.1	.1	2.1
1923	3432.7	3504.1	2.1	71.4
1924	2126.7	2219.3	4.4	92.6
1925	3375.6	3410.7	1.0	35.1
1926	3580.3	3676.0	2.7	95.7
1927	4552.0	4552.0	.0	.0
1928	4414.8	4414.8	.0	.0
1929	3059.0	2992.7	-2.2	-66.3
1930	3597.6	3546.1	-1.4	-51.5
1931	2208.7	2102.5	-4.8	-106.2
1932	2029.6	1842.8	-9.2	-186.8
1933	2042.0	1773.2	-13.2	-268.8
1934	2355.6	2044.1	-13.2	-311.5
1935	3292.2	2825.2	-14.2	-467.0
1936	3706.6	3543.4	-4.4	-163.2
1937	3239.1	3444.5	6.3	205.4
1938	4058.0	4058.0	.0	.0
1939	3539.7	3465.3	-2.1	-74.4
1940	4148.2	4148.2	.0	.0
1941	4456.0	4456.0	.0	.0
1942	4341.9	4341.9	.0	.0
1943	4524.6	4524.6	.0	.0
1944	3618.6	3563.0	-1.5	-55.6
1945	4010.2	4006.3	-.1	-3.9
1946	4150.5	4152.1	.0	1.6
1947	3665.8	3607.2	-1.6	-58.6
1948	4204.3	4188.6	-.4	-15.7
1949	4394.6	4287.9	-2.4	-106.7
1950	3912.0	3845.2	-1.7	-66.8
1951	4243.9	4223.9	-.5	-20.0
1952	4290.0	4290.0	.0	.0
1953	4271.6	4226.0	-1.1	-45.6
1954	4546.0	4546.0	.0	.0
1955	3742.8	3736.8	-.2	-6.0
1956	4394.9	4336.7	-1.3	-58.2
1957	4280.7	4262.2	-.4	-18.5
1958	4173.0	4173.0	.0	.0
1959	4178.4	4105.8	-1.7	-72.6
1960	4111.8	3978.3	-3.2	-133.5
1961	4228.3	4366.2	3.3	137.9
1962	4252.8	4252.5	.0	-.3
1963	4137.0	4137.0	.0	.0
1964	3575.7	3542.3	-.9	-33.4
1965	4477.8	4477.8	.0	.0
1966	4552.0	4552.0	.0	.0
1967	4479.0	4479.0	.0	.0
1968	4168.8	4176.6	.2	7.8
1969	4434.0	4434.0	.0	.0
1970	4047.6	4026.4	-.5	-21.2
1971	4394.1	4394.1	.0	.0
1972	4492.8	4483.0	-.2	-9.8
1973	4395.7	4395.7	.0	.0
1974	4289.0	4289.0	.0	.0
1975	4328.2	4328.2	.0	.0
1976	3537.5	3526.8	-.3	-10.7
1977	1595.2	1609.9	.9	14.7
1978	4552.0	4552.0	.0	.0
1979	3875.1	3846.4	-.7	-28.7
1980	4192.3	4154.7	-.9	-37.6
1981	4301.7	4160.3	-3.3	-141.4
1982	4093.0	4093.0	.0	.0
1983	4074.0	4074.0	.0	.0
1984	4552.0	4552.0	.0	.0
1985	3635.8	3635.8	.0	.0
1986	3823.2	3823.2	.0	.0
1987	3688.3	3583.5	-2.8	-104.8
1988	3382.1	3165.4	-6.4	-216.7
1989	4171.2	4171.2	.0	.0
1990	3055.6	2973.1	-2.7	-82.5
1991	2340.9	2179.8	-6.9	-161.1
Mean:	3847.7	3811.4	-1.2	-36.3
Median:	4111.8	4093.0	.0	.0
Min:	1595.2	1609.9	-14.2	-467.0
Max:	4552.0	4552.0	6.3	205.4
Littoral Habitat(ac)	6660.2	6490.4	-2.6	-169.8

SHASTA RESERVOIR STORAGE
May

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	4255.4	4244.3	-.3	-11.1
1923	3358.1	3345.0	-.4	-13.1
1924	1949.4	2006.8	2.9	57.4
1925	3626.5	3701.0	2.1	74.5
1926	3515.9	3590.4	2.1	74.5
1927	4552.0	4552.0	.0	.0
1928	4322.4	4275.7	-1.1	-46.7
1929	2940.7	2826.7	-3.9	-114.0
1930	3583.8	3528.3	-1.5	-55.5
1931	2031.4	1892.0	-6.9	-139.4
1932	2179.2	1996.9	-8.4	-182.3
1933	2064.3	1787.6	-13.4	-276.7
1934	2172.2	1852.2	-14.7	-320.0
1935	3446.1	3117.7	-9.5	-328.4
1936	3552.8	3459.6	-2.6	-93.2
1937	3363.9	3602.2	7.1	238.3
1938	4552.0	4552.0	.0	.0
1939	3275.5	3195.1	-2.5	-80.4
1940	4279.3	4190.6	-2.1	-88.7
1941	4552.0	4552.0	.0	.0
1942	4552.0	4552.0	.0	.0
1943	4552.0	4552.0	.0	.0
1944	3635.9	3535.8	-2.8	-100.1
1945	4091.6	4097.5	.1	5.9
1946	4172.5	4083.9	-2.1	-88.6
1947	3382.9	3346.3	-1.1	-36.6
1948	4552.0	4552.0	.0	.0
1949	4421.2	4325.8	-2.2	-95.4
1950	3833.1	3672.3	-4.2	-160.8
1951	4430.3	4409.0	-.5	-21.3
1952	4552.0	4552.0	.0	.0
1953	4552.0	4552.0	.0	.0
1954	4481.5	4402.1	-1.8	-79.4
1955	4022.1	3981.3	-1.0	-40.8
1956	4552.0	4552.0	.0	.0
1957	4552.0	4552.0	.0	.0
1958	4552.0	4552.0	.0	.0
1959	4074.1	3965.5	-2.7	-108.6
1960	4247.8	4156.6	-2.1	-91.2
1961	4159.0	4193.9	.8	34.9
1962	4206.9	4202.6	-.1	-4.3
1963	4552.0	4552.0	.0	.0
1964	3483.7	3463.6	-.6	-20.1
1965	4496.3	4486.1	-.2	-10.2
1966	4319.1	4231.4	-2.0	-87.7
1967	4552.0	4552.0	.0	.0
1968	4099.8	4064.9	-.9	-34.9
1969	4552.0	4552.0	.0	.0
1970	4020.3	3988.7	-.8	-31.6
1971	4552.0	4552.0	.0	.0
1972	4245.6	4177.2	-1.6	-68.4
1973	4529.1	4380.1	-3.3	-149.0
1974	4552.0	4552.0	.0	.0
1975	4552.0	4552.0	.0	.0
1976	3461.2	3368.4	-2.7	-92.8
1977	1602.7	1582.1	-1.3	-20.6
1978	4552.0	4552.0	.0	.0
1979	4120.7	3978.9	-3.4	-141.8
1980	4283.6	4197.7	-2.0	-85.9
1981	4069.8	3940.6	-3.2	-129.2
1982	4549.6	4448.4	-2.2	-101.2
1983	4552.0	4552.0	.0	.0
1984	4444.2	4396.3	-1.1	-47.9
1985	3550.8	3484.7	-1.9	-66.1
1986	3932.4	3862.0	-1.8	-70.4
1987	3433.8	3262.4	-5.0	-171.4
1988	3273.8	3085.9	-5.7	-187.9
1989	4027.4	4005.6	-.5	-21.8
1990	3138.4	3042.1	-3.1	-96.3
1991	2350.0	2191.4	-6.7	-158.6
Mean:	3899.9	3844.4	-1.8	-55.5
Median:	4159.0	4097.5	-1.1	-36.6
Min:	1602.7	1582.1	-14.7	-328.4
Max:	4552.0	4552.0	7.1	238.3
Littoral Habitat(ac)	6903.8	6645.1	-3.7	-258.7

SHASTA RESERVOIR STORAGE
June

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	4051.8	4023.9	-.7	-27.9
1923	3126.8	3127.7	.0	.9
1924	1659.7	1708.4	2.9	48.7
1925	3480.7	3639.2	4.6	158.5
1926	3179.2	3247.2	2.1	68.0
1927	4400.0	4252.5	-3.4	-147.5
1928	4033.4	3954.3	-2.0	-79.1
1929	2801.8	2704.9	-3.5	-96.9
1930	3306.3	3232.7	-2.2	-73.6
1931	1822.1	1660.0	-8.9	-162.1
1932	2100.0	1878.6	-10.5	-221.4
1933	1970.9	1731.7	-12.1	-239.2
1934	1860.8	1554.5	-16.5	-306.3
1935	3105.7	2744.9	-11.6	-360.8
1936	3358.9	3333.6	-.8	-25.3
1937	3203.4	3447.0	7.6	243.6
1938	4400.0	4400.0	.0	.0
1939	2958.6	2843.5	-3.9	-115.1
1940	4041.0	3854.1	-4.6	-186.9
1941	4400.0	4400.0	.0	.0
1942	4400.0	4400.0	.0	.0
1943	4350.5	4280.2	-1.6	-70.3
1944	3399.6	3269.2	-3.8	-130.4
1945	3880.7	3865.2	-.4	-15.5
1946	3934.0	3761.1	-4.4	-172.9
1947	3289.9	3265.6	-.7	-24.3
1948	4400.0	4400.0	.0	.0
1949	3996.5	3779.0	-5.4	-217.5
1950	3562.5	3377.0	-5.2	-185.5
1951	4132.7	3993.1	-3.4	-139.6
1952	4400.0	4400.0	.0	.0
1953	4400.0	4400.0	.0	.0
1954	4288.9	4195.4	-2.2	-93.5
1955	3503.0	3651.5	4.2	148.5
1956	4400.0	4400.0	.0	.0
1957	4400.0	4334.6	-1.5	-65.4
1958	4400.0	4400.0	.0	.0
1959	3651.3	3539.5	-3.1	-111.8
1960	3787.3	3891.1	2.7	103.8
1961	3820.6	3949.7	3.4	129.1
1962	3958.8	3886.4	-1.8	-72.4
1963	4400.0	4315.7	-1.9	-84.3
1964	3410.4	3374.2	-1.1	-36.2
1965	4336.8	4158.3	-4.1	-178.5
1966	3968.5	3785.4	-4.6	-183.1
1967	4400.0	4400.0	.0	.0
1968	3775.2	3714.6	-1.6	-60.6
1969	4400.0	4400.0	.0	.0
1970	3855.7	3743.8	-2.9	-111.9
1971	4400.0	4400.0	.0	.0
1972	4014.1	3905.0	-2.7	-109.1
1973	4297.7	4133.3	-3.8	-164.4
1974	4400.0	4400.0	.0	.0
1975	4400.0	4400.0	.0	.0
1976	3224.0	3137.1	-2.7	-86.9
1977	1414.6	1394.5	-1.4	-20.1
1978	4269.6	4235.9	-.8	-33.7
1979	3755.6	3548.6	-5.5	-207.0
1980	4129.7	3955.4	-4.2	-174.3
1981	3737.2	3564.3	-4.6	-172.9
1982	4400.0	4340.9	-1.3	-59.1
1983	4503.2	4503.2	.0	.0
1984	4273.0	4131.3	-3.3	-141.7
1985	3283.4	3186.9	-2.9	-96.5
1986	3677.0	3516.7	-4.4	-160.3
1987	3062.9	2850.2	-6.9	-212.7
1988	2980.1	2873.8	-3.6	-106.3
1989	3658.5	3634.7	-.7	-23.8
1990	3049.8	2978.2	-2.3	-71.6
1991	2165.6	2016.6	-6.9	-149.0
Mean:	3675.1	3602.5	-2.3	-72.6
Median:	3855.7	3779.0	-1.9	-72.4
Min:	1414.6	1394.5	-16.5	-360.8
Max:	4503.2	4503.2	7.6	243.6
Littoral Habitat(ac)	5848.4	5503.1	-5.9	-345.3

SHASTA RESERVOIR STORAGE
July

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3695.0	3591.3	-2.8	-103.7
1923	2785.6	2837.5	1.9	51.9
1924	1350.8	1400.0	3.6	49.2
1925	3107.9	3299.7	6.2	191.8
1926	2821.5	2843.8	.8	22.3
1927	3900.0	3823.6	-2.0	-76.4
1928	3368.4	3285.4	-2.5	-83.0
1929	2492.5	2390.2	-4.1	-102.3
1930	2947.4	2852.6	-3.2	-94.8
1931	1488.7	1372.9	-7.8	-115.8
1932	1849.2	1586.8	-14.2	-262.4
1933	1756.4	1511.0	-14.0	-245.4
1934	1561.8	1214.3	-22.2	-347.5
1935	2653.2	2222.1	-16.2	-431.1
1936	2868.6	2900.6	1.1	32.0
1937	2782.0	2986.0	7.3	204.0
1938	3946.2	3917.0	-.7	-29.2
1939	2631.7	2499.4	-5.0	-132.3
1940	3626.8	3371.9	-7.0	-254.9
1941	3975.6	3975.6	.0	.0
1942	3954.6	3900.0	-1.4	-54.6
1943	3900.0	3865.2	-.9	-34.8
1944	3020.0	2938.3	-2.7	-81.7
1945	3354.5	3258.2	-2.9	-96.3
1946	3484.3	3271.9	-6.1	-212.4
1947	2916.5	2866.3	-1.7	-50.2
1948	3900.0	3900.0	.0	.0
1949	3578.7	3360.6	-6.1	-218.1
1950	3135.3	2940.1	-6.2	-195.2
1951	3698.6	3498.9	-5.4	-199.7
1952	3956.6	3941.1	-.4	-15.5
1953	3951.6	3951.6	.0	.0
1954	3746.9	3572.4	-4.7	-174.5
1955	3132.3	3318.7	6.0	186.4
1956	3924.2	3900.0	-.6	-24.2
1957	3900.0	3858.3	-1.1	-41.7
1958	3999.6	3999.6	.0	.0
1959	3037.0	2902.6	-4.4	-134.4
1960	3268.2	3433.4	5.1	165.2
1961	3300.9	3523.6	6.7	222.7
1962	3595.8	3436.3	-4.4	-159.5
1963	3900.0	3900.0	.0	.0
1964	3076.2	3031.0	-1.5	-45.2
1965	3900.0	3746.7	-3.9	-153.3
1966	3485.8	3292.7	-5.5	-193.1
1967	3952.6	3901.6	-1.3	-51.0
1968	3233.6	3161.0	-2.2	-72.6
1969	3928.5	3900.0	-.7	-28.5
1970	3285.5	3190.1	-2.9	-95.4
1971	3962.3	3900.0	-1.6	-62.3
1972	3433.9	3324.4	-3.2	-109.5
1973	3865.5	3578.6	-7.4	-286.9
1974	3989.6	3976.1	-.3	-13.5
1975	3947.6	3947.6	.0	.0
1976	2908.9	2804.0	-3.6	-104.9
1977	1091.0	1035.6	-5.1	-55.4
1978	3900.0	3849.3	-1.3	-50.7
1979	3295.8	3024.8	-8.2	-271.0
1980	3862.8	3668.9	-5.0	-193.9
1981	3348.7	3200.9	-4.4	-147.8
1982	3934.2	3900.0	-.9	-34.2
1983	4143.5	4143.5	.0	.0
1984	3846.0	3684.9	-4.2	-161.1
1985	2985.5	2901.8	-2.8	-83.7
1986	3356.5	3147.0	-6.2	-209.5
1987	2783.5	2482.0	-10.8	-301.5
1988	2571.0	2498.9	-2.8	-72.1
1989	3176.2	3210.1	1.1	33.9
1990	2596.1	2582.2	-.5	-13.9
1991	1926.0	1797.6	-6.7	-128.4
Mean:	3257.9	3175.7	-2.9	-82.2
Median:	3354.5	3292.7	-2.7	-76.4
Min:	1091.0	1035.6	-22.2	-431.1
Max:	4143.5	4143.5	7.3	222.7
Littoral Habitat(ac)	3833.1	3426.8	-10.6	-406.3

SHASTA RESERVOIR STORAGE
August

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3350.0	3243.4	-3.2	-106.6
1923	2436.9	2536.8	4.1	99.9
1924	1018.5	1057.6	3.8	39.1
1925	2686.1	2912.2	8.4	226.1
1926	2445.9	2449.4	.1	3.5
1927	3350.0	3350.0	.0	.0
1928	2930.8	2890.8	-1.4	-40.0
1929	2185.1	2095.8	-4.1	-89.3
1930	2544.3	2430.1	-4.5	-114.2
1931	1148.7	949.3	-17.4	-199.4
1932	1535.9	1290.2	-16.0	-245.7
1933	1511.7	1232.9	-18.4	-278.8
1934	1292.3	821.2	-36.5	-471.1
1935	2085.2	1676.1	-19.6	-409.1
1936	2302.9	2390.5	3.8	87.6
1937	2339.4	2469.2	5.5	129.8
1938	3350.0	3350.0	.0	.0
1939	2292.6	2171.4	-5.3	-121.2
1940	3242.8	2963.8	-8.6	-279.0
1941	3417.6	3425.9	.2	8.3
1942	3363.6	3350.0	-.4	-13.6
1943	3350.0	3350.0	.0	.0
1944	2672.6	2622.8	-1.9	-49.8
1945	2968.1	2856.4	-3.8	-111.7
1946	3125.9	2906.9	-7.0	-219.0
1947	2605.4	2464.5	-5.4	-140.9
1948	3350.0	3342.6	-.2	-7.4
1949	3219.4	2992.0	-7.1	-227.4
1950	2744.7	2540.5	-7.4	-204.2
1951	3342.0	3121.0	-6.6	-221.0
1952	3350.0	3350.0	.0	.0
1953	3351.9	3362.0	.3	10.1
1954	3350.0	3346.6	-.1	-3.4
1955	2819.4	2954.2	4.8	134.8
1956	3350.0	3350.0	.0	.0
1957	3350.0	3350.0	.0	.0
1958	3452.2	3460.6	.2	8.4
1959	2774.2	2573.1	-7.2	-201.1
1960	2899.5	3001.9	3.5	102.4
1961	2939.2	3136.5	6.7	197.3
1962	3265.3	3101.7	-5.0	-163.6
1963	3350.0	3350.0	.0	.0
1964	2739.7	2717.2	-.8	-22.5
1965	3350.0	3350.0	.0	.0
1966	3222.2	2969.7	-7.8	-252.5
1967	3382.1	3350.0	-.9	-32.1
1968	3100.6	2997.0	-3.3	-103.6
1969	3350.0	3350.0	.0	.0
1970	3049.8	2934.3	-3.8	-115.5
1971	3350.0	3350.0	.0	.0
1972	3120.6	2954.9	-5.3	-165.7
1973	3350.0	3336.2	-.4	-13.8
1974	3437.0	3431.9	-.1	-5.1
1975	3367.8	3377.9	.3	10.1
1976	2593.6	2539.5	-2.1	-54.1
1977	761.9	692.7	-9.1	-69.2
1978	3350.0	3350.0	.0	.0
1979	3073.8	2796.3	-9.0	-277.5
1980	3350.0	3350.0	.0	.0
1981	2952.8	2928.9	-.8	-23.9
1982	3350.0	3350.0	.0	.0
1983	3660.3	3668.7	.2	8.4
1984	3350.0	3350.0	.0	.0
1985	2655.4	2638.7	-.6	-16.7
1986	3063.6	2816.5	-8.1	-247.1
1987	2530.0	2207.1	-12.8	-322.9
1988	2282.8	2183.7	-4.3	-99.1
1989	2785.2	2769.4	-.6	-15.8
1990	2278.5	2219.2	-2.6	-59.3
1991	1726.4	1621.2	-6.1	-105.2
Mean:	2843.5	2774.2	-3.2	-69.3
Median:	3063.6	2954.2	-.8	-22.5
Min:	761.9	692.7	-36.5	-471.1
Max:	3660.3	3668.7	8.4	226.1
Littoral Habitat(ac)	1747.8	1389.5	-20.5	-358.3

SHASTA RESERVOIR STORAGE
September

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3190.9	3084.5	-3.3	-106.4
1923	2273.8	2373.5	4.4	99.7
1924	908.8	933.2	2.7	24.4
1925	2517.5	2743.1	9.0	225.6
1926	2257.8	2261.3	.2	3.5
1927	3300.0	3206.8	-2.8	-93.2
1928	2765.7	2725.7	-1.4	-40.0
1929	2000.7	1911.6	-4.5	-89.1
1930	2365.0	2251.1	-4.8	-113.9
1931	1030.2	814.0	-21.0	-216.2
1932	1416.2	1153.5	-18.5	-262.7
1933	1409.2	1099.4	-22.0	-309.8
1934	1149.9	664.3	-42.2	-485.6
1935	1905.9	1511.5	-20.7	-394.4
1936	2109.2	2196.5	4.1	87.3
1937	2146.6	2276.1	6.0	129.5
1938	3300.0	3300.0	.0	.0
1939	2117.9	1997.0	-5.7	-120.9
1940	3084.9	2806.6	-9.0	-278.3
1941	3300.0	3300.0	.0	.0
1942	3300.0	3300.0	.0	.0
1943	3300.0	3228.8	-2.2	-71.2
1944	2508.0	2458.3	-2.0	-49.7
1945	2810.8	2699.4	-4.0	-111.4
1946	2972.3	2753.8	-7.4	-218.5
1947	2440.0	2299.4	-5.8	-140.6
1948	3237.2	3191.5	-1.4	-45.7
1949	3038.6	2811.7	-7.5	-226.9
1950	2568.9	2365.3	-7.9	-203.6
1951	3173.9	2953.4	-6.9	-220.5
1952	3300.0	3300.0	.0	.0
1953	3300.0	3300.0	.0	.0
1954	3247.8	3229.5	-.6	-18.3
1955	2672.5	2807.0	5.0	134.5
1956	3300.0	3300.0	.0	.0
1957	3300.0	3291.1	-.3	-8.9
1958	3300.0	3300.0	.0	.0
1959	2685.3	2484.8	-7.5	-200.5
1960	2750.4	2852.5	3.7	102.1
1961	2784.0	2980.9	7.1	196.9
1962	3100.4	2937.1	-5.3	-163.3
1963	3300.0	3296.3	-.1	-3.7
1964	2572.0	2549.5	-.9	-22.5
1965	3300.0	3219.8	-2.4	-80.2
1966	3073.4	2821.4	-8.2	-252.0
1967	3300.0	3300.0	.0	.0
1968	2974.0	2870.5	-3.5	-103.5
1969	3300.0	3300.0	.0	.0
1970	2921.4	2806.1	-3.9	-115.3
1971	3300.0	3300.0	.0	.0
1972	3004.0	2838.7	-5.5	-165.3
1973	3231.8	3203.2	-.9	-28.6
1974	3300.0	3300.0	.0	.0
1975	3300.0	3300.0	.0	.0
1976	2471.2	2417.2	-2.2	-54.0
1977	739.8	670.9	-9.3	-68.9
1978	3255.8	3240.9	-.5	-14.9
1979	2914.3	2637.4	-9.5	-276.9
1980	3236.8	3221.9	-.5	-14.9
1981	2782.6	2758.7	-.9	-23.9
1982	3300.0	3300.0	.0	.0
1983	3300.0	3300.0	.0	.0
1984	3249.8	3249.8	.0	.0
1985	2530.8	2514.2	-.7	-16.6
1986	2963.1	2716.6	-8.3	-246.5
1987	2380.7	2058.6	-13.5	-322.1
1988	2126.2	2027.3	-4.7	-98.9
1989	2646.4	2630.6	-.6	-15.8
1990	2112.9	2053.7	-2.8	-59.2
1991	1635.4	1530.4	-6.4	-105.0
Mean:	2716.6	2641.3	-3.7	-75.4
Median:	2921.4	2806.6	-1.4	-45.7
Min:	739.8	664.3	-42.2	-485.6
Max:	3300.0	3300.0	9.0	225.6
Littoral Habitat(ac)	1089.9	694.5	-36.3	-395.4

RETURN TO TABLE OF CONTENTS

Section 14

SHASTA RESERVOIR ELEVATION
14.1 Fisheries

SHASTA RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.6	.0	997.7	.0	.0	.1
1923	1009.3	-3.8	1004.7	-3.9	-.5	-4.6
1924	969.7	-.6	976.0	.6	.6	6.3
1925	877.0	1.4	879.3	1.4	.3	2.3
1926	981.9	-.7	991.2	-2.2	.9	9.3
1927	969.5	.1	969.7	.1	.0	.2
1928	1015.5	-2.1	1008.9	-4.8	-.6	-6.6
1929	990.7	-3.7	988.8	-3.8	-.2	-1.9
1930	955.3	.0	949.6	-.6	-.6	-5.7
1931	973.6	-1.4	968.4	-.7	-.5	-5.2
1932	884.8	-2.2	863.7	-2.2	-2.4	-21.1
1933	913.5	-4.5	892.4	-5.2	-2.3	-21.1
1934	916.0	-1.5	890.5	-2.6	-2.8	-25.5
1935	895.2	-2.1	845.8	-3.0	-5.5	-49.4
1936	946.0	-3.8	922.8	-1.9	-2.5	-23.2
1937	954.3	-7.1	962.5	-3.7	.9	8.2
1938	963.0	-.5	970.0	-.4	.7	7.0
1939	1015.5	-2.1	1015.5	-2.1	.0	.0
1940	962.5	.6	955.7	.6	-.7	-6.8
1941	1004.2	-4.4	993.1	-3.2	-1.1	-11.1
1942	1015.5	-2.1	1015.5	-2.1	.0	.0
1943	1015.5	-2.1	1015.5	-2.1	.0	.0
1944	1015.5	-2.1	1010.7	-4.0	-.5	-4.8
1945	981.1	-1.1	979.4	-.3	-.2	-1.7
1946	996.3	-.2	992.7	1.4	-.4	-3.6
1947	999.6	-4.1	991.0	-2.9	-.9	-8.6
1948	982.0	3.2	976.7	5.1	-.5	-5.3
1949	1015.1	.1	1008.6	-4.5	-.6	-6.5
1950	1000.9	-5.7	991.9	-4.6	-.9	-9.0
1951	999.4	14.3	991.4	16.4	-.8	-8.0
1952	1008.8	-3.6	999.8	-3.1	-.9	-9.0
1953	1015.5	-2.1	1015.5	-2.1	.0	.0
1954	1015.5	-2.1	1015.5	-2.1	.0	.0
1955	1015.3	-.2	1011.4	-3.3	-.4	-3.9
1956	987.4	-2.7	992.3	-4.0	.5	4.9
1957	1015.5	-2.1	1015.5	-2.1	.0	.0
1958	1015.5	-2.1	1015.5	-1.7	.0	.0
1959	1015.5	-2.1	1015.5	-2.1	.0	.0
1960	989.3	-1.4	981.2	.2	-.8	-8.1
1961	991.4	-2.3	995.5	-2.9	.4	4.1
1962	992.7	-2.5	1000.3	-3.8	.8	7.6
1963	1015.5	6.3	1015.5	13.4	.0	.0
1964	1015.5	-2.1	1015.5	-2.0	.0	.0
1965	983.6	-1.7	982.5	-1.7	-.1	-1.1
1966	1015.5	-2.1	1010.4	-3.9	-.5	-5.1
1967	1003.3	-4.8	993.3	-3.7	-1.0	-10.0
1968	1015.5	-2.1	1015.5	-2.1	.0	.0
1969	1001.5	-2.3	997.5	-1.7	-.4	-4.0
1970	1015.5	-2.1	1015.5	-2.1	.0	.0
1971	999.9	-1.5	995.3	-1.0	-.5	-4.6
1972	1015.5	-2.1	1015.5	-2.1	.0	.0
1973	1003.9	-1.2	998.0	.3	-.6	-5.9
1974	1015.5	.7	1013.6	.0	-.2	-1.9
1975	1015.5	-2.1	1015.5	-2.1	.0	.0
1976	1015.5	-2.1	1015.5	-2.1	.0	.0
1977	981.2	.9	978.5	.9	-.3	-2.7
1978	848.4	-9.3	839.8	-9.8	-1.0	-8.6
1979	1013.8	-2.0	1011.1	-4.1	-.3	-2.7
1980	1000.0	-1.1	989.6	1.2	-1.0	-10.4
1981	1010.7	-4.3	1009.8	-4.6	-.1	-.9
1982	993.5	-1.7	992.4	-1.7	-.1	-1.1
1983	1015.5	-2.1	1015.5	-2.1	.0	.0
1984	1015.5	-2.1	1015.5	-2.1	.0	.0
1985	1015.5	.0	1014.1	-1.4	-.1	-1.4
1986	983.8	.5	983.0	.5	-.1	-.8
1987	1001.3	-2.0	991.6	-.5	-1.0	-9.7
1988	974.7	-1.1	959.9	1.3	-1.5	-14.8
1989	963.4	1.0	957.9	1.1	-.6	-5.5
1990	992.0	3.2	991.4	3.3	-.1	-.6
1991	961.6	.0	958.6	.3	-.3	-3.0
Mean:	988.3	-1.4	984.1	-1.3	-.4	-4.2
Median:	999.9	-2.1	993.1	-2.1	-.2	-1.9
Min:	848.4	-9.3	839.8	-9.8	-5.5	-49.4
Max:	1015.5	14.3	1015.5	16.4	.9	9.3
X inc > 20.0		0		0		
X dec > 9.0		1		1		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	995.9	.0	996.0	.0	.0	.1
1923	1006.6	-2.7	1002.0	-2.7	-.5	-4.6
1924	968.4	-1.3	975.7	-.3	.8	7.3
1925	890.6	13.6	892.7	13.4	.2	2.1
1926	982.3	.4	990.2	-1.0	.8	7.9
1927	993.0	23.5	993.2	23.5	.0	.2
1928	1015.6	.1	1014.5	5.6	-.1	-1.1
1929	989.3	-1.4	987.4	-1.4	-.2	-1.9
1930	954.0	-1.3	948.9	-.7	-.5	-5.1
1931	972.5	-1.1	967.7	-.7	-.5	-4.8
1932	883.4	-1.4	862.1	-1.6	-2.4	-21.3
1933	910.5	-3.0	889.1	-3.3	-2.4	-21.4
1934	914.6	-1.4	888.8	-1.7	-2.8	-25.8
1935	905.7	10.5	861.0	15.2	-4.9	-44.7
1936	942.0	-4.0	919.9	-2.9	-2.3	-22.1
1937	948.9	-5.4	960.4	-2.1	1.2	11.5
1938	991.8	28.8	997.0	27.0	.5	5.2
1939	1013.7	-1.8	1013.3	-2.2	.0	-.4
1940	962.2	-.3	956.3	.6	-.6	-5.9
1941	1001.4	-2.8	991.5	-1.6	-1.0	-9.9
1942	1013.5	-2.0	1013.1	-2.4	.0	-.4
1943	1015.6	.1	1015.2	-.3	.0	-.4
1944	1012.7	-2.8	1008.0	-2.7	-.5	-4.7
1945	988.2	7.1	987.3	7.9	-.1	-.9
1946	1005.4	9.1	1003.5	10.8	-.2	-1.9
1947	999.4	-.2	992.2	1.2	-.7	-7.2
1948	982.6	.6	978.9	2.2	-.4	-3.7
1949	1011.7	-3.4	1005.5	-3.1	-.6	-6.2
1950	995.9	-5.0	988.2	-3.7	-.8	-7.7
1951	1014.8	15.4	1009.5	18.1	-.5	-5.3
1952	1011.7	2.9	1004.2	4.4	-.7	-7.5
1953	1011.7	-3.8	1011.7	-3.8	.0	.0
1954	1015.6	.1	1015.6	.1	.0	.0
1955	1015.6	.3	1012.6	1.2	-.3	-3.0
1956	989.4	2.0	992.8	.5	.3	3.4
1957	1012.8	-2.7	1012.6	-2.9	.0	-.2
1958	1015.6	.1	1015.6	.1	.0	.0
1959	1012.7	-2.8	1012.7	-2.8	.0	.0
1960	987.8	-1.5	980.9	-.3	-.7	-6.9
1961	993.9	2.5	997.2	1.7	.3	3.3
1962	995.8	3.1	1002.0	1.7	.6	6.2
1963	1015.0	-.5	1015.6	.1	.1	.6
1964	1015.6	.1	1015.6	.1	.0	.0
1965	988.2	4.6	987.2	4.7	-.1	-1.0
1966	1015.6	.1	1015.6	5.2	.0	.0
1967	1013.5	10.2	1006.0	12.7	-.7	-7.5
1968	1012.9	-2.6	1012.6	-2.9	.0	-.3
1969	1000.8	-.7	997.6	.1	-.3	-3.2
1970	1013.0	-2.5	1013.0	-2.5	.0	.0
1971	1015.6	15.7	1012.4	17.1	-.3	-3.2
1972	1014.7	-.8	1014.3	-1.2	.0	-.4
1973	1010.8	6.9	1006.3	8.3	-.4	-4.5
1974	1015.6	.1	1015.6	2.0	.0	.0
1975	1014.4	-1.1	1014.4	-1.1	.0	.0
1976	1015.6	.1	1015.6	.1	.0	.0
1977	981.8	.6	979.2	.7	-.3	-2.6
1978	842.1	-6.3	833.3	-6.5	-1.0	-8.8
1979	1010.5	-3.3	1007.8	-3.3	-.3	-2.7
1980	1002.4	2.4	994.3	4.7	-.8	-8.1
1981	1008.7	-2.0	1007.7	-2.1	-.1	-1.0
1982	1015.6	22.1	1015.6	23.2	.0	.0
1983	1015.6	.1	1015.6	.1	.0	.0
1984	1015.6	.1	1015.6	.1	.0	.0
1985	1015.6	.1	1015.6	1.5	.0	.0
1986	984.5	.7	983.7	.7	-.1	-.8
1987	998.5	-2.8	990.2	-1.4	-.8	-8.3
1988	975.7	1.0	962.8	2.9	-1.3	-12.9
1989	974.0	10.6	969.6	11.7	-.5	-4.4
1990	990.9	-1.1	990.4	-1.0	-.1	-.5
1991	959.4	-2.2	958.0	-.6	-.1	-1.4
Mean:	990.0	1.7	986.4	2.3	-.4	-3.6
Median:	1001.4	.0	997.6	.1	-.1	-1.0
Min:	842.1	-6.3	833.3	-6.5	-4.9	-44.7
Max:	1015.6	28.8	1015.6	27.0	1.2	11.5
X inc > 20.0		3		3		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.8	.0	997.9	.0	.0	.1
1923	1006.3	-.3	1002.0	.0	-.4	-4.3
1924	968.0	-.4	975.1	-.6	.7	7.1
1925	898.5	7.9	900.5	7.8	.2	2.0
1926	981.6	-.7	988.1	-2.1	.7	6.5
1927	1014.4	21.4	1014.5	21.3	.0	.1
1928	1016.4	.8	1014.5	.0	-.2	-1.9
1929	987.7	-1.6	985.8	-1.6	-.2	-1.9
1930	981.7	27.7	977.4	28.5	-.4	-4.3
1931	970.6	-1.9	966.1	-1.6	-.5	-4.5
1932	900.7	17.3	882.2	20.1	-2.1	-18.5
1933	909.0	-1.5	887.4	-1.7	-2.4	-21.6
1934	923.4	8.8	899.3	10.5	-2.6	-24.1
1935	908.7	3.0	865.2	4.2	-4.8	-43.5
1936	940.5	-1.5	920.2	.3	-2.2	-20.3
1937	944.7	-4.2	959.1	-1.3	1.5	14.4
1938	1018.0	26.2	1018.0	21.0	.0	.0
1939	1015.1	1.4	1014.1	.8	-.1	-1.0
1940	970.7	8.5	965.0	8.7	-.6	-5.7
1941	1017.3	15.9	1017.3	25.8	.0	.0
1942	1018.3	4.8	1018.3	5.2	.0	.0
1943	1019.9	4.3	1019.9	4.7	.0	.0
1944	1008.7	-4.0	1004.3	-3.7	-.4	-4.4
1945	999.8	11.6	999.6	12.3	.0	-.2
1946	1016.2	10.8	1016.2	12.7	.0	.0
1947	999.1	-.3	993.3	1.1	-.6	-5.8
1948	982.3	-.3	980.3	1.4	-.2	-2.0
1949	1008.6	-3.1	1002.6	-2.9	-.6	-6.0
1950	989.8	-6.1	983.4	-4.8	-.6	-6.4
1951	1018.5	3.7	1018.5	9.0	.0	.0
1952	1017.9	6.2	1017.9	13.7	.0	.0
1953	1019.4	7.7	1019.4	7.7	.0	.0
1954	1018.9	3.3	1018.4	2.8	.0	-.5
1955	1020.1	4.5	1019.8	7.2	.0	-.3
1956	1015.6	26.2	1015.6	22.8	.0	.0
1957	1009.5	-3.3	1009.2	-3.4	.0	-.3
1958	1019.2	3.6	1019.2	3.6	.0	.0
1959	1010.5	-2.2	1010.5	-2.2	.0	.0
1960	986.5	-1.3	978.2	-2.7	-.8	-8.3
1961	1010.2	16.3	1012.3	15.1	.2	2.1
1962	1006.8	11.0	1011.3	9.3	.4	4.5
1963	1019.6	4.6	1019.6	4.0	.0	.0
1964	1015.5	-.1	1015.0	-.6	.0	-.5
1965	1015.6	27.4	1015.6	28.4	.0	.0
1966	1017.8	2.2	1017.3	1.7	.0	-.5
1967	1019.0	5.5	1019.0	13.0	.0	.0
1968	1013.0	.1	1012.0	-.6	-.1	-1.0
1969	1010.8	10.0	1008.3	10.7	-.2	-2.5
1970	1018.3	5.3	1018.3	5.3	.0	.0
1971	1018.4	2.8	1018.4	6.0	.0	.0
1972	1017.0	2.3	1016.0	1.7	-.1	-1.0
1973	1018.4	7.6	1015.4	9.1	-.3	-3.0
1974	1016.2	.6	1016.2	.6	.0	.0
1975	1016.2	1.8	1015.4	1.0	-.1	-.8
1976	1015.2	-.4	1014.8	-.8	.0	-.4
1977	976.2	-5.6	976.0	-3.2	.0	-.2
1978	883.7	41.6	877.8	44.5	-.7	-5.9
1979	1005.8	-4.7	1003.4	-4.4	-.2	-2.4
1980	1004.3	1.9	998.4	4.1	-.6	-5.9
1981	1010.4	1.7	1008.7	1.0	-.2	-1.7
1982	1016.6	1.0	1016.6	1.0	.0	.0
1983	1018.9	3.3	1018.9	3.3	.0	.0
1984	1017.0	1.4	1017.0	1.4	.0	.0
1985	1020.1	4.5	1020.1	4.5	.0	.0
1986	990.9	6.4	990.1	6.4	-.1	-.8
1987	995.7	-2.8	988.2	-2.0	-.8	-7.5
1988	999.4	23.7	989.6	26.8	-1.0	-9.8
1989	979.1	5.1	975.2	5.6	-.4	-3.9
1990	987.9	-3.0	987.1	-3.3	-.1	-.8
1991	953.8	-5.6	952.6	-5.4	-.1	-1.2
Mean:	995.1	5.1	992.3	5.8	-.3	-2.8
Median:	1010.2	2.3	1009.2	2.8	.0	-.5
Min:	883.7	-6.1	865.2	-5.4	-4.8	-43.5
Max:	1020.1	41.6	1020.1	44.5	1.5	14.4
X inc > 20.0		7		9		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	999.1	.0	999.2	.0	.0	.1
1923	1010.3	4.0	1006.7	4.7	-.4	-3.6
1924	968.1	.1	975.2	.1	.7	7.1
1925	908.2	9.7	910.0	9.5	.2	1.8
1926	982.5	.9	988.4	.3	.6	5.9
1927	1030.1	15.7	1030.2	15.7	.0	.1
1928	1022.3	5.9	1020.2	5.7	-.2	-2.1
1929	989.2	1.5	987.9	2.1	-.1	-1.3
1930	990.6	8.9	986.4	9.0	-.4	-4.2
1931	973.3	2.7	968.4	2.3	-.5	-4.9
1932	911.8	11.1	894.8	12.6	-1.9	-17.0
1933	911.3	2.3	890.2	2.8	-2.3	-21.1
1934	942.8	19.4	921.4	22.1	-2.3	-21.4
1935	930.1	21.4	893.2	28.0	-4.0	-36.9
1936	975.1	34.6	959.7	39.5	-1.6	-15.4
1937	943.1	-1.6	956.3	-2.8	1.4	13.2
1938	1028.6	10.6	1028.6	10.6	.0	.0
1939	1014.6	-.5	1013.6	-.5	-.1	-1.0
1940	1010.5	39.8	1005.9	40.9	-.5	-4.6
1941	1018.3	1.0	1018.3	1.0	.0	.0
1942	1021.2	2.9	1021.2	2.9	.0	.0
1943	1027.3	7.4	1027.3	7.4	.0	.0
1944	1007.6	-1.1	1004.2	-.1	-.3	-3.4
1945	1005.3	5.5	1005.1	5.5	.0	-.2
1946	1030.4	14.2	1030.4	14.2	.0	.0
1947	997.2	-1.9	992.1	-1.2	-.5	-5.1
1948	1006.7	24.4	1005.4	25.1	-.1	-1.3
1949	1004.9	-3.7	999.5	-3.1	-.5	-5.4
1950	999.9	10.1	994.9	11.5	-.5	-5.0
1951	1030.5	12.0	1030.5	12.0	.0	.0
1952	1029.7	11.8	1029.7	11.8	.0	.0
1953	1020.3	.9	1020.3	.9	.0	.0
1954	1027.7	8.8	1027.7	9.3	.0	.0
1955	1020.3	.2	1020.1	.3	.0	-.2
1956	1015.6	.0	1015.6	.0	.0	.0
1957	1009.1	-.4	1008.8	-.4	.0	-.3
1958	1026.9	7.7	1026.9	7.7	.0	.0
1959	1031.4	20.9	1031.4	20.9	.0	.0
1960	994.9	8.4	985.6	7.4	-.9	-9.3
1961	1013.9	3.7	1016.0	3.7	.2	2.1
1962	1007.5	.7	1011.4	.1	.4	3.9
1963	1021.6	2.0	1021.6	2.0	.0	.0
1964	1028.0	12.5	1026.8	11.8	-.1	-1.2
1965	1020.4	4.8	1020.4	4.8	.0	.0
1966	1034.4	16.6	1034.3	17.0	.0	-.1
1967	1027.7	8.7	1027.7	8.7	.0	.0
1968	1018.7	5.7	1017.0	5.0	-.2	-1.7
1969	1020.0	9.2	1020.0	11.7	.0	.0
1970	1015.6	-2.7	1015.6	-2.7	.0	.0
1971	1026.3	7.9	1026.3	7.9	.0	.0
1972	1028.2	11.2	1026.6	10.6	-.2	-1.6
1973	1027.7	9.3	1027.7	12.3	.0	.0
1974	1015.6	-.6	1015.6	-.6	.0	.0
1975	1016.7	.5	1015.8	.4	-.1	-.9
1976	1012.8	-2.4	1012.4	-2.4	.0	-.4
1977	971.0	-5.2	971.1	-4.9	.0	.1
1978	1000.5	116.8	997.7	119.9	-.3	-2.8
1979	1008.0	2.2	1006.4	3.0	-.2	-1.6
1980	1026.8	22.5	1026.8	28.4	.0	.0
1981	1020.9	10.5	1017.6	8.9	-.3	-3.3
1982	1030.2	13.6	1030.2	13.6	.0	.0
1983	1020.6	1.7	1020.6	1.7	.0	.0
1984	1031.5	14.5	1031.5	14.5	.0	.0
1985	1019.5	-.6	1019.5	-.6	.0	.0
1986	1013.8	22.9	1013.1	23.0	-.1	-.7
1987	999.2	3.5	992.6	4.4	-.7	-6.6
1988	1014.9	15.5	1007.2	17.6	-.8	-7.7
1989	983.2	4.1	979.4	4.2	-.4	-3.8
1990	997.5	9.6	997.0	9.9	-.1	-.5
1991	948.0	-5.8	947.3	-5.3	-.1	-.7
Mean:	1004.1	9.0	1001.8	9.5	-.2	-2.3
Median:	1014.6	5.7	1013.6	5.5	.0	-.2
Min:	908.2	-5.8	890.2	-5.3	-4.0	-36.9
Max:	1034.4	116.8	1034.3	119.9	1.4	13.2
X inc > 20.0		8		9		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1012.4	.0	1012.5	.0	.0	.1
1923	1009.9	-.4	1008.7	2.0	-.1	-1.2
1924	974.6	6.5	981.5	6.3	.7	6.9
1925	984.4	76.2	985.6	75.6	.1	1.2
1926	1013.8	31.3	1018.7	30.3	.5	4.9
1927	1024.2	-5.9	1024.2	-6.0	.0	.0
1928	1036.3	14.0	1033.9	13.7	-.2	-2.4
1929	997.0	7.8	995.7	7.8	-.1	-1.3
1930	1006.0	15.4	1002.4	16.0	-.4	-3.6
1931	976.3	3.0	971.5	3.1	-.5	-4.8
1932	921.5	9.7	905.5	10.7	-1.7	-16.0
1933	914.1	2.8	893.4	3.2	-2.3	-20.7
1934	961.1	18.3	943.0	21.6	-1.9	-18.1
1935	950.7	20.6	919.1	25.9	-3.3	-31.6
1936	1014.7	39.6	1003.1	43.4	-1.1	-11.6
1937	948.4	5.3	960.8	4.5	1.3	12.4
1938	1028.0	-.6	1028.0	-.6	.0	.0
1939	1014.8	.2	1013.8	.2	-.1	-1.0
1940	1015.6	5.1	1015.6	9.7	.0	.0
1941	1022.6	4.3	1022.6	4.3	.0	.0
1942	1026.3	5.1	1026.3	5.1	.0	.0
1943	1039.0	11.7	1039.0	11.7	.0	.0
1944	1017.3	9.7	1014.6	10.4	-.3	-2.7
1945	1033.5	28.2	1033.4	28.3	.0	-.1
1946	1033.7	3.3	1032.6	2.2	-.1	-1.1
1947	1006.3	9.1	1002.4	10.3	-.4	-3.9
1948	1006.8	.1	1005.5	.1	-.1	-1.3
1949	1009.8	4.9	1005.7	6.2	-.4	-4.1
1950	1015.2	15.3	1011.1	16.2	-.4	-4.1
1951	1037.0	6.5	1037.0	6.5	.0	.0
1952	1034.9	5.2	1034.9	5.2	.0	.0
1953	1029.3	9.0	1028.7	8.4	-.1	-.6
1954	1031.9	4.2	1031.9	4.2	.0	.0
1955	1021.3	1.0	1021.1	1.0	.0	-.2
1956	1017.1	1.5	1017.1	1.5	.0	.0
1957	1032.5	23.4	1032.5	23.7	.0	.0
1958	1015.6	-11.3	1015.6	-11.3	.0	.0
1959	1036.3	4.9	1036.3	4.9	.0	.0
1960	1024.1	29.2	1016.4	30.8	-.8	-7.7
1961	1037.7	23.8	1039.6	23.6	.2	1.9
1962	1032.5	25.0	1032.5	21.1	.0	.0
1963	1042.6	21.0	1042.6	21.0	.0	.0
1964	1030.5	2.5	1029.3	2.5	-.1	-1.2
1965	1031.8	11.4	1031.8	11.4	.0	.0
1966	1045.9	11.5	1045.9	11.6	.0	.0
1967	1041.7	14.0	1041.7	14.0	.0	.0
1968	1031.9	13.2	1031.9	14.9	.0	.0
1969	1024.9	4.9	1024.9	4.9	.0	.0
1970	1022.9	7.3	1022.9	7.3	.0	.0
1971	1038.3	12.0	1037.0	10.7	-.1	-1.3
1972	1038.8	10.6	1036.8	10.2	-.2	-2.0
1973	1031.0	3.3	1031.0	3.3	.0	.0
1974	1033.2	17.6	1033.2	17.6	.0	.0
1975	1040.1	23.4	1039.4	23.6	-.1	-.7
1976	1016.8	4.0	1016.4	4.0	.0	-.4
1977	962.0	-9.0	962.0	-9.1	.0	.0
1978	1031.5	31.0	1031.5	33.8	.0	.0
1979	1019.3	11.3	1017.7	11.3	-.2	-1.6
1980	1017.3	-9.5	1017.3	-9.5	.0	.0
1981	1033.7	12.8	1029.0	11.4	-.5	-4.7
1982	1026.8	-3.4	1026.8	-3.4	.0	.0
1983	1015.6	-5.0	1015.6	-5.0	.0	.0
1984	1042.6	11.1	1042.6	11.1	.0	.0
1985	1021.4	1.9	1021.4	1.9	.0	.0
1986	1015.6	1.8	1015.6	2.5	.0	.0
1987	1011.3	12.1	1005.7	13.1	-.6	-5.6
1988	1018.1	3.2	1011.7	4.5	-.6	-6.4
1989	987.1	3.9	983.4	4.0	-.4	-3.7
1990	999.6	2.1	998.8	1.8	-.1	-.8
1991	940.9	-7.1	941.2	-6.1	.0	.3
Mean:	1014.0	9.7	1012.0	10.0	-.2	-2.0
Median:	1021.3	6.5	1018.7	6.5	.0	.0
Min:	914.1	-11.3	893.4	-11.3	-3.3	-31.6
Max:	1045.9	76.2	1045.9	75.6	1.3	12.4
X inc > 20.0		12		13		
X dec > 9.0		2		3		
X dec > 10.0		1		1		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1024.3	.0	1024.4	.0	.0	.1
1923	1010.7	.8	1011.8	3.1	.1	1.1
1924	974.2	-.4	978.9	-2.6	.5	4.7
1925	991.0	6.6	992.7	7.1	.2	1.7
1926	1017.5	3.7	1021.8	3.1	.4	4.3
1927	1044.0	19.8	1043.7	19.5	.0	-.3
1928	1043.3	7.0	1043.3	9.4	.0	.0
1929	1003.6	6.6	1002.4	6.7	-.1	-1.2
1930	1023.9	17.9	1021.2	18.8	-.3	-2.7
1931	981.4	5.1	975.9	4.4	-.6	-5.5
1932	948.9	27.4	935.6	30.1	-1.4	-13.3
1933	952.4	38.3	936.6	43.2	-1.7	-15.8
1934	974.3	13.2	958.5	15.5	-1.6	-15.8
1935	972.3	21.6	944.9	25.8	-2.8	-27.4
1936	1024.7	10.0	1016.9	13.8	-.8	-7.8
1937	984.0	35.6	993.6	32.8	1.0	9.6
1938	1022.3	-5.7	1022.3	-5.7	.0	.0
1939	1026.7	11.9	1025.8	12.0	-.1	-.9
1940	1023.1	7.5	1023.1	7.5	.0	.0
1941	1042.4	19.8	1042.4	19.8	.0	.0
1942	1034.6	8.3	1034.6	8.3	.0	.0
1943	1048.8	9.8	1048.8	9.8	.0	.0
1944	1025.6	8.3	1023.0	8.4	-.3	-2.6
1945	1040.0	6.5	1039.9	6.5	.0	-.1
1946	1043.1	9.4	1042.2	9.6	-.1	-.9
1947	1026.2	19.9	1023.2	20.8	-.3	-3.0
1948	1017.9	11.1	1016.6	11.1	-.1	-1.3
1949	1046.9	37.1	1044.6	38.9	-.2	-2.3
1950	1029.0	13.8	1026.4	15.3	-.3	-2.6
1951	1049.2	12.2	1049.0	12.0	.0	-.2
1952	1045.4	10.5	1045.4	10.5	.0	.0
1953	1043.1	13.8	1041.9	13.2	-.1	-1.2
1954	1048.4	16.5	1048.4	16.5	.0	.0
1955	1023.2	1.9	1023.0	1.9	.0	-.2
1956	1042.0	24.9	1041.2	24.1	-.1	-.8
1957	1049.2	16.7	1049.2	16.7	.0	.0
1958	1022.3	6.7	1022.3	6.7	.0	.0
1959	1047.4	11.1	1043.5	7.2	-.4	-3.9
1960	1045.0	20.9	1039.3	22.9	-.5	-5.7
1961	1052.2	14.5	1054.0	14.4	.2	1.8
1962	1044.3	11.8	1044.3	11.8	.0	.0
1963	1052.7	10.1	1052.7	10.1	.0	.0
1964	1031.0	.5	1029.8	.5	-.1	-1.2
1965	1035.6	3.8	1035.6	3.8	.0	.0
1966	1052.8	6.9	1052.8	6.9	.0	.0
1967	1045.8	4.1	1045.8	4.1	.0	.0
1968	1048.9	17.0	1048.5	16.6	.0	-.4
1969	1045.7	20.8	1045.7	20.8	.0	.0
1970	1043.6	20.7	1042.9	20.0	-.1	-.7
1971	1039.9	1.6	1039.9	2.9	.0	.0
1972	1053.5	14.7	1053.5	16.7	.0	.0
1973	1050.4	19.4	1050.4	19.4	.0	.0
1974	1022.3	-10.9	1022.3	-10.9	.0	.0
1975	1037.2	-2.9	1037.2	-2.2	.0	.0
1976	1021.9	5.1	1021.5	5.1	.0	-.4
1977	948.0	-14.0	948.9	-13.1	.1	.9
1978	1043.1	11.6	1043.1	11.6	.0	.0
1979	1034.5	15.2	1033.0	15.3	-.1	-1.5
1980	1042.7	25.4	1041.3	24.0	-.1	-1.4
1981	1051.5	17.8	1046.5	17.5	-.5	-5.0
1982	1042.9	16.1	1042.9	16.1	.0	.0
1983	1022.3	6.7	1022.3	6.7	.0	.0
1984	1061.7	19.1	1060.5	17.9	-.1	-1.2
1985	1025.0	3.6	1025.0	3.6	.0	.0
1986	1027.0	11.4	1027.0	11.4	.0	.0
1987	1037.3	26.0	1033.5	27.8	-.4	-3.8
1988	1018.5	.4	1011.8	.1	-.7	-6.7
1989	1038.7	51.6	1038.7	55.3	.0	.0
1990	1010.0	10.4	1009.4	10.6	-.1	-.6
1991	965.9	25.0	957.0	15.8	-.9	-8.9
Mean:	1026.6	12.4	1024.8	12.6	-.2	-1.8
Median:	1034.6	11.1	1033.5	11.4	.0	-.1
Min:	948.0	-14.0	935.6	-13.1	-2.8	-27.4
Max:	1061.7	51.6	1060.5	55.3	1.0	9.6
X inc > 20.0		13		12		
X dec > 9.0		2		2		
X dec > 10.0		2		2		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1042.6	.0	1042.7	.0	.0	.1
1923	1023.0	12.3	1025.8	14.0	.3	2.8
1924	962.4	-11.8	967.4	-11.5	.5	5.0
1925	1020.7	29.7	1022.1	29.4	.1	1.4
1926	1028.8	11.3	1032.5	10.7	.4	3.7
1927	1063.8	19.8	1063.8	20.1	.0	.0
1928	1059.2	15.9	1059.2	15.9	.0	.0
1929	1007.5	3.9	1004.6	2.2	-.3	-2.9
1930	1029.5	5.6	1027.5	6.3	-.2	-2.0
1931	966.8	-14.6	961.1	-14.8	-.6	-5.7
1932	957.0	8.1	946.1	10.5	-1.1	-10.9
1933	957.7	5.3	941.8	5.2	-1.7	-15.9
1934	974.5	.2	957.8	-.7	-1.7	-16.7
1935	1017.3	45.0	997.1	52.2	-2.0	-20.2
1936	1033.7	9.0	1027.4	10.5	-.6	-6.3
1937	1015.1	31.1	1023.5	29.9	.8	8.4
1938	1046.7	24.4	1046.7	24.4	.0	.0
1939	1027.2	.5	1024.3	-1.5	-.3	-2.9
1940	1049.9	26.8	1049.9	26.8	.0	.0
1941	1060.6	18.2	1060.6	18.2	.0	.0
1942	1056.7	22.1	1056.7	22.1	.0	.0
1943	1062.9	14.1	1062.9	14.1	.0	.0
1944	1030.3	4.7	1028.1	5.1	-.2	-2.2
1945	1045.0	5.0	1044.8	4.9	.0	-.2
1946	1050.0	6.9	1050.1	7.9	.0	.1
1947	1032.1	5.9	1029.9	6.7	-.2	-2.2
1948	1051.9	34.0	1051.3	34.7	-.1	-.6
1949	1058.5	11.6	1054.8	10.2	-.3	-3.7
1950	1041.4	12.4	1038.9	12.5	-.2	-2.5
1951	1053.3	4.1	1052.6	3.6	-.1	-.7
1952	1054.9	9.5	1054.9	9.5	.0	.0
1953	1054.3	11.2	1052.7	10.8	-.2	-1.6
1954	1063.6	15.2	1063.6	15.2	.0	.0
1955	1035.1	11.9	1034.8	11.8	.0	-.3
1956	1058.5	16.5	1056.5	15.3	-.2	-2.0
1957	1054.6	5.4	1053.9	4.7	-.1	-.7
1958	1050.8	28.5	1050.8	28.5	.0	.0
1959	1051.0	3.6	1048.4	4.9	-.2	-2.6
1960	1048.6	3.6	1043.8	4.5	-.5	-4.8
1961	1052.7	.5	1057.5	3.5	.5	4.8
1962	1053.6	9.3	1053.6	9.3	.0	.0
1963	1049.5	-3.2	1049.5	-3.2	.0	.0
1964	1028.6	-2.4	1027.3	-2.5	-.1	-1.3
1965	1061.3	25.7	1061.3	25.7	.0	.0
1966	1063.8	11.0	1063.8	11.0	.0	.0
1967	1061.4	15.6	1061.4	15.6	.0	.0
1968	1050.6	1.7	1050.9	2.4	.0	.3
1969	1059.8	14.1	1059.8	14.1	.0	.0
1970	1046.3	2.7	1045.6	2.7	-.1	-.7
1971	1058.5	18.6	1058.5	18.6	.0	.0
1972	1061.8	8.3	1061.5	8.0	.0	-.3
1973	1058.5	8.1	1058.5	8.1	.0	.0
1974	1054.9	32.6	1054.9	32.6	.0	.0
1975	1056.2	19.0	1056.2	19.0	.0	.0
1976	1027.1	5.2	1026.7	5.2	.0	-.4
1977	930.4	-17.6	931.4	-17.5	.1	1.0
1978	1063.8	20.7	1063.8	20.7	.0	.0
1979	1040.0	5.5	1038.9	5.9	-.1	-1.1
1980	1051.5	8.8	1050.1	8.8	-.1	-1.4
1981	1055.3	3.8	1050.3	3.8	-.5	-5.0
1982	1047.9	5.0	1047.9	5.0	.0	.0
1983	1047.3	25.0	1047.3	25.0	.0	.0
1984	1063.8	2.1	1063.8	3.3	.0	.0
1985	1031.0	6.0	1031.0	6.0	.0	.0
1986	1038.1	11.1	1038.1	11.1	.0	.0
1987	1033.0	-4.3	1028.9	-4.6	-.4	-4.1
1988	1021.0	2.5	1012.0	.2	-.9	-9.0
1989	1050.7	12.0	1050.7	12.0	.0	.0
1990	1007.3	-2.7	1003.7	-5.7	-.4	-3.6
1991	973.8	7.9	965.3	8.3	-.9	-8.5
Mean:	1037.1	10.3	1035.5	10.4	-.2	-1.6
Median:	1048.6	8.3	1047.9	8.8	.0	.0
Min:	930.4	-17.6	931.4	-17.5	-2.0	-20.2
Max:	1063.8	45.0	1063.8	52.2	.8	8.4
X inc > 20.0		12		13		
X dec > 9.0		3		3		
X dec > 10.0		3		3		
X dec > 15.0		1		1		

SHASTA RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1053.7	.0	1053.3	.0	.0	-.4
1923	1020.0	-3.0	1019.4	-6.4	-.1	-.6
1924	952.4	-10.0	955.7	-11.7	.3	3.3
1925	1030.6	9.9	1033.5	11.4	.3	2.9
1926	1026.3	-2.5	1029.2	-3.3	.3	2.9
1927	1063.8	.0	1063.8	.0	.0	.0
1928	1056.0	-3.2	1054.4	-4.8	-.2	-1.6
1929	1002.3	-5.2	997.2	-7.4	-.5	-5.1
1930	1029.0	-.5	1026.8	-.7	-.2	-2.2
1931	957.1	-9.7	949.0	-12.1	-.8	-8.1
1932	965.2	8.2	955.1	9.0	-1.0	-10.1
1933	958.9	1.2	942.7	.9	-1.7	-16.2
1934	964.9	-9.6	946.6	-11.2	-1.9	-18.3
1935	1023.5	6.2	1010.0	12.9	-1.3	-13.5
1936	1027.7	-6.0	1024.1	-3.3	-.4	-3.6
1937	1020.2	5.1	1029.7	6.2	.9	9.5
1938	1063.8	17.1	1063.8	17.1	.0	.0
1939	1016.6	-10.6	1013.3	-11.0	-.3	-3.3
1940	1054.5	4.6	1051.4	1.5	-.3	-3.1
1941	1063.8	3.2	1063.8	3.2	.0	.0
1942	1063.8	7.1	1063.8	7.1	.0	.0
1943	1063.8	.9	1063.8	.9	.0	.0
1944	1031.0	.7	1027.1	-1.0	-.4	-3.9
1945	1047.9	2.9	1048.1	3.3	.0	.2
1946	1050.8	.8	1047.6	-2.5	-.3	-3.2
1947	1021.0	-11.1	1019.5	-10.4	-.1	-1.5
1948	1063.8	11.9	1063.8	12.5	.0	.0
1949	1059.4	.9	1056.1	1.3	-.3	-3.3
1950	1038.5	-2.9	1032.4	-6.5	-.6	-6.1
1951	1059.7	6.4	1059.0	6.4	-.1	-.7
1952	1063.8	8.9	1063.8	8.9	.0	.0
1953	1063.8	9.5	1063.8	11.1	.0	.0
1954	1061.5	-2.1	1058.8	-4.8	-.3	-2.7
1955	1045.4	10.3	1043.9	9.1	-.1	-1.5
1956	1063.8	5.3	1063.8	7.3	.0	.0
1957	1063.8	9.2	1063.8	9.9	.0	.0
1958	1063.8	13.0	1063.8	13.0	.0	.0
1959	1047.3	-3.7	1043.3	-5.1	-.4	-4.0
1960	1053.4	4.8	1050.2	6.4	-.3	-3.2
1961	1050.3	-2.4	1051.5	-6.0	.1	1.2
1962	1052.0	-1.6	1051.8	-1.8	.0	-.2
1963	1063.8	14.3	1063.8	14.3	.0	.0
1964	1025.0	-3.6	1024.2	-3.1	-.1	-.8
1965	1062.0	.7	1061.6	.3	.0	-.4
1966	1055.9	-7.9	1052.9	-10.9	-.3	-3.0
1967	1063.8	2.4	1063.8	2.4	.0	.0
1968	1048.2	-2.4	1046.9	-4.0	-.1	-1.3
1969	1063.8	4.0	1063.8	4.0	.0	.0
1970	1045.3	-1.0	1044.2	-1.4	-.1	-1.1
1971	1063.8	5.3	1063.8	5.3	.0	.0
1972	1053.3	-8.5	1050.9	-10.6	-.2	-2.4
1973	1063.1	4.6	1058.0	-.5	-.5	-5.1
1974	1063.8	8.9	1063.8	8.9	.0	.0
1975	1063.8	7.6	1063.8	7.6	.0	.0
1976	1024.1	-3.0	1020.4	-6.3	-.4	-3.7
1977	930.9	.5	929.5	-1.9	-.2	-1.4
1978	1063.8	.0	1063.8	.0	.0	.0
1979	1048.9	8.9	1043.8	4.9	-.5	-5.1
1980	1054.7	3.2	1051.7	1.6	-.3	-3.0
1981	1047.1	-8.2	1042.4	-7.9	-.4	-4.7
1982	1063.8	15.9	1060.3	12.4	-.3	-3.5
1983	1063.8	16.5	1063.8	16.5	.0	.0
1984	1060.2	-3.6	1058.6	-5.2	-.2	-1.6
1985	1027.7	-3.3	1025.1	-5.9	-.3	-2.6
1986	1042.1	4.0	1039.5	1.4	-.2	-2.6
1987	1023.0	-10.0	1016.1	-12.8	-.7	-6.9
1988	1016.5	-4.5	1008.6	-3.4	-.8	-7.9
1989	1045.6	-5.1	1044.8	-5.9	-.1	-.8
1990	1010.9	3.6	1006.7	3.0	-.4	-4.2
1991	974.2	.4	965.9	.6	-.9	-8.3
Mean:	1038.7	1.5	1036.4	.8	-.2	-2.4
Median:	1050.3	.7	1048.1	.0	-.1	-1.5
Min:	930.9	-11.1	929.5	-12.8	-1.9	-18.3
Max:	1063.8	17.1	1063.8	17.1	.9	9.5
X inc > 20.0		0		0		
X dec > 9.0		6		8		
X dec > 10.0		2		8		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1046.5	.0	1045.5	.0	-.1	-1.0
1923	1010.4	-9.6	1010.4	-9.0	.0	.0
1924	934.6	-17.8	937.7	-18.0	.3	3.1
1925	1024.9	-5.7	1031.1	-2.4	.6	6.2
1926	1012.6	-13.7	1015.4	-13.8	.3	2.8
1927	1058.7	-5.1	1053.6	-10.2	-.5	-5.1
1928	1045.8	-10.2	1042.9	-11.5	-.3	-2.9
1929	996.1	-6.2	991.6	-5.6	-.5	-4.5
1930	1017.9	-11.1	1014.8	-12.0	-.3	-3.1
1931	944.8	-12.3	934.6	-14.4	-1.1	-10.2
1932	960.9	-4.3	948.2	-6.9	-1.3	-12.7
1933	953.6	-5.3	939.2	-3.5	-1.5	-14.4
1934	947.1	-17.8	927.6	-19.0	-2.1	-19.5
1935	1009.5	-14.0	993.4	-16.6	-1.6	-16.1
1936	1020.0	-7.7	1019.0	-5.1	-.1	-1.0
1937	1013.6	-6.6	1023.6	-6.1	1.0	10.0
1938	1058.7	-5.1	1058.7	-5.1	.0	.0
1939	1003.1	-13.5	998.0	-15.3	-.5	-5.1
1940	1046.1	-8.4	1039.2	-12.2	-.7	-6.9
1941	1058.7	-5.1	1058.7	-5.1	.0	.0
1942	1058.7	-5.1	1058.7	-5.1	.0	.0
1943	1057.0	-6.8	1054.6	-9.2	-.2	-2.4
1944	1021.7	-9.3	1016.3	-10.8	-.5	-5.4
1945	1040.2	-7.7	1039.6	-8.5	-.1	.6
1946	1042.2	-8.6	1035.7	-11.9	-.6	-6.5
1947	1017.2	-3.8	1016.2	-3.3	-.1	-1.0
1948	1058.7	-5.1	1058.7	-5.1	.0	.0
1949	1044.5	-14.9	1036.4	-19.7	-.8	-8.1
1950	1028.1	-10.4	1020.7	-11.7	-.7	-7.4
1951	1049.4	-10.3	1044.3	-14.7	-.5	-5.1
1952	1058.7	-5.1	1058.7	-5.1	.0	.0
1953	1058.7	-5.1	1058.7	-5.1	.0	.0
1954	1054.9	-6.6	1051.6	-7.2	-.3	-3.3
1955	1025.8	-19.6	1031.6	-12.3	.6	5.8
1956	1058.7	-5.1	1058.7	-5.1	.0	.0
1957	1058.7	-5.1	1056.4	-7.4	-.2	-2.3
1958	1058.7	-5.1	1058.7	-5.1	.0	.0
1959	1031.6	-15.7	1027.2	-16.1	-.4	-4.4
1960	1036.7	-16.7	1040.6	-9.6	.4	3.9
1961	1038.0	-12.3	1042.8	-8.7	.5	4.8
1962	1043.1	-8.9	1040.4	-11.4	-.3	-2.7
1963	1058.7	-5.1	1055.8	-8.0	-.3	-2.9
1964	1022.1	-2.9	1020.6	-3.6	-.1	-1.5
1965	1056.5	-5.5	1050.3	-11.3	-.6	-6.2
1966	1043.4	-12.5	1036.7	-16.2	-.6	-6.7
1967	1058.7	-5.1	1058.7	-5.1	.0	.0
1968	1036.3	-11.9	1034.0	-12.9	-.2	-2.3
1969	1058.7	-5.1	1058.7	-5.1	.0	.0
1970	1039.3	-6.0	1035.1	-9.1	-.4	-4.2
1971	1058.7	-5.1	1058.7	-5.1	.0	.0
1972	1045.1	-8.2	1041.1	-9.8	-.4	-4.0
1973	1055.2	-7.9	1049.4	-8.6	-.5	-5.8
1974	1058.7	-5.1	1058.7	-5.1	.0	.0
1975	1058.7	-5.1	1058.7	-5.1	.0	.0
1976	1014.5	-9.6	1010.8	-9.6	-.4	-3.7
1977	917.9	-13.0	916.4	-13.1	-.2	-1.5
1978	1054.2	-9.6	1053.0	-10.8	-.1	-1.2
1979	1035.5	-13.4	1027.6	-16.2	-.8	-7.9
1980	1049.3	-5.4	1043.0	-8.7	-.6	-6.3
1981	1034.8	-12.3	1028.2	-14.2	-.6	-6.6
1982	1058.7	-5.1	1056.7	-3.6	-.2	-2.0
1983	1062.2	-1.6	1062.2	-1.6	.0	.0
1984	1054.3	-5.9	1049.3	-9.3	-.5	-5.0
1985	1016.9	-10.8	1012.9	-12.2	-.4	-4.0
1986	1032.5	-9.6	1026.3	-13.2	-.6	-6.2
1987	1007.6	-15.4	998.3	-17.8	-.9	-9.3
1988	1004.0	-12.5	999.3	-9.3	-.5	-4.7
1989	1031.8	-13.8	1030.9	-13.9	-.1	-.9
1990	1007.1	-3.8	1004.0	-2.7	-.3	-3.1
1991	964.5	-9.7	956.2	-9.7	-.9	-8.3
Mean:	1030.0	-8.6	1026.9	-9.4	-.3	-3.1
Median:	1039.3	-7.9	1036.4	-9.3	-.3	-2.9
Min:	917.9	-19.6	916.4	-19.7	-2.1	-19.5
Max:	1062.2	.0	1062.2	.0	1.0	10.0
X inc > 20.0		0		0		
X dec > 9.0		30		37		
X dec > 10.0		24		29		
X dec > 15.0		6		9		

SHASTA RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1033.2	.0	1029.2	.0	-.4	-4.0
1923	995.3	-15.1	997.7	-12.7	.2	2.4
1924	913.2	-21.4	916.8	-20.9	.4	3.6
1925	1009.6	-15.3	1017.6	-13.5	.8	8.0
1926	997.0	-15.6	998.0	-17.4	.1	1.0
1927	1040.9	-17.8	1038.1	-15.5	-.3	-2.8
1928	1020.4	-25.4	1017.0	-25.9	-.3	-3.4
1929	981.4	-14.7	976.3	-15.3	-.5	-5.1
1930	1002.6	-15.3	998.4	-16.4	-.4	-4.2
1931	923.1	-21.7	914.8	-19.8	-.9	-8.3
1932	946.4	-14.5	929.8	-18.4	-1.8	-16.6
1933	940.8	-12.8	924.7	-14.5	-1.7	-16.1
1934	928.1	-19.0	902.6	-25.0	-2.7	-25.5
1935	989.1	-20.4	967.5	-25.9	-2.2	-21.6
1936	999.1	-20.9	1000.5	-18.5	.1	1.4
1937	995.2	-18.4	1004.3	-19.3	.9	9.1
1938	1042.6	-16.1	1041.6	-17.1	-.1	-1.0
1939	988.1	-15.0	981.7	-16.3	-.6	-6.4
1940	1030.6	-15.5	1020.5	-18.7	-1.0	-10.1
1941	1043.7	-15.0	1043.7	-15.0	.0	.0
1942	1042.9	-15.8	1040.9	-17.8	-.2	-2.0
1943	1040.9	-16.1	1039.6	-15.0	-.1	-1.3
1944	1005.8	-15.9	1002.2	-14.1	-.4	-3.6
1945	1019.8	-20.4	1015.9	-23.7	-.4	-3.9
1946	1025.0	-17.2	1016.5	-19.2	-.8	-8.5
1947	1001.2	-16.0	999.0	-17.2	-.2	-2.2
1948	1040.9	-17.8	1040.9	-17.8	.0	.0
1949	1028.8	-15.7	1020.1	-16.3	-.8	-8.7
1950	1010.7	-17.4	1002.3	-18.4	-.8	-8.4
1951	1033.4	-16.0	1025.6	-18.7	-.8	-7.8
1952	1043.0	-15.7	1042.4	-16.3	-.1	-.6
1953	1042.8	-15.9	1042.8	-15.9	.0	.0
1954	1035.2	-19.7	1028.5	-23.1	-.6	-6.7
1955	1010.6	-15.2	1018.4	-13.2	.8	7.8
1956	1041.8	-16.9	1040.9	-17.8	-.1	-.9
1957	1040.9	-17.8	1039.4	-17.0	-.1	-1.5
1958	1044.6	-14.1	1044.6	-14.1	.0	.0
1959	1006.5	-25.1	1000.6	-26.6	-.6	-5.9
1960	1016.3	-20.4	1023.0	-17.6	.7	6.7
1961	1017.6	-20.4	1026.6	-16.2	.9	9.0
1962	1029.4	-13.7	1023.1	-17.3	-.6	-6.3
1963	1040.9	-17.8	1040.9	-14.9	.0	.0
1964	1008.2	-13.9	1006.3	-14.3	-.2	-1.9
1965	1040.9	-15.6	1035.2	-15.1	-.5	-5.7
1966	1025.1	-18.3	1017.3	-19.4	-.8	-7.8
1967	1042.9	-15.8	1041.0	-17.7	-.2	-1.9
1968	1014.9	-21.4	1011.8	-22.2	-.3	-3.1
1969	1042.0	-16.7	1040.9	-17.8	-.1	-1.1
1970	1017.0	-22.3	1013.0	-22.1	-.4	-4.0
1971	1043.2	-15.5	1040.9	-17.8	-.2	-2.3
1972	1023.0	-22.1	1018.6	-22.5	-.4	-4.4
1973	1039.7	-15.5	1028.7	-20.7	-1.1	-11.0
1974	1044.2	-14.5	1043.7	-15.0	.0	-.5
1975	1042.7	-16.0	1042.7	-16.0	.0	.0
1976	1000.9	-13.6	996.2	-14.6	-.5	-4.7
1977	892.3	-25.6	887.5	-28.9	-.5	-4.8
1978	1040.9	-13.3	1039.1	-13.9	-.2	-1.8
1979	1017.4	-18.1	1006.0	-21.6	-1.1	-11.4
1980	1039.6	-9.7	1032.2	-10.8	-.7	-7.4
1981	1019.6	-15.2	1013.5	-14.7	-.6	-6.1
1982	1042.2	-16.5	1040.9	-15.8	-.1	-1.3
1983	1049.8	-12.4	1049.8	-12.4	.0	.0
1984	1038.9	-15.4	1032.9	-16.4	-.6	-6.0
1985	1004.3	-12.6	1000.6	-12.3	-.4	-3.7
1986	1019.9	-12.6	1011.2	-15.1	-.9	-8.7
1987	995.2	-12.4	980.9	-17.4	-1.4	-14.3
1988	985.2	-18.8	981.7	-17.6	-.4	-3.5
1989	1012.5	-19.3	1013.9	-17.0	.1	1.4
1990	986.4	-20.7	985.8	-18.2	-.1	-.6
1991	951.0	-13.5	943.3	-12.9	-.8	-7.7
Mean:	1013.1	-16.7	1009.3	-17.3	-.4	-3.8
Median:	1019.8	-16.0	1017.3	-17.2	-.4	-3.5
Min:	892.3	-25.6	887.5	-28.9	-2.7	-25.5
Max:	1049.8	.0	1049.8	.0	.9	9.1
X inc > 20.0		0		0		
X dec > 9.0		69		69		
X dec > 10.0		68		69		
X dec > 15.0		52		51		

SHASTA RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1019.6	.0	1015.3	.0	-.4	-4.3
1923	978.6	-16.7	983.6	-14.1	.5	5.0
1924	885.9	-27.3	889.4	-27.4	.4	3.5
1925	990.7	-18.9	1001.0	-16.6	1.0	10.3
1926	979.1	-17.9	979.2	-18.8	.0	.1
1927	1019.6	-21.3	1019.6	-18.5	.0	.0
1928	1001.9	-18.5	1000.1	-16.9	-.2	-1.8
1929	965.6	-15.8	960.7	-15.6	-.5	-4.9
1930	983.9	-18.7	978.3	-20.1	-.6	-5.6
1931	897.2	-25.9	879.5	-35.3	-2.0	-17.7
1932	926.4	-20.0	908.6	-21.2	-1.9	-17.8
1933	924.7	-16.1	904.1	-20.6	-2.2	-20.6
1934	908.7	-19.4	866.6	-36.0	-4.6	-42.1
1935	960.1	-29.0	935.7	-31.8	-2.5	-24.4
1936	971.8	-27.3	976.3	-24.2	.5	4.5
1937	973.7	-21.5	980.2	-24.1	.7	6.5
1938	1019.6	-23.0	1019.6	-22.0	.0	.0
1939	971.3	-16.8	964.8	-16.9	-.7	-6.5
1940	1015.2	-15.4	1003.3	-17.2	-1.2	-11.9
1941	1022.4	-21.3	1022.7	-21.0	.0	.3
1942	1020.2	-22.7	1019.6	-21.3	-.1	-.6
1943	1019.6	-21.3	1019.6	-20.0	.0	.0
1944	990.1	-15.7	987.7	-14.5	-.2	-2.4
1945	1003.5	-16.3	998.5	-17.4	-.5	-5.0
1946	1010.3	-14.7	1000.8	-15.7	-.9	-9.5
1947	986.9	-14.3	980.0	-19.0	-.7	-6.9
1948	1019.6	-21.3	1019.3	-21.6	.0	-.3
1949	1014.3	-14.5	1004.6	-15.5	-1.0	-9.7
1950	993.4	-17.3	983.7	-18.6	-1.0	-9.7
1951	1019.3	-14.1	1010.1	-15.5	-.9	-9.2
1952	1019.6	-23.4	1019.6	-22.8	.0	.0
1953	1019.7	-23.1	1020.1	-22.7	.0	.4
1954	1019.6	-15.6	1019.5	-9.0	.0	-.1
1955	996.9	-13.7	1002.9	-15.5	.6	6.0
1956	1019.6	-22.2	1019.6	-21.3	.0	.0
1957	1019.6	-21.3	1019.6	-19.8	.0	.0
1958	1023.8	-20.8	1024.1	-20.5	.0	.3
1959	994.8	-11.7	985.3	-15.3	-1.0	-9.5
1960	1000.5	-15.8	1005.0	-18.0	.4	4.5
1961	1002.2	-15.4	1010.8	-15.8	.9	8.6
1962	1016.2	-13.2	1009.3	-13.8	-.7	-6.9
1963	1019.6	-21.3	1019.6	-21.3	.0	.0
1964	993.2	-15.0	992.2	-14.1	-.1	-1.0
1965	1019.6	-21.3	1019.6	-15.6	.0	.0
1966	1014.4	-10.7	1003.6	-13.7	-1.1	-10.8
1967	1021.0	-21.9	1019.6	-21.4	-.1	-1.4
1968	1009.3	-5.6	1004.8	-7.0	-.4	-4.5
1969	1019.6	-22.4	1019.6	-21.3	.0	.0
1970	1007.1	-9.9	1002.0	-11.0	-.5	-5.1
1971	1019.6	-23.6	1019.6	-21.3	.0	.0
1972	1010.1	-12.9	1002.9	-15.7	-.7	-7.2
1973	1019.6	-20.1	1019.1	-9.6	.0	-.5
1974	1023.2	-21.0	1023.0	-20.7	.0	-.2
1975	1020.4	-22.3	1020.8	-21.9	.0	.4
1976	986.3	-14.6	983.7	-12.5	-.3	-2.6
1977	860.2	-32.1	852.3	-35.2	-.9	-7.9
1978	1019.6	-21.3	1019.6	-19.5	.0	.0
1979	1008.1	-9.3	995.8	-10.2	-1.2	-12.3
1980	1019.6	-20.0	1019.6	-12.6	.0	.0
1981	1002.8	-16.8	1001.8	-11.7	-.1	-1.0
1982	1019.6	-22.6	1019.6	-21.3	.0	.0
1983	1031.9	-17.9	1032.2	-17.6	.0	.3
1984	1019.6	-19.3	1019.6	-13.3	.0	.0
1985	989.3	-15.0	988.5	-12.1	-.1	-.8
1986	1007.7	-12.2	996.7	-14.5	-1.1	-11.0
1987	983.2	-12.0	966.7	-14.2	-1.7	-16.5
1988	970.7	-14.5	965.5	-16.2	-.5	-5.2
1989	995.3	-17.2	994.6	-19.3	-.1	-.7
1990	970.5	-15.9	967.4	-18.4	-.3	-3.1
1991	938.9	-12.1	932.1	-11.2	-.7	-6.8
Mean:	994.9	-18.0	991.0	-18.1	-.4	-3.9
Median:	1007.7	-17.9	1002.9	-18.0	-.1	-1.0
Min:	860.2	-32.1	852.3	-36.0	-4.6	-42.1
Max:	1031.9	.0	1032.2	.0	1.0	10.3
X inc > 20.0		0		0		
X dec > 9.0		68		67		
X dec > 10.0		66		66		
X dec > 15.0		50		51		

SHASTA RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1013.1	.0	1008.6	.0	-.4	-4.5
1923	970.3	-8.3	975.4	-8.2	.5	5.1
1924	875.6	-10.3	877.9	-11.5	.3	2.3
1925	982.6	-8.1	993.4	-7.6	1.1	10.8
1926	969.4	-9.7	969.6	-9.6	.0	.2
1927	1017.6	-2.0	1013.7	-5.9	-.4	-3.9
1928	994.4	-7.5	992.6	-7.5	-.2	-1.8
1929	955.3	-10.3	950.2	-10.5	-.5	-5.1
1930	975.0	-8.9	969.1	-9.2	-.6	-5.9
1931	887.0	-10.2	865.9	-13.6	-2.4	-21.1
1932	918.0	-8.4	897.6	-11.0	-2.2	-20.4
1933	917.5	-7.2	893.1	-11.0	-2.7	-24.4
1934	897.3	-11.4	848.8	-17.8	-5.4	-48.5
1935	949.8	-10.3	924.7	-11.0	-2.6	-25.1
1936	961.4	-10.4	966.2	-10.1	.5	4.8
1937	963.5	-10.2	970.4	-9.8	.7	6.9
1938	1017.6	-2.0	1017.6	-2.0	.0	.0
1939	961.9	-9.4	955.1	-9.7	-.7	-6.8
1940	1008.6	-6.6	996.3	-7.0	-1.2	-12.3
1941	1017.6	-4.8	1017.6	-5.1	.0	.0
1942	1017.6	-2.6	1017.6	-2.0	.0	.0
1943	1017.6	-2.0	1014.7	-4.9	-.3	-2.9
1944	982.2	-7.9	979.7	-8.0	-.3	-2.5
1945	996.5	-7.0	991.3	-7.2	-.5	-5.2
1946	1003.7	-6.6	993.9	-6.9	-1.0	-9.8
1947	978.8	-8.1	971.6	-8.4	-.7	-7.2
1948	1015.0	-4.6	1013.1	-6.2	-.2	-1.9
1949	1006.6	-7.7	996.5	-8.1	-1.0	-10.1
1950	985.1	-8.3	975.0	-8.7	-1.0	-10.1
1951	1012.4	-6.9	1002.9	-7.2	-.9	-9.5
1952	1017.6	-2.0	1017.6	-2.0	.0	.0
1953	1017.6	-2.1	1017.6	-2.5	.0	.0
1954	1015.5	-4.1	1014.7	-4.8	-.1	-.8
1955	990.1	-6.8	996.3	-6.6	.6	6.2
1956	1017.6	-2.0	1017.6	-2.0	.0	.0
1957	1017.6	-2.0	1017.2	-2.4	.0	-.4
1958	1017.6	-6.2	1017.6	-6.5	.0	.0
1959	990.7	-4.1	981.0	-4.3	-1.0	-9.7
1960	993.7	-6.8	998.4	-6.6	.5	4.7
1961	995.2	-7.0	1004.1	-6.7	.9	8.9
1962	1009.2	-7.0	1002.1	-7.2	-.7	-7.1
1963	1017.6	-2.0	1017.5	-2.1	.0	-.1
1964	985.3	-7.9	984.2	-8.0	-.1	-1.1
1965	1017.6	-2.0	1014.3	-5.3	-.3	-3.3
1966	1008.1	-6.3	997.0	-6.6	-1.1	-11.1
1967	1017.6	-3.4	1017.6	-2.0	.0	0
1968	1003.8	-5.5	999.2	-5.6	-.5	-4.6
1969	1017.6	-2.0	1017.6	-2.0	.0	.0
1970	1001.4	-5.7	996.3	-5.7	-.5	-5.1
1971	1017.6	-2.0	1017.6	-2.0	.0	.0
1972	1005.1	-5.0	997.7	-5.2	-.7	-7.4
1973	1014.8	-4.8	1013.6	-5.5	-.1	-1.2
1974	1017.6	-5.6	1017.6	-5.4	.0	.0
1975	1017.6	-2.8	1017.6	-3.2	.0	.0
1976	980.3	-6.0	977.6	-6.1	-.3	-2.7
1977	857.7	-2.5	849.6	-2.7	-.9	-8.1
1978	1015.8	-3.8	1015.2	-4.4	-.1	-.6
1979	1001.1	-7.0	988.4	-7.4	-1.3	-12.7
1980	1015.0	-4.6	1014.4	-5.2	-.1	-.6
1981	995.2	-7.6	994.1	-7.7	-.1	-1.1
1982	1017.6	-2.0	1017.6	-2.0	.0	.0
1983	1017.6	-14.3	1017.6	-14.6	.0	.0
1984	1015.5	-4.1	1015.5	-4.1	.0	.0
1985	983.3	-6.0	982.5	-6.0	-.1	-.8
1986	1003.3	-4.4	992.1	-4.6	-1.1	-11.2
1987	975.8	-7.4	958.6	-8.1	-1.8	-17.2
1988	962.4	-8.3	956.8	-8.7	-.6	-5.6
1989	988.8	-6.5	988.1	-6.5	-.1	-.7
1990	961.6	-8.9	958.3	-9.1	-.3	-3.3
1991	933.0	-5.9	926.0	-6.1	-.8	-7.0
Mean:	988.8	-6.0	984.4	-6.6	-.5	-4.5
Median:	1001.4	-6.5	996.3	-6.6	-.2	-1.9
Min:	857.7	-14.3	848.8	-17.8	-5.4	-48.5
Max:	1017.6	.0	1017.6	.0	1.1	10.8
X inc > 20.0		0		0		
X dec > 9.0		10		14		
X dec > 10.0		8		9		
X dec > 15.0		0		1		

RETURN TO TABLE OF CONTENTS

Section 14

SHASTA RESERVOIR ELEVATION
14.2 Recreation

SHASTA RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.6	.0	997.7	.0	.0	.1
1923	1009.3	-3.8	1004.7	-3.9	-.5	-4.6
1924	969.7	-.6	976.0	.6	.6	6.3
1925	877.0	1.4	879.3	1.4	.3	2.3
1926	981.9	-.7	991.2	-2.2	.9	9.3
1927	969.5	.1	969.7	.1	.0	.2
1928	1015.5	-2.1	1008.9	-4.8	-.6	-6.6
1929	990.7	-3.7	988.8	-3.8	-.2	-1.9
1930	955.3	.0	949.6	-.6	-.6	-5.7
1931	973.6	-1.4	968.4	-.7	-.5	-5.2
1932	884.8	-2.2	863.7	-2.2	-2.4	-21.1
1933	913.5	-4.5	892.4	-5.2	-2.3	-21.1
1934	916.0	-1.5	890.5	-2.6	-2.8	-25.5
1935	895.2	-2.1	845.8	-3.0	-5.5	-49.4
1936	946.0	-3.8	922.8	-1.9	-2.5	-23.2
1937	954.3	-7.1	962.5	-3.7	.9	8.2
1938	963.0	-.5	970.0	-.4	.7	7.0
1939	1015.5	-2.1	1015.5	-2.1	.0	.0
1940	962.5	.6	955.7	.6	-.7	-6.8
1941	1004.2	-4.4	993.1	-3.2	-1.1	-11.1
1942	1015.5	-2.1	1015.5	-2.1	.0	.0
1943	1015.5	-2.1	1015.5	-2.1	.0	.0
1944	1015.5	-2.1	1010.7	-4.0	-.5	-4.8
1945	981.1	-1.1	979.4	-.3	-.2	-1.7
1946	996.3	-.2	992.7	1.4	-.4	-3.6
1947	999.6	-4.1	991.0	-2.9	-.9	-8.6
1948	982.0	3.2	976.7	5.1	-.5	-5.3
1949	1015.1	.1	1008.6	-4.5	-.6	-6.5
1950	1000.9	-5.7	991.9	-4.6	-.9	-9.0
1951	999.4	14.3	991.4	16.4	-.8	-8.0
1952	1008.8	-3.6	999.8	-3.1	-.9	-9.0
1953	1015.5	-2.1	1015.5	-2.1	.0	.0
1954	1015.5	-2.1	1015.5	-2.1	.0	.0
1955	1015.3	-.2	1011.4	-3.3	-.4	-3.9
1956	987.4	-2.7	992.3	-4.0	.5	4.9
1957	1015.5	-2.1	1015.5	-2.1	.0	.0
1958	1015.5	-2.1	1015.5	-1.7	.0	.0
1959	1015.5	-2.1	1015.5	-2.1	.0	.0
1960	989.3	-1.4	981.2	.2	-.8	-8.1
1961	991.4	-2.3	995.5	-2.9	.4	4.1
1962	992.7	-2.5	1000.3	-3.8	.8	7.6
1963	1015.5	6.3	1015.5	13.4	.0	.0
1964	1015.5	-2.1	1015.5	-2.0	.0	.0
1965	983.6	-1.7	982.5	-1.7	-.1	-1.1
1966	1015.5	-2.1	1010.4	-3.9	-.5	-5.1
1967	1003.3	-4.8	993.3	-3.7	-1.0	-10.0
1968	1015.5	-2.1	1015.5	-2.1	.0	.0
1969	1001.5	-2.3	997.5	-1.7	-.4	-4.0
1970	1015.5	-2.1	1015.5	-2.1	.0	.0
1971	999.9	-1.5	995.3	-1.0	-.5	-4.6
1972	1015.5	-2.1	1015.5	-2.1	.0	.0
1973	1003.9	-1.2	998.0	.3	-.6	-5.9
1974	1015.5	.7	1013.6	.0	-.2	-1.9
1975	1015.5	-2.1	1015.5	-2.1	.0	.0
1976	1015.5	-2.1	1015.5	-2.1	.0	.0
1977	981.2	.9	978.5	.9	-.3	-2.7
1978	848.4	-9.3	839.8	-9.8	-1.0	-8.6
1979	1013.8	-2.0	1011.1	-4.1	-.3	-2.7
1980	1000.0	-1.1	989.6	1.2	-1.0	-10.4
1981	1010.7	-4.3	1009.8	-4.6	-.1	-.9
1982	993.5	-1.7	992.4	-1.7	-.1	-1.1
1983	1015.5	-2.1	1015.5	-2.1	.0	.0
1984	1015.5	-2.1	1015.5	-2.1	.0	.0
1985	1015.5	.0	1014.1	-1.4	-.1	-1.4
1986	983.8	.5	983.0	.5	-.1	-.8
1987	1001.3	-2.0	991.6	-.5	-1.0	-9.7
1988	974.7	-1.1	959.9	1.3	-1.5	-14.8
1989	963.4	1.0	957.9	1.1	-.6	-5.5
1990	992.0	3.2	991.4	3.3	-.1	-.6
1991	961.6	.0	958.6	.3	-.3	-3.0
Mean:	988.3	-1.4	984.1	-1.3	-.4	-4.2
Median:	999.9	-2.1	993.1	-2.1	-.2	-1.9
Min:	848.4	-9.3	839.8	-9.8	-5.5	-49.4
Max:	1015.5	14.3	1015.5	16.4	.9	9.3
X > 1020.0	0		0			
X > 1017.0	0		0			
X > 995.0	40		34			
X > 980.0	53		50			
X > 973.0	55		54			
X > 955.0	62		62			
X > 951.0	63		62			
X > 943.0	64		63			
X > 941.0	64		63			

SHASTA RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	995.9	.0	996.0	.0	.0	.1
1923	1006.6	-2.7	1002.0	-2.7	-.5	-4.6
1924	968.4	-1.3	975.7	-.3	.8	7.3
1925	890.6	13.6	892.7	13.4	.2	2.1
1926	982.3	.4	990.2	-1.0	.8	7.9
1927	993.0	23.5	993.2	23.5	.0	.2
1928	1015.6	.1	1014.5	5.6	-.1	-1.1
1929	989.3	-1.4	987.4	-1.4	-.2	-1.9
1930	954.0	-1.3	948.9	-.7	-.5	-5.1
1931	972.5	-1.1	967.7	-.7	-.5	-4.8
1932	883.4	-1.4	862.1	-1.6	-2.4	-21.3
1933	910.5	-3.0	889.1	-3.3	-2.4	-21.4
1934	914.6	-1.4	888.8	-1.7	-2.8	-25.8
1935	905.7	10.5	861.0	15.2	-4.9	-44.7
1936	942.0	-4.0	919.9	-2.9	-2.3	-22.1
1937	948.9	-5.4	960.4	-2.1	1.2	11.5
1938	991.8	28.8	997.0	27.0	.5	5.2
1939	1013.7	-1.8	1013.3	-2.2	.0	-.4
1940	962.2	-.3	956.3	.6	-.6	-5.9
1941	1001.4	-2.8	991.5	-1.6	-1.0	-9.9
1942	1013.5	-2.0	1013.1	-2.4	.0	-.4
1943	1015.6	.1	1015.2	-.3	.0	-.4
1944	1012.7	-2.8	1008.0	-2.7	-.5	-4.7
1945	988.2	7.1	987.3	7.9	-.1	-.9
1946	1005.4	9.1	1003.5	10.8	-.2	-1.9
1947	999.4	-.2	992.2	1.2	-.7	-7.2
1948	982.6	.6	978.9	2.2	-.4	-3.7
1949	1011.7	-3.4	1005.5	-3.1	-.6	-6.2
1950	995.9	-5.0	988.2	-3.7	-.8	-7.7
1951	1014.8	15.4	1009.5	18.1	-.5	-5.3
1952	1011.7	2.9	1004.2	4.4	-.7	-7.5
1953	1011.7	-3.8	1011.7	-3.8	.0	.0
1954	1015.6	.1	1015.6	.1	.0	.0
1955	1015.6	.3	1012.6	1.2	-.3	-3.0
1956	989.4	2.0	992.8	.5	.3	3.4
1957	1012.8	-2.7	1012.6	-2.9	.0	-.2
1958	1015.6	.1	1015.6	.1	.0	.0
1959	1012.7	-2.8	1012.7	-2.8	.0	.0
1960	987.8	-1.5	980.9	-.3	-.7	-6.9
1961	993.9	2.5	997.2	1.7	.3	3.3
1962	995.8	3.1	1002.0	1.7	.6	6.2
1963	1015.0	-.5	1015.6	.1	.1	.6
1964	1015.6	.1	1015.6	.1	.0	.0
1965	988.2	4.6	987.2	4.7	-.1	-1.0
1966	1015.6	.1	1015.6	5.2	.0	.0
1967	1013.5	10.2	1006.0	12.7	-.7	-7.5
1968	1012.9	-2.6	1012.6	-2.9	.0	-.3
1969	1000.8	-.7	997.6	.1	-.3	-3.2
1970	1013.0	-2.5	1013.0	-2.5	.0	.0
1971	1015.6	15.7	1012.4	17.1	-.3	-3.2
1972	1014.7	-.8	1014.3	-1.2	.0	-.4
1973	1010.8	6.9	1006.3	8.3	-.4	-4.5
1974	1015.6	.1	1015.6	2.0	.0	.0
1975	1014.4	-1.1	1014.4	-1.1	.0	.0
1976	1015.6	.1	1015.6	.1	.0	.0
1977	981.8	.6	979.2	.7	-.3	-2.6
1978	842.1	-6.3	833.3	-6.5	-1.0	-8.8
1979	1010.5	-3.3	1007.8	-3.3	-.3	-2.7
1980	1002.4	2.4	994.3	4.7	-.8	-8.1
1981	1008.7	-2.0	1007.7	-2.1	-.1	-1.0
1982	1015.6	22.1	1015.6	23.2	.0	.0
1983	1015.6	.1	1015.6	.1	.0	.0
1984	1015.6	.1	1015.6	.1	.0	.0
1985	1015.6	.1	1015.6	1.5	.0	.0
1986	984.5	.7	983.7	.7	-.1	-.8
1987	998.5	-2.8	990.2	-1.4	-.8	-8.3
1988	975.7	1.0	962.8	2.9	-1.3	-12.9
1989	974.0	10.6	969.6	11.7	-.5	-4.4
1990	990.9	-1.1	990.4	-1.0	-.1	-.5
1991	959.4	-2.2	958.0	-.6	-.1	-1.4
Mean:	990.0	1.7	986.4	2.3	-.4	-3.6
Median:	1001.4	.0	997.6	.1	-.1	-1.0
Min:	842.1	-6.3	833.3	-6.5	-4.9	-44.7
Max:	1015.6	28.8	1015.6	27.0	1.2	11.5
X > 1020.0	0		0			
X > 1017.0	0		0			
X > 995.0	42		39			
X > 980.0	55		53			
X > 973.0	57		56			
X > 955.0	61		62			
X > 951.0	62		62			
X > 943.0	63		63			
X > 941.0	64		63			

SHASTA RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.8	.0	997.9	.0	.0	.1
1923	1006.3	-.3	1002.0	.0	-.4	-4.3
1924	968.0	-.4	975.1	-.6	.7	7.1
1925	898.5	7.9	900.5	7.8	.2	2.0
1926	981.6	-.7	988.1	-2.1	.7	6.5
1927	1014.4	21.4	1014.5	21.3	.0	.1
1928	1016.4	.8	1014.5	.0	-.2	-1.9
1929	987.7	-1.6	985.8	-1.6	-.2	-1.9
1930	981.7	27.7	977.4	28.5	-.4	-4.3
1931	970.6	-1.9	966.1	-1.6	-.5	-4.5
1932	900.7	17.3	882.2	20.1	-2.1	-18.5
1933	909.0	-1.5	887.4	-1.7	-2.4	-21.6
1934	923.4	8.8	899.3	10.5	-2.6	-24.1
1935	908.7	3.0	865.2	4.2	-4.8	-43.5
1936	940.5	-1.5	920.2	.3	-2.2	-20.3
1937	944.7	-4.2	959.1	-1.3	1.5	14.4
1938	1018.0	26.2	1018.0	21.0	.0	.0
1939	1015.1	1.4	1014.1	.8	-.1	-1.0
1940	970.7	8.5	965.0	8.7	-.6	-5.7
1941	1017.3	15.9	1017.3	25.8	.0	.0
1942	1018.3	4.8	1018.3	5.2	.0	.0
1943	1019.9	4.3	1019.9	4.7	.0	.0
1944	1008.7	-4.0	1004.3	-3.7	-.4	-4.4
1945	999.8	11.6	999.6	12.3	.0	-.2
1946	1016.2	10.8	1016.2	12.7	.0	.0
1947	999.1	-.3	993.3	1.1	-.6	-5.8
1948	982.3	-.3	980.3	1.4	-.2	-2.0
1949	1008.6	-3.1	1002.6	-2.9	-.6	-6.0
1950	989.8	-6.1	983.4	-4.8	-.6	-6.4
1951	1018.5	3.7	1018.5	9.0	.0	.0
1952	1017.9	6.2	1017.9	13.7	.0	.0
1953	1019.4	7.7	1019.4	7.7	.0	.0
1954	1018.9	3.3	1018.4	2.8	.0	-.5
1955	1020.1	4.5	1019.8	7.2	.0	-.3
1956	1015.6	26.2	1015.6	22.8	.0	.0
1957	1009.5	-3.3	1009.2	-3.4	.0	-.3
1958	1019.2	3.6	1019.2	3.6	.0	.0
1959	1010.5	-2.2	1010.5	-2.2	.0	.0
1960	986.5	-1.3	978.2	-2.7	-.8	-8.3
1961	1010.2	16.3	1012.3	15.1	.2	2.1
1962	1006.8	11.0	1011.3	9.3	.4	4.5
1963	1019.6	4.6	1019.6	4.0	.0	.0
1964	1015.5	-.1	1015.0	-.6	.0	-.5
1965	1015.6	27.4	1015.6	28.4	.0	.0
1966	1017.8	2.2	1017.3	1.7	.0	-.5
1967	1019.0	5.5	1019.0	13.0	.0	.0
1968	1013.0	.1	1012.0	-.6	-.1	-1.0
1969	1010.8	10.0	1008.3	10.7	-.2	-2.5
1970	1018.3	5.3	1018.3	5.3	.0	.0
1971	1018.4	2.8	1018.4	6.0	.0	.0
1972	1017.0	2.3	1016.0	1.7	-.1	-1.0
1973	1018.4	7.6	1015.4	9.1	-.3	-3.0
1974	1016.2	.6	1016.2	.6	.0	.0
1975	1016.2	1.8	1015.4	1.0	-.1	-.8
1976	1015.2	-.4	1014.8	-.8	.0	-.4
1977	976.2	-5.6	976.0	-3.2	.0	-.2
1978	883.7	41.6	877.8	44.5	-.7	-5.9
1979	1005.8	-4.7	1003.4	-4.4	-.2	-2.4
1980	1004.3	1.9	998.4	4.1	-.6	-5.9
1981	1010.4	1.7	1008.7	1.0	-.2	-1.7
1982	1016.6	1.0	1016.6	1.0	.0	.0
1983	1018.9	3.3	1018.9	3.3	.0	.0
1984	1017.0	1.4	1017.0	1.4	.0	.0
1985	1020.1	4.5	1020.1	4.5	.0	.0
1986	990.9	6.4	990.1	6.4	-.1	-.8
1987	995.7	-2.8	988.2	-2.0	-.8	-7.5
1988	999.4	23.7	989.6	26.8	-1.0	-9.8
1989	979.1	5.1	975.2	5.6	-.4	-3.9
1990	987.9	-3.0	987.1	-3.3	-.1	-.8
1991	953.8	-5.6	952.6	-5.4	-.1	-1.2
Mean:	995.1	5.1	992.3	5.8	-.3	-2.8
Median:	1010.2	2.3	1009.2	2.8	.0	-.5
Min:	883.7	-6.1	865.2	-5.4	-4.8	-43.5
Max:	1020.1	41.6	1020.1	44.5	1.5	14.4
X > 1020.0	2		1			
X > 1017.0	18		17			
X > 995.0	48		45			
X > 980.0	56		54			
X > 973.0	58		59			
X > 955.0	61		62			
X > 951.0	62		63			
X > 943.0	63		63			
X > 941.0	63		63			

SHASTA RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	999.1	.0	999.2	.0	.0	.1
1923	1010.3	4.0	1006.7	4.7	-.4	-3.6
1924	968.1	.1	975.2	.1	.7	7.1
1925	908.2	9.7	910.0	9.5	.2	1.8
1926	982.5	.9	988.4	.3	.6	5.9
1927	1030.1	15.7	1030.2	15.7	.0	.1
1928	1022.3	5.9	1020.2	5.7	-.2	-2.1
1929	989.2	1.5	987.9	2.1	-.1	-1.3
1930	990.6	8.9	986.4	9.0	-.4	-4.2
1931	973.3	2.7	968.4	2.3	-.5	-4.9
1932	911.8	11.1	894.8	12.6	-1.9	-17.0
1933	911.3	2.3	890.2	2.8	-2.3	-21.1
1934	942.8	19.4	921.4	22.1	-2.3	-21.4
1935	930.1	21.4	893.2	28.0	-4.0	-36.9
1936	975.1	34.6	959.7	39.5	-1.6	-15.4
1937	943.1	-1.6	956.3	-2.8	1.4	13.2
1938	1028.6	10.6	1028.6	10.6	.0	.0
1939	1014.6	-.5	1013.6	-.5	-.1	-1.0
1940	1010.5	39.8	1005.9	40.9	-.5	-4.6
1941	1018.3	1.0	1018.3	1.0	.0	.0
1942	1021.2	2.9	1021.2	2.9	.0	.0
1943	1027.3	7.4	1027.3	7.4	.0	.0
1944	1007.6	-1.1	1004.2	-.1	-.3	-3.4
1945	1005.3	5.5	1005.1	5.5	.0	-.2
1946	1030.4	14.2	1030.4	14.2	.0	.0
1947	997.2	-1.9	992.1	-1.2	-.5	-5.1
1948	1006.7	24.4	1005.4	25.1	-.1	-1.3
1949	1004.9	-3.7	999.5	-3.1	-.5	-5.4
1950	999.9	10.1	994.9	11.5	-.5	-5.0
1951	1030.5	12.0	1030.5	12.0	.0	.0
1952	1029.7	11.8	1029.7	11.8	.0	.0
1953	1020.3	.9	1020.3	.9	.0	.0
1954	1027.7	8.8	1027.7	9.3	.0	.0
1955	1020.3	.2	1020.1	.3	.0	-.2
1956	1015.6	.0	1015.6	.0	.0	.0
1957	1009.1	-.4	1008.8	-.4	.0	-.3
1958	1026.9	7.7	1026.9	7.7	.0	.0
1959	1031.4	20.9	1031.4	20.9	.0	.0
1960	994.9	8.4	985.6	7.4	-.9	-9.3
1961	1013.9	3.7	1016.0	3.7	.2	2.1
1962	1007.5	.7	1011.4	.1	.4	3.9
1963	1021.6	2.0	1021.6	2.0	.0	.0
1964	1028.0	12.5	1026.8	11.8	-.1	-1.2
1965	1020.4	4.8	1020.4	4.8	.0	.0
1966	1034.4	16.6	1034.3	17.0	.0	-.1
1967	1027.7	8.7	1027.7	8.7	.0	.0
1968	1018.7	5.7	1017.0	5.0	-.2	-1.7
1969	1020.0	9.2	1020.0	11.7	.0	.0
1970	1015.6	-2.7	1015.6	-2.7	.0	.0
1971	1026.3	7.9	1026.3	7.9	.0	.0
1972	1028.2	11.2	1026.6	10.6	-.2	-1.6
1973	1027.7	9.3	1027.7	12.3	.0	.0
1974	1015.6	-.6	1015.6	-.6	.0	.0
1975	1016.7	.5	1015.8	.4	-.1	-.9
1976	1012.8	-2.4	1012.4	-2.4	.0	-.4
1977	971.0	-5.2	971.1	-4.9	.0	.1
1978	1000.5	116.8	997.7	119.9	-.3	-2.8
1979	1008.0	2.2	1006.4	3.0	-.2	-1.6
1980	1026.8	22.5	1026.8	28.4	.0	.0
1981	1020.9	10.5	1017.6	8.9	-.3	-3.3
1982	1030.2	13.6	1030.2	13.6	.0	.0
1983	1020.6	1.7	1020.6	1.7	.0	.0
1984	1031.5	14.5	1031.5	14.5	.0	.0
1985	1019.5	-.6	1019.5	-.6	.0	.0
1986	1013.8	22.9	1013.1	23.0	-.1	-.7
1987	999.2	3.5	992.6	4.4	-.7	-6.6
1988	1014.9	15.5	1007.2	17.6	-.8	-7.7
1989	983.2	4.1	979.4	4.2	-.4	-3.8
1990	997.5	9.6	997.0	9.9	-.1	-.5
1991	948.0	-5.8	947.3	-5.3	-.1	-.7
Mean:	1004.1	9.0	1001.8	9.5	-.2	-2.3
Median:	1014.6	5.7	1013.6	5.5	.0	-.2
Min:	908.2	-5.8	890.2	-5.3	-4.0	-36.9
Max:	1034.4	116.8	1034.3	119.9	1.4	13.2
X > 1020.0	26		25			
X > 1017.0	30		29			
X > 995.0	54		51			
X > 980.0	59		58			
X > 973.0	61		60			
X > 955.0	63		64			
X > 951.0	63		64			
X > 943.0	65		65			
X > 941.0	66		65			

SHASTA RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1012.4	.0	1012.5	.0	.0	.1
1923	1009.9	-.4	1008.7	2.0	-.1	-1.2
1924	974.6	6.5	981.5	6.3	.7	6.9
1925	984.4	76.2	985.6	75.6	.1	1.2
1926	1013.8	31.3	1018.7	30.3	.5	4.9
1927	1024.2	-5.9	1024.2	-6.0	.0	.0
1928	1036.3	14.0	1033.9	13.7	-.2	-2.4
1929	997.0	7.8	995.7	7.8	-.1	-1.3
1930	1006.0	15.4	1002.4	16.0	-.4	-3.6
1931	976.3	3.0	971.5	3.1	-.5	-4.8
1932	921.5	9.7	905.5	10.7	-1.7	-16.0
1933	914.1	2.8	893.4	3.2	-2.3	-20.7
1934	961.1	18.3	943.0	21.6	-1.9	-18.1
1935	950.7	20.6	919.1	25.9	-3.3	-31.6
1936	1014.7	39.6	1003.1	43.4	-1.1	-11.6
1937	948.4	5.3	960.8	4.5	1.3	12.4
1938	1028.0	-.6	1028.0	-.6	.0	.0
1939	1014.8	.2	1013.8	.2	-.1	-1.0
1940	1015.6	5.1	1015.6	9.7	.0	.0
1941	1022.6	4.3	1022.6	4.3	.0	.0
1942	1026.3	5.1	1026.3	5.1	.0	.0
1943	1039.0	11.7	1039.0	11.7	.0	.0
1944	1017.3	9.7	1014.6	10.4	-.3	-2.7
1945	1033.5	28.2	1033.4	28.3	.0	-.1
1946	1033.7	3.3	1032.6	2.2	-.1	-1.1
1947	1006.3	9.1	1002.4	10.3	-.4	-3.9
1948	1006.8	.1	1005.5	.1	-.1	-1.3
1949	1009.8	4.9	1005.7	6.2	-.4	-4.1
1950	1015.2	15.3	1011.1	16.2	-.4	-4.1
1951	1037.0	6.5	1037.0	6.5	.0	.0
1952	1034.9	5.2	1034.9	5.2	.0	.0
1953	1029.3	9.0	1028.7	8.4	-.1	-.6
1954	1031.9	4.2	1031.9	4.2	.0	.0
1955	1021.3	1.0	1021.1	1.0	.0	-.2
1956	1017.1	1.5	1017.1	1.5	.0	.0
1957	1032.5	23.4	1032.5	23.7	.0	.0
1958	1015.6	-11.3	1015.6	-11.3	.0	.0
1959	1036.3	4.9	1036.3	4.9	.0	.0
1960	1024.1	29.2	1016.4	30.8	-.8	-7.7
1961	1037.7	23.8	1039.6	23.6	.2	1.9
1962	1032.5	25.0	1032.5	21.1	.0	.0
1963	1042.6	21.0	1042.6	21.0	.0	.0
1964	1030.5	2.5	1029.3	2.5	-.1	-1.2
1965	1031.8	11.4	1031.8	11.4	.0	.0
1966	1045.9	11.5	1045.9	11.6	.0	.0
1967	1041.7	14.0	1041.7	14.0	.0	.0
1968	1031.9	13.2	1031.9	14.9	.0	.0
1969	1024.9	4.9	1024.9	4.9	.0	.0
1970	1022.9	7.3	1022.9	7.3	.0	.0
1971	1038.3	12.0	1037.0	10.7	-.1	-1.3
1972	1038.8	10.6	1036.8	10.2	-.2	-2.0
1973	1031.0	3.3	1031.0	3.3	.0	.0
1974	1033.2	17.6	1033.2	17.6	.0	.0
1975	1040.1	23.4	1039.4	23.6	-.1	-.7
1976	1016.8	4.0	1016.4	4.0	.0	-.4
1977	962.0	-9.0	962.0	-9.1	.0	.0
1978	1031.5	31.0	1031.5	33.8	.0	.0
1979	1019.3	11.3	1017.7	11.3	-.2	-1.6
1980	1017.3	-9.5	1017.3	-9.5	.0	.0
1981	1033.7	12.8	1029.0	11.4	-.5	-4.7
1982	1026.8	-3.4	1026.8	-3.4	.0	.0
1983	1015.6	-5.0	1015.6	-5.0	.0	.0
1984	1042.6	11.1	1042.6	11.1	.0	.0
1985	1021.4	1.9	1021.4	1.9	.0	.0
1986	1015.6	1.8	1015.6	2.5	.0	.0
1987	1011.3	12.1	1005.7	13.1	-.6	-5.6
1988	1018.1	3.2	1011.7	4.5	-.6	-6.4
1989	987.1	3.9	983.4	4.0	-.4	-3.7
1990	999.6	2.1	998.8	1.8	-.1	-.8
1991	940.9	-7.1	941.2	-6.1	.0	.3
Mean:	1014.0	9.7	1012.0	10.0	-.2	-2.0
Median:	1021.3	6.5	1018.7	6.5	.0	.0
Min:	914.1	-11.3	893.4	-11.3	-3.3	-31.6
Max:	1045.9	76.2	1045.9	75.6	1.3	12.4
X > 1020.0	36		35			
X > 1017.0	41		39			
X > 995.0	59		59			
X > 980.0	61		62			
X > 973.0	63		62			
X > 955.0	65		65			
X > 951.0	65		65			
X > 943.0	67		65			
X > 941.0	67		67			

SHASTA RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1024.3	.0	1024.4	.0	.0	.1
1923	1010.7	.8	1011.8	3.1	.1	1.1
1924	974.2	-.4	978.9	-2.6	.5	4.7
1925	991.0	6.6	992.7	7.1	.2	1.7
1926	1017.5	3.7	1021.8	3.1	.4	4.3
1927	1044.0	19.8	1043.7	19.5	.0	-.3
1928	1043.3	7.0	1043.3	9.4	.0	.0
1929	1003.6	6.6	1002.4	6.7	-.1	-1.2
1930	1023.9	17.9	1021.2	18.8	-.3	-2.7
1931	981.4	5.1	975.9	4.4	-.6	-5.5
1932	948.9	27.4	935.6	30.1	-1.4	-13.3
1933	952.4	38.3	936.6	43.2	-1.7	-15.8
1934	974.3	13.2	958.5	15.5	-1.6	-15.8
1935	972.3	21.6	944.9	25.8	-2.8	-27.4
1936	1024.7	10.0	1016.9	13.8	-.8	-7.8
1937	984.0	35.6	993.6	32.8	1.0	9.6
1938	1022.3	-5.7	1022.3	-5.7	.0	.0
1939	1026.7	11.9	1025.8	12.0	-.1	-.9
1940	1023.1	7.5	1023.1	7.5	.0	.0
1941	1042.4	19.8	1042.4	19.8	.0	.0
1942	1034.6	8.3	1034.6	8.3	.0	.0
1943	1048.8	9.8	1048.8	9.8	.0	.0
1944	1025.6	8.3	1023.0	8.4	-.3	-2.6
1945	1040.0	6.5	1039.9	6.5	.0	-.1
1946	1043.1	9.4	1042.2	9.6	-.1	-.9
1947	1026.2	19.9	1023.2	20.8	-.3	-3.0
1948	1017.9	11.1	1016.6	11.1	-.1	-1.3
1949	1046.9	37.1	1044.6	38.9	-.2	-2.3
1950	1029.0	13.8	1026.4	15.3	-.3	-2.6
1951	1049.2	12.2	1049.0	12.0	.0	-.2
1952	1045.4	10.5	1045.4	10.5	.0	.0
1953	1043.1	13.8	1041.9	13.2	-.1	-1.2
1954	1048.4	16.5	1048.4	16.5	.0	.0
1955	1023.2	1.9	1023.0	1.9	.0	-.2
1956	1042.0	24.9	1041.2	24.1	-.1	-.8
1957	1049.2	16.7	1049.2	16.7	.0	.0
1958	1022.3	6.7	1022.3	6.7	.0	.0
1959	1047.4	11.1	1043.5	7.2	-.4	-3.9
1960	1045.0	20.9	1039.3	22.9	-.5	-5.7
1961	1052.2	14.5	1054.0	14.4	.2	1.8
1962	1044.3	11.8	1044.3	11.8	.0	.0
1963	1052.7	10.1	1052.7	10.1	.0	.0
1964	1031.0	.5	1029.8	.5	-.1	-1.2
1965	1035.6	3.8	1035.6	3.8	.0	.0
1966	1052.8	6.9	1052.8	6.9	.0	.0
1967	1045.8	4.1	1045.8	4.1	.0	.0
1968	1048.9	17.0	1048.5	16.6	.0	-.4
1969	1045.7	20.8	1045.7	20.8	.0	.0
1970	1043.6	20.7	1042.9	20.0	-.1	-.7
1971	1039.9	1.6	1039.9	2.9	.0	.0
1972	1053.5	14.7	1053.5	16.7	.0	.0
1973	1050.4	19.4	1050.4	19.4	.0	.0
1974	1022.3	-10.9	1022.3	-10.9	.0	.0
1975	1037.2	-2.9	1037.2	-2.2	.0	.0
1976	1021.9	5.1	1021.5	5.1	.0	-.4
1977	948.0	-14.0	948.9	-13.1	.1	.9
1978	1043.1	11.6	1043.1	11.6	.0	.0
1979	1034.5	15.2	1033.0	15.3	-.1	-1.5
1980	1042.7	25.4	1041.3	24.0	-.1	-1.4
1981	1051.5	17.8	1046.5	17.5	-.5	-5.0
1982	1042.9	16.1	1042.9	16.1	.0	.0
1983	1022.3	6.7	1022.3	6.7	.0	.0
1984	1061.7	19.1	1060.5	17.9	-.1	-1.2
1985	1025.0	3.6	1025.0	3.6	.0	.0
1986	1027.0	11.4	1027.0	11.4	.0	.0
1987	1037.3	26.0	1033.5	27.8	-.4	-3.8
1988	1018.5	.4	1011.8	.1	-.7	-6.7
1989	1038.7	51.6	1038.7	55.3	.0	.0
1990	1010.0	10.4	1009.4	10.6	-.1	-.6
1991	965.9	25.0	957.0	15.8	-.9	-8.9
Mean:	1026.6	12.4	1024.8	12.6	-.2	-1.8
Median:	1034.6	11.1	1033.5	11.4	.0	-.1
Min:	948.0	-14.0	935.6	-13.1	-2.8	-27.4
Max:	1061.7	51.6	1060.5	55.3	1.0	9.6

X > 1020.0	54	54
X > 1017.0	57	54
X > 995.0	60	60
X > 980.0	63	62
X > 973.0	65	64
X > 955.0	67	66
X > 951.0	68	66
X > 943.0	70	68
X > 941.0	70	68

SHASTA RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1042.6	.0	1042.7	.0	.0	.1
1923	1023.0	12.3	1025.8	14.0	.3	2.8
1924	962.4	-11.8	967.4	-11.5	.5	5.0
1925	1020.7	29.7	1022.1	29.4	.1	1.4
1926	1028.8	11.3	1032.5	10.7	.4	3.7
1927	1063.8	19.8	1063.8	20.1	.0	.0
1928	1059.2	15.9	1059.2	15.9	.0	.0
1929	1007.5	3.9	1004.6	2.2	-.3	-2.9
1930	1029.5	5.6	1027.5	6.3	-.2	-2.0
1931	966.8	-14.6	961.1	-14.8	-.6	-5.7
1932	957.0	8.1	946.1	10.5	-1.1	-10.9
1933	957.7	5.3	941.8	5.2	-1.7	-15.9
1934	974.5	.2	957.8	-.7	-1.7	-16.7
1935	1017.3	45.0	997.1	52.2	-2.0	-20.2
1936	1033.7	9.0	1027.4	10.5	-.6	-6.3
1937	1015.1	31.1	1023.5	29.9	.8	8.4
1938	1046.7	24.4	1046.7	24.4	.0	.0
1939	1027.2	.5	1024.3	-1.5	-.3	-2.9
1940	1049.9	26.8	1049.9	26.8	.0	.0
1941	1060.6	18.2	1060.6	18.2	.0	.0
1942	1056.7	22.1	1056.7	22.1	.0	.0
1943	1062.9	14.1	1062.9	14.1	.0	.0
1944	1030.3	4.7	1028.1	5.1	-.2	-2.2
1945	1045.0	5.0	1044.8	4.9	.0	-.2
1946	1050.0	6.9	1050.1	7.9	.0	.1
1947	1032.1	5.9	1029.9	6.7	-.2	-2.2
1948	1051.9	34.0	1051.3	34.7	-.1	-.6
1949	1058.5	11.6	1054.8	10.2	-.3	-3.7
1950	1041.4	12.4	1038.9	12.5	-.2	-2.5
1951	1053.3	4.1	1052.6	3.6	-.1	-.7
1952	1054.9	9.5	1054.9	9.5	.0	.0
1953	1054.3	11.2	1052.7	10.8	-.2	-1.6
1954	1063.6	15.2	1063.6	15.2	.0	.0
1955	1035.1	11.9	1034.8	11.8	.0	-.3
1956	1058.5	16.5	1056.5	15.3	-.2	-2.0
1957	1054.6	5.4	1053.9	4.7	-.1	-.7
1958	1050.8	28.5	1050.8	28.5	.0	.0
1959	1051.0	3.6	1048.4	4.9	-.2	-2.6
1960	1048.6	3.6	1043.8	4.5	-.5	-4.8
1961	1052.7	.5	1057.5	3.5	.5	4.8
1962	1053.6	9.3	1053.6	9.3	.0	.0
1963	1049.5	-3.2	1049.5	-3.2	.0	.0
1964	1028.6	-2.4	1027.3	-2.5	-.1	-1.3
1965	1061.3	25.7	1061.3	25.7	.0	.0
1966	1063.8	11.0	1063.8	11.0	.0	.0
1967	1061.4	15.6	1061.4	15.6	.0	.0
1968	1050.6	1.7	1050.9	2.4	.0	.3
1969	1059.8	14.1	1059.8	14.1	.0	.0
1970	1046.3	2.7	1045.6	2.7	-.1	-.7
1971	1058.5	18.6	1058.5	18.6	.0	.0
1972	1061.8	8.3	1061.5	8.0	.0	-.3
1973	1058.5	8.1	1058.5	8.1	.0	.0
1974	1054.9	32.6	1054.9	32.6	.0	.0
1975	1056.2	19.0	1056.2	19.0	.0	.0
1976	1027.1	5.2	1026.7	5.2	.0	-.4
1977	930.4	-17.6	931.4	-17.5	.1	1.0
1978	1063.8	20.7	1063.8	20.7	.0	.0
1979	1040.0	5.5	1038.9	5.9	-.1	-1.1
1980	1051.5	8.8	1050.1	8.8	-.1	-1.4
1981	1055.3	3.8	1050.3	3.8	-.5	-5.0
1982	1047.9	5.0	1047.9	5.0	.0	.0
1983	1047.3	25.0	1047.3	25.0	.0	.0
1984	1063.8	2.1	1063.8	3.3	.0	.0
1985	1031.0	6.0	1031.0	6.0	.0	.0
1986	1038.1	11.1	1038.1	11.1	.0	.0
1987	1033.0	-4.3	1028.9	-4.6	-.4	-4.1
1988	1021.0	2.5	1012.0	.2	-.9	-9.0
1989	1050.7	12.0	1050.7	12.0	.0	.0
1990	1007.3	-2.7	1003.7	-5.7	-.4	-3.6
1991	973.8	7.9	965.3	8.3	-.9	-8.5
Mean:	1037.1	10.3	1035.5	10.4	-.2	-1.6
Median:	1048.6	8.3	1047.9	8.8	.0	.0
Min:	930.4	-17.6	931.4	-17.5	-2.0	-20.2
Max:	1063.8	45.0	1063.8	52.2	.8	8.4

X > 1020.0	59	59
X > 1017.0	60	59
X > 995.0	63	63
X > 980.0	63	63
X > 973.0	65	63
X > 955.0	69	67
X > 951.0	69	67
X > 943.0	69	68
X > 941.0	69	69

SHASTA RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1053.7	.0	1053.3	.0	.0	-.4
1923	1020.0	-3.0	1019.4	-6.4	-.1	-.6
1924	952.4	-10.0	955.7	-11.7	.3	3.3
1925	1030.6	9.9	1033.5	11.4	.3	2.9
1926	1026.3	-2.5	1029.2	-3.3	.3	2.9
1927	1063.8	.0	1063.8	.0	.0	.0
1928	1056.0	-3.2	1054.4	-4.8	-.2	-1.6
1929	1002.3	-5.2	997.2	-7.4	-.5	-5.1
1930	1029.0	-.5	1026.8	-.7	-.2	-2.2
1931	957.1	-9.7	949.0	-12.1	-.8	-8.1
1932	965.2	8.2	955.1	9.0	-1.0	-10.1
1933	958.9	1.2	942.7	.9	-1.7	-16.2
1934	964.9	-9.6	946.6	-11.2	-1.9	-18.3
1935	1023.5	6.2	1010.0	12.9	-1.3	-13.5
1936	1027.7	-6.0	1024.1	-3.3	-.4	-3.6
1937	1020.2	5.1	1029.7	6.2	.9	9.5
1938	1063.8	17.1	1063.8	17.1	.0	.0
1939	1016.6	-10.6	1013.3	-11.0	-.3	-3.3
1940	1054.5	4.6	1051.4	1.5	-.3	-3.1
1941	1063.8	3.2	1063.8	3.2	.0	.0
1942	1063.8	7.1	1063.8	7.1	.0	.0
1943	1063.8	.9	1063.8	.9	.0	.0
1944	1031.0	.7	1027.1	-1.0	-.4	-3.9
1945	1047.9	2.9	1048.1	3.3	.0	.2
1946	1050.8	.8	1047.6	-2.5	-.3	-3.2
1947	1021.0	-11.1	1019.5	-10.4	-.1	-1.5
1948	1063.8	11.9	1063.8	12.5	.0	.0
1949	1059.4	.9	1056.1	1.3	-.3	-3.3
1950	1038.5	-2.9	1032.4	-6.5	-.6	-6.1
1951	1059.7	6.4	1059.0	6.4	-.1	-.7
1952	1063.8	8.9	1063.8	8.9	.0	.0
1953	1063.8	9.5	1063.8	11.1	.0	.0
1954	1061.5	-2.1	1058.8	-4.8	-.3	-2.7
1955	1045.4	10.3	1043.9	9.1	-.1	-1.5
1956	1063.8	5.3	1063.8	7.3	.0	.0
1957	1063.8	9.2	1063.8	9.9	.0	.0
1958	1063.8	13.0	1063.8	13.0	.0	.0
1959	1047.3	-3.7	1043.3	-5.1	-.4	-4.0
1960	1053.4	4.8	1050.2	6.4	-.3	-3.2
1961	1050.3	-2.4	1051.5	-6.0	.1	1.2
1962	1052.0	-1.6	1051.8	-1.8	.0	-.2
1963	1063.8	14.3	1063.8	14.3	.0	.0
1964	1025.0	-3.6	1024.2	-3.1	-.1	-.8
1965	1062.0	.7	1061.6	.3	.0	-.4
1966	1055.9	-7.9	1052.9	-10.9	-.3	-3.0
1967	1063.8	2.4	1063.8	2.4	.0	.0
1968	1048.2	-2.4	1046.9	-4.0	-.1	-1.3
1969	1063.8	4.0	1063.8	4.0	.0	.0
1970	1045.3	-1.0	1044.2	-1.4	-.1	-1.1
1971	1063.8	5.3	1063.8	5.3	.0	.0
1972	1053.3	-8.5	1050.9	-10.6	-.2	-2.4
1973	1063.1	4.6	1058.0	-.5	-.5	-5.1
1974	1063.8	8.9	1063.8	8.9	.0	.0
1975	1063.8	7.6	1063.8	7.6	.0	.0
1976	1024.1	-3.0	1020.4	-6.3	-.4	-3.7
1977	930.9	.5	929.5	-1.9	-.2	-1.4
1978	1063.8	.0	1063.8	.0	.0	.0
1979	1048.9	8.9	1043.8	4.9	-.5	-5.1
1980	1054.7	3.2	1051.7	1.6	-.3	-3.0
1981	1047.1	-8.2	1042.4	-7.9	-.4	-4.7
1982	1063.8	15.9	1060.3	12.4	-.3	-3.5
1983	1063.8	16.5	1063.8	16.5	.0	.0
1984	1060.2	-3.6	1058.6	-5.2	-.2	-1.6
1985	1027.7	-3.3	1025.1	-5.9	-.3	-2.6
1986	1042.1	4.0	1039.5	1.4	-.2	-2.6
1987	1023.0	-10.0	1016.1	-12.8	-.7	-6.9
1988	1016.5	-4.5	1008.6	-3.4	-.8	-7.9
1989	1045.6	-5.1	1044.8	-5.9	-.1	-.8
1990	1010.9	3.6	1006.7	3.0	-.4	-4.2
1991	974.2	.4	965.9	.6	-.9	-8.3
Mean:	1038.7	1.5	1036.4	.8	-.2	-2.4
Median:	1050.3	.7	1048.1	.0	-.1	-1.5
Min:	930.9	-11.1	929.5	-12.8	-1.9	-18.3
Max:	1063.8	17.1	1063.8	17.1	.9	9.5

X > 1020.0	58	55
X > 1017.0	59	57
X > 995.0	63	63
X > 980.0	63	63
X > 973.0	64	63
X > 955.0	68	66
X > 951.0	69	66
X > 943.0	69	68
X > 941.0	69	69

SHASTA RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1046.5	.0	1045.5	.0	-.1	-1.0
1923	1010.4	-9.6	1010.4	-9.0	.0	.0
1924	934.6	-17.8	937.7	-18.0	.3	3.1
1925	1024.9	-5.7	1031.1	-2.4	.6	6.2
1926	1012.6	-13.7	1015.4	-13.8	.3	2.8
1927	1058.7	-5.1	1053.6	-10.2	-.5	-5.1
1928	1045.8	-10.2	1042.9	-11.5	-.3	-2.9
1929	996.1	-6.2	991.6	-5.6	-.5	-4.5
1930	1017.9	-11.1	1014.8	-12.0	-.3	-3.1
1931	944.8	-12.3	934.6	-14.4	-1.1	-10.2
1932	960.9	-4.3	948.2	-6.9	-1.3	-12.7
1933	953.6	-5.3	939.2	-3.5	-1.5	-14.4
1934	947.1	-17.8	927.6	-19.0	-2.1	-19.5
1935	1009.5	-14.0	993.4	-16.6	-1.6	-16.1
1936	1020.0	-7.7	1019.0	-5.1	-.1	-1.0
1937	1013.6	-6.6	1023.6	-6.1	1.0	10.0
1938	1058.7	-5.1	1058.7	-5.1	.0	.0
1939	1003.1	-13.5	998.0	-15.3	-.5	-5.1
1940	1046.1	-8.4	1039.2	-12.2	-.7	-6.9
1941	1058.7	-5.1	1058.7	-5.1	.0	.0
1942	1058.7	-5.1	1058.7	-5.1	.0	.0
1943	1057.0	-6.8	1054.6	-9.2	-.2	-2.4
1944	1021.7	-9.3	1016.3	-10.8	-.5	-5.4
1945	1040.2	-7.7	1039.6	-8.5	-.1	.6
1946	1042.2	-8.6	1035.7	-11.9	-.6	-6.5
1947	1017.2	-3.8	1016.2	-3.3	-.1	-1.0
1948	1058.7	-5.1	1058.7	-5.1	.0	.0
1949	1044.5	-14.9	1036.4	-19.7	-.8	-8.1
1950	1028.1	-10.4	1020.7	-11.7	-.7	-7.4
1951	1049.4	-10.3	1044.3	-14.7	-.5	-5.1
1952	1058.7	-5.1	1058.7	-5.1	.0	.0
1953	1058.7	-5.1	1058.7	-5.1	.0	.0
1954	1054.9	-6.6	1051.6	-7.2	-.3	-3.3
1955	1025.8	-19.6	1031.6	-12.3	.6	5.8
1956	1058.7	-5.1	1058.7	-5.1	.0	.0
1957	1058.7	-5.1	1056.4	-7.4	-.2	-2.3
1958	1058.7	-5.1	1058.7	-5.1	.0	.0
1959	1031.6	-15.7	1027.2	-16.1	-.4	-4.4
1960	1036.7	-16.7	1040.6	-9.6	.4	3.9
1961	1038.0	-12.3	1042.8	-8.7	.5	4.8
1962	1043.1	-8.9	1040.4	-11.4	-.3	-2.7
1963	1058.7	-5.1	1055.8	-8.0	-.3	-2.9
1964	1022.1	-2.9	1020.6	-3.6	-.1	-1.5
1965	1056.5	-5.5	1050.3	-11.3	-.6	-6.2
1966	1043.4	-12.5	1036.7	-16.2	-.6	-6.7
1967	1058.7	-5.1	1058.7	-5.1	.0	.0
1968	1036.3	-11.9	1034.0	-12.9	-.2	-2.3
1969	1058.7	-5.1	1058.7	-5.1	.0	.0
1970	1039.3	-6.0	1035.1	-9.1	-.4	-4.2
1971	1058.7	-5.1	1058.7	-5.1	.0	.0
1972	1045.1	-8.2	1041.1	-9.8	-.4	-4.0
1973	1055.2	-7.9	1049.4	-8.6	-.5	-5.8
1974	1058.7	-5.1	1058.7	-5.1	.0	.0
1975	1058.7	-5.1	1058.7	-5.1	.0	.0
1976	1014.5	-9.6	1010.8	-9.6	-.4	-3.7
1977	917.9	-13.0	916.4	-13.1	-.2	-1.5
1978	1054.2	-9.6	1053.0	-10.8	-.1	-1.2
1979	1035.5	-13.4	1027.6	-16.2	-.8	-7.9
1980	1049.3	-5.4	1043.0	-8.7	-.6	-6.3
1981	1034.8	-12.3	1028.2	-14.2	-.6	-6.6
1982	1058.7	-5.1	1056.7	-3.6	-.2	-2.0
1983	1062.2	-1.6	1062.2	-1.6	.0	.0
1984	1054.3	-5.9	1049.3	-9.3	-.5	-5.0
1985	1016.9	-10.8	1012.9	-12.2	-.4	-4.0
1986	1032.5	-9.6	1026.3	-13.2	-.6	-6.2
1987	1007.6	-15.4	998.3	-17.8	-.9	-9.3
1988	1004.0	-12.5	999.3	-9.3	-.5	-4.7
1989	1031.8	-13.8	1030.9	-13.9	-.1	-.9
1990	1007.1	-3.8	1004.0	-2.7	-.3	-3.1
1991	964.5	-9.7	956.2	-9.7	-.9	-8.3
Mean:	1030.0	-8.6	1026.9	-9.4	-.3	-3.1
Median:	1039.3	-7.9	1036.4	-9.3	-.3	-2.9
Min:	917.9	-19.6	916.4	-19.7	-2.1	-19.5
Max:	1062.2	.0	1062.2	.0	1.0	10.0

X > 1020.0	49	49
X > 1017.0	52	50
X > 995.0	63	61
X > 980.0	63	63
X > 973.0	63	63
X > 955.0	65	64
X > 951.0	66	64
X > 943.0	68	65
X > 941.0	68	65

SHASTA RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1033.2	.0	1029.2	.0	-.4	-4.0
1923	995.3	-15.1	997.7	-12.7	.2	2.4
1924	913.2	-21.4	916.8	-20.9	.4	3.6
1925	1009.6	-15.3	1017.6	-13.5	.8	8.0
1926	997.0	-15.6	998.0	-17.4	.1	1.0
1927	1040.9	-17.8	1038.1	-15.5	-.3	-2.8
1928	1020.4	-25.4	1017.0	-25.9	-.3	-3.4
1929	981.4	-14.7	976.3	-15.3	-.5	-5.1
1930	1002.6	-15.3	998.4	-16.4	-.4	-4.2
1931	923.1	-21.7	914.8	-19.8	-.9	-8.3
1932	946.4	-14.5	929.8	-18.4	-1.8	-16.6
1933	940.8	-12.8	924.7	-14.5	-1.7	-16.1
1934	928.1	-19.0	902.6	-25.0	-2.7	-25.5
1935	989.1	-20.4	967.5	-25.9	-2.2	-21.6
1936	999.1	-20.9	1000.5	-18.5	.1	1.4
1937	995.2	-18.4	1004.3	-19.3	.9	9.1
1938	1042.6	-16.1	1041.6	-17.1	-.1	-1.0
1939	988.1	-15.0	981.7	-16.3	-.6	-6.4
1940	1030.6	-15.5	1020.5	-18.7	-1.0	-10.1
1941	1043.7	-15.0	1043.7	-15.0	.0	.0
1942	1042.9	-15.8	1040.9	-17.8	-.2	-2.0
1943	1040.9	-16.1	1039.6	-15.0	-.1	-1.3
1944	1005.8	-15.9	1002.2	-14.1	-.4	-3.6
1945	1019.8	-20.4	1015.9	-23.7	-.4	-3.9
1946	1025.0	-17.2	1016.5	-19.2	-.8	-8.5
1947	1001.2	-16.0	999.0	-17.2	-.2	-2.2
1948	1040.9	-17.8	1040.9	-17.8	.0	.0
1949	1028.8	-15.7	1020.1	-16.3	-.8	-8.7
1950	1010.7	-17.4	1002.3	-18.4	-.8	-8.4
1951	1033.4	-16.0	1025.6	-18.7	-.8	-7.8
1952	1043.0	-15.7	1042.4	-16.3	-.1	-.6
1953	1042.8	-15.9	1042.8	-15.9	.0	.0
1954	1035.2	-19.7	1028.5	-23.1	-.6	-6.7
1955	1010.6	-15.2	1018.4	-13.2	.8	7.8
1956	1041.8	-16.9	1040.9	-17.8	-.1	-.9
1957	1040.9	-17.8	1039.4	-17.0	-.1	-1.5
1958	1044.6	-14.1	1044.6	-14.1	.0	.0
1959	1006.5	-25.1	1000.6	-26.6	-.6	-5.9
1960	1016.3	-20.4	1023.0	-17.6	.7	6.7
1961	1017.6	-20.4	1026.6	-16.2	.9	9.0
1962	1029.4	-13.7	1023.1	-17.3	-.6	-6.3
1963	1040.9	-17.8	1040.9	-14.9	.0	.0
1964	1008.2	-13.9	1006.3	-14.3	-.2	-1.9
1965	1040.9	-15.6	1035.2	-15.1	-.5	-5.7
1966	1025.1	-18.3	1017.3	-19.4	-.8	-7.8
1967	1042.9	-15.8	1041.0	-17.7	-.2	-1.9
1968	1014.9	-21.4	1011.8	-22.2	-.3	-3.1
1969	1042.0	-16.7	1040.9	-17.8	-.1	-1.1
1970	1017.0	-22.3	1013.0	-22.1	-.4	-4.0
1971	1043.2	-15.5	1040.9	-17.8	-.2	-2.3
1972	1023.0	-22.1	1018.6	-22.5	-.4	-4.4
1973	1039.7	-15.5	1028.7	-20.7	-1.1	-11.0
1974	1044.2	-14.5	1043.7	-15.0	.0	-.5
1975	1042.7	-16.0	1042.7	-16.0	.0	.0
1976	1000.9	-13.6	996.2	-14.6	-.5	-4.7
1977	892.3	-25.6	887.5	-28.9	-.5	-4.8
1978	1040.9	-13.3	1039.1	-13.9	-.2	-1.8
1979	1017.4	-18.1	1006.0	-21.6	-1.1	-11.4
1980	1039.6	-9.7	1032.2	-10.8	-.7	-7.4
1981	1019.6	-15.2	1013.5	-14.7	-.6	-6.1
1982	1042.2	-16.5	1040.9	-15.8	-.1	-1.3
1983	1049.8	-12.4	1049.8	-12.4	.0	.0
1984	1038.9	-15.4	1032.9	-16.4	-.6	-6.0
1985	1004.3	-12.6	1000.6	-12.3	-.4	-3.7
1986	1019.9	-12.6	1011.2	-15.1	-.9	-8.7
1987	995.2	-12.4	980.9	-17.4	-1.4	-14.3
1988	985.2	-18.8	981.7	-17.6	-.4	-3.5
1989	1012.5	-19.3	1013.9	-17.0	.1	1.4
1990	986.4	-20.7	985.8	-18.2	-.1	-.6
1991	951.0	-13.5	943.3	-12.9	-.8	-7.7
Mean:	1013.1	-16.7	1009.3	-17.3	-.4	-3.8
Median:	1019.8	-16.0	1017.3	-17.2	-.4	-3.5
Min:	892.3	-25.6	887.5	-28.9	-2.7	-25.5
Max:	1049.8	.0	1049.8	.0	.9	9.1
X > 1020.0	34		32			
X > 1017.0	39		36			
X > 995.0	58		57			
X > 980.0	63		61			
X > 973.0	63		62			
X > 955.0	63		63			
X > 951.0	63		63			
X > 943.0	65		64			
X > 941.0	65		64			

SHASTA RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1019.6	.0	1015.3	.0	-.4	-4.3
1923	978.6	-16.7	983.6	-14.1	.5	5.0
1924	885.9	-27.3	889.4	-27.4	.4	3.5
1925	990.7	-18.9	1001.0	-16.6	1.0	10.3
1926	979.1	-17.9	979.2	-18.8	.0	.1
1927	1019.6	-21.3	1019.6	-18.5	.0	.0
1928	1001.9	-18.5	1000.1	-16.9	-.2	-1.8
1929	965.6	-15.8	960.7	-15.6	-.5	-4.9
1930	983.9	-18.7	978.3	-20.1	-.6	-5.6
1931	897.2	-25.9	879.5	-35.3	-2.0	-17.7
1932	926.4	-20.0	908.6	-21.2	-1.9	-17.8
1933	924.7	-16.1	904.1	-20.6	-2.2	-20.6
1934	908.7	-19.4	866.6	-36.0	-4.6	-42.1
1935	960.1	-29.0	935.7	-31.8	-2.5	-24.4
1936	971.8	-27.3	976.3	-24.2	.5	4.5
1937	973.7	-21.5	980.2	-24.1	.7	6.5
1938	1019.6	-23.0	1019.6	-22.0	.0	.0
1939	971.3	-16.8	964.8	-16.9	-.7	-6.5
1940	1015.2	-15.4	1003.3	-17.2	-1.2	-11.9
1941	1022.4	-21.3	1022.7	-21.0	.0	.3
1942	1020.2	-22.7	1019.6	-21.3	-.1	-.6
1943	1019.6	-21.3	1019.6	-20.0	.0	.0
1944	990.1	-15.7	987.7	-14.5	-.2	-2.4
1945	1003.5	-16.3	998.5	-17.4	-.5	-5.0
1946	1010.3	-14.7	1000.8	-15.7	-.9	-9.5
1947	986.9	-14.3	980.0	-19.0	-.7	-6.9
1948	1019.6	-21.3	1019.3	-21.6	.0	-.3
1949	1014.3	-14.5	1004.6	-15.5	-1.0	-9.7
1950	993.4	-17.3	983.7	-18.6	-1.0	-9.7
1951	1019.3	-14.1	1010.1	-15.5	-.9	-9.2
1952	1019.6	-23.4	1019.6	-22.8	.0	.0
1953	1019.7	-23.1	1020.1	-22.7	.0	.4
1954	1019.6	-15.6	1019.5	-9.0	.0	-.1
1955	996.9	-13.7	1002.9	-15.5	.6	6.0
1956	1019.6	-22.2	1019.6	-21.3	.0	.0
1957	1019.6	-21.3	1019.6	-19.8	.0	.0
1958	1023.8	-20.8	1024.1	-20.5	.0	.3
1959	994.8	-11.7	985.3	-15.3	-1.0	-9.5
1960	1000.5	-15.8	1005.0	-18.0	.4	4.5
1961	1002.2	-15.4	1010.8	-15.8	.9	8.6
1962	1016.2	-13.2	1009.3	-13.8	-.7	-6.9
1963	1019.6	-21.3	1019.6	-21.3	.0	.0
1964	993.2	-15.0	992.2	-14.1	-.1	-1.0
1965	1019.6	-21.3	1019.6	-15.6	.0	.0
1966	1014.4	-10.7	1003.6	-13.7	-1.1	-10.8
1967	1021.0	-21.9	1019.6	-21.4	-.1	-1.4
1968	1009.3	-5.6	1004.8	-7.0	-.4	-4.5
1969	1019.6	-22.4	1019.6	-21.3	.0	.0
1970	1007.1	-9.9	1002.0	-11.0	-.5	-5.1
1971	1019.6	-23.6	1019.6	-21.3	.0	.0
1972	1010.1	-12.9	1002.9	-15.7	-.7	-7.2
1973	1019.6	-20.1	1019.1	-9.6	.0	-.5
1974	1023.2	-21.0	1023.0	-20.7	.0	-.2
1975	1020.4	-22.3	1020.8	-21.9	.0	.4
1976	986.3	-14.6	983.7	-12.5	-.3	-2.6
1977	860.2	-32.1	852.3	-35.2	-.9	-7.9
1978	1019.6	-21.3	1019.6	-19.5	.0	.0
1979	1008.1	-9.3	995.8	-10.2	-1.2	-12.3
1980	1019.6	-20.0	1019.6	-12.6	.0	.0
1981	1002.8	-16.8	1001.8	-11.7	-.1	-1.0
1982	1019.6	-22.6	1019.6	-21.3	.0	.0
1983	1031.9	-17.9	1032.2	-17.6	.0	.3
1984	1019.6	-19.3	1019.6	-13.3	.0	.0
1985	989.3	-15.0	988.5	-12.1	-.1	-.8
1986	1007.7	-12.2	996.7	-14.5	-1.1	-11.0
1987	983.2	-12.0	966.7	-14.2	-1.7	-16.5
1988	970.7	-14.5	965.5	-16.2	-.5	-5.2
1989	995.3	-17.2	994.6	-19.3	-.1	-.7
1990	970.5	-15.9	967.4	-18.4	-.3	-3.1
1991	938.9	-12.1	932.1	-11.2	-.7	-6.8
Mean:	994.9	-18.0	991.0	-18.1	-.4	-3.9
Median:	1007.7	-17.9	1002.9	-18.0	-.1	-1.0
Min:	860.2	-32.1	852.3	-36.0	-4.6	-42.1
Max:	1031.9	.0	1032.2	.0	1.0	10.3

X > 1020.0	7	6
X > 1017.0	27	25
X > 995.0	44	44
X > 980.0	54	53
X > 973.0	57	57
X > 955.0	63	62
X > 951.0	63	62
X > 943.0	63	62
X > 941.0	63	62

SHASTA RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1013.1	.0	1008.6	.0	-.4	-4.5
1923	970.3	-8.3	975.4	-8.2	.5	5.1
1924	875.6	-10.3	877.9	-11.5	.3	2.3
1925	982.6	-8.1	993.4	-7.6	1.1	10.8
1926	969.4	-9.7	969.6	-9.6	.0	.2
1927	1017.6	-2.0	1013.7	-5.9	-.4	-3.9
1928	994.4	-7.5	992.6	-7.5	-.2	-1.8
1929	955.3	-10.3	950.2	-10.5	-.5	-5.1
1930	975.0	-8.9	969.1	-9.2	-.6	-5.9
1931	887.0	-10.2	865.9	-13.6	-2.4	-21.1
1932	918.0	-8.4	897.6	-11.0	-2.2	-20.4
1933	917.5	-7.2	893.1	-11.0	-2.7	-24.4
1934	897.3	-11.4	848.8	-17.8	-5.4	-48.5
1935	949.8	-10.3	924.7	-11.0	-2.6	-25.1
1936	961.4	-10.4	966.2	-10.1	.5	4.8
1937	963.5	-10.2	970.4	-9.8	.7	6.9
1938	1017.6	-2.0	1017.6	-2.0	.0	.0
1939	961.9	-9.4	955.1	-9.7	-.7	-6.8
1940	1008.6	-6.6	996.3	-7.0	-1.2	-12.3
1941	1017.6	-4.8	1017.6	-5.1	.0	.0
1942	1017.6	-2.6	1017.6	-2.0	.0	.0
1943	1017.6	-2.0	1014.7	-4.9	-.3	-2.9
1944	982.2	-7.9	979.7	-8.0	-.3	-2.5
1945	996.5	-7.0	991.3	-7.2	-.5	-5.2
1946	1003.7	-6.6	993.9	-6.9	-1.0	-9.8
1947	978.8	-8.1	971.6	-8.4	-.7	-7.2
1948	1015.0	-4.6	1013.1	-6.2	-.2	-1.9
1949	1006.6	-7.7	996.5	-8.1	-1.0	-10.1
1950	985.1	-8.3	975.0	-8.7	-1.0	-10.1
1951	1012.4	-6.9	1002.9	-7.2	-.9	-9.5
1952	1017.6	-2.0	1017.6	-2.0	.0	.0
1953	1017.6	-2.1	1017.6	-2.5	.0	.0
1954	1015.5	-4.1	1014.7	-4.8	-.1	-.8
1955	990.1	-6.8	996.3	-6.6	.6	6.2
1956	1017.6	-2.0	1017.6	-2.0	.0	.0
1957	1017.6	-2.0	1017.2	-2.4	.0	-.4
1958	1017.6	-6.2	1017.6	-6.5	.0	.0
1959	990.7	-4.1	981.0	-4.3	-1.0	-9.7
1960	993.7	-6.8	998.4	-6.6	.5	4.7
1961	995.2	-7.0	1004.1	-6.7	.9	8.9
1962	1009.2	-7.0	1002.1	-7.2	-.7	-7.1
1963	1017.6	-2.0	1017.5	-2.1	.0	-.1
1964	985.3	-7.9	984.2	-8.0	-.1	-1.1
1965	1017.6	-2.0	1014.3	-5.3	-.3	-3.3
1966	1008.1	-6.3	997.0	-6.6	-1.1	-11.1
1967	1017.6	-3.4	1017.6	-2.0	.0	0
1968	1003.8	-5.5	999.2	-5.6	-.5	-4.6
1969	1017.6	-2.0	1017.6	-2.0	.0	.0
1970	1001.4	-5.7	996.3	-5.7	-.5	-5.1
1971	1017.6	-2.0	1017.6	-2.0	.0	.0
1972	1005.1	-5.0	997.7	-5.2	-.7	-7.4
1973	1014.8	-4.8	1013.6	-5.5	-.1	-1.2
1974	1017.6	-5.6	1017.6	-5.4	.0	.0
1975	1017.6	-2.8	1017.6	-3.2	.0	.0
1976	980.3	-6.0	977.6	-6.1	-.3	-2.7
1977	857.7	-2.5	849.6	-2.7	-.9	-8.1
1978	1015.8	-3.8	1015.2	-4.4	-.1	-.6
1979	1001.1	-7.0	988.4	-7.4	-1.3	-12.7
1980	1015.0	-4.6	1014.4	-5.2	-.1	-.6
1981	995.2	-7.6	994.1	-7.7	-.1	-1.1
1982	1017.6	-2.0	1017.6	-2.0	.0	.0
1983	1017.6	-14.3	1017.6	-14.6	.0	.0
1984	1015.5	-4.1	1015.5	-4.1	.0	.0
1985	983.3	-6.0	982.5	-6.0	-.1	-.8
1986	1003.3	-4.4	992.1	-4.6	-1.1	-11.2
1987	975.8	-7.4	958.6	-8.1	-1.8	-17.2
1988	962.4	-8.3	956.8	-8.7	-.6	-5.6
1989	988.8	-6.5	988.1	-6.5	-.1	-.7
1990	961.6	-8.9	958.3	-9.1	-.3	-3.3
1991	933.0	-5.9	926.0	-6.1	-.8	-7.0
Mean:	988.8	-6.0	984.4	-6.6	-.5	-4.5
Median:	1001.4	-6.5	996.3	-6.6	-.2	-1.9
Min:	857.7	-14.3	848.8	-17.8	-5.4	-48.5
Max:	1017.6	.0	1017.6	.0	1.1	10.8

X > 1020.0	0	0
X > 1017.0	19	16
X > 995.0	40	37
X > 980.0	51	48
X > 973.0	54	52
X > 955.0	62	61
X > 951.0	62	61
X > 943.0	63	62
X > 941.0	63	62

RETURN TO TABLE OF CONTENTS

Section 14

SHASTA RESERVOIR ELEVATION
14.3 Recreation

SHASTA RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.6	.0	997.7	.0	.0	.1
1923	1009.3	-3.8	1004.7	-3.9	-.5	-4.6
1924	969.7	-.6	976.0	.6	.6	6.3
1925	877.0	1.4	879.3	1.4	.3	2.3
1926	981.9	-.7	991.2	-2.2	.9	9.3
1927	969.5	.1	969.7	.1	.0	.2
1928	1015.5	-2.1	1008.9	-4.8	-.6	-6.6
1929	990.7	-3.7	988.8	-3.8	-.2	-1.9
1930	955.3	.0	949.6	-.6	-.6	-5.7
1931	973.6	-1.4	968.4	-.7	-.5	-5.2
1932	884.8	-2.2	863.7	-2.2	-2.4	-21.1
1933	913.5	-4.5	892.4	-5.2	-2.3	-21.1
1934	916.0	-1.5	890.5	-2.6	-2.8	-25.5
1935	895.2	-2.1	845.8	-3.0	-5.5	-49.4
1936	946.0	-3.8	922.8	-1.9	-2.5	-23.2
1937	954.3	-7.1	962.5	-3.7	.9	8.2
1938	963.0	-.5	970.0	-.4	.7	7.0
1939	1015.5	-2.1	1015.5	-2.1	.0	.0
1940	962.5	.6	955.7	.6	-.7	-6.8
1941	1004.2	-4.4	993.1	-3.2	-1.1	-11.1
1942	1015.5	-2.1	1015.5	-2.1	.0	.0
1943	1015.5	-2.1	1015.5	-2.1	.0	.0
1944	1015.5	-2.1	1010.7	-4.0	-.5	-4.8
1945	981.1	-1.1	979.4	-.3	-.2	-1.7
1946	996.3	-.2	992.7	1.4	-.4	-3.6
1947	999.6	-4.1	991.0	-2.9	-.9	-8.6
1948	982.0	3.2	976.7	5.1	-.5	-5.3
1949	1015.1	.1	1008.6	-4.5	-.6	-6.5
1950	1000.9	-5.7	991.9	-4.6	-.9	-9.0
1951	999.4	14.3	991.4	16.4	-.8	-8.0
1952	1008.8	-3.6	999.8	-3.1	-.9	-9.0
1953	1015.5	-2.1	1015.5	-2.1	.0	.0
1954	1015.5	-2.1	1015.5	-2.1	.0	.0
1955	1015.3	-.2	1011.4	-3.3	-.4	-3.9
1956	987.4	-2.7	992.3	-4.0	.5	4.9
1957	1015.5	-2.1	1015.5	-2.1	.0	.0
1958	1015.5	-2.1	1015.5	-1.7	.0	.0
1959	1015.5	-2.1	1015.5	-2.1	.0	.0
1960	989.3	-1.4	981.2	.2	-.8	-8.1
1961	991.4	-2.3	995.5	-2.9	.4	4.1
1962	992.7	-2.5	1000.3	-3.8	.8	7.6
1963	1015.5	6.3	1015.5	13.4	.0	.0
1964	1015.5	-2.1	1015.5	-2.0	.0	.0
1965	983.6	-1.7	982.5	-1.7	-.1	-1.1
1966	1015.5	-2.1	1010.4	-3.9	-.5	-5.1
1967	1003.3	-4.8	993.3	-3.7	-1.0	-10.0
1968	1015.5	-2.1	1015.5	-2.1	.0	.0
1969	1001.5	-2.3	997.5	-1.7	-.4	-4.0
1970	1015.5	-2.1	1015.5	-2.1	.0	.0
1971	999.9	-1.5	995.3	-1.0	-.5	-4.6
1972	1015.5	-2.1	1015.5	-2.1	.0	.0
1973	1003.9	-1.2	998.0	.3	-.6	-5.9
1974	1015.5	.7	1013.6	.0	-.2	-1.9
1975	1015.5	-2.1	1015.5	-2.1	.0	.0
1976	1015.5	-2.1	1015.5	-2.1	.0	.0
1977	981.2	.9	978.5	.9	-.3	-2.7
1978	848.4	-9.3	839.8	-9.8	-1.0	-8.6
1979	1013.8	-2.0	1011.1	-4.1	-.3	-2.7
1980	1000.0	-1.1	989.6	1.2	-1.0	-10.4
1981	1010.7	-4.3	1009.8	-4.6	-.1	-.9
1982	993.5	-1.7	992.4	-1.7	-.1	-1.1
1983	1015.5	-2.1	1015.5	-2.1	.0	.0
1984	1015.5	-2.1	1015.5	-2.1	.0	.0
1985	1015.5	.0	1014.1	-1.4	-.1	-1.4
1986	983.8	.5	983.0	.5	-.1	-.8
1987	1001.3	-2.0	991.6	-.5	-1.0	-9.7
1988	974.7	-1.1	959.9	1.3	-1.5	-14.8
1989	963.4	1.0	957.9	1.1	-.6	-5.5
1990	992.0	3.2	991.4	3.3	-.1	-.6
1991	961.6	.0	958.6	.3	-.3	-3.0
Mean:	988.3	-1.4	984.1	-1.3	-.4	-4.2
Median:	999.9	-2.1	993.1	-2.1	-.2	-1.9
Min:	848.4	-9.3	839.8	-9.8	-5.5	-49.4
Max:	1015.5	14.3	1015.5	16.4	.9	9.3
X > 924.0	64		63			
X > 918.0	64		64			
X > 876.0	69		67			
X > 856.0	69		68			
X > 848.0	70		68			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	995.9	.0	996.0	.0	.0	.1
1923	1006.6	-2.7	1002.0	-2.7	-.5	-4.6
1924	968.4	-1.3	975.7	-.3	.8	7.3
1925	890.6	13.6	892.7	13.4	.2	2.1
1926	982.3	.4	990.2	-1.0	.8	7.9
1927	993.0	23.5	993.2	23.5	.0	.2
1928	1015.6	.1	1014.5	5.6	-.1	-1.1
1929	989.3	-1.4	987.4	-1.4	-.2	-1.9
1930	954.0	-1.3	948.9	-.7	-.5	-5.1
1931	972.5	-1.1	967.7	-.7	-.5	-4.8
1932	883.4	-1.4	862.1	-1.6	-2.4	-21.3
1933	910.5	-3.0	889.1	-3.3	-2.4	-21.4
1934	914.6	-1.4	888.8	-1.7	-2.8	-25.8
1935	905.7	10.5	861.0	15.2	-4.9	-44.7
1936	942.0	-4.0	919.9	-2.9	-2.3	-22.1
1937	948.9	-5.4	960.4	-2.1	1.2	11.5
1938	991.8	28.8	997.0	27.0	.5	5.2
1939	1013.7	-1.8	1013.3	-2.2	.0	-.4
1940	962.2	-.3	956.3	.6	-.6	-5.9
1941	1001.4	-2.8	991.5	-1.6	-1.0	-9.9
1942	1013.5	-2.0	1013.1	-2.4	.0	-.4
1943	1015.6	.1	1015.2	-.3	.0	-.4
1944	1012.7	-2.8	1008.0	-2.7	-.5	-4.7
1945	988.2	7.1	987.3	7.9	-.1	-.9
1946	1005.4	9.1	1003.5	10.8	-.2	-1.9
1947	999.4	-.2	992.2	1.2	-.7	-7.2
1948	982.6	.6	978.9	2.2	-.4	-3.7
1949	1011.7	-3.4	1005.5	-3.1	-.6	-6.2
1950	995.9	-5.0	988.2	-3.7	-.8	-7.7
1951	1014.8	15.4	1009.5	18.1	-.5	-5.3
1952	1011.7	2.9	1004.2	4.4	-.7	-7.5
1953	1011.7	-3.8	1011.7	-3.8	.0	.0
1954	1015.6	.1	1015.6	.1	.0	.0
1955	1015.6	.3	1012.6	1.2	-.3	-3.0
1956	989.4	2.0	992.8	.5	.3	3.4
1957	1012.8	-2.7	1012.6	-2.9	.0	-.2
1958	1015.6	.1	1015.6	.1	.0	.0
1959	1012.7	-2.8	1012.7	-2.8	.0	.0
1960	987.8	-1.5	980.9	-.3	-.7	-6.9
1961	993.9	2.5	997.2	1.7	.3	3.3
1962	995.8	3.1	1002.0	1.7	.6	6.2
1963	1015.0	-.5	1015.6	.1	.1	.6
1964	1015.6	.1	1015.6	.1	.0	.0
1965	988.2	4.6	987.2	4.7	-.1	-1.0
1966	1015.6	.1	1015.6	5.2	.0	.0
1967	1013.5	10.2	1006.0	12.7	-.7	-7.5
1968	1012.9	-2.6	1012.6	-2.9	.0	-.3
1969	1000.8	-.7	997.6	.1	-.3	-3.2
1970	1013.0	-2.5	1013.0	-2.5	.0	.0
1971	1015.6	15.7	1012.4	17.1	-.3	-3.2
1972	1014.7	-.8	1014.3	-1.2	.0	-.4
1973	1010.8	6.9	1006.3	8.3	-.4	-4.5
1974	1015.6	.1	1015.6	2.0	.0	.0
1975	1014.4	-1.1	1014.4	-1.1	.0	.0
1976	1015.6	.1	1015.6	.1	.0	.0
1977	981.8	.6	979.2	.7	-.3	-2.6
1978	842.1	-6.3	833.3	-6.5	-1.0	-8.8
1979	1010.5	-3.3	1007.8	-3.3	-.3	-2.7
1980	1002.4	2.4	994.3	4.7	-.8	-8.1
1981	1008.7	-2.0	1007.7	-2.1	-.1	-1.0
1982	1015.6	22.1	1015.6	23.2	.0	.0
1983	1015.6	.1	1015.6	.1	.0	.0
1984	1015.6	.1	1015.6	.1	.0	.0
1985	1015.6	.1	1015.6	1.5	.0	.0
1986	984.5	.7	983.7	.7	-.1	-.8
1987	998.5	-2.8	990.2	-1.4	-.8	-8.3
1988	975.7	1.0	962.8	2.9	-1.3	-12.9
1989	974.0	10.6	969.6	11.7	-.5	-4.4
1990	990.9	-1.1	990.4	-1.0	-.1	-.5
1991	959.4	-2.2	958.0	-.6	-.1	-1.4
Mean:	990.0	1.7	986.4	2.3	-.4	-3.6
Median:	1001.4	.0	997.6	.1	-.1	-1.0
Min:	842.1	-6.3	833.3	-6.5	-4.9	-44.7
Max:	1015.6	28.8	1015.6	27.0	1.2	11.5
X > 924.0	64		63			
X > 918.0	64		64			
X > 876.0	69		67			
X > 856.0	69		69			
X > 848.0	69		69			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.8	.0	997.9	.0	.0	.1
1923	1006.3	-.3	1002.0	.0	-.4	-4.3
1924	968.0	-.4	975.1	-.6	.7	7.1
1925	898.5	7.9	900.5	7.8	.2	2.0
1926	981.6	-.7	988.1	-2.1	.7	6.5
1927	1014.4	21.4	1014.5	21.3	.0	.1
1928	1016.4	.8	1014.5	.0	-.2	-1.9
1929	987.7	-1.6	985.8	-1.6	-.2	-1.9
1930	981.7	27.7	977.4	28.5	-.4	-4.3
1931	970.6	-1.9	966.1	-1.6	-.5	-4.5
1932	900.7	17.3	882.2	20.1	-2.1	-18.5
1933	909.0	-1.5	887.4	-1.7	-2.4	-21.6
1934	923.4	8.8	899.3	10.5	-2.6	-24.1
1935	908.7	3.0	865.2	4.2	-4.8	-43.5
1936	940.5	-1.5	920.2	.3	-2.2	-20.3
1937	944.7	-4.2	959.1	-1.3	1.5	14.4
1938	1018.0	26.2	1018.0	21.0	.0	.0
1939	1015.1	1.4	1014.1	.8	-.1	-1.0
1940	970.7	8.5	965.0	8.7	-.6	-5.7
1941	1017.3	15.9	1017.3	25.8	.0	.0
1942	1018.3	4.8	1018.3	5.2	.0	.0
1943	1019.9	4.3	1019.9	4.7	.0	.0
1944	1008.7	-4.0	1004.3	-3.7	-.4	-4.4
1945	999.8	11.6	999.6	12.3	.0	-.2
1946	1016.2	10.8	1016.2	12.7	.0	.0
1947	999.1	-.3	993.3	1.1	-.6	-5.8
1948	982.3	-.3	980.3	1.4	-.2	-2.0
1949	1008.6	-3.1	1002.6	-2.9	-.6	-6.0
1950	989.8	-6.1	983.4	-4.8	-.6	-6.4
1951	1018.5	3.7	1018.5	9.0	.0	.0
1952	1017.9	6.2	1017.9	13.7	.0	.0
1953	1019.4	7.7	1019.4	7.7	.0	.0
1954	1018.9	3.3	1018.4	2.8	.0	-.5
1955	1020.1	4.5	1019.8	7.2	.0	-.3
1956	1015.6	26.2	1015.6	22.8	.0	.0
1957	1009.5	-3.3	1009.2	-3.4	.0	-.3
1958	1019.2	3.6	1019.2	3.6	.0	.0
1959	1010.5	-2.2	1010.5	-2.2	.0	.0
1960	986.5	-1.3	978.2	-2.7	-.8	-8.3
1961	1010.2	16.3	1012.3	15.1	.2	2.1
1962	1006.8	11.0	1011.3	9.3	.4	4.5
1963	1019.6	4.6	1019.6	4.0	.0	.0
1964	1015.5	-.1	1015.0	-.6	.0	-.5
1965	1015.6	27.4	1015.6	28.4	.0	.0
1966	1017.8	2.2	1017.3	1.7	.0	-.5
1967	1019.0	5.5	1019.0	13.0	.0	.0
1968	1013.0	.1	1012.0	-.6	-.1	-1.0
1969	1010.8	10.0	1008.3	10.7	-.2	-2.5
1970	1018.3	5.3	1018.3	5.3	.0	.0
1971	1018.4	2.8	1018.4	6.0	.0	.0
1972	1017.0	2.3	1016.0	1.7	-.1	-1.0
1973	1018.4	7.6	1015.4	9.1	-.3	-3.0
1974	1016.2	.6	1016.2	.6	.0	.0
1975	1016.2	1.8	1015.4	1.0	-.1	-.8
1976	1015.2	-.4	1014.8	-.8	.0	-.4
1977	976.2	-5.6	976.0	-3.2	.0	-.2
1978	883.7	41.6	877.8	44.5	-.7	-5.9
1979	1005.8	-4.7	1003.4	-4.4	-.2	-2.4
1980	1004.3	1.9	998.4	4.1	-.6	-5.9
1981	1010.4	1.7	1008.7	1.0	-.2	-1.7
1982	1016.6	1.0	1016.6	1.0	.0	.0
1983	1018.9	3.3	1018.9	3.3	.0	.0
1984	1017.0	1.4	1017.0	1.4	.0	.0
1985	1020.1	4.5	1020.1	4.5	.0	.0
1986	990.9	6.4	990.1	6.4	-.1	-.8
1987	995.7	-2.8	988.2	-2.0	-.8	-7.5
1988	999.4	23.7	989.6	26.8	-1.0	-9.8
1989	979.1	5.1	975.2	5.6	-.4	-3.9
1990	987.9	-3.0	987.1	-3.3	-.1	-.8
1991	953.8	-5.6	952.6	-5.4	-.1	-1.2
Mean:	995.1	5.1	992.3	5.8	-.3	-2.8
Median:	1010.2	2.3	1009.2	2.8	.0	-.5
Min:	883.7	-6.1	865.2	-5.4	-4.8	-43.5
Max:	1020.1	41.6	1020.1	44.5	1.5	14.4
X > 924.0	64		63			
X > 918.0	65		64			
X > 876.0	70		69			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	999.1	.0	999.2	.0	.0	.1
1923	1010.3	4.0	1006.7	4.7	-.4	-3.6
1924	968.1	.1	975.2	.1	.7	7.1
1925	908.2	9.7	910.0	9.5	.2	1.8
1926	982.5	.9	988.4	.3	.6	5.9
1927	1030.1	15.7	1030.2	15.7	.0	.1
1928	1022.3	5.9	1020.2	5.7	-.2	-2.1
1929	989.2	1.5	987.9	2.1	-.1	-1.3
1930	990.6	8.9	986.4	9.0	-.4	-4.2
1931	973.3	2.7	968.4	2.3	-.5	-4.9
1932	911.8	11.1	894.8	12.6	-1.9	-17.0
1933	911.3	2.3	890.2	2.8	-2.3	-21.1
1934	942.8	19.4	921.4	22.1	-2.3	-21.4
1935	930.1	21.4	893.2	28.0	-4.0	-36.9
1936	975.1	34.6	959.7	39.5	-1.6	-15.4
1937	943.1	-1.6	956.3	-2.8	1.4	13.2
1938	1028.6	10.6	1028.6	10.6	.0	.0
1939	1014.6	-.5	1013.6	-.5	-.1	-1.0
1940	1010.5	39.8	1005.9	40.9	-.5	-4.6
1941	1018.3	1.0	1018.3	1.0	.0	.0
1942	1021.2	2.9	1021.2	2.9	.0	.0
1943	1027.3	7.4	1027.3	7.4	.0	.0
1944	1007.6	-1.1	1004.2	-.1	-.3	-3.4
1945	1005.3	5.5	1005.1	5.5	.0	-.2
1946	1030.4	14.2	1030.4	14.2	.0	.0
1947	997.2	-1.9	992.1	-1.2	-.5	-5.1
1948	1006.7	24.4	1005.4	25.1	-.1	-1.3
1949	1004.9	-3.7	999.5	-3.1	-.5	-5.4
1950	999.9	10.1	994.9	11.5	-.5	-5.0
1951	1030.5	12.0	1030.5	12.0	.0	.0
1952	1029.7	11.8	1029.7	11.8	.0	.0
1953	1020.3	.9	1020.3	.9	.0	.0
1954	1027.7	8.8	1027.7	9.3	.0	.0
1955	1020.3	.2	1020.1	.3	.0	-.2
1956	1015.6	.0	1015.6	.0	.0	.0
1957	1009.1	-.4	1008.8	-.4	.0	-.3
1958	1026.9	7.7	1026.9	7.7	.0	.0
1959	1031.4	20.9	1031.4	20.9	.0	.0
1960	994.9	8.4	985.6	7.4	-.9	-9.3
1961	1013.9	3.7	1016.0	3.7	.2	2.1
1962	1007.5	.7	1011.4	.1	.4	3.9
1963	1021.6	2.0	1021.6	2.0	.0	.0
1964	1028.0	12.5	1026.8	11.8	-.1	-1.2
1965	1020.4	4.8	1020.4	4.8	.0	.0
1966	1034.4	16.6	1034.3	17.0	.0	-.1
1967	1027.7	8.7	1027.7	8.7	.0	.0
1968	1018.7	5.7	1017.0	5.0	-.2	-1.7
1969	1020.0	9.2	1020.0	11.7	.0	.0
1970	1015.6	-2.7	1015.6	-2.7	.0	.0
1971	1026.3	7.9	1026.3	7.9	.0	.0
1972	1028.2	11.2	1026.6	10.6	-.2	-1.6
1973	1027.7	9.3	1027.7	12.3	.0	.0
1974	1015.6	-.6	1015.6	-.6	.0	.0
1975	1016.7	.5	1015.8	.4	-.1	-.9
1976	1012.8	-2.4	1012.4	-2.4	.0	-.4
1977	971.0	-5.2	971.1	-4.9	.0	.1
1978	1000.5	116.8	997.7	119.9	-.3	-2.8
1979	1008.0	2.2	1006.4	3.0	-.2	-1.6
1980	1026.8	22.5	1026.8	28.4	.0	.0
1981	1020.9	10.5	1017.6	8.9	-.3	-3.3
1982	1030.2	13.6	1030.2	13.6	.0	.0
1983	1020.6	1.7	1020.6	1.7	.0	.0
1984	1031.5	14.5	1031.5	14.5	.0	.0
1985	1019.5	-.6	1019.5	-.6	.0	.0
1986	1013.8	22.9	1013.1	23.0	-.1	-.7
1987	999.2	3.5	992.6	4.4	-.7	-6.6
1988	1014.9	15.5	1007.2	17.6	-.8	-7.7
1989	983.2	4.1	979.4	4.2	-.4	-3.8
1990	997.5	9.6	997.0	9.9	-.1	-.5
1991	948.0	-5.8	947.3	-5.3	-.1	-.7
Mean:	1004.1	9.0	1001.8	9.5	-.2	-2.3
Median:	1014.6	5.7	1013.6	5.5	.0	-.2
Min:	908.2	-5.8	890.2	-5.3	-4.0	-36.9
Max:	1034.4	116.8	1034.3	119.9	1.4	13.2
X > 924.0	67		65			
X > 918.0	67		66			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1012.4	.0	1012.5	.0	.0	.1
1923	1009.9	-.4	1008.7	2.0	-.1	-1.2
1924	974.6	6.5	981.5	6.3	.7	6.9
1925	984.4	76.2	985.6	75.6	.1	1.2
1926	1013.8	31.3	1018.7	30.3	.5	4.9
1927	1024.2	-5.9	1024.2	-6.0	.0	.0
1928	1036.3	14.0	1033.9	13.7	-.2	-2.4
1929	997.0	7.8	995.7	7.8	-.1	-1.3
1930	1006.0	15.4	1002.4	16.0	-.4	-3.6
1931	976.3	3.0	971.5	3.1	-.5	-4.8
1932	921.5	9.7	905.5	10.7	-1.7	-16.0
1933	914.1	2.8	893.4	3.2	-2.3	-20.7
1934	961.1	18.3	943.0	21.6	-1.9	-18.1
1935	950.7	20.6	919.1	25.9	-3.3	-31.6
1936	1014.7	39.6	1003.1	43.4	-1.1	-11.6
1937	948.4	5.3	960.8	4.5	1.3	12.4
1938	1028.0	-.6	1028.0	-.6	.0	.0
1939	1014.8	.2	1013.8	.2	-.1	-1.0
1940	1015.6	5.1	1015.6	9.7	.0	.0
1941	1022.6	4.3	1022.6	4.3	.0	.0
1942	1026.3	5.1	1026.3	5.1	.0	.0
1943	1039.0	11.7	1039.0	11.7	.0	.0
1944	1017.3	9.7	1014.6	10.4	-.3	-2.7
1945	1033.5	28.2	1033.4	28.3	.0	-.1
1946	1033.7	3.3	1032.6	2.2	-.1	-1.1
1947	1006.3	9.1	1002.4	10.3	-.4	-3.9
1948	1006.8	.1	1005.5	.1	-.1	-1.3
1949	1009.8	4.9	1005.7	6.2	-.4	-4.1
1950	1015.2	15.3	1011.1	16.2	-.4	-4.1
1951	1037.0	6.5	1037.0	6.5	.0	.0
1952	1034.9	5.2	1034.9	5.2	.0	.0
1953	1029.3	9.0	1028.7	8.4	-.1	-.6
1954	1031.9	4.2	1031.9	4.2	.0	.0
1955	1021.3	1.0	1021.1	1.0	.0	-.2
1956	1017.1	1.5	1017.1	1.5	.0	.0
1957	1032.5	23.4	1032.5	23.7	.0	.0
1958	1015.6	-11.3	1015.6	-11.3	.0	.0
1959	1036.3	4.9	1036.3	4.9	.0	.0
1960	1024.1	29.2	1016.4	30.8	-.8	-7.7
1961	1037.7	23.8	1039.6	23.6	.2	1.9
1962	1032.5	25.0	1032.5	21.1	.0	.0
1963	1042.6	21.0	1042.6	21.0	.0	.0
1964	1030.5	2.5	1029.3	2.5	-.1	-1.2
1965	1031.8	11.4	1031.8	11.4	.0	.0
1966	1045.9	11.5	1045.9	11.6	.0	.0
1967	1041.7	14.0	1041.7	14.0	.0	.0
1968	1031.9	13.2	1031.9	14.9	.0	.0
1969	1024.9	4.9	1024.9	4.9	.0	.0
1970	1022.9	7.3	1022.9	7.3	.0	.0
1971	1038.3	12.0	1037.0	10.7	-.1	-1.3
1972	1038.8	10.6	1036.8	10.2	-.2	-2.0
1973	1031.0	3.3	1031.0	3.3	.0	.0
1974	1033.2	17.6	1033.2	17.6	.0	.0
1975	1040.1	23.4	1039.4	23.6	-.1	-.7
1976	1016.8	4.0	1016.4	4.0	.0	-.4
1977	962.0	-9.0	962.0	-9.1	.0	.0
1978	1031.5	31.0	1031.5	33.8	.0	.0
1979	1019.3	11.3	1017.7	11.3	-.2	-1.6
1980	1017.3	-9.5	1017.3	-9.5	.0	.0
1981	1033.7	12.8	1029.0	11.4	-.5	-4.7
1982	1026.8	-3.4	1026.8	-3.4	.0	.0
1983	1015.6	-5.0	1015.6	-5.0	.0	.0
1984	1042.6	11.1	1042.6	11.1	.0	.0
1985	1021.4	1.9	1021.4	1.9	.0	.0
1986	1015.6	1.8	1015.6	2.5	.0	.0
1987	1011.3	12.1	1005.7	13.1	-.6	-5.6
1988	1018.1	3.2	1011.7	4.5	-.6	-6.4
1989	987.1	3.9	983.4	4.0	-.4	-3.7
1990	999.6	2.1	998.8	1.8	-.1	-.8
1991	940.9	-7.1	941.2	-6.1	.0	.3
Mean:	1014.0	9.7	1012.0	10.0	-.2	-2.0
Median:	1021.3	6.5	1018.7	6.5	.0	.0
Min:	914.1	-11.3	893.4	-11.3	-3.3	-31.6
Max:	1045.9	76.2	1045.9	75.6	1.3	12.4
X > 924.0	68		67			
X > 918.0	69		68			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1024.3	.0	1024.4	.0	.0	.1
1923	1010.7	.8	1011.8	3.1	.1	1.1
1924	974.2	-.4	978.9	-2.6	.5	4.7
1925	991.0	6.6	992.7	7.1	.2	1.7
1926	1017.5	3.7	1021.8	3.1	.4	4.3
1927	1044.0	19.8	1043.7	19.5	.0	-.3
1928	1043.3	7.0	1043.3	9.4	.0	.0
1929	1003.6	6.6	1002.4	6.7	-.1	-1.2
1930	1023.9	17.9	1021.2	18.8	-.3	-2.7
1931	981.4	5.1	975.9	4.4	-.6	-5.5
1932	948.9	27.4	935.6	30.1	-1.4	-13.3
1933	952.4	38.3	936.6	43.2	-1.7	-15.8
1934	974.3	13.2	958.5	15.5	-1.6	-15.8
1935	972.3	21.6	944.9	25.8	-2.8	-27.4
1936	1024.7	10.0	1016.9	13.8	-.8	-7.8
1937	984.0	35.6	993.6	32.8	1.0	9.6
1938	1022.3	-5.7	1022.3	-5.7	.0	.0
1939	1026.7	11.9	1025.8	12.0	-.1	-.9
1940	1023.1	7.5	1023.1	7.5	.0	.0
1941	1042.4	19.8	1042.4	19.8	.0	.0
1942	1034.6	8.3	1034.6	8.3	.0	.0
1943	1048.8	9.8	1048.8	9.8	.0	.0
1944	1025.6	8.3	1023.0	8.4	-.3	-2.6
1945	1040.0	6.5	1039.9	6.5	.0	-.1
1946	1043.1	9.4	1042.2	9.6	-.1	-.9
1947	1026.2	19.9	1023.2	20.8	-.3	-3.0
1948	1017.9	11.1	1016.6	11.1	-.1	-1.3
1949	1046.9	37.1	1044.6	38.9	-.2	-2.3
1950	1029.0	13.8	1026.4	15.3	-.3	-2.6
1951	1049.2	12.2	1049.0	12.0	.0	-.2
1952	1045.4	10.5	1045.4	10.5	.0	.0
1953	1043.1	13.8	1041.9	13.2	-.1	-1.2
1954	1048.4	16.5	1048.4	16.5	.0	.0
1955	1023.2	1.9	1023.0	1.9	.0	-.2
1956	1042.0	24.9	1041.2	24.1	-.1	-.8
1957	1049.2	16.7	1049.2	16.7	.0	.0
1958	1022.3	6.7	1022.3	6.7	.0	.0
1959	1047.4	11.1	1043.5	7.2	-.4	-3.9
1960	1045.0	20.9	1039.3	22.9	-.5	-5.7
1961	1052.2	14.5	1054.0	14.4	.2	1.8
1962	1044.3	11.8	1044.3	11.8	.0	.0
1963	1052.7	10.1	1052.7	10.1	.0	.0
1964	1031.0	.5	1029.8	.5	-.1	-1.2
1965	1035.6	3.8	1035.6	3.8	.0	.0
1966	1052.8	6.9	1052.8	6.9	.0	.0
1967	1045.8	4.1	1045.8	4.1	.0	.0
1968	1048.9	17.0	1048.5	16.6	.0	-.4
1969	1045.7	20.8	1045.7	20.8	.0	.0
1970	1043.6	20.7	1042.9	20.0	-.1	-.7
1971	1039.9	1.6	1039.9	2.9	.0	.0
1972	1053.5	14.7	1053.5	16.7	.0	.0
1973	1050.4	19.4	1050.4	19.4	.0	.0
1974	1022.3	-10.9	1022.3	-10.9	.0	.0
1975	1037.2	-2.9	1037.2	-2.2	.0	.0
1976	1021.9	5.1	1021.5	5.1	.0	-.4
1977	948.0	-14.0	948.9	-13.1	.1	.9
1978	1043.1	11.6	1043.1	11.6	.0	.0
1979	1034.5	15.2	1033.0	15.3	-.1	-1.5
1980	1042.7	25.4	1041.3	24.0	-.1	-1.4
1981	1051.5	17.8	1046.5	17.5	-.5	-5.0
1982	1042.9	16.1	1042.9	16.1	.0	.0
1983	1022.3	6.7	1022.3	6.7	.0	.0
1984	1061.7	19.1	1060.5	17.9	-.1	-1.2
1985	1025.0	3.6	1025.0	3.6	.0	.0
1986	1027.0	11.4	1027.0	11.4	.0	.0
1987	1037.3	26.0	1033.5	27.8	-.4	-3.8
1988	1018.5	.4	1011.8	.1	-.7	-6.7
1989	1038.7	51.6	1038.7	55.3	.0	.0
1990	1010.0	10.4	1009.4	10.6	-.1	-.6
1991	965.9	25.0	957.0	15.8	-.9	-8.9
Mean:	1026.6	12.4	1024.8	12.6	-.2	-1.8
Median:	1034.6	11.1	1033.5	11.4	.0	-.1
Min:	948.0	-14.0	935.6	-13.1	-2.8	-27.4
Max:	1061.7	51.6	1060.5	55.3	1.0	9.6
X > 924.0	70		70			
X > 918.0	70		70			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1042.6	.0	1042.7	.0	.0	.1
1923	1023.0	12.3	1025.8	14.0	.3	2.8
1924	962.4	-11.8	967.4	-11.5	.5	5.0
1925	1020.7	29.7	1022.1	29.4	.1	1.4
1926	1028.8	11.3	1032.5	10.7	.4	3.7
1927	1063.8	19.8	1063.8	20.1	.0	.0
1928	1059.2	15.9	1059.2	15.9	.0	.0
1929	1007.5	3.9	1004.6	2.2	-.3	-2.9
1930	1029.5	5.6	1027.5	6.3	-.2	-2.0
1931	966.8	-14.6	961.1	-14.8	-.6	-5.7
1932	957.0	8.1	946.1	10.5	-1.1	-10.9
1933	957.7	5.3	941.8	5.2	-1.7	-15.9
1934	974.5	.2	957.8	-.7	-1.7	-16.7
1935	1017.3	45.0	997.1	52.2	-2.0	-20.2
1936	1033.7	9.0	1027.4	10.5	-.6	-6.3
1937	1015.1	31.1	1023.5	29.9	.8	8.4
1938	1046.7	24.4	1046.7	24.4	.0	.0
1939	1027.2	.5	1024.3	-1.5	-.3	-2.9
1940	1049.9	26.8	1049.9	26.8	.0	.0
1941	1060.6	18.2	1060.6	18.2	.0	.0
1942	1056.7	22.1	1056.7	22.1	.0	.0
1943	1062.9	14.1	1062.9	14.1	.0	.0
1944	1030.3	4.7	1028.1	5.1	-.2	-2.2
1945	1045.0	5.0	1044.8	4.9	.0	-.2
1946	1050.0	6.9	1050.1	7.9	.0	.1
1947	1032.1	5.9	1029.9	6.7	-.2	-2.2
1948	1051.9	34.0	1051.3	34.7	-.1	-.6
1949	1058.5	11.6	1054.8	10.2	-.3	-3.7
1950	1041.4	12.4	1038.9	12.5	-.2	-2.5
1951	1053.3	4.1	1052.6	3.6	-.1	-.7
1952	1054.9	9.5	1054.9	9.5	.0	.0
1953	1054.3	11.2	1052.7	10.8	-.2	-1.6
1954	1063.6	15.2	1063.6	15.2	.0	.0
1955	1035.1	11.9	1034.8	11.8	.0	-.3
1956	1058.5	16.5	1056.5	15.3	-.2	-2.0
1957	1054.6	5.4	1053.9	4.7	-.1	-.7
1958	1050.8	28.5	1050.8	28.5	.0	.0
1959	1051.0	3.6	1048.4	4.9	-.2	-2.6
1960	1048.6	3.6	1043.8	4.5	-.5	-4.8
1961	1052.7	.5	1057.5	3.5	.5	4.8
1962	1053.6	9.3	1053.6	9.3	.0	.0
1963	1049.5	-3.2	1049.5	-3.2	.0	.0
1964	1028.6	-2.4	1027.3	-2.5	-.1	-1.3
1965	1061.3	25.7	1061.3	25.7	.0	.0
1966	1063.8	11.0	1063.8	11.0	.0	.0
1967	1061.4	15.6	1061.4	15.6	.0	.0
1968	1050.6	1.7	1050.9	2.4	.0	.3
1969	1059.8	14.1	1059.8	14.1	.0	.0
1970	1046.3	2.7	1045.6	2.7	-.1	-.7
1971	1058.5	18.6	1058.5	18.6	.0	.0
1972	1061.8	8.3	1061.5	8.0	.0	-.3
1973	1058.5	8.1	1058.5	8.1	.0	.0
1974	1054.9	32.6	1054.9	32.6	.0	.0
1975	1056.2	19.0	1056.2	19.0	.0	.0
1976	1027.1	5.2	1026.7	5.2	.0	-.4
1977	930.4	-17.6	931.4	-17.5	.1	1.0
1978	1063.8	20.7	1063.8	20.7	.0	.0
1979	1040.0	5.5	1038.9	5.9	-.1	-1.1
1980	1051.5	8.8	1050.1	8.8	-.1	-1.4
1981	1055.3	3.8	1050.3	3.8	-.5	-5.0
1982	1047.9	5.0	1047.9	5.0	.0	.0
1983	1047.3	25.0	1047.3	25.0	.0	.0
1984	1063.8	2.1	1063.8	3.3	.0	.0
1985	1031.0	6.0	1031.0	6.0	.0	.0
1986	1038.1	11.1	1038.1	11.1	.0	.0
1987	1033.0	-4.3	1028.9	-4.6	-.4	-4.1
1988	1021.0	2.5	1012.0	.2	-.9	-9.0
1989	1050.7	12.0	1050.7	12.0	.0	.0
1990	1007.3	-2.7	1003.7	-5.7	-.4	-3.6
1991	973.8	7.9	965.3	8.3	-.9	-8.5
Mean:	1037.1	10.3	1035.5	10.4	-.2	-1.6
Median:	1048.6	8.3	1047.9	8.8	.0	.0
Min:	930.4	-17.6	931.4	-17.5	-2.0	-20.2
Max:	1063.8	45.0	1063.8	52.2	.8	8.4
X > 924.0	70		70			
X > 918.0	70		70			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1053.7	.0	1053.3	.0	.0	-.4
1923	1020.0	-3.0	1019.4	-6.4	-.1	-.6
1924	952.4	-10.0	955.7	-11.7	.3	3.3
1925	1030.6	9.9	1033.5	11.4	.3	2.9
1926	1026.3	-2.5	1029.2	-3.3	.3	2.9
1927	1063.8	.0	1063.8	.0	.0	.0
1928	1056.0	-3.2	1054.4	-4.8	-.2	-1.6
1929	1002.3	-5.2	997.2	-7.4	-.5	-5.1
1930	1029.0	-.5	1026.8	-.7	-.2	-2.2
1931	957.1	-9.7	949.0	-12.1	-.8	-8.1
1932	965.2	8.2	955.1	9.0	-1.0	-10.1
1933	958.9	1.2	942.7	.9	-1.7	-16.2
1934	964.9	-9.6	946.6	-11.2	-1.9	-18.3
1935	1023.5	6.2	1010.0	12.9	-1.3	-13.5
1936	1027.7	-6.0	1024.1	-3.3	-.4	-3.6
1937	1020.2	5.1	1029.7	6.2	.9	9.5
1938	1063.8	17.1	1063.8	17.1	.0	.0
1939	1016.6	-10.6	1013.3	-11.0	-.3	-3.3
1940	1054.5	4.6	1051.4	1.5	-.3	-3.1
1941	1063.8	3.2	1063.8	3.2	.0	.0
1942	1063.8	7.1	1063.8	7.1	.0	.0
1943	1063.8	.9	1063.8	.9	.0	.0
1944	1031.0	.7	1027.1	-1.0	-.4	-3.9
1945	1047.9	2.9	1048.1	3.3	.0	.2
1946	1050.8	.8	1047.6	-2.5	-.3	-3.2
1947	1021.0	-11.1	1019.5	-10.4	-.1	-1.5
1948	1063.8	11.9	1063.8	12.5	.0	.0
1949	1059.4	.9	1056.1	1.3	-.3	-3.3
1950	1038.5	-2.9	1032.4	-6.5	-.6	-6.1
1951	1059.7	6.4	1059.0	6.4	-.1	-.7
1952	1063.8	8.9	1063.8	8.9	.0	.0
1953	1063.8	9.5	1063.8	11.1	.0	.0
1954	1061.5	-2.1	1058.8	-4.8	-.3	-2.7
1955	1045.4	10.3	1043.9	9.1	-.1	-1.5
1956	1063.8	5.3	1063.8	7.3	.0	.0
1957	1063.8	9.2	1063.8	9.9	.0	.0
1958	1063.8	13.0	1063.8	13.0	.0	.0
1959	1047.3	-3.7	1043.3	-5.1	-.4	-4.0
1960	1053.4	4.8	1050.2	6.4	-.3	-3.2
1961	1050.3	-2.4	1051.5	-6.0	.1	1.2
1962	1052.0	-1.6	1051.8	-1.8	.0	-.2
1963	1063.8	14.3	1063.8	14.3	.0	.0
1964	1025.0	-3.6	1024.2	-3.1	-.1	-.8
1965	1062.0	.7	1061.6	.3	.0	-.4
1966	1055.9	-7.9	1052.9	-10.9	-.3	-3.0
1967	1063.8	2.4	1063.8	2.4	.0	.0
1968	1048.2	-2.4	1046.9	-4.0	-.1	-1.3
1969	1063.8	4.0	1063.8	4.0	.0	.0
1970	1045.3	-1.0	1044.2	-1.4	-.1	-1.1
1971	1063.8	5.3	1063.8	5.3	.0	.0
1972	1053.3	-8.5	1050.9	-10.6	-.2	-2.4
1973	1063.1	4.6	1058.0	-.5	-.5	-5.1
1974	1063.8	8.9	1063.8	8.9	.0	.0
1975	1063.8	7.6	1063.8	7.6	.0	.0
1976	1024.1	-3.0	1020.4	-6.3	-.4	-3.7
1977	930.9	.5	929.5	-1.9	-.2	-1.4
1978	1063.8	.0	1063.8	.0	.0	.0
1979	1048.9	8.9	1043.8	4.9	-.5	-5.1
1980	1054.7	3.2	1051.7	1.6	-.3	-3.0
1981	1047.1	-8.2	1042.4	-7.9	-.4	-4.7
1982	1063.8	15.9	1060.3	12.4	-.3	-3.5
1983	1063.8	16.5	1063.8	16.5	.0	.0
1984	1060.2	-3.6	1058.6	-5.2	-.2	-1.6
1985	1027.7	-3.3	1025.1	-5.9	-.3	-2.6
1986	1042.1	4.0	1039.5	1.4	-.2	-2.6
1987	1023.0	-10.0	1016.1	-12.8	-.7	-6.9
1988	1016.5	-4.5	1008.6	-3.4	-.8	-7.9
1989	1045.6	-5.1	1044.8	-5.9	-.1	-.8
1990	1010.9	3.6	1006.7	3.0	-.4	-4.2
1991	974.2	.4	965.9	.6	-.9	-8.3
Mean:	1038.7	1.5	1036.4	.8	-.2	-2.4
Median:	1050.3	.7	1048.1	.0	-.1	-1.5
Min:	930.9	-11.1	929.5	-12.8	-1.9	-18.3
Max:	1063.8	17.1	1063.8	17.1	.9	9.5
X > 924.0	70		70			
X > 918.0	70		70			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1046.5	.0	1045.5	.0	-.1	-1.0
1923	1010.4	-9.6	1010.4	-9.0	.0	.0
1924	934.6	-17.8	937.7	-18.0	.3	3.1
1925	1024.9	-5.7	1031.1	-2.4	.6	6.2
1926	1012.6	-13.7	1015.4	-13.8	.3	2.8
1927	1058.7	-5.1	1053.6	-10.2	-.5	-5.1
1928	1045.8	-10.2	1042.9	-11.5	-.3	-2.9
1929	996.1	-6.2	991.6	-5.6	-.5	-4.5
1930	1017.9	-11.1	1014.8	-12.0	-.3	-3.1
1931	944.8	-12.3	934.6	-14.4	-1.1	-10.2
1932	960.9	-4.3	948.2	-6.9	-1.3	-12.7
1933	953.6	-5.3	939.2	-3.5	-1.5	-14.4
1934	947.1	-17.8	927.6	-19.0	-2.1	-19.5
1935	1009.5	-14.0	993.4	-16.6	-1.6	-16.1
1936	1020.0	-7.7	1019.0	-5.1	-.1	-1.0
1937	1013.6	-6.6	1023.6	-6.1	1.0	10.0
1938	1058.7	-5.1	1058.7	-5.1	.0	.0
1939	1003.1	-13.5	998.0	-15.3	-.5	-5.1
1940	1046.1	-8.4	1039.2	-12.2	-.7	-6.9
1941	1058.7	-5.1	1058.7	-5.1	.0	.0
1942	1058.7	-5.1	1058.7	-5.1	.0	.0
1943	1057.0	-6.8	1054.6	-9.2	-.2	-2.4
1944	1021.7	-9.3	1016.3	-10.8	-.5	-5.4
1945	1040.2	-7.7	1039.6	-8.5	-.1	.6
1946	1042.2	-8.6	1035.7	-11.9	-.6	-6.5
1947	1017.2	-3.8	1016.2	-3.3	-.1	-1.0
1948	1058.7	-5.1	1058.7	-5.1	.0	.0
1949	1044.5	-14.9	1036.4	-19.7	-.8	-8.1
1950	1028.1	-10.4	1020.7	-11.7	-.7	-7.4
1951	1049.4	-10.3	1044.3	-14.7	-.5	-5.1
1952	1058.7	-5.1	1058.7	-5.1	.0	.0
1953	1058.7	-5.1	1058.7	-5.1	.0	.0
1954	1054.9	-6.6	1051.6	-7.2	-.3	-3.3
1955	1025.8	-19.6	1031.6	-12.3	.6	5.8
1956	1058.7	-5.1	1058.7	-5.1	.0	.0
1957	1058.7	-5.1	1056.4	-7.4	-.2	-2.3
1958	1058.7	-5.1	1058.7	-5.1	.0	.0
1959	1031.6	-15.7	1027.2	-16.1	-.4	-4.4
1960	1036.7	-16.7	1040.6	-9.6	.4	3.9
1961	1038.0	-12.3	1042.8	-8.7	.5	4.8
1962	1043.1	-8.9	1040.4	-11.4	-.3	-2.7
1963	1058.7	-5.1	1055.8	-8.0	-.3	-2.9
1964	1022.1	-2.9	1020.6	-3.6	-.1	-1.5
1965	1056.5	-5.5	1050.3	-11.3	-.6	-6.2
1966	1043.4	-12.5	1036.7	-16.2	-.6	-6.7
1967	1058.7	-5.1	1058.7	-5.1	.0	.0
1968	1036.3	-11.9	1034.0	-12.9	-.2	-2.3
1969	1058.7	-5.1	1058.7	-5.1	.0	.0
1970	1039.3	-6.0	1035.1	-9.1	-.4	-4.2
1971	1058.7	-5.1	1058.7	-5.1	.0	.0
1972	1045.1	-8.2	1041.1	-9.8	-.4	-4.0
1973	1055.2	-7.9	1049.4	-8.6	-.5	-5.8
1974	1058.7	-5.1	1058.7	-5.1	.0	.0
1975	1058.7	-5.1	1058.7	-5.1	.0	.0
1976	1014.5	-9.6	1010.8	-9.6	-.4	-3.7
1977	917.9	-13.0	916.4	-13.1	-.2	-1.5
1978	1054.2	-9.6	1053.0	-10.8	-.1	-1.2
1979	1035.5	-13.4	1027.6	-16.2	-.8	-7.9
1980	1049.3	-5.4	1043.0	-8.7	-.6	-6.3
1981	1034.8	-12.3	1028.2	-14.2	-.6	-6.6
1982	1058.7	-5.1	1056.7	-3.6	-.2	-2.0
1983	1062.2	-1.6	1062.2	-1.6	.0	.0
1984	1054.3	-5.9	1049.3	-9.3	-.5	-5.0
1985	1016.9	-10.8	1012.9	-12.2	-.4	-4.0
1986	1032.5	-9.6	1026.3	-13.2	-.6	-6.2
1987	1007.6	-15.4	998.3	-17.8	-.9	-9.3
1988	1004.0	-12.5	999.3	-9.3	-.5	-4.7
1989	1031.8	-13.8	1030.9	-13.9	-.1	-.9
1990	1007.1	-3.8	1004.0	-2.7	-.3	-3.1
1991	964.5	-9.7	956.2	-9.7	-.9	-8.3
Mean:	1030.0	-8.6	1026.9	-9.4	-.3	-3.1
Median:	1039.3	-7.9	1036.4	-9.3	-.3	-2.9
Min:	917.9	-19.6	916.4	-19.7	-2.1	-19.5
Max:	1062.2	.0	1062.2	.0	1.0	10.0
X > 924.0	69		69			
X > 918.0	69		69			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1033.2	.0	1029.2	.0	-.4	-4.0
1923	995.3	-15.1	997.7	-12.7	.2	2.4
1924	913.2	-21.4	916.8	-20.9	.4	3.6
1925	1009.6	-15.3	1017.6	-13.5	.8	8.0
1926	997.0	-15.6	998.0	-17.4	.1	1.0
1927	1040.9	-17.8	1038.1	-15.5	-.3	-2.8
1928	1020.4	-25.4	1017.0	-25.9	-.3	-3.4
1929	981.4	-14.7	976.3	-15.3	-.5	-5.1
1930	1002.6	-15.3	998.4	-16.4	-.4	-4.2
1931	923.1	-21.7	914.8	-19.8	-.9	-8.3
1932	946.4	-14.5	929.8	-18.4	-1.8	-16.6
1933	940.8	-12.8	924.7	-14.5	-1.7	-16.1
1934	928.1	-19.0	902.6	-25.0	-2.7	-25.5
1935	989.1	-20.4	967.5	-25.9	-2.2	-21.6
1936	999.1	-20.9	1000.5	-18.5	.1	1.4
1937	995.2	-18.4	1004.3	-19.3	.9	9.1
1938	1042.6	-16.1	1041.6	-17.1	-.1	-1.0
1939	988.1	-15.0	981.7	-16.3	-.6	-6.4
1940	1030.6	-15.5	1020.5	-18.7	-1.0	-10.1
1941	1043.7	-15.0	1043.7	-15.0	.0	.0
1942	1042.9	-15.8	1040.9	-17.8	-.2	-2.0
1943	1040.9	-16.1	1039.6	-15.0	-.1	-1.3
1944	1005.8	-15.9	1002.2	-14.1	-.4	-3.6
1945	1019.8	-20.4	1015.9	-23.7	-.4	-3.9
1946	1025.0	-17.2	1016.5	-19.2	-.8	-8.5
1947	1001.2	-16.0	999.0	-17.2	-.2	-2.2
1948	1040.9	-17.8	1040.9	-17.8	.0	.0
1949	1028.8	-15.7	1020.1	-16.3	-.8	-8.7
1950	1010.7	-17.4	1002.3	-18.4	-.8	-8.4
1951	1033.4	-16.0	1025.6	-18.7	-.8	-7.8
1952	1043.0	-15.7	1042.4	-16.3	-.1	-.6
1953	1042.8	-15.9	1042.8	-15.9	.0	.0
1954	1035.2	-19.7	1028.5	-23.1	-.6	-6.7
1955	1010.6	-15.2	1018.4	-13.2	.8	7.8
1956	1041.8	-16.9	1040.9	-17.8	-.1	-.9
1957	1040.9	-17.8	1039.4	-17.0	-.1	-1.5
1958	1044.6	-14.1	1044.6	-14.1	.0	.0
1959	1006.5	-25.1	1000.6	-26.6	-.6	-5.9
1960	1016.3	-20.4	1023.0	-17.6	.7	6.7
1961	1017.6	-20.4	1026.6	-16.2	.9	9.0
1962	1029.4	-13.7	1023.1	-17.3	-.6	-6.3
1963	1040.9	-17.8	1040.9	-14.9	.0	.0
1964	1008.2	-13.9	1006.3	-14.3	-.2	-1.9
1965	1040.9	-15.6	1035.2	-15.1	-.5	-5.7
1966	1025.1	-18.3	1017.3	-19.4	-.8	-7.8
1967	1042.9	-15.8	1041.0	-17.7	-.2	-1.9
1968	1014.9	-21.4	1011.8	-22.2	-.3	-3.1
1969	1042.0	-16.7	1040.9	-17.8	-.1	-1.1
1970	1017.0	-22.3	1013.0	-22.1	-.4	-4.0
1971	1043.2	-15.5	1040.9	-17.8	-.2	-2.3
1972	1023.0	-22.1	1018.6	-22.5	-.4	-4.4
1973	1039.7	-15.5	1028.7	-20.7	-1.1	-11.0
1974	1044.2	-14.5	1043.7	-15.0	.0	-.5
1975	1042.7	-16.0	1042.7	-16.0	.0	.0
1976	1000.9	-13.6	996.2	-14.6	-.5	-4.7
1977	892.3	-25.6	887.5	-28.9	-.5	-4.8
1978	1040.9	-13.3	1039.1	-13.9	-.2	-1.8
1979	1017.4	-18.1	1006.0	-21.6	-1.1	-11.4
1980	1039.6	-9.7	1032.2	-10.8	-.7	-7.4
1981	1019.6	-15.2	1013.5	-14.7	-.6	-6.1
1982	1042.2	-16.5	1040.9	-15.8	-.1	-1.3
1983	1049.8	-12.4	1049.8	-12.4	.0	.0
1984	1038.9	-15.4	1032.9	-16.4	-.6	-6.0
1985	1004.3	-12.6	1000.6	-12.3	-.4	-3.7
1986	1019.9	-12.6	1011.2	-15.1	-.9	-8.7
1987	995.2	-12.4	980.9	-17.4	-1.4	-14.3
1988	985.2	-18.8	981.7	-17.6	-.4	-3.5
1989	1012.5	-19.3	1013.9	-17.0	.1	1.4
1990	986.4	-20.7	985.8	-18.2	-.1	-.6
1991	951.0	-13.5	943.3	-12.9	-.8	-7.7
Mean:	1013.1	-16.7	1009.3	-17.3	-.4	-3.8
Median:	1019.8	-16.0	1017.3	-17.2	-.4	-3.5
Min:	892.3	-25.6	887.5	-28.9	-2.7	-25.5
Max:	1049.8	.0	1049.8	.0	.9	9.1
X > 924.0	67		66			
X > 918.0	68		66			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1019.6	.0	1015.3	.0	-.4	-4.3
1923	978.6	-16.7	983.6	-14.1	.5	5.0
1924	885.9	-27.3	889.4	-27.4	.4	3.5
1925	990.7	-18.9	1001.0	-16.6	1.0	10.3
1926	979.1	-17.9	979.2	-18.8	.0	.1
1927	1019.6	-21.3	1019.6	-18.5	.0	.0
1928	1001.9	-18.5	1000.1	-16.9	-.2	-1.8
1929	965.6	-15.8	960.7	-15.6	-.5	-4.9
1930	983.9	-18.7	978.3	-20.1	-.6	-5.6
1931	897.2	-25.9	879.5	-35.3	-2.0	-17.7
1932	926.4	-20.0	908.6	-21.2	-1.9	-17.8
1933	924.7	-16.1	904.1	-20.6	-2.2	-20.6
1934	908.7	-19.4	866.6	-36.0	-4.6	-42.1
1935	960.1	-29.0	935.7	-31.8	-2.5	-24.4
1936	971.8	-27.3	976.3	-24.2	.5	4.5
1937	973.7	-21.5	980.2	-24.1	.7	6.5
1938	1019.6	-23.0	1019.6	-22.0	.0	.0
1939	971.3	-16.8	964.8	-16.9	-.7	-6.5
1940	1015.2	-15.4	1003.3	-17.2	-1.2	-11.9
1941	1022.4	-21.3	1022.7	-21.0	.0	.3
1942	1020.2	-22.7	1019.6	-21.3	-.1	-.6
1943	1019.6	-21.3	1019.6	-20.0	.0	.0
1944	990.1	-15.7	987.7	-14.5	-.2	-2.4
1945	1003.5	-16.3	998.5	-17.4	-.5	-5.0
1946	1010.3	-14.7	1000.8	-15.7	-.9	-9.5
1947	986.9	-14.3	980.0	-19.0	-.7	-6.9
1948	1019.6	-21.3	1019.3	-21.6	.0	-.3
1949	1014.3	-14.5	1004.6	-15.5	-1.0	-9.7
1950	993.4	-17.3	983.7	-18.6	-1.0	-9.7
1951	1019.3	-14.1	1010.1	-15.5	-.9	-9.2
1952	1019.6	-23.4	1019.6	-22.8	.0	.0
1953	1019.7	-23.1	1020.1	-22.7	.0	.4
1954	1019.6	-15.6	1019.5	-9.0	.0	-.1
1955	996.9	-13.7	1002.9	-15.5	.6	6.0
1956	1019.6	-22.2	1019.6	-21.3	.0	.0
1957	1019.6	-21.3	1019.6	-19.8	.0	.0
1958	1023.8	-20.8	1024.1	-20.5	.0	.3
1959	994.8	-11.7	985.3	-15.3	-1.0	-9.5
1960	1000.5	-15.8	1005.0	-18.0	.4	4.5
1961	1002.2	-15.4	1010.8	-15.8	.9	8.6
1962	1016.2	-13.2	1009.3	-13.8	-.7	-6.9
1963	1019.6	-21.3	1019.6	-21.3	.0	.0
1964	993.2	-15.0	992.2	-14.1	-.1	-1.0
1965	1019.6	-21.3	1019.6	-15.6	.0	.0
1966	1014.4	-10.7	1003.6	-13.7	-1.1	-10.8
1967	1021.0	-21.9	1019.6	-21.4	-.1	-1.4
1968	1009.3	-5.6	1004.8	-7.0	-.4	-4.5
1969	1019.6	-22.4	1019.6	-21.3	.0	.0
1970	1007.1	-9.9	1002.0	-11.0	-.5	-5.1
1971	1019.6	-23.6	1019.6	-21.3	.0	.0
1972	1010.1	-12.9	1002.9	-15.7	-.7	-7.2
1973	1019.6	-20.1	1019.1	-9.6	.0	-.5
1974	1023.2	-21.0	1023.0	-20.7	.0	-.2
1975	1020.4	-22.3	1020.8	-21.9	.0	.4
1976	986.3	-14.6	983.7	-12.5	-.3	-2.6
1977	860.2	-32.1	852.3	-35.2	-.9	-7.9
1978	1019.6	-21.3	1019.6	-19.5	.0	.0
1979	1008.1	-9.3	995.8	-10.2	-1.2	-12.3
1980	1019.6	-20.0	1019.6	-12.6	.0	.0
1981	1002.8	-16.8	1001.8	-11.7	-.1	-1.0
1982	1019.6	-22.6	1019.6	-21.3	.0	.0
1983	1031.9	-17.9	1032.2	-17.6	.0	.3
1984	1019.6	-19.3	1019.6	-13.3	.0	.0
1985	989.3	-15.0	988.5	-12.1	-.1	-.8
1986	1007.7	-12.2	996.7	-14.5	-1.1	-11.0
1987	983.2	-12.0	966.7	-14.2	-1.7	-16.5
1988	970.7	-14.5	965.5	-16.2	-.5	-5.2
1989	995.3	-17.2	994.6	-19.3	-.1	-.7
1990	970.5	-15.9	967.4	-18.4	-.3	-3.1
1991	938.9	-12.1	932.1	-11.2	-.7	-6.8
Mean:	994.9	-18.0	991.0	-18.1	-.4	-3.9
Median:	1007.7	-17.9	1002.9	-18.0	-.1	-1.0
Min:	860.2	-32.1	852.3	-36.0	-4.6	-42.1
Max:	1031.9	.0	1032.2	.0	1.0	10.3

X > 924.0	66	64
X > 918.0	66	64
X > 876.0	69	68
X > 856.0	70	69
X > 848.0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70

SHASTA RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1013.1	.0	1008.6	.0	-.4	-4.5
1923	970.3	-8.3	975.4	-8.2	.5	5.1
1924	875.6	-10.3	877.9	-11.5	.3	2.3
1925	982.6	-8.1	993.4	-7.6	1.1	10.8
1926	969.4	-9.7	969.6	-9.6	.0	.2
1927	1017.6	-2.0	1013.7	-5.9	-.4	-3.9
1928	994.4	-7.5	992.6	-7.5	-.2	-1.8
1929	955.3	-10.3	950.2	-10.5	-.5	-5.1
1930	975.0	-8.9	969.1	-9.2	-.6	-5.9
1931	887.0	-10.2	865.9	-13.6	-2.4	-21.1
1932	918.0	-8.4	897.6	-11.0	-2.2	-20.4
1933	917.5	-7.2	893.1	-11.0	-2.7	-24.4
1934	897.3	-11.4	848.8	-17.8	-5.4	-48.5
1935	949.8	-10.3	924.7	-11.0	-2.6	-25.1
1936	961.4	-10.4	966.2	-10.1	.5	4.8
1937	963.5	-10.2	970.4	-9.8	.7	6.9
1938	1017.6	-2.0	1017.6	-2.0	.0	.0
1939	961.9	-9.4	955.1	-9.7	-.7	-6.8
1940	1008.6	-6.6	996.3	-7.0	-1.2	-12.3
1941	1017.6	-4.8	1017.6	-5.1	.0	.0
1942	1017.6	-2.6	1017.6	-2.0	.0	.0
1943	1017.6	-2.0	1014.7	-4.9	-.3	-2.9
1944	982.2	-7.9	979.7	-8.0	-.3	-2.5
1945	996.5	-7.0	991.3	-7.2	-.5	-5.2
1946	1003.7	-6.6	993.9	-6.9	-1.0	-9.8
1947	978.8	-8.1	971.6	-8.4	-.7	-7.2
1948	1015.0	-4.6	1013.1	-6.2	-.2	-1.9
1949	1006.6	-7.7	996.5	-8.1	-1.0	-10.1
1950	985.1	-8.3	975.0	-8.7	-1.0	-10.1
1951	1012.4	-6.9	1002.9	-7.2	-.9	-9.5
1952	1017.6	-2.0	1017.6	-2.0	.0	.0
1953	1017.6	-2.1	1017.6	-2.5	.0	.0
1954	1015.5	-4.1	1014.7	-4.8	-.1	-.8
1955	990.1	-6.8	996.3	-6.6	.6	6.2
1956	1017.6	-2.0	1017.6	-2.0	.0	.0
1957	1017.6	-2.0	1017.2	-2.4	.0	-.4
1958	1017.6	-6.2	1017.6	-6.5	.0	.0
1959	990.7	-4.1	981.0	-4.3	-1.0	-9.7
1960	993.7	-6.8	998.4	-6.6	.5	4.7
1961	995.2	-7.0	1004.1	-6.7	.9	8.9
1962	1009.2	-7.0	1002.1	-7.2	-.7	-7.1
1963	1017.6	-2.0	1017.5	-2.1	.0	-.1
1964	985.3	-7.9	984.2	-8.0	-.1	-1.1
1965	1017.6	-2.0	1014.3	-5.3	-.3	-3.3
1966	1008.1	-6.3	997.0	-6.6	-1.1	-11.1
1967	1017.6	-3.4	1017.6	-2.0	.0	0
1968	1003.8	-5.5	999.2	-5.6	-.5	-4.6
1969	1017.6	-2.0	1017.6	-2.0	.0	.0
1970	1001.4	-5.7	996.3	-5.7	-.5	-5.1
1971	1017.6	-2.0	1017.6	-2.0	.0	.0
1972	1005.1	-5.0	997.7	-5.2	-.7	-7.4
1973	1014.8	-4.8	1013.6	-5.5	-.1	-1.2
1974	1017.6	-5.6	1017.6	-5.4	.0	.0
1975	1017.6	-2.8	1017.6	-3.2	.0	.0
1976	980.3	-6.0	977.6	-6.1	-.3	-2.7
1977	857.7	-2.5	849.6	-2.7	-.9	-8.1
1978	1015.8	-3.8	1015.2	-4.4	-.1	-.6
1979	1001.1	-7.0	988.4	-7.4	-1.3	-12.7
1980	1015.0	-4.6	1014.4	-5.2	-.1	-.6
1981	995.2	-7.6	994.1	-7.7	-.1	-1.1
1982	1017.6	-2.0	1017.6	-2.0	.0	.0
1983	1017.6	-14.3	1017.6	-14.6	.0	.0
1984	1015.5	-4.1	1015.5	-4.1	.0	.0
1985	983.3	-6.0	982.5	-6.0	-.1	-.8
1986	1003.3	-4.4	992.1	-4.6	-1.1	-11.2
1987	975.8	-7.4	958.6	-8.1	-1.8	-17.2
1988	962.4	-8.3	956.8	-8.7	-.6	-5.6
1989	988.8	-6.5	988.1	-6.5	-.1	-.7
1990	961.6	-8.9	958.3	-9.1	-.3	-3.3
1991	933.0	-5.9	926.0	-6.1	-.8	-7.0
Mean:	988.8	-6.0	984.4	-6.6	-.5	-4.5
Median:	1001.4	-6.5	996.3	-6.6	-.2	-1.9
Min:	857.7	-14.3	848.8	-17.8	-5.4	-48.5
Max:	1017.6	.0	1017.6	.0	1.1	10.8
X > 924.0	64		64			
X > 918.0	64		64			
X > 876.0	68		67			
X > 856.0	70		68			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

RETURN TO TABLE OF CONTENTS

Section 15

CLAIR ENGLE RESERVOIR STORAGE

CLAIR ENGLE RESERVOIR STORAGE
October

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1850.0	1850.0	.0	.0
1923	1649.7	1579.1	-4.3	-70.6
1924	1143.9	1193.4	4.3	49.5
1925	448.7	484.9	8.1	36.2
1926	1218.2	1062.6	-12.8	-155.6
1927	1224.7	1075.8	-12.2	-148.9
1928	1850.0	1792.1	-3.1	-57.9
1929	1509.5	1505.2	-.3	-4.3
1930	916.3	910.3	-.7	-6.0
1931	1024.1	947.3	-7.5	-76.8
1932	457.3	460.7	.7	3.4
1933	456.3	476.6	4.4	20.3
1934	540.5	480.7	-11.1	-59.8
1935	463.5	467.9	.9	4.4
1936	779.7	811.0	4.0	31.3
1937	1106.4	1028.9	-7.0	-77.5
1938	1112.5	1141.8	2.6	29.3
1939	1850.0	1850.0	.0	.0
1940	1228.0	1202.6	-2.1	-25.4
1941	1620.1	1514.4	-6.5	-105.7
1942	1850.0	1850.0	.0	.0
1943	1850.0	1850.0	.0	.0
1944	1850.0	1825.4	-1.3	-24.6
1945	1418.7	1430.8	.9	12.1
1946	1412.5	1365.0	-3.4	-47.5
1947	1599.6	1476.4	-7.7	-123.2
1948	1446.5	1348.2	-6.8	-98.3
1949	1850.0	1678.4	-9.3	-171.6
1950	1730.5	1613.3	-6.8	-117.2
1951	1470.7	1397.2	-5.0	-73.5
1952	1691.5	1613.8	-4.6	-77.7
1953	1850.0	1850.0	.0	.0
1954	1850.0	1850.0	.0	.0
1955	1850.0	1735.9	-6.2	-114.1
1956	1513.8	1601.3	5.8	87.5
1957	1850.0	1850.0	.0	.0
1958	1850.0	1850.0	.0	.0
1959	1850.0	1850.0	.0	.0
1960	1497.1	1403.1	-6.3	-94.0
1961	1525.3	1549.8	1.6	24.5
1962	1651.0	1684.0	2.0	33.0
1963	1679.6	1687.2	.5	7.6
1964	1850.0	1850.0	.0	.0
1965	1486.8	1495.8	.6	9.0
1966	1850.0	1834.3	-.8	-15.7
1967	1716.9	1665.5	-3.0	-51.4
1968	1850.0	1850.0	.0	.0
1969	1513.9	1412.9	-6.7	-101.0
1970	1850.0	1850.0	.0	.0
1971	1506.2	1390.3	-7.7	-115.9
1972	1850.0	1850.0	.0	.0
1973	1627.6	1472.6	-9.5	-155.0
1974	1850.0	1717.8	-7.1	-132.2
1975	1850.0	1850.0	.0	.0
1976	1850.0	1850.0	.0	.0
1977	1199.8	1187.7	-1.0	-12.1
1978	377.4	415.2	10.0	37.8
1979	1850.0	1617.6	-12.6	-232.4
1980	1531.8	1361.8	-11.1	-170.0
1981	1850.0	1714.7	-7.3	-135.3
1982	1578.7	1586.1	.5	7.4
1983	1850.0	1850.0	.0	.0
1984	1850.0	1850.0	.0	.0
1985	1850.0	1850.0	.0	.0
1986	1432.5	1444.4	.8	11.9
1987	1501.4	1358.3	-9.5	-143.1
1988	1343.8	1205.2	-10.3	-138.6
1989	1058.4	934.4	-11.7	-124.0
1990	1418.9	1185.3	-16.5	-233.6
1991	974.9	935.8	-4.0	-39.1
Mean:	1484.4	1439.7	-2.8	-44.6
Median:	1578.7	1514.4	-.7	-6.0
Min:	377.4	415.2	-16.5	-233.6
Max:	1850.0	1850.0	10.0	87.5
Littoral Habitat(ac)	1396.2	1166.3	-16.5	-229.9

CLAIR ENGLE RESERVOIR STORAGE
November

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1837.4	1833.0	-.2	-4.4
1923	1636.1	1561.7	-4.5	-74.4
1924	1125.0	1170.6	4.1	45.6
1925	524.1	556.5	6.2	32.4
1926	1203.7	1043.7	-13.3	-160.0
1927	1371.7	1219.1	-11.1	-152.6
1928	1850.0	1839.7	-.6	-10.3
1929	1499.9	1491.8	-.5	-8.1
1930	899.4	889.5	-1.1	-9.9
1931	1001.3	929.6	-7.2	-71.7
1932	450.6	450.2	-.1	-.4
1933	454.8	471.2	3.6	16.4
1934	532.7	469.1	-11.9	-63.6
1935	528.2	528.8	.1	.6
1936	769.0	802.4	4.3	33.4
1937	1080.5	999.2	-7.5	-81.3
1938	1245.3	1270.8	2.0	25.5
1939	1850.0	1850.0	.0	.0
1940	1203.2	1174.0	-2.4	-29.2
1941	1616.2	1506.2	-6.8	-110.0
1942	1850.0	1850.0	.0	.0
1943	1850.0	1850.0	.0	.0
1944	1850.0	1816.7	-1.8	-33.3
1945	1436.3	1444.6	.6	8.3
1946	1453.0	1401.8	-3.5	-51.2
1947	1608.6	1481.1	-7.9	-127.5
1948	1448.5	1346.4	-7.0	-102.1
1949	1850.0	1666.7	-9.9	-183.3
1950	1713.8	1592.2	-7.1	-121.6
1951	1586.5	1494.4	-5.8	-92.1
1952	1727.2	1630.3	-5.6	-96.9
1953	1845.1	1834.4	-.6	-10.7
1954	1850.0	1850.0	.0	.0
1955	1850.0	1782.2	-3.7	-67.8
1956	1512.9	1596.6	5.5	83.7
1957	1850.0	1844.7	-.3	-5.3
1958	1850.0	1850.0	.0	.0
1959	1850.0	1839.5	-.6	-10.5
1960	1474.3	1353.6	-8.2	-120.7
1961	1520.1	1540.8	1.4	20.7
1962	1645.1	1673.8	1.7	28.7
1963	1731.7	1735.4	.2	3.7
1964	1850.0	1850.0	.0	.0
1965	1508.3	1513.5	.3	5.2
1966	1850.0	1850.0	.0	.0
1967	1829.0	1758.4	-3.9	-70.6
1968	1850.0	1846.5	-.2	-3.5
1969	1525.0	1420.1	-6.9	-104.9
1970	1850.0	1840.6	-.5	-9.4
1971	1642.0	1521.8	-7.3	-120.2
1972	1850.0	1850.0	.0	.0
1973	1652.5	1493.1	-9.6	-159.4
1974	1850.0	1850.0	.0	.0
1975	1849.7	1839.0	-.6	-10.7
1976	1850.0	1850.0	.0	.0
1977	1180.1	1164.2	-1.3	-15.9
1978	407.8	441.9	8.4	34.1
1979	1832.0	1588.8	-13.3	-243.2
1980	1582.3	1408.6	-11.0	-173.7
1981	1827.8	1688.2	-7.6	-139.6
1982	1822.7	1826.3	.2	3.6
1983	1850.0	1850.0	.0	.0
1984	1850.0	1850.0	.0	.0
1985	1850.0	1850.0	.0	.0
1986	1412.3	1420.5	.6	8.2
1987	1481.2	1327.4	-10.4	-153.8
1988	1320.6	1178.3	-10.8	-142.3
1989	1085.3	957.6	-11.8	-127.7
1990	1406.8	1168.8	-16.9	-238.0
1991	946.9	912.8	-3.6	-34.1
Mean:	1497.8	1452.1	-2.9	-45.7
Median:	1616.2	1521.8	-.6	-10.3
Min:	407.8	441.9	-16.9	-243.2
Max:	1850.0	1850.0	8.4	83.7
Littoral Habitat(ac)	1464.9	1230.4	-16.0	-234.5

CLAIR ENGLE RESERVOIR STORAGE
December

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1839.4	1824.2	-.8	-15.2
1923	1645.9	1556.4	-5.4	-89.5
1924	1109.3	1146.7	3.4	37.4
1925	572.1	598.3	4.6	26.2
1926	1222.2	1051.4	-14.0	-170.8
1927	1572.9	1412.0	-10.2	-160.9
1928	1850.0	1845.6	-.2	-4.4
1929	1491.4	1475.1	-1.1	-16.3
1930	1027.2	1011.2	-1.6	-16.0
1931	982.6	909.6	-7.4	-73.0
1932	450.0	447.1	-.6	-2.9
1933	452.7	460.9	1.8	8.2
1934	540.6	468.8	-13.3	-71.8
1935	565.4	557.8	-1.3	-7.6
1936	765.9	791.2	3.3	25.3
1937	1055.8	966.2	-8.5	-89.6
1938	1464.6	1481.8	1.2	17.2
1939	1850.0	1850.0	.0	.0
1940	1257.6	1222.2	-2.8	-35.4
1941	1755.4	1634.6	-6.9	-120.8
1942	1850.0	1850.0	.0	.0
1943	1850.0	1850.0	.0	.0
1944	1844.4	1793.4	-2.8	-51.0
1945	1501.5	1503.7	.1	2.2
1946	1644.1	1584.6	-3.6	-59.5
1947	1620.8	1482.5	-8.5	-138.3
1948	1440.4	1330.1	-7.7	-110.3
1949	1850.0	1648.7	-10.9	-201.3
1950	1695.2	1562.8	-7.8	-132.4
1951	1844.4	1744.1	-5.4	-100.3
1952	1850.0	1766.4	-4.5	-83.6
1953	1850.0	1850.0	.0	.0
1954	1850.0	1850.0	.0	.0
1955	1850.0	1827.9	-1.2	-22.1
1956	1821.7	1850.0	1.6	28.3
1957	1848.7	1831.1	-1.0	-17.6
1958	1850.0	1850.0	.0	.0
1959	1841.5	1818.7	-1.2	-22.8
1960	1436.6	1300.0	-9.5	-136.6
1961	1609.3	1627.9	1.2	18.6
1962	1676.9	1694.7	1.1	17.8
1963	1850.0	1850.0	.0	.0
1964	1850.0	1850.0	.0	.0
1965	1850.0	1850.0	.0	.0
1966	1850.0	1850.0	.0	.0
1967	1850.0	1850.0	.0	.0
1968	1850.0	1850.0	.0	.0
1969	1593.7	1480.7	-7.1	-113.0
1970	1850.0	1850.0	.0	.0
1971	1773.1	1642.1	-7.4	-131.0
1972	1850.0	1850.0	.0	.0
1973	1761.8	1591.7	-9.7	-170.1
1974	1850.0	1850.0	.0	.0
1975	1850.0	1848.2	-.1	-1.8
1976	1850.0	1850.0	.0	.0
1977	1141.0	1137.5	-.3	-3.5
1978	601.6	629.4	4.6	27.8
1979	1821.7	1557.1	-14.5	-264.6
1980	1637.1	1455.1	-11.1	-182.0
1981	1850.0	1717.6	-7.2	-132.4
1982	1850.0	1850.0	.0	.0
1983	1850.0	1850.0	.0	.0
1984	1850.0	1850.0	.0	.0
1985	1850.0	1850.0	.0	.0
1986	1413.3	1413.2	.0	-.1
1987	1468.1	1302.1	-11.3	-166.0
1988	1480.6	1330.0	-10.2	-150.6
1989	1098.5	953.3	-13.2	-145.2
1990	1388.7	1149.0	-17.3	-239.7
1991	891.5	879.2	-1.4	-12.3
Mean:	1539.5	1490.2	-3.2	-49.3
Median:	1755.4	1627.9	-.8	-7.6
Min:	450.0	447.1	-17.3	-264.6
Max:	1850.0	1850.0	4.6	37.4
Littoral Habitat(ac)	1677.4	1426.1	-15.0	-251.3

CLAIR ENGLE RESERVOIR STORAGE
January

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1836.3	1808.9	-1.5	-27.4
1923	1672.6	1573.9	-5.9	-98.7
1924	1095.7	1123.9	2.6	28.2
1925	618.1	635.1	2.8	17.0
1926	1214.1	1031.0	-15.1	-183.1
1927	1697.0	1526.9	-10.0	-170.1
1928	1900.0	1884.1	-.8	-15.9
1929	1487.2	1461.7	-1.7	-25.5
1930	1034.5	1009.3	-2.4	-25.2
1931	982.4	909.4	-7.4	-73.0
1932	462.4	450.3	-2.6	-12.1
1933	450.7	449.7	-.2	-1.0
1934	596.2	521.3	-12.6	-74.9
1935	600.7	589.9	-1.8	-10.8
1936	873.6	889.6	1.8	16.0
1937	1032.2	942.6	-8.7	-89.6
1938	1561.8	1569.8	.5	8.0
1939	1861.2	1842.7	-1.0	-18.5
1940	1432.6	1388.0	-3.1	-44.6
1941	1900.0	1837.1	-3.3	-62.9
1942	1900.0	1900.0	.0	.0
1943	1900.0	1900.0	.0	.0
1944	1848.5	1775.9	-3.9	-72.6
1945	1546.2	1539.1	-.5	-7.1
1946	1775.0	1706.3	-3.9	-68.7
1947	1612.6	1462.0	-9.3	-150.6
1948	1633.3	1504.5	-7.9	-128.8
1949	1835.8	1622.2	-11.6	-213.6
1950	1712.9	1568.2	-8.4	-144.7
1951	1900.0	1825.5	-3.9	-74.5
1952	1900.0	1813.7	-4.5	-86.3
1953	1900.0	1900.0	.0	.0
1954	1900.0	1900.0	.0	.0
1955	1868.5	1834.1	-1.8	-34.4
1956	1900.0	1900.0	.0	.0
1957	1847.8	1811.8	-1.9	-36.0
1958	1900.0	1900.0	.0	.0
1959	1900.0	1900.0	.0	.0
1960	1435.8	1290.0	-10.2	-145.8
1961	1640.6	1649.9	.6	9.3
1962	1690.3	1695.9	.3	5.6
1963	1891.0	1881.8	-.5	-9.2
1964	1900.0	1900.0	.0	.0
1965	1900.0	1900.0	.0	.0
1966	1900.0	1900.0	.0	.0
1967	1900.0	1900.0	.0	.0
1968	1900.0	1900.0	.0	.0
1969	1731.6	1609.4	-7.1	-122.2
1970	1900.0	1900.0	.0	.0
1971	1900.0	1864.7	-1.9	-35.3
1972	1900.0	1900.0	.0	.0
1973	1900.0	1740.2	-8.4	-159.8
1974	1900.0	1900.0	.0	.0
1975	1873.1	1852.8	-1.1	-20.3
1976	1861.2	1848.9	-.7	-12.3
1977	1079.5	1080.9	.1	1.4
1978	987.1	1006.0	1.9	18.9
1979	1844.8	1561.7	-15.3	-283.1
1980	1866.1	1674.9	-10.2	-191.2
1981	1900.0	1812.3	-4.6	-87.7
1982	1900.0	1900.0	.0	.0
1983	1900.0	1900.0	.0	.0
1984	1900.0	1900.0	.0	.0
1985	1876.3	1864.0	-.7	-12.3
1986	1541.8	1532.5	-.6	-9.3
1987	1478.4	1293.9	-12.5	-184.5
1988	1559.3	1399.5	-10.2	-159.8
1989	1110.8	956.4	-13.9	-154.4
1990	1438.8	1186.8	-17.5	-252.0
1991	831.8	825.6	-.7	-6.2
Mean:	1591.8	1539.1	-3.4	-52.7
Median:	1836.3	1695.9	-1.1	-15.9
Min:	450.7	449.7	-17.5	-283.1
Max:	1900.0	1900.0	2.8	28.2
Littoral Habitat(ac)	1941.0	1675.2	-13.7	-265.9

CLAIR ENGLE RESERVOIR STORAGE
February

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1859.0	1820.5	-2.1	-38.5
1923	1696.4	1589.3	-6.3	-107.1
1924	1154.5	1174.3	1.7	19.8
1925	889.1	897.8	1.0	8.7
1926	1358.6	1170.0	-13.9	-188.6
1927	1929.6	1751.2	-9.2	-178.4
1928	2000.0	1978.2	-1.1	-21.8
1929	1503.5	1469.7	-2.2	-33.8
1930	1139.3	1100.2	-3.4	-39.1
1931	1001.8	920.5	-8.1	-81.3
1932	484.7	464.2	-4.2	-20.5
1933	451.4	442.1	-2.1	-9.3
1934	680.8	597.6	-12.2	-83.2
1935	679.5	660.4	-2.8	-19.1
1936	1014.9	1017.0	.2	2.1
1937	1022.1	932.5	-8.8	-89.6
1938	1713.5	1713.1	.0	-.4
1939	1875.6	1840.5	-1.9	-35.1
1940	1754.3	1701.4	-3.0	-52.9
1941	2000.0	2000.0	.0	.0
1942	2000.0	2000.0	.0	.0
1943	2000.0	2000.0	.0	.0
1944	1892.7	1809.0	-4.4	-83.7
1945	1706.7	1691.3	-.9	-15.4
1946	1830.3	1753.3	-4.2	-77.0
1947	1673.4	1503.4	-10.2	-170.0
1948	1656.3	1519.2	-8.3	-137.1
1949	1867.9	1643.3	-12.0	-224.6
1950	1769.7	1613.9	-8.8	-155.8
1951	2000.0	2000.0	.0	.0
1952	2000.0	1988.3	-.6	-11.7
1953	2000.0	2000.0	.0	.0
1954	2000.0	2000.0	.0	.0
1955	1897.4	1851.9	-2.4	-45.5
1956	2000.0	2000.0	.0	.0
1957	2000.0	1951.5	-2.4	-48.5
1958	2000.0	2000.0	.0	.0
1959	1999.4	1982.7	-.8	-16.7
1960	1579.6	1425.5	-9.8	-154.1
1961	1864.1	1865.1	.1	1.0
1962	1819.5	1813.9	-.3	-5.6
1963	2000.0	2000.0	.0	.0
1964	1948.1	1931.4	-.9	-16.7
1965	1991.4	1983.1	-.4	-8.3
1966	1968.6	1952.0	-.8	-16.6
1967	2000.0	2000.0	.0	.0
1968	2000.0	2000.0	.0	.0
1969	1851.4	1720.9	-7.0	-130.5
1970	2000.0	2000.0	.0	.0
1971	2000.0	1989.6	-.5	-10.4
1972	2000.0	1995.2	-.2	-4.8
1973	2000.0	1878.5	-6.1	-121.5
1974	2000.0	1993.1	-.3	-6.9
1975	1970.9	1934.0	-1.9	-36.9
1976	1896.2	1872.8	-1.2	-23.4
1977	978.7	978.6	.0	-.1
1978	1172.8	1183.4	.9	10.6
1979	1898.5	1598.8	-15.8	-299.7
1980	2000.0	1964.9	-1.8	-35.1
1981	2000.0	1941.3	-2.9	-58.7
1982	2000.0	2000.0	.0	.0
1983	2000.0	2000.0	.0	.0
1984	1998.8	1982.2	-.8	-16.6
1985	1916.1	1892.7	-1.2	-23.4
1986	2000.0	2000.0	.0	.0
1987	1564.2	1363.1	-12.9	-201.1
1988	1640.7	1472.6	-10.2	-168.1
1989	1136.3	973.6	-14.3	-162.7
1990	1450.9	1196.2	-17.6	-254.7
1991	762.4	765.7	.4	3.3
Mean:	1684.5	1631.7	-3.4	-52.8
Median:	1892.7	1820.5	-1.2	-19.1
Min:	451.4	442.1	-17.6	-299.7
Max:	2000.0	2000.0	1.7	19.8
Littoral Habitat(ac)	2401.5	2140.1	-10.9	-261.4

CLAIR ENGLE RESERVOIR STORAGE
March

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1909.3	1858.9	-2.6	-50.4
1923	1745.6	1626.7	-6.8	-118.9
1924	1116.5	1159.1	3.8	42.6
1925	1015.5	1006.5	-.9	-9.0
1926	1467.9	1267.5	-13.7	-200.4
1927	2100.0	1907.2	-9.2	-192.8
1928	2100.0	2100.0	.0	.0
1929	1552.7	1506.9	-2.9	-45.8
1930	1265.4	1214.4	-4.0	-51.0
1931	1050.9	967.0	-8.0	-83.9
1932	631.5	599.1	-5.1	-32.4
1933	568.6	547.3	-3.7	-21.3
1934	832.4	737.4	-11.4	-95.0
1935	733.8	702.9	-4.2	-30.9
1936	1126.9	1117.1	-.9	-9.8
1937	1112.5	1011.1	-9.1	-101.4
1938	1968.3	1945.7	-1.1	-22.6
1939	1978.0	1930.9	-2.4	-47.1
1940	2051.8	1981.3	-3.4	-70.5
1941	2100.0	2100.0	.0	.0
1942	2079.2	2056.9	-1.1	-22.3
1943	2100.0	2100.0	.0	.0
1944	1961.4	1865.8	-4.9	-95.6
1945	1760.5	1733.2	-1.6	-27.3
1946	1953.9	1859.3	-4.8	-94.6
1947	1793.8	1612.0	-10.1	-181.8
1948	1690.6	1536.0	-9.1	-154.6
1949	2077.9	1835.8	-11.7	-242.1
1950	1891.3	1723.7	-8.9	-167.6
1951	2100.0	2087.4	-.6	-12.6
1952	2100.0	2100.0	.0	.0
1953	2100.0	2100.0	.0	.0
1954	2100.0	2100.0	.0	.0
1955	1924.7	1867.3	-3.0	-57.4
1956	2100.0	2100.0	.0	.0
1957	2100.0	2100.0	.0	.0
1958	2100.0	2100.0	.0	.0
1959	2100.0	2098.9	-.1	-1.1
1960	1769.0	1603.0	-9.4	-166.0
1961	1986.4	1969.7	-.8	-16.7
1962	1895.9	1878.4	-.9	-17.5
1963	2072.7	2050.4	-1.1	-22.3
1964	1983.9	1955.3	-1.4	-28.6
1965	2065.6	2035.0	-1.5	-30.6
1966	2100.0	2100.0	.0	.0
1967	2100.0	2100.0	.0	.0
1968	2100.0	2100.0	.0	.0
1969	2007.4	1854.6	-7.6	-152.8
1970	2100.0	2100.0	.0	.0
1971	2100.0	2100.0	.0	.0
1972	2100.0	2100.0	.0	.0
1973	2100.0	1980.6	-5.7	-119.4
1974	2100.0	2100.0	.0	.0
1975	2100.0	2100.0	.0	.0
1976	1948.8	1913.5	-1.8	-35.3
1977	974.3	962.2	-1.2	-12.1
1978	1454.6	1442.8	-.8	-11.8
1979	2048.3	1736.8	-15.2	-311.5
1980	2100.0	2084.9	-.7	-15.1
1981	2100.0	2049.7	-2.4	-50.3
1982	2100.0	2100.0	.0	.0
1983	2100.0	2100.0	.0	.0
1984	2100.0	2100.0	.0	.0
1985	1963.6	1928.3	-1.8	-35.3
1986	2100.0	2100.0	.0	.0
1987	1777.2	1564.3	-12.0	-212.9
1988	1700.4	1537.4	-9.6	-163.0
1989	1480.9	1300.6	-12.2	-180.3
1990	1528.0	1261.5	-17.4	-266.5
1991	834.1	825.5	-1.0	-8.6
Mean:	1792.2	1734.3	-3.5	-57.9
Median:	1983.9	1913.5	-1.4	-22.6
Min:	568.6	547.3	-17.4	-311.5
Max:	2100.0	2100.0	3.8	42.6
Littoral Habitat(ac)	2927.3	2645.8	-9.6	-281.5

CLAIR ENGLE RESERVOIR STORAGE
April

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2023.2	1954.7	-3.4	-68.5
1923	1875.7	1738.9	-7.3	-136.8
1924	1124.3	1148.8	2.2	24.5
1925	1314.2	1275.5	-2.9	-38.7
1926	1693.3	1475.2	-12.9	-218.1
1927	2300.0	2109.5	-8.3	-190.5
1928	2258.5	2233.1	-1.1	-25.4
1929	1542.6	1502.8	-2.6	-39.8
1930	1389.2	1320.2	-5.0	-69.0
1931	1103.0	1001.1	-9.2	-101.9
1932	729.7	685.3	-6.1	-44.4
1933	731.0	697.7	-4.6	-33.3
1934	953.9	841.0	-11.8	-112.9
1935	962.3	900.0	-6.5	-62.3
1936	1300.9	1265.6	-2.7	-35.3
1937	1337.9	1211.3	-9.5	-126.6
1938	2270.3	2211.8	-2.6	-58.5
1939	1933.8	1896.7	-1.9	-37.1
1940	2290.3	2190.0	-4.4	-100.3
1941	2300.0	2300.0	.0	.0
1942	2282.6	2224.5	-2.5	-58.1
1943	2294.9	2265.2	-1.3	-29.7
1944	1973.3	1900.8	-3.7	-72.5
1945	1908.1	1855.4	-2.8	-52.7
1946	2178.6	2054.3	-5.7	-124.3
1947	1895.4	1695.7	-10.5	-199.7
1948	1883.6	1699.4	-9.8	-184.2
1949	2300.0	2070.3	-10.0	-229.7
1950	2061.8	1877.4	-8.9	-184.4
1951	2253.6	2241.6	-.5	-12.0
1952	2300.0	2300.0	.0	.0
1953	2300.0	2281.6	-.8	-18.4
1954	2300.0	2300.0	.0	.0
1955	1964.5	1889.1	-3.8	-75.4
1956	2300.0	2300.0	.0	.0
1957	2224.3	2198.9	-1.1	-25.4
1958	2300.0	2300.0	.0	.0
1959	2214.3	2170.7	-2.0	-43.6
1960	1898.9	1707.7	-10.1	-191.2
1961	2143.3	2097.0	-2.2	-46.3
1962	2134.3	2091.4	-2.0	-42.9
1963	2300.0	2276.9	-1.0	-23.1
1964	1951.8	1935.1	-.9	-16.7
1965	2296.3	2229.8	-2.9	-66.5
1966	2300.0	2300.0	.0	.0
1967	2204.7	2168.8	-1.6	-35.9
1968	2208.5	2185.4	-1.0	-23.1
1969	2300.0	2149.2	-6.6	-150.8
1970	2135.8	2123.0	-.6	-12.8
1971	2277.8	2241.9	-1.6	-35.9
1972	2253.9	2224.2	-1.3	-29.7
1973	2299.8	2150.8	-6.5	-149.0
1974	2300.0	2296.9	-.1	-3.1
1975	2240.6	2210.8	-1.3	-29.8
1976	1948.2	1908.0	-2.1	-40.2
1977	988.4	958.4	-3.0	-30.0
1978	1664.0	1616.3	-2.9	-47.7
1979	2180.4	1849.0	-15.2	-331.4
1980	2271.2	2226.3	-2.0	-44.9
1981	2223.4	2147.7	-3.4	-75.7
1982	2300.0	2292.6	-.3	-7.4
1983	2300.0	2300.0	.0	.0
1984	2226.0	2196.3	-1.3	-29.7
1985	2120.3	2067.0	-2.5	-53.3
1986	2254.7	2218.8	-1.6	-35.9
1987	1937.6	1699.5	-12.3	-238.1
1988	1794.9	1606.7	-10.5	-188.2
1989	1697.4	1487.6	-12.4	-209.8
1990	1540.5	1300.0	-15.6	-240.5
1991	911.5	884.8	-2.9	-26.7
Mean:	1942.5	1867.6	-4.2	-74.9
Median:	2143.3	2070.3	-2.7	-44.4
Min:	729.7	685.3	-15.6	-331.4
Max:	2300.0	2300.0	2.2	24.5
Littoral Habitat(ac)	3645.1	3289.7	-9.7	-355.4

CLAIR ENGLE RESERVOIR STORAGE
May

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2125.1	2034.0	-4.3	-91.1
1923	1731.1	1713.3	-1.0	-17.8
1924	876.8	911.3	3.9	34.5
1925	1446.5	1297.8	-10.3	-148.7
1926	1624.9	1399.8	-13.9	-225.1
1927	2420.0	2142.2	-11.5	-277.8
1928	2300.6	2272.6	-1.2	-28.0
1929	1484.2	1444.2	-2.7	-40.0
1930	1343.9	1252.4	-6.8	-91.5
1931	926.1	842.4	-9.0	-83.7
1932	820.5	768.9	-6.3	-51.6
1933	800.0	745.5	-6.8	-54.5
1934	917.5	797.5	-13.1	-120.0
1935	1082.2	963.7	-10.9	-118.5
1936	1346.0	1269.9	-5.7	-76.1
1937	1523.6	1356.2	-11.0	-167.4
1938	2420.0	2420.0	.0	.0
1939	1836.0	1795.3	-2.2	-40.7
1940	2274.8	2149.7	-5.5	-125.1
1941	2420.0	2420.0	.0	.0
1942	2420.0	2326.7	-3.9	-93.3
1943	2345.6	2205.8	-6.0	-139.8
1944	1916.5	1894.8	-1.1	-21.7
1945	1972.0	1878.4	-4.7	-93.6
1946	2210.7	2070.9	-6.3	-139.8
1947	1841.8	1619.8	-12.1	-222.0
1948	2038.4	1744.4	-14.4	-294.0
1949	2374.6	2067.2	-12.9	-307.4
1950	2007.1	1896.3	-5.5	-110.8
1951	2317.9	2195.9	-5.3	-122.0
1952	2420.0	2420.0	.0	.0
1953	2420.0	2324.4	-4.0	-95.6
1954	2396.1	2348.4	-2.0	-47.7
1955	1938.9	1902.5	-1.9	-36.4
1956	2420.0	2420.0	.0	.0
1957	2402.8	2336.4	-2.8	-66.4
1958	2420.0	2420.0	.0	.0
1959	2156.6	2096.2	-2.8	-60.4
1960	1944.0	1712.2	-11.9	-231.8
1961	2212.4	2115.9	-4.4	-96.5
1962	2155.2	2071.4	-3.9	-83.8
1963	2420.0	2359.1	-2.5	-60.9
1964	1886.1	1846.7	-2.1	-39.4
1965	2405.0	2187.6	-9.0	-217.4
1966	2387.2	2345.0	-1.8	-42.2
1967	2420.0	2334.1	-3.5	-85.9
1968	2167.1	2136.8	-1.4	-30.3
1969	2420.0	2420.0	.0	.0
1970	2119.4	1992.0	-6.0	-127.4
1971	2420.0	2334.4	-3.5	-85.6
1972	2320.9	2214.6	-4.6	-106.3
1973	2420.0	2301.1	-4.9	-118.9
1974	2420.0	2420.0	.0	.0
1975	2420.0	2408.9	-.5	-11.1
1976	1827.8	1804.8	-1.3	-23.0
1977	800.0	800.0	.0	.0
1978	1866.6	1668.0	-10.6	-198.6
1979	2179.6	1924.0	-11.7	-255.6
1980	2277.4	2161.6	-5.1	-115.8
1981	2183.2	2066.7	-5.3	-116.5
1982	2420.0	2338.5	-3.4	-81.5
1983	2420.0	2420.0	.0	.0
1984	2380.5	2240.7	-5.9	-139.8
1985	1939.4	1919.2	-1.0	-20.2
1986	2139.8	2024.4	-5.4	-115.4
1987	1923.1	1652.3	-14.1	-270.8
1988	1750.8	1511.8	-13.7	-239.0
1989	1689.2	1416.0	-16.2	-273.2
1990	1533.5	1270.7	-17.1	-262.8
1991	903.6	881.5	-2.4	-22.1
Mean:	1978.7	1878.1	-5.4	-100.7
Median:	2155.2	2034.0	-4.6	-91.1
Min:	800.0	745.5	-17.1	-307.4
Max:	2420.0	2420.0	3.9	34.5
Littoral Habitat(ac)	3815.6	3339.6	-12.5	-476.0

CLAIR ENGLE RESERVOIR STORAGE
June

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2105.7	1984.6	-5.8	-121.1
1923	1583.3	1583.8	.0	.5
1924	703.0	732.2	4.2	29.2
1925	1408.2	1226.1	-12.9	-182.1
1926	1493.5	1268.4	-15.1	-225.1
1927	2432.3	2152.6	-11.5	-279.7
1928	2127.2	2079.8	-2.2	-47.4
1929	1384.8	1314.9	-5.0	-69.9
1930	1259.5	1137.8	-9.7	-121.7
1931	800.5	703.2	-12.2	-97.3
1932	748.7	700.0	-6.5	-48.7
1933	889.8	746.2	-16.1	-143.6
1934	823.7	639.9	-22.3	-183.8
1935	1025.4	928.9	-9.4	-96.5
1936	1319.6	1205.8	-8.6	-113.8
1937	1531.1	1356.0	-11.4	-175.1
1938	2447.0	2447.0	.0	.0
1939	1643.3	1585.8	-3.5	-57.5
1940	2131.8	2019.7	-5.3	-112.1
1941	2447.0	2447.0	.0	.0
1942	2447.0	2381.4	-2.7	-65.6
1943	2317.5	2172.7	-6.2	-144.8
1944	1808.1	1786.2	-1.2	-21.9
1945	1929.6	1813.3	-6.0	-116.3
1946	2083.1	1963.9	-5.7	-119.2
1947	1767.5	1515.7	-14.2	-251.8
1948	2211.6	1854.7	-16.1	-356.9
1949	2232.8	1969.3	-11.8	-263.5
1950	1851.5	1733.4	-6.4	-118.1
1951	2186.8	2103.1	-3.8	-83.7
1952	2447.0	2444.4	-.1	-2.6
1953	2447.0	2447.0	.0	.0
1954	2280.5	2224.5	-2.5	-56.0
1955	1895.2	1828.5	-3.5	-66.7
1956	2447.0	2443.1	-.2	-3.9
1957	2349.3	2308.0	-1.8	-41.3
1958	2447.0	2447.0	.0	.0
1959	2000.8	1902.7	-4.9	-98.1
1960	1967.9	1713.7	-12.9	-254.2
1961	2151.0	2097.9	-2.5	-53.1
1962	2082.5	2021.1	-2.9	-61.4
1963	2434.8	2285.8	-6.1	-149.0
1964	1769.9	1730.0	-2.3	-39.9
1965	2309.3	2106.5	-8.8	-202.8
1966	2232.8	2127.1	-4.7	-105.7
1967	2447.0	2417.4	-1.2	-29.6
1968	1998.4	1936.0	-3.1	-62.4
1969	2447.0	2447.0	.0	.0
1970	2020.6	1901.4	-5.9	-119.2
1971	2447.0	2331.5	-4.7	-115.5
1972	2182.8	2050.2	-6.1	-132.6
1973	2293.8	2187.2	-4.6	-106.6
1974	2447.0	2447.0	.0	.0
1975	2447.0	2447.0	.0	.0
1976	1643.4	1590.1	-3.2	-53.3
1977	594.5	562.8	-5.3	-31.7
1978	2064.7	1729.9	-16.2	-334.8
1979	2009.9	1823.8	-9.3	-186.1
1980	2185.0	2076.9	-4.9	-108.1
1981	2032.6	1940.4	-4.5	-92.2
1982	2447.0	2311.8	-5.5	-135.2
1983	2447.0	2447.0	.0	.0
1984	2271.0	2186.0	-3.7	-85.0
1985	1804.7	1757.5	-2.6	-47.2
1986	1994.4	1817.2	-8.9	-177.2
1987	1734.7	1473.9	-15.0	-260.8
1988	1615.2	1386.3	-14.2	-228.9
1989	1634.5	1342.9	-17.8	-291.6
1990	1424.8	1162.1	-18.4	-262.7
1991	892.5	840.2	-5.9	-52.3
Mean:	1913.3	1804.2	-6.3	-109.1
Median:	2032.6	1902.7	-5.3	-98.1
Min:	594.5	562.8	-22.3	-356.9
Max:	2447.0	2447.0	4.2	29.2
Littoral Habitat(ac)	3507.0	2985.4	-14.9	-521.6

CLAIR ENGLE RESERVOIR STORAGE
July

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1924.2	1862.0	-3.2	-62.2
1923	1400.0	1409.7	.7	9.7
1924	517.7	529.6	2.3	11.9
1925	1317.4	1134.1	-13.9	-183.3
1926	1345.6	1159.8	-13.8	-185.8
1927	2270.0	2001.4	-11.8	-268.6
1928	1905.9	1862.3	-2.3	-43.6
1929	1202.7	1141.3	-5.1	-61.4
1930	1147.2	1033.8	-9.9	-113.4
1931	600.4	500.0	-16.7	-100.4
1932	600.0	600.0	.0	.0
1933	761.1	613.8	-19.4	-147.3
1934	644.3	500.0	-22.4	-144.3
1935	888.3	888.1	.0	-.2
1936	1224.7	1115.0	-9.0	-109.7
1937	1383.3	1274.0	-7.9	-109.3
1938	2270.0	2270.0	.0	.0
1939	1465.3	1413.7	-3.5	-51.6
1940	1914.7	1801.2	-5.9	-113.5
1941	2270.0	2270.0	.0	.0
1942	2270.0	2270.0	.0	.0
1943	2216.7	2026.3	-8.6	-190.4
1944	1674.0	1633.1	-2.4	-40.9
1945	1719.9	1662.1	-3.4	-57.8
1946	1884.9	1764.3	-6.4	-120.6
1947	1622.2	1386.0	-14.6	-236.2
1948	2126.6	1784.5	-16.1	-342.1
1949	2019.6	1804.3	-10.7	-215.3
1950	1636.0	1526.2	-6.7	-109.8
1951	1971.7	1886.5	-4.3	-85.2
1952	2270.0	2270.0	.0	.0
1953	2270.0	2270.0	.0	.0
1954	2077.7	2020.1	-2.8	-57.6
1955	1730.2	1701.0	-1.7	-29.2
1956	2270.0	2270.0	.0	.0
1957	2212.8	2100.2	-5.1	-112.6
1958	2270.0	2270.0	.0	.0
1959	1783.0	1688.9	-5.3	-94.1
1960	1798.1	1633.6	-9.1	-164.5
1961	1944.2	1925.8	-.9	-18.4
1962	1872.4	1814.9	-3.1	-57.5
1963	2270.0	2155.9	-5.0	-114.1
1964	1639.0	1607.2	-1.9	-31.8
1965	2218.1	1955.2	-11.9	-262.9
1966	2031.8	1924.7	-5.3	-107.1
1967	2270.0	2270.0	.0	.0
1968	1783.2	1724.6	-3.3	-58.6
1969	2270.0	2270.0	.0	.0
1970	1810.4	1689.9	-6.7	-120.5
1971	2270.0	2233.9	-1.6	-36.1
1972	1968.5	1834.6	-6.8	-133.9
1973	2089.6	1981.7	-5.2	-107.9
1974	2270.0	2270.0	.0	.0
1975	2270.0	2270.0	.0	.0
1976	1452.6	1389.6	-4.3	-63.0
1977	474.9	476.0	.2	1.1
1978	2023.3	1675.5	-17.2	-347.8
1979	1794.7	1612.9	-10.1	-181.8
1980	2024.9	1908.5	-5.7	-116.4
1981	1838.4	1764.4	-4.0	-74.0
1982	2270.0	2210.1	-2.6	-59.9
1983	2270.0	2270.0	.0	.0
1984	2070.6	1984.2	-4.2	-86.4
1985	1656.7	1590.9	-4.0	-65.8
1986	1778.9	1600.0	-10.1	-178.9
1987	1555.8	1335.7	-14.1	-220.1
1988	1404.8	1206.5	-14.1	-198.3
1989	1491.9	1230.3	-17.5	-261.6
1990	1264.9	1032.9	-18.3	-232.0
1991	848.0	785.7	-7.3	-62.3
Mean:	1743.9	1647.8	-6.1	-96.1
Median:	1838.4	1724.6	-5.0	-85.2
Min:	474.9	476.0	-22.4	-347.8
Max:	2270.0	2270.0	2.3	11.9
Littoral Habitat(ac)	2693.0	2220.4	-17.5	-472.5

CLAIR ENGLE RESERVOIR STORAGE
August

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1719.3	1653.2	-3.8	-66.1
1923	1200.0	1229.3	2.4	29.3
1924	484.0	500.0	3.3	16.0
1925	1265.9	1093.2	-13.6	-172.7
1926	1286.8	1117.1	-13.2	-169.7
1927	2150.0	1908.7	-11.2	-241.3
1928	1676.6	1646.3	-1.8	-30.3
1929	1018.3	964.7	-5.3	-53.6
1930	1090.0	992.6	-8.9	-97.4
1931	500.0	483.1	-3.4	-16.9
1932	500.0	500.0	.0	.0
1933	614.2	500.0	-18.6	-114.2
1934	500.0	484.1	-3.2	-15.9
1935	848.3	861.2	1.5	12.9
1936	1171.4	1075.1	-8.2	-96.3
1937	1200.0	1200.0	.0	.0
1938	2150.0	2150.0	.0	.0
1939	1310.3	1249.7	-4.6	-60.6
1940	1687.5	1584.4	-6.1	-103.1
1941	2150.0	2150.0	.0	.0
1942	2150.0	2150.0	.0	.0
1943	2131.2	1951.3	-8.4	-179.9
1944	1500.3	1475.4	-1.7	-24.9
1945	1493.0	1448.6	-3.0	-44.4
1946	1660.8	1550.6	-6.6	-110.2
1947	1466.7	1347.8	-8.1	-118.9
1948	2046.5	1712.8	-16.3	-333.7
1949	1794.1	1660.0	-7.5	-134.1
1950	1408.4	1314.5	-6.7	-93.9
1951	1746.4	1671.5	-4.3	-74.9
1952	2150.0	2150.0	.0	.0
1953	2150.0	2150.0	.0	.0
1954	2000.9	1812.1	-9.4	-188.8
1955	1573.7	1641.1	4.3	67.4
1956	2150.0	2150.0	.0	.0
1957	2128.3	2029.1	-4.7	-99.2
1958	2150.0	2150.0	.0	.0
1959	1556.0	1475.3	-5.2	-80.7
1960	1613.8	1593.4	-1.3	-20.4
1961	1721.0	1732.3	.7	11.3
1962	1666.4	1610.4	-3.4	-56.0
1963	2150.0	2074.4	-3.5	-75.6
1964	1533.9	1522.6	-.7	-11.3
1965	2147.0	1893.2	-11.8	-253.8
1966	1815.4	1718.6	-5.3	-96.8
1967	2150.0	2150.0	.0	.0
1968	1567.5	1514.2	-3.4	-53.3
1969	2150.0	2150.0	.0	.0
1970	1580.0	1469.9	-7.0	-110.1
1971	2150.0	2150.0	.0	.0
1972	1745.0	1621.5	-7.1	-123.5
1973	2000.0	1761.0	-11.9	-239.0
1974	2150.0	2150.0	.0	.0
1975	2150.0	2150.0	.0	.0
1976	1263.3	1230.9	-2.6	-32.4
1977	423.5	440.4	4.0	16.9
1978	1946.6	1638.8	-15.8	-307.8
1979	1563.4	1395.2	-10.8	-168.2
1980	1937.8	1763.8	-9.0	-174.0
1981	1640.4	1628.4	-.7	-12.0
1982	2150.0	2137.3	-.6	-12.7
1983	2150.0	2150.0	.0	.0
1984	1991.0	1914.9	-3.8	-76.1
1985	1491.7	1483.3	-.6	-8.4
1986	1551.9	1397.1	-10.0	-154.8
1987	1429.0	1267.5	-11.3	-161.5
1988	1176.6	1017.4	-13.5	-159.2
1989	1434.6	1183.7	-17.5	-250.9
1990	1074.3	988.4	-8.0	-85.9
1991	743.0	679.9	-8.5	-63.1
Mean:	1600.5	1525.2	-4.8	-75.4
Median:	1640.4	1593.4	-3.8	-60.6
Min:	423.5	440.4	-18.6	-333.7
Max:	2150.0	2150.0	4.3	67.4
Littoral Habitat(ac)	1984.6	1604.5	-19.2	-380.1

CLAIR ENGLE RESERVOIR STORAGE
September

Water Year	Base Storage (taf)	2030 w/ WFP Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1668.1	1594.3	-4.4	-73.8
1923	1163.1	1209.3	4.0	46.2
1924	451.4	484.4	7.3	33.0
1925	1239.3	1081.4	-12.7	-157.9
1926	1246.6	1094.3	-12.2	-152.3
1927	1975.0	1818.0	-7.9	-157.0
1928	1553.6	1553.9	.0	.3
1929	977.6	941.2	-3.7	-36.4
1930	1051.3	971.1	-7.6	-80.2
1931	468.5	468.7	.0	.2
1932	469.5	486.5	3.6	17.0
1933	569.6	489.6	-14.0	-80.0
1934	469.5	470.7	.3	1.2
1935	795.2	823.4	3.5	28.2
1936	1134.6	1053.8	-7.1	-80.8
1937	1131.2	1157.3	2.3	26.1
1938	1975.0	1975.0	.0	.0
1939	1270.0	1226.6	-3.4	-43.4
1940	1640.3	1532.3	-6.6	-108.0
1941	1975.0	1975.0	.0	.0
1942	1975.0	1975.0	.0	.0
1943	1962.8	1843.9	-6.1	-118.9
1944	1445.1	1454.0	.6	8.9
1945	1419.1	1368.3	-3.6	-50.8
1946	1624.1	1517.2	-6.6	-106.9
1947	1428.3	1326.7	-7.1	-101.6
1948	1975.0	1694.5	-14.2	-280.5
1949	1756.2	1636.7	-6.8	-119.5
1950	1372.2	1295.5	-5.6	-76.7
1951	1708.6	1628.7	-4.7	-79.9
1952	1975.0	1975.0	.0	.0
1953	1975.0	1975.0	.0	.0
1954	1946.8	1754.3	-9.9	-192.5
1955	1540.2	1624.5	5.5	84.3
1956	1975.0	1975.0	.0	.0
1957	1975.0	1975.0	.0	.0
1958	1975.0	1975.0	.0	.0
1959	1522.6	1457.2	-4.3	-65.4
1960	1548.7	1570.0	1.4	21.3
1961	1677.9	1708.8	1.8	30.9
1962	1584.5	1588.9	.3	4.4
1963	1975.0	1975.0	.0	.0
1964	1503.2	1509.0	.4	5.8
1965	1975.0	1860.6	-5.8	-114.4
1966	1737.9	1704.2	-1.9	-33.7
1967	1975.0	1975.0	.0	.0
1968	1533.8	1429.5	-6.8	-104.3
1969	1975.0	1975.0	.0	.0
1970	1528.9	1410.8	-7.7	-118.1
1971	1975.0	1975.0	.0	.0
1972	1640.7	1483.4	-9.6	-157.3
1973	1950.5	1706.7	-12.5	-243.8
1974	1975.0	1975.0	.0	.0
1975	1975.0	1975.0	.0	.0
1976	1228.3	1213.0	-1.2	-15.3
1977	407.6	441.6	8.3	34.0
1978	1923.4	1644.7	-14.5	-278.7
1979	1527.8	1354.4	-11.3	-173.4
1980	1884.9	1740.5	-7.7	-144.4
1981	1594.5	1598.7	.3	4.2
1982	1975.0	1975.0	.0	.0
1983	1975.0	1975.0	.0	.0
1984	1941.0	1879.3	-3.2	-61.7
1985	1453.7	1462.4	.6	8.7
1986	1519.1	1378.2	-9.3	-140.9
1987	1383.4	1237.5	-10.5	-145.9
1988	1131.5	987.9	-12.7	-143.6
1989	1401.6	1165.6	-16.8	-236.0
1990	1033.4	964.8	-6.6	-68.6
1991	704.9	659.0	-6.5	-45.9
Mean:	1519.9	1462.3	-3.6	-57.6
Median:	1553.6	1532.3	-3.2	-36.4
Min:	407.6	441.6	-16.8	-280.5
Max:	1975.0	1975.0	8.3	84.3
Littoral Habitat(ac)	1577.6	1282.6	-18.7	-295.0

RETURN TO TABLE OF CONTENTS

Section 16

CLAIR ENGLE RESERVOIR ELEVATION
16.1 Fisheries

CLAIR ENGLE RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2330.8	.0	2330.8	.0	.0	.0
1923	2315.7	-1.5	2310.1	-1.2	-.2	-5.6
1924	2270.4	-2.0	2275.4	-1.6	.2	5.0
1925	2174.7	-.5	2181.6	.1	.3	6.9
1926	2277.9	-2.0	2261.8	-2.0	-.7	-16.1
1927	2278.5	-2.1	2263.2	-2.0	-.7	-15.3
1928	2330.8	-8.8	2326.6	-1.9	-.2	-4.2
1929	2304.3	-3.7	2304.0	-4.0	.0	-.3
1930	2245.1	-7.2	2244.4	-3.7	.0	-.7
1931	2257.6	-3.0	2248.8	-2.8	-.4	-8.8
1932	2176.4	-2.1	2177.0	-1.5	.0	.6
1933	2176.2	-2.5	2180.0	-1.9	.2	3.8
1934	2191.5	-4.9	2180.8	-1.6	-.5	-10.7
1935	2177.6	-1.1	2178.4	-.5	.0	.8
1936	2227.8	-2.0	2231.9	-1.6	.2	4.1
1937	2266.5	-2.9	2258.1	-2.8	-.4	-8.4
1938	2267.1	-2.0	2270.2	-1.6	.1	3.1
1939	2330.8	-8.8	2330.8	-8.8	.0	.0
1940	2278.8	-4.1	2276.3	-2.4	-.1	-2.5
1941	2313.4	-1.6	2304.7	-1.5	-.4	-8.7
1942	2330.8	-8.8	2330.8	-8.8	.0	.0
1943	2330.8	-8.8	2330.8	-8.8	.0	.0
1944	2330.8	-7.9	2329.0	-1.4	-.1	-1.8
1945	2296.5	-2.3	2297.6	-2.0	.0	1.1
1946	2296.0	-.5	2291.7	-.3	-.2	-4.3
1947	2311.7	-2.0	2301.5	-3.5	-.4	-10.2
1948	2298.9	1.5	2290.2	2.0	-.4	-8.7
1949	2330.8	-8.8	2318.0	-1.2	-.5	-12.8
1950	2322.0	-1.9	2312.8	-1.9	-.4	-9.2
1951	2301.0	8.6	2294.6	9.3	-.3	-6.4
1952	2319.0	-1.3	2312.9	-1.2	-.3	-6.1
1953	2330.8	-8.8	2330.8	-8.8	.0	.0
1954	2330.8	-8.8	2330.8	-8.8	.0	.0
1955	2330.8	-6.8	2322.4	-1.4	-.4	-8.4
1956	2304.7	-2.2	2311.9	-1.8	.3	7.2
1957	2330.8	-8.8	2330.8	-8.8	.0	.0
1958	2330.8	-8.8	2330.8	-8.8	.0	.0
1959	2330.8	-8.8	2330.8	-8.8	.0	.0
1960	2303.3	-2.1	2295.1	-4.8	-.4	-8.2
1961	2305.6	-2.0	2307.7	-1.6	.1	2.1
1962	2315.8	-2.1	2318.4	-1.9	.1	2.6
1963	2318.1	7.6	2318.6	7.7	.0	.5
1964	2330.8	-8.8	2330.8	-8.8	.0	.0
1965	2302.4	-1.4	2303.2	-1.1	.0	.8
1966	2330.8	-8.8	2329.7	-1.9	.0	-1.1
1967	2320.9	-1.6	2317.0	-3.0	-.2	-3.9
1968	2330.8	-8.8	2330.8	-8.8	.0	.0
1969	2304.7	-1.7	2296.0	-1.5	-.4	-8.7
1970	2330.8	-8.8	2330.8	-8.8	.0	.0
1971	2304.0	-1.9	2294.0	-1.8	-.4	-10.0
1972	2330.8	-8.8	2330.8	-8.8	.0	.0
1973	2314.0	-1.0	2301.2	-.9	-.6	-12.8
1974	2330.8	-7.1	2321.0	.9	-.4	-9.8
1975	2330.8	-8.8	2330.8	-8.8	.0	.0
1976	2330.8	-8.8	2330.8	-8.8	.0	.0
1977	2276.1	-2.8	2274.8	-2.6	-.1	-1.3
1978	2160.0	-6.4	2168.0	-5.3	.4	8.0
1979	2330.8	-5.2	2313.2	-2.1	-.8	-17.6
1980	2306.2	.3	2291.4	.6	-.6	-14.8
1981	2330.8	-2.5	2320.8	-1.9	-.4	-10.0
1982	2310.0	-1.3	2310.6	-1.1	.0	.6
1983	2330.8	-8.8	2330.8	-8.8	.0	.0
1984	2330.8	-8.8	2330.8	-8.8	.0	.0
1985	2330.8	-6.4	2330.8	-2.1	.0	.0
1986	2297.7	-1.9	2298.8	-1.5	.0	1.1
1987	2303.6	-1.5	2291.1	-1.8	-.5	-12.5
1988	2289.8	-3.6	2276.6	-3.2	-.6	-13.2
1989	2261.4	-7.7	2247.3	-6.2	-.6	-14.1
1990	2296.5	1.5	2274.6	2.0	-1.0	-21.9
1991	2252.0	-6.6	2247.4	-3.4	-.2	-4.6
Mean:	2297.0	-4.1	2293.2	-3.1	-.2	-3.8
Median:	2310.0	-2.8	2304.7	-1.9	.0	-.7
Min:	2160.0	-8.8	2168.0	-8.8	-1.0	-21.9
Max:	2330.8	8.6	2330.8	9.3	.4	8.0
X inc > 20.0		0		0		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2329.9	.0	2329.6	.0	.0	-.3
1923	2314.6	-1.1	2308.7	-1.4	-.3	-5.9
1924	2268.5	-1.9	2273.1	-2.3	.2	4.6
1925	2188.7	14.0	2194.2	12.6	.3	5.5
1926	2276.4	-1.5	2259.8	-2.0	-.7	-16.6
1927	2292.3	13.8	2278.0	14.8	-.6	-14.3
1928	2330.8	.0	2330.0	3.4	.0	-.8
1929	2303.5	-.8	2302.8	-1.2	.0	-.7
1930	2243.1	-2.0	2241.9	-2.5	-.1	-1.2
1931	2255.0	-2.6	2246.7	-2.1	-.4	-8.3
1932	2175.1	-1.3	2175.0	-2.0	.0	-.1
1933	2175.9	-.3	2179.0	-1.0	.1	3.1
1934	2190.2	-1.3	2178.6	-2.2	-.5	-11.6
1935	2189.4	11.8	2189.5	11.1	.0	.1
1936	2226.3	-1.5	2230.8	-1.1	.2	4.5
1937	2263.7	-2.8	2254.8	-3.3	-.4	-8.9
1938	2280.5	13.4	2283.0	12.8	.1	2.5
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2276.4	-2.4	2273.5	-2.8	-.1	-2.9
1941	2313.1	-.3	2304.0	-.7	-.4	-9.1
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2330.8	.0	2328.4	-.6	-.1	-2.4
1945	2298.1	1.6	2298.8	1.2	.0	.7
1946	2299.5	3.5	2295.0	3.3	-.2	-4.5
1947	2312.5	.8	2301.9	.4	-.5	-10.6
1948	2299.1	.2	2290.0	-.2	-.4	-9.1
1949	2330.8	.0	2317.1	-.9	-.6	-13.7
1950	2320.7	-1.3	2311.1	-1.7	-.4	-9.6
1951	2310.7	9.7	2303.0	8.4	-.3	-7.7
1952	2321.7	2.7	2314.2	1.3	-.3	-7.5
1953	2330.4	-.4	2329.7	-1.1	.0	-.7
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2330.8	.0	2325.8	3.4	-.2	-5.0
1956	2304.6	-.1	2311.5	-.4	.3	6.9
1957	2330.8	.0	2330.4	-.4	.0	-.4
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2330.8	.0	2330.0	-.8	.0	-.8
1960	2301.3	-2.0	2290.7	-4.4	-.5	-10.6
1961	2305.2	-.4	2306.9	-.8	.1	1.7
1962	2315.4	-.4	2317.6	-.8	.1	2.2
1963	2322.0	3.9	2322.3	3.7	.0	.3
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2304.2	1.8	2304.7	1.5	.0	.5
1966	2330.8	.0	2330.8	1.1	.0	.0
1967	2329.3	8.4	2324.1	7.1	-.2	-5.2
1968	2330.8	.0	2330.5	-.3	.0	-.3
1969	2305.6	.9	2296.6	.6	-.4	-9.0
1970	2330.8	.0	2330.1	-.7	.0	-.7
1971	2315.1	11.1	2305.4	11.4	-.4	-9.7
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2315.9	1.9	2302.9	1.7	-.6	-13.0
1974	2330.8	.0	2330.8	9.8	.0	.0
1975	2330.8	.0	2330.0	-.8	.0	-.8
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2274.1	-2.0	2272.5	-2.3	-.1	-1.6
1978	2166.5	6.5	2173.4	5.4	.3	6.9
1979	2329.5	-1.3	2310.9	-2.3	-.8	-18.6
1980	2310.3	4.1	2295.6	4.2	-.6	-14.7
1981	2329.2	-1.6	2318.7	-2.1	-.5	-10.5
1982	2328.8	18.8	2329.1	18.5	.0	.3
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.0	-1.7	2296.7	-2.1	.0	.7
1987	2301.9	-1.7	2288.3	-2.8	-.6	-13.6
1988	2287.7	-2.1	2273.9	-2.7	-.6	-13.8
1989	2264.3	2.9	2250.0	2.7	-.6	-14.3
1990	2295.5	-1.0	2272.9	-1.7	-1.0	-22.6
1991	2248.8	-3.2	2244.7	-2.7	-.2	-4.1
Mean:	2298.3	1.3	2294.4	1.2	-.2	-3.9
Median:	2313.1	.0	2305.4	-.2	.0	-.8
Min:	2166.5	-3.2	2173.4	-4.4	-1.0	-22.6
Max:	2330.8	18.8	2330.8	18.5	.3	6.9
X inc > 20.0		0		0		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2330.0	.0	2328.9	.0	.0	-1.1
1923	2315.4	.8	2308.2	-.5	-.3	-7.2
1924	2266.8	-1.7	2270.7	-2.4	.2	3.9
1925	2196.8	8.1	2201.1	6.9	.2	4.3
1926	2278.3	1.9	2260.6	.8	-.8	-17.7
1927	2309.6	17.3	2295.9	17.9	-.6	-13.7
1928	2330.8	.0	2330.5	.5	.0	-.3
1929	2302.8	-.7	2301.4	-1.4	-.1	-1.4
1930	2257.9	14.8	2256.1	14.2	-.1	-1.8
1931	2252.9	-2.1	2244.3	-2.4	-.4	-8.6
1932	2175.0	-.1	2174.4	-.6	.0	-.6
1933	2175.5	-.4	2177.1	-1.9	.1	1.6
1934	2191.5	1.3	2178.6	.0	-.6	-12.9
1935	2195.7	6.3	2194.4	4.9	-.1	-1.3
1936	2225.9	-.4	2229.3	-1.5	.2	3.4
1937	2261.1	-2.6	2251.0	-3.8	-.4	-10.1
1938	2300.5	20.0	2302.0	19.0	.1	1.5
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2281.7	5.3	2278.3	4.8	-.1	-3.4
1941	2323.8	10.7	2314.5	10.5	-.4	-9.3
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2330.4	-.4	2326.7	-1.7	-.2	-3.7
1945	2303.7	5.6	2303.8	5.0	.0	.1
1946	2315.3	15.8	2310.5	15.5	-.2	-4.8
1947	2313.4	.9	2302.0	.1	-.5	-11.4
1948	2298.4	-.7	2288.5	-1.5	-.4	-9.9
1949	2330.8	.0	2315.6	-1.5	-.7	-15.2
1950	2319.3	-1.4	2308.7	-2.4	-.5	-10.6
1951	2330.4	19.7	2323.0	20.0	-.3	-7.4
1952	2330.8	9.1	2324.7	10.5	-.3	-6.1
1953	2330.8	.4	2330.8	1.1	.0	.0
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2330.8	.0	2329.2	3.4	-.1	-1.6
1956	2328.7	24.1	2330.8	19.3	.1	2.1
1957	2330.7	-.1	2329.4	-1.0	-.1	-1.3
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2330.2	-.6	2328.5	-1.5	-.1	-1.7
1960	2298.1	-3.2	2285.7	-5.0	-.5	-12.4
1961	2312.5	7.3	2314.0	7.1	.1	1.5
1962	2317.8	2.4	2319.2	1.6	.1	1.4
1963	2330.8	8.8	2330.8	8.5	.0	.0
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2330.8	26.6	2330.8	26.1	.0	.0
1966	2330.8	.0	2330.8	.0	.0	.0
1967	2330.8	1.5	2330.8	6.7	.0	.0
1968	2330.8	.0	2330.8	.3	.0	.0
1969	2311.3	5.7	2301.9	5.3	-.4	-9.4
1970	2330.8	.0	2330.8	.7	.0	.0
1971	2325.2	10.1	2315.1	9.7	-.4	-10.1
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2324.3	8.4	2311.1	8.2	-.6	-13.2
1974	2330.8	.0	2330.8	.0	.0	.0
1975	2330.8	.0	2330.7	.7	.0	-.1
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2270.1	-4.0	2269.7	-2.8	.0	-.4
1978	2201.6	35.1	2206.0	32.6	.2	4.4
1979	2328.7	-.8	2308.3	-2.6	-.9	-20.4
1980	2314.7	4.4	2299.7	4.1	-.6	-15.0
1981	2330.8	1.6	2321.0	2.3	-.4	-9.8
1982	2330.8	2.0	2330.8	1.7	.0	.0
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.0	.0	2296.0	-.7	.0	.0
1987	2300.8	-1.1	2285.9	-2.4	-.6	-14.9
1988	2301.9	14.2	2288.5	14.6	-.6	-13.4
1989	2265.7	1.4	2249.5	-.5	-.7	-16.2
1990	2293.9	-1.6	2270.9	-2.0	-1.0	-23.0
1991	2242.1	-6.7	2240.6	-4.1	-.1	-1.5
Mean:	2302.1	3.8	2297.8	3.4	-.2	-4.3
Median:	2323.8	.0	2314.0	.0	.0	-1.1
Min:	2175.0	-6.7	2174.4	-5.0	-1.0	-23.0
Max:	2330.8	35.1	2330.8	32.6	.2	4.4
X inc > 20.0		3		2		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2329.8	.0	2327.8	.0	-.1	-2.0
1923	2317.5	2.1	2309.7	1.5	-.3	-7.8
1924	2265.4	-1.4	2268.3	-2.4	.1	2.9
1925	2204.3	7.5	2206.9	5.8	.1	2.6
1926	2277.5	-.8	2258.4	-2.2	-.8	-19.1
1927	2319.4	9.8	2305.8	9.9	-.6	-13.6
1928	2334.4	3.6	2333.2	2.7	-.1	-1.2
1929	2302.4	-.4	2300.3	-1.1	-.1	-2.1
1930	2258.7	.8	2255.9	-.2	-.1	-2.8
1931	2252.9	.0	2244.3	.0	-.4	-8.6
1932	2177.3	2.3	2175.0	.6	-.1	-2.3
1933	2175.1	-.4	2174.9	-2.2	.0	-.2
1934	2200.8	9.3	2188.2	9.6	-.6	-12.6
1935	2201.5	5.8	2199.8	5.4	-.1	-1.7
1936	2239.9	14.0	2241.9	12.6	.1	2.0
1937	2258.5	-2.6	2248.3	-2.7	-.5	-10.2
1938	2308.7	8.2	2309.3	7.3	.0	.6
1939	2331.6	.8	2330.3	-.5	-.1	-1.3
1940	2297.7	16.0	2293.8	15.5	-.2	-3.9
1941	2334.4	10.6	2329.9	15.4	-.2	-4.5
1942	2334.4	3.6	2334.4	3.6	.0	.0
1943	2334.4	3.6	2334.4	3.6	.0	.0
1944	2330.7	.3	2325.4	-1.3	-.2	-5.3
1945	2307.4	3.7	2306.8	3.0	.0	-.6
1946	2325.3	10.0	2320.1	9.6	-.2	-5.2
1947	2312.8	-.6	2300.3	-1.7	-.5	-12.5
1948	2314.4	16.0	2303.9	15.4	-.5	-10.5
1949	2329.8	-1.0	2313.5	-2.1	-.7	-16.3
1950	2320.6	1.3	2309.2	.5	-.5	-11.4
1951	2334.4	4.0	2329.0	6.0	-.2	-5.4
1952	2334.4	3.6	2328.2	3.5	-.3	-6.2
1953	2334.4	3.6	2334.4	3.6	.0	.0
1954	2334.4	3.6	2334.4	3.6	.0	.0
1955	2332.1	1.3	2329.6	.4	-.1	-2.5
1956	2334.4	5.7	2334.4	3.6	.0	.0
1957	2330.6	-.1	2328.0	-1.4	-.1	-2.6
1958	2334.4	3.6	2334.4	3.6	.0	.0
1959	2334.4	4.2	2334.4	5.9	.0	.0
1960	2298.0	-.1	2284.8	-.9	-.6	-13.2
1961	2315.0	2.5	2315.7	1.7	.0	.7
1962	2318.9	1.1	2319.3	.1	.0	.4
1963	2333.7	2.9	2333.1	2.3	.0	-.6
1964	2334.4	3.6	2334.4	3.6	.0	.0
1965	2334.4	3.6	2334.4	3.6	.0	.0
1966	2334.4	3.6	2334.4	3.6	.0	.0
1967	2334.4	3.6	2334.4	3.6	.0	.0
1968	2334.4	3.6	2334.4	3.6	.0	.0
1969	2322.0	10.7	2312.5	10.6	-.4	-9.5
1970	2334.4	3.6	2334.4	3.6	.0	.0
1971	2334.4	9.2	2331.8	16.7	-.1	-2.6
1972	2334.4	3.6	2334.4	3.6	.0	.0
1973	2334.4	10.1	2322.7	11.6	-.5	-11.7
1974	2334.4	3.6	2334.4	3.6	.0	.0
1975	2332.4	1.6	2331.0	.3	-.1	-1.4
1976	2331.6	.8	2330.7	-.1	.0	-.9
1977	2263.6	-6.5	2263.8	-5.9	.0	.2
1978	2253.4	51.8	2255.6	49.6	.1	2.2
1979	2330.4	1.7	2308.7	.4	-.9	-21.7
1980	2331.9	17.2	2317.7	18.0	-.6	-14.2
1981	2334.4	3.6	2328.1	7.1	-.3	-6.3
1982	2334.4	3.6	2334.4	3.6	.0	.0
1983	2334.4	3.6	2334.4	3.6	.0	.0
1984	2334.4	3.6	2334.4	3.6	.0	.0
1985	2332.7	1.9	2331.8	1.0	.0	-.9
1986	2307.0	11.0	2306.2	10.2	.0	-.8
1987	2301.7	.9	2285.2	-.7	-.7	-16.5
1988	2308.5	6.6	2294.8	6.3	-.6	-13.7
1989	2267.0	1.3	2249.9	.4	-.8	-17.1
1990	2298.3	4.4	2274.8	3.9	-1.0	-23.5
1991	2234.6	-7.5	2233.8	-6.8	.0	-.8
Mean:	2306.6	4.5	2302.1	4.3	-.2	-4.5
Median:	2329.8	3.6	2319.3	3.6	-.1	-1.4
Min:	2175.1	-7.5	2174.9	-6.8	-1.0	-23.5
Max:	2334.4	51.8	2334.4	49.6	.1	2.9
X inc > 20.0		1		1		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2331.4	.0	2328.6	.0	-.1	-2.8
1923	2319.3	1.8	2310.9	1.2	-.4	-8.4
1924	2271.5	6.1	2273.5	5.2	.1	2.0
1925	2241.8	37.5	2242.9	36.0	.0	1.1
1926	2291.1	13.6	2273.1	14.7	-.8	-18.0
1927	2336.4	17.0	2323.5	17.7	-.6	-12.9
1928	2341.3	6.9	2339.8	6.6	-.1	-1.5
1929	2303.8	1.4	2300.9	.6	-.1	-2.9
1930	2269.9	11.2	2265.8	9.9	-.2	-4.1
1931	2255.1	2.2	2245.6	1.3	-.4	-9.5
1932	2181.5	4.2	2177.7	2.7	-.2	-3.8
1933	2175.2	.1	2173.4	-1.5	-.1	-1.8
1934	2213.8	13.0	2201.0	12.8	-.6	-12.8
1935	2213.6	12.1	2210.8	11.0	-.1	-2.8
1936	2256.6	16.7	2256.8	14.9	.0	.2
1937	2257.4	-1.1	2247.1	-1.2	-.5	-10.3
1938	2320.7	12.0	2320.6	11.3	.0	-.1
1939	2332.6	1.0	2330.1	-.2	-.1	-2.5
1940	2323.8	26.1	2319.7	25.9	-.2	-4.1
1941	2341.3	6.9	2341.3	11.4	.0	.0
1942	2341.3	6.9	2341.3	6.9	.0	.0
1943	2341.3	6.9	2341.3	6.9	.0	.0
1944	2333.8	3.1	2327.8	2.4	-.3	-6.0
1945	2320.1	12.7	2319.0	12.2	.0	-1.1
1946	2329.4	4.1	2323.7	3.6	-.2	-5.7
1947	2317.6	4.8	2303.8	3.5	-.6	-13.8
1948	2316.2	1.8	2305.1	1.2	-.5	-11.1
1949	2332.1	2.3	2315.2	1.7	-.7	-16.9
1950	2324.9	4.3	2312.9	3.7	-.5	-12.0
1951	2341.3	6.9	2341.3	12.3	.0	.0
1952	2341.3	6.9	2340.5	12.3	.0	-.8
1953	2341.3	6.9	2341.3	6.9	.0	.0
1954	2341.3	6.9	2341.3	6.9	.0	.0
1955	2334.2	2.1	2330.9	1.3	-.1	-3.3
1956	2341.3	6.9	2341.3	6.9	.0	.0
1957	2341.3	10.7	2338.0	10.0	-.1	-3.3
1958	2341.3	6.9	2341.3	6.9	.0	.0
1959	2341.2	6.8	2340.1	5.7	.0	-1.1
1960	2310.1	12.1	2297.1	12.3	-.6	-13.0
1961	2331.8	16.8	2331.9	16.2	.0	.1
1962	2328.6	9.7	2328.2	8.9	.0	-.4
1963	2341.3	7.6	2341.3	8.2	.0	.0
1964	2337.7	3.3	2336.6	2.2	.0	-1.1
1965	2340.7	6.3	2340.1	5.7	.0	-.6
1966	2339.1	4.7	2338.0	3.6	.0	-1.1
1967	2341.3	6.9	2341.3	6.9	.0	.0
1968	2341.3	6.9	2341.3	6.9	.0	.0
1969	2330.9	8.9	2321.2	8.7	-.4	-9.7
1970	2341.3	6.9	2341.3	6.9	.0	.0
1971	2341.3	6.9	2340.6	8.8	.0	-.7
1972	2341.3	6.9	2341.0	6.6	.0	-.3
1973	2341.3	6.9	2332.8	10.1	-.4	-8.5
1974	2341.3	6.9	2340.8	6.4	.0	-.5
1975	2339.3	6.9	2336.7	5.7	-.1	-2.6
1976	2334.1	2.5	2332.4	1.7	-.1	-1.7
1977	2252.5	-11.1	2252.4	-11.4	.0	-.1
1978	2273.4	20.0	2274.4	18.8	.0	1.0
1979	2334.2	3.8	2311.7	3.0	-1.0	-22.5
1980	2341.3	9.4	2338.9	21.2	-.1	-2.4
1981	2341.3	6.9	2337.2	9.1	-.2	-4.1
1982	2341.3	6.9	2341.3	6.9	.0	.0
1983	2341.3	6.9	2341.3	6.9	.0	.0
1984	2341.2	6.8	2340.1	5.7	.0	-1.1
1985	2335.5	2.8	2333.8	2.0	-.1	-1.7
1986	2341.3	34.3	2341.3	35.1	.0	.0
1987	2308.9	7.2	2291.5	6.3	-.8	-17.4
1988	2315.0	6.5	2301.2	6.4	-.6	-13.8
1989	2269.6	2.6	2251.9	2.0	-.8	-17.7
1990	2299.3	1.0	2275.7	.9	-1.0	-23.6
1991	2225.4	-9.2	2225.9	-7.9	.0	.5
Mean:	2314.0	7.4	2309.6	7.5	-.2	-4.5
Median:	2333.8	6.9	2328.6	6.9	-.1	-1.7
Min:	2175.2	-11.1	2173.4	-11.4	-1.0	-23.6
Max:	2341.3	37.5	2341.3	36.0	.1	2.0
X inc > 20.0		3		4		
X dec > 9.0		2		1		
X dec > 10.0		1		1		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2335.0	.0	2331.4	.0	-.2	-3.6
1923	2323.1	3.8	2313.9	3.0	-.4	-9.2
1924	2267.6	-3.9	2272.0	-1.5	.2	4.4
1925	2256.6	14.8	2255.6	12.7	.0	-1.0
1926	2300.8	9.7	2282.7	9.6	-.8	-18.1
1927	2347.9	11.5	2334.9	11.4	-.6	-13.0
1928	2347.9	6.6	2347.9	8.1	.0	.0
1929	2307.9	4.1	2304.1	3.2	-.2	-3.8
1930	2282.5	12.6	2277.5	11.7	-.2	-5.0
1931	2260.5	5.4	2251.1	5.5	-.4	-9.4
1932	2206.4	24.9	2201.2	23.5	-.2	-5.2
1933	2196.3	21.1	2192.7	19.3	-.2	-3.6
1934	2234.7	20.9	2221.9	20.9	-.6	-12.8
1935	2221.5	7.9	2217.0	6.2	-.2	-4.5
1936	2268.6	12.0	2267.6	10.8	.0	-1.0
1937	2267.1	9.7	2256.1	9.0	-.5	-11.0
1938	2339.1	18.4	2337.6	17.0	-.1	-1.5
1939	2339.8	7.2	2336.5	6.4	-.1	-3.3
1940	2344.8	21.0	2340.0	20.3	-.2	-4.8
1941	2347.9	6.6	2347.9	6.6	.0	.0
1942	2346.6	5.3	2345.1	3.8	-.1	-1.5
1943	2347.9	6.6	2347.9	6.6	.0	.0
1944	2338.6	4.8	2331.9	4.1	-.3	-6.7
1945	2324.2	4.1	2322.2	3.2	-.1	-2.0
1946	2338.1	8.7	2331.5	7.8	-.3	-6.6
1947	2326.7	9.1	2312.7	8.9	-.6	-14.0
1948	2318.9	2.7	2306.5	1.4	-.5	-12.4
1949	2346.5	14.4	2329.8	14.6	-.7	-16.7
1950	2333.7	8.8	2321.4	8.5	-.5	-12.3
1951	2347.9	6.6	2347.1	5.8	.0	-.8
1952	2347.9	6.6	2347.9	7.4	.0	.0
1953	2347.9	6.6	2347.9	6.6	.0	.0
1954	2347.9	6.6	2347.9	6.6	.0	.0
1955	2336.1	1.9	2332.0	1.1	-.2	-4.1
1956	2347.9	6.6	2347.9	6.6	.0	.0
1957	2347.9	6.6	2347.9	9.9	.0	.0
1958	2347.9	6.6	2347.9	6.6	.0	.0
1959	2347.9	6.7	2347.9	7.8	.0	.0
1960	2324.9	14.8	2312.0	14.9	-.6	-12.9
1961	2340.3	8.5	2339.2	7.3	.0	-1.1
1962	2334.1	5.5	2332.8	4.6	-.1	-1.3
1963	2346.1	4.8	2344.7	3.4	-.1	-1.4
1964	2340.2	2.5	2338.2	1.6	-.1	-2.0
1965	2345.7	5.0	2343.6	3.5	-.1	-2.1
1966	2347.9	8.8	2347.9	9.9	.0	.0
1967	2347.9	6.6	2347.9	6.6	.0	.0
1968	2347.9	6.6	2347.9	6.6	.0	.0
1969	2341.8	10.9	2331.1	9.9	-.5	-10.7
1970	2347.9	6.6	2347.9	6.6	.0	.0
1971	2347.9	6.6	2347.9	7.3	.0	.0
1972	2347.9	6.6	2347.9	6.9	.0	.0
1973	2347.9	6.6	2340.0	7.2	-.3	-7.9
1974	2347.9	6.6	2347.9	7.1	.0	.0
1975	2347.9	8.6	2347.9	11.2	.0	.0
1976	2337.8	3.7	2335.3	2.9	-.1	-2.5
1977	2251.9	-.6	2250.6	-1.8	-.1	-1.3
1978	2299.6	26.2	2298.6	24.2	.0	-1.0
1979	2344.5	10.3	2322.4	10.7	-.9	-22.1
1980	2347.9	6.6	2346.9	8.0	.0	-1.0
1981	2347.9	6.6	2344.6	7.4	-.1	-3.3
1982	2347.9	6.6	2347.9	6.6	.0	.0
1983	2347.9	6.6	2347.9	6.6	.0	.0
1984	2347.9	6.7	2347.9	7.8	.0	.0
1985	2338.8	3.3	2336.3	2.5	-.1	-2.5
1986	2347.9	6.6	2347.9	6.6	.0	.0
1987	2325.5	16.6	2308.9	17.4	-.7	-16.6
1988	2319.7	4.7	2306.7	5.5	-.6	-13.0
1989	2301.9	32.3	2285.8	33.9	-.7	-16.1
1990	2305.9	6.6	2282.1	6.4	-1.0	-23.8
1991	2234.9	9.5	2233.8	7.9	.0	-1.1
Mean:	2322.7	8.6	2318.0	8.4	-.2	-4.7
Median:	2340.2	6.6	2335.3	6.9	-.1	-2.0
Min:	2196.3	-3.9	2192.7	-1.8	-1.0	-23.8
Max:	2347.9	32.3	2347.9	33.9	.2	4.4
X inc > 20.0		6		5		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2342.8	.0	2338.2	.0	-.2	-4.6
1923	2332.6	9.5	2322.6	8.7	-.4	-10.0
1924	2268.4	.8	2270.9	-1.1	.1	2.5
1925	2287.1	30.5	2283.4	27.8	-.2	-3.7
1926	2319.1	18.3	2301.4	18.7	-.8	-17.7
1927	2360.5	12.6	2348.6	13.7	-.5	-11.9
1928	2358.0	10.1	2356.4	8.5	-.1	-1.6
1929	2307.1	-.8	2303.8	-.3	-.1	-3.3
1930	2293.9	11.4	2287.6	10.1	-.3	-6.3
1931	2266.1	5.6	2255.0	3.9	-.5	-11.1
1932	2220.9	14.5	2214.5	13.3	-.3	-6.4
1933	2221.1	24.8	2216.3	23.6	-.2	-4.8
1934	2249.6	14.9	2235.8	13.9	-.6	-13.8
1935	2250.6	29.1	2243.1	26.1	-.3	-7.5
1936	2285.8	17.2	2282.5	14.9	-.1	-3.3
1937	2289.3	22.2	2277.2	21.1	-.5	-12.1
1938	2358.7	19.6	2355.1	17.5	-.2	-3.6
1939	2336.7	-3.1	2334.1	-2.4	-.1	-2.6
1940	2359.9	15.1	2353.7	13.7	-.3	-6.2
1941	2360.5	12.6	2360.5	12.6	.0	.0
1942	2359.5	12.9	2355.9	10.8	-.2	-3.6
1943	2360.2	12.3	2358.4	10.5	-.1	-1.8
1944	2339.5	.9	2334.4	2.5	-.2	-5.1
1945	2334.9	10.7	2331.2	9.0	-.2	-3.7
1946	2353.0	14.9	2344.9	13.4	-.3	-8.1
1947	2334.0	7.3	2319.3	6.6	-.6	-14.7
1948	2333.2	14.3	2319.6	13.1	-.6	-13.6
1949	2360.5	14.0	2346.0	16.2	-.6	-14.5
1950	2345.4	11.7	2332.8	11.4	-.5	-12.6
1951	2357.7	9.8	2356.9	9.8	.0	-.8
1952	2360.5	12.6	2360.5	12.6	.0	.0
1953	2360.5	12.6	2359.4	11.5	.0	-1.1
1954	2360.5	12.6	2360.5	12.6	.0	.0
1955	2338.8	2.7	2333.6	1.6	-.2	-5.2
1956	2360.5	12.6	2360.5	12.6	.0	.0
1957	2355.9	8.0	2354.3	6.4	-.1	-1.6
1958	2360.5	12.6	2360.5	12.6	.0	.0
1959	2355.2	7.3	2352.5	4.6	-.1	-2.7
1960	2334.3	9.4	2320.2	8.2	-.6	-14.1
1961	2350.7	10.4	2347.7	8.5	-.1	-3.0
1962	2350.2	16.1	2347.4	14.6	-.1	-2.8
1963	2360.5	14.4	2359.1	14.4	-.1	-1.4
1964	2338.0	-2.2	2336.8	-1.4	-.1	-1.2
1965	2360.3	14.6	2356.2	12.6	-.2	-4.1
1966	2360.5	12.6	2360.5	12.6	.0	.0
1967	2354.6	6.7	2352.4	4.5	-.1	-2.2
1968	2354.9	7.0	2353.4	5.5	-.1	-1.5
1969	2360.5	18.7	2351.1	20.0	-.4	-9.4
1970	2350.2	2.3	2349.4	1.5	.0	-.8
1971	2359.2	11.3	2357.0	9.1	-.1	-2.2
1972	2357.7	9.8	2355.9	8.0	-.1	-1.8
1973	2360.5	12.6	2351.2	11.2	-.4	-9.3
1974	2360.5	12.6	2360.3	12.4	.0	-.2
1975	2356.9	9.0	2355.0	7.1	-.1	-1.9
1976	2337.7	-.1	2334.9	-.4	-.1	-2.8
1977	2253.6	1.7	2250.1	-.5	-.2	-3.5
1978	2316.8	17.2	2313.1	14.5	-.2	-3.7
1979	2353.1	8.6	2330.7	8.3	-1.0	-22.4
1980	2358.8	10.9	2356.0	9.1	-.1	-2.8
1981	2355.8	7.9	2351.0	6.4	-.2	-4.8
1982	2360.5	12.6	2360.1	12.2	.0	-.4
1983	2360.5	12.6	2360.5	12.6	.0	.0
1984	2356.0	8.1	2354.1	6.2	-.1	-1.9
1985	2349.3	10.5	2345.8	9.5	-.1	-3.5
1986	2357.7	9.8	2355.5	7.6	-.1	-2.2
1987	2337.0	11.5	2319.6	10.7	-.7	-17.4
1988	2326.8	7.1	2312.3	5.6	-.6	-14.5
1989	2319.4	17.5	2302.5	16.7	-.7	-16.9
1990	2306.9	1.0	2285.7	3.6	-.9	-21.2
1991	2244.5	9.6	2241.3	7.5	-.1	-3.2
Mean:	2333.8	11.0	2328.1	10.0	-.2	-5.6
Median:	2350.7	11.4	2346.0	10.1	-.2	-3.5
Min:	2220.9	-3.1	2214.5	-2.4	-1.0	-22.4
Max:	2360.5	30.5	2360.5	27.8	.1	2.5
X inc > 20.0		4		4		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2349.6	.0	2343.6	.0	-.3	-6.0
1923	2322.0	-10.6	2320.6	-2.0	-.1	-1.4
1924	2240.3	-28.1	2244.5	-26.4	.2	4.2
1925	2298.9	11.8	2285.5	2.1	-.6	-13.4
1926	2313.8	-5.3	2294.8	-6.6	-.8	-19.0
1927	2367.7	7.2	2350.7	2.1	-.7	-17.0
1928	2360.6	2.6	2358.8	2.4	-.1	-1.8
1929	2302.2	-4.9	2298.7	-5.1	-.2	-3.5
1930	2289.8	-4.1	2281.2	-6.4	-.4	-8.6
1931	2246.3	-19.8	2236.0	-19.0	-.5	-10.3
1932	2233.2	12.3	2226.3	11.8	-.3	-6.9
1933	2230.5	9.4	2223.1	6.8	-.3	-7.4
1934	2245.3	-4.3	2230.1	-5.7	-.7	-15.2
1935	2263.9	13.3	2250.7	7.6	-.6	-13.2
1936	2290.0	4.2	2282.9	.4	-.3	-7.1
1937	2305.5	16.2	2290.9	13.7	-.6	-14.6
1938	2367.7	9.0	2367.7	12.6	.0	.0
1939	2329.8	-6.9	2326.8	-7.3	-.1	-3.0
1940	2359.0	-.9	2351.1	-2.6	-.3	-7.9
1941	2367.7	7.2	2367.7	7.2	.0	.0
1942	2367.7	8.2	2362.1	6.2	-.2	-5.6
1943	2363.3	3.1	2354.7	-3.7	-.4	-8.6
1944	2335.5	-4.0	2334.0	-.4	-.1	-1.5
1945	2339.4	4.5	2332.8	1.6	-.3	-6.6
1946	2355.0	2.0	2346.0	1.1	-.4	-9.0
1947	2330.2	-3.8	2313.4	-5.9	-.7	-16.8
1948	2343.9	10.7	2323.0	3.4	-.9	-20.9
1949	2365.0	4.5	2345.8	-.2	-.8	-19.2
1950	2341.8	-3.6	2334.1	1.3	-.3	-7.7
1951	2361.6	3.9	2354.1	-2.8	-.3	-7.5
1952	2367.7	7.2	2367.7	7.2	.0	.0
1953	2367.7	7.2	2362.0	2.6	-.2	-5.7
1954	2366.3	5.8	2363.4	2.9	-.1	-2.9
1955	2337.1	-1.7	2334.5	.9	-.1	-2.6
1956	2367.7	7.2	2367.7	7.2	.0	.0
1957	2366.6	10.7	2362.7	8.4	-.2	-3.9
1958	2367.7	7.2	2367.7	7.2	.0	.0
1959	2351.6	-3.6	2347.7	-4.8	-.2	-3.9
1960	2337.4	3.1	2320.6	.4	-.7	-16.8
1961	2355.1	4.4	2349.0	1.3	-.3	-6.1
1962	2351.5	1.3	2346.1	-1.3	-.2	-5.4
1963	2367.7	7.2	2364.1	5.0	-.2	-3.6
1964	2333.4	-4.6	2330.6	-6.2	-.1	-2.8
1965	2366.8	6.5	2353.6	-2.6	-.6	-13.2
1966	2365.7	5.2	2363.2	2.7	-.1	-2.5
1967	2367.7	13.1	2362.6	10.2	-.2	-5.1
1968	2352.3	-2.6	2350.3	-3.1	-.1	-2.0
1969	2367.7	7.2	2367.7	16.6	.0	.0
1970	2349.2	-1.0	2340.7	-8.7	-.4	-8.5
1971	2367.7	8.5	2362.6	5.6	-.2	-5.1
1972	2361.8	4.1	2355.3	-.6	-.3	-6.5
1973	2367.7	7.2	2360.6	9.4	-.3	-7.1
1974	2367.7	7.2	2367.7	7.4	.0	.0
1975	2367.7	10.8	2367.0	12.0	.0	-.7
1976	2329.2	-8.5	2327.5	-7.4	-.1	-1.7
1977	2230.5	-23.1	2230.5	-19.6	.0	.0
1978	2332.0	15.2	2317.2	4.1	-.6	-14.8
1979	2353.0	-.1	2336.0	5.3	-.7	-17.0
1980	2359.1	.3	2351.9	-4.1	-.3	-7.2
1981	2353.3	-2.5	2345.7	-5.3	-.3	-7.6
1982	2367.7	7.2	2362.8	2.7	-.2	-4.9
1983	2367.7	7.2	2367.7	7.2	.0	.0
1984	2365.3	9.3	2356.9	2.8	-.4	-8.4
1985	2337.1	-12.2	2335.7	-10.1	-.1	-1.4
1986	2350.5	-7.2	2342.9	-12.6	-.3	-7.6
1987	2336.0	-1.0	2315.9	-3.7	-.9	-20.1
1988	2323.5	-3.3	2304.5	-7.8	-.8	-19.0
1989	2318.8	-.6	2296.3	-6.2	-1.0	-22.5
1990	2306.3	-.6	2283.0	-2.7	-1.0	-23.3
1991	2243.6	-.9	2240.9	-.4	-.1	-2.7
Mean:	2335.7	1.9	2328.3	.1	-.3	-7.4
Median:	2351.5	3.1	2343.6	.4	-.3	-6.5
Min:	2230.5	-28.1	2223.1	-26.4	-1.0	-23.3
Max:	2367.7	16.2	2367.7	16.6	.2	4.2
X inc > 20.0		0		0		
X dec > 9.0		5		5		
X dec > 10.0		5		5		
X dec > 15.0		3		3		

CLAIR ENGLE RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2348.3	.0	2340.2	.0	-.3	-8.1
1923	2310.4	-11.6	2310.5	-10.1	.0	.1
1924	2217.1	-23.2	2221.2	-23.3	.2	4.1
1925	2295.6	-3.3	2278.6	-6.9	-.7	-17.0
1926	2303.0	-10.8	2282.7	-12.1	-.9	-20.3
1927	2368.4	.7	2351.3	.6	-.7	-17.1
1928	2349.7	-10.9	2346.6	-12.2	-.1	-3.1
1929	2293.5	-8.7	2287.1	-11.6	-.3	-6.4
1930	2281.9	-7.9	2269.8	-11.4	-.5	-12.1
1931	2230.5	-15.8	2217.1	-18.9	-.6	-13.4
1932	2223.5	-9.7	2216.6	-9.7	-.3	-6.9
1933	2241.9	11.4	2223.2	.1	-.8	-18.7
1934	2233.6	-11.7	2207.7	-22.4	-1.2	-25.9
1935	2257.7	-6.2	2246.6	-4.1	-.5	-11.1
1936	2287.6	-2.4	2276.7	-6.2	-.5	-10.9
1937	2306.1	.6	2290.9	.0	-.7	-15.2
1938	2369.2	1.5	2369.2	1.5	.0	.0
1939	2315.2	-14.6	2310.6	-16.2	-.2	-4.6
1940	2350.0	-9.0	2342.6	-8.5	-.3	-7.4
1941	2369.2	1.5	2369.2	1.5	.0	.0
1942	2369.2	1.5	2365.4	3.3	-.2	-3.8
1943	2361.6	-1.7	2352.6	-2.1	-.4	-9.0
1944	2327.7	-7.8	2326.1	-7.9	-.1	-1.6
1945	2336.4	-3.0	2328.1	-4.7	-.4	-8.3
1946	2346.8	-8.2	2338.8	-7.2	-.3	-8.0
1947	2324.7	-5.5	2304.8	-8.6	-.9	-19.9
1948	2355.1	11.2	2331.1	8.1	-1.0	-24.0
1949	2356.4	-8.6	2339.2	-6.6	-.7	-17.2
1950	2330.9	-10.9	2322.2	-11.9	-.4	-8.7
1951	2353.5	-8.1	2348.1	-6.0	-.2	-5.4
1952	2369.2	1.5	2369.1	1.4	.0	-.1
1953	2369.2	1.5	2369.2	7.2	.0	.0
1954	2359.3	-7.0	2355.9	-7.5	-.1	-3.4
1955	2334.0	-3.1	2329.2	-5.3	-.2	-4.8
1956	2369.2	1.5	2369.0	1.3	.0	-.2
1957	2363.5	-3.1	2361.0	-1.7	-.1	-2.5
1958	2369.2	1.5	2369.2	1.5	.0	.0
1959	2341.3	-10.3	2334.5	-13.2	-.3	-6.8
1960	2339.1	1.7	2320.7	.1	-.8	-18.4
1961	2351.2	-3.9	2347.8	-1.2	-.1	-3.4
1962	2346.8	-4.7	2342.7	-3.4	-.2	-4.1
1963	2368.5	.8	2359.6	-4.5	-.4	-8.9
1964	2324.9	-8.5	2321.9	-8.7	-.1	-3.0
1965	2361.1	-5.7	2348.4	-5.2	-.5	-12.7
1966	2356.4	-9.3	2349.7	-13.5	-.3	-6.7
1967	2369.2	1.5	2367.5	4.9	-.1	-1.7
1968	2341.2	-11.1	2336.9	-13.4	-.2	-4.3
1969	2369.2	1.5	2369.2	1.5	.0	.0
1970	2342.7	-6.5	2334.5	-6.2	-.4	-8.2
1971	2369.2	1.5	2362.4	-.2	-.3	-6.8
1972	2353.3	-8.5	2344.6	-10.7	-.4	-8.7
1973	2360.1	-7.6	2353.5	-7.1	-.3	-6.6
1974	2369.2	1.5	2369.2	1.5	.0	.0
1975	2369.2	1.5	2369.2	2.2	.0	.0
1976	2315.2	-14.0	2311.0	-16.5	-.2	-4.2
1977	2200.5	-30.0	2195.3	-35.2	-.2	-5.2
1978	2345.6	13.6	2321.9	4.7	-1.0	-23.7
1979	2341.9	-11.1	2328.9	-7.1	-.6	-13.0
1980	2353.4	-5.7	2346.4	-5.5	-.3	-7.0
1981	2343.5	-9.8	2337.2	-8.5	-.3	-6.3
1982	2369.2	1.5	2361.2	-1.6	-.3	-8.0
1983	2369.2	1.5	2369.2	1.5	.0	.0
1984	2358.7	-6.6	2353.5	-3.4	-.2	-5.2
1985	2327.5	-9.6	2324.0	-11.7	-.2	-3.5
1986	2340.9	-9.6	2328.4	-14.5	-.5	-12.5
1987	2322.3	-13.7	2301.3	-14.6	-.9	-21.0
1988	2313.0	-10.5	2293.6	-10.9	-.8	-19.4
1989	2314.5	-4.3	2289.7	-6.6	-1.1	-24.8
1990	2297.0	-9.3	2272.3	-10.7	-1.1	-24.7
1991	2242.2	-1.4	2235.7	-5.2	-.3	-6.5
Mean:	2330.5	-5.2	2322.0	-6.3	-.4	-8.5
Median:	2343.5	-6.2	2334.5	-6.2	-.3	-6.8
Min:	2200.5	-30.0	2195.3	-35.2	-1.2	-25.9
Max:	2369.2	13.6	2369.2	8.1	.2	4.1
X inc > 20.0		0		0		
X dec > 9.0		21		22		
X dec > 10.0		15		21		
X dec > 15.0		3		6		

CLAIR ENGLE RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2336.1	.0	2331.7	.0	-.2	-4.4
1923	2294.9	-15.5	2295.7	-14.8	.0	.8
1924	2187.5	-29.6	2189.6	-31.6	.1	2.1
1925	2287.4	-8.2	2269.4	-9.2	-.8	-18.0
1926	2290.0	-13.0	2272.0	-10.7	-.8	-18.0
1927	2358.7	-9.7	2341.4	-9.9	-.7	-17.3
1928	2334.8	-14.9	2331.7	-14.9	-.1	-3.1
1929	2276.3	-17.2	2270.1	-17.0	-.3	-6.2
1930	2270.7	-11.2	2258.7	-11.1	-.5	-12.0
1931	2201.5	-29.0	2184.3	-32.8	-.8	-17.2
1932	2201.4	-22.1	2201.4	-15.2	.0	.0
1933	2225.2	-16.7	2203.6	-19.6	-1.0	-21.6
1934	2208.3	-25.3	2184.3	-23.4	-1.1	-24.0
1935	2241.7	-16.0	2241.7	-4.9	.0	.0
1936	2278.5	-9.1	2267.4	-9.3	-.5	-11.1
1937	2293.4	-12.7	2283.3	-7.6	-.4	-10.1
1938	2358.7	-10.5	2358.7	-10.5	.0	.0
1939	2300.6	-14.6	2296.1	-14.5	-.2	-4.5
1940	2335.4	-14.6	2327.2	-15.4	-.4	-8.2
1941	2358.7	-10.5	2358.7	-10.5	.0	.0
1942	2358.7	-10.5	2358.7	-6.7	.0	.0
1943	2355.4	-6.2	2343.1	-9.5	-.5	-12.3
1944	2317.6	-10.1	2314.4	-11.7	-.1	-3.2
1945	2321.2	-15.2	2316.7	-11.4	-.2	-4.5
1946	2333.3	-13.5	2324.5	-14.3	-.4	-8.8
1947	2313.5	-11.2	2293.6	-11.2	-.9	-19.9
1948	2349.7	-5.4	2326.0	-5.1	-1.0	-23.7
1949	2342.6	-13.8	2327.5	-11.7	-.6	-15.1
1950	2314.6	-16.3	2305.7	-16.5	-.4	-8.9
1951	2339.3	-14.2	2333.4	-14.7	-.3	-5.9
1952	2358.7	-10.5	2358.7	-10.4	.0	.0
1953	2358.7	-10.5	2358.7	-10.5	.0	.0
1954	2346.5	-12.8	2342.6	-13.3	-.2	-3.9
1955	2321.9	-12.1	2319.7	-9.5	-.1	-2.2
1956	2358.7	-10.5	2358.7	-10.3	.0	.0
1957	2355.1	-8.4	2347.9	-13.1	-.3	-7.2
1958	2358.7	-10.5	2358.7	-10.5	.0	.0
1959	2325.9	-15.4	2318.8	-15.7	-.3	-7.1
1960	2327.0	-12.1	2314.4	-6.3	-.5	-12.6
1961	2337.4	-13.8	2336.2	-11.6	-.1	-1.2
1962	2332.4	-14.4	2328.2	-14.5	-.2	-4.2
1963	2358.7	-9.8	2351.5	-8.1	-.3	-7.2
1964	2314.9	-10.0	2312.3	-9.6	-.1	-2.6
1965	2355.5	-5.6	2338.2	-10.2	-.7	-17.3
1966	2343.4	-13.0	2336.1	-13.6	-.3	-7.3
1967	2358.7	-10.5	2358.7	-8.8	.0	.0
1968	2325.9	-15.3	2321.5	-15.4	-.2	-4.4
1969	2358.7	-10.5	2358.7	-10.5	.0	.0
1970	2327.9	-14.8	2318.8	-15.7	-.4	-9.1
1971	2358.7	-10.5	2356.5	-5.9	-.1	-2.2
1972	2339.1	-14.2	2329.7	-14.9	-.4	-9.4
1973	2347.3	-12.8	2340.0	-13.5	-.3	-7.3
1974	2358.7	-10.5	2358.7	-10.5	.0	.0
1975	2358.7	-10.5	2358.7	-10.5	.0	.0
1976	2299.5	-15.7	2293.9	-17.1	-.2	-5.6
1977	2179.7	-20.8	2179.9	-15.4	.0	.2
1978	2342.8	-2.8	2317.7	-4.2	-1.1	-25.1
1979	2326.8	-15.1	2312.8	-16.1	-.6	-14.0
1980	2343.0	-10.4	2335.0	-11.4	-.3	-8.0
1981	2330.0	-13.5	2324.5	-12.7	-.2	-5.5
1982	2358.7	-10.5	2355.0	-6.2	-.2	-3.7
1983	2358.7	-10.5	2358.7	-10.5	.0	.0
1984	2346.0	-12.7	2340.2	-13.3	-.2	-5.8
1985	2316.3	-11.2	2311.0	-13.0	-.2	-5.3
1986	2325.6	-15.3	2311.8	-16.6	-.6	-13.8
1987	2308.2	-14.1	2289.1	-12.2	-.8	-19.1
1988	2295.3	-17.7	2276.7	-16.9	-.8	-18.6
1989	2302.8	-11.7	2279.1	-10.6	-1.0	-23.7
1990	2282.4	-14.6	2258.6	-13.7	-1.0	-23.8
1991	2236.7	-5.5	2228.6	-7.1	-.4	-8.1
Mean:	2317.5	-12.8	2309.5	-12.4	-.3	-8.0
Median:	2330.0	-12.7	2321.5	-11.6	-.3	-6.2
Min:	2179.7	-29.6	2179.9	-32.8	-1.1	-25.1
Max:	2358.7	.0	2358.7	.0	.1	2.1
X inc > 20.0		0		0		
X dec > 9.0		62		58		
X dec > 10.0		58		52		
X dec > 15.0		17		16		

CLAIR ENGLE RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2321.1	.0	2316.0	.0	-.2	-5.1
1923	2276.1	-18.8	2279.0	-16.7	.1	2.9
1924	2181.4	-6.1	2184.3	-5.3	.1	2.9
1925	2282.5	-4.9	2265.1	-4.3	-.8	-17.4
1926	2284.5	-5.5	2267.6	-4.4	-.7	-16.9
1927	2351.2	-7.5	2335.0	-6.4	-.7	-16.2
1928	2317.8	-17.0	2315.5	-16.2	-.1	-2.3
1929	2256.9	-19.4	2250.8	-19.3	-.3	-6.1
1930	2264.8	-5.9	2254.0	-4.7	-.5	-10.8
1931	2184.3	-17.2	2181.2	-3.1	-.1	-3.1
1932	2184.3	-17.1	2184.3	-17.1	.0	.0
1933	2203.7	-21.5	2184.3	-19.3	-.9	-19.4
1934	2184.3	-24.0	2181.4	-2.9	-.1	-2.9
1935	2236.7	-5.0	2238.3	-3.4	.1	1.6
1936	2273.2	-5.3	2263.2	-4.2	-.4	-10.0
1937	2276.1	-17.3	2276.1	-7.2	.0	.0
1938	2351.2	-7.5	2351.2	-7.5	.0	.0
1939	2286.7	-13.9	2280.9	-15.2	-.3	-5.8
1940	2318.7	-16.7	2310.5	-16.7	-.4	-8.2
1941	2351.2	-7.5	2351.2	-7.5	.0	.0
1942	2351.2	-7.5	2351.2	-7.5	.0	.0
1943	2350.0	-5.4	2337.9	-5.2	-.5	-12.1
1944	2303.5	-14.1	2301.4	-13.0	-.1	-2.1
1945	2302.9	-18.3	2299.1	-17.6	-.2	-3.8
1946	2316.6	-16.7	2307.7	-16.8	-.4	-8.9
1947	2300.7	-12.8	2290.2	-3.4	-.5	-10.5
1948	2344.4	-5.3	2320.6	-5.4	-1.0	-23.8
1949	2326.7	-15.9	2316.5	-11.0	-.4	-10.2
1950	2295.6	-19.0	2287.1	-18.6	-.4	-8.5
1951	2323.2	-16.1	2317.4	-16.0	-.2	-5.8
1952	2351.2	-7.5	2351.2	-7.5	.0	.0
1953	2351.2	-7.5	2351.2	-7.5	.0	.0
1954	2341.3	-5.2	2328.0	-14.6	-.6	-13.3
1955	2309.6	-12.3	2315.0	-4.7	.2	5.4
1956	2351.2	-7.5	2351.2	-7.5	.0	.0
1957	2349.8	-5.3	2343.2	-4.7	-.3	-6.6
1958	2351.2	-7.5	2351.2	-7.5	.0	.0
1959	2308.2	-17.7	2301.4	-17.4	-.3	-6.8
1960	2312.9	-14.1	2311.2	-3.2	-.1	-1.7
1961	2321.2	-16.2	2322.1	-14.1	.0	.9
1962	2317.0	-15.4	2312.6	-15.6	-.2	-4.4
1963	2351.2	-7.5	2346.3	-5.2	-.2	-4.9
1964	2306.4	-8.5	2305.4	-6.9	.0	-1.0
1965	2351.0	-4.5	2333.9	-4.3	-.7	-17.1
1966	2328.3	-15.1	2321.1	-15.0	-.3	-7.2
1967	2351.2	-7.5	2351.2	-7.5	.0	.0
1968	2309.1	-16.8	2304.7	-16.8	-.2	-4.4
1969	2351.2	-7.5	2351.2	-7.5	.0	.0
1970	2310.2	-17.7	2301.0	-17.8	-.4	-9.2
1971	2351.2	-7.5	2351.2	-5.3	.0	.0
1972	2323.1	-16.0	2313.5	-16.2	-.4	-9.6
1973	2341.3	-6.0	2324.3	-15.7	-.7	-17.0
1974	2351.2	-7.5	2351.2	-7.5	.0	.0
1975	2351.2	-7.5	2351.2	-7.5	.0	.0
1976	2282.3	-17.2	2279.1	-14.8	-.1	-3.2
1977	2169.7	-10.0	2173.1	-6.8	.2	3.4
1978	2337.6	-5.2	2314.9	-2.8	-1.0	-22.7
1979	2308.8	-18.0	2294.4	-18.4	-.6	-14.4
1980	2337.0	-6.0	2324.5	-10.5	-.5	-12.5
1981	2315.0	-15.0	2314.0	-10.5	.0	-1.0
1982	2351.2	-7.5	2350.3	-4.7	.0	-.9
1983	2351.2	-7.5	2351.2	-7.5	.0	.0
1984	2340.7	-5.3	2335.4	-4.8	-.2	-5.3
1985	2302.8	-13.5	2302.1	-8.9	.0	-.7
1986	2307.9	-17.7	2294.6	-17.2	-.6	-13.3
1987	2297.4	-10.8	2282.7	-6.4	-.6	-14.7
1988	2273.7	-21.6	2256.8	-19.9	-.7	-16.9
1989	2297.9	-4.9	2274.5	-4.6	-1.0	-23.4
1990	2263.1	-19.3	2253.6	-5.0	-.4	-9.5
1991	2222.7	-14.0	2213.7	-14.9	-.4	-9.0
Mean:	2305.7	-11.5	2299.4	-9.9	-.3	-6.3
Median:	2315.0	-10.8	2311.2	-7.5	-.2	-5.1
Min:	2169.7	-24.0	2173.1	-19.9	-1.0	-23.8
Max:	2351.2	.0	2351.2	.0	.2	5.4
X inc > 20.0		0		0		
X dec > 9.0		36		29		
X dec > 10.0		35		29		
X dec > 15.0		26		20		

CLAIR ENGLE RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2317.2	.0	2311.3	.0	-.3	-5.9
1923	2272.4	-3.7	2277.0	-2.0	.2	4.6
1924	2175.2	-6.2	2181.5	-2.8	.3	6.3
1925	2279.9	-2.6	2263.8	-1.3	-.7	-16.1
1926	2280.6	-3.9	2265.2	-2.4	-.7	-15.4
1927	2339.6	-11.6	2328.5	-6.5	-.5	-11.1
1928	2308.0	-9.8	2308.0	-7.5	.0	.0
1929	2252.3	-4.6	2248.1	-2.7	-.2	-4.2
1930	2260.6	-4.2	2251.6	-2.4	-.4	-9.0
1931	2178.5	-5.8	2178.5	-2.7	.0	.0
1932	2178.7	-5.6	2181.9	-2.4	.1	3.2
1933	2196.4	-7.3	2182.4	-1.9	-.6	-14.0
1934	2178.7	-5.6	2178.9	-2.5	.0	.2
1935	2229.8	-6.9	2233.5	-4.8	.2	3.7
1936	2269.4	-3.8	2260.9	-2.3	-.4	-8.5
1937	2269.1	-7.0	2271.8	-4.3	.1	2.7
1938	2339.6	-11.6	2339.6	-11.6	.0	.0
1939	2282.9	-3.8	2278.7	-2.2	-.2	-4.2
1940	2315.0	-3.7	2306.2	-4.3	-.4	-8.8
1941	2339.6	-11.6	2339.6	-11.6	.0	.0
1942	2339.6	-11.6	2339.6	-11.6	.0	.0
1943	2338.7	-11.3	2330.4	-7.5	-.4	-8.3
1944	2298.8	-4.7	2299.6	-1.8	.0	.8
1945	2296.5	-6.4	2292.0	-7.1	-.2	-4.5
1946	2313.7	-2.9	2305.0	-2.7	-.4	-8.7
1947	2297.4	-3.3	2288.2	-2.0	-.4	-9.2
1948	2339.6	-4.8	2319.2	-1.4	-.9	-20.4
1949	2323.9	-2.8	2314.7	-1.8	-.4	-9.2
1950	2292.4	-3.2	2285.3	-1.8	-.3	-7.1
1951	2320.3	-2.9	2314.1	-3.3	-.3	-6.2
1952	2339.6	-11.6	2339.6	-11.6	.0	.0
1953	2339.6	-11.6	2339.6	-11.6	.0	.0
1954	2337.6	-3.7	2323.8	-4.2	-.6	-13.8
1955	2306.9	-2.7	2313.7	-1.3	.3	6.8
1956	2339.6	-11.6	2339.6	-11.6	.0	.0
1957	2339.6	-10.2	2339.6	-3.6	.0	.0
1958	2339.6	-11.6	2339.6	-11.6	.0	.0
1959	2305.4	-2.8	2299.9	-1.5	-.2	-5.5
1960	2307.6	-5.3	2309.3	-1.9	.1	1.7
1961	2317.9	-3.3	2320.3	-1.8	.1	2.4
1962	2310.5	-6.5	2310.9	-1.7	.0	.4
1963	2339.6	-11.6	2339.6	-6.7	.0	.0
1964	2303.8	-2.6	2304.3	-1.1	.0	.5
1965	2339.6	-11.4	2331.6	-2.3	-.3	-8.0
1966	2322.5	-5.8	2320.0	-1.1	-.1	-2.5
1967	2339.6	-11.6	2339.6	-11.6	.0	.0
1968	2306.4	-2.7	2297.5	-7.2	-.4	-8.9
1969	2339.6	-11.6	2339.6	-11.6	.0	.0
1970	2305.9	-4.3	2295.8	-5.2	-.4	-10.1
1971	2339.6	-11.6	2339.6	-11.6	.0	.0
1972	2315.0	-8.1	2302.1	-11.4	-.6	-12.9
1973	2337.9	-3.4	2320.1	-4.2	-.8	-17.8
1974	2339.6	-11.6	2339.6	-11.6	.0	.0
1975	2339.6	-11.6	2339.6	-11.6	.0	.0
1976	2278.9	-3.4	2277.4	-1.7	-.1	-1.5
1977	2166.4	-3.3	2173.3	.2	.3	6.9
1978	2336.0	-1.6	2315.3	.4	-.9	-20.7
1979	2305.9	-2.9	2290.8	-3.6	-.7	-15.1
1980	2333.3	-3.7	2322.7	-1.8	-.5	-10.6
1981	2311.3	-3.7	2311.7	-2.3	.0	.4
1982	2339.6	-11.6	2339.6	-10.7	.0	.0
1983	2339.6	-11.6	2339.6	-11.6	.0	.0
1984	2337.2	-3.5	2332.9	-2.5	-.2	-4.3
1985	2299.6	-3.2	2300.3	-1.8	.0	.7
1986	2305.1	-2.8	2292.9	-1.7	-.5	-12.2
1987	2293.4	-4.0	2279.8	-2.9	-.6	-13.6
1988	2269.1	-4.6	2253.5	-3.3	-.7	-15.6
1989	2295.0	-2.9	2272.6	-1.9	-1.0	-22.4
1990	2258.6	-4.5	2250.8	-2.8	-.3	-7.8
1991	2217.3	-5.4	2210.6	-3.1	-.3	-6.7
Mean:	2299.5	-6.2	2294.6	-4.7	-.2	-4.8
Median:	2308.0	-4.7	2306.2	-2.8	-.2	-4.2
Min:	2166.4	-11.6	2173.3	-11.6	-1.0	-22.4
Max:	2339.6	.0	2339.6	.4	.3	6.9
X inc > 20.0		0		0		
X dec > 9.0		20		15		
X dec > 10.0		19		15		
X dec > 15.0		0		0		

RETURN TO TABLE OF CONTENTS

Section 16

CLAIR ENGLE RESERVOIR ELEVATION
16.2 Recreation

CLAIR ENGLE RESERVOIR ELEVATION

October

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2330.8	.0	2330.8	.0	.0	.0
1923	2315.7	-1.5	2310.1	-1.2	-.2	-5.6
1924	2270.4	-2.0	2275.4	-1.6	.2	5.0
1925	2174.7	-.5	2181.6	.1	.3	6.9
1926	2277.9	-2.0	2261.8	-2.0	-.7	-16.1
1927	2278.5	-2.1	2263.2	-2.0	-.7	-15.3
1928	2330.8	-8.8	2326.6	-1.9	-.2	-4.2
1929	2304.3	-3.7	2304.0	-4.0	.0	-.3
1930	2245.1	-7.2	2244.4	-3.7	.0	-.7
1931	2257.6	-3.0	2248.8	-2.8	-.4	-8.8
1932	2176.4	-2.1	2177.0	-1.5	.0	.6
1933	2176.2	-2.5	2180.0	-1.9	.2	3.8
1934	2191.5	-4.9	2180.8	-1.6	-.5	-10.7
1935	2177.6	-1.1	2178.4	-.5	.0	.8
1936	2227.8	-2.0	2231.9	-1.6	.2	4.1
1937	2266.5	-2.9	2258.1	-2.8	-.4	-8.4
1938	2267.1	-2.0	2270.2	-1.6	.1	3.1
1939	2330.8	-8.8	2330.8	-8.8	.0	.0
1940	2278.8	-4.1	2276.3	-2.4	-.1	-2.5
1941	2313.4	-1.6	2304.7	-1.5	-.4	-8.7
1942	2330.8	-8.8	2330.8	-8.8	.0	.0
1943	2330.8	-8.8	2330.8	-8.8	.0	.0
1944	2330.8	-7.9	2329.0	-1.4	-.1	-1.8
1945	2296.5	-2.3	2297.6	-2.0	.0	1.1
1946	2296.0	-.5	2291.7	-.3	-.2	-4.3
1947	2311.7	-2.0	2301.5	-3.5	-.4	-10.2
1948	2298.9	1.5	2290.2	2.0	-.4	-8.7
1949	2330.8	-8.8	2318.0	-1.2	-.5	-12.8
1950	2322.0	-1.9	2312.8	-1.9	-.4	-9.2
1951	2301.0	8.6	2294.6	9.3	-.3	-6.4
1952	2319.0	-1.3	2312.9	-1.2	-.3	-6.1
1953	2330.8	-8.8	2330.8	-8.8	.0	.0
1954	2330.8	-8.8	2330.8	-8.8	.0	.0
1955	2330.8	-6.8	2322.4	-1.4	-.4	-8.4
1956	2304.7	-2.2	2311.9	-1.8	.3	7.2
1957	2330.8	-8.8	2330.8	-8.8	.0	.0
1958	2330.8	-8.8	2330.8	-8.8	.0	.0
1959	2330.8	-8.8	2330.8	-8.8	.0	.0
1960	2303.3	-2.1	2295.1	-4.8	-.4	-8.2
1961	2305.6	-2.0	2307.7	-1.6	.1	2.1
1962	2315.8	-2.1	2318.4	-1.9	.1	2.6
1963	2318.1	7.6	2318.6	7.7	.0	.5
1964	2330.8	-8.8	2330.8	-8.8	.0	.0
1965	2302.4	-1.4	2303.2	-1.1	.0	.8
1966	2330.8	-8.8	2329.7	-1.9	.0	-1.1
1967	2320.9	-1.6	2317.0	-3.0	-.2	-3.9
1968	2330.8	-8.8	2330.8	-8.8	.0	.0
1969	2304.7	-1.7	2296.0	-1.5	-.4	-8.7
1970	2330.8	-8.8	2330.8	-8.8	.0	.0
1971	2304.0	-1.9	2294.0	-1.8	-.4	-10.0
1972	2330.8	-8.8	2330.8	-8.8	.0	.0
1973	2314.0	-1.0	2301.2	-.9	-.6	-12.8
1974	2330.8	-7.1	2321.0	.9	-.4	-9.8
1975	2330.8	-8.8	2330.8	-8.8	.0	.0
1976	2330.8	-8.8	2330.8	-8.8	.0	.0
1977	2276.1	-2.8	2274.8	-2.6	-.1	-1.3
1978	2160.0	-6.4	2168.0	-5.3	.4	8.0
1979	2330.8	-5.2	2313.2	-2.1	-.8	-17.6
1980	2306.2	.3	2291.4	.6	-.6	-14.8
1981	2330.8	-2.5	2320.8	-1.9	-.4	-10.0
1982	2310.0	-1.3	2310.6	-1.1	.0	.6
1983	2330.8	-8.8	2330.8	-8.8	.0	.0
1984	2330.8	-8.8	2330.8	-8.8	.0	.0
1985	2330.8	-6.4	2330.8	-2.1	.0	.0
1986	2297.7	-1.9	2298.8	-1.5	.0	1.1
1987	2303.6	-1.5	2291.1	-1.8	-.5	-12.5
1988	2289.8	-3.6	2276.6	-3.2	-.6	-13.2
1989	2261.4	-7.7	2247.3	-6.2	-.6	-14.1
1990	2296.5	1.5	2274.6	2.0	-1.0	-21.9
1991	2252.0	-6.6	2247.4	-3.4	-.2	-4.6
Mean:	2297.0	-4.1	2293.2	-3.1	-.2	-3.8
Median:	2310.0	-2.8	2304.7	-1.9	.0	-.7
Min:	2160.0	-8.8	2168.0	-8.8	-1.0	-21.9
Max:	2330.8	8.6	2330.8	9.3	.4	8.0
X > 2310.0	35		34			
X > 2295.0	51		44			
X > 2170.0	69		69			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

November

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2329.9	.0	2329.6	.0	.0	-.3
1923	2314.6	-1.1	2308.7	-1.4	-.3	-5.9
1924	2268.5	-1.9	2273.1	-2.3	.2	4.6
1925	2188.7	14.0	2194.2	12.6	.3	5.5
1926	2276.4	-1.5	2259.8	-2.0	-.7	-16.6
1927	2292.3	13.8	2278.0	14.8	-.6	-14.3
1928	2330.8	.0	2330.0	3.4	.0	-.8
1929	2303.5	-.8	2302.8	-1.2	.0	-.7
1930	2243.1	-2.0	2241.9	-2.5	-.1	-1.2
1931	2255.0	-2.6	2246.7	-2.1	-.4	-8.3
1932	2175.1	-1.3	2175.0	-2.0	.0	-.1
1933	2175.9	-.3	2179.0	-1.0	.1	3.1
1934	2190.2	-1.3	2178.6	-2.2	-.5	-11.6
1935	2189.4	11.8	2189.5	11.1	.0	.1
1936	2226.3	-1.5	2230.8	-1.1	.2	4.5
1937	2263.7	-2.8	2254.8	-3.3	-.4	-8.9
1938	2280.5	13.4	2283.0	12.8	.1	2.5
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2276.4	-2.4	2273.5	-2.8	-.1	-2.9
1941	2313.1	-.3	2304.0	-.7	-.4	-9.1
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2330.8	.0	2328.4	-.6	-.1	-2.4
1945	2298.1	1.6	2298.8	1.2	.0	.7
1946	2299.5	3.5	2295.0	3.3	-.2	-4.5
1947	2312.5	.8	2301.9	.4	-.5	-10.6
1948	2299.1	.2	2290.0	-.2	-.4	-9.1
1949	2330.8	.0	2317.1	-.9	-.6	-13.7
1950	2320.7	-1.3	2311.1	-1.7	-.4	-9.6
1951	2310.7	9.7	2303.0	8.4	-.3	-7.7
1952	2321.7	2.7	2314.2	1.3	-.3	-7.5
1953	2330.4	-.4	2329.7	-1.1	.0	-.7
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2330.8	.0	2325.8	3.4	-.2	-5.0
1956	2304.6	-.1	2311.5	-.4	.3	6.9
1957	2330.8	.0	2330.4	-.4	.0	-.4
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2330.8	.0	2330.0	-.8	.0	-.8
1960	2301.3	-2.0	2290.7	-4.4	-.5	-10.6
1961	2305.2	-.4	2306.9	-.8	.1	1.7
1962	2315.4	-.4	2317.6	-.8	.1	2.2
1963	2322.0	3.9	2322.3	3.7	.0	.3
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2304.2	1.8	2304.7	1.5	.0	.5
1966	2330.8	.0	2330.8	1.1	.0	.0
1967	2329.3	8.4	2324.1	7.1	-.2	-5.2
1968	2330.8	.0	2330.5	-.3	.0	-.3
1969	2305.6	.9	2296.6	.6	-.4	-9.0
1970	2330.8	.0	2330.1	-.7	.0	-.7
1971	2315.1	11.1	2305.4	11.4	-.4	-9.7
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2315.9	1.9	2302.9	1.7	-.6	-13.0
1974	2330.8	.0	2330.8	9.8	.0	.0
1975	2330.8	.0	2330.0	-.8	.0	-.8
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2274.1	-2.0	2272.5	-2.3	-.1	-1.6
1978	2166.5	6.5	2173.4	5.4	.3	6.9
1979	2329.5	-1.3	2310.9	-2.3	-.8	-18.6
1980	2310.3	4.1	2295.6	4.2	-.6	-14.7
1981	2329.2	-1.6	2318.7	-2.1	-.5	-10.5
1982	2328.8	18.8	2329.1	18.5	.0	.3
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.0	-1.7	2296.7	-2.1	.0	.7
1987	2301.9	-1.7	2288.3	-2.8	-.6	-13.6
1988	2287.7	-2.1	2273.9	-2.7	-.6	-13.8
1989	2264.3	2.9	2250.0	2.7	-.6	-14.3
1990	2295.5	-1.0	2272.9	-1.7	-1.0	-22.6
1991	2248.8	-3.2	2244.7	-2.7	-.2	-4.1
Mean:	2298.3	1.3	2294.4	1.2	-.2	-3.9
Median:	2313.1	.0	2305.4	-.2	.0	-.8
Min:	2166.5	-3.2	2173.4	-4.4	-1.0	-22.6
Max:	2330.8	18.8	2330.8	18.5	.3	6.9
X > 2310.0	39		33			
X > 2295.0	51		46			
X > 2170.0	69		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

December

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2330.0	.0	2328.9	.0	.0	-1.1
1923	2315.4	.8	2308.2	-.5	-.3	-7.2
1924	2266.8	-1.7	2270.7	-2.4	.2	3.9
1925	2196.8	8.1	2201.1	6.9	.2	4.3
1926	2278.3	1.9	2260.6	.8	-.8	-17.7
1927	2309.6	17.3	2295.9	17.9	-.6	-13.7
1928	2330.8	.0	2330.5	.5	.0	-.3
1929	2302.8	-.7	2301.4	-1.4	-.1	-1.4
1930	2257.9	14.8	2256.1	14.2	-.1	-1.8
1931	2252.9	-2.1	2244.3	-2.4	-.4	-8.6
1932	2175.0	-.1	2174.4	-.6	.0	-.6
1933	2175.5	-.4	2177.1	-1.9	.1	1.6
1934	2191.5	1.3	2178.6	.0	-.6	-12.9
1935	2195.7	6.3	2194.4	4.9	-.1	-1.3
1936	2225.9	-.4	2229.3	-1.5	.2	3.4
1937	2261.1	-2.6	2251.0	-3.8	-.4	-10.1
1938	2300.5	20.0	2302.0	19.0	.1	1.5
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2281.7	5.3	2278.3	4.8	-.1	-3.4
1941	2323.8	10.7	2314.5	10.5	-.4	-9.3
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2330.4	-.4	2326.7	-1.7	-.2	-3.7
1945	2303.7	5.6	2303.8	5.0	.0	.1
1946	2315.3	15.8	2310.5	15.5	-.2	-4.8
1947	2313.4	.9	2302.0	.1	-.5	-11.4
1948	2298.4	-.7	2288.5	-1.5	-.4	-9.9
1949	2330.8	.0	2315.6	-1.5	-.7	-15.2
1950	2319.3	-1.4	2308.7	-2.4	-.5	-10.6
1951	2330.4	19.7	2323.0	20.0	-.3	-7.4
1952	2330.8	9.1	2324.7	10.5	-.3	-6.1
1953	2330.8	.4	2330.8	1.1	.0	.0
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2330.8	.0	2329.2	3.4	-.1	-1.6
1956	2328.7	24.1	2330.8	19.3	.1	2.1
1957	2330.7	-.1	2329.4	-1.0	-.1	-1.3
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2330.2	-.6	2328.5	-1.5	-.1	-1.7
1960	2298.1	-3.2	2285.7	-5.0	-.5	-12.4
1961	2312.5	7.3	2314.0	7.1	.1	1.5
1962	2317.8	2.4	2319.2	1.6	.1	1.4
1963	2330.8	8.8	2330.8	8.5	.0	.0
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2330.8	26.6	2330.8	26.1	.0	.0
1966	2330.8	.0	2330.8	.0	.0	.0
1967	2330.8	1.5	2330.8	6.7	.0	.0
1968	2330.8	.0	2330.8	.3	.0	.0
1969	2311.3	5.7	2301.9	5.3	-.4	-9.4
1970	2330.8	.0	2330.8	.7	.0	.0
1971	2325.2	10.1	2315.1	9.7	-.4	-10.1
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2324.3	8.4	2311.1	8.2	-.6	-13.2
1974	2330.8	.0	2330.8	.0	.0	.0
1975	2330.8	.0	2330.7	.7	.0	-.1
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2270.1	-4.0	2269.7	-2.8	.0	-.4
1978	2201.6	35.1	2206.0	32.6	.2	4.4
1979	2328.7	-.8	2308.3	-2.6	-.9	-20.4
1980	2314.7	4.4	2299.7	4.1	-.6	-15.0
1981	2330.8	1.6	2321.0	2.3	-.4	-9.8
1982	2330.8	2.0	2330.8	1.7	.0	.0
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.0	.0	2296.0	-.7	.0	.0
1987	2300.8	-1.1	2285.9	-2.4	-.6	-14.9
1988	2301.9	14.2	2288.5	14.6	-.6	-13.4
1989	2265.7	1.4	2249.5	-.5	-.7	-16.2
1990	2293.9	-1.6	2270.9	-2.0	-1.0	-23.0
1991	2242.1	-6.7	2240.6	-4.1	-.1	-1.5
Mean:	2302.1	3.8	2297.8	3.4	-.2	-4.3
Median:	2323.8	.0	2314.0	.0	.0	-1.1
Min:	2175.0	-6.7	2174.4	-5.0	-1.0	-23.0
Max:	2330.8	35.1	2330.8	32.6	.2	4.4
X > 2310.0	44		38			
X > 2295.0	53		49			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

January

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2329.8	.0	2327.8	.0	-.1	-2.0
1923	2317.5	2.1	2309.7	1.5	-.3	-7.8
1924	2265.4	-1.4	2268.3	-2.4	.1	2.9
1925	2204.3	7.5	2206.9	5.8	.1	2.6
1926	2277.5	-.8	2258.4	-2.2	-.8	-19.1
1927	2319.4	9.8	2305.8	9.9	-.6	-13.6
1928	2334.4	3.6	2333.2	2.7	-.1	-1.2
1929	2302.4	-.4	2300.3	-1.1	-.1	-2.1
1930	2258.7	.8	2255.9	-.2	-.1	-2.8
1931	2252.9	.0	2244.3	.0	-.4	-8.6
1932	2177.3	2.3	2175.0	.6	-.1	-2.3
1933	2175.1	-.4	2174.9	-2.2	.0	-.2
1934	2200.8	9.3	2188.2	9.6	-.6	-12.6
1935	2201.5	5.8	2199.8	5.4	-.1	-1.7
1936	2239.9	14.0	2241.9	12.6	.1	2.0
1937	2258.5	-2.6	2248.3	-2.7	-.5	-10.2
1938	2308.7	8.2	2309.3	7.3	.0	.6
1939	2331.6	.8	2330.3	-.5	-.1	-1.3
1940	2297.7	16.0	2293.8	15.5	-.2	-3.9
1941	2334.4	10.6	2329.9	15.4	-.2	-4.5
1942	2334.4	3.6	2334.4	3.6	.0	.0
1943	2334.4	3.6	2334.4	3.6	.0	.0
1944	2330.7	.3	2325.4	-1.3	-.2	-5.3
1945	2307.4	3.7	2306.8	3.0	.0	-.6
1946	2325.3	10.0	2320.1	9.6	-.2	-5.2
1947	2312.8	-.6	2300.3	-1.7	-.5	-12.5
1948	2314.4	16.0	2303.9	15.4	-.5	-10.5
1949	2329.8	-1.0	2313.5	-2.1	-.7	-16.3
1950	2320.6	1.3	2309.2	.5	-.5	-11.4
1951	2334.4	4.0	2329.0	6.0	-.2	-5.4
1952	2334.4	3.6	2328.2	3.5	-.3	-6.2
1953	2334.4	3.6	2334.4	3.6	.0	.0
1954	2334.4	3.6	2334.4	3.6	.0	.0
1955	2332.1	1.3	2329.6	.4	-.1	-2.5
1956	2334.4	5.7	2334.4	3.6	.0	.0
1957	2330.6	-.1	2328.0	-1.4	-.1	-2.6
1958	2334.4	3.6	2334.4	3.6	.0	.0
1959	2334.4	4.2	2334.4	5.9	.0	.0
1960	2298.0	-.1	2284.8	-.9	-.6	-13.2
1961	2315.0	2.5	2315.7	1.7	.0	.7
1962	2318.9	1.1	2319.3	.1	.0	.4
1963	2333.7	2.9	2333.1	2.3	.0	-.6
1964	2334.4	3.6	2334.4	3.6	.0	.0
1965	2334.4	3.6	2334.4	3.6	.0	.0
1966	2334.4	3.6	2334.4	3.6	.0	.0
1967	2334.4	3.6	2334.4	3.6	.0	.0
1968	2334.4	3.6	2334.4	3.6	.0	.0
1969	2322.0	10.7	2312.5	10.6	-.4	-9.5
1970	2334.4	3.6	2334.4	3.6	.0	.0
1971	2334.4	9.2	2331.8	16.7	-.1	-2.6
1972	2334.4	3.6	2334.4	3.6	.0	.0
1973	2334.4	10.1	2322.7	11.6	-.5	-11.7
1974	2334.4	3.6	2334.4	3.6	.0	.0
1975	2332.4	1.6	2331.0	.3	-.1	-1.4
1976	2331.6	.8	2330.7	-.1	.0	-.9
1977	2263.6	-6.5	2263.8	-5.9	.0	.2
1978	2253.4	51.8	2255.6	49.6	.1	2.2
1979	2330.4	1.7	2308.7	.4	-.9	-21.7
1980	2331.9	17.2	2317.7	18.0	-.6	-14.2
1981	2334.4	3.6	2328.1	7.1	-.3	-6.3
1982	2334.4	3.6	2334.4	3.6	.0	.0
1983	2334.4	3.6	2334.4	3.6	.0	.0
1984	2334.4	3.6	2334.4	3.6	.0	.0
1985	2332.7	1.9	2331.8	1.0	.0	-.9
1986	2307.0	11.0	2306.2	10.2	.0	-.8
1987	2301.7	.9	2285.2	-.7	-.7	-16.5
1988	2308.5	6.6	2294.8	6.3	-.6	-13.7
1989	2267.0	1.3	2249.9	.4	-.8	-17.1
1990	2298.3	4.4	2274.8	3.9	-1.0	-23.5
1991	2234.6	-7.5	2233.8	-6.8	.0	-.8
Mean:	2306.6	4.5	2302.1	4.3	-.2	-4.5
Median:	2329.8	3.6	2319.3	3.6	-.1	-1.4
Min:	2175.1	-7.5	2174.9	-6.8	-1.0	-23.5
Max:	2334.4	51.8	2334.4	49.6	.1	2.9

	Base	2030 w/ WFP
X > 2310.0	46	40
X > 2295.0	55	50
X > 2170.0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70

CLAIR ENGLE RESERVOIR ELEVATION

February

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2331.4	.0	2328.6	.0	-.1	-2.8
1923	2319.3	1.8	2310.9	1.2	-.4	-8.4
1924	2271.5	6.1	2273.5	5.2	.1	2.0
1925	2241.8	37.5	2242.9	36.0	.0	1.1
1926	2291.1	13.6	2273.1	14.7	-.8	-18.0
1927	2336.4	17.0	2323.5	17.7	-.6	-12.9
1928	2341.3	6.9	2339.8	6.6	-.1	-1.5
1929	2303.8	1.4	2300.9	.6	-.1	-2.9
1930	2269.9	11.2	2265.8	9.9	-.2	-4.1
1931	2255.1	2.2	2245.6	1.3	-.4	-9.5
1932	2181.5	4.2	2177.7	2.7	-.2	-3.8
1933	2175.2	.1	2173.4	-1.5	-.1	-1.8
1934	2213.8	13.0	2201.0	12.8	-.6	-12.8
1935	2213.6	12.1	2210.8	11.0	-.1	-2.8
1936	2256.6	16.7	2256.8	14.9	.0	.2
1937	2257.4	-1.1	2247.1	-1.2	-.5	-10.3
1938	2320.7	12.0	2320.6	11.3	.0	-.1
1939	2332.6	1.0	2330.1	-.2	-.1	-2.5
1940	2323.8	26.1	2319.7	25.9	-.2	-4.1
1941	2341.3	6.9	2341.3	11.4	.0	.0
1942	2341.3	6.9	2341.3	6.9	.0	.0
1943	2341.3	6.9	2341.3	6.9	.0	.0
1944	2333.8	3.1	2327.8	2.4	-.3	-6.0
1945	2320.1	12.7	2319.0	12.2	.0	-1.1
1946	2329.4	4.1	2323.7	3.6	-.2	-5.7
1947	2317.6	4.8	2303.8	3.5	-.6	-13.8
1948	2316.2	1.8	2305.1	1.2	-.5	-11.1
1949	2332.1	2.3	2315.2	1.7	-.7	-16.9
1950	2324.9	4.3	2312.9	3.7	-.5	-12.0
1951	2341.3	6.9	2341.3	12.3	.0	.0
1952	2341.3	6.9	2340.5	12.3	.0	-.8
1953	2341.3	6.9	2341.3	6.9	.0	.0
1954	2341.3	6.9	2341.3	6.9	.0	.0
1955	2334.2	2.1	2330.9	1.3	-.1	-3.3
1956	2341.3	6.9	2341.3	6.9	.0	.0
1957	2341.3	10.7	2338.0	10.0	-.1	-3.3
1958	2341.3	6.9	2341.3	6.9	.0	.0
1959	2341.2	6.8	2340.1	5.7	.0	-1.1
1960	2310.1	12.1	2297.1	12.3	-.6	-13.0
1961	2331.8	16.8	2331.9	16.2	.0	.1
1962	2328.6	9.7	2328.2	8.9	.0	-.4
1963	2341.3	7.6	2341.3	8.2	.0	.0
1964	2337.7	3.3	2336.6	2.2	.0	-1.1
1965	2340.7	6.3	2340.1	5.7	.0	-.6
1966	2339.1	4.7	2338.0	3.6	.0	-1.1
1967	2341.3	6.9	2341.3	6.9	.0	.0
1968	2341.3	6.9	2341.3	6.9	.0	.0
1969	2330.9	8.9	2321.2	8.7	-.4	-9.7
1970	2341.3	6.9	2341.3	6.9	.0	.0
1971	2341.3	6.9	2340.6	8.8	.0	-.7
1972	2341.3	6.9	2341.0	6.6	.0	-.3
1973	2341.3	6.9	2332.8	10.1	-.4	-8.5
1974	2341.3	6.9	2340.8	6.4	.0	-.5
1975	2339.3	6.9	2336.7	5.7	-.1	-2.6
1976	2334.1	2.5	2332.4	1.7	-.1	-1.7
1977	2252.5	-11.1	2252.4	-11.4	.0	-.1
1978	2273.4	20.0	2274.4	18.8	.0	1.0
1979	2334.2	3.8	2311.7	3.0	-1.0	-22.5
1980	2341.3	9.4	2338.9	21.2	-.1	-2.4
1981	2341.3	6.9	2337.2	9.1	-.2	-4.1
1982	2341.3	6.9	2341.3	6.9	.0	.0
1983	2341.3	6.9	2341.3	6.9	.0	.0
1984	2341.2	6.8	2340.1	5.7	.0	-1.1
1985	2335.5	2.8	2333.8	2.0	-.1	-1.7
1986	2341.3	34.3	2341.3	35.1	.0	.0
1987	2308.9	7.2	2291.5	6.3	-.8	-17.4
1988	2315.0	6.5	2301.2	6.4	-.6	-13.8
1989	2269.6	2.6	2251.9	2.0	-.8	-17.7
1990	2299.3	1.0	2275.7	.9	-1.0	-23.6
1991	2225.4	-9.2	2225.9	-7.9	.0	.5
Mean:	2314.0	7.4	2309.6	7.5	-.2	-4.5
Median:	2333.8	6.9	2328.6	6.9	-.1	-1.7
Min:	2175.2	-11.1	2173.4	-11.4	-1.0	-23.6
Max:	2341.3	37.5	2341.3	36.0	.1	2.0
X > 2310.0	52		48			
X > 2295.0	55		53			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

March

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2335.0	.0	2331.4	.0	-.2	-3.6
1923	2323.1	3.8	2313.9	3.0	-.4	-9.2
1924	2267.6	-3.9	2272.0	-1.5	.2	4.4
1925	2256.6	14.8	2255.6	12.7	.0	-1.0
1926	2300.8	9.7	2282.7	9.6	-.8	-18.1
1927	2347.9	11.5	2334.9	11.4	-.6	-13.0
1928	2347.9	6.6	2347.9	8.1	.0	.0
1929	2307.9	4.1	2304.1	3.2	-.2	-3.8
1930	2282.5	12.6	2277.5	11.7	-.2	-5.0
1931	2260.5	5.4	2251.1	5.5	-.4	-9.4
1932	2206.4	24.9	2201.2	23.5	-.2	-5.2
1933	2196.3	21.1	2192.7	19.3	-.2	-3.6
1934	2234.7	20.9	2221.9	20.9	-.6	-12.8
1935	2221.5	7.9	2217.0	6.2	-.2	-4.5
1936	2268.6	12.0	2267.6	10.8	.0	-1.0
1937	2267.1	9.7	2256.1	9.0	-.5	-11.0
1938	2339.1	18.4	2337.6	17.0	-.1	-1.5
1939	2339.8	7.2	2336.5	6.4	-.1	-3.3
1940	2344.8	21.0	2340.0	20.3	-.2	-4.8
1941	2347.9	6.6	2347.9	6.6	.0	.0
1942	2346.6	5.3	2345.1	3.8	-.1	-1.5
1943	2347.9	6.6	2347.9	6.6	.0	.0
1944	2338.6	4.8	2331.9	4.1	-.3	-6.7
1945	2324.2	4.1	2322.2	3.2	-.1	-2.0
1946	2338.1	8.7	2331.5	7.8	-.3	-6.6
1947	2326.7	9.1	2312.7	8.9	-.6	-14.0
1948	2318.9	2.7	2306.5	1.4	-.5	-12.4
1949	2346.5	14.4	2329.8	14.6	-.7	-16.7
1950	2333.7	8.8	2321.4	8.5	-.5	-12.3
1951	2347.9	6.6	2347.1	5.8	.0	-.8
1952	2347.9	6.6	2347.9	7.4	.0	.0
1953	2347.9	6.6	2347.9	6.6	.0	.0
1954	2347.9	6.6	2347.9	6.6	.0	.0
1955	2336.1	1.9	2332.0	1.1	-.2	-4.1
1956	2347.9	6.6	2347.9	6.6	.0	.0
1957	2347.9	6.6	2347.9	9.9	.0	.0
1958	2347.9	6.6	2347.9	6.6	.0	.0
1959	2347.9	6.7	2347.9	7.8	.0	.0
1960	2324.9	14.8	2312.0	14.9	-.6	-12.9
1961	2340.3	8.5	2339.2	7.3	.0	-1.1
1962	2334.1	5.5	2332.8	4.6	-.1	-1.3
1963	2346.1	4.8	2344.7	3.4	-.1	-1.4
1964	2340.2	2.5	2338.2	1.6	-.1	-2.0
1965	2345.7	5.0	2343.6	3.5	-.1	-2.1
1966	2347.9	8.8	2347.9	9.9	.0	.0
1967	2347.9	6.6	2347.9	6.6	.0	.0
1968	2347.9	6.6	2347.9	6.6	.0	.0
1969	2341.8	10.9	2331.1	9.9	-.5	-10.7
1970	2347.9	6.6	2347.9	6.6	.0	.0
1971	2347.9	6.6	2347.9	7.3	.0	.0
1972	2347.9	6.6	2347.9	6.9	.0	.0
1973	2347.9	6.6	2340.0	7.2	-.3	-7.9
1974	2347.9	6.6	2347.9	7.1	.0	.0
1975	2347.9	8.6	2347.9	11.2	.0	.0
1976	2337.8	3.7	2335.3	2.9	-.1	-2.5
1977	2251.9	-.6	2250.6	-1.8	-.1	-1.3
1978	2299.6	26.2	2298.6	24.2	.0	-1.0
1979	2344.5	10.3	2322.4	10.7	-.9	-22.1
1980	2347.9	6.6	2346.9	8.0	.0	-1.0
1981	2347.9	6.6	2344.6	7.4	-.1	-3.3
1982	2347.9	6.6	2347.9	6.6	.0	.0
1983	2347.9	6.6	2347.9	6.6	.0	.0
1984	2347.9	6.7	2347.9	7.8	.0	.0
1985	2338.8	3.3	2336.3	2.5	-.1	-2.5
1986	2347.9	6.6	2347.9	6.6	.0	.0
1987	2325.5	16.6	2308.9	17.4	-.7	-16.6
1988	2319.7	4.7	2306.7	5.5	-.6	-13.0
1989	2301.9	32.3	2285.8	33.9	-.7	-16.1
1990	2305.9	6.6	2282.1	6.4	-1.0	-23.8
1991	2234.9	9.5	2233.8	7.9	.0	-1.1
Mean:	2322.7	8.6	2318.0	8.4	-.2	-4.7
Median:	2340.2	6.6	2335.3	6.9	-.1	-2.0
Min:	2196.3	-3.9	2192.7	-1.8	-1.0	-23.8
Max:	2347.9	32.3	2347.9	33.9	.2	4.4
X > 2310.0	53		50			
X > 2295.0	58		55			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

April

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2342.8	.0	2338.2	.0	-.2	-4.6
1923	2332.6	9.5	2322.6	8.7	-.4	-10.0
1924	2268.4	.8	2270.9	-1.1	.1	2.5
1925	2287.1	30.5	2283.4	27.8	-.2	-3.7
1926	2319.1	18.3	2301.4	18.7	-.8	-17.7
1927	2360.5	12.6	2348.6	13.7	-.5	-11.9
1928	2358.0	10.1	2356.4	8.5	-.1	-1.6
1929	2307.1	-.8	2303.8	-.3	-.1	-3.3
1930	2293.9	11.4	2287.6	10.1	-.3	-6.3
1931	2266.1	5.6	2255.0	3.9	-.5	-11.1
1932	2220.9	14.5	2214.5	13.3	-.3	-6.4
1933	2221.1	24.8	2216.3	23.6	-.2	-4.8
1934	2249.6	14.9	2235.8	13.9	-.6	-13.8
1935	2250.6	29.1	2243.1	26.1	-.3	-7.5
1936	2285.8	17.2	2282.5	14.9	-.1	-3.3
1937	2289.3	22.2	2277.2	21.1	-.5	-12.1
1938	2358.7	19.6	2355.1	17.5	-.2	-3.6
1939	2336.7	-3.1	2334.1	-2.4	-.1	-2.6
1940	2359.9	15.1	2353.7	13.7	-.3	-6.2
1941	2360.5	12.6	2360.5	12.6	.0	.0
1942	2359.5	12.9	2355.9	10.8	-.2	-3.6
1943	2360.2	12.3	2358.4	10.5	-.1	-1.8
1944	2339.5	.9	2334.4	2.5	-.2	-5.1
1945	2334.9	10.7	2331.2	9.0	-.2	-3.7
1946	2353.0	14.9	2344.9	13.4	-.3	-8.1
1947	2334.0	7.3	2319.3	6.6	-.6	-14.7
1948	2333.2	14.3	2319.6	13.1	-.6	-13.6
1949	2360.5	14.0	2346.0	16.2	-.6	-14.5
1950	2345.4	11.7	2332.8	11.4	-.5	-12.6
1951	2357.7	9.8	2356.9	9.8	.0	-.8
1952	2360.5	12.6	2360.5	12.6	.0	.0
1953	2360.5	12.6	2359.4	11.5	.0	-1.1
1954	2360.5	12.6	2360.5	12.6	.0	.0
1955	2338.8	2.7	2333.6	1.6	-.2	-5.2
1956	2360.5	12.6	2360.5	12.6	.0	.0
1957	2355.9	8.0	2354.3	6.4	-.1	-1.6
1958	2360.5	12.6	2360.5	12.6	.0	.0
1959	2355.2	7.3	2352.5	4.6	-.1	-2.7
1960	2334.3	9.4	2320.2	8.2	-.6	-14.1
1961	2350.7	10.4	2347.7	8.5	-.1	-3.0
1962	2350.2	16.1	2347.4	14.6	-.1	-2.8
1963	2360.5	14.4	2359.1	14.4	-.1	-1.4
1964	2338.0	-2.2	2336.8	-1.4	-.1	-1.2
1965	2360.3	14.6	2356.2	12.6	-.2	-4.1
1966	2360.5	12.6	2360.5	12.6	.0	.0
1967	2354.6	6.7	2352.4	4.5	-.1	-2.2
1968	2354.9	7.0	2353.4	5.5	-.1	-1.5
1969	2360.5	18.7	2351.1	20.0	-.4	-9.4
1970	2350.2	2.3	2349.4	1.5	.0	-.8
1971	2359.2	11.3	2357.0	9.1	-.1	-2.2
1972	2357.7	9.8	2355.9	8.0	-.1	-1.8
1973	2360.5	12.6	2351.2	11.2	-.4	-9.3
1974	2360.5	12.6	2360.3	12.4	.0	-.2
1975	2356.9	9.0	2355.0	7.1	-.1	-1.9
1976	2337.7	-.1	2334.9	-.4	-.1	-2.8
1977	2253.6	1.7	2250.1	-.5	-.2	-3.5
1978	2316.8	17.2	2313.1	14.5	-.2	-3.7
1979	2353.1	8.6	2330.7	8.3	-1.0	-22.4
1980	2358.8	10.9	2356.0	9.1	-.1	-2.8
1981	2355.8	7.9	2351.0	6.4	-.2	-4.8
1982	2360.5	12.6	2360.1	12.2	.0	-.4
1983	2360.5	12.6	2360.5	12.6	.0	.0
1984	2356.0	8.1	2354.1	6.2	-.1	-1.9
1985	2349.3	10.5	2345.8	9.5	-.1	-3.5
1986	2357.7	9.8	2355.5	7.6	-.1	-2.2
1987	2337.0	11.5	2319.6	10.7	-.7	-17.4
1988	2326.8	7.1	2312.3	5.6	-.6	-14.5
1989	2319.4	17.5	2302.5	16.7	-.7	-16.9
1990	2306.9	1.0	2285.7	3.6	-.9	-21.2
1991	2244.5	9.6	2241.3	7.5	-.1	-3.2
Mean:	2333.8	11.0	2328.1	10.0	-.2	-5.6
Median:	2350.7	11.4	2346.0	10.1	-.2	-3.5
Min:	2220.9	-3.1	2214.5	-2.4	-1.0	-22.4
Max:	2360.5	30.5	2360.5	27.8	.1	2.5
X > 2310.0	56		54			
X > 2295.0	58		57			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

May

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2349.6	.0	2343.6	.0	-.3	-6.0
1923	2322.0	-10.6	2320.6	-2.0	-.1	-1.4
1924	2240.3	-28.1	2244.5	-26.4	.2	4.2
1925	2298.9	11.8	2285.5	2.1	-.6	-13.4
1926	2313.8	-5.3	2294.8	-6.6	-.8	-19.0
1927	2367.7	7.2	2350.7	2.1	-.7	-17.0
1928	2360.6	2.6	2358.8	2.4	-.1	-1.8
1929	2302.2	-4.9	2298.7	-5.1	-.2	-3.5
1930	2289.8	-4.1	2281.2	-6.4	-.4	-8.6
1931	2246.3	-19.8	2236.0	-19.0	-.5	-10.3
1932	2233.2	12.3	2226.3	11.8	-.3	-6.9
1933	2230.5	9.4	2223.1	6.8	-.3	-7.4
1934	2245.3	-4.3	2230.1	-5.7	-.7	-15.2
1935	2263.9	13.3	2250.7	7.6	-.6	-13.2
1936	2290.0	4.2	2282.9	.4	-.3	-7.1
1937	2305.5	16.2	2290.9	13.7	-.6	-14.6
1938	2367.7	9.0	2367.7	12.6	.0	.0
1939	2329.8	-6.9	2326.8	-7.3	-.1	-3.0
1940	2359.0	-.9	2351.1	-2.6	-.3	-7.9
1941	2367.7	7.2	2367.7	7.2	.0	.0
1942	2367.7	8.2	2362.1	6.2	-.2	-5.6
1943	2363.3	3.1	2354.7	-3.7	-.4	-8.6
1944	2335.5	-4.0	2334.0	-.4	-.1	-1.5
1945	2339.4	4.5	2332.8	1.6	-.3	-6.6
1946	2355.0	2.0	2346.0	1.1	-.4	-9.0
1947	2330.2	-3.8	2313.4	-5.9	-.7	-16.8
1948	2343.9	10.7	2323.0	3.4	-.9	-20.9
1949	2365.0	4.5	2345.8	-.2	-.8	-19.2
1950	2341.8	-3.6	2334.1	1.3	-.3	-7.7
1951	2361.6	3.9	2354.1	-2.8	-.3	-7.5
1952	2367.7	7.2	2367.7	7.2	.0	.0
1953	2367.7	7.2	2362.0	2.6	-.2	-5.7
1954	2366.3	5.8	2363.4	2.9	-.1	-2.9
1955	2337.1	-1.7	2334.5	.9	-.1	-2.6
1956	2367.7	7.2	2367.7	7.2	.0	.0
1957	2366.6	10.7	2362.7	8.4	-.2	-3.9
1958	2367.7	7.2	2367.7	7.2	.0	.0
1959	2351.6	-3.6	2347.7	-4.8	-.2	-3.9
1960	2337.4	3.1	2320.6	.4	-.7	-16.8
1961	2355.1	4.4	2349.0	1.3	-.3	-6.1
1962	2351.5	1.3	2346.1	-1.3	-.2	-5.4
1963	2367.7	7.2	2364.1	5.0	-.2	-3.6
1964	2333.4	-4.6	2330.6	-6.2	-.1	-2.8
1965	2366.8	6.5	2353.6	-2.6	-.6	-13.2
1966	2365.7	5.2	2363.2	2.7	-.1	-2.5
1967	2367.7	13.1	2362.6	10.2	-.2	-5.1
1968	2352.3	-2.6	2350.3	-3.1	-.1	-2.0
1969	2367.7	7.2	2367.7	16.6	.0	.0
1970	2349.2	-1.0	2340.7	-8.7	-.4	-8.5
1971	2367.7	8.5	2362.6	5.6	-.2	-5.1
1972	2361.8	4.1	2355.3	-.6	-.3	-6.5
1973	2367.7	7.2	2360.6	9.4	-.3	-7.1
1974	2367.7	7.2	2367.7	7.4	.0	.0
1975	2367.7	10.8	2367.0	12.0	.0	-.7
1976	2329.2	-8.5	2327.5	-7.4	-.1	-1.7
1977	2230.5	-23.1	2230.5	-19.6	.0	.0
1978	2332.0	15.2	2317.2	4.1	-.6	-14.8
1979	2353.0	-.1	2336.0	5.3	-.7	-17.0
1980	2359.1	.3	2351.9	-4.1	-.3	-7.2
1981	2353.3	-2.5	2345.7	-5.3	-.3	-7.6
1982	2367.7	7.2	2362.8	2.7	-.2	-4.9
1983	2367.7	7.2	2367.7	7.2	.0	.0
1984	2365.3	9.3	2356.9	2.8	-.4	-8.4
1985	2337.1	-12.2	2335.7	-10.1	-.1	-1.4
1986	2350.5	-7.2	2342.9	-12.6	-.3	-7.6
1987	2336.0	-1.0	2315.9	-3.7	-.9	-20.1
1988	2323.5	-3.3	2304.5	-7.8	-.8	-19.0
1989	2318.8	-.6	2296.3	-6.2	-1.0	-22.5
1990	2306.3	-.6	2283.0	-2.7	-1.0	-23.3
1991	2243.6	-.9	2240.9	-.4	-.1	-2.7
Mean:	2335.7	1.9	2328.3	.1	-.3	-7.4
Median:	2351.5	3.1	2343.6	.4	-.3	-6.5
Min:	2230.5	-28.1	2223.1	-26.4	-1.0	-23.3
Max:	2367.7	16.2	2367.7	16.6	.2	4.2
X > 2310.0	56		53			
X > 2295.0	60		56			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

June

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2348.3	.0	2340.2	.0	-.3	-8.1
1923	2310.4	-11.6	2310.5	-10.1	.0	.1
1924	2217.1	-23.2	2221.2	-23.3	.2	4.1
1925	2295.6	-3.3	2278.6	-6.9	-.7	-17.0
1926	2303.0	-10.8	2282.7	-12.1	-.9	-20.3
1927	2368.4	.7	2351.3	.6	-.7	-17.1
1928	2349.7	-10.9	2346.6	-12.2	-.1	-3.1
1929	2293.5	-8.7	2287.1	-11.6	-.3	-6.4
1930	2281.9	-7.9	2269.8	-11.4	-.5	-12.1
1931	2230.5	-15.8	2217.1	-18.9	-.6	-13.4
1932	2223.5	-9.7	2216.6	-9.7	-.3	-6.9
1933	2241.9	11.4	2223.2	.1	-.8	-18.7
1934	2233.6	-11.7	2207.7	-22.4	-1.2	-25.9
1935	2257.7	-6.2	2246.6	-4.1	-.5	-11.1
1936	2287.6	-2.4	2276.7	-6.2	-.5	-10.9
1937	2306.1	.6	2290.9	.0	-.7	-15.2
1938	2369.2	1.5	2369.2	1.5	.0	.0
1939	2315.2	-14.6	2310.6	-16.2	-.2	-4.6
1940	2350.0	-9.0	2342.6	-8.5	-.3	-7.4
1941	2369.2	1.5	2369.2	1.5	.0	.0
1942	2369.2	1.5	2365.4	3.3	-.2	-3.8
1943	2361.6	-1.7	2352.6	-2.1	-.4	-9.0
1944	2327.7	-7.8	2326.1	-7.9	-.1	-1.6
1945	2336.4	-3.0	2328.1	-4.7	-.4	-8.3
1946	2346.8	-8.2	2338.8	-7.2	-.3	-8.0
1947	2324.7	-5.5	2304.8	-8.6	-.9	-19.9
1948	2355.1	11.2	2331.1	8.1	-1.0	-24.0
1949	2356.4	-8.6	2339.2	-6.6	-.7	-17.2
1950	2330.9	-10.9	2322.2	-11.9	-.4	-8.7
1951	2353.5	-8.1	2348.1	-6.0	-.2	-5.4
1952	2369.2	1.5	2369.1	1.4	.0	-.1
1953	2369.2	1.5	2369.2	7.2	.0	.0
1954	2359.3	-7.0	2355.9	-7.5	-.1	-3.4
1955	2334.0	-3.1	2329.2	-5.3	-.2	-4.8
1956	2369.2	1.5	2369.0	1.3	.0	-.2
1957	2363.5	-3.1	2361.0	-1.7	-.1	-2.5
1958	2369.2	1.5	2369.2	1.5	.0	.0
1959	2341.3	-10.3	2334.5	-13.2	-.3	-6.8
1960	2339.1	1.7	2320.7	.1	-.8	-18.4
1961	2351.2	-3.9	2347.8	-1.2	-.1	-3.4
1962	2346.8	-4.7	2342.7	-3.4	-.2	-4.1
1963	2368.5	.8	2359.6	-4.5	-.4	-8.9
1964	2324.9	-8.5	2321.9	-8.7	-.1	-3.0
1965	2361.1	-5.7	2348.4	-5.2	-.5	-12.7
1966	2356.4	-9.3	2349.7	-13.5	-.3	-6.7
1967	2369.2	1.5	2367.5	4.9	-.1	-1.7
1968	2341.2	-11.1	2336.9	-13.4	-.2	-4.3
1969	2369.2	1.5	2369.2	1.5	.0	.0
1970	2342.7	-6.5	2334.5	-6.2	-.4	-8.2
1971	2369.2	1.5	2362.4	-.2	-.3	-6.8
1972	2353.3	-8.5	2344.6	-10.7	-.4	-8.7
1973	2360.1	-7.6	2353.5	-7.1	-.3	-6.6
1974	2369.2	1.5	2369.2	1.5	.0	.0
1975	2369.2	1.5	2369.2	2.2	.0	.0
1976	2315.2	-14.0	2311.0	-16.5	-.2	-4.2
1977	2200.5	-30.0	2195.3	-35.2	-.2	-5.2
1978	2345.6	13.6	2321.9	4.7	-1.0	-23.7
1979	2341.9	-11.1	2328.9	-7.1	-.6	-13.0
1980	2353.4	-5.7	2346.4	-5.5	-.3	-7.0
1981	2343.5	-9.8	2337.2	-8.5	-.3	-6.3
1982	2369.2	1.5	2361.2	-1.6	-.3	-8.0
1983	2369.2	1.5	2369.2	1.5	.0	.0
1984	2358.7	-6.6	2353.5	-3.4	-.2	-5.2
1985	2327.5	-9.6	2324.0	-11.7	-.2	-3.5
1986	2340.9	-9.6	2328.4	-14.5	-.5	-12.5
1987	2322.3	-13.7	2301.3	-14.6	-.9	-21.0
1988	2313.0	-10.5	2293.6	-10.9	-.8	-19.4
1989	2314.5	-4.3	2289.7	-6.6	-1.1	-24.8
1990	2297.0	-9.3	2272.3	-10.7	-1.1	-24.7
1991	2242.2	-1.4	2235.7	-5.2	-.3	-6.5
Mean:	2330.5	-5.2	2322.0	-6.3	-.4	-8.5
Median:	2343.5	-6.2	2334.5	-6.2	-.3	-6.8
Min:	2200.5	-30.0	2195.3	-35.2	-1.2	-25.9
Max:	2369.2	13.6	2369.2	8.1	.2	4.1
X > 2310.0	55		51			
X > 2295.0	59		53			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

July

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2336.1	.0	2331.7	.0	-.2	-4.4
1923	2294.9	-15.5	2295.7	-14.8	.0	.8
1924	2187.5	-29.6	2189.6	-31.6	.1	2.1
1925	2287.4	-8.2	2269.4	-9.2	-.8	-18.0
1926	2290.0	-13.0	2272.0	-10.7	-.8	-18.0
1927	2358.7	-9.7	2341.4	-9.9	-.7	-17.3
1928	2334.8	-14.9	2331.7	-14.9	-.1	-3.1
1929	2276.3	-17.2	2270.1	-17.0	-.3	-6.2
1930	2270.7	-11.2	2258.7	-11.1	-.5	-12.0
1931	2201.5	-29.0	2184.3	-32.8	-.8	-17.2
1932	2201.4	-22.1	2201.4	-15.2	.0	.0
1933	2225.2	-16.7	2203.6	-19.6	-1.0	-21.6
1934	2208.3	-25.3	2184.3	-23.4	-1.1	-24.0
1935	2241.7	-16.0	2241.7	-4.9	.0	.0
1936	2278.5	-9.1	2267.4	-9.3	-.5	-11.1
1937	2293.4	-12.7	2283.3	-7.6	-.4	-10.1
1938	2358.7	-10.5	2358.7	-10.5	.0	.0
1939	2300.6	-14.6	2296.1	-14.5	-.2	-4.5
1940	2335.4	-14.6	2327.2	-15.4	-.4	-8.2
1941	2358.7	-10.5	2358.7	-10.5	.0	.0
1942	2358.7	-10.5	2358.7	-6.7	.0	.0
1943	2355.4	-6.2	2343.1	-9.5	-.5	-12.3
1944	2317.6	-10.1	2314.4	-11.7	-.1	-3.2
1945	2321.2	-15.2	2316.7	-11.4	-.2	-4.5
1946	2333.3	-13.5	2324.5	-14.3	-.4	-8.8
1947	2313.5	-11.2	2293.6	-11.2	-.9	-19.9
1948	2349.7	-5.4	2326.0	-5.1	-1.0	-23.7
1949	2342.6	-13.8	2327.5	-11.7	-.6	-15.1
1950	2314.6	-16.3	2305.7	-16.5	-.4	-8.9
1951	2339.3	-14.2	2333.4	-14.7	-.3	-5.9
1952	2358.7	-10.5	2358.7	-10.4	.0	.0
1953	2358.7	-10.5	2358.7	-10.5	.0	.0
1954	2346.5	-12.8	2342.6	-13.3	-.2	-3.9
1955	2321.9	-12.1	2319.7	-9.5	-.1	-2.2
1956	2358.7	-10.5	2358.7	-10.3	.0	.0
1957	2355.1	-8.4	2347.9	-13.1	-.3	-7.2
1958	2358.7	-10.5	2358.7	-10.5	.0	.0
1959	2325.9	-15.4	2318.8	-15.7	-.3	-7.1
1960	2327.0	-12.1	2314.4	-6.3	-.5	-12.6
1961	2337.4	-13.8	2336.2	-11.6	-.1	-1.2
1962	2332.4	-14.4	2328.2	-14.5	-.2	-4.2
1963	2358.7	-9.8	2351.5	-8.1	-.3	-7.2
1964	2314.9	-10.0	2312.3	-9.6	-.1	-2.6
1965	2355.5	-5.6	2338.2	-10.2	-.7	-17.3
1966	2343.4	-13.0	2336.1	-13.6	-.3	-7.3
1967	2358.7	-10.5	2358.7	-8.8	.0	.0
1968	2325.9	-15.3	2321.5	-15.4	-.2	-4.4
1969	2358.7	-10.5	2358.7	-10.5	.0	.0
1970	2327.9	-14.8	2318.8	-15.7	-.4	-9.1
1971	2358.7	-10.5	2356.5	-5.9	-.1	-2.2
1972	2339.1	-14.2	2329.7	-14.9	-.4	-9.4
1973	2347.3	-12.8	2340.0	-13.5	-.3	-7.3
1974	2358.7	-10.5	2358.7	-10.5	.0	.0
1975	2358.7	-10.5	2358.7	-10.5	.0	.0
1976	2299.5	-15.7	2293.9	-17.1	-.2	-5.6
1977	2179.7	-20.8	2179.9	-15.4	.0	.2
1978	2342.8	-2.8	2317.7	-4.2	-1.1	-25.1
1979	2326.8	-15.1	2312.8	-16.1	-.6	-14.0
1980	2343.0	-10.4	2335.0	-11.4	-.3	-8.0
1981	2330.0	-13.5	2324.5	-12.7	-.2	-5.5
1982	2358.7	-10.5	2355.0	-6.2	-.2	-3.7
1983	2358.7	-10.5	2358.7	-10.5	.0	.0
1984	2346.0	-12.7	2340.2	-13.3	-.2	-5.8
1985	2316.3	-11.2	2311.0	-13.0	-.2	-5.3
1986	2325.6	-15.3	2311.8	-16.6	-.6	-13.8
1987	2308.2	-14.1	2289.1	-12.2	-.8	-19.1
1988	2295.3	-17.7	2276.7	-16.9	-.8	-18.6
1989	2302.8	-11.7	2279.1	-10.6	-1.0	-23.7
1990	2282.4	-14.6	2258.6	-13.7	-1.0	-23.8
1991	2236.7	-5.5	2228.6	-7.1	-.4	-8.1
Mean:	2317.5	-12.8	2309.5	-12.4	-.3	-8.0
Median:	2330.0	-12.7	2321.5	-11.6	-.3	-6.2
Min:	2179.7	-29.6	2179.9	-32.8	-1.1	-25.1
Max:	2358.7	.0	2358.7	.0	.1	2.1

X > 2310.0	49	47
X > 2295.0	54	50
X > 2170.0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70

CLAIR ENGLE RESERVOIR ELEVATION

August

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2321.1	.0	2316.0	.0	-.2	-5.1
1923	2276.1	-18.8	2279.0	-16.7	.1	2.9
1924	2181.4	-6.1	2184.3	-5.3	.1	2.9
1925	2282.5	-4.9	2265.1	-4.3	-.8	-17.4
1926	2284.5	-5.5	2267.6	-4.4	-.7	-16.9
1927	2351.2	-7.5	2335.0	-6.4	-.7	-16.2
1928	2317.8	-17.0	2315.5	-16.2	-.1	-2.3
1929	2256.9	-19.4	2250.8	-19.3	-.3	-6.1
1930	2264.8	-5.9	2254.0	-4.7	-.5	-10.8
1931	2184.3	-17.2	2181.2	-3.1	-.1	-3.1
1932	2184.3	-17.1	2184.3	-17.1	.0	.0
1933	2203.7	-21.5	2184.3	-19.3	-.9	-19.4
1934	2184.3	-24.0	2181.4	-2.9	-.1	-2.9
1935	2236.7	-5.0	2238.3	-3.4	.1	1.6
1936	2273.2	-5.3	2263.2	-4.2	-.4	-10.0
1937	2276.1	-17.3	2276.1	-7.2	.0	.0
1938	2351.2	-7.5	2351.2	-7.5	.0	.0
1939	2286.7	-13.9	2280.9	-15.2	-.3	-5.8
1940	2318.7	-16.7	2310.5	-16.7	-.4	-8.2
1941	2351.2	-7.5	2351.2	-7.5	.0	.0
1942	2351.2	-7.5	2351.2	-7.5	.0	.0
1943	2350.0	-5.4	2337.9	-5.2	-.5	-12.1
1944	2303.5	-14.1	2301.4	-13.0	-.1	-2.1
1945	2302.9	-18.3	2299.1	-17.6	-.2	-3.8
1946	2316.6	-16.7	2307.7	-16.8	-.4	-8.9
1947	2300.7	-12.8	2290.2	-3.4	-.5	-10.5
1948	2344.4	-5.3	2320.6	-5.4	-1.0	-23.8
1949	2326.7	-15.9	2316.5	-11.0	-.4	-10.2
1950	2295.6	-19.0	2287.1	-18.6	-.4	-8.5
1951	2323.2	-16.1	2317.4	-16.0	-.2	-5.8
1952	2351.2	-7.5	2351.2	-7.5	.0	.0
1953	2351.2	-7.5	2351.2	-7.5	.0	.0
1954	2341.3	-5.2	2328.0	-14.6	-.6	-13.3
1955	2309.6	-12.3	2315.0	-4.7	.2	5.4
1956	2351.2	-7.5	2351.2	-7.5	.0	.0
1957	2349.8	-5.3	2343.2	-4.7	-.3	-6.6
1958	2351.2	-7.5	2351.2	-7.5	.0	.0
1959	2308.2	-17.7	2301.4	-17.4	-.3	-6.8
1960	2312.9	-14.1	2311.2	-3.2	-.1	-1.7
1961	2321.2	-16.2	2322.1	-14.1	.0	.9
1962	2317.0	-15.4	2312.6	-15.6	-.2	-4.4
1963	2351.2	-7.5	2346.3	-5.2	-.2	-4.9
1964	2306.4	-8.5	2305.4	-6.9	.0	-1.0
1965	2351.0	-4.5	2333.9	-4.3	-.7	-17.1
1966	2328.3	-15.1	2321.1	-15.0	-.3	-7.2
1967	2351.2	-7.5	2351.2	-7.5	.0	0
1968	2309.1	-16.8	2304.7	-16.8	-.2	-4.4
1969	2351.2	-7.5	2351.2	-7.5	.0	.0
1970	2310.2	-17.7	2301.0	-17.8	-.4	-9.2
1971	2351.2	-7.5	2351.2	-5.3	.0	.0
1972	2323.1	-16.0	2313.5	-16.2	-.4	-9.6
1973	2341.3	-6.0	2324.3	-15.7	-.7	-17.0
1974	2351.2	-7.5	2351.2	-7.5	.0	.0
1975	2351.2	-7.5	2351.2	-7.5	.0	.0
1976	2282.3	-17.2	2279.1	-14.8	-.1	-3.2
1977	2169.7	-10.0	2173.1	-6.8	.2	3.4
1978	2337.6	-5.2	2314.9	-2.8	-1.0	-22.7
1979	2308.8	-18.0	2294.4	-18.4	-.6	-14.4
1980	2337.0	-6.0	2324.5	-10.5	-.5	-12.5
1981	2315.0	-15.0	2314.0	-10.5	.0	-1.0
1982	2351.2	-7.5	2350.3	-4.7	.0	-.9
1983	2351.2	-7.5	2351.2	-7.5	.0	.0
1984	2340.7	-5.3	2335.4	-4.8	-.2	-5.3
1985	2302.8	-13.5	2302.1	-8.9	.0	-.7
1986	2307.9	-17.7	2294.6	-17.2	-.6	-13.3
1987	2297.4	-10.8	2282.7	-6.4	-.6	-14.7
1988	2273.7	-21.6	2256.8	-19.9	-.7	-16.9
1989	2297.9	-4.9	2274.5	-4.6	-1.0	-23.4
1990	2263.1	-19.3	2253.6	-5.0	-.4	-9.5
1991	2222.7	-14.0	2213.7	-14.9	-.4	-9.0
Mean:	2305.7	-11.5	2299.4	-9.9	-.3	-6.3
Median:	2315.0	-10.8	2311.2	-7.5	-.2	-5.1
Min:	2169.7	-24.0	2173.1	-19.9	-1.0	-23.8
Max:	2351.2	.0	2351.2	.0	.2	5.4
X > 2310.0	38		37			
X > 2295.0	51		45			
X > 2170.0	69		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

September

Water Year	Base Elev (ft msl)	Base Change from Prev (ft)	2030 w/ WFP Elev (ft msl)	2030 w/ WFP Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2317.2	.0	2311.3	.0	-.3	-5.9
1923	2272.4	-3.7	2277.0	-2.0	.2	4.6
1924	2175.2	-6.2	2181.5	-2.8	.3	6.3
1925	2279.9	-2.6	2263.8	-1.3	-.7	-16.1
1926	2280.6	-3.9	2265.2	-2.4	-.7	-15.4
1927	2339.6	-11.6	2328.5	-6.5	-.5	-11.1
1928	2308.0	-9.8	2308.0	-7.5	.0	.0
1929	2252.3	-4.6	2248.1	-2.7	-.2	-4.2
1930	2260.6	-4.2	2251.6	-2.4	-.4	-9.0
1931	2178.5	-5.8	2178.5	-2.7	.0	.0
1932	2178.7	-5.6	2181.9	-2.4	.1	3.2
1933	2196.4	-7.3	2182.4	-1.9	-.6	-14.0
1934	2178.7	-5.6	2178.9	-2.5	.0	.2
1935	2229.8	-6.9	2233.5	-4.8	.2	3.7
1936	2269.4	-3.8	2260.9	-2.3	-.4	-8.5
1937	2269.1	-7.0	2271.8	-4.3	.1	2.7
1938	2339.6	-11.6	2339.6	-11.6	.0	.0
1939	2282.9	-3.8	2278.7	-2.2	-.2	-4.2
1940	2315.0	-3.7	2306.2	-4.3	-.4	-8.8
1941	2339.6	-11.6	2339.6	-11.6	.0	.0
1942	2339.6	-11.6	2339.6	-11.6	.0	.0
1943	2338.7	-11.3	2330.4	-7.5	-.4	-8.3
1944	2298.8	-4.7	2299.6	-1.8	.0	.8
1945	2296.5	-6.4	2292.0	-7.1	-.2	-4.5
1946	2313.7	-2.9	2305.0	-2.7	-.4	-8.7
1947	2297.4	-3.3	2288.2	-2.0	-.4	-9.2
1948	2339.6	-4.8	2319.2	-1.4	-.9	-20.4
1949	2323.9	-2.8	2314.7	-1.8	-.4	-9.2
1950	2292.4	-3.2	2285.3	-1.8	-.3	-7.1
1951	2320.3	-2.9	2314.1	-3.3	-.3	-6.2
1952	2339.6	-11.6	2339.6	-11.6	.0	.0
1953	2339.6	-11.6	2339.6	-11.6	.0	.0
1954	2337.6	-3.7	2323.8	-4.2	-.6	-13.8
1955	2306.9	-2.7	2313.7	-1.3	.3	6.8
1956	2339.6	-11.6	2339.6	-11.6	.0	.0
1957	2339.6	-10.2	2339.6	-3.6	.0	.0
1958	2339.6	-11.6	2339.6	-11.6	.0	.0
1959	2305.4	-2.8	2299.9	-1.5	-.2	-5.5
1960	2307.6	-5.3	2309.3	-1.9	.1	1.7
1961	2317.9	-3.3	2320.3	-1.8	.1	2.4
1962	2310.5	-6.5	2310.9	-1.7	.0	.4
1963	2339.6	-11.6	2339.6	-6.7	.0	.0
1964	2303.8	-2.6	2304.3	-1.1	.0	.5
1965	2339.6	-11.4	2331.6	-2.3	-.3	-8.0
1966	2322.5	-5.8	2320.0	-1.1	-.1	-2.5
1967	2339.6	-11.6	2339.6	-11.6	.0	.0
1968	2306.4	-2.7	2297.5	-7.2	-.4	-8.9
1969	2339.6	-11.6	2339.6	-11.6	.0	.0
1970	2305.9	-4.3	2295.8	-5.2	-.4	-10.1
1971	2339.6	-11.6	2339.6	-11.6	.0	.0
1972	2315.0	-8.1	2302.1	-11.4	-.6	-12.9
1973	2337.9	-3.4	2320.1	-4.2	-.8	-17.8
1974	2339.6	-11.6	2339.6	-11.6	.0	.0
1975	2339.6	-11.6	2339.6	-11.6	.0	.0
1976	2278.9	-3.4	2277.4	-1.7	-.1	-1.5
1977	2166.4	-3.3	2173.3	.2	.3	6.9
1978	2336.0	-1.6	2315.3	.4	-.9	-20.7
1979	2305.9	-2.9	2290.8	-3.6	-.7	-15.1
1980	2333.3	-3.7	2322.7	-1.8	-.5	-10.6
1981	2311.3	-3.7	2311.7	-2.3	.0	.4
1982	2339.6	-11.6	2339.6	-10.7	.0	.0
1983	2339.6	-11.6	2339.6	-11.6	.0	.0
1984	2337.2	-3.5	2332.9	-2.5	-.2	-4.3
1985	2299.6	-3.2	2300.3	-1.8	.0	.7
1986	2305.1	-2.8	2292.9	-1.7	-.5	-12.2
1987	2293.4	-4.0	2279.8	-2.9	-.6	-13.6
1988	2269.1	-4.6	2253.5	-3.3	-.7	-15.6
1989	2295.0	-2.9	2272.6	-1.9	-1.0	-22.4
1990	2258.6	-4.5	2250.8	-2.8	-.3	-7.8
1991	2217.3	-5.4	2210.6	-3.1	-.3	-6.7
Mean:	2299.5	-6.2	2294.6	-4.7	-.2	-4.8
Median:	2308.0	-4.7	2306.2	-2.8	-.2	-4.2
Min:	2166.4	-11.6	2173.3	-11.6	-1.0	-22.4
Max:	2339.6	.0	2339.6	.4	.3	6.9
X > 2310.0	35		33			
X > 2295.0	48		44			
X > 2170.0	69		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

RETURN TO TABLE OF CONTENTS

Section 17

SACRAMENTO RIVER FLOW BELOW KESWICK DAM

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

October

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	5500.0	5500.0	.0	.0
1924	4116.5	3750.0	-8.9	-366.5
1925	3250.0	3250.0	.0	.0
1926	4250.0	4750.0	11.8	500.0
1927	3500.0	3500.0	.0	.0
1928	6100.3	5500.0	-9.8	-600.3
1929	5035.5	5161.4	2.5	125.9
1930	3806.6	3515.5	-7.6	-291.1
1931	3750.0	3500.0	-6.7	-250.0
1932	3345.4	3304.7	-1.2	-40.7
1933	3742.2	3772.3	.8	30.1
1934	3524.1	3405.9	-3.4	-118.2
1935	3250.0	3250.0	.0	.0
1936	4177.6	3585.2	-14.2	-592.4
1937	5066.0	4087.2	-19.3	-978.8
1938	3503.8	3500.0	-.1	-3.8
1939	7175.3	7138.3	-.5	-37.0
1940	3498.2	3250.0	-7.1	-248.2
1941	5500.0	5000.0	-9.1	-500.0
1942	6835.4	6798.4	-.5	-37.0
1943	6767.1	6730.1	-.5	-37.0
1944	6292.9	5500.0	-12.6	-792.9
1945	4250.0	4000.0	-5.9	-250.0
1946	5000.0	4500.0	-10.0	-500.0
1947	5250.0	5050.1	-3.8	-199.9
1948	4000.0	3500.0	-12.5	-500.0
1949	5500.0	5500.0	.0	.0
1950	5500.0	5000.0	-9.1	-500.0
1951	4250.0	3750.0	-11.8	-500.0
1952	5500.0	5250.0	-4.5	-250.0
1953	6571.9	6534.9	-.6	-37.0
1954	6837.0	6872.0	.5	35.0
1955	5500.0	5500.0	.0	.0
1956	4500.0	5000.0	11.1	500.0
1957	7484.3	7447.3	-.5	-37.0
1958	10788.4	10643.8	-1.3	-144.6
1959	7271.2	7234.2	-.5	-37.0
1960	4500.0	4518.7	.4	18.7
1961	4750.0	5000.0	5.3	250.0
1962	4750.0	5250.0	10.5	500.0
1963	8805.9	6154.6	-30.1	-2651.3
1964	7038.7	6940.8	-1.4	-97.9
1965	4250.0	4250.0	.0	.0
1966	6451.5	5500.0	-14.7	-951.5
1967	5500.0	5324.0	-3.2	-176.0
1968	7305.4	7268.4	-.5	-37.0
1969	5250.0	5000.0	-4.8	-250.0
1970	7222.4	7185.4	-.5	-37.0
1971	5250.0	5000.0	-4.8	-250.0
1972	7346.0	7309.0	-.5	-37.0
1973	5500.0	5000.0	-9.1	-500.0
1974	6991.9	5500.0	-21.3	-1491.9
1975	7183.4	7146.4	-.5	-37.0
1976	8354.4	8389.4	.4	35.0
1977	4000.0	4000.0	.0	.0
1978	5688.9	5647.6	-.7	-41.3
1979	5500.0	5500.0	.0	.0
1980	5250.0	4500.0	-14.3	-750.0
1981	5500.0	5500.0	.0	.0
1982	4750.0	4750.0	.0	.0
1983	8094.2	8057.2	-.5	-37.0
1984	7866.5	7829.5	-.5	-37.0
1985	5896.2	5500.0	-6.7	-396.2
1986	4250.0	4250.0	.0	.0
1987	5250.0	4750.0	-9.5	-500.0
1988	4216.8	3427.4	-18.7	-789.4
1989	3921.0	3669.0	-6.4	-252.0
1990	4500.0	4500.0	.0	.0
1991	4030.0	3527.8	-12.5	-502.2
Mean:	5430.0	5206.1	-4.0	-223.9
Median:	5250.0	5000.0	-.6	-37.0
Min:	3250.0	3250.0	-30.1	-2651.3
Max:	10788.4	10643.8	11.8	500.0
Rel Dif = 0.0		14		
Rel Dif > 0.0		9		
Rel Dif < 0.0		47		
Rel Dif: 0.0 < X <= 5.0		5		
5.0 < X <= 20.0		4		
X > 20.0		4		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		23		
X < -20.0		22		
X <= 3250.0	2	3		
3250.0 < X <= 4250.0	20	19		
4250.0 < X <= 5250.0	15	19		
5250.0 < X	33	29		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

November

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	5500.0	5500.0	.0	.0
1924	4076.8	3750.0	-8.0	-326.8
1925	3250.0	3250.0	.0	.0
1926	4250.0	4750.0	11.8	500.0
1927	3500.0	3500.0	.0	.0
1928	8654.4	5500.0	-36.4	-3154.4
1929	4750.0	4750.0	.0	.0
1930	3426.0	3250.0	-5.1	-176.0
1931	3750.0	3500.0	-6.7	-250.0
1932	3250.0	3250.0	.0	.0
1933	3762.4	3730.0	-.9	-32.4
1934	3250.0	3250.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	4197.2	3698.0	-11.9	-499.2
1937	4559.4	3678.5	-19.3	-880.9
1938	3250.0	3500.0	7.7	250.0
1939	5500.0	5500.0	.0	.0
1940	3490.7	3250.0	-6.9	-240.7
1941	5500.0	5000.0	-9.1	-500.0
1942	5500.0	5500.0	.0	.0
1943	5526.9	5500.0	-.5	-26.9
1944	5500.0	5500.0	.0	.0
1945	4250.0	4000.0	-5.9	-250.0
1946	5000.0	4500.0	-10.0	-500.0
1947	5250.0	4750.0	-9.5	-500.0
1948	4000.0	3500.0	-12.5	-500.0
1949	5500.0	5500.0	.0	.0
1950	5500.0	5000.0	-9.1	-500.0
1951	4250.0	3750.0	-11.8	-500.0
1952	5500.0	5250.0	-4.5	-250.0
1953	5500.0	5500.0	.0	.0
1954	8121.7	8048.7	-.9	-73.0
1955	6721.7	5500.0	-18.2	-1221.7
1956	4500.0	5000.0	11.1	500.0
1957	5500.0	5500.0	.0	.0
1958	7844.4	7780.4	-.8	-64.0
1959	5500.0	5500.0	.0	.0
1960	4500.0	4451.5	-1.1	-48.5
1961	4750.0	5000.0	5.3	250.0
1962	4750.0	5250.0	10.5	500.0
1963	5500.0	5250.0	-4.5	-250.0
1964	10388.8	10208.8	-1.7	-180.0
1965	4250.0	4250.0	.0	.0
1966	10741.7	8240.6	-23.3	-2501.1
1967	5500.0	5000.0	-9.1	-500.0
1968	5500.0	5500.0	.0	.0
1969	5250.0	5000.0	-4.8	-250.0
1970	5500.0	5500.0	.0	.0
1971	5358.6	5000.0	-6.7	-358.6
1972	5500.0	5500.0	.0	.0
1973	5500.0	5000.0	-9.1	-500.0
1974	30616.5	29842.8	-2.5	-773.7
1975	5500.0	5500.0	.0	.0
1976	5651.3	5578.3	-1.3	-73.0
1977	4000.0	4000.0	.0	.0
1978	5120.0	5082.9	-.7	-37.1
1979	5500.0	5500.0	.0	.0
1980	5250.0	4500.0	-14.3	-750.0
1981	5500.0	5500.0	.0	.0
1982	10052.1	9651.4	-4.0	-400.7
1983	6832.7	6652.7	-2.6	-180.0
1984	13827.2	13647.2	-1.3	-180.0
1985	12711.3	12048.6	-5.2	-662.7
1986	4250.0	4250.0	.0	.0
1987	5250.0	4750.0	-9.5	-500.0
1988	3795.1	3250.0	-14.4	-545.1
1989	3528.9	3302.1	-6.4	-226.8
1990	4500.0	4500.0	.0	.0
1991	4301.6	3655.5	-15.0	-646.1
Mean:	5779.4	5522.1	-4.0	-257.3
Median:	5250.0	5000.0	-1.1	-73.0
Min:	3250.0	3250.0	-36.4	-3154.4
Max:	30616.5	29842.8	11.8	500.0
Rel Dif = 0.0			25	
Rel Dif > 0.0			5	
Rel Dif < 0.0			40	
Rel Dif: 0.0 < X <= 5.0			0	
5.0 < X <= 20.0			5	
X > 20.0			5	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			15	
X < -20.0			23	
X <= 3250.0	5	7		
3250.0 < X <= 4250.0	16	15		
4250.0 < X <= 5250.0	15	21		
5250.0 < X	34	27		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

December

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	5500.0	5500.0	.0	.0
1924	3669.1	3750.0	2.2	80.9
1925	3250.0	3250.0	.0	.0
1926	4250.0	4750.0	11.8	500.0
1927	3500.0	3500.0	.0	.0
1928	5500.0	5500.0	.0	.0
1929	4750.0	4750.0	.0	.0
1930	3250.0	3250.0	.0	.0
1931	3750.0	3500.0	-6.7	-250.0
1932	3250.0	3250.0	.0	.0
1933	3386.1	3357.0	-.9	-29.1
1934	3250.0	3250.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	3777.5	3328.2	-11.9	-449.3
1937	4103.5	3310.6	-19.3	-792.9
1938	8690.1	10552.5	21.4	1862.4
1939	5500.0	5500.0	.0	.0
1940	3250.0	3250.0	.0	.0
1941	12651.1	9118.8	-27.9	-3532.3
1942	19236.5	19062.4	-.9	-174.1
1943	6431.6	6083.6	-5.4	-348.0
1944	5500.0	5500.0	.0	.0
1945	4250.0	4000.0	-5.9	-250.0
1946	18519.3	17792.9	-3.9	-726.4
1947	5250.0	4750.0	-9.5	-500.0
1948	4000.0	3500.0	-12.5	-500.0
1949	5500.0	5500.0	.0	.0
1950	5500.0	5000.0	-9.1	-500.0
1951	14653.3	12622.6	-13.9	-2030.7
1952	16032.9	12796.9	-20.2	-3236.0
1953	8483.2	8109.0	-4.4	-374.2
1954	5500.0	5500.0	.0	.0
1955	7495.3	5500.0	-26.6	-1995.3
1956	22531.5	24495.0	8.7	1963.5
1957	5500.0	5500.0	.0	.0
1958	10863.4	10729.4	-1.2	-134.0
1959	5500.0	5500.0	.0	.0
1960	4776.6	5332.7	11.6	556.1
1961	4750.0	5000.0	5.3	250.0
1962	4750.0	5250.0	10.5	500.0
1963	9441.8	9610.3	1.8	168.5
1964	5500.0	5500.0	.0	.0
1965	20297.7	19933.8	-1.8	-363.9
1966	5500.0	5500.0	.0	.0
1967	15036.0	10849.9	-27.8	-4186.1
1968	5500.0	5500.0	.0	.0
1969	5250.0	5000.0	-4.8	-250.0
1970	17159.7	17006.5	-.9	-153.2
1971	15684.0	14411.5	-8.1	-1272.5
1972	5500.0	5500.0	.0	.0
1973	5500.0	5000.0	-9.1	-500.0
1974	23144.4	23144.4	.0	.0
1975	5500.0	5500.0	.0	.0
1976	5500.0	5500.0	.0	.0
1977	5934.8	4817.3	-18.8	-1117.5
1978	4608.0	4574.6	-.7	-33.4
1979	5500.0	5500.0	.0	.0
1980	5250.0	4500.0	-14.3	-750.0
1981	5500.0	5500.0	.0	.0
1982	25323.7	25323.7	.0	.0
1983	15091.9	14891.9	-1.3	-200.0
1984	26982.6	26982.6	.0	.0
1985	6483.7	6307.7	-2.7	-176.0
1986	4250.0	4250.0	.0	.0
1987	5250.0	4996.2	-4.8	-253.8
1988	3750.0	3250.0	-13.3	-500.0
1989	3250.0	3250.0	.0	.0
1990	4500.0	4500.0	.0	.0
1991	5189.1	4632.8	-10.7	-556.3
Mean:	7852.5	7563.2	-3.2	-289.3
Median:	5500.0	5500.0	.0	.0
Min:	3250.0	3250.0	-27.9	-4186.1
Max:	26982.6	26982.6	21.4	1963.5
Rel Dif = 0.0			31	
Rel Dif > 0.0			8	
Rel Dif < 0.0			31	
Rel Dif: 0.0 < X <= 5.0			2	
5.0 < X <= 20.0			5	
X > 20.0			5	
0.0 > X >= -5.0			1	
-5.0 > X >= -20.0			12	
X < -20.0			15	
X <= 3250.0	7	8		
3250.0 < X <= 4250.0	11	9		
4250.0 < X <= 5250.0	12	15		
5250.0 < X	40	38		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

January

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	5000.0	4750.0	-5.0	-250.0
1924	3750.0	3750.0	.0	.0
1925	3250.0	3250.0	.0	.0
1926	3750.0	4000.0	6.7	250.0
1927	5500.0	5500.0	.0	.0
1928	5500.0	5500.0	.0	.0
1929	4000.0	3800.0	-5.0	-200.0
1930	3750.0	3750.0	.0	.0
1931	3750.0	3750.0	.0	.0
1932	3250.0	3250.0	.0	.0
1933	3250.0	3250.0	.0	.0
1934	3250.0	3250.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	3500.0	3250.0	-7.1	-250.0
1937	3500.0	3750.0	7.1	250.0
1938	5500.0	5500.0	.0	.0
1939	5500.0	5500.0	.0	.0
1940	3750.0	3750.0	.0	.0
1941	25724.4	24582.7	-4.4	-1141.7
1942	20301.6	20001.6	-1.5	-300.0
1943	12911.2	12611.2	-2.3	-300.0
1944	5000.0	4750.0	-5.0	-250.0
1945	4500.0	4500.0	.0	.0
1946	7276.2	7276.2	.0	.0
1947	4500.0	4250.0	-5.6	-250.0
1948	3750.0	3750.0	.0	.0
1949	5000.0	4750.0	-5.0	-250.0
1950	4400.0	4000.0	-9.1	-400.0
1951	8040.4	7470.9	-7.1	-569.5
1952	8097.6	7942.7	-1.9	-154.9
1953	31096.6	31096.6	.0	.0
1954	13353.5	12977.6	-2.8	-375.9
1955	5500.0	5500.0	.0	.0
1956	32723.6	32723.6	.0	.0
1957	5250.0	5250.0	.0	.0
1958	13883.9	13733.9	-1.1	-150.0
1959	9813.3	9139.2	-6.9	-674.1
1960	3821.3	4266.2	11.6	444.9
1961	5250.0	5250.0	.0	.0
1962	5000.0	5250.0	5.0	250.0
1963	5500.0	5500.0	.0	.0
1964	5500.0	5500.0	.0	.0
1965	23567.8	23417.8	-.6	-150.0
1966	5948.9	5500.0	-7.5	-448.9
1967	10047.4	9847.4	-2.0	-200.0
1968	5250.0	5250.0	.0	.0
1969	20952.9	20015.6	-4.5	-937.3
1970	52792.2	52792.2	.0	.0
1971	16090.6	14334.1	-10.9	-1756.5
1972	5500.0	5500.0	.0	.0
1973	14471.9	12904.7	-10.8	-1567.2
1974	38513.3	38513.3	.0	.0
1975	5500.0	5500.0	.0	.0
1976	5500.0	5500.0	.0	.0
1977	6276.2	5919.5	-5.7	-356.7
1978	3686.4	3659.7	-.7	-26.7
1979	5000.0	4750.0	-5.0	-250.0
1980	11919.7	9751.5	-18.2	-2168.2
1981	5250.0	5000.0	-4.8	-250.0
1982	7744.9	7594.9	-1.9	-150.0
1983	21777.7	21504.2	-1.3	-273.5
1984	7575.7	7275.7	-4.0	-300.0
1985	5500.0	5500.0	.0	.0
1986	4000.0	4000.0	.0	.0
1987	4250.0	4000.0	-5.9	-250.0
1988	4500.0	4000.0	-11.1	-500.0
1989	3750.0	3750.0	.0	.0
1990	4000.0	4000.0	.0	.0
1991	5724.4	5309.1	-7.3	-415.3
Mean:	8982.6	8778.0	-2.0	-204.6
Median:	5500.0	5309.1	.0	.0
Min:	3250.0	3250.0	-18.2	-2168.2
Max:	52792.2	52792.2	11.6	444.9
Rel Dif = 0.0			34	
Rel Dif > 0.0			4	
Rel Dif < 0.0			32	
Rel Dif: 0.0 < X <= 5.0			1	
5.0 < X <= 20.0			3	
X > 20.0			3	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			19	
X < -20.0			13	
X <= 3250.0	5	6		
3250.0 < X <= 4250.0	15	16		
4250.0 < X <= 5250.0	14	12		
5250.0 < X	36	36		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

February

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4250.0	4250.0	.0	.0
1923	5725.6	4750.0	-17.0	-975.6
1924	3750.0	3750.0	.0	.0
1925	3250.0	3250.0	.0	.0
1926	3750.0	3750.0	.0	.0
1927	28937.0	29000.1	.2	63.1
1928	5500.0	5500.0	.0	.0
1929	3750.0	3750.0	.0	.0
1930	3750.0	3750.0	.0	.0
1931	3750.0	3750.0	.0	.0
1932	3250.0	3250.0	.0	.0
1933	3250.0	3250.0	.0	.0
1934	3500.0	3250.0	-7.1	-250.0
1935	3250.0	3250.0	.0	.0
1936	3750.0	3500.0	-6.7	-250.0
1937	3500.0	3500.0	.0	.0
1938	28514.8	28514.8	.0	.0
1939	5250.0	5250.0	.0	.0
1940	31283.1	29381.0	-6.1	-1902.1
1941	24948.8	24121.3	-3.3	-827.5
1942	29209.6	28909.6	-1.0	-300.0
1943	8130.4	7830.4	-3.7	-300.0
1944	4750.0	4500.0	-5.3	-250.0
1945	4750.0	4750.0	.0	.0
1946	6224.0	6740.2	8.3	516.2
1947	4250.0	4000.0	-5.9	-250.0
1948	4750.0	4750.0	.0	.0
1949	4750.0	4275.0	-10.0	-475.0
1950	4250.0	4000.0	-5.9	-250.0
1951	17662.0	16170.0	-8.4	-1492.0
1952	20708.8	19165.9	-7.5	-1542.9
1953	5500.0	5500.0	.0	.0
1954	20160.1	19960.1	-1.0	-200.0
1955	5500.0	5500.0	.0	.0
1956	23180.8	23030.8	-.6	-150.0
1957	5893.1	5720.0	-2.9	-173.1
1958	53810.3	53810.3	.0	.0
1959	13781.7	13781.7	.0	.0
1960	4000.0	3839.5	-4.0	-160.5
1961	5250.0	5250.0	.0	.0
1962	12610.9	14226.6	12.8	1615.7
1963	10363.7	10111.5	-2.4	-252.2
1964	5500.0	5500.0	.0	.0
1965	5500.0	5500.0	.0	.0
1966	5920.4	5864.0	-1.0	-56.4
1967	8000.7	7800.7	-2.5	-200.0
1968	16809.4	15863.9	-5.6	-945.5
1969	21419.0	21419.0	.0	.0
1970	14197.6	13897.6	-2.1	-300.0
1971	5500.0	5500.0	.0	.0
1972	5500.0	5500.0	.0	.0
1973	19803.6	18914.3	-4.5	-889.3
1974	5506.1	5430.7	-1.4	-75.4
1975	5250.0	5250.0	.0	.0
1976	5000.0	5000.0	.0	.0
1977	8747.4	8665.1	-.9	-82.3
1978	6647.5	5546.9	-16.6	-1100.6
1979	4750.0	4750.0	.0	.0
1980	33643.7	31320.6	-6.9	-2323.1
1981	5500.0	5500.0	.0	.0
1982	26213.1	26063.1	-.6	-150.0
1983	36778.2	36778.2	.0	.0
1984	5500.0	5500.0	.0	.0
1985	5500.0	5500.0	.0	.0
1986	46112.1	45495.9	-1.3	-616.2
1987	4250.0	4000.0	-5.9	-250.0
1988	5250.0	4750.0	-9.5	-500.0
1989	3750.0	3750.0	.0	.0
1990	4250.0	4250.0	.0	.0
1991	7234.5	6627.1	-8.4	-607.4
Mean:	11063.3	10836.1	-2.1	-227.2
Median:	5500.0	5500.0	.0	.0
Min:	3250.0	3250.0	-17.0	-2323.1
Max:	53810.3	53810.3	12.8	1615.7
Rel Dif = 0.0		35		
Rel Dif > 0.0		3		
Rel Dif < 0.0		32		
Rel Dif: 0.0 < X <= 5.0		1		
5.0 < X <= 20.0		2		
X > 20.0		2		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		16		
X < -20.0		16		
X <= 3250.0	4	5		
3250.0 < X <= 4250.0	15	14		
4250.0 < X <= 5250.0	10	11		
5250.0 < X	41	40		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

March

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	5153.1	4275.0	-17.0	-878.1
1924	4521.0	4632.2	2.5	111.2
1925	6503.1	6327.3	-2.7	-175.8
1926	5000.0	5250.0	5.0	250.0
1927	5500.0	5500.0	.0	.0
1928	14919.8	13335.3	-10.6	-1584.5
1929	3750.0	3750.0	.0	.0
1930	4000.0	3750.0	-6.3	-250.0
1931	4409.6	4578.2	3.8	168.6
1932	3250.0	3250.0	.0	.0
1933	3250.0	3250.0	.0	.0
1934	3500.0	3250.0	-7.1	-250.0
1935	3250.0	3250.0	.0	.0
1936	5000.0	3750.0	-25.0	-1250.0
1937	3250.0	3500.0	7.7	250.0
1938	33907.0	33907.0	.0	.0
1939	5000.0	5000.0	.0	.0
1940	20738.0	20738.0	.0	.0
1941	15300.5	15300.5	.0	.0
1942	5500.0	5500.0	.0	.0
1943	12427.7	12140.7	-2.3	-287.0
1944	5000.0	5000.0	.0	.0
1945	5500.0	5500.0	.0	.0
1946	5601.6	5500.0	-1.8	-101.6
1947	4000.0	3750.0	-6.3	-250.0
1948	4275.0	4275.0	.0	.0
1949	4500.0	4000.0	-11.1	-500.0
1950	5000.0	4500.0	-10.0	-500.0
1951	5500.0	5500.0	.0	.0
1952	11890.9	11336.9	-4.7	-554.0
1953	5500.0	5500.0	.0	.0
1954	11021.9	10734.9	-2.6	-287.0
1955	5250.0	5250.0	.0	.0
1956	5000.0	5000.0	.0	.0
1957	10610.2	9628.0	-9.3	-982.2
1958	21914.4	21551.4	-1.7	-363.0
1959	5573.8	6893.2	23.7	1319.4
1960	5500.0	5000.0	-9.1	-500.0
1961	5500.0	5500.0	.0	.0
1962	6617.8	6621.8	.1	4.0
1963	6237.6	6237.6	.0	.0
1964	5500.0	5500.0	.0	.0
1965	5500.0	5500.0	.0	.0
1966	13035.9	12478.1	-4.3	-557.8
1967	15939.6	15576.6	-2.3	-363.0
1968	5500.0	5500.0	.0	.0
1969	5821.2	5821.2	.0	.0
1970	5500.0	5500.0	.0	.0
1971	18383.6	17267.0	-6.1	-1116.6
1972	12329.0	11462.8	-7.0	-866.2
1973	7424.8	7103.8	-4.3	-321.0
1974	37528.8	37528.8	.0	.0
1975	27885.1	26653.9	-4.4	-1231.2
1976	5000.0	5000.0	.0	.0
1977	7872.5	7607.1	-3.4	-265.4
1978	16407.5	16407.5	.0	.0
1979	5250.0	5250.0	.0	.0
1980	5000.0	5000.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	13564.1	13201.1	-2.7	-363.0
1983	45943.3	45943.3	.0	.0
1984	5500.0	5500.0	.0	.0
1985	5250.0	5250.0	.0	.0
1986	23093.1	23093.1	.0	.0
1987	4500.0	4000.0	-11.1	-500.0
1988	5906.2	5747.7	-2.7	-158.5
1989	5747.4	4553.0	-20.8	-1194.4
1990	3825.0	3825.0	.0	.0
1991	3250.0	5964.4	83.5	2714.4
Mean:	9069.0	8914.2	-1.0	-154.8
Median:	5500.0	5500.0	.0	.0
Min:	3250.0	3250.0	-25.0	-1584.5
Max:	45943.3	45943.3	83.5	2714.4
Rel Dif = 0.0		36		
Rel Dif > 0.0		7		
Rel Dif < 0.0		27		
Rel Dif: 0.0 < X <= 5.0		4		
5.0 < X <= 20.0		1		
X > 20.0		1		
0.0 > X >= -5.0		2		
-5.0 > X >= -20.0		13		
X < -20.0		12		
X <= 3250.0	5	4		
3250.0 < X <= 4250.0	5	8		
4250.0 < X <= 5250.0	18	17		
5250.0 < X	42	41		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

April

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	4637.8	3847.5	-17.0	-790.3
1924	7018.8	7048.4	.4	29.6
1925	3750.0	3750.0	.0	.0
1926	4500.0	4725.0	5.0	225.0
1927	8670.6	7900.3	-8.9	-770.3
1928	5500.0	5500.0	.0	.0
1929	5881.9	6130.1	4.2	248.2
1930	4500.0	4250.0	-5.6	-250.0
1931	8777.7	8726.1	-.6	-51.6
1932	4705.9	4221.4	-10.3	-484.5
1933	6458.4	6624.3	2.6	165.9
1934	5407.5	5700.9	5.4	293.4
1935	3500.0	3250.0	-7.1	-250.0
1936	4500.0	4000.0	-11.1	-500.0
1937	3750.0	3750.0	.0	.0
1938	12570.3	12570.3	.0	.0
1939	7845.3	8242.5	5.1	397.2
1940	4500.0	4500.0	.0	.0
1941	15750.7	15147.7	-3.8	-603.0
1942	5250.0	5250.0	.0	.0
1943	5500.0	5500.0	.0	.0
1944	5336.0	4500.0	-15.7	-836.0
1945	5500.0	5500.0	.0	.0
1946	6618.2	6215.5	-6.1	-402.7
1947	4750.0	4500.0	-5.3	-250.0
1948	4250.0	4000.0	-5.9	-250.0
1949	5500.0	5500.0	.0	.0
1950	4750.0	4750.0	.0	.0
1951	6988.1	6729.5	-3.7	-258.6
1952	20034.3	19431.3	-3.0	-603.0
1953	5500.0	5500.0	.0	.0
1954	12705.2	12205.2	-3.9	-500.0
1955	4725.0	4725.0	.0	.0
1956	5500.0	5500.0	.0	.0
1957	7769.3	8080.3	4.0	311.0
1958	13235.3	12632.3	-4.6	-603.0
1959	8035.6	7720.4	-3.9	-315.2
1960	6178.9	5782.1	-6.4	-396.8
1961	8052.5	6574.4	-18.4	-1478.1
1962	5500.0	5500.0	.0	.0
1963	30719.2	30130.4	-1.9	-588.8
1964	8418.2	7962.9	-5.4	-455.3
1965	5250.0	5250.0	.0	.0
1966	8465.8	7965.8	-5.9	-500.0
1967	10203.3	10203.3	.0	.0
1968	6574.3	6204.8	-5.6	-369.5
1969	12736.1	12102.4	-5.0	-633.7
1970	6691.0	6464.9	-3.4	-226.1
1971	5500.0	5500.0	.0	.0
1972	7561.3	7724.9	2.2	163.6
1973	5500.0	5500.0	.0	.0
1974	7121.4	6570.7	-7.7	-550.7
1975	5500.0	5500.0	.0	.0
1976	5896.9	5677.0	-3.7	-219.9
1977	8064.4	8087.8	.3	23.4
1978	5786.7	5786.7	.0	.0
1979	5250.0	5000.0	-4.8	-250.0
1980	5500.0	5500.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	25438.8	24960.4	-1.9	-478.4
1983	10274.1	9671.1	-5.9	-603.0
1984	8386.0	7810.3	-6.9	-575.7
1985	4725.0	4725.0	.0	.0
1986	4750.0	4750.0	.0	.0
1987	8051.4	8126.0	.9	74.6
1988	4250.0	5173.0	21.7	923.0
1989	5500.0	5500.0	.0	.0
1990	5706.0	6249.6	9.5	543.6
1991	3500.0	3500.0	.0	.0
Mean:	7360.3	7194.0	-2.0	-166.4
Median:	5500.0	5500.0	.0	.0
Min:	3500.0	3250.0	-18.4	-1478.1
Max:	30719.2	30130.4	21.7	923.0
Rel Dif = 0.0			27	
Rel Dif > 0.0			12	
Rel Dif < 0.0			31	
Rel Dif: 0.0 < X <= 5.0			8	
5.0 < X <= 20.0			3	
X > 20.0			3	
0.0 > X >= -5.0			1	
-5.0 > X >= -20.0			13	
X < -20.0			18	
X <= 3250.0	0	1		
3250.0 < X <= 4250.0	6	8		
4250.0 < X <= 5250.0	15	13		
5250.0 < X	49	48		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

May

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	5837.3	6052.7	3.7	215.4
1923	9992.6	9064.6	-9.3	-928.0
1924	8253.5	8484.1	2.8	230.6
1925	3893.2	3250.0	-16.5	-643.2
1926	6108.2	6250.2	2.3	142.0
1927	9711.6	8680.7	-10.6	-1030.9
1928	8557.9	8693.7	1.6	135.8
1929	8496.1	9104.4	7.2	608.3
1930	5848.0	5914.4	1.1	66.4
1931	8030.7	8205.3	2.2	174.6
1932	4978.6	4733.3	-4.9	-245.3
1933	6282.6	6423.4	2.2	140.8
1934	6967.6	7084.4	1.7	116.8
1935	6774.6	4785.4	-29.4	-1989.2
1936	8513.1	7378.7	-13.3	-1134.4
1937	7769.3	7225.9	-7.0	-543.4
1938	11296.6	8016.2	-29.0	-3280.4
1939	9374.7	9355.8	-.2	-18.9
1940	6764.0	6823.8	.9	59.8
1941	14602.0	13893.0	-4.9	-709.0
1942	9788.4	7904.3	-19.2	-1884.1
1943	7173.0	7173.0	.0	.0
1944	7094.6	6819.9	-3.9	-274.7
1945	7528.6	7368.2	-2.1	-160.4
1946	9372.4	9306.2	-.7	-66.2
1947	9707.1	9350.3	-3.7	-356.8
1948	7444.1	7188.7	-3.4	-255.4
1949	8179.3	7479.9	-8.6	-699.4
1950	10151.9	10123.8	-.3	-28.1
1951	6057.0	6079.7	.4	22.7
1952	12173.8	9716.8	-20.2	-2457.0
1953	6727.7	5453.9	-18.9	-1273.8
1954	9813.9	10091.2	2.8	277.3
1955	5562.0	5127.6	-7.8	-434.4
1956	11921.2	8520.0	-28.5	-3401.2
1957	7301.8	7001.3	-4.1	-300.5
1958	10170.8	9826.1	-3.4	-344.7
1959	9302.7	9499.0	2.1	196.3
1960	5986.8	5301.8	-11.4	-685.0
1961	9613.8	10312.7	7.3	698.9
1962	8354.0	8420.0	.8	66.0
1963	7299.5	5457.0	-25.2	-1842.5
1964	7092.8	6877.8	-3.0	-215.0
1965	7422.9	7588.3	2.2	165.4
1966	11469.7	11791.9	2.8	322.2
1967	15888.2	14245.0	-10.3	-1643.2
1968	8468.9	8613.0	1.7	144.1
1969	14765.3	11865.0	-19.6	-2900.3
1970	8268.0	8512.6	3.0	244.6
1971	10789.7	9142.2	-15.3	-1647.5
1972	10790.3	11201.4	3.8	411.1
1973	7814.0	7963.8	1.9	149.8
1974	9355.4	6847.9	-26.8	-2507.5
1975	11401.1	9308.4	-18.4	-2092.7
1976	9107.0	9792.1	7.5	685.1
1977	5349.9	5258.6	-1.7	-91.3
1978	9168.6	9168.6	.0	.0
1979	7141.1	7092.4	-.7	-48.7
1980	6905.9	7057.3	2.2	151.4
1981	9752.2	9557.9	-2.0	-194.3
1982	4814.0	5208.7	8.2	394.7
1983	13019.8	13019.8	.0	.0
1984	9647.2	10426.2	8.1	779.0
1985	8696.5	8865.2	1.9	168.7
1986	8860.6	8843.7	-.2	-16.9
1987	9630.9	10591.4	10.0	960.5
1988	8805.3	8510.7	-3.3	-294.6
1989	8567.1	8220.3	-4.0	-346.8
1990	7811.8	8000.3	2.4	188.5
1991	5746.4	5461.5	-5.0	-284.9
Mean:	8590.4	8171.0	-4.3	-419.3
Median:	8468.9	8205.3	-.7	-66.2
Min:	3893.2	3250.0	-29.4	-3401.2
Max:	15888.2	14245.0	10.0	960.5
Rel Dif = 0.0		3		
Rel Dif > 0.0		28		
Rel Dif < 0.0		39		
Rel Dif: 0.0 < X <= 5.0		22		
5.0 < X <= 20.0		6		
X > 20.0		6		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		19		
X < -20.0		14		
X <= 3250.0	0	1		
3250.0 < X <= 4250.0	1	0		
4250.0 < X <= 5250.0	2	4		
5250.0 < X	67	65		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

June

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	10124.5	10407.0	2.8	282.5
1923	10773.3	9721.6	-9.8	-1051.7
1924	9714.6	9433.1	-2.9	-281.5
1925	8887.1	6973.2	-21.5	-1913.9
1926	10504.2	10109.2	-3.8	-395.0
1927	10250.9	10475.2	2.2	224.3
1928	11658.3	11895.5	2.0	237.2
1929	7878.0	7594.5	-3.6	-283.5
1930	9392.3	9699.4	3.3	307.1
1931	8331.8	8449.4	1.4	117.6
1932	6842.5	6780.1	-.9	-62.4
1933	7001.3	7250.9	3.6	249.6
1934	9471.5	9601.4	1.4	129.9
1935	11480.5	11038.6	-3.8	-441.9
1936	9366.9	8231.0	-12.1	-1135.9
1937	9935.6	9337.6	-6.0	-598.0
1938	12980.5	10683.5	-17.7	-2297.0
1939	11452.3	11820.5	3.2	368.2
1940	11368.7	11738.8	3.3	370.1
1941	13431.0	12404.4	-7.6	-1026.6
1942	12889.7	10131.0	-21.4	-2758.7
1943	10085.6	10288.9	2.0	203.3
1944	10975.1	10988.7	.1	13.6
1945	10453.6	10563.2	1.0	109.6
1946	11717.9	11727.4	.1	9.5
1947	9674.4	9469.6	-2.1	-204.8
1948	10954.5	10954.5	.0	.0
1949	14248.4	14508.9	1.8	260.5
1950	11497.9	11538.0	.3	40.1
1951	11916.9	12196.5	2.3	279.6
1952	11274.7	9021.9	-20.0	-2252.8
1953	14511.5	11839.0	-18.4	-2672.5
1954	11257.9	10571.1	-6.1	-686.8
1955	14460.8	11282.0	-22.0	-3178.8
1956	10960.5	8728.9	-20.4	-2231.6
1957	10054.0	10099.2	.4	45.2
1958	14456.2	12693.4	-12.2	-1762.8
1959	14582.7	14641.1	.4	58.4
1960	14306.0	10783.7	-24.6	-3522.3
1961	13834.2	10453.8	-24.4	-3380.4
1962	11042.2	11177.7	1.2	135.5
1963	8852.6	9457.4	6.8	604.8
1964	8679.6	8449.8	-2.6	-229.8
1965	9746.2	10039.0	3.0	292.8
1966	13308.6	14917.9	12.1	1609.3
1967	14513.2	11273.8	-22.3	-3239.4
1968	12848.0	13187.9	2.6	339.9
1969	11676.4	9379.4	-19.7	-2297.0
1970	10309.6	10458.4	1.4	148.8
1971	12644.4	10853.7	-14.2	-1790.7
1972	11731.6	11793.7	.5	62.1
1973	11499.8	10492.0	-8.8	-1007.8
1974	12758.8	10750.7	-15.7	-2008.1
1975	13548.7	12601.1	-7.0	-947.6
1976	10749.3	10655.3	-.9	-94.0
1977	9591.9	9614.4	.2	22.5
1978	9861.7	10428.4	5.7	566.7
1979	12888.3	12196.5	-5.4	-691.8
1980	9621.6	9919.2	3.1	297.6
1981	11605.6	11307.5	-2.6	-298.1
1982	10006.2	7910.6	-20.9	-2095.6
1983	15007.4	15007.4	.0	.0
1984	11628.1	11221.7	-3.5	-406.4
1985	10510.8	10969.5	4.4	458.7
1986	11827.1	12085.0	2.2	257.9
1987	12594.2	12502.8	-.7	-91.4
1988	12397.0	10238.5	-17.4	-2158.5
1989	10776.9	10064.2	-6.6	-712.7
1990	9691.7	8779.9	-9.4	-911.8
1991	6814.4	6662.4	-2.2	-152.0
Mean:	11195.6	10578.9	-4.9	-616.7
Median:	11042.2	10492.0	-2.1	-152.0
Min:	6814.4	6662.4	-24.6	-3522.3
Max:	15007.4	15007.4	12.1	1609.3
Rel Dif = 0.0		2		
Rel Dif > 0.0		30		
Rel Dif < 0.0		38		
Rel Dif: 0.0 < X <= 5.0		27		
5.0 < X <= 20.0		3		
X > 20.0		3		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		12		
X < -20.0		18		
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	0	0		
5250.0 < X	70	70		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

July

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	11802.1	12213.0	3.5	410.9
1923	11339.8	10490.8	-7.5	-849.0
1924	9977.8	10385.7	4.1	407.9
1925	10352.2	9802.4	-5.3	-549.8
1926	10296.1	10536.9	2.3	240.8
1927	14430.4	12636.3	-12.4	-1794.1
1928	17249.5	17318.5	.4	69.0
1929	10336.1	10433.4	.9	97.3
1930	9973.0	10320.3	3.5	347.3
1931	10619.9	10073.6	-5.1	-546.3
1932	8920.9	8940.3	.2	19.4
1933	8370.4	8684.2	3.7	313.8
1934	9772.8	9960.0	1.9	187.2
1935	12297.8	12011.4	-2.3	-286.4
1936	12367.1	11435.3	-7.5	-931.8
1937	12417.3	12048.0	-3.0	-369.3
1938	14994.9	14994.9	.0	.0
1939	10535.3	10865.7	3.1	330.4
1940	13235.8	14351.6	8.4	1115.8
1941	14994.9	14994.9	.0	.0
1942	14994.9	14356.0	-4.3	-638.9
1943	12695.3	12840.3	1.1	145.0
1944	11532.1	11195.7	-2.9	-336.4
1945	15022.2	15449.2	2.8	427.0
1946	14225.9	14876.4	4.6	650.5
1947	11455.8	11766.0	2.7	310.2
1948	13319.1	13069.1	-1.9	-250.0
1949	12891.4	12111.4	-6.1	-780.0
1950	12999.8	13166.4	1.3	166.6
1951	13311.8	14296.5	7.4	984.7
1952	14994.9	14994.9	.0	.0
1953	14994.9	14994.9	.0	.0
1954	15889.2	17211.1	8.3	1321.9
1955	11685.8	10582.6	-9.4	-1103.2
1956	14994.9	14849.9	-1.0	-145.0
1957	13946.3	14785.2	6.0	838.9
1958	14994.9	14994.9	.0	.0
1959	16722.0	17094.4	2.2	372.4
1960	14374.1	11981.6	-16.6	-2392.5
1961	14963.6	12844.5	-14.2	-2119.1
1962	12179.7	13600.0	11.7	1420.3
1963	14682.5	12276.6	-16.4	-2405.9
1964	10244.2	10393.1	1.5	148.9
1965	12326.2	12436.8	.9	110.6
1966	14435.8	14606.9	1.2	171.1
1967	14994.9	14994.9	.0	.0
1968	15549.4	15747.4	1.3	198.0
1969	14994.9	14982.9	-.1	-12.0
1970	16318.5	16057.9	-1.6	-260.6
1971	14994.9	14246.1	-5.0	-748.8
1972	16296.1	16308.2	.1	12.1
1973	13892.2	15890.9	14.4	1998.7
1974	14994.9	14994.9	.0	.0
1975	14994.9	14994.9	.0	.0
1976	11190.6	11777.8	5.2	587.2
1977	9628.5	9810.1	1.9	181.6
1978	11334.5	11362.8	.2	28.3
1979	13830.0	14881.7	7.6	1051.7
1980	10637.8	11075.9	4.1	438.1
1981	11754.8	11122.1	-5.4	-632.7
1982	14994.9	12897.9	-14.0	-2097.0
1983	14994.9	14994.9	.0	.0
1984	14035.4	14357.4	2.3	322.0
1985	10084.7	10316.0	2.3	231.3
1986	12364.8	12732.1	3.0	367.3
1987	10416.6	11280.7	8.3	864.1
1988	12410.2	11432.9	-7.9	-977.3
1989	12478.5	11040.2	-11.5	-1438.3
1990	12774.6	11483.4	-10.1	-1291.2
1991	7113.5	7091.6	-.3	-21.9
Mean:	12931.9	12845.0	-.5	-87.0
Median:	12891.4	12636.3	.1	12.1
Min:	7113.5	7091.6	-16.6	-2405.9
Max:	17249.5	17318.5	14.4	1998.7
Rel Dif = 0.0		9		
Rel Dif > 0.0		36		
Rel Dif < 0.0		25		
Rel Dif: 0.0 < X <= 5.0		27		
5.0 < X <= 20.0		9		
X > 20.0		9		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		10		
X < -20.0		15		
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	0	0		
5250.0 < X	70	70		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

August

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	11433.8	11802.9	3.2	369.1
1923	11235.5	10386.4	-7.6	-849.1
1924	7961.3	8278.7	4.0	317.4
1925	9869.6	9301.3	-5.8	-568.3
1926	8970.0	9274.1	3.4	304.1
1927	13499.2	11963.3	-11.4	-1535.9
1928	13206.5	12511.7	-5.3	-694.8
1929	10056.8	9981.6	-.7	-75.2
1930	9540.6	9860.9	3.4	320.3
1931	9000.5	9297.1	3.3	296.6
1932	8716.7	8715.2	.0	-1.5
1933	8428.1	8708.8	3.3	280.7
1934	8525.1	8762.8	2.8	237.7
1935	12068.6	11732.2	-2.8	-336.4
1936	12107.1	11202.3	-7.5	-904.8
1937	12316.5	11954.3	-2.9	-362.2
1938	14948.4	14609.7	-2.3	-338.7
1939	10138.9	10368.6	2.3	229.7
1940	12485.8	12889.3	3.2	403.5
1941	14994.9	14994.9	.0	.0
1942	14994.9	14466.3	-3.5	-528.6
1943	13360.7	12796.6	-4.2	-564.1
1944	11072.2	10552.7	-4.7	-519.5
1945	12537.1	12793.0	2.0	255.9
1946	12464.5	12583.2	1.0	118.7
1947	10144.7	9978.5	-1.6	-166.2
1948	12905.3	13067.2	1.3	161.9
1949	11841.2	10855.8	-8.3	-985.4
1950	12323.7	12478.7	1.3	155.0
1951	11956.0	12310.8	3.0	354.8
1952	14975.7	14860.4	-.8	-115.3
1953	14994.9	14994.9	.0	.0
1954	11186.2	10712.3	-4.2	-473.9
1955	10175.5	9690.9	-4.8	-484.6
1956	14642.0	14385.0	-1.8	-257.0
1957	13214.3	12538.5	-5.1	-675.8
1958	14994.9	14994.9	.0	.0
1959	10689.2	11779.2	10.2	1090.0
1960	11689.8	10581.9	-9.5	-1107.9
1961	12186.0	12271.6	.7	85.6
1962	11474.1	11740.3	2.3	266.2
1963	13993.7	13507.0	-3.5	-486.7
1964	9626.7	9179.0	-4.7	-447.7
1965	13214.3	10727.4	-18.8	-2486.9
1966	10615.9	11589.9	9.2	974.0
1967	14994.9	14824.8	-1.1	-170.1
1968	8975.1	9612.2	7.1	637.1
1969	14571.9	14245.1	-2.2	-326.8
1970	10772.8	11102.6	3.1	329.8
1971	14994.9	13533.8	-9.7	-1461.1
1972	11929.2	12848.7	7.7	919.5
1973	12556.9	10428.5	-17.0	-2128.4
1974	14994.9	14994.9	.0	.0
1975	14994.9	14994.9	.0	.0
1976	11770.9	10707.6	-9.0	-1063.3
1977	8984.0	9210.1	2.5	226.1
1978	13279.3	11956.5	-10.0	-1322.8
1979	9784.1	9903.1	1.2	119.0
1980	12351.0	10311.6	-16.5	-2039.4
1981	11528.9	8729.9	-24.3	-2799.0
1982	14805.8	13620.9	-8.0	-1184.9
1983	14994.9	14994.9	.0	.0
1984	12663.2	10051.2	-20.6	-2612.0
1985	10669.8	8904.1	-16.5	-1765.7
1986	11471.3	11846.2	3.3	374.9
1987	8193.0	7828.2	-4.5	-364.8
1988	10685.7	10714.5	.3	28.8
1989	9543.1	10349.8	8.5	806.7
1990	10700.8	9328.0	-12.8	-1372.8
1991	7146.0	7047.3	-1.4	-98.7
Mean:	11830.5	11487.4	-2.6	-343.0
Median:	11841.2	11202.3	-1.1	-115.3
Min:	7146.0	7047.3	-24.3	-2799.0
Max:	14994.9	14994.9	10.2	1090.0
Rel Dif = 0.0		7		
Rel Dif > 0.0		26		
Rel Dif < 0.0		37		
Rel Dif: 0.0 < X <= 5.0		21		
5.0 < X <= 20.0		5		
X > 20.0		5		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		18		
X < -20.0		17		
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	0	0		
5250.0 < X	70	70		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

September

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	6154.5	6574.4	6.8	419.9
1923	6000.0	6000.0	.0	.0
1924	4500.0	4775.6	6.1	275.6
1925	6000.0	6000.0	.0	.0
1926	6000.0	6000.0	.0	.0
1927	6511.9	6897.0	5.9	385.1
1928	7415.4	7157.7	-3.5	-257.7
1929	6000.0	6000.0	.0	.0
1930	6000.0	6000.0	.0	.0
1931	4570.1	4832.9	5.8	262.8
1932	4638.5	4937.4	6.4	298.9
1933	4634.1	4885.9	5.4	251.8
1934	4898.0	5135.7	4.9	237.7
1935	6167.6	5940.0	-3.7	-227.6
1936	6000.0	6000.0	.0	.0
1937	6537.0	6354.4	-2.8	-182.6
1938	6948.9	7177.9	3.3	229.0
1939	6000.0	6000.0	.0	.0
1940	6229.4	6555.5	5.2	326.1
1941	8560.9	8930.1	4.3	369.2
1942	7412.6	7413.1	.0	.5
1943	6716.1	7135.6	6.2	419.5
1944	6280.2	6000.0	-4.5	-280.2
1945	6596.2	6959.4	5.5	363.2
1946	6000.0	6189.4	3.2	189.4
1947	6000.0	6000.0	.0	.0
1948	6000.0	6000.0	.0	.0
1949	6000.0	6000.0	.0	.0
1950	6000.0	6000.0	.0	.0
1951	6000.0	6327.6	5.5	327.6
1952	7051.4	7280.4	3.2	229.0
1953	7186.3	7596.4	5.7	410.1
1954	6137.3	6695.7	9.1	558.4
1955	6000.0	6000.0	.0	.0
1956	7101.8	7330.8	3.2	229.0
1957	7258.5	6000.0	-17.3	-1258.5
1958	9356.8	9726.0	3.9	369.2
1959	6000.0	6000.0	.0	.0
1960	6442.9	6000.0	-6.9	-442.9
1961	6089.4	6000.0	-1.5	-89.4
1962	6756.6	6000.0	-11.2	-756.6
1963	6975.8	6000.0	-14.0	-975.8
1964	6000.0	6000.0	.0	.0
1965	6759.6	6000.0	-11.2	-759.6
1966	6817.4	6000.0	-12.0	-817.4
1967	7914.5	7604.7	-3.9	-309.8
1968	6000.0	7118.7	18.6	1118.7
1969	7614.4	7843.4	3.0	229.0
1970	6160.8	6538.7	6.1	377.9
1971	7059.8	7288.8	3.2	229.0
1972	7060.6	7874.3	11.5	813.7
1973	6000.0	6578.3	9.6	578.3
1974	9292.3	9434.5	1.5	142.2
1975	7965.7	8375.8	5.1	410.1
1976	6000.0	6000.0	.0	.0
1977	4500.0	4500.0	.0	.0
1978	6000.0	6000.0	.0	.0
1979	6000.0	6347.1	5.8	347.1
1980	6000.0	6000.0	.0	.0
1981	6016.2	6000.0	-.3	-16.2
1982	7110.2	7126.8	.2	16.6
1983	13720.8	14090.0	2.7	369.2
1984	6000.0	6000.0	.0	.0
1985	6000.0	6000.0	.0	.0
1986	6000.0	6000.0	.0	.0
1987	6000.0	6000.0	.0	.0
1988	6000.0	6000.0	.0	.0
1989	6000.0	6000.0	.0	.0
1990	6000.0	6000.0	.0	.0
1991	4500.0	4500.0	.0	.0
Mean:	6451.7	6514.7	1.1	63.0
Median:	6000.0	6000.0	.0	.0
Min:	4500.0	4500.0	-17.3	-1258.5
Max:	13720.8	14090.0	18.6	1118.7
Rel Dif = 0.0		27		
Rel Dif > 0.0		30		
Rel Dif < 0.0		13		
Rel Dif: 0.0 < X <= 5.0		12		
5.0 < X <= 20.0		18		
X > 20.0		18		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		7		
X < -20.0		6		
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	7	7		
5250.0 < X	63	63		

RETURN TO TABLE OF CONTENTS

Section 18

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

January

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	45.0	45.0	.0	.0
1923.	43.8	43.7	-.2	-.1
1924.	45.8	45.9	.2	.1
1925.	43.4	43.8	.9	.4
1926.	45.5	45.6	.2	.1
1927.	46.0	46.0	.0	.0
1928.	45.5	45.6	.2	.1
1929.	43.6	43.6	.0	.0
1930.	45.1	45.0	-.2	-.1
1931.	47.4	47.3	-.2	-.1
1932.	43.1	42.9	-.5	-.2
1933.	41.8	41.3	-1.2	-.5
1934.	48.6	47.7	-1.9	-.9
1935.	44.7	44.2	-1.1	-.5
1936.	47.5	47.5	.0	.0
1937.	40.3	40.3	.0	.0
1938.	48.3	48.3	.0	.0
1939.	48.2	48.2	.0	.0
1940.	46.6	46.6	.0	.0
1941.	47.3	47.5	.4	.2
1942.	46.1	46.1	.0	.0
1943.	45.9	45.9	.0	.0
1944.	46.6	46.6	.0	.0
1945.	46.5	46.5	.0	.0
1946.	45.0	45.0	.0	.0
1947.	45.0	45.0	.0	.0
1948.	47.2	46.9	-.6	-.3
1949.	41.4	41.2	-.5	-.2
1950.	40.7	40.6	-.2	-.1
1951.	44.5	44.7	.4	.2
1952.	42.9	43.0	.2	.1
1953.	47.8	47.8	.0	.0
1954.	46.6	46.6	.0	.0
1955.	44.6	44.7	.2	.1
1956.	45.5	45.5	.0	.0
1957.	46.4	46.4	.0	.0
1958.	46.2	46.2	.0	.0
1959.	49.3	49.5	.4	.2
1960.	46.2	46.1	-.2	-.1
1961.	46.4	46.5	.2	.1
1962.	48.1	48.1	.0	.0
1963.	47.0	47.0	.0	.0
1964.	45.1	45.3	.4	.2
1965.	46.4	46.4	.0	.0
1966.	44.6	44.8	.4	.2
1967.	46.2	46.3	.2	.1
1968.	46.0	46.2	.4	.2
1969.	42.7	42.7	.0	.0
1970.	48.0	48.0	.0	.0
1971.	45.0	45.3	.7	.3
1972.	44.3	44.5	.5	.2
1973.	42.7	42.8	.2	.1
1974.	45.4	45.4	.0	.0
1975.	46.8	46.8	.0	.0
1976.	49.0	49.0	.0	.0
1977.	47.5	47.7	.4	.2
1978.	44.6	44.6	.0	.0
1979.	45.3	45.3	.0	.0
1980.	45.2	45.1	-.2	-.1
1981.	45.6	46.3	1.5	.7
1982.	43.3	43.3	.0	.0
1983.	44.3	44.3	.0	.0
1984.	46.3	46.4	.2	.1
1985.	44.1	44.1	.0	.0
1986.	46.2	46.1	-.2	-.1
1987.	44.0	44.0	.0	.0
1988.	44.6	44.5	-.2	-.1
1989.	44.3	44.3	.0	.0
1990.	45.1	45.1	.0	.0
Mean:	45.4	45.5	.0	.0
Median:	45.5	45.5	.0	.0
Min:	40.3	40.3	-1.9	-.9
Max:	49.3	49.5	1.5	.7
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

February

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	44.5	44.5	.0	.0
1923.	51.0	50.8	-.4	-.2
1924.	47.2	47.0	-.4	-.2
1925.	46.2	46.3	.2	.1
1926.	46.6	47.3	1.5	.7
1927.	47.3	47.3	.0	.0
1928.	49.5	49.7	.4	.2
1929.	43.7	43.7	.0	.0
1930.	44.6	44.6	.0	.0
1931.	47.6	47.7	.2	.1
1932.	47.6	43.8	-8.0	-3.8
1933.	44.0	41.4	-5.9	-2.6
1934.	48.0	50.4	5.0	2.4
1935.	48.0	46.6	-2.9	-1.4
1936.	46.7	46.4	-.6	-.3
1937.	42.7	41.2	-3.5	-1.5
1938.	46.6	46.6	.0	.0
1939.	46.0	46.0	.0	.0
1940.	48.1	48.2	.2	.1
1941.	48.9	49.0	.2	.1
1942.	46.9	46.9	.0	.0
1943.	50.2	50.4	.4	.2
1944.	46.2	46.1	-.2	-.1
1945.	49.4	49.4	.0	.0
1946.	44.6	44.6	.0	.0
1947.	45.7	45.6	-.2	-.1
1948.	46.7	46.3	-.9	-.4
1949.	43.1	40.6	-5.8	-2.5
1950.	44.6	42.6	-4.5	-2.0
1951.	46.1	46.4	.7	.3
1952.	46.4	46.7	.6	.3
1953.	50.9	51.2	.6	.3
1954.	50.4	50.4	.0	.0
1955.	47.5	47.5	.0	.0
1956.	45.8	45.8	.0	.0
1957.	51.0	51.0	.0	.0
1958.	49.2	49.2	.0	.0
1959.	48.7	48.7	.0	.0
1960.	47.4	46.6	-1.7	-.8
1961.	50.8	50.7	-.2	-.1
1962.	47.2	47.2	.0	.0
1963.	51.4	51.6	.4	.2
1964.	52.1	52.2	.2	.1
1965.	51.1	51.1	.0	.0
1966.	46.2	46.3	.2	.1
1967.	51.1	51.2	.2	.1
1968.	51.7	51.6	-.2	-.1
1969.	44.4	44.4	.0	.0
1970.	52.3	52.5	.4	.2
1971.	48.7	49.4	1.4	.7
1972.	49.3	49.6	.6	.3
1973.	49.3	49.6	.6	.3
1974.	48.2	48.3	.2	.1
1975.	46.8	46.8	.0	.0
1976.	48.5	48.5	.0	.0
1977.	47.4	47.4	.0	.0
1978.	49.1	48.6	-1.0	-.5
1979.	46.9	46.9	.0	.0
1980.	48.4	48.8	.8	.4
1981.	48.2	48.8	1.2	.6
1982.	46.8	46.9	.2	.1
1983.	46.8	46.8	.0	.0
1984.	48.2	48.2	.0	.0
1985.	49.4	49.4	.0	.0
1986.	49.6	49.7	.2	.1
1987.	45.6	43.9	-3.7	-1.7
1988.	52.0	52.2	.4	.2
1989.	44.1	44.0	-.2	-.1
1990.	44.5	44.5	.0	.0
Mean:	47.7	47.6	-.3	-.1
Median:	47.4	47.3	.0	.0
Min:	42.7	40.6	-8.0	-3.8
Max:	52.3	52.5	5.0	2.4
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

March

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	49.4	49.4	.0	.0
1923.	55.6	55.6	.0	.0
1924.	48.3	48.1	-.4	-.2
1925.	46.6	46.6	.0	.0
1926.	57.5	57.4	-.2	-.1
1927.	51.3	51.4	.2	.1
1928.	52.1	52.4	.6	.3
1929.	45.5	45.6	.2	.1
1930.	55.6	53.7	-3.4	-1.9
1931.	49.2	49.4	.4	.2
1932.	54.1	54.8	1.3	.7
1933.	50.7	49.4	-2.6	-1.3
1934.	51.1	54.7	7.0	3.6
1935.	47.4	47.8	.8	.4
1936.	55.6	54.3	-2.3	-1.3
1937.	47.2	45.0	-4.7	-2.2
1938.	47.2	47.2	.0	.0
1939.	53.9	53.9	.0	.0
1940.	53.5	53.5	.0	.0
1941.	52.6	52.6	.0	.0
1942.	51.7	51.7	.0	.0
1943.	52.1	52.2	.2	.1
1944.	54.1	54.2	.2	.1
1945.	48.8	48.8	.0	.0
1946.	51.0	51.0	.0	.0
1947.	54.8	53.7	-2.0	-1.1
1948.	47.8	47.7	-.2	-.1
1949.	47.2	47.1	-.2	-.1
1950.	50.4	50.4	.0	.0
1951.	51.8	51.9	.2	.1
1952.	48.1	48.4	.6	.3
1953.	52.2	52.5	.6	.3
1954.	49.4	49.5	.2	.1
1955.	53.6	53.6	.0	.0
1956.	52.2	52.7	1.0	.5
1957.	52.0	52.6	1.2	.6
1958.	48.4	48.4	.0	.0
1959.	55.7	56.3	1.1	.6
1960.	54.6	54.4	-.4	-.2
1961.	51.3	51.3	.0	.0
1962.	50.4	50.4	.0	.0
1963.	51.8	51.8	.0	.0
1964.	52.9	52.9	.0	.0
1965.	56.0	56.0	.0	.0
1966.	52.3	52.7	.8	.4
1967.	49.8	49.9	.2	.1
1968.	54.1	54.5	.7	.4
1969.	52.3	52.4	.2	.1
1970.	53.9	54.3	.7	.4
1971.	49.0	49.1	.2	.1
1972.	53.4	53.0	-.7	-.4
1973.	49.6	49.8	.4	.2
1974.	51.2	51.3	.2	.1
1975.	48.9	48.9	.0	.0
1976.	52.5	52.5	.0	.0
1977.	49.8	49.8	.0	.0
1978.	54.9	55.0	.2	.1
1979.	53.3	53.2	-.2	-.1
1980.	50.9	51.9	2.0	1.0
1981.	50.7	51.1	.8	.4
1982.	46.3	46.4	.2	.1
1983.	50.0	50.0	.0	.0
1984.	53.9	54.8	1.7	.9
1985.	49.0	49.0	.0	.0
1986.	52.9	52.9	.0	.0
1987.	49.9	49.9	.0	.0
1988.	54.6	55.3	1.3	.7
1989.	48.1	47.9	-.4	-.2
1990.	49.0	48.5	-1.0	-.5
Mean:	51.3	51.4	.1	.0
Median:	51.3	51.6	.0	.0
Min:	45.5	45.0	-4.7	-2.2
Max:	57.5	57.4	7.0	3.6
X > 56.0	1	2		
Mean X > 56.0	57.5	56.8	-1.2	-.7
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

April

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	51.7	51.7	.0	.0
1923.	51.6	51.9	.6	.3
1924.	51.2	51.0	-.4	-.2
1925.	49.7	49.7	.0	.0
1926.	51.8	51.8	.0	.0
1927.	50.6	50.9	.6	.3
1928.	51.4	51.4	.0	.0
1929.	47.5	46.4	-2.3	-1.1
1930.	51.9	52.0	.2	.1
1931.	50.9	51.1	.4	.2
1932.	51.3	51.5	.4	.2
1933.	51.5	51.4	-.2	-.1
1934.	52.2	52.2	.0	.0
1935.	49.8	51.2	2.8	1.4
1936.	52.0	52.2	.4	.2
1937.	48.3	48.6	.6	.3
1938.	50.3	50.3	.0	.0
1939.	50.5	50.7	.4	.2
1940.	51.2	51.3	.2	.1
1941.	50.1	50.2	.2	.1
1942.	50.7	50.7	.0	.0
1943.	51.6	51.6	.0	.0
1944.	50.6	51.3	1.4	.7
1945.	51.7	51.7	.0	.0
1946.	51.5	51.6	.2	.1
1947.	52.4	52.5	.2	.1
1948.	49.7	49.7	.0	.0
1949.	51.0	51.8	1.6	.8
1950.	52.0	52.1	.2	.1
1951.	51.0	51.5	1.0	.5
1952.	50.1	50.3	.4	.2
1953.	51.3	51.4	.2	.1
1954.	50.4	50.4	.0	.0
1955.	51.0	51.0	.0	.0
1956.	50.9	51.3	.8	.4
1957.	51.4	51.3	-.2	-.1
1958.	50.2	50.2	.0	.0
1959.	51.5	51.4	-.2	-.1
1960.	51.4	51.5	.2	.1
1961.	51.5	51.8	.6	.3
1962.	52.3	52.3	.0	.0
1963.	50.2	50.3	.2	.1
1964.	50.5	50.8	.6	.3
1965.	51.1	51.1	.0	.0
1966.	50.7	50.9	.4	.2
1967.	48.4	48.4	.0	.0
1968.	51.7	51.8	.2	.1
1969.	50.3	50.5	.4	.2
1970.	50.9	51.1	.4	.2
1971.	51.1	51.1	.0	.0
1972.	51.2	51.2	.0	.0
1973.	51.8	51.8	.0	.0
1974.	50.0	50.4	.8	.4
1975.	50.6	50.6	.0	.0
1976.	50.6	50.7	.2	.1
1977.	51.7	51.7	.0	.0
1978.	51.0	51.0	.0	.0
1979.	51.3	51.4	.2	.1
1980.	51.2	51.2	.0	.0
1981.	51.7	51.7	.0	.0
1982.	50.1	50.2	.2	.1
1983.	49.7	49.8	.2	.1
1984.	51.0	51.1	.2	.1
1985.	52.0	52.0	.0	.0
1986.	51.6	51.6	.0	.0
1987.	51.4	51.4	.0	.0
1988.	51.9	51.6	-.6	-.3
1989.	51.9	51.9	.0	.0
1990.	51.4	50.0	-2.7	-1.4
Mean:	51.0	51.0	.2	.1
Median:	51.1	51.2	.0	.0
Min:	47.5	46.4	-2.7	-1.4
Max:	52.4	52.5	2.8	1.4

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

May

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	48.1	48.1	.0	.0
1923.	47.6	47.6	.0	.0
1924.	49.0	48.8	-.4	-.2
1925.	50.7	51.3	1.2	.6
1926.	48.9	48.7	-.4	-.2
1927.	47.6	47.5	-.2	-.1
1928.	48.2	48.2	.0	.0
1929.	47.9	47.7	-.4	-.2
1930.	47.9	47.9	.0	.0
1931.	49.5	49.2	-.6	-.3
1932.	48.7	48.8	.2	.1
1933.	47.6	47.6	.0	.0
1934.	48.2	48.2	.0	.0
1935.	48.2	49.1	1.9	.9
1936.	47.8	48.1	.6	.3
1937.	47.7	47.9	.4	.2
1938.	48.3	48.0	-.6	-.3
1939.	47.9	47.8	-.2	-.1
1940.	49.6	48.8	-1.6	-.8
1941.	47.6	47.6	.0	.0
1942.	47.5	47.3	-.4	-.2
1943.	48.1	48.1	.0	.0
1944.	48.4	48.1	-.6	-.3
1945.	47.7	47.7	.0	.0
1946.	47.6	47.4	-.4	-.2
1947.	47.8	47.9	.2	.1
1948.	47.4	47.4	.0	.0
1949.	48.0	47.8	-.4	-.2
1950.	47.1	47.2	.2	.1
1951.	48.6	48.3	-.6	-.3
1952.	47.6	47.7	.2	.1
1953.	47.7	47.9	.4	.2
1954.	48.2	47.8	-.8	-.4
1955.	49.3	49.2	-.2	-.1
1956.	47.8	47.8	.0	.0
1957.	48.0	48.1	.2	.1
1958.	48.6	48.6	.0	.0
1959.	49.0	48.7	-.6	-.3
1960.	48.3	48.5	.4	.2
1961.	47.4	47.1	-.6	-.3
1962.	47.8	47.7	-.2	-.1
1963.	49.2	48.9	-.6	-.3
1964.	48.3	48.3	.0	.0
1965.	48.1	48.1	.0	.0
1966.	48.1	47.7	-.8	-.4
1967.	47.3	47.2	-.2	-.1
1968.	48.3	48.0	-.6	-.3
1969.	47.6	47.6	.0	.0
1970.	49.0	48.8	-.4	-.2
1971.	47.4	47.3	-.2	-.1
1972.	47.5	47.5	.0	.0
1973.	49.2	48.5	-1.4	-.7
1974.	48.9	48.5	-.8	-.4
1975.	48.0	47.8	-.4	-.2
1976.	50.1	49.8	-.6	-.3
1977.	48.9	48.7	-.4	-.2
1978.	47.8	47.8	.0	.0
1979.	48.9	48.3	-1.2	-.6
1980.	48.0	47.8	-.4	-.2
1981.	47.6	47.6	.0	.0
1982.	49.6	48.9	-1.4	-.7
1983.	47.9	47.9	.0	.0
1984.	47.7	47.5	-.4	-.2
1985.	47.5	47.5	.0	.0
1986.	48.0	47.8	-.4	-.2
1987.	47.8	47.6	-.4	-.2
1988.	47.4	47.5	.2	.1
1989.	47.6	47.6	.0	.0
1990.	47.8	47.5	-.6	-.3
Mean:	48.2	48.1	-.2	-.1
Median:	48.0	47.8	-.2	-.1
Min:	47.1	47.1	-1.6	-.8
Max:	50.7	51.3	1.9	.9

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

June

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.6	47.5	-.2	-.1
1923.	47.1	47.4	.6	.3
1924.	48.9	48.8	-.2	-.1
1925.	48.9	49.3	.8	.4
1926.	48.7	48.4	-.6	-.3
1927.	48.6	47.1	-3.1	-1.5
1928.	48.1	47.6	-1.0	-.5
1929.	48.1	48.3	.4	.2
1930.	47.7	47.6	-.2	-.1
1931.	50.2	50.0	-.4	-.2
1932.	48.8	48.3	-1.0	-.5
1933.	47.6	47.7	.2	.1
1934.	47.5	47.8	.6	.3
1935.	47.1	46.9	-.4	-.2
1936.	47.9	48.1	.4	.2
1937.	47.8	47.7	-.2	-.1
1938.	48.5	47.8	-1.4	-.7
1939.	48.5	48.3	-.4	-.2
1940.	49.0	48.1	-1.8	-.9
1941.	47.3	47.2	-.2	-.1
1942.	47.6	46.8	-1.7	-.8
1943.	46.6	46.4	-.4	-.2
1944.	47.8	47.7	-.2	-.1
1945.	48.0	47.8	-.4	-.2
1946.	47.3	46.8	-1.1	-.5
1947.	48.0	48.0	.0	.0
1948.	47.1	47.1	.0	.0
1949.	47.2	46.6	-1.3	-.6
1950.	47.2	47.2	.0	.0
1951.	48.1	47.0	-2.3	-1.1
1952.	47.0	46.7	-.6	-.3
1953.	47.2	46.3	-1.9	-.9
1954.	48.2	47.7	-1.0	-.5
1955.	46.8	47.4	1.3	.6
1956.	47.8	47.3	-1.0	-.5
1957.	48.6	47.7	-1.9	-.9
1958.	47.6	47.2	-.8	-.4
1959.	49.7	49.6	-.2	-.1
1960.	47.3	47.8	1.1	.5
1961.	48.9	48.5	-.8	-.4
1962.	48.9	48.2	-1.4	-.7
1963.	48.6	48.0	-1.2	-.6
1964.	48.7	48.4	-.6	-.3
1965.	48.5	46.9	-3.3	-1.6
1966.	48.0	47.4	-1.2	-.6
1967.	48.5	47.4	-2.3	-1.1
1968.	48.9	48.7	-.4	-.2
1969.	47.7	47.2	-1.0	-.5
1970.	48.9	47.8	-2.2	-1.1
1971.	47.3	46.7	-1.3	-.6
1972.	48.3	47.6	-1.4	-.7
1973.	48.6	48.1	-1.0	-.5
1974.	48.3	47.9	-.8	-.4
1975.	49.1	48.7	-.8	-.4
1976.	50.8	50.9	.2	.1
1977.	50.6	50.8	.4	.2
1978.	47.0	46.9	-.2	-.1
1979.	47.6	47.1	-1.1	-.5
1980.	47.6	47.0	-1.3	-.6
1981.	48.8	48.2	-1.2	-.6
1982.	47.4	47.2	-.4	-.2
1983.	47.1	47.2	.2	.1
1984.	47.8	46.8	-2.1	-1.0
1985.	47.9	47.7	-.4	-.2
1986.	47.9	47.2	-1.5	-.7
1987.	47.9	47.6	-.6	-.3
1988.	47.7	47.8	.2	.1
1989.	47.2	46.9	-.6	-.3
1990.	48.6	48.5	-.2	-.1
Mean:	48.1	47.7	-.7	-.3
Median:	47.9	47.6	-.6	-.3
Min:	46.6	46.3	-3.3	-1.6
Max:	50.8	50.9	1.3	.6

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

July

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	49.3	48.8	-1.0	-.5
1923.	48.6	49.0	.8	.4
1924.	51.1	51.1	.0	.0
1925.	49.0	49.2	.4	.2
1926.	49.9	49.3	-1.2	-.6
1927.	48.8	48.4	-.8	-.4
1928.	48.2	48.1	-.2	-.1
1929.	49.1	49.0	-.2	-.1
1930.	49.0	48.8	-.4	-.2
1931.	52.0	53.0	1.9	1.0
1932.	50.4	49.9	-1.0	-.5
1933.	50.5	51.7	2.4	1.2
1934.	51.3	52.7	2.7	1.4
1935.	48.6	48.8	.4	.2
1936.	48.6	48.7	.2	.1
1937.	48.8	48.4	-.8	-.4
1938.	49.1	48.9	-.4	-.2
1939.	49.4	49.3	-.2	-.1
1940.	48.8	48.6	-.4	-.2
1941.	48.5	48.6	.2	.1
1942.	48.7	47.8	-1.8	-.9
1943.	48.2	48.1	-.2	-.1
1944.	48.4	48.8	.8	.4
1945.	48.8	48.4	-.8	-.4
1946.	48.1	48.1	.0	.0
1947.	48.6	48.4	-.4	-.2
1948.	47.8	47.8	.0	.0
1949.	48.2	48.5	.6	.3
1950.	48.2	48.3	.2	.1
1951.	48.6	48.4	-.4	-.2
1952.	48.3	48.2	-.2	-.1
1953.	48.6	48.5	-.2	-.1
1954.	48.4	48.2	-.4	-.2
1955.	48.8	49.0	.4	.2
1956.	48.6	48.2	-.8	-.4
1957.	48.6	48.8	.4	.2
1958.	48.5	48.6	.2	.1
1959.	50.4	50.4	.0	.0
1960.	49.1	48.6	-1.0	-.5
1961.	49.2	49.6	.8	.4
1962.	49.7	49.4	-.6	-.3
1963.	48.5	48.2	-.6	-.3
1964.	49.2	49.1	-.2	-.1
1965.	48.4	48.4	.0	.0
1966.	48.4	48.3	-.2	-.1
1967.	49.4	48.7	-1.4	-.7
1968.	49.0	49.0	.0	.0
1969.	48.7	48.6	-.2	-.1
1970.	48.9	48.9	.0	.0
1971.	49.2	48.1	-2.2	-1.1
1972.	48.6	48.5	-.2	-.1
1973.	48.9	48.7	-.4	-.2
1974.	48.7	48.7	.0	.0
1975.	49.3	49.4	.2	.1
1976.	51.5	51.4	-.2	-.1
1977.	52.7	53.0	.6	.3
1978.	48.5	48.3	-.4	-.2
1979.	48.3	48.4	.2	.1
1980.	48.8	48.8	.0	.0
1981.	49.2	49.4	.4	.2
1982.	47.9	47.6	-.6	-.3
1983.	47.9	47.9	.0	.0
1984.	48.9	48.9	.0	.0
1985.	49.1	49.1	.0	.0
1986.	48.7	48.4	-.6	-.3
1987.	48.9	48.4	-1.0	-.5
1988.	49.1	49.3	.4	.2
1989.	48.6	48.1	-1.0	-.5
1990.	48.8	48.9	.2	.1
Mean:	49.0	49.0	-.1	-.1
Median:	48.8	48.7	-.2	-.1
Min:	47.8	47.6	-2.2	-1.1
Max:	52.7	53.0	2.7	1.4

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

August

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.0	50.0	.0	.0
1923.	50.1	50.4	.6	.3
1924.	59.2	58.9	-.5	-.3
1925.	49.7	49.8	.2	.1
1926.	50.0	50.0	.0	.0
1927.	49.7	49.9	.4	.2
1928.	50.2	50.4	.4	.2
1929.	50.6	50.8	.4	.2
1930.	49.9	49.8	-.2	-.1
1931.	57.8	60.2	4.2	2.4
1932.	51.8	56.0	8.1	4.2
1933.	52.7	55.9	6.1	3.2
1934.	57.0	62.5	9.6	5.5
1935.	51.9	54.7	5.4	2.8
1936.	50.5	49.8	-1.4	-.7
1937.	50.3	50.0	-.6	-.3
1938.	49.8	49.9	.2	.1
1939.	50.9	51.1	.4	.2
1940.	50.4	50.4	.0	.0
1941.	49.5	49.6	.2	.1
1942.	49.6	50.0	.8	.4
1943.	49.5	49.5	.0	.0
1944.	50.5	50.7	.4	.2
1945.	50.1	50.1	.0	.0
1946.	49.9	49.9	.0	.0
1947.	50.2	49.5	-1.4	-.7
1948.	49.5	49.4	-.2	-.1
1949.	49.2	49.7	1.0	.5
1950.	49.6	49.7	.2	.1
1951.	50.1	50.1	.0	.0
1952.	49.3	49.4	.2	.1
1953.	49.4	49.6	.4	.2
1954.	49.6	50.4	1.6	.8
1955.	50.9	50.3	-1.2	-.6
1956.	49.5	49.6	.2	.1
1957.	49.5	49.6	.2	.1
1958.	49.8	49.9	.2	.1
1959.	52.2	52.4	.4	.2
1960.	50.7	49.9	-1.6	-.8
1961.	50.7	50.7	.0	.0
1962.	50.8	50.8	.0	.0
1963.	49.9	49.7	-.4	-.2
1964.	50.8	50.9	.2	.1
1965.	49.7	50.0	.6	.3
1966.	51.0	50.7	-.6	-.3
1967.	50.1	50.4	.6	.3
1968.	51.5	51.3	-.4	-.2
1969.	49.8	50.1	.6	.3
1970.	51.4	51.4	.0	.0
1971.	50.0	50.3	.6	.3
1972.	50.7	50.6	-.2	-.1
1973.	49.6	50.6	2.0	1.0
1974.	49.7	50.0	.6	.3
1975.	49.6	49.8	.4	.2
1976.	51.0	51.3	.6	.3
1977.	63.9	65.0	1.7	1.1
1978.	49.9	49.7	-.4	-.2
1979.	50.2	50.3	.2	.1
1980.	49.3	50.1	1.6	.8
1981.	50.4	51.1	1.4	.7
1982.	49.3	49.4	.2	.1
1983.	49.6	49.6	.0	.0
1984.	49.4	49.9	1.0	.5
1985.	50.0	50.2	.4	.2
1986.	50.3	50.3	.0	.0
1987.	50.8	50.7	-.2	-.1
1988.	50.8	51.1	.6	.3
1989.	49.8	49.7	-.2	-.1
1990.	50.5	50.0	-1.0	-.5
Mean:	50.7	51.1	.6	.3
Median:	50.0	50.1	.2	.1
Min:	49.2	49.4	-1.6	-.8
Max:	63.9	65.0	9.6	5.5
X > 56.0	4	4		
Mean X > 56.0	59.5	61.7	3.7	2.2
X > 60.0	1	3		
Mean X > 60.0	63.9	62.6	-2.0	-1.3
X > 62.5	1	1		
Mean X > 62.5	63.9	65.0	1.7	1.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

September

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.0	47.5	1.1	.5
1923.	46.6	46.6	.0	.0
1924.	66.0	65.8	-.3	-.2
1925.	47.5	46.1	-2.9	-1.4
1926.	48.2	48.3	.2	.1
1927.	49.4	48.9	-1.0	-.5
1928.	48.8	48.9	.2	.1
1929.	47.0	48.0	2.1	1.0
1930.	45.8	46.1	.7	.3
1931.	64.4	66.7	3.6	2.3
1932.	58.8	63.3	7.7	4.5
1933.	54.7	62.1	13.5	7.4
1934.	62.9	67.9	7.9	5.0
1935.	57.2	60.9	6.5	3.7
1936.	54.0	52.8	-2.2	-1.2
1937.	44.7	45.3	1.3	.6
1938.	52.6	52.7	.2	.1
1939.	50.8	52.7	3.7	1.9
1940.	47.6	48.7	2.3	1.1
1941.	50.4	50.3	-.2	-.1
1942.	49.3	49.5	.4	.2
1943.	50.7	50.0	-1.4	-.7
1944.	49.5	49.5	.0	.0
1945.	49.6	50.5	1.8	.9
1946.	46.6	46.9	.6	.3
1947.	50.2	52.5	4.6	2.3
1948.	50.8	50.2	-1.2	-.6
1949.	43.3	43.4	.2	.1
1950.	43.2	43.2	.0	.0
1951.	46.5	46.8	.6	.3
1952.	47.8	47.9	.2	.1
1953.	49.4	49.3	-.2	-.1
1954.	48.7	49.1	.8	.4
1955.	47.5	47.4	-.2	-.1
1956.	48.5	48.5	.0	.0
1957.	49.7	49.2	-1.0	-.5
1958.	52.3	52.2	-.2	-.1
1959.	53.2	54.5	2.4	1.3
1960.	48.9	48.2	-1.4	-.7
1961.	50.1	49.2	-1.8	-.9
1962.	49.4	49.4	.0	.0
1963.	51.3	51.6	.6	.3
1964.	48.0	48.1	.2	.1
1965.	49.0	47.1	-3.9	-1.9
1966.	48.0	47.8	-.4	-.2
1967.	52.7	53.1	.8	.4
1968.	48.4	49.5	2.3	1.1
1969.	48.2	48.3	.2	.1
1970.	46.9	47.3	.9	.4
1971.	49.7	50.0	.6	.3
1972.	48.0	48.7	1.5	.7
1973.	46.4	46.4	.0	.0
1974.	48.3	48.4	.2	.1
1975.	52.3	52.2	-.2	-.1
1976.	52.3	52.5	.4	.2
1977.	65.8	65.7	-.2	-.1
1978.	47.1	46.4	-1.5	-.7
1979.	47.7	48.4	1.5	.7
1980.	46.7	46.4	-.6	-.3
1981.	48.6	48.8	.4	.2
1982.	47.3	47.6	.6	.3
1983.	49.8	49.9	.2	.1
1984.	47.6	47.7	.2	.1
1985.	46.2	46.2	.0	.0
1986.	46.9	47.8	1.9	.9
1987.	46.4	48.0	3.4	1.6
1988.	48.1	48.6	1.0	.5
1989.	46.9	47.0	.2	.1
1990.	52.6	54.3	3.2	1.7
Mean:	50.0	50.4	.9	.5
Median:	48.5	48.7	.2	.1
Min:	43.2	43.2	-3.9	-1.9
Max:	66.0	67.9	13.5	7.4
X > 56.0	6	7		
Mean X > 56.0	62.5	64.6	3.4	2.1
X > 60.0	4	7		
Mean X > 60.0	64.8	64.6	-.3	-.2
X > 62.5	4	5		
Mean X > 62.5	64.8	65.9	1.7	1.1
X > 65.0	2	4		
Mean X > 65.0	65.9	66.5	.9	.6
X > 67.5	0	1		
Mean X > 67.5	.0	67.9	.0	67.9
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

October"

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	46.4	47.2	1.7	.8
1923.	50.7	49.8	-1.8	-.9
1924.	58.1	58.1	.0	.0
1925.	53.5	51.4	-3.9	-2.1
1926.	54.2	54.6	.7	.4
1927.	49.5	50.6	2.2	1.1
1928.	51.1	51.8	1.4	.7
1929.	53.4	55.2	3.4	1.8
1930.	50.2	51.8	3.2	1.6
1931.	61.1	60.8	-.5	-.3
1932.	61.4	63.0	2.6	1.6
1933.	61.4	63.5	3.4	2.1
1934.	61.6	60.9	-1.1	-.7
1935.	59.3	60.9	2.7	1.6
1936.	57.9	56.7	-2.1	-1.2
1937.	52.5	49.9	-5.0	-2.6
1938.	52.8	52.8	.0	.0
1939.	55.2	56.5	2.4	1.3
1940.	49.7	52.2	5.0	2.5
1941.	52.8	52.8	.0	.0
1942.	51.0	51.0	.0	.0
1943.	50.0	50.4	.8	.4
1944.	52.3	52.6	.6	.3
1945.	51.9	53.0	2.1	1.1
1946.	47.3	49.5	4.7	2.2
1947.	54.4	55.9	2.8	1.5
1948.	51.8	52.0	.4	.2
1949.	42.7	43.3	1.4	.6
1950.	43.7	44.4	1.6	.7
1951.	45.5	46.0	1.1	.5
1952.	46.8	46.8	.0	.0
1953.	50.0	49.9	-.2	-.1
1954.	51.5	51.6	.2	.1
1955.	50.7	49.2	-3.0	-1.5
1956.	48.9	48.7	-.4	-.2
1957.	49.6	50.0	.8	.4
1958.	54.4	54.4	.0	.0
1959.	55.4	56.7	2.3	1.3
1960.	52.2	51.0	-2.3	-1.2
1961.	52.9	51.7	-2.3	-1.2
1962.	50.8	51.8	2.0	1.0
1963.	50.1	50.5	.8	.4
1964.	51.3	51.6	.6	.3
1965.	49.4	49.9	1.0	.5
1966.	49.8	52.4	5.2	2.6
1967.	53.5	53.5	.0	.0
1968.	50.4	51.4	2.0	1.0
1969.	46.6	46.6	.0	.0
1970.	47.8	49.0	2.5	1.2
1971.	50.6	50.9	.6	.3
1972.	49.5	51.1	3.2	1.6
1973.	47.0	45.6	-3.0	-1.4
1974.	50.5	50.5	.0	.0
1975.	52.6	52.5	-.2	-.1
1976.	54.2	54.5	.6	.3
1977.	61.3	61.1	-.3	-.2
1978.	49.4	48.3	-2.2	-1.1
1979.	48.7	51.2	5.1	2.5
1980.	46.7	46.6	-.2	-.1
1981.	49.7	50.0	.6	.3
1982.	45.3	45.5	.4	.2
1983.	55.0	54.9	-.2	-.1
1984.	49.2	49.3	.2	.1
1985.	48.6	49.0	.8	.4
1986.	49.8	52.2	4.8	2.4
1987.	50.7	55.6	9.7	4.9
1988.	53.8	54.9	2.0	1.1
1989.	50.6	51.0	.8	.4
1990.	56.3	57.6	2.3	1.3
Mean:	51.7	52.1	.9	.5
Median:	50.7	51.4	.6	.3
Min:	42.7	43.3	-5.0	-2.6
Max:	61.6	63.5	9.7	4.9
X > 56.0	9	11		
Mean X > 56.0	59.8	59.6	-.3	-.2
X > 60.0	5	6		
Mean X > 60.0	61.4	61.7	.5	.3
X > 62.5	0	2		
Mean X > 62.5	.0	63.3	.0	63.3
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

November

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	48.8	49.9	2.3	1.1
1923.	53.9	52.5	-2.6	-1.4
1924.	51.8	51.8	.0	.0
1925.	53.1	52.3	-1.5	-.8
1926.	54.1	54.5	.7	.4
1927.	50.9	52.2	2.6	1.3
1928.	52.7	53.1	.8	.4
1929.	56.3	57.5	2.1	1.2
1930.	52.0	53.4	2.7	1.4
1931.	53.0	52.5	-.9	-.5
1932.	57.2	56.9	-.5	-.3
1933.	57.9	57.6	-.5	-.3
1934.	53.4	52.2	-2.2	-1.2
1935.	54.7	54.2	-.9	-.5
1936.	59.0	57.7	-2.2	-1.3
1937.	52.7	52.7	.0	.0
1938.	54.0	54.1	.2	.1
1939.	55.8	56.3	.9	.5
1940.	51.7	53.6	3.7	1.9
1941.	54.4	54.5	.2	.1
1942.	52.2	52.4	.4	.2
1943.	50.9	51.9	2.0	1.0
1944.	52.1	52.2	.2	.1
1945.	52.1	52.4	.6	.3
1946.	49.8	51.2	2.8	1.4
1947.	53.8	53.9	.2	.1
1948.	51.8	52.9	2.1	1.1
1949.	43.6	45.5	4.4	1.9
1950.	43.0	45.9	6.7	2.9
1951.	45.9	48.2	5.0	2.3
1952.	45.6	45.6	.0	.0
1953.	51.6	51.6	.0	.0
1954.	52.1	52.9	1.5	.8
1955.	52.2	51.3	-1.7	-.9
1956.	52.8	52.7	-.2	-.1
1957.	52.2	52.3	.2	.1
1958.	56.0	56.0	.0	.0
1959.	56.5	56.9	.7	.4
1960.	52.8	52.3	-.9	-.5
1961.	53.4	52.9	-.9	-.5
1962.	54.1	54.0	-.2	-.1
1963.	51.0	51.2	.4	.2
1964.	51.7	51.9	.4	.2
1965.	50.2	51.6	2.8	1.4
1966.	52.3	53.7	2.7	1.4
1967.	55.9	56.0	.2	.1
1968.	52.1	52.8	1.3	.7
1969.	49.5	49.6	.2	.1
1970.	51.0	52.1	2.2	1.1
1971.	52.8	53.0	.4	.2
1972.	51.4	52.1	1.4	.7
1973.	48.9	49.2	.6	.3
1974.	53.0	53.0	.0	.0
1975.	53.1	53.1	.0	.0
1976.	55.4	55.7	.5	.3
1977.	53.0	52.8	-.4	-.2
1978.	49.2	50.5	2.6	1.3
1979.	49.7	50.9	2.4	1.2
1980.	47.7	48.0	.6	.3
1981.	51.1	51.1	.0	.0
1982.	44.5	44.6	.2	.1
1983.	53.1	53.1	.0	.0
1984.	49.8	50.2	.8	.4
1985.	49.2	49.5	.6	.3
1986.	52.0	53.5	2.9	1.5
1987.	51.9	54.0	4.0	2.1
1988.	52.4	52.7	.6	.3
1989.	52.3	52.5	.4	.2
1990.	54.0	54.0	.0	.0
Mean:	52.0	52.4	.8	.4
Median:	52.2	52.5	.4	.2
Min:	43.0	44.6	-2.6	-1.4
Max:	59.0	57.7	6.7	2.9
X > 56.0	5	6		
Mean X > 56.0	57.4	57.1	-.5	-.3
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

December

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	46.9	47.0	.2	.1
1923.	49.7	49.7	.0	.0
1924.	44.9	44.9	.0	.0
1925.	50.1	50.1	.0	.0
1926.	49.8	49.8	.0	.0
1927.	49.2	49.4	.4	.2
1928.	47.9	47.9	.0	.0
1929.	53.3	53.2	-.2	-.1
1930.	50.8	50.7	-.2	-.1
1931.	45.1	44.8	-.7	-.3
1932.	47.0	46.5	-1.1	-.5
1933.	48.4	47.8	-1.2	-.6
1934.	48.9	48.3	-1.2	-.6
1935.	49.9	49.5	-.8	-.4
1936.	51.6	51.5	-.2	-.1
1937.	51.4	51.4	.0	.0
1938.	51.3	51.4	.2	.1
1939.	51.8	51.8	.0	.0
1940.	50.9	50.8	-.2	-.1
1941.	49.6	49.6	.0	.0
1942.	48.3	48.4	.2	.1
1943.	50.1	50.1	.0	.0
1944.	49.7	49.7	.0	.0
1945.	47.8	47.8	.0	.0
1946.	48.3	48.3	.0	.0
1947.	48.6	48.5	-.2	-.1
1948.	46.7	46.8	.2	.1
1949.	49.2	49.3	.2	.1
1950.	49.8	49.8	.0	.0
1951.	47.6	47.7	.2	.1
1952.	48.3	48.5	.4	.2
1953.	50.0	50.2	.4	.2
1954.	47.8	48.0	.4	.2
1955.	49.0	48.8	-.4	-.2
1956.	52.5	52.5	.0	.0
1957.	48.7	48.8	.2	.1
1958.	54.7	54.7	.0	.0
1959.	52.4	52.3	-.2	-.1
1960.	49.2	49.3	.2	.1
1961.	48.7	48.8	.2	.1
1962.	52.0	52.0	.0	.0
1963.	48.3	48.4	.2	.1
1964.	48.4	48.4	.0	.0
1965.	47.7	48.0	.6	.3
1966.	49.5	49.8	.6	.3
1967.	51.6	51.6	.0	.0
1968.	46.8	46.7	-.2	-.1
1969.	51.5	51.5	.0	.0
1970.	48.5	48.5	.0	.0
1971.	47.7	47.7	.0	.0
1972.	45.7	45.7	.0	.0
1973.	47.8	47.8	.0	.0
1974.	49.5	49.5	.0	.0
1975.	50.2	50.4	.4	.2
1976.	53.4	53.4	.0	.0
1977.	48.5	48.4	-.2	-.1
1978.	48.5	48.6	.2	.1
1979.	46.6	46.6	.0	.0
1980.	49.3	49.3	.0	.0
1981.	47.8	47.8	.0	.0
1982.	45.9	46.0	.2	.1
1983.	47.7	47.7	.0	.0
1984.	46.2	46.3	.2	.1
1985.	46.5	46.5	.0	.0
1986.	48.6	48.6	.0	.0
1987.	47.5	47.5	.0	.0
1988.	47.3	47.4	.2	.1
1989.	48.7	48.7	.0	.0
1990.	45.3	45.1	-.4	-.2
Mean:	49.0	49.0	.0	.0
Median:	48.6	48.5	.0	.0
Min:	44.9	44.8	-1.2	-.6
Max:	54.7	54.7	.6	.3

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 19

SACRAMENTO RIVER TEMPERATURE AT JELLY FERRY

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

January

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	44.1	44.1	.0	.0
1923.	43.9	43.9	.0	.0
1924.	45.1	45.2	.2	.1
1925.	44.0	44.2	.5	.2
1926.	44.6	44.7	.2	.1
1927.	45.4	45.4	.0	.0
1928.	45.0	45.1	.2	.1
1929.	43.3	43.3	.0	.0
1930.	44.3	44.3	.0	.0
1931.	46.1	46.0	-.2	-.1
1932.	43.7	43.7	.0	.0
1933.	42.6	42.4	-.5	-.2
1934.	46.7	46.4	-.6	-.3
1935.	44.6	44.5	-.2	-.1
1936.	45.7	45.6	-.2	-.1
1937.	39.9	40.0	.3	.1
1938.	46.8	46.8	.0	.0
1939.	47.1	47.1	.0	.0
1940.	45.4	45.4	.0	.0
1941.	46.5	46.6	.2	.1
1942.	45.8	45.8	.0	.0
1943.	45.5	45.5	.0	.0
1944.	45.7	45.6	-.2	-.1
1945.	45.7	45.7	.0	.0
1946.	45.0	45.0	.0	.0
1947.	44.4	44.4	.0	.0
1948.	46.5	46.4	-.2	-.1
1949.	41.2	41.0	-.5	-.2
1950.	41.8	41.9	.2	.1
1951.	44.5	44.6	.2	.1
1952.	43.8	43.9	.2	.1
1953.	47.0	47.0	.0	.0
1954.	45.9	45.9	.0	.0
1955.	44.5	44.5	.0	.0
1956.	45.3	45.3	.0	.0
1957.	45.3	45.3	.0	.0
1958.	45.8	45.8	.0	.0
1959.	47.8	47.8	.0	.0
1960.	45.0	45.0	.0	.0
1961.	45.7	45.7	.0	.0
1962.	47.0	47.0	.0	.0
1963.	45.8	45.8	.0	.0
1964.	44.8	44.9	.2	.1
1965.	46.0	46.0	.0	.0
1966.	44.7	44.8	.2	.1
1967.	45.7	45.7	.0	.0
1968.	45.2	45.3	.2	.1
1969.	43.6	43.6	.0	.0
1970.	47.1	47.1	.0	.0
1971.	45.0	45.2	.4	.2
1972.	44.3	44.4	.2	.1
1973.	43.6	43.7	.2	.1
1974.	45.2	45.2	.0	.0
1975.	46.0	46.0	.0	.0
1976.	48.0	48.0	.0	.0
1977.	46.5	46.6	.2	.1
1978.	45.3	45.3	.0	.0
1979.	44.9	44.9	.0	.0
1980.	45.1	45.1	.0	.0
1981.	45.3	45.6	.7	.3
1982.	43.8	43.9	.2	.1
1983.	44.6	44.6	.0	.0
1984.	45.8	45.9	.2	.1
1985.	44.0	44.0	.0	.0
1986.	45.7	45.6	-.2	-.1
1987.	43.8	43.8	.0	.0
1988.	44.7	44.7	.0	.0
1989.	44.2	44.2	.0	.0
1990.	44.7	44.7	.0	.0
Mean:	45.0	45.0	.0	.0
Median:	45.0	45.2	.0	.0
Min:	39.9	40.0	-.6	-.3
Max:	48.0	48.0	.7	.3
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

February

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	46.6	46.6	.0	.0
1923.	50.3	50.0	-.6	-.3
1924.	48.7	48.6	-.2	-.1
1925.	48.1	48.1	.0	.0
1926.	48.0	48.2	.4	.2
1927.	47.7	47.7	.0	.0
1928.	48.9	49.0	.2	.1
1929.	46.2	46.2	.0	.0
1930.	47.4	47.4	.0	.0
1931.	48.5	48.5	.0	.0
1932.	47.8	45.9	-4.0	-1.9
1933.	45.4	44.1	-2.9	-1.3
1934.	48.6	49.4	1.6	.8
1935.	48.3	47.8	-1.0	-.5
1936.	47.8	47.8	.0	.0
1937.	46.0	45.5	-1.1	-.5
1938.	47.2	47.2	.0	.0
1939.	46.3	46.3	.0	.0
1940.	48.2	48.3	.2	.1
1941.	48.7	48.8	.2	.1
1942.	47.3	47.3	.0	.0
1943.	49.5	49.6	.2	.1
1944.	47.0	47.0	.0	.0
1945.	48.8	48.8	.0	.0
1946.	45.4	45.3	-.2	-.1
1947.	47.7	47.7	.0	.0
1948.	46.8	46.6	-.4	-.2
1949.	44.5	43.3	-2.7	-1.2
1950.	46.8	46.2	-1.3	-.6
1951.	46.8	47.0	.4	.2
1952.	46.9	47.2	.6	.3
1953.	50.1	50.2	.2	.1
1954.	49.8	49.9	.2	.1
1955.	47.6	47.6	.0	.0
1956.	46.5	46.5	.0	.0
1957.	50.1	50.1	.0	.0
1958.	48.8	48.8	.0	.0
1959.	48.6	48.6	.0	.0
1960.	48.1	47.9	-.4	-.2
1961.	49.5	49.5	.0	.0
1962.	47.6	47.6	.0	.0
1963.	50.5	50.6	.2	.1
1964.	51.2	51.3	.2	.1
1965.	50.0	50.0	.0	.0
1966.	47.1	47.1	.0	.0
1967.	50.1	50.2	.2	.1
1968.	50.7	50.6	-.2	-.1
1969.	45.9	45.9	.0	.0
1970.	51.1	51.1	.0	.0
1971.	48.7	49.0	.6	.3
1972.	48.9	49.1	.4	.2
1973.	49.0	49.2	.4	.2
1974.	48.2	48.3	.2	.1
1975.	47.7	47.7	.0	.0
1976.	48.3	48.3	.0	.0
1977.	48.3	48.3	.0	.0
1978.	48.8	48.6	-.4	-.2
1979.	47.6	47.6	.0	.0
1980.	48.4	48.7	.6	.3
1981.	48.4	48.7	.6	.3
1982.	47.2	47.2	.0	.0
1983.	47.3	47.3	.0	.0
1984.	48.2	48.2	.0	.0
1985.	49.2	49.2	.0	.0
1986.	49.3	49.4	.2	.1
1987.	47.1	46.4	-1.5	-.7
1988.	51.1	51.2	.2	.1
1989.	45.1	45.1	.0	.0
1990.	45.5	45.5	.0	.0
Mean:	48.1	48.0	-.1	-.1
Median:	48.1	48.0	.0	.0
Min:	44.5	43.3	-4.0	-1.9
Max:	51.2	51.3	1.6	.8
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

March

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.6	50.6	.0	.0
1923.	55.1	55.0	-.2	-.1
1924.	50.0	49.8	-.4	-.2
1925.	49.6	49.6	.0	.0
1926.	56.9	57.0	.2	.1
1927.	51.8	51.9	.2	.1
1928.	52.2	52.4	.4	.2
1929.	49.5	49.5	.0	.0
1930.	53.8	53.2	-1.1	-.6
1931.	51.5	51.7	.4	.2
1932.	54.1	54.4	.6	.3
1933.	51.8	51.4	-.8	-.4
1934.	54.0	55.6	3.0	1.6
1935.	50.2	50.3	.2	.1
1936.	54.7	54.0	-1.3	-.7
1937.	50.8	50.3	-1.0	-.5
1938.	49.0	49.0	.0	.0
1939.	53.8	53.8	.0	.0
1940.	53.3	53.3	.0	.0
1941.	52.5	52.5	.0	.0
1942.	52.0	52.0	.0	.0
1943.	52.2	52.3	.2	.1
1944.	53.7	53.8	.2	.1
1945.	50.2	50.2	.0	.0
1946.	51.5	51.5	.0	.0
1947.	53.8	53.4	-.7	-.4
1948.	49.8	49.8	.0	.0
1949.	50.8	50.9	.2	.1
1950.	51.1	51.2	.2	.1
1951.	52.1	52.2	.2	.1
1952.	49.8	50.0	.4	.2
1953.	52.4	52.6	.4	.2
1954.	50.6	50.7	.2	.1
1955.	53.4	53.4	.0	.0
1956.	52.6	52.8	.4	.2
1957.	52.2	52.6	.8	.4
1958.	49.6	49.7	.2	.1
1959.	55.2	55.6	.7	.4
1960.	53.7	53.6	-.2	-.1
1961.	51.8	51.8	.0	.0
1962.	51.3	51.3	.0	.0
1963.	52.0	52.0	.0	.0
1964.	52.8	52.8	.0	.0
1965.	55.0	55.0	.0	.0
1966.	52.5	52.7	.4	.2
1967.	50.4	50.4	.0	.0
1968.	53.6	53.8	.4	.2
1969.	52.5	52.5	.0	.0
1970.	53.5	53.6	.2	.1
1971.	49.9	50.0	.2	.1
1972.	53.6	53.3	-.6	-.3
1973.	50.9	51.1	.4	.2
1974.	51.4	51.5	.2	.1
1975.	50.0	50.0	.0	.0
1976.	52.5	52.5	.0	.0
1977.	50.5	50.6	.2	.1
1978.	54.1	54.1	.0	.0
1979.	53.1	53.1	.0	.0
1980.	51.9	52.2	.6	.3
1981.	51.7	51.8	.2	.1
1982.	48.4	48.5	.2	.1
1983.	50.6	50.6	.0	.0
1984.	53.6	54.1	.9	.5
1985.	50.0	50.0	.0	.0
1986.	52.8	52.8	.0	.0
1987.	51.2	51.3	.2	.1
1988.	54.5	54.9	.7	.4
1989.	50.8	51.0	.4	.2
1990.	51.2	51.0	-.4	-.2
Mean:	52.0	52.1	.1	.1
Median:	51.8	52.0	.0	.0
Min:	48.4	48.5	-1.3	-.7
Max:	56.9	57.0	3.0	1.6
X > 56.0	1	1		
Mean X > 56.0	56.9	57.0	.2	.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

April

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	55.4	55.4	.0	.0
1923.	55.0	55.3	.5	.3
1924.	54.3	54.2	-.2	-.1
1925.	55.4	55.4	.0	.0
1926.	56.0	55.9	-.2	-.1
1927.	54.0	54.4	.7	.4
1928.	54.9	54.9	.0	.0
1929.	50.9	50.1	-1.6	-.8
1930.	55.3	55.5	.4	.2
1931.	53.6	53.8	.4	.2
1932.	54.0	54.2	.4	.2
1933.	54.5	54.4	-.2	-.1
1934.	55.9	55.8	-.2	-.1
1935.	55.5	56.0	.9	.5
1936.	55.5	55.8	.5	.3
1937.	53.8	54.0	.4	.2
1938.	53.2	53.2	.0	.0
1939.	53.9	53.9	.0	.0
1940.	55.8	55.8	.0	.0
1941.	53.4	53.6	.4	.2
1942.	54.6	54.6	.0	.0
1943.	54.8	54.8	.0	.0
1944.	52.9	53.5	1.1	.6
1945.	54.9	55.0	.2	.1
1946.	54.6	54.8	.4	.2
1947.	56.1	56.3	.4	.2
1948.	54.4	54.5	.2	.1
1949.	55.4	55.9	.9	.5
1950.	55.6	55.6	.0	.0
1951.	54.1	54.5	.7	.4
1952.	52.1	52.3	.4	.2
1953.	54.5	54.6	.2	.1
1954.	53.6	53.7	.2	.1
1955.	53.8	53.8	.0	.0
1956.	54.9	55.1	.4	.2
1957.	54.2	54.1	-.2	-.1
1958.	53.8	53.9	.2	.1
1959.	54.9	55.0	.2	.1
1960.	54.0	54.2	.4	.2
1961.	54.5	55.0	.9	.5
1962.	56.3	56.3	.0	.0
1963.	52.1	52.1	.0	.0
1964.	53.1	53.4	.6	.3
1965.	55.5	55.5	.0	.0
1966.	54.3	54.6	.6	.3
1967.	51.9	52.0	.2	.1
1968.	54.8	55.0	.4	.2
1969.	53.1	53.4	.6	.3
1970.	53.4	53.6	.4	.2
1971.	54.6	54.6	.0	.0
1972.	53.6	53.6	.0	.0
1973.	55.7	55.8	.2	.1
1974.	54.5	54.8	.6	.3
1975.	54.1	54.1	.0	.0
1976.	53.2	53.3	.2	.1
1977.	54.6	54.6	.0	.0
1978.	54.9	54.9	.0	.0
1979.	54.2	54.4	.4	.2
1980.	54.3	54.4	.2	.1
1981.	55.1	55.1	.0	.0
1982.	52.1	52.2	.2	.1
1983.	53.4	53.6	.4	.2
1984.	53.2	53.3	.2	.1
1985.	55.8	55.8	.0	.0
1986.	54.8	54.8	.0	.0
1987.	54.2	54.2	.0	.0
1988.	55.0	54.5	-.9	-.5
1989.	55.5	55.5	.0	.0
1990.	55.1	54.0	-2.0	-1.1
Mean:	54.4	54.4	.2	.1
Median:	54.5	54.5	.2	.1
Min:	50.9	50.1	-2.0	-1.1
Max:	56.3	56.3	1.1	.6
X > 56.0	2	2		
Mean X > 56.0	56.2	56.3	.2	.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

May

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	57.1	56.9	-.4	-.2
1923.	52.6	53.1	1.0	.5
1924.	54.8	54.6	-.4	-.2
1925.	59.1	60.0	1.5	.9
1926.	55.9	55.8	-.2	-.1
1927.	53.5	53.9	.7	.4
1928.	55.0	54.9	-.2	-.1
1929.	53.3	52.9	-.8	-.4
1930.	54.5	54.4	-.2	-.1
1931.	55.0	54.8	-.4	-.2
1932.	56.2	56.5	.5	.3
1933.	53.2	53.2	.0	.0
1934.	54.4	54.2	-.4	-.2
1935.	56.2	58.5	4.1	2.3
1936.	53.7	54.6	1.7	.9
1937.	54.9	55.4	.9	.5
1938.	54.7	56.2	2.7	1.5
1939.	52.2	52.2	.0	.0
1940.	56.6	56.1	-.9	-.5
1941.	52.6	52.9	.6	.3
1942.	53.3	54.1	1.5	.8
1943.	55.0	55.1	.2	.1
1944.	53.8	53.7	-.2	-.1
1945.	53.1	53.3	.4	.2
1946.	52.6	52.5	-.2	-.1
1947.	52.7	52.9	.4	.2
1948.	54.8	55.0	.4	.2
1949.	53.4	53.6	.4	.2
1950.	52.4	52.5	.2	.1
1951.	55.8	55.7	-.2	-.1
1952.	53.6	54.7	2.1	1.1
1953.	54.5	55.5	1.8	1.0
1954.	54.3	53.9	-.7	-.4
1955.	57.5	57.9	.7	.4
1956.	53.6	55.0	2.6	1.4
1957.	55.3	55.5	.4	.2
1958.	54.9	55.1	.4	.2
1959.	53.5	53.3	-.4	-.2
1960.	54.8	55.5	1.3	.7
1961.	52.2	51.7	-1.0	-.5
1962.	53.2	53.1	-.2	-.1
1963.	56.6	57.9	2.3	1.3
1964.	53.9	54.0	.2	.1
1965.	55.5	55.4	-.2	-.1
1966.	53.0	52.6	-.8	-.4
1967.	52.7	53.1	.8	.4
1968.	53.8	53.6	-.4	-.2
1969.	53.1	54.1	1.9	1.0
1970.	55.2	55.0	-.4	-.2
1971.	52.6	53.3	1.3	.7
1972.	52.5	52.3	-.4	-.2
1973.	56.5	56.1	-.7	-.4
1974.	55.2	56.6	2.5	1.4
1975.	54.1	55.0	1.7	.9
1976.	55.2	54.8	-.7	-.4
1977.	54.1	54.2	.2	.1
1978.	54.5	54.6	.2	.1
1979.	56.0	55.7	-.5	-.3
1980.	54.1	53.9	-.4	-.2
1981.	52.7	52.8	.2	.1
1982.	58.8	58.3	-.9	-.5
1983.	54.7	54.7	.0	.0
1984.	53.3	52.9	-.8	-.4
1985.	52.5	52.4	-.2	-.1
1986.	53.5	53.4	-.2	-.1
1987.	53.2	52.7	-.9	-.5
1988.	52.2	52.4	.4	.2
1989.	53.0	53.3	.6	.3
1990.	53.4	53.2	-.4	-.2
Mean:	54.3	54.5	.3	.2
Median:	53.8	54.2	.0	.0
Min:	52.2	51.7	-1.0	-.5
Max:	59.1	60.0	4.1	2.3
X > 56.0	9	11		
Mean X > 56.0	57.2	57.4	.3	.2
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

June

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.9	54.7	-.4	-.2
1923.	52.1	52.7	1.2	.6
1924.	54.7	54.8	.2	.1
1925.	56.3	58.0	3.0	1.7
1926.	55.6	55.6	.0	.0
1927.	55.0	53.9	-2.0	-1.1
1928.	53.5	53.1	-.7	-.4
1929.	54.9	55.2	.5	.3
1930.	54.4	54.2	-.4	-.2
1931.	55.4	55.2	-.4	-.2
1932.	57.3	57.2	-.2	-.1
1933.	55.5	55.5	.0	.0
1934.	53.5	53.6	.2	.1
1935.	53.5	53.7	.4	.2
1936.	54.4	55.3	1.7	.9
1937.	54.1	54.3	.4	.2
1938.	54.9	55.6	1.3	.7
1939.	53.4	53.1	-.6	-.3
1940.	55.3	54.6	-1.3	-.7
1941.	53.2	53.5	.6	.3
1942.	53.9	54.7	1.5	.8
1943.	52.7	52.5	-.4	-.2
1944.	52.4	52.3	-.2	-.1
1945.	53.9	53.7	-.4	-.2
1946.	51.9	51.5	-.8	-.4
1947.	53.5	53.5	.0	.0
1948.	54.6	54.6	.0	.0
1949.	52.0	51.5	-1.0	-.5
1950.	52.7	52.7	.0	.0
1951.	53.6	52.7	-1.7	-.9
1952.	53.2	54.2	1.9	1.0
1953.	52.8	53.1	.6	.3
1954.	53.5	53.4	-.2	-.1
1955.	51.6	53.3	3.3	1.7
1956.	54.8	55.9	2.0	1.1
1957.	55.8	55.3	-.9	-.5
1958.	53.4	53.7	.6	.3
1959.	54.2	54.1	-.2	-.1
1960.	52.8	54.7	3.6	1.9
1961.	54.4	55.5	2.0	1.1
1962.	54.7	54.1	-1.1	-.6
1963.	56.1	55.4	-1.2	-.7
1964.	54.8	54.8	.0	.0
1965.	55.2	54.0	-2.2	-1.2
1966.	52.9	52.1	-1.5	-.8
1967.	54.2	54.7	.9	.5
1968.	54.0	53.7	-.6	-.3
1969.	53.8	54.7	1.7	.9
1970.	55.2	54.4	-1.4	-.8
1971.	53.4	53.7	.6	.3
1972.	53.9	53.4	-.9	-.5
1973.	55.1	55.3	.4	.2
1974.	54.8	55.5	1.3	.7
1975.	54.7	54.8	.2	.1
1976.	55.4	55.5	.2	.1
1977.	57.0	57.1	.2	.1
1978.	54.3	54.0	-.6	-.3
1979.	52.3	52.3	.0	.0
1980.	53.2	52.6	-1.1	-.6
1981.	54.6	54.3	-.5	-.3
1982.	54.1	55.2	2.0	1.1
1983.	53.6	53.6	.0	.0
1984.	53.4	52.8	-1.1	-.6
1985.	54.2	53.9	-.6	-.3
1986.	53.7	53.1	-1.1	-.6
1987.	53.4	53.2	-.4	-.2
1988.	52.8	53.8	1.9	1.0
1989.	53.0	53.2	.4	.2
1990.	55.3	55.7	.7	.4
Mean:	54.1	54.2	.1	.1
Median:	54.0	54.0	.0	.0
Min:	51.6	51.5	-2.2	-1.2
Max:	57.3	58.0	3.6	1.9
X > 56.0	4	3		
Mean X > 56.0	56.7	57.4	1.2	.7
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

July

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	55.4	54.9	-.9	-.5
1923.	54.5	55.2	1.3	.7
1924.	56.7	56.5	-.4	-.2
1925.	55.7	56.2	.9	.5
1926.	56.5	56.0	-.9	-.5
1927.	54.0	54.3	.6	.3
1928.	52.6	52.6	.0	.0
1929.	55.0	54.9	-.2	-.1
1930.	55.4	55.1	-.5	-.3
1931.	57.7	58.9	2.1	1.2
1932.	56.4	56.1	-.5	-.3
1933.	58.1	58.8	1.2	.7
1934.	56.6	57.7	1.9	1.1
1935.	53.6	53.9	.6	.3
1936.	54.2	54.6	.7	.4
1937.	54.5	54.4	-.2	-.1
1938.	54.2	54.0	-.4	-.2
1939.	55.0	54.8	-.4	-.2
1940.	53.5	53.0	-.9	-.5
1941.	53.9	54.0	.2	.1
1942.	53.7	53.3	-.7	-.4
1943.	53.5	53.4	-.2	-.1
1944.	53.5	54.0	.9	.5
1945.	53.3	52.9	-.8	-.4
1946.	52.3	52.1	-.4	-.2
1947.	53.2	52.9	-.6	-.3
1948.	53.0	53.1	.2	.1
1949.	52.9	53.4	.9	.5
1950.	53.6	53.6	.0	.0
1951.	53.4	53.0	-.7	-.4
1952.	54.0	54.0	.0	.0
1953.	53.9	53.9	.0	.0
1954.	52.8	52.4	-.8	-.4
1955.	53.9	54.6	1.3	.7
1956.	53.8	53.6	-.4	-.2
1957.	53.5	53.4	-.2	-.1
1958.	54.1	54.2	.2	.1
1959.	54.7	54.6	-.2	-.1
1960.	54.0	54.5	.9	.5
1961.	54.1	55.2	2.0	1.1
1962.	55.5	54.8	-1.3	-.7
1963.	53.2	53.8	1.1	.6
1964.	55.4	55.3	-.2	-.1
1965.	54.3	54.4	.2	.1
1966.	52.7	52.6	-.2	-.1
1967.	54.6	54.1	-.9	-.5
1968.	53.8	53.7	-.2	-.1
1969.	53.9	53.9	.0	.0
1970.	53.6	53.7	.2	.1
1971.	55.0	54.5	-.9	-.5
1972.	53.0	53.0	.0	.0
1973.	54.7	53.9	-1.5	-.8
1974.	54.1	54.1	.0	.0
1975.	54.1	54.2	.2	.1
1976.	56.4	56.1	-.5	-.3
1977.	58.2	58.4	.3	.2
1978.	55.1	55.0	-.2	-.1
1979.	53.1	52.8	-.6	-.3
1980.	54.6	54.5	-.2	-.1
1981.	54.9	55.4	.9	.5
1982.	52.7	53.1	.8	.4
1983.	53.3	53.3	.0	.0
1984.	54.4	54.2	-.4	-.2
1985.	55.2	55.2	.0	.0
1986.	53.7	53.4	-.6	-.3
1987.	54.5	53.8	-1.3	-.7
1988.	55.7	56.4	1.3	.7
1989.	53.9	54.1	.4	.2
1990.	54.0	54.6	1.1	.6
Mean:	54.4	54.4	.0	.0
Median:	54.0	54.1	-.2	-.1
Min:	52.3	52.1	-1.5	-.8
Max:	58.2	58.9	2.1	1.2
X > 56.0	8	9		
Mean X > 56.0	57.1	57.2	.2	.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

August

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.5	54.4	-.2	-.1
1923.	54.9	55.5	1.1	.6
1924.	62.8	62.4	-.6	-.4
1925.	55.1	55.5	.7	.4
1926.	55.6	55.5	-.2	-.1
1927.	53.8	54.4	1.1	.6
1928.	54.7	55.1	.7	.4
1929.	55.8	56.0	.4	.2
1930.	55.0	54.9	-.2	-.1
1931.	61.7	63.5	2.9	1.8
1932.	57.0	60.3	5.8	3.3
1933.	58.2	60.6	4.1	2.4
1934.	61.3	65.4	6.7	4.1
1935.	56.1	58.6	4.5	2.5
1936.	55.1	55.0	-.2	-.1
1937.	54.8	54.7	-.2	-.1
1938.	53.6	53.8	.4	.2
1939.	55.8	55.9	.2	.1
1940.	54.8	54.7	-.2	-.1
1941.	53.2	53.2	.0	.0
1942.	53.5	54.0	.9	.5
1943.	53.2	53.3	.2	.1
1944.	54.6	54.9	.5	.3
1945.	54.0	53.9	-.2	-.1
1946.	53.8	53.8	.0	.0
1947.	54.2	53.8	-.7	-.4
1948.	53.5	53.4	-.2	-.1
1949.	53.0	53.8	1.5	.8
1950.	54.0	54.1	.2	.1
1951.	54.4	54.4	.0	.0
1952.	53.3	53.5	.4	.2
1953.	53.2	53.3	.2	.1
1954.	53.8	54.7	1.7	.9
1955.	56.3	56.2	-.2	-.1
1956.	53.5	53.6	.2	.1
1957.	53.5	53.8	.6	.3
1958.	54.7	54.8	.2	.1
1959.	56.7	56.6	-.2	-.1
1960.	55.1	54.9	-.4	-.2
1961.	55.4	55.4	.0	.0
1962.	55.3	55.2	-.2	-.1
1963.	54.2	54.2	.0	.0
1964.	56.0	56.4	.7	.4
1965.	54.0	55.1	2.0	1.1
1966.	56.3	55.8	-.9	-.5
1967.	54.5	54.8	.6	.3
1968.	56.8	56.4	-.7	-.4
1969.	54.2	54.6	.7	.4
1970.	56.5	56.4	-.2	-.1
1971.	54.7	55.4	1.3	.7
1972.	55.4	55.0	-.7	-.4
1973.	54.4	56.0	2.9	1.6
1974.	54.2	54.4	.4	.2
1975.	53.4	53.5	.2	.1
1976.	54.2	54.7	.9	.5
1977.	66.4	67.2	1.2	.8
1978.	54.5	54.8	.6	.3
1979.	54.8	54.9	.2	.1
1980.	53.5	54.9	2.6	1.4
1981.	55.2	57.1	3.4	1.9
1982.	53.1	53.5	.8	.4
1983.	53.7	53.8	.2	.1
1984.	53.6	54.9	2.4	1.3
1985.	54.3	55.3	1.8	1.0
1986.	54.7	54.7	.0	.0
1987.	57.3	57.6	.5	.3
1988.	55.4	55.6	.4	.2
1989.	54.9	54.5	-.7	-.4
1990.	54.7	54.9	.4	.2
Mean:	55.2	55.6	.8	.4
Median:	54.7	54.9	.2	.1
Min:	53.0	53.2	-.9	-.5
Max:	66.4	67.2	6.7	4.1
X > 56.0	13	14		
Mean X > 56.0	58.7	59.6	1.5	.9
X > 60.0	4	6		
Mean X > 60.0	63.1	63.2	.2	.1
X > 62.5	2	3		
Mean X > 62.5	64.6	65.4	1.2	.8
X > 65.0	1	2		
Mean X > 65.0	66.4	66.3	-.2	-.1
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

September

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	54.2	54.2	.0	.0
1923.	52.8	52.9	.2	.1
1924.	66.0	65.9	-.2	-.1
1925.	52.8	51.8	-1.9	-1.0
1926.	53.3	53.5	.4	.2
1927.	54.2	53.7	-.9	-.5
1928.	53.9	54.1	.4	.2
1929.	53.4	54.2	1.5	.8
1930.	51.2	51.4	.4	.2
1931.	64.8	66.2	2.2	1.4
1932.	63.3	66.1	4.4	2.8
1933.	58.4	63.2	8.2	4.8
1934.	64.9	68.1	4.9	3.2
1935.	60.5	63.1	4.3	2.6
1936.	58.7	57.8	-1.5	-.9
1937.	51.3	52.0	1.4	.7
1938.	56.8	56.8	.0	.0
1939.	55.5	56.9	2.5	1.4
1940.	52.6	53.2	1.1	.6
1941.	54.0	53.8	-.4	-.2
1942.	54.0	54.2	.4	.2
1943.	56.1	55.4	-1.2	-.7
1944.	55.2	55.5	.5	.3
1945.	54.8	55.3	.9	.5
1946.	52.1	52.2	.2	.1
1947.	55.3	57.0	3.1	1.7
1948.	55.8	55.4	-.7	-.4
1949.	50.5	50.6	.2	.1
1950.	50.5	50.6	.2	.1
1951.	53.8	53.8	.0	.0
1952.	54.2	54.1	-.2	-.1
1953.	55.3	55.0	-.5	-.3
1954.	54.2	54.2	.0	.0
1955.	54.2	54.2	.0	.0
1956.	54.0	53.9	-.2	-.1
1957.	54.5	55.1	1.1	.6
1958.	56.5	56.4	-.2	-.1
1959.	57.1	58.2	1.9	1.1
1960.	54.9	54.8	-.2	-.1
1961.	55.4	54.9	-.9	-.5
1962.	54.9	55.5	1.1	.6
1963.	56.6	57.5	1.6	.9
1964.	53.8	53.9	.2	.1
1965.	53.9	53.2	-1.3	-.7
1966.	54.1	54.7	1.1	.6
1967.	56.9	57.3	.7	.4
1968.	55.5	55.4	-.2	-.1
1969.	54.1	54.1	.0	.0
1970.	54.0	54.1	.2	.1
1971.	55.5	55.6	.2	.1
1972.	52.9	53.0	.2	.1
1973.	53.5	53.1	-.7	-.4
1974.	53.6	53.7	.2	.1
1975.	57.4	57.2	-.3	-.2
1976.	57.2	57.3	.2	.1
1977.	66.0	66.0	.0	.0
1978.	53.2	52.7	-.9	-.5
1979.	54.3	54.6	.6	.3
1980.	52.8	52.7	-.2	-.1
1981.	54.2	54.4	.4	.2
1982.	52.8	53.0	.4	.2
1983.	52.9	52.9	.0	.0
1984.	54.1	54.3	.4	.2
1985.	51.6	51.8	.4	.2
1986.	51.9	52.7	1.5	.8
1987.	52.6	53.8	2.3	1.2
1988.	54.0	54.4	.7	.4
1989.	52.3	52.6	.6	.3
1990.	57.1	58.2	1.9	1.1
Mean:	55.1	55.5	.6	.4
Median:	54.2	54.2	.2	.1
Min:	50.5	50.6	-1.9	-1.0
Max:	66.0	68.1	8.2	4.8
X > 56.0	17	18		
Mean X > 56.0	59.7	60.5	1.3	.8
X > 60.0	6	7		
Mean X > 60.0	64.3	65.5	1.9	1.2
X > 62.5	5	7		
Mean X > 62.5	65.0	65.5	.8	.5
X > 65.0	2	5		
Mean X > 65.0	66.0	66.5	.8	.5
X > 67.5	0	1		
Mean X > 67.5	.0	68.1	.0	68.1
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

October"

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.0	50.6	1.2	.6
1923.	53.3	52.9	-.8	-.4
1924.	57.4	57.4	.0	.0
1925.	55.3	53.8	-2.7	-1.5
1926.	56.7	57.0	.5	.3
1927.	52.4	53.4	1.9	1.0
1928.	53.5	54.0	.9	.5
1929.	56.5	57.7	2.1	1.2
1930.	53.8	54.9	2.0	1.1
1931.	60.2	60.1	-.2	-.1
1932.	61.0	62.0	1.6	1.0
1933.	62.3	63.6	2.1	1.3
1934.	60.6	60.2	-.7	-.4
1935.	58.8	59.7	1.5	.9
1936.	59.3	58.7	-1.0	-.6
1937.	55.5	54.2	-2.3	-1.3
1938.	54.0	54.1	.2	.1
1939.	57.1	57.9	1.4	.8
1940.	52.5	54.4	3.6	1.9
1941.	54.1	54.1	.0	.0
1942.	53.5	53.5	.0	.0
1943.	52.1	52.7	1.2	.6
1944.	55.0	55.4	.7	.4
1945.	54.6	55.7	2.0	1.1
1946.	49.7	51.4	3.4	1.7
1947.	56.0	57.0	1.8	1.0
1948.	53.8	54.0	.4	.2
1949.	47.2	48.1	1.9	.9
1950.	50.3	51.4	2.2	1.1
1951.	49.2	49.8	1.2	.6
1952.	51.1	51.2	.2	.1
1953.	52.3	52.2	-.2	-.1
1954.	53.6	53.7	.2	.1
1955.	54.1	53.0	-2.0	-1.1
1956.	51.3	51.3	.0	.0
1957.	52.2	52.6	.8	.4
1958.	56.1	56.2	.2	.1
1959.	57.5	58.3	1.4	.8
1960.	54.5	53.7	-1.5	-.8
1961.	55.3	54.3	-1.8	-1.0
1962.	54.0	55.5	2.8	1.5
1963.	52.9	53.2	.6	.3
1964.	55.1	55.3	.4	.2
1965.	53.2	54.0	1.5	.8
1966.	53.4	55.3	3.6	1.9
1967.	55.2	55.2	.0	.0
1968.	53.3	54.1	1.5	.8
1969.	49.8	49.8	.0	.0
1970.	51.6	52.6	1.9	1.0
1971.	52.9	53.2	.6	.3
1972.	52.8	54.1	2.5	1.3
1973.	50.5	50.4	-.2	-.1
1974.	53.2	53.3	.2	.1
1975.	54.1	54.1	.0	.0
1976.	56.7	56.9	.4	.2
1977.	60.9	60.7	-.3	-.2
1978.	53.9	53.2	-1.3	-.7
1979.	52.3	54.2	3.6	1.9
1980.	50.4	50.4	.0	.0
1981.	52.4	52.7	.6	.3
1982.	48.6	48.9	.6	.3
1983.	56.1	56.0	-.2	-.1
1984.	51.7	51.9	.4	.2
1985.	52.2	52.6	.8	.4
1986.	52.7	54.5	3.4	1.8
1987.	54.4	57.8	6.2	3.4
1988.	56.7	57.6	1.6	.9
1989.	53.4	53.8	.7	.4
1990.	57.5	58.4	1.6	.9
Mean:	54.1	54.6	.8	.4
Median:	53.5	54.0	.6	.3
Min:	47.2	48.1	-2.7	-1.5
Max:	62.3	63.6	6.2	3.4
X > 56.0	17	18		
Mean X > 56.0	58.3	58.7	.7	.4
X > 60.0	5	5		
Mean X > 60.0	61.0	61.3	.5	.3
X > 62.5	0	1		
Mean X > 62.5	.0	63.6	.0	63.6
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

November

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	49.0	49.8	1.6	.8
1923.	53.6	52.7	-1.7	-.9
1924.	51.3	51.3	.0	.0
1925.	52.0	51.5	-1.0	-.5
1926.	53.0	53.2	.4	.2
1927.	51.1	51.9	1.6	.8
1928.	51.8	52.0	.4	.2
1929.	55.9	56.6	1.3	.7
1930.	52.2	53.0	1.5	.8
1931.	51.7	51.4	-.6	-.3
1932.	56.0	55.8	-.4	-.2
1933.	56.3	56.2	-.2	-.1
1934.	52.1	51.7	-.8	-.4
1935.	53.2	52.8	-.8	-.4
1936.	57.5	56.6	-1.6	-.9
1937.	51.9	51.9	.0	.0
1938.	52.8	52.9	.2	.1
1939.	54.8	55.0	.4	.2
1940.	51.4	52.6	2.3	1.2
1941.	53.6	53.6	.0	.0
1942.	51.6	51.8	.4	.2
1943.	50.5	51.3	1.6	.8
1944.	51.2	51.2	.0	.0
1945.	51.2	51.4	.4	.2
1946.	49.7	50.6	1.8	.9
1947.	52.5	52.5	.0	.0
1948.	51.4	52.2	1.6	.8
1949.	46.4	48.0	3.4	1.6
1950.	47.4	49.1	3.6	1.7
1951.	47.8	49.2	2.9	1.4
1952.	47.2	47.3	.2	.1
1953.	51.3	51.3	.0	.0
1954.	51.6	52.0	.8	.4
1955.	51.5	51.1	-.8	-.4
1956.	52.6	52.6	.0	.0
1957.	51.7	51.9	.4	.2
1958.	54.7	54.7	.0	.0
1959.	55.4	55.5	.2	.1
1960.	51.7	51.5	-.4	-.2
1961.	52.3	52.1	-.4	-.2
1962.	53.3	53.3	.0	.0
1963.	51.0	51.1	.2	.1
1964.	51.0	51.2	.4	.2
1965.	50.5	51.4	1.8	.9
1966.	52.1	52.8	1.3	.7
1967.	55.0	55.1	.2	.1
1968.	51.5	52.0	1.0	.5
1969.	50.4	50.5	.2	.1
1970.	51.3	51.7	.8	.4
1971.	52.1	52.2	.2	.1
1972.	51.0	51.4	.8	.4
1973.	49.2	49.5	.6	.3
1974.	52.2	52.2	.0	.0
1975.	52.0	52.0	.0	.0
1976.	54.7	54.9	.4	.2
1977.	52.3	52.2	-.2	-.1
1978.	49.5	50.5	2.0	1.0
1979.	49.7	50.4	1.4	.7
1980.	48.3	48.5	.4	.2
1981.	51.2	51.3	.2	.1
1982.	46.6	46.7	.2	.1
1983.	52.4	52.4	.0	.0
1984.	50.1	50.4	.6	.3
1985.	48.8	49.0	.4	.2
1986.	51.6	52.6	1.9	1.0
1987.	51.2	52.3	2.1	1.1
1988.	51.3	51.4	.2	.1
1989.	51.8	51.9	.2	.1
1990.	52.5	52.3	-.4	-.2
Mean:	51.7	51.9	.5	.3
Median:	51.6	51.9	.2	.1
Min:	46.4	46.7	-1.7	-.9
Max:	57.5	56.6	3.6	1.7
X > 56.0	2	3		
Mean X > 56.0	56.9	56.5	-.7	-.4
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

December

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	45.8	45.8	.0	.0
1923.	47.6	47.6	.0	.0
1924.	44.2	44.2	.0	.0
1925.	48.5	48.6	.2	.1
1926.	46.7	46.7	.0	.0
1927.	47.3	47.4	.2	.1
1928.	46.3	46.4	.2	.1
1929.	48.9	48.8	-.2	-.1
1930.	48.8	48.7	-.2	-.1
1931.	44.9	44.8	-.2	-.1
1932.	45.1	44.8	-.7	-.3
1933.	46.1	45.9	-.4	-.2
1934.	47.3	47.0	-.6	-.3
1935.	48.1	47.7	-.8	-.4
1936.	49.1	48.6	-1.0	-.5
1937.	48.3	48.6	.6	.3
1938.	49.5	49.6	.2	.1
1939.	49.0	48.8	-.4	-.2
1940.	48.5	48.0	-1.0	-.5
1941.	48.3	48.2	-.2	-.1
1942.	46.8	46.9	.2	.1
1943.	49.0	49.0	.0	.0
1944.	47.7	47.6	-.2	-.1
1945.	46.9	46.8	-.2	-.1
1946.	47.1	47.0	-.2	-.1
1947.	46.9	46.8	-.2	-.1
1948.	45.4	45.5	.2	.1
1949.	47.6	47.5	-.2	-.1
1950.	48.2	48.1	-.2	-.1
1951.	46.7	46.7	.0	.0
1952.	46.7	46.7	.0	.0
1953.	48.8	48.9	.2	.1
1954.	46.5	46.5	.0	.0
1955.	47.7	47.7	.0	.0
1956.	50.7	50.7	.0	.0
1957.	47.6	47.6	.0	.0
1958.	52.8	52.8	.0	.0
1959.	50.3	50.4	.2	.1
1960.	47.2	47.3	.2	.1
1961.	46.7	46.8	.2	.1
1962.	49.8	49.8	.0	.0
1963.	46.9	47.0	.2	.1
1964.	47.3	47.3	.0	.0
1965.	46.2	46.4	.4	.2
1966.	48.3	48.2	-.2	-.1
1967.	49.2	49.2	.0	.0
1968.	45.5	45.5	.0	.0
1969.	49.6	49.6	.0	.0
1970.	47.2	47.1	-.2	-.1
1971.	46.2	46.2	.0	.0
1972.	44.9	44.9	.0	.0
1973.	47.1	47.1	.0	.0
1974.	47.6	47.5	-.2	-.1
1975.	48.7	48.8	.2	.1
1976.	51.9	51.6	-.6	-.3
1977.	47.0	47.0	.0	.0
1978.	47.2	47.3	.2	.1
1979.	45.8	45.8	.0	.0
1980.	47.8	47.8	.0	.0
1981.	47.1	47.1	.0	.0
1982.	45.7	45.7	.0	.0
1983.	46.9	46.9	.0	.0
1984.	45.5	45.6	.2	.1
1985.	45.6	45.7	.2	.1
1986.	47.2	47.1	-.2	-.1
1987.	46.0	45.9	-.2	-.1
1988.	45.9	46.0	.2	.1
1989.	47.4	47.4	.0	.0
1990.	44.0	43.8	-.5	-.2
Mean:	47.4	47.4	-.1	.0
Median:	47.2	47.1	.0	.0
Min:	44.0	43.8	-1.0	-.5
Max:	52.8	52.8	.6	.3
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 20

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

January

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	44.0	44.0	.0	.0
1923.	43.8	43.8	.0	.0
1924.	45.0	45.1	.2	.1
1925.	44.0	44.2	.5	.2
1926.	44.4	44.5	.2	.1
1927.	45.3	45.3	.0	.0
1928.	45.0	45.0	.0	.0
1929.	43.2	43.2	.0	.0
1930.	44.2	44.2	.0	.0
1931.	46.0	46.0	.0	.0
1932.	43.7	43.6	-.2	-.1
1933.	42.6	42.4	-.5	-.2
1934.	46.7	46.4	-.6	-.3
1935.	44.6	44.4	-.4	-.2
1936.	45.7	45.6	-.2	-.1
1937.	39.7	39.8	.3	.1
1938.	46.8	46.8	.0	.0
1939.	47.1	47.0	-.2	-.1
1940.	45.4	45.4	.0	.0
1941.	46.5	46.6	.2	.1
1942.	45.8	45.8	.0	.0
1943.	45.4	45.5	.2	.1
1944.	45.6	45.6	.0	.0
1945.	45.6	45.6	.0	.0
1946.	44.9	44.9	.0	.0
1947.	44.3	44.2	-.2	-.1
1948.	46.5	46.4	-.2	-.1
1949.	41.1	40.9	-.5	-.2
1950.	41.7	41.8	.2	.1
1951.	44.5	44.6	.2	.1
1952.	43.8	43.8	.0	.0
1953.	47.0	47.0	.0	.0
1954.	45.9	45.9	.0	.0
1955.	44.4	44.4	.0	.0
1956.	45.3	45.3	.0	.0
1957.	45.2	45.2	.0	.0
1958.	45.8	45.8	.0	.0
1959.	47.8	47.8	.0	.0
1960.	44.9	45.0	.2	.1
1961.	45.6	45.6	.0	.0
1962.	46.9	47.0	.2	.1
1963.	45.7	45.7	.0	.0
1964.	44.8	44.9	.2	.1
1965.	46.0	46.0	.0	.0
1966.	44.6	44.7	.2	.1
1967.	45.6	45.7	.2	.1
1968.	45.1	45.2	.2	.1
1969.	43.5	43.6	.2	.1
1970.	47.1	47.1	.0	.0
1971.	45.0	45.2	.4	.2
1972.	44.2	44.3	.2	.1
1973.	43.6	43.7	.2	.1
1974.	45.2	45.2	.0	.0
1975.	45.9	45.9	.0	.0
1976.	47.9	47.9	.0	.0
1977.	46.4	46.5	.2	.1
1978.	45.4	45.4	.0	.0
1979.	44.9	44.9	.0	.0
1980.	45.1	45.1	.0	.0
1981.	45.3	45.6	.7	.3
1982.	43.8	43.8	.0	.0
1983.	44.6	44.6	.0	.0
1984.	45.8	45.9	.2	.1
1985.	44.0	44.0	.0	.0
1986.	45.7	45.7	.0	.0
1987.	43.8	43.8	.0	.0
1988.	44.7	44.7	.0	.0
1989.	44.2	44.2	.0	.0
1990.	44.7	44.7	.0	.0
Mean:	45.0	45.0	.0	.0
Median:	45.0	45.1	.0	.0
Min:	39.7	39.8	-.6	-.3
Max:	47.9	47.9	.7	.3
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

February

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	46.6	46.6	.0	.0
1923.	50.3	50.1	-.4	-.2
1924.	48.9	48.8	-.2	-.1
1925.	48.1	48.1	.0	.0
1926.	48.0	48.2	.4	.2
1927.	47.7	47.7	.0	.0
1928.	48.9	49.0	.2	.1
1929.	46.2	46.3	.2	.1
1930.	47.5	47.5	.0	.0
1931.	48.6	48.6	.0	.0
1932.	47.8	46.0	-3.8	-1.8
1933.	45.4	44.2	-2.6	-1.2
1934.	48.6	49.5	1.9	.9
1935.	48.3	47.8	-1.0	-.5
1936.	47.9	47.8	-.2	-.1
1937.	46.0	45.6	-.9	-.4
1938.	47.2	47.2	.0	.0
1939.	46.3	46.3	.0	.0
1940.	48.2	48.3	.2	.1
1941.	48.7	48.8	.2	.1
1942.	47.3	47.3	.0	.0
1943.	49.5	49.6	.2	.1
1944.	47.0	47.0	.0	.0
1945.	48.8	48.8	.0	.0
1946.	45.4	45.3	-.2	-.1
1947.	47.8	47.8	.0	.0
1948.	46.8	46.5	-.6	-.3
1949.	44.5	43.3	-2.7	-1.2
1950.	46.9	46.3	-1.3	-.6
1951.	46.8	47.0	.4	.2
1952.	47.0	47.2	.4	.2
1953.	50.1	50.2	.2	.1
1954.	49.8	49.9	.2	.1
1955.	47.6	47.6	.0	.0
1956.	46.5	46.5	.0	.0
1957.	50.1	50.1	.0	.0
1958.	48.8	48.8	.0	.0
1959.	48.6	48.6	.0	.0
1960.	48.1	47.9	-.4	-.2
1961.	49.5	49.5	.0	.0
1962.	47.6	47.6	.0	.0
1963.	50.6	50.7	.2	.1
1964.	51.2	51.3	.2	.1
1965.	50.0	50.0	.0	.0
1966.	47.0	47.1	.2	.1
1967.	50.1	50.2	.2	.1
1968.	50.7	50.6	-.2	-.1
1969.	45.9	45.9	.0	.0
1970.	51.1	51.1	.0	.0
1971.	48.7	49.0	.6	.3
1972.	48.9	49.1	.4	.2
1973.	49.0	49.2	.4	.2
1974.	48.2	48.2	.0	.0
1975.	47.7	47.7	.0	.0
1976.	48.3	48.3	.0	.0
1977.	48.4	48.4	.0	.0
1978.	48.9	48.6	-.6	-.3
1979.	47.6	47.7	.2	.1
1980.	48.4	48.7	.6	.3
1981.	48.5	48.7	.4	.2
1982.	47.2	47.3	.2	.1
1983.	47.3	47.3	.0	.0
1984.	48.2	48.2	.0	.0
1985.	49.3	49.3	.0	.0
1986.	49.4	49.4	.0	.0
1987.	47.1	46.5	-1.3	-.6
1988.	51.2	51.2	.0	.0
1989.	45.2	45.2	.0	.0
1990.	45.5	45.6	.2	.1
Mean:	48.1	48.1	-.1	-.1
Median:	48.1	48.0	.0	.0
Min:	44.5	43.3	-3.8	-1.8
Max:	51.2	51.3	1.9	.9

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

March

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.6	50.7	.2	.1
1923.	55.2	55.1	-.2	-.1
1924.	50.2	50.0	-.4	-.2
1925.	49.7	49.8	.2	.1
1926.	57.1	57.1	.0	.0
1927.	51.9	51.9	.0	.0
1928.	52.3	52.5	.4	.2
1929.	49.7	49.7	.0	.0
1930.	53.9	53.3	-1.1	-.6
1931.	51.8	51.9	.2	.1
1932.	54.3	54.6	.6	.3
1933.	51.9	51.5	-.8	-.4
1934.	54.4	55.9	2.8	1.5
1935.	50.2	50.3	.2	.1
1936.	54.8	54.1	-1.3	-.7
1937.	50.9	50.4	-1.0	-.5
1938.	49.0	49.0	.0	.0
1939.	53.9	53.9	.0	.0
1940.	53.3	53.3	.0	.0
1941.	52.5	52.5	.0	.0
1942.	52.0	52.0	.0	.0
1943.	52.2	52.3	.2	.1
1944.	53.8	53.8	.0	.0
1945.	50.2	50.2	.0	.0
1946.	51.6	51.6	.0	.0
1947.	53.9	53.5	-.7	-.4
1948.	49.8	49.8	.0	.0
1949.	50.8	50.9	.2	.1
1950.	51.2	51.3	.2	.1
1951.	52.2	52.2	.0	.0
1952.	49.8	50.0	.4	.2
1953.	52.5	52.6	.2	.1
1954.	50.6	50.7	.2	.1
1955.	53.5	53.4	-.2	-.1
1956.	52.6	52.9	.6	.3
1957.	52.3	52.6	.6	.3
1958.	49.6	49.7	.2	.1
1959.	55.2	55.6	.7	.4
1960.	53.8	53.7	-.2	-.1
1961.	51.8	51.8	.0	.0
1962.	51.3	51.3	.0	.0
1963.	52.0	52.0	.0	.0
1964.	52.8	52.8	.0	.0
1965.	55.0	55.0	.0	.0
1966.	52.5	52.7	.4	.2
1967.	50.4	50.5	.2	.1
1968.	53.7	53.8	.2	.1
1969.	52.6	52.6	.0	.0
1970.	53.5	53.7	.4	.2
1971.	49.9	50.0	.2	.1
1972.	53.6	53.4	-.4	-.2
1973.	50.9	51.1	.4	.2
1974.	51.5	51.5	.0	.0
1975.	50.0	50.1	.2	.1
1976.	52.5	52.5	.0	.0
1977.	50.6	50.6	.0	.0
1978.	54.1	54.1	.0	.0
1979.	53.2	53.2	.0	.0
1980.	51.9	52.3	.8	.4
1981.	51.7	51.9	.4	.2
1982.	48.4	48.5	.2	.1
1983.	50.6	50.6	.0	.0
1984.	53.7	54.1	.7	.4
1985.	50.1	50.1	.0	.0
1986.	52.9	52.9	.0	.0
1987.	51.3	51.4	.2	.1
1988.	54.6	55.0	.7	.4
1989.	50.9	51.0	.2	.1
1990.	51.4	51.2	-.4	-.2
Mean:	52.1	52.1	.1	.0
Median:	51.9	52.0	.0	.0
Min:	48.4	48.5	-1.3	-.7
Max:	57.1	57.1	2.8	1.5
X > 56.0	1	1		
Mean X > 56.0	57.1	57.1	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

April

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	55.5	55.5	.0	.0
1923.	55.1	55.5	.7	.4
1924.	54.7	54.5	-.4	-.2
1925.	55.6	55.6	.0	.0
1926.	56.3	56.2	-.2	-.1
1927.	54.2	54.5	.6	.3
1928.	55.0	55.1	.2	.1
1929.	51.1	50.4	-1.4	-.7
1930.	55.6	55.8	.4	.2
1931.	53.9	54.1	.4	.2
1932.	54.2	54.4	.4	.2
1933.	54.7	54.7	.0	.0
1934.	56.3	56.2	-.2	-.1
1935.	55.6	56.0	.7	.4
1936.	55.7	56.0	.5	.3
1937.	54.0	54.2	.4	.2
1938.	53.4	53.4	.0	.0
1939.	54.3	54.3	.0	.0
1940.	56.0	55.9	-.2	-.1
1941.	53.5	53.7	.4	.2
1942.	54.7	54.7	.0	.0
1943.	55.0	55.0	.0	.0
1944.	53.1	53.7	1.1	.6
1945.	55.2	55.3	.2	.1
1946.	54.9	55.1	.4	.2
1947.	56.4	56.6	.4	.2
1948.	54.4	54.5	.2	.1
1949.	55.7	56.2	.9	.5
1950.	55.9	55.9	.0	.0
1951.	54.3	54.8	.9	.5
1952.	52.3	52.5	.4	.2
1953.	54.6	54.7	.2	.1
1954.	53.7	53.9	.4	.2
1955.	53.8	53.9	.2	.1
1956.	55.1	55.3	.4	.2
1957.	54.4	54.3	-.2	-.1
1958.	53.9	54.0	.2	.1
1959.	55.2	55.3	.2	.1
1960.	54.2	54.4	.4	.2
1961.	54.7	55.2	.9	.5
1962.	56.6	56.6	.0	.0
1963.	52.1	52.2	.2	.1
1964.	53.3	53.6	.6	.3
1965.	55.6	55.6	.0	.0
1966.	54.5	54.8	.6	.3
1967.	51.9	52.0	.2	.1
1968.	55.0	55.2	.4	.2
1969.	53.2	53.5	.6	.3
1970.	53.6	53.8	.4	.2
1971.	54.7	54.7	.0	.0
1972.	53.8	53.8	.0	.0
1973.	55.9	56.0	.2	.1
1974.	54.6	54.9	.5	.3
1975.	54.1	54.1	.0	.0
1976.	53.4	53.5	.2	.1
1977.	55.0	55.0	.0	.0
1978.	55.0	55.0	.0	.0
1979.	54.4	54.6	.4	.2
1980.	54.6	54.6	.0	.0
1981.	55.4	55.4	.0	.0
1982.	52.1	52.2	.2	.1
1983.	53.4	53.6	.4	.2
1984.	53.3	53.5	.4	.2
1985.	56.1	56.2	.2	.1
1986.	55.0	55.1	.2	.1
1987.	54.5	54.5	.0	.0
1988.	55.4	54.8	-1.1	-.6
1989.	55.8	55.8	.0	.0
1990.	55.5	54.4	-2.0	-1.1
Mean:	54.6	54.6	.2	.1
Median:	54.6	54.7	.2	.1
Min:	51.1	50.4	-2.0	-1.1
Max:	56.6	56.6	1.1	.6
X > 56.0	5	6		
Mean X > 56.0	56.3	56.3	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

May

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	57.4	57.3	-.2	-.1
1923.	53.0	53.5	.9	.5
1924.	55.4	55.2	-.4	-.2
1925.	59.5	60.4	1.5	.9
1926.	56.4	56.3	-.2	-.1
1927.	53.8	54.2	.7	.4
1928.	55.5	55.5	.0	.0
1929.	53.8	53.3	-.9	-.5
1930.	54.8	54.8	.0	.0
1931.	55.6	55.4	-.4	-.2
1932.	56.7	57.0	.5	.3
1933.	53.6	53.6	.0	.0
1934.	54.9	54.8	-.2	-.1
1935.	56.6	58.9	4.1	2.3
1936.	54.2	55.1	1.7	.9
1937.	55.3	55.8	.9	.5
1938.	55.0	56.6	2.9	1.6
1939.	52.7	52.7	.0	.0
1940.	57.1	56.6	-.9	-.5
1941.	52.9	53.2	.6	.3
1942.	53.5	54.3	1.5	.8
1943.	55.5	55.6	.2	.1
1944.	54.2	54.2	.0	.0
1945.	53.5	53.6	.2	.1
1946.	53.1	53.0	-.2	-.1
1947.	53.3	53.5	.4	.2
1948.	55.0	55.2	.4	.2
1949.	53.9	54.1	.4	.2
1950.	52.9	53.0	.2	.1
1951.	56.3	56.1	-.4	-.2
1952.	53.9	55.1	2.2	1.2
1953.	54.7	55.7	1.8	1.0
1954.	54.7	54.3	-.7	-.4
1955.	57.9	58.4	.9	.5
1956.	53.8	55.3	2.8	1.5
1957.	55.6	55.9	.5	.3
1958.	55.2	55.4	.4	.2
1959.	53.9	53.7	-.4	-.2
1960.	55.2	55.9	1.3	.7
1961.	52.5	52.1	-.8	-.4
1962.	53.5	53.5	.0	.0
1963.	56.9	58.2	2.3	1.3
1964.	54.3	54.5	.4	.2
1965.	55.8	55.8	.0	.0
1966.	53.4	53.0	-.7	-.4
1967.	53.0	53.4	.8	.4
1968.	54.2	54.0	-.4	-.2
1969.	53.5	54.5	1.9	1.0
1970.	55.7	55.5	-.4	-.2
1971.	52.9	53.6	1.3	.7
1972.	52.8	52.7	-.2	-.1
1973.	57.0	56.5	-.9	-.5
1974.	55.5	57.0	2.7	1.5
1975.	54.4	55.3	1.7	.9
1976.	55.7	55.2	-.9	-.5
1977.	54.5	54.5	.0	.0
1978.	54.9	55.0	.2	.1
1979.	56.5	56.2	-.5	-.3
1980.	54.5	54.4	-.2	-.1
1981.	53.1	53.2	.2	.1
1982.	59.3	58.8	-.8	-.5
1983.	54.9	54.9	.0	.0
1984.	53.8	53.4	-.7	-.4
1985.	53.0	52.9	-.2	-.1
1986.	53.9	53.8	-.2	-.1
1987.	53.7	53.2	-.9	-.5
1988.	52.6	52.8	.4	.2
1989.	53.5	53.8	.6	.3
1990.	53.8	53.6	-.4	-.2
Mean:	54.7	54.9	.4	.2
Median:	54.3	54.5	.0	.0
Min:	52.5	52.1	-.9	-.5
Max:	59.5	60.4	4.1	2.3
X > 56.0	12	14		
Mean X > 56.0	57.3	57.5	.3	.2
X > 60.0	0	1		
Mean X > 60.0	.0	60.4	.0	60.4
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

June

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	55.4	55.3	-.2	-.1
1923.	52.5	53.2	1.3	.7
1924.	55.3	55.4	.2	.1
1925.	56.8	58.6	3.2	1.8
1926.	56.2	56.3	.2	.1
1927.	55.5	54.4	-2.0	-1.1
1928.	54.0	53.6	-.7	-.4
1929.	55.5	55.8	.5	.3
1930.	55.0	54.8	-.4	-.2
1931.	56.0	55.8	-.4	-.2
1932.	58.1	57.9	-.3	-.2
1933.	56.2	56.2	.0	.0
1934.	54.1	54.2	.2	.1
1935.	54.1	54.3	.4	.2
1936.	54.9	55.8	1.6	.9
1937.	54.6	54.8	.4	.2
1938.	55.4	56.2	1.4	.8
1939.	53.9	53.7	-.4	-.2
1940.	55.9	55.2	-1.3	-.7
1941.	53.5	53.9	.7	.4
1942.	54.3	55.2	1.7	.9
1943.	53.1	53.0	-.2	-.1
1944.	52.9	52.8	-.2	-.1
1945.	54.4	54.3	-.2	-.1
1946.	52.4	52.1	-.6	-.3
1947.	54.0	54.1	.2	.1
1948.	55.0	55.0	.0	.0
1949.	52.6	52.1	-1.0	-.5
1950.	53.3	53.3	.0	.0
1951.	54.2	53.3	-1.7	-.9
1952.	53.6	54.6	1.9	1.0
1953.	53.1	53.5	.8	.4
1954.	54.0	53.9	-.2	-.1
1955.	52.1	53.8	3.3	1.7
1956.	55.3	56.4	2.0	1.1
1957.	56.4	55.9	-.9	-.5
1958.	53.8	54.1	.6	.3
1959.	54.7	54.6	-.2	-.1
1960.	53.4	55.4	3.7	2.0
1961.	54.9	56.1	2.2	1.2
1962.	55.2	54.7	-.9	-.5
1963.	56.6	55.9	-1.2	-.7
1964.	55.4	55.4	.0	.0
1965.	55.7	54.5	-2.2	-1.2
1966.	53.4	52.5	-1.7	-.9
1967.	54.6	55.2	1.1	.6
1968.	54.5	54.2	-.6	-.3
1969.	54.2	55.2	1.8	1.0
1970.	55.8	54.9	-1.6	-.9
1971.	53.8	54.2	.7	.4
1972.	54.4	53.9	-.9	-.5
1973.	55.6	55.9	.5	.3
1974.	55.2	56.0	1.4	.8
1975.	55.1	55.2	.2	.1
1976.	55.9	56.0	.2	.1
1977.	57.7	57.7	.0	.0
1978.	54.9	54.5	-.7	-.4
1979.	52.9	52.9	.0	.0
1980.	53.6	53.0	-1.1	-.6
1981.	55.3	55.0	-.5	-.3
1982.	54.6	55.7	2.0	1.1
1983.	54.0	54.0	.0	.0
1984.	53.9	53.4	-.9	-.5
1985.	54.9	54.6	-.5	-.3
1986.	54.2	53.7	-.9	-.5
1987.	53.9	53.7	-.4	-.2
1988.	53.4	54.4	1.9	1.0
1989.	53.6	53.8	.4	.2
1990.	55.8	56.3	.9	.5
Mean:	54.6	54.7	.2	.1
Median:	54.5	54.5	.0	.0
Min:	52.1	52.1	-2.2	-1.2
Max:	58.1	58.6	3.7	2.0
X > 56.0	7	9		
Mean X > 56.0	56.9	56.9	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

July

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	55.9	55.5	-.7	-.4
1923.	55.0	55.8	1.5	.8
1924.	57.2	57.1	-.2	-.1
1925.	56.3	56.8	.9	.5
1926.	57.1	56.6	-.9	-.5
1927.	54.5	54.9	.7	.4
1928.	53.0	53.0	.0	.0
1929.	55.6	55.5	-.2	-.1
1930.	56.0	55.7	-.5	-.3
1931.	58.4	59.5	1.9	1.1
1932.	57.0	56.7	-.5	-.3
1933.	58.9	59.6	1.2	.7
1934.	57.2	58.2	1.7	1.0
1935.	54.1	54.4	.6	.3
1936.	54.7	55.2	.9	.5
1937.	55.1	55.0	-.2	-.1
1938.	54.6	54.5	-.2	-.1
1939.	55.6	55.4	-.4	-.2
1940.	54.0	53.5	-.9	-.5
1941.	54.3	54.4	.2	.1
1942.	54.2	53.8	-.7	-.4
1943.	54.0	54.0	.0	.0
1944.	54.1	54.6	.9	.5
1945.	53.9	53.5	-.7	-.4
1946.	52.8	52.7	-.2	-.1
1947.	53.7	53.5	-.4	-.2
1948.	53.4	53.6	.4	.2
1949.	53.5	54.0	.9	.5
1950.	54.2	54.2	.0	.0
1951.	53.9	53.5	-.7	-.4
1952.	54.6	54.5	-.2	-.1
1953.	54.5	54.5	.0	.0
1954.	53.3	52.9	-.8	-.4
1955.	54.4	55.1	1.3	.7
1956.	54.3	54.1	-.4	-.2
1957.	54.0	53.9	-.2	-.1
1958.	54.6	54.7	.2	.1
1959.	55.2	55.1	-.2	-.1
1960.	54.6	55.2	1.1	.6
1961.	54.7	55.8	2.0	1.1
1962.	56.0	55.3	-1.3	-.7
1963.	53.7	54.3	1.1	.6
1964.	56.0	55.9	-.2	-.1
1965.	54.9	54.9	.0	.0
1966.	53.2	53.0	-.4	-.2
1967.	55.1	54.6	-.9	-.5
1968.	54.2	54.1	-.2	-.1
1969.	54.4	54.4	.0	.0
1970.	54.1	54.2	.2	.1
1971.	55.5	55.0	-.9	-.5
1972.	53.5	53.5	.0	.0
1973.	55.2	54.3	-1.6	-.9
1974.	54.5	54.6	.2	.1
1975.	54.5	54.6	.2	.1
1976.	57.0	56.7	-.5	-.3
1977.	58.8	58.9	.2	.1
1978.	55.7	55.6	-.2	-.1
1979.	53.6	53.4	-.4	-.2
1980.	55.2	55.1	-.2	-.1
1981.	55.5	55.9	.7	.4
1982.	53.2	53.6	.8	.4
1983.	53.7	53.7	.0	.0
1984.	54.9	54.8	-.2	-.1
1985.	55.9	55.8	-.2	-.1
1986.	54.2	53.9	-.6	-.3
1987.	54.9	54.3	-1.1	-.6
1988.	56.3	57.0	1.2	.7
1989.	54.5	54.8	.6	.3
1990.	54.6	55.3	1.3	.7
Mean:	54.9	55.0	.1	.0
Median:	54.5	54.6	-.2	-.1
Min:	52.8	52.7	-1.6	-.9
Max:	58.9	59.6	2.0	1.1
X > 56.0	10	10		
Mean X > 56.0	57.4	57.7	.5	.3
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

August

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.9	54.9	.0	.0
1923.	55.3	55.9	1.1	.6
1924.	63.1	62.8	-.5	-.3
1925.	55.5	56.0	.9	.5
1926.	56.1	56.0	-.2	-.1
1927.	54.2	54.9	1.3	.7
1928.	55.1	55.5	.7	.4
1929.	56.3	56.5	.4	.2
1930.	55.5	55.4	-.2	-.1
1931.	62.2	63.9	2.7	1.7
1932.	57.6	60.8	5.6	3.2
1933.	58.8	61.1	3.9	2.3
1934.	61.8	65.8	6.5	4.0
1935.	56.6	59.0	4.2	2.4
1936.	55.6	55.4	-.4	-.2
1937.	55.3	55.2	-.2	-.1
1938.	54.0	54.2	.4	.2
1939.	56.3	56.4	.2	.1
1940.	55.2	55.2	.0	.0
1941.	53.5	53.6	.2	.1
1942.	53.9	54.4	.9	.5
1943.	53.6	53.8	.4	.2
1944.	55.1	55.5	.7	.4
1945.	54.4	54.4	.0	.0
1946.	54.3	54.3	.0	.0
1947.	54.7	54.3	-.7	-.4
1948.	53.9	53.8	-.2	-.1
1949.	53.5	54.3	1.5	.8
1950.	54.6	54.7	.2	.1
1951.	54.9	54.8	-.2	-.1
1952.	53.8	53.9	.2	.1
1953.	53.5	53.6	.2	.1
1954.	54.2	55.1	1.7	.9
1955.	56.8	56.7	-.2	-.1
1956.	53.8	54.0	.4	.2
1957.	53.9	54.2	.6	.3
1958.	55.2	55.3	.2	.1
1959.	57.2	57.0	-.3	-.2
1960.	55.6	55.4	-.4	-.2
1961.	55.8	55.9	.2	.1
1962.	55.7	55.7	.0	.0
1963.	54.6	54.6	.0	.0
1964.	56.6	56.9	.5	.3
1965.	54.5	55.6	2.0	1.1
1966.	56.9	56.3	-1.1	-.6
1967.	55.0	55.2	.4	.2
1968.	57.2	56.8	-.7	-.4
1969.	54.7	55.1	.7	.4
1970.	56.9	56.8	-.2	-.1
1971.	55.1	55.8	1.3	.7
1972.	55.9	55.5	-.7	-.4
1973.	54.8	56.5	3.1	1.7
1974.	54.6	54.9	.5	.3
1975.	53.8	53.9	.2	.1
1976.	54.7	55.2	.9	.5
1977.	66.7	67.5	1.2	.8
1978.	55.0	55.3	.5	.3
1979.	55.3	55.4	.2	.1
1980.	54.0	55.4	2.6	1.4
1981.	55.7	57.7	3.6	2.0
1982.	53.5	53.9	.7	.4
1983.	54.1	54.1	.0	.0
1984.	54.0	55.4	2.6	1.4
1985.	54.8	55.8	1.8	1.0
1986.	55.3	55.2	-.2	-.1
1987.	57.9	58.1	.3	.2
1988.	55.9	56.2	.5	.3
1989.	55.5	55.0	-.9	-.5
1990.	55.2	55.5	.5	.3
Mean:	55.6	56.1	.8	.4
Median:	55.1	55.4	.3	.1
Min:	53.5	53.6	-1.1	-.6
Max:	66.7	67.5	6.5	4.0
X > 56.0	17	19		
Mean X > 56.0	58.5	59.1	1.0	.6
X > 60.0	4	6		
Mean X > 60.0	63.5	63.7	.3	.2
X > 62.5	2	4		
Mean X > 62.5	64.9	65.0	.2	.1
X > 65.0	1	2		
Mean X > 65.0	66.7	66.7	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

September

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.8	54.8	.0	.0
1923.	53.4	53.5	.2	.1
1924.	66.1	66.0	-.2	-.1
1925.	53.1	52.2	-1.7	-.9
1926.	53.7	53.9	.4	.2
1927.	54.5	54.0	-.9	-.5
1928.	54.3	54.6	.6	.3
1929.	54.0	54.7	1.3	.7
1930.	51.7	51.9	.4	.2
1931.	64.8	66.2	2.2	1.4
1932.	63.8	66.3	3.9	2.5
1933.	58.8	63.3	7.7	4.5
1934.	65.2	68.2	4.6	3.0
1935.	60.8	63.3	4.1	2.5
1936.	59.0	58.2	-1.4	-.8
1937.	51.9	52.5	1.2	.6
1938.	57.3	57.2	-.2	-.1
1939.	56.0	57.3	2.3	1.3
1940.	53.0	53.6	1.1	.6
1941.	54.3	54.1	-.4	-.2
1942.	54.5	54.6	.2	.1
1943.	56.6	55.9	-1.2	-.7
1944.	55.8	56.1	.5	.3
1945.	55.4	55.8	.7	.4
1946.	52.8	52.9	.2	.1
1947.	55.9	57.5	2.9	1.6
1948.	56.2	55.8	-.7	-.4
1949.	51.2	51.4	.4	.2
1950.	51.2	51.3	.2	.1
1951.	54.4	54.5	.2	.1
1952.	54.7	54.7	.0	.0
1953.	55.8	55.5	-.5	-.3
1954.	54.7	54.6	-.2	-.1
1955.	54.8	54.7	-.2	-.1
1956.	54.4	54.4	.0	.0
1957.	55.0	55.5	.9	.5
1958.	56.9	56.7	-.4	-.2
1959.	57.5	58.5	1.7	1.0
1960.	55.4	55.4	.0	.0
1961.	55.9	55.4	-.9	-.5
1962.	55.4	56.0	1.1	.6
1963.	57.1	58.0	1.6	.9
1964.	54.3	54.4	.2	.1
1965.	54.3	53.6	-1.3	-.7
1966.	54.7	55.3	1.1	.6
1967.	57.3	57.8	.9	.5
1968.	56.1	55.9	-.4	-.2
1969.	54.7	54.6	-.2	-.1
1970.	54.5	54.6	.2	.1
1971.	55.9	56.0	.2	.1
1972.	53.3	53.4	.2	.1
1973.	54.0	53.5	-.9	-.5
1974.	54.1	54.1	.0	.0
1975.	57.8	57.6	-.3	-.2
1976.	57.6	57.8	.3	.2
1977.	66.1	66.1	.0	.0
1978.	53.7	53.2	-.9	-.5
1979.	55.0	55.2	.4	.2
1980.	53.5	53.3	-.4	-.2
1981.	54.8	55.0	.4	.2
1982.	53.2	53.4	.4	.2
1983.	53.2	53.2	.0	.0
1984.	54.8	54.9	.2	.1
1985.	52.1	52.2	.2	.1
1986.	52.3	53.0	1.3	.7
1987.	53.2	54.3	2.1	1.1
1988.	54.7	55.1	.7	.4
1989.	52.8	53.1	.6	.3
1990.	57.5	58.7	2.1	1.2
Mean:	55.6	55.9	.6	.3
Median:	54.7	54.7	.2	.1
Min:	51.2	51.3	-1.7	-.9
Max:	66.1	68.2	7.7	4.5
X > 56.0	19	19		
Mean X > 56.0	59.6	60.6	1.7	1.0
X > 60.0	6	7		
Mean X > 60.0	64.5	65.6	1.7	1.1
X > 62.5	5	7		
Mean X > 62.5	65.2	65.6	.6	.4
X > 65.0	3	5		
Mean X > 65.0	65.8	66.6	1.2	.8
X > 67.5	0	1		
Mean X > 67.5	.0	68.2	.0	68.2
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

October"

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.2	50.8	1.2	.6
1923.	53.4	53.1	-.6	-.3
1924.	57.3	57.3	.0	.0
1925.	55.4	54.0	-2.5	-1.4
1926.	56.9	57.2	.5	.3
1927.	52.6	53.7	2.1	1.1
1928.	53.7	54.2	.9	.5
1929.	56.8	57.9	1.9	1.1
1930.	54.1	55.1	1.8	1.0
1931.	60.1	60.0	-.2	-.1
1932.	61.0	61.9	1.5	.9
1933.	62.4	63.6	1.9	1.2
1934.	60.6	60.2	-.7	-.4
1935.	58.8	59.6	1.4	.8
1936.	59.3	58.8	-.8	-.5
1937.	55.7	54.5	-2.2	-1.2
1938.	54.1	54.2	.2	.1
1939.	57.2	58.0	1.4	.8
1940.	52.7	54.6	3.6	1.9
1941.	54.2	54.2	.0	.0
1942.	53.7	53.7	.0	.0
1943.	52.3	52.9	1.1	.6
1944.	55.3	55.7	.7	.4
1945.	54.9	56.0	2.0	1.1
1946.	50.0	51.6	3.2	1.6
1947.	56.1	57.1	1.8	1.0
1948.	54.0	54.2	.4	.2
1949.	47.7	48.5	1.7	.8
1950.	50.6	51.7	2.2	1.1
1951.	49.5	50.1	1.2	.6
1952.	51.5	51.6	.2	.1
1953.	52.5	52.4	-.2	-.1
1954.	53.8	53.8	.0	.0
1955.	54.4	53.3	-2.0	-1.1
1956.	51.5	51.4	-.2	-.1
1957.	52.2	52.6	.8	.4
1958.	56.3	56.4	.2	.1
1959.	57.7	58.5	1.4	.8
1960.	54.7	54.0	-1.3	-.7
1961.	55.5	54.5	-1.8	-1.0
1962.	54.1	55.6	2.8	1.5
1963.	53.1	53.4	.6	.3
1964.	55.4	55.6	.4	.2
1965.	53.4	54.3	1.7	.9
1966.	53.7	55.5	3.4	1.8
1967.	55.3	55.4	.2	.1
1968.	53.5	54.3	1.5	.8
1969.	50.0	50.0	.0	.0
1970.	51.9	52.8	1.7	.9
1971.	53.0	53.3	.6	.3
1972.	52.9	54.2	2.5	1.3
1973.	50.7	50.6	-.2	-.1
1974.	53.4	53.5	.2	.1
1975.	54.2	54.2	.0	.0
1976.	56.9	57.2	.5	.3
1977.	60.9	60.7	-.3	-.2
1978.	54.3	53.6	-1.3	-.7
1979.	52.6	54.5	3.6	1.9
1980.	50.8	50.8	.0	.0
1981.	52.6	52.9	.6	.3
1982.	48.9	49.1	.4	.2
1983.	56.2	56.2	.0	.0
1984.	51.8	52.1	.6	.3
1985.	52.5	52.8	.6	.3
1986.	52.9	54.7	3.4	1.8
1987.	54.8	58.1	6.0	3.3
1988.	57.1	57.9	1.4	.8
1989.	53.6	54.0	.7	.4
1990.	57.7	58.6	1.6	.9
Mean:	54.3	54.8	.8	.4
Median:	53.8	54.2	.6	.3
Min:	47.7	48.5	-2.5	-1.4
Max:	62.4	63.6	6.0	3.3
X > 56.0	18	19		
Mean X > 56.0	58.3	58.7	.7	.4
X > 60.0	5	4		
Mean X > 60.0	61.0	61.6	1.0	.6
X > 62.5	0	1		
Mean X > 62.5	.0	63.6	.0	63.6
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

November

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	48.9	49.7	1.6	.8
1923.	53.6	52.7	-1.7	-.9
1924.	51.2	51.2	.0	.0
1925.	51.8	51.3	-1.0	-.5
1926.	53.0	53.2	.4	.2
1927.	51.0	51.8	1.6	.8
1928.	51.7	51.9	.4	.2
1929.	55.8	56.4	1.1	.6
1930.	52.2	52.9	1.3	.7
1931.	51.5	51.3	-.4	-.2
1932.	55.9	55.7	-.4	-.2
1933.	56.2	56.0	-.4	-.2
1934.	52.1	51.6	-1.0	-.5
1935.	53.0	52.6	-.8	-.4
1936.	57.4	56.4	-1.7	-1.0
1937.	51.9	51.9	.0	.0
1938.	52.7	52.8	.2	.1
1939.	54.7	54.9	.4	.2
1940.	51.3	52.5	2.3	1.2
1941.	53.5	53.6	.2	.1
1942.	51.6	51.7	.2	.1
1943.	50.6	51.3	1.4	.7
1944.	51.1	51.1	.0	.0
1945.	51.2	51.3	.2	.1
1946.	49.7	50.6	1.8	.9
1947.	52.4	52.4	.0	.0
1948.	51.4	52.2	1.6	.8
1949.	46.7	48.2	3.2	1.5
1950.	47.6	49.3	3.6	1.7
1951.	47.9	49.2	2.7	1.3
1952.	47.3	47.4	.2	.1
1953.	51.3	51.3	.0	.0
1954.	51.6	52.0	.8	.4
1955.	51.5	51.0	-1.0	-.5
1956.	52.6	52.5	-.2	-.1
1957.	51.7	51.8	.2	.1
1958.	54.6	54.6	.0	.0
1959.	55.3	55.5	.4	.2
1960.	51.7	51.4	-.6	-.3
1961.	52.2	52.0	-.4	-.2
1962.	53.3	53.2	-.2	-.1
1963.	50.9	51.1	.4	.2
1964.	50.9	51.1	.4	.2
1965.	50.5	51.4	1.8	.9
1966.	52.1	52.8	1.3	.7
1967.	55.0	55.0	.0	.0
1968.	51.5	51.9	.8	.4
1969.	50.4	50.5	.2	.1
1970.	51.3	51.7	.8	.4
1971.	52.0	52.1	.2	.1
1972.	50.9	51.3	.8	.4
1973.	49.2	49.5	.6	.3
1974.	52.1	52.1	.0	.0
1975.	51.9	51.9	.0	.0
1976.	54.7	54.9	.4	.2
1977.	52.3	52.1	-.4	-.2
1978.	49.5	50.5	2.0	1.0
1979.	49.7	50.4	1.4	.7
1980.	48.4	48.6	.4	.2
1981.	51.2	51.3	.2	.1
1982.	46.6	46.7	.2	.1
1983.	52.3	52.3	.0	.0
1984.	50.0	50.3	.6	.3
1985.	48.7	48.9	.4	.2
1986.	51.5	52.5	1.9	1.0
1987.	51.2	52.2	2.0	1.0
1988.	51.2	51.4	.4	.2
1989.	51.8	51.9	.2	.1
1990.	52.4	52.2	-.4	-.2
Mean:	51.6	51.9	.5	.2
Median:	51.5	51.8	.2	.1
Min:	46.6	46.7	-1.7	-1.0
Max:	57.4	56.4	3.6	1.7
X > 56.0	2	2		
Mean X > 56.0	56.8	56.4	-.7	-.4
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

December

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	45.7	45.7	.0	.0
1923.	47.4	47.4	.0	.0
1924.	44.0	44.0	.0	.0
1925.	48.4	48.5	.2	.1
1926.	46.6	46.6	.0	.0
1927.	47.2	47.3	.2	.1
1928.	46.2	46.2	.0	.0
1929.	48.8	48.8	.0	.0
1930.	48.7	48.5	-.4	-.2
1931.	44.8	44.8	.0	.0
1932.	44.9	44.6	-.7	-.3
1933.	46.0	45.8	-.4	-.2
1934.	47.2	46.9	-.6	-.3
1935.	48.0	47.6	-.8	-.4
1936.	48.9	48.4	-1.0	-.5
1937.	48.3	48.6	.6	.3
1938.	49.5	49.5	.0	.0
1939.	48.9	48.7	-.4	-.2
1940.	48.5	48.0	-1.0	-.5
1941.	48.2	48.2	.0	.0
1942.	46.8	46.8	.0	.0
1943.	48.9	48.9	.0	.0
1944.	47.6	47.6	.0	.0
1945.	46.8	46.8	.0	.0
1946.	47.0	46.9	-.2	-.1
1947.	46.8	46.6	-.4	-.2
1948.	45.3	45.3	.0	.0
1949.	47.4	47.3	-.2	-.1
1950.	48.2	48.1	-.2	-.1
1951.	46.7	46.6	-.2	-.1
1952.	46.6	46.7	.2	.1
1953.	48.7	48.8	.2	.1
1954.	46.4	46.3	-.2	-.1
1955.	47.7	47.7	.0	.0
1956.	50.5	50.5	.0	.0
1957.	47.5	47.5	.0	.0
1958.	52.7	52.7	.0	.0
1959.	50.2	50.2	.0	.0
1960.	47.1	47.2	.2	.1
1961.	46.6	46.8	.4	.2
1962.	49.8	49.8	.0	.0
1963.	46.7	46.8	.2	.1
1964.	47.3	47.3	.0	.0
1965.	46.0	46.2	.4	.2
1966.	48.3	48.2	-.2	-.1
1967.	49.1	49.1	.0	.0
1968.	45.5	45.4	-.2	-.1
1969.	49.6	49.5	-.2	-.1
1970.	47.1	47.1	.0	.0
1971.	46.0	46.1	.2	.1
1972.	44.8	44.7	-.2	-.1
1973.	47.1	47.1	.0	.0
1974.	47.4	47.4	.0	.0
1975.	48.6	48.7	.2	.1
1976.	51.7	51.4	-.6	-.3
1977.	47.0	46.9	-.2	-.1
1978.	47.1	47.2	.2	.1
1979.	45.8	45.8	.0	.0
1980.	47.8	47.8	.0	.0
1981.	47.1	47.1	.0	.0
1982.	45.6	45.7	.2	.1
1983.	46.9	46.9	.0	.0
1984.	45.5	45.5	.0	.0
1985.	45.5	45.6	.2	.1
1986.	47.1	47.0	-.2	-.1
1987.	45.9	45.8	-.2	-.1
1988.	45.8	45.9	.2	.1
1989.	47.3	47.3	.0	.0
1990.	43.8	43.6	-.5	-.2
Mean:	47.3	47.3	-.1	.0
Median:	47.1	47.1	.0	.0
Min:	43.8	43.6	-1.0	-.5
Max:	52.7	52.7	.6	.3
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 21

SACRAMENTO RIVER SALMON SURVIVAL

SACRAMENTO RIVER - FALL RUN SALMON SURVIVAL

Water Year	Base Survival (%)	2030 w/ WFP Survival (%)	Rel Change (%)	Abs Diff (%)
1922	96.1	96.0	-.1	-.1
1923	94.7	95.1	.4	.4
1924	70.9	70.9	.0	.0
1925	93.3	96.0	2.9	2.7
1926	88.6	87.6	-1.1	-1.0
1927	96.1	95.3	-.8	-.8
1928	95.2	94.3	-.9	-.9
1929	86.4	80.0	-7.4	-6.4
1930	95.7	94.0	-1.8	-1.7
1931	65.4	65.5	.2	.1
1932	62.9	60.4	-4.0	-2.5
1933	62.5	58.5	-6.4	-4.0
1934	64.2	64.8	.9	.6
1935	73.4	67.4	-8.2	-6.0
1936	67.9	74.1	9.1	6.2
1937	93.5	94.7	1.3	1.2
1938	91.6	91.3	-.3	-.3
1939	84.8	80.4	-5.2	-4.4
1940	96.7	94.3	-2.5	-2.4
1941	94.3	94.3	.0	.0
1942	95.2	94.8	-.4	-.4
1943	94.4	94.5	.1	.1
1944	91.3	90.3	-1.1	-1.0
1945	92.1	89.9	-2.4	-2.2
1946	97.2	96.8	-.4	-.4
1947	88.7	84.4	-4.8	-4.3
1948	93.5	93.4	-.1	-.1
1949	98.1	97.7	-.4	-.4
1950	97.5	97.0	-.5	-.5
1951	96.3	96.2	-.1	-.1
1952	95.5	95.4	-.1	-.1
1953	94.8	95.1	.3	.3
1954	94.7	94.5	-.2	-.2
1955	93.0	94.1	1.2	1.1
1956	96.6	96.6	.0	.0
1957	96.4	95.5	-.9	-.9
1958	85.6	85.7	.1	.1
1959	80.3	76.1	-5.2	-4.2
1960	92.3	93.2	1.0	.9
1961	90.8	92.9	2.3	2.1
1962	92.6	89.8	-3.0	-2.8
1963	93.4	92.1	-1.4	-1.3
1964	92.6	92.1	-.5	-.5
1965	95.5	94.4	-1.2	-1.1
1966	93.3	90.0	-3.5	-3.3
1967	86.9	86.2	-.8	-.7
1968	93.2	92.6	-.6	-.6
1969	96.5	96.4	-.1	-.1
1970	95.4	94.8	-.6	-.6
1971	94.8	94.2	-.6	-.6
1972	96.5	95.6	-.9	-.9
1973	96.8	96.6	-.2	-.2
1974	95.2	95.0	-.2	-.2
1975	91.4	91.6	.2	.2
1976	83.8	82.8	-1.2	-1.0
1977	63.8	64.0	.3	.2
1978	93.8	94.4	.6	.6
1979	94.4	92.8	-1.7	-1.6
1980	96.5	96.1	-.4	-.4
1981	94.7	93.9	-.8	-.8
1982	97.8	97.6	-.2	-.2
1983	91.2	91.3	.1	.1
1984	95.4	94.8	-.6	-.6
1985	97.0	96.5	-.5	-.5
1986	96.7	94.3	-2.5	-2.4
1987	92.8	84.7	-8.7	-8.1
1988	87.9	85.3	-3.0	-2.6
1989	95.7	95.2	-.5	-.5
1990	82.7	78.6	-5.0	-4.1
Mean	90.1	89.2	-1.1	-.9
Median	93.5	93.9	-.5	-.5
Min	62.5	58.5	-8.7	-8.1
Max	98.1	97.7	9.1	6.2
Abs Diff < -1.0 &Rel Diff < signif				16
Abs Diff > 1.0 &Rel Diff > signif				5
No measurable Change				48
Check				69

SACRAMENTO RIVER - LATE FALL RUN SALMON SURVIVAL

Water Year	Base Survival (%)	2030 w/ WFP Survival (%)	Rel Change (%)	Abs Diff (%)
1922	99.1	99.2	.1	.1
1923	99.5	99.7	.2	.2
1924	98.7	98.8	.1	.1
1925	98.1	97.6	-.5	-.5
1926	96.2	96.3	.1	.1
1927	99.8	99.8	.0	.0
1928	99.4	99.4	.0	.0
1929	97.3	96.4	-.9	-.9
1930	99.6	99.4	-.2	-.2
1931	98.3	98.4	.1	.1
1932	96.4	96.2	-.2	-.2
1933	96.3	96.2	-.1	-.1
1934	97.6	97.8	.2	.2
1935	98.3	97.3	-1.0	-1.0
1936	95.4	96.4	1.0	1.0
1937	99.5	99.4	-.1	-.1
1938	99.4	99.0	-.4	-.4
1939	98.0	97.7	-.3	-.3
1940	99.1	99.0	-.1	-.1
1941	99.5	99.5	.0	.0
1942	99.9	99.8	-.1	-.1
1943	99.6	99.5	-.1	-.1
1944	99.7	99.7	.0	.0
1945	99.7	99.7	.0	.0
1946	99.7	99.7	.0	.0
1947	98.9	98.7	-.2	-.2
1948	99.9	99.8	-.1	-.1
1949	99.5	99.4	-.1	-.1
1950	99.6	99.6	.0	.0
1951	99.3	99.3	.0	.0
1952	99.9	99.7	-.2	-.2
1953	99.9	99.8	-.1	-.1
1954	99.7	99.7	.0	.0
1955	99.2	99.0	-.2	-.2
1956	99.7	99.5	-.2	-.2
1957	99.6	99.6	.0	.0
1958	95.6	95.6	.0	.0
1959	97.3	96.9	-.4	-.4
1960	99.6	99.5	-.1	-.1
1961	99.7	99.8	.1	.1
1962	99.1	99.1	.0	.0
1963	99.4	99.1	-.3	-.3
1964	99.7	99.7	.0	.0
1965	99.4	99.4	.0	.0
1966	99.8	99.6	-.2	-.2
1967	98.5	98.4	-.1	-.1
1968	99.6	99.6	.0	.0
1969	99.9	99.7	-.2	-.2
1970	99.4	99.4	.0	.0
1971	99.9	99.9	.0	.0
1972	99.9	99.9	.0	.0
1973	99.0	99.1	.1	.1
1974	99.7	99.3	-.4	-.4
1975	99.7	99.6	-.1	-.1
1976	97.2	97.2	.0	.0
1977	98.5	98.6	.1	.1
1978	99.6	99.6	.0	.0
1979	99.3	99.3	.0	.0
1980	99.7	99.7	.0	.0
1981	99.7	99.7	.0	.0
1982	98.0	98.2	.2	.2
1983	99.6	99.6	.0	.0
1984	99.7	99.7	.0	.0
1985	99.4	99.4	.0	.0
1986	99.7	99.6	-.1	-.1
1987	99.7	99.2	-.5	-.5
1988	99.5	99.4	-.1	-.1
1989	99.6	99.5	-.1	-.1
1990	98.7	98.8	.1	.1
Mean	99.0	98.9	-.1	-.1
Median	99.5	99.4	.0	.0
Min	95.4	95.6	-1.0	-1.0
Max	99.9	99.9	1.0	1.0
Abs Diff < -1.0				
&Rel Diff < signif				0
Abs Diff > 1.0				
&Rel Diff > signif				0
No measurable Change				69
Check				69

SACRAMENTO RIVER - WINTER RUN SALMON SURVIVAL

	Base	2030 w/ WFP		
Water Year	Survival (%)	Survival (%)	Rel Change (%)	Abs Diff (%)
1922	97.9	98.0	.1	.1
1923	95.5	95.0	-.5	-.5
1924	57.1	61.0	6.8	3.9
1925	96.5	95.2	-1.3	-1.3
1926	90.4	90.7	.3	.3
1927	99.0	98.9	-.1	-.1
1928	98.8	98.7	-.1	-.1
1929	98.9	98.8	-.1	-.1
1930	95.4	97.3	2.0	1.9
1931	74.0	52.2	-29.5	-21.8
1932	93.0	76.0	-18.3	-17.0
1933	97.2	84.6	-13.0	-12.6
1934	77.8	14.9	-80.8	-62.9
1935	97.9	88.9	-9.2	-9.0
1936	95.0	96.1	1.2	1.1
1937	98.9	98.7	-.2	-.2
1938	99.0	98.6	-.4	-.4
1939	98.4	98.4	.0	.0
1940	97.3	97.6	.3	.3
1941	99.5	99.4	-.1	-.1
1942	99.2	98.9	-.3	-.3
1943	98.8	98.7	-.1	-.1
1944	98.6	98.2	-.4	-.4
1945	99.1	99.1	.0	.0
1946	99.4	99.4	.0	.0
1947	95.9	96.9	1.0	1.0
1948	99.0	99.0	.0	.0
1949	99.2	99.0	-.2	-.2
1950	99.0	98.9	-.1	-.1
1951	98.7	98.8	.1	.1
1952	99.4	99.0	-.4	-.4
1953	99.1	98.7	-.4	-.4
1954	99.3	99.3	.0	.0
1955	97.9	97.5	-.4	-.4
1956	98.9	98.2	-.7	-.7
1957	98.5	98.4	-.1	-.1
1958	99.0	98.9	-.1	-.1
1959	95.2	94.5	-.7	-.7
1960	97.4	97.0	-.4	-.4
1961	99.1	98.5	-.6	-.6
1962	98.0	98.2	.2	.2
1963	98.4	98.2	-.2	-.2
1964	98.4	98.2	-.2	-.2
1965	94.6	94.6	.0	.0
1966	99.1	99.1	.0	.0
1967	99.4	99.2	-.2	-.2
1968	97.3	96.9	-.4	-.4
1969	99.2	98.9	-.3	-.3
1970	97.5	97.1	-.4	-.4
1971	99.3	99.1	-.2	-.2
1972	98.9	99.1	.2	.2
1973	97.9	97.9	.0	.0
1974	98.8	98.3	-.5	-.5
1975	99.0	98.8	-.2	-.2
1976	98.0	98.1	.1	.1
1977	21.3	16.9	-20.7	-4.4
1978	96.5	96.5	.0	.0
1979	98.3	98.4	.1	.1
1980	98.9	98.9	.0	.0
1981	98.5	98.1	-.4	-.4
1982	98.2	98.2	.0	.0
1983	99.2	99.2	.0	.0
1984	98.4	97.4	-1.0	-1.0
1985	98.4	98.4	.0	.0
1986	98.5	98.6	.1	.1
1987	98.7	98.7	.0	.0
1988	96.2	95.1	-1.1	-1.1
1989	98.8	98.7	-.1	-.1
1990	98.6	98.5	-.1	-.1
Mean	95.7	93.8	-2.5	-1.9
Median	98.5	98.3	-.1	-.1
Min	21.3	14.9	-80.8	-62.9
Max	99.5	99.4	6.8	3.9
Abs Diff < -1.0 &Rel Diff < signif				6
Abs Diff > 1.0 &Rel Diff > signif				3
No measurable Change				60
Check				69

SACRAMENTO RIVER - SPRING RUN SALMON SURVIVAL

Water Year	Base Survival (%)	2030 w/ WFP Survival (%)	Rel Change (%)	Abs Diff (%)
1922	96.3	96.5	.2	.2
1923	97.3	96.6	-.7	-.7
1924	3.4	3.4	.0	.0
1925	96.0	95.3	-.7	-.7
1926	95.2	95.3	.1	.1
1927	97.6	97.3	-.3	-.3
1928	97.6	97.3	-.3	-.3
1929	95.9	94.6	-1.4	-1.3
1930	96.9	97.1	.2	.2
1931	1.2	1.3	8.3	.1
1932	2.2	.2	-90.9	-2.0
1933	13.7	.0	-100.0	-13.7
1934	.9	1.2	33.3	.3
1935	56.8	2.7	-95.2	-54.1
1936	75.7	88.2	16.5	12.5
1937	97.3	97.3	.0	.0
1938	96.0	95.8	-.2	-.2
1939	95.0	92.2	-2.9	-2.8
1940	97.2	97.4	.2	.2
1941	98.3	98.2	-.1	-.1
1942	97.9	97.5	-.4	-.4
1943	96.9	97.2	.3	.3
1944	96.3	95.8	-.5	-.5
1945	96.8	96.4	-.4	-.4
1946	98.4	98.4	.0	.0
1947	96.2	93.7	-2.6	-2.5
1948	97.0	97.2	.2	.2
1949	98.5	98.2	-.3	-.3
1950	98.0	98.0	.0	.0
1951	97.2	97.4	.2	.2
1952	97.5	97.4	-.1	-.1
1953	97.3	97.3	.0	.0
1954	97.7	97.5	-.2	-.2
1955	96.0	95.8	-.2	-.2
1956	97.7	97.4	-.3	-.3
1957	97.4	97.1	-.3	-.3
1958	95.4	95.4	.0	.0
1959	90.9	85.5	-5.9	-5.4
1960	96.2	96.0	-.2	-.2
1961	96.0	95.8	-.2	-.2
1962	95.8	95.5	-.3	-.3
1963	95.8	94.3	-1.6	-1.5
1964	95.7	95.4	-.3	-.3
1965	97.2	96.9	-.3	-.3
1966	96.2	95.9	-.3	-.3
1967	94.7	93.6	-1.2	-1.1
1968	95.3	95.7	.4	.4
1969	97.3	97.0	-.3	-.3
1970	95.9	96.0	.1	.1
1971	96.6	96.2	-.4	-.4
1972	97.4	97.7	.3	.3
1973	96.9	96.4	-.5	-.5
1974	97.4	97.0	-.4	-.4
1975	94.9	95.2	.3	.3
1976	92.7	92.0	-.8	-.7
1977	.9	1.1	22.2	.2
1978	96.8	96.8	.0	.0
1979	96.6	96.4	-.2	-.2
1980	97.7	97.1	-.6	-.6
1981	96.1	94.8	-1.4	-1.3
1982	97.9	97.6	-.3	-.3
1983	98.0	97.9	-.1	-.1
1984	97.0	96.3	-.7	-.7
1985	97.2	96.7	-.5	-.5
1986	97.5	97.5	.0	.0
1987	95.7	94.1	-1.7	-1.6
1988	95.0	93.8	-1.3	-1.2
1989	97.4	97.4	.0	.0
1990	92.4	86.3	-6.6	-6.1
Mean	87.6	86.3	-3.5	-1.3
Median	96.3	96.2	-.3	-.3
Min	.9	.0	-100.0	-54.1
Max	98.5	98.4	33.3	12.5
Abs Diff < -1.0 &Rel Diff < signif				10
Abs Diff > 1.0 &Rel Diff > signif				1
No measurable Change				58
Check				69

RETURN TO TABLE OF CONTENTS

Section 22

SACRAMENTO RIVER FLOW AT FREEPORT

SACRAMENTO RIVER FLOW AT FREEPORT

October

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	11339.7	11122.2	-1.9	-217.5
1923	14138.1	12963.8	-8.3	-1174.3
1924	10996.9	10483.1	-4.7	-513.8
1925	8058.0	8305.4	3.1	247.4
1926	10187.7	10525.3	3.3	337.6
1927	9014.7	9120.2	1.2	105.5
1928	12937.2	12305.1	-4.9	-632.1
1929	10579.8	10176.4	-3.8	-403.4
1930	7493.5	6760.6	-9.8	-732.9
1931	9881.3	9019.6	-8.7	-861.7
1932	6304.4	6179.8	-2.0	-124.6
1933	8925.9	8843.6	-.9	-82.3
1934	7140.2	7055.9	-1.2	-84.3
1935	6223.1	5552.2	-10.8	-670.9
1936	11118.1	10798.1	-2.9	-320.0
1937	10563.3	9356.9	-11.4	-1206.4
1938	10528.3	10087.9	-4.2	-440.4
1939	15751.3	15691.3	-.4	-60.0
1940	8187.6	8193.4	.1	5.8
1941	10932.5	10396.3	-4.9	-536.2
1942	14418.1	12929.2	-10.3	-1488.9
1943	14162.6	13069.0	-7.7	-1093.6
1944	13065.7	11762.7	-10.0	-1303.0
1945	9025.8	9178.6	1.7	152.8
1946	11595.8	10806.8	-6.8	-789.0
1947	11005.3	10097.4	-8.2	-907.9
1948	10352.2	10097.9	-2.5	-254.3
1949	12340.9	12157.6	-1.5	-183.3
1950	10741.3	9527.9	-11.3	-1213.4
1951	11029.6	11299.4	2.4	269.8
1952	12311.3	11937.9	-3.0	-373.4
1953	14047.2	13650.9	-2.8	-396.3
1954	14489.2	13324.5	-8.0	-1164.7
1955	12354.0	11370.1	-8.0	-983.9
1956	9260.2	9420.9	1.7	160.7
1957	16998.4	15536.0	-8.6	-1462.4
1958	21972.2	21885.7	-.4	-86.5
1959	14309.5	13958.6	-2.5	-350.9
1960	9305.8	9437.7	1.4	131.9
1961	9737.1	10130.9	4.0	393.8
1962	8811.3	9475.9	7.5	664.6
1963	32725.3	31744.7	-3.0	-980.6
1964	15442.5	15395.8	-.3	-46.7
1965	8944.4	9068.7	1.4	124.3
1966	12043.6	10768.9	-10.6	-1274.7
1967	10144.1	9633.9	-5.0	-510.2
1968	14732.3	14336.0	-2.7	-396.3
1969	11787.7	10955.3	-7.1	-832.4
1970	15715.9	15531.5	-1.2	-184.4
1971	11211.2	10796.8	-3.7	-414.4
1972	15112.5	13833.3	-8.5	-1279.2
1973	12272.8	11833.1	-3.6	-439.7
1974	15252.7	13128.3	-13.9	-2124.4
1975	14141.0	14043.6	-.7	-97.4
1976	18164.8	18409.0	1.3	244.2
1977	6794.0	6586.8	-3.0	-207.2
1978	7457.1	7401.1	-.8	-56.0
1979	11922.4	11158.1	-6.4	-764.3
1980	12907.0	11576.0	-10.3	-1331.0
1981	11730.1	11482.1	-2.1	-248.0
1982	10772.0	10982.5	2.0	210.5
1983	20104.2	20138.3	.2	34.1
1984	17555.8	16238.6	-7.5	-1317.2
1985	12354.1	11675.0	-5.5	-679.1
1986	9162.9	8828.9	-3.6	-334.0
1987	12828.6	11728.7	-8.6	-1099.9
1988	9511.0	7397.1	-22.2	-2113.9
1989	6508.7	6944.0	6.7	435.3
1990	12110.6	11920.7	-1.6	-189.9
1991	7649.7	6139.6	-19.7	-1510.1
Mean:	11981.3	11481.0	-4.1	-500.4
Median:	11211.2	10806.8	-3.0	-396.3
Min:	6223.1	5552.2	-22.2	-2124.4
Max:	32725.3	31744.7	7.5	664.6

Alt-Base			15
Rel Dif >=	.0%	15	
.0% > Rel Dif >=	-1.0%	6	
-1.0% > Rel Dif >=	-2.0%	6	
-2.0% > Rel Dif >=	-3.0%	9	
-3.0% > Rel Dif >=	-5.0%	9	
-5.0% > Rel Dif >=	-6.0%	1	
Rel Dif <	-6.0%	24	

SACRAMENTO RIVER FLOW AT FREEPORT

November

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	11628.4	12247.9	5.3	619.5
1923	15972.9	15614.4	-2.2	-358.5
1924	10701.7	10859.7	1.5	158.0
1925	7480.8	7449.0	-.4	-31.8
1926	9989.7	10511.6	5.2	521.9
1927	21790.4	22806.1	4.7	1015.7
1928	21792.3	17774.1	-18.4	-4018.2
1929	12367.9	12532.9	1.3	165.0
1930	6835.7	6255.8	-8.5	-579.9
1931	9903.9	9968.5	.7	64.6
1932	6385.9	6566.3	2.8	180.4
1933	9183.2	9067.5	-1.3	-115.7
1934	6670.6	6544.1	-1.9	-126.5
1935	10109.4	10051.7	-.6	-57.7
1936	11020.2	12255.3	11.2	1235.1
1937	11009.0	11421.0	3.7	412.0
1938	23392.0	23823.9	1.8	431.9
1939	13941.3	13849.8	-.7	-91.5
1940	8911.4	8670.8	-2.7	-240.6
1941	12854.3	12425.1	-3.3	-429.2
1942	14990.9	14499.6	-3.3	-491.3
1943	18137.7	14358.7	-20.8	-3779.0
1944	12347.2	12031.0	-2.6	-316.2
1945	14591.7	15321.7	5.0	730.0
1946	15191.6	14488.6	-4.6	-703.0
1947	12765.7	11917.4	-6.6	-848.3
1948	11317.0	10765.9	-4.9	-551.1
1949	12432.0	12419.3	-.1	-12.7
1950	11425.2	10528.8	-7.8	-896.4
1951	41267.9	40969.3	-.7	-298.6
1952	15837.5	15738.8	-.6	-98.7
1953	14309.4	14460.6	1.1	151.2
1954	18937.1	16176.7	-14.6	-2760.4
1955	17105.2	15628.6	-8.6	-1476.6
1956	10857.8	11627.9	7.1	770.1
1957	12806.0	12613.9	-1.5	-192.1
1958	16570.0	16239.0	-2.0	-331.0
1959	13055.1	12866.4	-1.4	-188.7
1960	10755.0	10800.2	.4	45.2
1961	12705.1	13758.5	8.3	1053.4
1962	9408.4	10523.9	11.9	1115.5
1963	16595.8	16129.3	-2.8	-466.5
1964	30192.6	25637.5	-15.1	-4555.1
1965	14928.3	15656.0	4.9	727.7
1966	24379.7	20061.9	-17.7	-4317.8
1967	14762.4	15276.6	3.5	514.2
1968	13438.3	13523.5	.6	85.2
1969	13549.1	13259.7	-2.1	-289.4
1970	14818.8	14774.2	-.3	-44.6
1971	18192.3	18886.9	3.8	694.6
1972	13526.3	12167.5	-10.0	-1358.8
1973	19406.0	19684.1	1.4	278.1
1974	53512.1	49429.7	-7.6	-4082.4
1975	13847.7	13877.2	.2	29.5
1976	15504.6	15024.6	-3.1	-480.0
1977	6228.0	6190.6	-.6	-37.4
1978	6539.7	6826.5	4.4	286.8
1979	12875.1	12868.7	.0	-6.4
1980	15596.9	14315.0	-8.2	-1281.9
1981	10249.9	10121.0	-1.3	-128.9
1982	39561.8	37699.3	-4.7	-1862.5
1983	33769.0	34367.0	1.8	598.0
1984	55949.7	56382.7	.8	433.0
1985	30723.5	30158.4	-1.8	-565.1
1986	10589.4	10534.4	-.5	-55.0
1987	10744.7	9770.4	-9.1	-974.3
1988	9569.4	6718.3	-29.8	-2851.1
1989	9170.6	9350.1	2.0	179.5
1990	9483.6	10070.7	6.2	587.1
1991	7855.3	6336.4	-19.3	-1518.9
Mean:	15775.9	15336.1	-2.2	-439.8
Median:	12875.1	12866.4	-.7	-98.7
Min:	6228.0	6190.6	-29.8	-4555.1
Max:	55949.7	56382.7	11.9	1235.1

Alt-Base >= .0		27
Rel Dif >= .0%	28	
.0% > Rel Dif >= -1.0%	9	
-1.0% > Rel Dif >= -2.0%	7	
-2.0% > Rel Dif >= -3.0%	5	
-3.0% > Rel Dif >= -5.0%	6	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	15	

SACRAMENTO RIVER FLOW AT FREEPORT

December

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	17851.8	18565.5	4.0	713.7
1923	33471.7	27100.9	-19.0	-6370.8
1924	14813.4	14875.4	.4	62.0
1925	11398.0	11915.0	4.5	517.0
1926	13918.7	14087.8	1.2	169.1
1927	17550.3	17972.3	2.4	422.0
1928	15990.1	16107.0	.7	116.9
1929	17031.9	16814.1	-1.3	-217.8
1930	15607.6	15950.3	2.2	342.7
1931	13188.0	13381.7	1.5	193.7
1932	16867.1	17597.5	4.3	730.4
1933	11554.4	13076.5	13.2	1522.1
1934	13160.6	13820.1	5.0	659.5
1935	9242.5	8932.6	-3.4	-309.9
1936	15895.3	15701.7	-1.2	-193.6
1937	16240.4	15589.8	-4.0	-650.6
1938	52349.1	47025.1	-10.2	-5324.0
1939	16356.9	16447.9	.6	91.0
1940	10178.5	11294.1	11.0	1115.6
1941	38645.7	37001.8	-4.3	-1643.9
1942	52123.1	51891.5	-.4	-231.6
1943	28102.9	28091.3	.0	-11.6
1944	14064.0	16911.0	20.2	2847.0
1945	16831.1	17167.2	2.0	336.1
1946	53206.5	49511.3	-6.9	-3695.2
1947	17111.6	16394.1	-4.2	-717.5
1948	12211.2	10214.2	-16.4	-1997.0
1949	17653.1	17500.2	-.9	-152.9
1950	14671.9	13888.7	-5.3	-783.2
1951	62805.5	61833.6	-1.5	-971.9
1952	39584.7	36862.4	-6.9	-2722.3
1953	37711.8	37932.9	.6	221.1
1954	14836.5	15824.4	6.7	987.9
1955	24850.8	22583.3	-9.1	-2267.5
1956	59456.1	61684.7	3.7	2228.6
1957	14057.7	17195.9	22.3	3138.2
1958	23886.4	23873.0	-.1	-13.4
1959	14567.0	14555.4	-.1	-11.6
1960	15717.2	16539.7	5.2	822.5
1961	16739.5	17607.0	5.2	867.5
1962	16960.0	18067.4	6.5	1107.4
1963	27046.9	27223.4	.7	176.5
1964	15319.4	15359.6	.3	40.2
1965	66950.2	64250.2	-4.0	-2700.0
1966	16708.8	15113.2	-9.5	-1595.6
1967	37116.4	34322.6	-7.5	-2793.8
1968	16397.8	16528.6	.8	130.8
1969	23571.9	23236.3	-1.4	-335.6
1970	49663.4	49434.2	-.5	-229.2
1971	49858.5	48094.9	-3.5	-1763.6
1972	21357.1	17825.0	-16.5	-3532.1
1973	22844.9	22466.5	-1.7	-378.4
1974	56230.0	56007.5	-.4	-222.5
1975	17448.2	17964.9	3.0	516.7
1976	16587.9	16607.3	.1	19.4
1977	11033.1	9096.9	-17.5	-1936.2
1978	13674.7	14363.5	5.0	688.8
1979	12640.7	17350.2	37.3	4709.5
1980	20101.8	19045.3	-5.3	-1056.5
1981	15459.1	17239.0	11.5	1779.9
1982	67230.6	67126.0	-.2	-104.6
1983	54891.8	54608.8	-.5	-283.0
1984	71521.3	71311.7	-.3	-209.6
1985	22816.8	22298.8	-2.3	-518.0
1986	16901.7	16446.9	-2.7	-454.8
1987	17464.8	17393.2	-.4	-71.6
1988	18357.0	16399.6	-10.7	-1957.4
1989	9320.1	9558.5	2.6	238.4
1990	12307.0	14368.3	16.7	2061.3
1991	11747.4	10212.3	-13.1	-1535.1
Mean:	25014.7	24723.4	.1	-291.3
Median:	16901.7	17239.0	-.2	-71.6
Min:	9242.5	8932.6	-19.0	-6370.8
Max:	71521.3	71311.7	37.3	4709.5
Alt-Base >= .0				32
Rel Dif >= .0%			33	
.0% > Rel Dif >= -1.0%			10	
-1.0% > Rel Dif >= -2.0%			5	
-2.0% > Rel Dif >= -3.0%			2	
-3.0% > Rel Dif >= -5.0%			6	
-5.0% > Rel Dif >= -6.0%			2	
Rel Dif < -6.0%			12	

SACRAMENTO RIVER FLOW AT FREEPORT

January

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	17888.4	17908.9	.1	20.5
1923	30898.4	27307.1	-11.6	-3591.3
1924	16457.9	16320.7	-.8	-137.2
1925	12030.0	12074.2	.4	44.2
1926	18222.3	18826.5	3.3	604.2
1927	31044.9	30551.7	-1.6	-493.2
1928	25938.0	24276.0	-6.4	-1662.0
1929	17168.1	17075.0	-.5	-93.1
1930	21247.9	21306.0	.3	58.1
1931	15274.6	16194.6	6.0	920.0
1932	20331.1	20084.1	-1.2	-247.0
1933	15372.1	15930.1	3.6	558.0
1934	17186.5	16923.9	-1.5	-262.6
1935	26304.1	26778.6	1.8	474.5
1936	35225.7	36822.2	4.5	1596.5
1937	14748.1	16603.9	12.6	1855.8
1938	31184.0	27551.2	-11.6	-3632.8
1939	16349.5	16217.6	-.8	-131.9
1940	28052.4	28501.7	1.6	449.3
1941	61918.9	58921.9	-4.8	-2997.0
1942	57268.9	56861.7	-.7	-407.2
1943	58049.4	58291.9	.4	242.5
1944	16397.8	17073.5	4.1	675.7
1945	14237.6	14408.2	1.2	170.6
1946	44866.4	42957.9	-4.3	-1908.5
1947	15592.0	15840.9	1.6	248.9
1948	15666.3	15699.0	.2	32.7
1949	16157.0	16049.4	-.7	-107.6
1950	19921.5	19716.8	-1.0	-204.7
1951	54378.3	53789.2	-1.1	-589.1
1952	57848.6	57638.0	-.4	-210.6
1953	62746.6	62116.7	-1.0	-629.9
1954	32525.1	28882.8	-11.2	-3642.3
1955	21728.7	21652.2	-.4	-76.5
1956	72098.2	71981.8	-.2	-116.4
1957	17933.5	17534.9	-2.2	-398.6
1958	36245.1	36186.1	-.2	-59.0
1959	33617.4	33351.4	-.8	-266.0
1960	16542.1	16665.8	.7	123.7
1961	13782.2	14420.3	4.6	638.1
1962	13178.9	13552.3	2.8	373.4
1963	17392.0	22956.6	32.0	5564.6
1964	26442.8	23697.8	-10.4	-2745.0
1965	69037.8	68875.6	-.2	-162.2
1966	28368.4	26030.5	-8.2	-2337.9
1967	44128.3	45457.9	3.0	1329.6
1968	30096.4	30539.8	1.5	443.4
1969	70226.4	69138.1	-1.5	-1088.3
1970	71952.5	71761.2	-.3	-191.3
1971	45376.3	42731.4	-5.8	-2644.9
1972	20304.8	19187.4	-5.5	-1117.4
1973	56699.5	55383.4	-2.3	-1316.1
1974	69233.2	69055.7	-.3	-177.5
1975	18240.1	18175.8	-.4	-64.3
1976	16546.1	16439.4	-.6	-106.7
1977	12097.1	11738.7	-3.0	-358.4
1978	47907.4	46758.7	-2.4	-1148.7
1979	26207.8	22806.5	-13.0	-3401.3
1980	65896.4	61660.9	-6.4	-4235.5
1981	27532.4	22242.7	-19.2	-5289.7
1982	55660.1	55322.9	-.6	-337.2
1983	57997.5	57641.4	-.6	-356.1
1984	47852.4	47465.4	-.8	-387.0
1985	16746.3	16653.7	-.6	-92.6
1986	21585.3	21776.2	.9	190.9
1987	16392.2	17579.5	7.2	1187.3
1988	28446.2	25975.9	-8.7	-2470.3
1989	13715.2	13675.3	-.3	-39.9
1990	20488.5	21535.5	5.1	1047.0
1991	11508.1	10525.4	-8.5	-982.7
Mean:	31681.5	31194.8	-.9	-486.7
Median:	25938.0	22806.5	-.6	-162.2
Min:	11508.1	10525.4	-19.2	-5289.7
Max:	72098.2	71981.8	32.0	5564.6
Alt-Base >= .0				24
Rel Dif >= .0%			24	
.0% > Rel Dif >= -1.0%			22	
-1.0% > Rel Dif >= -2.0%			5	
-2.0% > Rel Dif >= -3.0%			4	
-3.0% > Rel Dif >= -5.0%			2	
-5.0% > Rel Dif >= -6.0%			2	
Rel Dif < -6.0%			11	

SACRAMENTO RIVER FLOW AT FREEPORT

February

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	29060.4	28339.0	-2.5	-721.4
1923	18993.8	17395.3	-8.4	-1598.5
1924	16791.0	18052.3	7.5	1261.3
1925	48777.7	49122.0	.7	344.3
1926	36746.5	37244.1	1.4	497.6
1927	74507.1	74768.8	.4	261.7
1928	27317.3	24660.3	-9.7	-2657.0
1929	16034.9	15907.8	-.8	-127.1
1930	17897.3	17963.5	.4	66.2
1931	13784.8	13722.9	-.4	-61.9
1932	14012.6	13816.5	-1.4	-196.1
1933	14277.7	14259.8	-.1	-17.9
1934	14606.8	14181.4	-2.9	-425.4
1935	13830.5	13903.1	.5	72.6
1936	55943.7	56809.7	1.5	866.0
1937	31344.7	32358.7	3.2	1014.0
1938	71960.5	68788.1	-4.4	-3172.4
1939	15443.4	15574.6	.8	131.2
1940	54704.1	52625.0	-3.8	-2079.1
1941	70342.4	69684.0	-.9	-658.4
1942	73905.6	73647.0	-.3	-258.6
1943	48067.6	47696.4	-.8	-371.2
1944	26485.4	25526.0	-3.6	-959.4
1945	45904.4	41570.9	-9.4	-4333.5
1946	23810.2	27830.4	16.9	4020.2
1947	19501.6	19376.5	-.6	-125.1
1948	16488.9	16417.5	-.4	-71.4
1949	14895.7	13833.8	-7.1	-1061.9
1950	33472.4	32796.2	-2.0	-676.2
1951	56814.5	55839.9	-1.7	-974.6
1952	62056.7	61145.0	-1.5	-911.7
1953	27945.2	27640.6	-1.1	-304.6
1954	51959.7	51912.8	-.1	-46.9
1955	16230.9	16195.2	-.2	-35.7
1956	60386.1	58692.2	-2.8	-1693.9
1957	28749.1	26314.2	-8.5	-2434.9
1958	72733.1	71264.6	-2.0	-1468.5
1959	46401.6	46440.0	.1	38.4
1960	30446.1	30938.8	1.6	492.7
1961	29004.1	29475.3	1.6	471.2
1962	43727.9	44917.5	2.7	1189.6
1963	58840.9	61544.6	4.6	2703.7
1964	17321.5	17119.9	-1.2	-201.6
1965	35010.2	34834.3	-.5	-175.9
1966	25207.8	25239.0	.1	31.2
1967	49254.8	48838.9	-.8	-415.9
1968	52344.3	51021.1	-2.5	-1323.2
1969	69563.7	69357.3	-.3	-206.4
1970	63016.8	62786.2	-.4	-230.6
1971	27869.8	30734.7	10.3	2864.9
1972	24065.0	23928.6	-.6	-136.4
1973	62920.2	62351.2	-.9	-569.0
1974	41535.3	41110.4	-1.0	-424.9
1975	49274.2	49528.5	.5	254.3
1976	15057.4	15267.2	1.4	209.8
1977	15548.1	15423.0	-.8	-125.1
1978	42798.4	41945.3	-2.0	-853.1
1979	39505.8	30348.2	-23.2	-9157.6
1980	75513.4	74590.8	-1.2	-922.6
1981	29053.6	26793.9	-7.8	-2259.7
1982	71075.0	70761.7	-.4	-313.3
1983	76332.8	76128.4	-.3	-204.4
1984	36428.3	36342.7	-.2	-85.6
1985	21170.8	18565.1	-12.3	-2605.7
1986	83986.8	84044.4	.1	57.6
1987	20826.6	20759.7	-.3	-66.9
1988	16367.6	13761.5	-15.9	-2606.1
1989	10481.4	12514.3	19.4	2032.9
1990	16830.8	16711.0	-.7	-119.8
1991	15993.0	15323.4	-4.2	-669.6
Mean:	37836.5	37376.0	-1.1	-460.5
Median:	30446.1	30734.7	-.6	-201.6
Min:	10481.4	12514.3	-23.2	-9157.6
Max:	83986.8	84044.4	19.4	4020.2
Alt-Base >= .0				21
Rel Dif >= .0%			21	
.0% > Rel Dif >= -1.0%			23	
-1.0% > Rel Dif >= -2.0%			9	
-2.0% > Rel Dif >= -3.0%			4	
-3.0% > Rel Dif >= -5.0%			4	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			9	

SACRAMENTO RIVER FLOW AT FREEPORT

March

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (cfs)
1922	29415.4	29632.7	.7	217.3
1923	17097.3	14284.9	-16.4	-2812.4
1924	10352.7	11898.9	14.9	1546.2
1925	31129.7	24027.1	-22.8	-7102.6
1926	17665.9	17630.8	-.2	-35.1
1927	41561.4	41357.6	-.5	-203.8
1928	66560.8	62154.7	-6.6	-4406.1
1929	12556.7	12709.4	1.2	152.7
1930	29433.5	29488.8	.2	55.3
1931	13779.7	14293.2	3.7	513.5
1932	11240.5	11159.0	-.7	-81.5
1933	14362.4	14307.0	-.4	-55.4
1934	12178.8	11676.9	-4.1	-501.9
1935	24751.8	25142.6	1.6	390.8
1936	34538.5	31288.5	-9.4	-3250.0
1937	37755.5	38180.0	1.1	424.5
1938	69066.5	68820.5	-.4	-246.0
1939	14987.3	15139.6	1.0	152.3
1940	66861.1	65927.6	-1.4	-933.5
1941	58509.9	58308.8	-.3	-201.1
1942	27754.1	27928.9	.6	174.8
1943	57114.3	56844.7	-.5	-269.6
1944	24420.6	22717.3	-7.0	-1703.3
1945	28736.7	24974.1	-13.1	-3762.6
1946	23128.2	18640.5	-19.4	-4487.7
1947	20709.3	20788.7	.4	79.4
1948	17256.6	17598.3	2.0	341.7
1949	37770.4	37796.7	.1	26.3
1950	23103.3	22445.6	-2.8	-657.7
1951	31101.7	30865.4	-.8	-236.3
1952	49473.0	49057.6	-.8	-415.4
1953	25376.0	25447.7	.3	71.7
1954	44550.7	43688.6	-1.9	-862.1
1955	16262.9	16196.1	-.4	-66.8
1956	36589.0	36491.0	-.3	-98.0
1957	42147.8	40738.2	-3.3	-1409.6
1958	61521.4	61246.4	-.4	-275.0
1959	21588.0	22777.5	5.5	1189.5
1960	23353.7	22996.8	-1.5	-356.9
1961	19246.1	19156.1	-.5	-90.0
1962	31410.5	31366.2	-.1	-44.3
1963	31270.5	31464.5	.6	194.0
1964	16326.3	16666.0	2.1	339.7
1965	23528.6	23461.6	-.3	-67.0
1966	28309.3	24935.3	-11.9	-3374.0
1967	47370.5	47024.7	-.7	-345.8
1968	36384.1	38157.3	4.9	1773.2
1969	43342.0	43309.6	-.1	-32.4
1970	35465.7	35247.1	-.6	-218.6
1971	45084.8	40084.2	-11.1	-5000.6
1972	32931.1	31224.6	-5.2	-1706.5
1973	45175.3	44842.6	-.7	-332.7
1974	66279.8	66088.1	-.3	-191.7
1975	58176.5	56888.2	-2.2	-1288.3
1976	17136.7	16966.4	-1.0	-170.3
1977	13943.9	13329.5	-4.4	-614.4
1978	49982.2	50522.0	1.1	539.8
1979	31997.1	28920.1	-9.6	-3077.0
1980	41904.8	41639.9	-.6	-264.9
1981	29454.0	25193.1	-14.5	-4260.9
1982	57126.6	56865.9	-.5	-260.7
1983	66433.2	66102.4	-.5	-330.8
1984	30608.4	30329.1	-.9	-279.3
1985	21871.0	17405.1	-20.4	-4465.9
1986	69025.4	68803.6	-.3	-221.8
1987	24736.4	24570.7	-.7	-165.7
1988	11970.2	10869.2	-9.2	-1101.0
1989	42144.2	41053.2	-2.6	-1091.0
1990	14748.1	15937.0	8.1	1188.9
1991	30126.0	33632.4	11.6	3506.4
Mean:	33418.2	32696.1	-2.2	-722.1
Median:	30126.0	29488.8	-.5	-221.8
Min:	10352.7	10869.2	-22.8	-7102.6
Max:	69066.5	68820.5	14.9	3506.4
Alt-Base >= .0				20
Rel Dif >= .0%			20	
.0% > Rel Dif >= -1.0%			27	
-1.0% > Rel Dif >= -2.0%			3	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			3	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			13	

SACRAMENTO RIVER FLOW AT FREEPORT

April

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	23437.6	23340.0	-.4	-97.6
1923	22998.8	22818.7	-.8	-180.1
1924	5939.5	6009.7	1.2	70.2
1925	22087.1	21781.6	-1.4	-305.5
1926	19209.0	19981.6	4.0	772.6
1927	42975.3	42434.0	-1.3	-541.3
1928	28598.9	28321.3	-1.0	-277.6
1929	7021.9	6797.8	-3.2	-224.1
1930	13125.7	12630.6	-3.8	-495.1
1931	8245.6	7809.4	-5.3	-436.2
1932	11138.4	8897.3	-20.1	-2241.1
1933	10224.7	9974.7	-2.4	-250.0
1934	11130.0	11014.7	-1.0	-115.3
1935	40749.0	41180.8	1.1	431.8
1936	21656.4	21360.3	-1.4	-296.1
1937	22379.6	22211.5	-.8	-168.1
1938	53012.1	52789.4	-.4	-222.7
1939	11028.3	8804.3	-20.2	-2224.0
1940	52953.3	52781.8	-.3	-171.5
1941	51529.3	51204.2	-.6	-325.1
1942	40374.0	40691.8	.8	317.8
1943	27858.7	27886.4	.1	27.7
1944	9679.3	9067.2	-6.3	-612.1
1945	14223.1	14164.7	-.4	-58.4
1946	12692.9	12156.7	-4.2	-536.2
1947	14021.8	14013.0	-.1	-8.8
1948	24271.5	24567.7	1.2	296.2
1949	13670.9	13882.5	1.5	211.6
1950	18732.0	18950.9	1.2	218.9
1951	15050.7	14724.3	-2.2	-326.4
1952	53765.6	53276.0	-.9	-489.6
1953	16644.7	16909.5	1.6	264.8
1954	39126.5	38726.0	-1.0	-400.5
1955	9964.7	10318.4	3.5	353.7
1956	21744.8	22987.3	5.7	1242.5
1957	16917.8	17903.8	5.8	986.0
1958	61721.9	61395.9	-.5	-326.0
1959	10399.1	10100.3	-2.9	-298.8
1960	12719.6	12585.1	-1.1	-134.5
1961	13627.6	11464.7	-15.9	-2162.9
1962	12516.2	11649.7	-6.9	-866.5
1963	60333.3	59913.4	-.7	-419.9
1964	9456.7	9101.7	-3.8	-355.0
1965	36984.6	37008.5	.1	23.9
1966	13647.3	13154.1	-3.6	-493.2
1967	37811.2	38234.1	1.1	422.9
1968	11298.0	11182.9	-1.0	-115.1
1969	40986.8	40351.8	-1.5	-635.0
1970	11048.1	10555.2	-4.5	-492.9
1971	21216.1	21041.5	-.8	-174.6
1972	11608.5	11916.2	2.7	307.7
1973	19593.4	19438.0	-.8	-155.4
1974	53545.1	53172.3	-.7	-372.8
1975	26103.0	26226.5	.5	123.5
1976	8601.8	8601.9	.0	.1
1977	7185.0	7253.5	1.0	68.5
1978	36639.0	36395.4	-.7	-243.6
1979	17632.6	17343.6	-1.6	-289.0
1980	20060.0	19883.2	-.9	-176.8
1981	17782.8	17188.0	-3.3	-594.8
1982	70938.3	70700.0	-.3	-238.3
1983	53864.5	53516.8	-.6	-347.7
1984	18244.2	17753.5	-2.7	-490.7
1985	12799.6	12582.8	-1.7	-216.8
1986	22199.9	22181.0	-.1	-18.9
1987	13467.3	10472.8	-22.2	-2994.5
1988	8392.5	9396.6	12.0	1004.1
1989	25291.0	24931.4	-1.4	-359.6
1990	12376.5	10900.1	-11.9	-1476.4
1991	16750.3	16408.2	-2.0	-342.1
Mean:	23643.2	23376.7	-1.8	-266.4
Median:	17782.8	17753.5	-.8	-238.3
Min:	5939.5	6009.7	-22.2	-2994.5
Max:	70938.3	70700.0	12.0	1242.5

Alt-Base >= .0		19
Rel Dif >= .0%	19	
.0% > Rel Dif >= -1.0%	23	
-1.0% > Rel Dif >= -2.0%	9	
-2.0% > Rel Dif >= -3.0%	4	
-3.0% > Rel Dif >= -5.0%	7	
-5.0% > Rel Dif >= -6.0%	1	
Rel Dif < -6.0%	7	

SACRAMENTO RIVER FLOW AT FREEPORT

May

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	41908.2	40705.0	-2.9	-1203.2
1923	16251.8	14819.5	-8.8	-1432.3
1924	8044.4	7254.3	-9.8	-790.1
1925	14169.2	12955.5	-8.6	-1213.7
1926	12644.4	11449.5	-9.5	-1194.9
1927	26154.2	24862.4	-4.9	-1291.8
1928	14121.0	14441.2	2.3	320.2
1929	9139.0	9072.7	-.7	-66.3
1930	12221.6	12038.5	-1.5	-183.1
1931	8985.7	8028.5	-10.7	-957.2
1932	12289.4	11707.8	-4.7	-581.6
1933	8928.0	8890.7	-.4	-37.3
1934	7136.7	7054.6	-1.2	-82.1
1935	26179.8	24998.3	-4.5	-1181.5
1936	16010.0	14941.0	-6.7	-1069.0
1937	16058.6	14821.8	-7.7	-1236.8
1938	51808.3	49384.6	-4.7	-2423.7
1939	9558.7	9617.5	.6	58.8
1940	17294.3	16831.2	-2.7	-463.1
1941	39715.3	38805.5	-2.3	-909.8
1942	32126.7	29385.5	-8.5	-2741.2
1943	17989.4	17653.6	-1.9	-335.8
1944	10301.5	9827.0	-4.6	-474.5
1945	12539.3	12437.7	-.8	-101.6
1946	13209.7	13038.9	-1.3	-170.8
1947	10292.1	9928.7	-3.5	-363.4
1948	27349.2	26974.3	-1.4	-374.9
1949	13240.7	12737.1	-3.8	-503.6
1950	16101.2	15990.1	-.7	-111.1
1951	15702.7	15399.2	-1.9	-303.5
1952	53525.9	51655.5	-3.5	-1870.4
1953	21646.1	20217.1	-6.6	-1429.0
1954	19357.4	19651.2	1.5	293.8
1955	11940.6	11065.3	-7.3	-875.3
1956	36352.6	34045.2	-6.3	-2307.4
1957	15727.0	15158.1	-3.6	-568.9
1958	43316.7	42486.1	-1.9	-830.6
1959	12214.3	11911.6	-2.5	-302.7
1960	12203.4	11646.9	-4.6	-556.5
1961	12672.1	13246.7	4.5	574.6
1962	13038.8	12871.4	-1.3	-167.4
1963	29490.1	26876.7	-8.9	-2613.4
1964	10730.8	10354.3	-3.5	-376.5
1965	18433.0	18217.0	-1.2	-216.0
1966	13620.8	13620.8	.0	.0
1967	42568.9	40599.4	-4.6	-1969.5
1968	12146.6	11969.1	-1.5	-177.5
1969	44983.9	42492.5	-5.5	-2491.4
1970	13485.4	13047.6	-3.2	-437.8
1971	28335.1	26520.2	-6.4	-1814.9
1972	13636.5	13596.0	-.3	-40.5
1973	15433.5	14549.7	-5.7	-883.8
1974	26896.8	23596.9	-12.3	-3299.9
1975	28082.2	25584.8	-8.9	-2497.4
1976	9745.5	9734.8	-.1	-10.7
1977	7008.2	6996.7	-.2	-11.5
1978	20106.2	19195.1	-4.5	-911.1
1979	13780.5	12959.0	-6.0	-821.5
1980	15905.2	15743.4	-1.0	-161.8
1981	11548.8	10959.6	-5.1	-589.2
1982	36619.5	36174.5	-1.2	-445.0
1983	50486.0	49856.1	-1.2	-629.9
1984	14816.7	14816.7	.0	.0
1985	13487.8	13340.5	-1.1	-147.3
1986	14416.6	14144.6	-1.9	-272.0
1987	10240.2	9674.5	-5.5	-565.7
1988	9555.1	9338.4	-2.3	-216.7
1989	13246.8	13189.9	-.4	-56.9
1990	9493.6	9411.1	-.9	-82.5
1991	9245.1	8827.4	-4.5	-417.7
Mean:	19243.0	18505.6	-3.5	-737.4
Median:	14121.0	13620.8	-3.2	-474.5
Min:	7008.2	6996.7	-12.3	-3299.9
Max:	53525.9	51655.5	4.5	574.6
Alt-Base >= .0				6
Rel Dif >= .0%		6		
.0% > Rel Dif >= -1.0%		10		
-1.0% > Rel Dif >= -2.0%		14		
-2.0% > Rel Dif >= -3.0%		5		
-3.0% > Rel Dif >= -5.0%		15		
-5.0% > Rel Dif >= -6.0%		5		
Rel Dif < -6.0%		15		

SACRAMENTO RIVER FLOW AT FREEPORT

June

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	35306.6	34654.0	-1.8	-652.6
1923	16080.9	16436.6	2.2	355.7
1924	9515.8	6712.8	-29.5	-2803.0
1925	14755.7	14042.0	-4.8	-713.7
1926	12419.0	10650.9	-14.2	-1768.1
1927	17880.8	16854.9	-5.7	-1025.9
1928	15868.7	15707.5	-1.0	-161.2
1929	10764.4	9284.3	-13.7	-1480.1
1930	10182.8	10641.6	4.5	458.8
1931	8987.7	6568.3	-26.9	-2419.4
1932	13874.4	13534.8	-2.4	-339.6
1933	9185.4	8826.0	-3.9	-359.4
1934	9811.4	9579.1	-2.4	-232.3
1935	15872.2	17029.8	7.3	1157.6
1936	14732.8	15637.8	6.1	905.0
1937	13288.4	14876.6	12.0	1588.2
1938	37727.9	34638.1	-8.2	-3089.8
1939	9054.7	12077.9	33.4	3023.2
1940	14038.7	14645.1	4.3	606.4
1941	22304.4	20235.6	-9.3	-2068.8
1942	30039.0	26038.3	-13.3	-4000.7
1943	12465.9	12745.2	2.2	279.3
1944	12454.1	14812.9	18.9	2358.8
1945	17490.6	18047.2	3.2	556.6
1946	17798.7	18315.9	2.9	517.2
1947	10905.7	12863.2	17.9	1957.5
1948	22727.2	22040.3	-3.0	-686.9
1949	17294.1	17139.5	-.9	-154.6
1950	19455.7	19150.0	-1.6	-305.7
1951	14511.4	14245.9	-1.8	-265.5
1952	40181.3	37157.0	-7.5	-3024.3
1953	27279.1	23966.3	-12.1	-3312.8
1954	15467.3	15213.9	-1.6	-253.4
1955	18441.5	14405.7	-21.9	-4035.8
1956	23910.4	20349.5	-14.9	-3560.9
1957	19064.8	18961.1	-.5	-103.7
1958	36820.1	34131.8	-7.3	-2688.3
1959	15878.0	15495.7	-2.4	-382.3
1960	16702.9	12111.7	-27.5	-4591.2
1961	15843.6	9699.6	-38.8	-6144.0
1962	17326.3	17092.8	-1.3	-233.5
1963	16140.6	15941.0	-1.2	-199.6
1964	10912.0	13570.4	24.4	2658.4
1965	15527.5	15050.4	-3.1	-477.1
1966	15010.4	14675.2	-2.2	-335.2
1967	43805.0	40377.2	-7.8	-3427.8
1968	15576.2	15206.2	-2.4	-370.0
1969	26744.3	23643.9	-11.6	-3100.4
1970	14336.7	14122.6	-1.5	-214.1
1971	23904.6	21324.2	-10.8	-2580.4
1972	15307.7	14928.7	-2.5	-379.0
1973	18716.6	19685.6	5.2	969.0
1974	24078.1	21058.2	-12.5	-3019.9
1975	27949.0	25415.6	-9.1	-2533.4
1976	10663.9	11825.1	10.9	1161.2
1977	7917.3	7726.3	-2.4	-191.0
1978	16224.8	15135.3	-6.7	-1089.5
1979	17521.3	20541.0	17.2	3019.7
1980	14298.3	13910.9	-2.7	-387.4
1981	10060.8	12302.4	22.3	2241.6
1982	24311.4	21245.1	-12.6	-3066.3
1983	52566.2	51634.2	-1.8	-932.0
1984	16067.9	16456.4	2.4	388.5
1985	9175.7	12069.8	31.5	2894.1
1986	11609.7	11214.0	-3.4	-395.7
1987	9273.4	8898.0	-4.0	-375.4
1988	12087.0	9423.0	-22.0	-2664.0
1989	14905.5	14473.2	-2.9	-432.3
1990	16706.4	9902.2	-40.7	-6804.2
1991	11412.9	9008.7	-21.1	-2404.2
Mean:	17950.3	17105.5	-3.4	-844.9
Median:	15843.6	15050.4	-2.4	-379.0
Min:	7917.3	6568.3	-40.7	-6804.2
Max:	52566.2	51634.2	33.4	3023.2

Alt-Base			19
Rel Dif >=	.0%	19	
.0% > Rel Dif >=	-1.0%	3	
-1.0% > Rel Dif >=	-2.0%	8	
-2.0% > Rel Dif >=	-3.0%	10	
-3.0% > Rel Dif >=	-5.0%	5	
-5.0% > Rel Dif >=	-6.0%	1	
Rel Dif <	-6.0%	24	

SACRAMENTO RIVER FLOW AT FREEPORT

July

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	14463.5	17622.9	21.8	3159.4
1923	14941.6	14495.5	-3.0	-446.1
1924	7372.3	7067.2	-4.1	-305.1
1925	12516.3	9515.1	-24.0	-3001.2
1926	10032.0	8997.4	-10.3	-1034.6
1927	15291.6	21448.5	40.3	6156.9
1928	17698.5	16752.7	-5.3	-945.8
1929	7858.2	7492.6	-4.7	-365.6
1930	9320.2	9516.3	2.1	196.1
1931	8440.4	8135.1	-3.6	-305.3
1932	8644.6	8309.0	-3.9	-335.6
1933	7888.3	7569.4	-4.0	-318.9
1934	8003.7	7793.6	-2.6	-210.1
1935	13916.6	13158.7	-5.4	-757.9
1936	12838.9	13940.0	8.6	1101.1
1937	11186.1	11001.7	-1.6	-184.4
1938	18758.3	17277.4	-7.9	-1480.9
1939	8068.8	9460.9	17.3	1392.1
1940	17275.8	20854.8	20.7	3579.0
1941	15645.8	14910.3	-4.7	-735.5
1942	16788.4	14745.1	-12.2	-2043.3
1943	15758.9	19782.3	25.5	4023.4
1944	9328.7	8890.9	-4.7	-437.8
1945	15431.1	18353.0	18.9	2921.9
1946	15633.0	19795.7	26.6	4162.7
1947	9956.0	9467.4	-4.9	-488.6
1948	21206.4	18844.9	-11.1	-2361.5
1949	13353.5	10851.5	-18.7	-2502.0
1950	21412.5	19285.2	-9.9	-2127.3
1951	20120.4	19813.0	-1.5	-307.4
1952	23000.2	21814.8	-5.2	-1185.4
1953	17521.2	20210.3	15.3	2689.1
1954	18308.1	20357.5	11.2	2049.4
1955	12164.6	8334.5	-31.5	-3830.1
1956	18445.5	17996.6	-2.4	-448.9
1957	18546.0	19169.4	3.4	623.4
1958	20220.4	18907.6	-6.5	-1312.8
1959	15184.1	14787.2	-2.6	-396.9
1960	15646.5	10622.3	-32.1	-5024.2
1961	11898.8	9012.8	-24.3	-2886.0
1962	19029.6	15574.4	-18.2	-3455.2
1963	15427.8	19453.9	26.1	4026.1
1964	10109.8	11264.0	11.4	1154.2
1965	17783.8	20224.4	13.7	2440.6
1966	15843.6	12731.0	-19.6	-3112.6
1967	21179.3	19766.2	-6.7	-1413.1
1968	14941.0	16274.8	8.9	1333.8
1969	17538.2	16417.6	-6.4	-1120.6
1970	16866.9	19003.7	12.7	2136.8
1971	18560.9	22338.2	20.4	3777.3
1972	17260.0	16731.6	-3.1	-528.4
1973	17172.1	17376.4	1.2	204.3
1974	21785.5	20830.3	-4.4	-955.2
1975	18844.6	17693.4	-6.1	-1151.2
1976	8857.9	9607.8	8.5	749.9
1977	8005.0	7917.9	-1.1	-87.1
1978	15276.8	15894.8	4.0	618.0
1979	15052.4	17674.5	17.4	2622.1
1980	12071.5	15673.4	29.8	3601.9
1981	9077.7	9740.7	7.3	663.0
1982	19921.9	16390.5	-17.7	-3531.4
1983	26473.6	25117.2	-5.1	-1356.4
1984	16374.6	20890.1	27.6	4515.5
1985	8403.5	9724.9	15.7	1321.4
1986	13530.9	18312.7	35.3	4781.8
1987	8704.9	8413.8	-3.3	-291.1
1988	9680.2	8395.1	-13.3	-1285.1
1989	13171.7	13583.5	3.1	411.8
1990	11063.3	7834.1	-29.2	-3229.2
1991	8069.6	7779.0	-3.6	-290.6
Mean:	14516.6	14642.7	.9	126.1
Median:	15184.1	15574.4	-3.1	-307.4
Min:	7372.3	7067.2	-32.1	-5024.2
Max:	26473.6	25117.2	40.3	6156.9

Alt-Base			
>= .0			28
Rel Dif >= .0%		28	
.0% > Rel Dif >= -1.0%		0	
-1.0% > Rel Dif >= -2.0%		3	
-2.0% > Rel Dif >= -3.0%		4	
-3.0% > Rel Dif >= -5.0%		12	
-5.0% > Rel Dif >= -6.0%		4	
Rel Dif < -6.0%		19	

SACRAMENTO RIVER FLOW AT FREEPORT

August

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	12105.8	18880.0	56.0	6774.2
1923	13092.0	18207.0	39.1	5115.0
1924	6653.9	6183.1	-7.1	-470.8
1925	13843.1	10383.7	-25.0	-3459.4
1926	8687.1	7941.5	-8.6	-745.6
1927	19154.0	19548.4	2.1	394.4
1928	20079.3	20028.3	-.3	-51.0
1929	7963.6	6994.3	-12.2	-969.3
1930	10563.0	11202.2	6.1	639.2
1931	6619.3	6498.6	-1.8	-120.7
1932	11537.4	9667.5	-16.2	-1869.9
1933	6687.7	6412.4	-4.1	-275.3
1934	6581.5	6643.1	.9	61.6
1935	13714.6	15940.6	16.2	2226.0
1936	13708.3	12499.5	-8.8	-1208.8
1937	13265.0	11982.4	-9.7	-1282.6
1938	17566.5	17778.0	1.2	211.5
1939	11325.0	10280.5	-9.2	-1044.5
1940	19498.1	19012.0	-2.5	-486.1
1941	16835.6	18644.2	10.7	1808.6
1942	16753.0	19586.6	16.9	2833.6
1943	18595.5	19220.4	3.4	624.9
1944	15598.0	9632.1	-38.2	-5965.9
1945	12600.0	14241.3	13.0	1641.3
1946	13516.2	13770.0	1.9	253.8
1947	12104.2	8958.0	-26.0	-3146.2
1948	18244.1	18932.3	3.8	688.2
1949	13803.9	12083.9	-12.5	-1720.0
1950	18723.6	15628.9	-16.5	-3094.7
1951	19546.4	19386.6	-.8	-159.8
1952	20213.2	18993.2	-6.0	-1220.0
1953	18523.3	19391.9	4.7	868.6
1954	19493.3	19152.2	-1.7	-341.1
1955	14129.4	9222.6	-34.7	-4906.8
1956	18680.7	19543.9	4.6	863.2
1957	19622.7	19389.2	-1.2	-233.5
1958	19872.7	18537.6	-6.7	-1335.1
1959	13538.4	13153.8	-2.8	-384.6
1960	15514.6	11592.0	-25.3	-3922.6
1961	12711.5	10936.9	-14.0	-1774.6
1962	18449.1	13672.2	-25.9	-4776.9
1963	19586.7	19631.4	.2	44.7
1964	14636.3	10565.5	-27.8	-4070.8
1965	19569.1	19228.0	-1.7	-341.1
1966	13887.7	12785.8	-7.9	-1101.9
1967	19326.6	17813.7	-7.8	-1512.9
1968	12229.2	13668.2	11.8	1439.0
1969	18633.5	17258.3	-7.4	-1375.2
1970	19072.2	19506.4	2.3	434.2
1971	19076.1	19261.5	1.0	185.4
1972	18503.1	19037.5	2.9	534.4
1973	19386.6	19286.3	-.5	-100.3
1974	20889.6	19719.6	-5.6	-1170.0
1975	20077.3	19123.4	-4.8	-953.9
1976	16791.0	13289.4	-20.9	-3501.6
1977	8775.2	8746.3	-.3	-28.9
1978	12815.8	19629.0	53.2	6813.2
1979	12545.3	14831.2	18.2	2285.9
1980	15366.0	19375.9	26.1	4009.9
1981	17428.4	11335.5	-35.0	-6092.9
1982	19096.6	18404.3	-3.6	-692.3
1983	23140.4	22239.9	-3.9	-900.5
1984	18619.5	18986.3	2.0	366.8
1985	16031.0	11212.7	-30.1	-4818.3
1986	18595.1	19514.0	4.9	918.9
1987	8668.9	7471.4	-13.8	-1197.5
1988	9584.5	9646.1	.6	61.6
1989	12832.8	18740.8	46.0	5908.0
1990	12919.8	7825.7	-39.4	-5094.1
1991	7578.2	6175.8	-18.5	-1402.4
Mean:	15219.7	14772.3	-2.8	-447.3
Median:	15514.6	15628.9	-2.5	-341.1
Min:	6581.5	6175.8	-39.4	-6092.9
Max:	23140.4	22239.9	56.0	6813.2

Alt-Base			
>= .0			27
Rel Dif >= .0%		27	
.0% > Rel Dif >= -1.0%		4	
-1.0% > Rel Dif >= -2.0%		4	
-2.0% > Rel Dif >= -3.0%		2	
-3.0% > Rel Dif >= -5.0%		4	
-5.0% > Rel Dif >= -6.0%		2	
Rel Dif < -6.0%		27	

SACRAMENTO RIVER FLOW AT FREEPORT

September

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	14632.7	15855.5	8.4	1222.8
1923	14998.7	15672.9	4.5	674.2
1924	7969.7	6696.1	-16.0	-1273.6
1925	13421.4	13098.2	-2.4	-323.2
1926	11488.5	10475.1	-8.8	-1013.4
1927	13254.5	16374.9	23.5	3120.4
1928	15013.9	14455.9	-3.7	-558.0
1929	9645.7	8214.0	-14.8	-1431.7
1930	12029.9	12225.1	1.6	195.2
1931	7815.3	6440.2	-17.6	-1375.1
1932	12163.7	10796.8	-11.2	-1366.9
1933	7543.1	7219.5	-4.3	-323.6
1934	6821.1	6377.1	-6.5	-444.0
1935	15131.3	15535.4	2.7	404.1
1936	14593.6	15452.0	5.9	858.4
1937	14556.9	14636.4	.5	79.5
1938	16804.8	14352.9	-14.6	-2451.9
1939	11650.7	11804.5	1.3	153.8
1940	14107.1	16291.4	15.5	2184.3
1941	16623.9	13891.9	-16.4	-2732.0
1942	15640.6	14233.8	-9.0	-1406.8
1943	12682.5	16004.4	26.2	3321.9
1944	13326.4	11286.8	-15.3	-2039.6
1945	14782.8	15746.9	6.5	964.1
1946	15813.0	15757.6	-.4	-55.4
1947	13820.8	11137.7	-19.4	-2683.1
1948	15629.3	15985.8	2.3	356.5
1949	13788.6	11893.1	-13.7	-1895.5
1950	16064.8	14994.4	-6.7	-1070.4
1951	16326.9	15523.8	-4.9	-803.1
1952	17755.1	16950.9	-4.5	-804.2
1953	17280.8	16655.3	-3.6	-625.5
1954	15792.7	16778.4	6.2	985.7
1955	13321.6	10884.1	-18.3	-2437.5
1956	17770.6	15358.4	-13.6	-2412.2
1957	15628.1	14970.2	-4.2	-657.9
1958	20273.2	19563.1	-3.5	-710.1
1959	14909.6	14678.5	-1.6	-231.1
1960	14698.6	11872.6	-19.2	-2826.0
1961	12183.0	10881.8	-10.7	-1301.2
1962	16321.9	15234.9	-6.7	-1087.0
1963	15130.0	15760.4	4.2	630.4
1964	13359.2	12363.5	-7.5	-995.7
1965	13953.4	14843.0	6.4	889.6
1966	15887.0	13361.9	-15.9	-2525.1
1967	18307.1	16980.7	-7.2	-1326.4
1968	15868.9	16322.6	2.9	453.7
1969	19682.0	18887.9	-4.0	-794.1
1970	13628.4	16443.9	20.7	2815.5
1971	18030.4	15805.5	-12.3	-2224.9
1972	16296.8	14867.2	-8.8	-1429.6
1973	13944.7	14796.1	6.1	851.4
1974	20839.1	19914.6	-4.4	-924.5
1975	19053.1	18231.4	-4.3	-821.7
1976	11993.2	10804.3	-9.9	-1188.9
1977	6439.4	6433.5	-.1	-5.9
1978	15302.5	14926.0	-2.5	-376.5
1979	14868.1	16352.9	10.0	1484.8
1980	14153.7	12327.7	-12.9	-1826.0
1981	14355.0	13927.4	-3.0	-427.6
1982	20556.5	17967.4	-12.6	-2589.1
1983	26751.1	26523.0	-.9	-228.1
1984	12643.3	15833.6	25.2	3190.3
1985	13526.2	12860.5	-4.9	-665.7
1986	12417.7	15099.5	21.6	2681.8
1987	11859.8	9108.4	-23.2	-2751.4
1988	8763.9	9306.4	6.2	542.5
1989	12257.5	13821.8	12.8	1564.3
1990	11092.9	8547.4	-22.9	-2545.5
1991	8476.2	8097.9	-4.5	-378.3
Mean:	14335.9	13896.8	-3.0	-439.1
Median:	14556.9	14796.1	-4.3	-657.9
Min:	6439.4	6377.1	-23.2	-2826.0
Max:	26751.1	26523.0	26.2	3321.9

Alt-Base			
Rel Dif >=	.0%		23
.0% > Rel Dif >=	-1.0%	23	
-1.0% > Rel Dif >=	-2.0%	3	
-2.0% > Rel Dif >=	-3.0%	1	
-3.0% > Rel Dif >=	-5.0%	3	
-5.0% > Rel Dif >=	-6.0%	12	
Rel Dif <	-6.0%	0	
		28	

RETURN TO TABLE OF CONTENTS

Section 23

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

January

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	41.8	41.8	.0	.0
1923.	43.5	43.4	-.2	-.1
1924.	44.0	43.9	-.2	-.1
1925.	45.4	45.5	.2	.1
1926.	42.5	42.6	.2	.1
1927.	45.6	45.6	.0	.0
1928.	45.1	45.0	-.2	-.1
1929.	42.0	41.9	-.2	-.1
1930.	43.7	43.6	-.2	-.1
1931.	46.2	46.1	-.2	-.1
1932.	44.4	44.4	.0	.0
1933.	42.7	42.7	.0	.0
1934.	46.7	46.6	-.2	-.1
1935.	45.3	45.3	.0	.0
1936.	46.8	46.8	.0	.0
1937.	39.7	39.8	.3	.1
1938.	45.7	45.6	-.2	-.1
1939.	46.3	46.2	-.2	-.1
1940.	46.1	46.1	.0	.0
1941.	46.9	46.7	-.4	-.2
1942.	45.8	45.7	-.2	-.1
1943.	46.0	46.0	.0	.0
1944.	45.6	45.6	.0	.0
1945.	44.6	44.6	.0	.0
1946.	44.9	44.9	.0	.0
1947.	43.2	43.2	.0	.0
1948.	46.8	46.8	.0	.0
1949.	40.2	40.2	.0	.0
1950.	42.3	42.3	.0	.0
1951.	44.9	44.9	.0	.0
1952.	43.7	43.7	.0	.0
1953.	47.2	47.2	.0	.0
1954.	45.9	45.7	-.4	-.2
1955.	43.0	43.0	.0	.0
1956.	46.1	46.1	.0	.0
1957.	43.9	43.8	-.2	-.1
1958.	45.2	45.2	.0	.0
1959.	47.4	47.3	-.2	-.1
1960.	45.1	45.0	-.2	-.1
1961.	43.7	43.7	.0	.0
1962.	44.2	44.3	.2	.1
1963.	43.4	43.6	.5	.2
1964.	44.4	44.3	-.2	-.1
1965.	45.2	45.2	.0	.0
1966.	44.4	44.3	-.2	-.1
1967.	45.6	45.6	.0	.0
1968.	44.4	44.4	.0	.0
1969.	44.6	44.4	-.4	-.2
1970.	48.0	48.0	.0	.0
1971.	45.1	45.1	.0	.0
1972.	43.0	42.9	-.2	-.1
1973.	44.2	44.2	.0	.0
1974.	46.1	46.1	.0	.0
1975.	44.5	44.5	.0	.0
1976.	46.5	46.5	.0	.0
1977.	44.1	44.0	-.2	-.1
1978.	46.7	46.7	.0	.0
1979.	45.0	44.9	-.2	-.1
1980.	46.5	46.1	-.9	-.4
1981.	46.0	45.7	-.7	-.3
1982.	43.8	43.7	-.2	-.1
1983.	44.6	44.6	.0	.0
1984.	46.1	46.1	.0	.0
1985.	43.5	43.4	-.2	-.1
1986.	47.5	47.5	.0	.0
1987.	44.6	44.6	.0	.0
1988.	45.5	45.4	-.2	-.1
1989.	44.2	44.2	.0	.0
1990.	45.3	45.3	.0	.0
Mean:	44.8	44.8	-.1	.0
Median:	44.9	44.9	.0	.0
Min:	39.7	39.8	-.9	-.4
Max:	48.0	48.0	.5	.2
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

February

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.2	47.2	.0	.0
1923.	49.3	49.3	.0	.0
1924.	51.9	51.9	.0	.0
1925.	49.3	49.3	.0	.0
1926.	49.5	49.6	.2	.1
1927.	48.8	48.8	.0	.0
1928.	49.6	49.8	.4	.2
1929.	48.2	48.3	.2	.1
1930.	50.7	50.7	.0	.0
1931.	51.8	51.8	.0	.0
1932.	48.8	48.6	-.4	-.2
1933.	47.7	47.6	-.2	-.1
1934.	51.0	51.2	.4	.2
1935.	49.5	49.4	-.2	-.1
1936.	49.0	49.0	.0	.0
1937.	48.0	47.9	-.2	-.1
1938.	48.2	48.3	.2	.1
1939.	48.2	48.2	.0	.0
1940.	49.4	49.5	.2	.1
1941.	49.6	49.5	-.2	-.1
1942.	48.1	48.1	.0	.0
1943.	50.0	50.0	.0	.0
1944.	48.8	48.9	.2	.1
1945.	49.8	49.9	.2	.1
1946.	47.2	47.1	-.2	-.1
1947.	49.9	49.9	.0	.0
1948.	48.1	48.0	-.2	-.1
1949.	46.5	46.3	-.4	-.2
1950.	48.8	48.8	.0	.0
1951.	48.0	48.1	.2	.1
1952.	47.9	47.9	.0	.0
1953.	50.1	50.1	.0	.0
1954.	49.1	49.1	.0	.0
1955.	48.1	48.1	.0	.0
1956.	47.1	47.0	-.2	-.1
1957.	49.7	49.9	.4	.2
1958.	49.4	49.3	-.2	-.1
1959.	49.1	49.1	.0	.0
1960.	49.0	49.0	.0	.0
1961.	50.2	50.3	.2	.1
1962.	48.1	48.1	.0	.0
1963.	51.9	51.6	-.6	-.3
1964.	50.4	50.4	.0	.0
1965.	49.1	49.1	.0	.0
1966.	47.4	47.4	.0	.0
1967.	49.0	49.0	.0	.0
1968.	51.0	50.9	-.2	-.1
1969.	47.3	47.3	.0	.0
1970.	51.3	51.3	.0	.0
1971.	48.8	48.7	-.2	-.1
1972.	50.1	50.2	.2	.1
1973.	50.1	50.2	.2	.1
1974.	48.7	48.7	.0	.0
1975.	48.6	48.7	.2	.1
1976.	50.5	50.5	.0	.0
1977.	51.4	51.4	.0	.0
1978.	50.1	50.0	-.2	-.1
1979.	48.6	48.9	.6	.3
1980.	49.5	49.6	.2	.1
1981.	50.9	51.0	.2	.1
1982.	48.2	48.2	.0	.0
1983.	49.2	49.2	.0	.0
1984.	49.2	49.2	.0	.0
1985.	50.9	51.1	.4	.2
1986.	48.8	48.9	.2	.1
1987.	50.2	50.1	-.2	-.1
1988.	52.7	52.7	.0	.0
1989.	47.8	47.9	.2	.1
1990.	47.8	47.9	.2	.1
Mean:	49.2	49.3	.0	.0
Median:	49.1	49.1	.0	.0
Min:	46.5	46.3	-.6	-.3
Max:	52.7	52.7	.6	.3

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

March

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	52.0	52.0	.0	.0
1923.	56.0	56.3	.5	.3
1924.	54.1	53.9	-.4	-.2
1925.	53.1	53.9	1.5	.8
1926.	58.5	58.4	-.2	-.1
1927.	52.8	52.8	.0	.0
1928.	53.0	53.6	1.1	.6
1929.	54.7	54.6	-.2	-.1
1930.	55.7	55.6	-.2	-.1
1931.	56.7	56.6	-.2	-.1
1932.	56.9	57.0	.2	.1
1933.	54.7	54.6	-.2	-.1
1934.	59.8	60.1	.5	.3
1935.	52.2	52.2	.0	.0
1936.	56.6	56.8	.4	.2
1937.	54.7	54.6	-.2	-.1
1938.	50.9	51.0	.2	.1
1939.	55.2	55.3	.2	.1
1940.	53.8	54.0	.4	.2
1941.	54.2	54.2	.0	.0
1942.	53.4	53.4	.0	.0
1943.	52.7	52.7	.0	.0
1944.	55.6	55.7	.2	.1
1945.	51.6	51.8	.4	.2
1946.	53.5	53.9	.7	.4
1947.	55.9	55.8	-.2	-.1
1948.	51.6	51.6	.0	.0
1949.	52.6	52.7	.2	.1
1950.	53.1	53.2	.2	.1
1951.	53.5	53.6	.2	.1
1952.	51.3	51.3	.0	.0
1953.	53.3	53.3	.0	.0
1954.	51.7	51.7	.0	.0
1955.	54.5	54.5	.0	.0
1956.	53.9	54.0	.2	.1
1957.	54.3	54.4	.2	.1
1958.	51.5	51.6	.2	.1
1959.	56.8	56.8	.0	.0
1960.	55.0	55.0	.0	.0
1961.	53.2	53.1	-.2	-.1
1962.	52.4	52.3	-.2	-.1
1963.	52.3	52.4	.2	.1
1964.	53.7	53.7	.0	.0
1965.	53.8	53.8	.0	.0
1966.	53.6	53.7	.2	.1
1967.	51.4	51.5	.2	.1
1968.	55.4	55.3	-.2	-.1
1969.	53.4	53.4	.0	.0
1970.	55.1	55.2	.2	.1
1971.	51.7	52.1	.8	.4
1972.	56.2	56.3	.2	.1
1973.	52.4	52.5	.2	.1
1974.	51.9	52.0	.2	.1
1975.	51.3	51.4	.2	.1
1976.	54.3	54.3	.0	.0
1977.	53.2	53.3	.2	.1
1978.	55.3	55.4	.2	.1
1979.	55.1	55.1	.0	.0
1980.	53.7	53.8	.2	.1
1981.	53.5	53.9	.7	.4
1982.	51.9	51.9	.0	.0
1983.	51.9	51.9	.0	.0
1984.	56.1	56.2	.2	.1
1985.	52.6	52.9	.6	.3
1986.	55.1	55.1	.0	.0
1987.	54.0	54.1	.2	.1
1988.	57.7	57.9	.3	.2
1989.	53.2	53.4	.4	.2
1990.	56.5	56.3	-.4	-.2
Mean:	54.0	54.0	.1	.1
Median:	53.5	53.8	.1	.0
Min:	50.9	51.0	-.4	-.2
Max:	59.8	60.1	1.5	.8
X > 56.0	10	11		
Mean X > 56.0	57.2	57.2	.0	.0
X > 60.0	0	1		
Mean X > 60.0	.0	60.1	.0	60.1
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

April

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	58.3	58.4	.2	.1
1923.	58.9	59.0	.2	.1
1924.	62.7	62.7	.0	.0
1925.	58.9	59.1	.3	.2
1926.	62.4	62.4	.0	.0
1927.	57.4	57.6	.3	.2
1928.	58.3	58.4	.2	.1
1929.	58.3	58.3	.0	.0
1930.	61.0	61.0	.0	.0
1931.	63.8	63.9	.2	.1
1932.	59.1	59.5	.7	.4
1933.	60.8	60.9	.2	.1
1934.	64.0	64.2	.3	.2
1935.	58.5	58.6	.2	.1
1936.	60.0	60.1	.2	.1
1937.	58.7	58.8	.2	.1
1938.	57.0	57.1	.2	.1
1939.	64.1	64.9	1.2	.8
1940.	60.6	60.6	.0	.0
1941.	57.0	57.1	.2	.1
1942.	57.2	57.2	.0	.0
1943.	59.0	59.1	.2	.1
1944.	58.7	59.0	.5	.3
1945.	60.9	61.0	.2	.1
1946.	60.5	60.7	.3	.2
1947.	63.4	63.3	-.2	-.1
1948.	56.1	56.2	.2	.1
1949.	62.0	61.9	-.2	-.1
1950.	60.9	61.0	.2	.1
1951.	60.0	60.2	.3	.2
1952.	56.3	56.3	.0	.0
1953.	58.9	59.0	.2	.1
1954.	59.3	59.4	.2	.1
1955.	57.7	57.8	.2	.1
1956.	59.6	59.8	.3	.2
1957.	60.9	60.8	-.2	-.1
1958.	58.1	58.2	.2	.1
1959.	64.5	64.3	-.3	-.2
1960.	60.5	60.6	.2	.1
1961.	60.7	61.1	.7	.4
1962.	61.8	62.3	.8	.5
1963.	55.1	55.2	.2	.1
1964.	60.4	60.5	.2	.1
1965.	57.8	57.8	.0	.0
1966.	62.0	62.0	.0	.0
1967.	54.4	54.5	.2	.1
1968.	61.8	61.7	-.2	-.1
1969.	57.3	57.4	.2	.1
1970.	59.2	59.3	.2	.1
1971.	59.3	59.4	.2	.1
1972.	60.1	60.1	.0	.0
1973.	61.0	61.0	.0	.0
1974.	57.6	57.7	.2	.1
1975.	56.8	56.8	.0	.0
1976.	60.4	60.4	.0	.0
1977.	64.2	64.2	.0	.0
1978.	57.7	57.8	.2	.1
1979.	59.5	59.7	.3	.2
1980.	60.1	60.2	.2	.1
1981.	61.7	61.9	.3	.2
1982.	55.9	56.0	.2	.1
1983.	56.7	56.8	.2	.1
1984.	59.6	59.7	.2	.1
1985.	63.7	63.7	.0	.0
1986.	60.5	60.6	.2	.1
1987.	63.3	63.5	.3	.2
1988.	63.2	62.9	-.5	-.3
1989.	61.7	61.8	.2	.1
1990.	64.2	64.7	.8	.5
Mean:	59.9	60.0	.2	.1
Median:	59.6	59.8	.2	.1
Min:	54.4	54.5	-.5	-.3
Max:	64.5	64.9	1.2	.8
X > 56.0	66	66		
Mean X > 56.0	60.1	60.2	.2	.1
X > 60.0	33	35		
Mean X > 60.0	61.9	61.9	.0	.0
X > 62.5	11	11		
Mean X > 62.5	63.7	63.8	.2	.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

May

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	62.6	62.8	.3	.2
1923.	63.9	64.2	.5	.3
1924.	69.7	69.9	.3	.2
1925.	64.8	65.1	.5	.3
1926.	67.1	67.2	.1	.1
1927.	63.5	63.9	.6	.4
1928.	67.0	67.0	.0	.0
1929.	66.6	66.6	.0	.0
1930.	63.9	64.0	.2	.1
1931.	70.8	70.9	.1	.1
1932.	65.4	65.6	.3	.2
1933.	63.4	63.5	.2	.1
1934.	69.5	69.5	.0	.0
1935.	65.0	65.1	.2	.1
1936.	65.8	66.0	.3	.2
1937.	65.8	66.0	.3	.2
1938.	62.4	62.7	.5	.3
1939.	67.8	67.8	.0	.0
1940.	66.1	66.2	.2	.1
1941.	62.3	62.5	.3	.2
1942.	61.4	61.8	.7	.4
1943.	66.2	66.3	.2	.1
1944.	66.1	66.4	.5	.3
1945.	63.8	63.9	.2	.1
1946.	64.9	65.0	.2	.1
1947.	69.2	69.1	-.1	-.1
1948.	62.6	62.7	.2	.1
1949.	66.0	66.4	.6	.4
1950.	65.5	65.6	.2	.1
1951.	65.9	66.0	.2	.1
1952.	62.1	62.2	.2	.1
1953.	62.4	62.6	.3	.2
1954.	66.3	66.2	-.2	-.1
1955.	66.7	67.0	.4	.3
1956.	62.9	63.6	1.1	.7
1957.	65.0	65.2	.3	.2
1958.	63.7	63.8	.2	.1
1959.	66.4	66.3	-.2	-.1
1960.	66.3	66.5	.3	.2
1961.	64.4	64.1	-.5	-.3
1962.	65.1	65.2	.2	.1
1963.	63.2	63.5	.5	.3
1964.	65.4	65.6	.3	.2
1965.	64.5	64.6	.2	.1
1966.	66.5	66.5	.0	.0
1967.	62.5	62.9	.6	.4
1968.	66.6	66.3	-.5	-.3
1969.	63.6	63.9	.5	.3
1970.	68.2	68.3	.1	.1
1971.	62.1	62.5	.6	.4
1972.	66.4	66.4	.0	.0
1973.	67.6	67.9	.4	.3
1974.	64.4	64.7	.5	.3
1975.	64.8	65.2	.6	.4
1976.	70.1	70.0	-.1	-.1
1977.	64.0	64.0	.0	.0
1978.	65.6	65.8	.3	.2
1979.	66.6	67.2	.9	.6
1980.	64.3	64.4	.2	.1
1981.	66.7	66.9	.3	.2
1982.	64.5	64.6	.2	.1
1983.	62.5	62.6	.2	.1
1984.	68.1	68.1	.0	.0
1985.	65.5	65.6	.2	.1
1986.	66.0	66.1	.2	.1
1987.	69.1	68.8	-.4	-.3
1988.	65.7	65.8	.2	.1
1989.	66.3	66.6	.5	.3
1990.	65.9	65.8	-.2	-.1
Mean:	65.4	65.6	.2	.1
Median:	65.4	65.6	.2	.1
Min:	61.4	61.8	-.5	-.3
Max:	70.8	70.9	1.1	.7
X > 56.0	69	69		
Mean X > 56.0	65.4	65.6	.3	.2
X > 60.0	69	69		
Mean X > 60.0	65.4	65.6	.3	.2
X > 62.5	61	65		
Mean X > 62.5	65.8	65.8	.0	.0
X > 65.0	39	43		
Mean X > 65.0	66.9	66.8	-.1	-.1
X > 67.5	10	10		
Mean X > 67.5	69.0	69.0	.0	.0
X > 70.0	2	1		
Mean X > 70.0	70.4	70.9	.7	.5

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

June

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	67.9	67.7	-.3	-.2
1923.	66.0	66.1	.2	.1
1924.	71.3	71.9	.8	.6
1925.	69.2	69.1	-.1	-.1
1926.	72.7	72.8	.1	.1
1927.	68.2	68.5	.4	.3
1928.	69.5	69.4	-.1	-.1
1929.	70.9	71.0	.1	.1
1930.	71.4	71.2	-.3	-.2
1931.	70.9	71.1	.3	.2
1932.	70.4	70.4	.0	.0
1933.	70.2	70.3	.1	.1
1934.	71.3	71.1	-.3	-.2
1935.	71.2	71.5	.4	.3
1936.	69.7	70.2	.7	.5
1937.	69.9	70.0	.1	.1
1938.	68.9	69.1	.3	.2
1939.	72.0	71.4	-.8	-.6
1940.	72.4	72.6	.3	.2
1941.	68.0	68.2	.3	.2
1942.	68.0	68.5	.7	.5
1943.	67.8	67.9	.1	.1
1944.	68.2	68.0	-.3	-.2
1945.	69.9	70.3	.6	.4
1946.	67.8	68.1	.4	.3
1947.	71.6	71.3	-.4	-.3
1948.	69.1	69.1	.0	.0
1949.	70.7	70.7	.0	.0
1950.	68.7	68.8	.1	.1
1951.	69.9	69.9	.0	.0
1952.	65.5	65.7	.3	.2
1953.	66.3	67.0	1.1	.7
1954.	69.1	69.1	.0	.0
1955.	68.7	70.0	1.9	1.3
1956.	69.4	70.1	1.0	.7
1957.	72.0	72.0	.0	.0
1958.	67.2	67.6	.6	.4
1959.	71.7	71.7	.0	.0
1960.	73.2	74.3	1.5	1.1
1961.	73.0	74.8	2.5	1.8
1962.	70.5	70.5	.0	.0
1963.	69.5	69.4	-.1	-.1
1964.	70.4	69.8	-.9	-.6
1965.	67.4	67.4	.0	.0
1966.	70.4	69.7	-1.0	-.7
1967.	66.5	67.0	.8	.5
1968.	71.8	71.9	.1	.1
1969.	67.9	68.3	.6	.4
1970.	71.0	71.2	.3	.2
1971.	67.9	68.4	.7	.5
1972.	70.4	70.8	.6	.4
1973.	71.0	71.2	.3	.2
1974.	69.5	70.0	.7	.5
1975.	68.7	68.9	.3	.2
1976.	72.2	71.8	-.6	-.4
1977.	73.4	73.4	.0	.0
1978.	69.2	69.5	.4	.3
1979.	69.5	69.8	.4	.3
1980.	67.3	67.4	.1	.1
1981.	74.3	74.4	.1	.1
1982.	67.3	67.4	.1	.1
1983.	66.9	67.0	.1	.1
1984.	70.0	70.1	.1	.1
1985.	73.2	72.9	-.4	-.3
1986.	70.3	70.5	.3	.2
1987.	71.1	71.3	.3	.2
1988.	70.5	71.5	1.4	1.0
1989.	70.1	70.4	.4	.3
1990.	70.2	71.3	1.6	1.1
Mean:	69.8	70.0	.3	.2
Median:	69.9	70.0	.1	.1
Min:	65.5	65.7	-1.0	-.7
Max:	74.3	74.8	2.5	1.8
X > 56.0	69	69		
Mean X > 56.0	69.8	70.0	.3	.2
X > 60.0	69	69		
Mean X > 60.0	69.8	70.0	.3	.2
X > 62.5	69	69		
Mean X > 62.5	69.8	70.0	.3	.2
X > 65.0	69	69		
Mean X > 65.0	69.8	70.0	.3	.2
X > 67.5	60	61		
Mean X > 67.5	70.3	70.4	.1	.1
X > 70.0	33	35		
Mean X > 70.0	71.4	71.5	.1	.1

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

July

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	72.9	72.8	-.1	-.1
1923.	71.8	72.2	.6	.4
1924.	73.2	73.3	.1	.1
1925.	73.3	74.0	1.0	.7
1926.	75.5	75.4	-.1	-.1
1927.	71.9	72.1	.3	.2
1928.	70.5	70.6	.1	.1
1929.	73.7	73.7	.0	.0
1930.	73.2	73.5	.4	.3
1931.	77.7	77.4	-.4	-.3
1932.	73.1	72.8	-.4	-.3
1933.	76.7	76.6	-.1	-.1
1934.	74.6	74.6	.0	.0
1935.	72.0	72.6	.8	.6
1936.	74.3	74.3	.0	.0
1937.	74.3	74.4	.1	.1
1938.	72.1	72.2	.1	.1
1939.	75.0	75.0	.0	.0
1940.	71.8	71.4	-.6	-.4
1941.	72.8	73.1	.4	.3
1942.	72.3	72.6	.4	.3
1943.	72.2	71.6	-.8	-.6
1944.	72.7	73.1	.6	.4
1945.	73.6	73.7	.1	.1
1946.	72.2	71.8	-.6	-.4
1947.	73.3	73.4	.1	.1
1948.	71.4	71.7	.4	.3
1949.	72.8	73.2	.5	.4
1950.	72.7	73.0	.4	.3
1951.	71.3	71.0	-.4	-.3
1952.	72.1	72.2	.1	.1
1953.	73.0	73.2	.3	.2
1954.	72.4	72.1	-.4	-.3
1955.	72.4	72.9	.7	.5
1956.	71.8	71.9	.1	.1
1957.	72.4	72.4	.0	.0
1958.	71.6	71.8	.3	.2
1959.	73.8	73.7	-.1	-.1
1960.	74.5	75.9	1.9	1.4
1961.	74.9	76.3	1.9	1.4
1962.	72.8	72.6	-.3	-.2
1963.	71.1	71.0	-.1	-.1
1964.	74.3	74.5	.3	.2
1965.	71.7	71.3	-.6	-.4
1966.	70.7	70.9	.3	.2
1967.	73.3	73.4	.1	.1
1968.	72.9	73.1	.3	.2
1969.	72.4	72.5	.1	.1
1970.	72.7	73.2	.7	.5
1971.	72.5	72.8	.4	.3
1972.	72.4	72.6	.3	.2
1973.	72.7	72.6	-.1	-.1
1974.	71.0	71.0	.0	.0
1975.	71.3	71.6	.4	.3
1976.	74.9	74.8	-.1	-.1
1977.	74.3	74.3	.0	.0
1978.	72.3	73.2	1.2	.9
1979.	72.9	72.7	-.3	-.2
1980.	72.8	73.2	.5	.4
1981.	74.4	74.6	.3	.2
1982.	70.2	71.1	1.3	.9
1983.	70.0	70.2	.3	.2
1984.	73.8	73.7	-.1	-.1
1985.	75.5	75.3	-.3	-.2
1986.	72.4	72.0	-.6	-.4
1987.	71.8	71.3	-.7	-.5
1988.	76.6	77.4	1.0	.8
1989.	72.4	73.2	1.1	.8
1990.	74.3	75.1	1.1	.8
Mean:	73.0	73.1	.2	.2
Median:	72.7	72.9	.1	.1
Min:	70.0	70.2	-.8	-.6
Max:	77.7	77.4	1.9	1.4

X > 56.0	69	69		
Mean X > 56.0	73.0	73.1	.1	.1
X > 60.0	69	69		
Mean X > 60.0	73.0	73.1	.1	.1
X > 62.5	69	69		
Mean X > 62.5	73.0	73.1	.1	.1
X > 65.0	69	69		
Mean X > 65.0	73.0	73.1	.1	.1
X > 67.5	69	69		
Mean X > 67.5	73.0	73.1	.1	.1
X > 70.0	68	69		
Mean X > 70.0	73.0	73.1	.1	.1

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

August

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	70.8	69.7	-1.6	-1.1
1923.	71.6	71.0	-.8	-.6
1924.	72.9	72.9	.0	.0
1925.	70.4	71.0	.9	.6
1926.	72.6	72.6	.0	.0
1927.	69.4	69.8	.6	.4
1928.	70.6	70.7	.1	.1
1929.	73.9	74.1	.3	.2
1930.	72.3	72.1	-.3	-.2
1931.	74.9	75.0	.1	.1
1932.	72.7	73.0	.4	.3
1933.	75.0	75.2	.3	.2
1934.	75.0	75.2	.3	.2
1935.	73.3	73.0	-.4	-.3
1936.	73.4	73.9	.7	.5
1937.	73.1	73.6	.7	.5
1938.	70.0	70.4	.6	.4
1939.	73.7	74.0	.4	.3
1940.	71.2	71.1	-.1	-.1
1941.	69.2	69.5	.4	.3
1942.	69.9	70.3	.6	.4
1943.	69.9	69.8	-.1	-.1
1944.	72.1	73.2	1.5	1.1
1945.	71.8	71.7	-.1	-.1
1946.	71.8	71.9	.1	.1
1947.	71.9	72.5	.8	.6
1948.	70.0	69.8	-.3	-.2
1949.	70.5	71.0	.7	.5
1950.	72.2	72.6	.6	.4
1951.	70.6	70.6	.0	.0
1952.	70.1	70.2	.1	.1
1953.	68.9	69.0	.1	.1
1954.	69.0	69.2	.3	.2
1955.	73.0	73.6	.8	.6
1956.	69.5	69.7	.3	.2
1957.	69.9	70.3	.6	.4
1958.	72.7	72.9	.3	.2
1959.	72.5	72.3	-.3	-.2
1960.	72.9	73.2	.4	.3
1961.	73.9	74.2	.4	.3
1962.	71.3	72.1	1.1	.8
1963.	70.9	71.1	.3	.2
1964.	73.2	74.0	1.1	.8
1965.	70.9	71.4	.7	.5
1966.	74.2	73.8	-.5	-.4
1967.	73.3	73.6	.4	.3
1968.	72.1	71.8	-.4	-.3
1969.	72.3	72.6	.4	.3
1970.	72.0	71.9	-.1	-.1
1971.	71.5	72.2	1.0	.7
1972.	72.4	72.4	.0	.0
1973.	71.0	71.4	.6	.4
1974.	70.6	70.8	.3	.2
1975.	69.8	70.0	.3	.2
1976.	69.7	70.4	1.0	.7
1977.	74.3	74.3	.0	.0
1978.	72.0	71.8	-.3	-.2
1979.	71.8	71.7	-.1	-.1
1980.	70.3	70.5	.3	.2
1981.	72.2	73.6	1.9	1.4
1982.	69.3	69.9	.9	.6
1983.	70.9	71.0	.1	.1
1984.	71.6	72.2	.8	.6
1985.	71.3	71.8	.7	.5
1986.	71.8	71.2	-.8	-.6
1987.	73.4	73.6	.3	.2
1988.	73.1	73.2	.1	.1
1989.	71.9	70.9	-1.4	-1.0
1990.	72.9	74.0	1.5	1.1
Mean:	71.8	72.0	.3	.2
Median:	71.8	71.8	.3	.2
Min:	68.9	69.0	-1.6	-1.1
Max:	75.0	75.2	1.9	1.4
X > 56.0	69	69		
Mean X > 56.0	71.8	72.0	.3	.2
X > 60.0	69	69		
Mean X > 60.0	71.8	72.0	.3	.2
X > 62.5	69	69		
Mean X > 62.5	71.8	72.0	.3	.2
X > 65.0	69	69		
Mean X > 65.0	71.8	72.0	.3	.2
X > 67.5	69	69		
Mean X > 67.5	71.8	72.0	.3	.2
X > 70.0	56	59		
Mean X > 70.0	72.3	72.3	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

September

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	70.2	69.8	-.6	-.4
1923.	68.4	68.2	-.3	-.2
1924.	69.6	69.7	.1	.1
1925.	64.5	64.5	.0	.0
1926.	66.2	66.2	.0	.0
1927.	66.6	65.1	-2.3	-1.5
1928.	67.3	67.4	.1	.1
1929.	68.3	68.4	.1	.1
1930.	65.1	65.0	-.2	-.1
1931.	68.1	68.1	.0	.0
1932.	71.3	71.6	.4	.3
1933.	68.1	68.1	.0	.0
1934.	71.1	71.3	.3	.2
1935.	68.4	68.0	-.6	-.4
1936.	70.0	69.5	-.7	-.5
1937.	68.2	68.1	-.1	-.1
1938.	68.8	68.8	.0	.0
1939.	69.7	69.7	.0	.0
1940.	67.1	66.3	-1.2	-.8
1941.	66.6	66.5	-.2	-.1
1942.	67.3	67.3	.0	.0
1943.	69.8	68.8	-1.4	-1.0
1944.	70.9	71.4	.7	.5
1945.	69.5	69.3	-.3	-.2
1946.	68.1	68.3	.3	.2
1947.	71.0	71.6	.8	.6
1948.	67.9	67.7	-.3	-.2
1949.	69.1	69.5	.6	.4
1950.	68.1	68.2	.1	.1
1951.	69.0	69.2	.3	.2
1952.	69.3	69.1	-.3	-.2
1953.	69.5	69.3	-.3	-.2
1954.	67.0	66.4	-.9	-.6
1955.	68.9	69.1	.3	.2
1956.	67.6	67.6	.0	.0
1957.	67.4	67.8	.6	.4
1958.	69.2	69.1	-.1	-.1
1959.	67.5	67.5	.0	.0
1960.	69.6	69.9	.4	.3
1961.	68.2	68.2	.0	.0
1962.	67.9	68.3	.6	.4
1963.	69.3	69.4	.1	.1
1964.	67.5	67.6	.1	.1
1965.	66.0	65.5	-.8	-.5
1966.	68.5	69.1	.9	.6
1967.	70.3	70.4	.1	.1
1968.	69.3	68.9	-.6	-.4
1969.	69.3	69.3	.0	.0
1970.	69.2	68.4	-1.2	-.8
1971.	68.4	68.4	.0	.0
1972.	65.9	66.1	.3	.2
1973.	68.0	67.6	-.6	-.4
1974.	68.6	68.6	.0	.0
1975.	69.7	69.7	.0	.0
1976.	69.2	69.5	.4	.3
1977.	69.0	69.0	.0	.0
1978.	67.1	66.9	-.3	-.2
1979.	70.3	70.0	-.4	-.3
1980.	67.9	68.0	.1	.1
1981.	68.5	68.5	.0	.0
1982.	66.2	66.2	.0	.0
1983.	66.0	65.9	-.2	-.1
1984.	70.8	70.4	-.6	-.4
1985.	65.8	65.9	.2	.1
1986.	64.1	63.9	-.3	-.2
1987.	68.9	69.2	.4	.3
1988.	70.0	69.9	-.1	-.1
1989.	66.2	66.1	-.2	-.1
1990.	69.7	70.3	.9	.6
Mean:	68.3	68.3	-.1	-.1
Median:	68.4	68.4	.0	.0
Min:	64.1	63.9	-2.3	-1.5
Max:	71.3	71.6	.9	.6
X > 56.0	69	69		
Mean X > 56.0	68.3	68.3	.0	.0
X > 60.0	69	69		
Mean X > 60.0	68.3	68.3	.0	.0
X > 62.5	69	69		
Mean X > 62.5	68.3	68.3	.0	.0
X > 65.0	67	66		
Mean X > 65.0	68.5	68.5	.0	.0
X > 67.5	49	51		
Mean X > 67.5	69.2	69.1	-.1	-.1
X > 70.0	8	7		
Mean X > 70.0	70.7	71.0	.4	.3

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

October"

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	58.0	58.1	.2	.1
1923.	60.2	59.6	-1.0	-.6
1924.	58.7	58.5	-.3	-.2
1925.	59.7	59.4	-.5	-.3
1926.	61.8	61.6	-.3	-.2
1927.	59.9	59.9	.0	.0
1928.	59.7	59.6	-.2	-.1
1929.	62.9	63.1	.3	.2
1930.	60.3	60.3	.0	.0
1931.	61.2	61.2	.0	.0
1932.	62.1	61.9	-.3	-.2
1933.	65.2	65.2	.0	.0
1934.	62.5	62.3	-.3	-.2
1935.	60.1	60.3	.3	.2
1936.	62.5	62.4	-.2	-.1
1937.	61.4	61.2	-.3	-.2
1938.	58.9	58.9	.0	.0
1939.	62.5	62.3	-.3	-.2
1940.	60.0	60.4	.7	.4
1941.	59.0	59.0	.0	.0
1942.	60.4	60.4	.0	.0
1943.	59.3	59.3	.0	.0
1944.	62.5	62.6	.2	.1
1945.	62.1	61.9	-.3	-.2
1946.	58.9	58.9	.0	.0
1947.	60.3	60.4	.2	.1
1948.	59.6	59.8	.3	.2
1949.	59.0	59.1	.2	.1
1950.	59.7	60.0	.5	.3
1951.	58.6	58.5	-.2	-.1
1952.	61.6	61.6	.0	.0
1953.	59.5	59.3	-.3	-.2
1954.	59.4	59.4	.0	.0
1955.	61.3	60.6	-1.1	-.7
1956.	58.2	58.2	.0	.0
1957.	56.8	56.6	-.4	-.2
1958.	62.6	62.6	.0	.0
1959.	63.5	63.6	.2	.1
1960.	61.1	61.4	.5	.3
1961.	61.9	61.5	-.6	-.4
1962.	59.5	60.0	.8	.5
1963.	59.6	59.7	.2	.1
1964.	62.6	62.6	.0	.0
1965.	61.3	61.7	.7	.4
1966.	61.0	61.4	.7	.4
1967.	61.4	61.3	-.2	-.1
1968.	59.7	59.9	.3	.2
1969.	57.8	57.7	-.2	-.1
1970.	59.4	59.1	-.5	-.3
1971.	58.3	58.4	.2	.1
1972.	59.1	59.1	.0	.0
1973.	58.7	59.0	.5	.3
1974.	61.1	61.0	-.2	-.1
1975.	58.7	58.7	.0	.0
1976.	63.4	63.5	.2	.1
1977.	62.5	62.4	-.2	-.1
1978.	62.7	62.2	-.8	-.5
1979.	60.6	60.8	.3	.2
1980.	60.6	60.3	-.5	-.3
1981.	59.6	59.6	.0	.0
1982.	57.7	57.8	.2	.1
1983.	61.1	61.3	.3	.2
1984.	58.7	58.0	-1.2	-.7
1985.	60.2	60.6	.7	.4
1986.	61.1	61.1	.0	.0
1987.	64.2	65.2	1.6	1.0
1988.	64.4	64.3	-.2	-.1
1989.	59.6	59.5	-.2	-.1
1990.	63.5	63.9	.6	.4
Mean:	60.6	60.6	.0	.0
Median:	60.2	60.3	.0	.0
Min:	56.8	56.6	-1.2	-.7
Max:	65.2	65.2	1.6	1.0
X > 56.0	69	69		
Mean X > 56.0	60.6	60.6	.0	.0
X > 60.0	38	38		
Mean X > 60.0	61.9	61.9	.0	.0
X > 62.5	10	10		
Mean X > 62.5	63.5	63.7	.3	.2
X > 65.0	1	2		
Mean X > 65.0	65.2	65.2	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

November

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (deg)
1922.	49.7	49.9	.4	.2
1923.	55.2	54.8	-.7	-.4
1924.	51.4	51.3	-.2	-.1
1925.	52.0	51.9	-.2	-.1
1926.	54.2	54.2	.0	.0
1927.	52.2	52.2	.0	.0
1928.	52.0	51.8	-.4	-.2
1929.	55.2	55.0	-.4	-.2
1930.	54.1	53.8	-.6	-.3
1931.	51.1	51.1	.0	.0
1932.	56.4	56.4	.0	.0
1933.	55.5	55.4	-.2	-.1
1934.	53.4	53.0	-.7	-.4
1935.	51.8	51.8	.0	.0
1936.	54.8	54.4	-.7	-.4
1937.	53.0	52.9	-.2	-.1
1938.	52.2	52.2	.0	.0
1939.	55.0	54.8	-.4	-.2
1940.	52.0	52.0	.0	.0
1941.	53.8	53.8	.0	.0
1942.	52.5	52.4	-.2	-.1
1943.	53.2	53.1	-.2	-.1
1944.	51.0	51.1	.2	.1
1945.	52.1	51.8	-.6	-.3
1946.	51.0	50.8	-.4	-.2
1947.	51.2	51.2	.0	.0
1948.	52.6	52.7	.2	.1
1949.	53.9	54.0	.2	.1
1950.	54.4	54.5	.2	.1
1951.	51.5	51.6	.2	.1
1952.	50.9	50.8	-.2	-.1
1953.	52.7	52.6	-.2	-.1
1954.	51.6	51.5	-.2	-.1
1955.	51.6	51.4	-.4	-.2
1956.	53.2	53.2	.0	.0
1957.	51.6	51.4	-.4	-.2
1958.	54.2	54.0	-.4	-.2
1959.	54.3	54.3	.0	.0
1960.	52.0	52.0	.0	.0
1961.	52.4	52.2	-.4	-.2
1962.	53.6	53.5	-.2	-.1
1963.	51.5	51.2	-.6	-.3
1964.	50.4	50.6	.4	.2
1965.	52.0	52.2	.4	.2
1966.	52.7	53.0	.6	.3
1967.	55.0	54.9	-.2	-.1
1968.	52.1	51.9	-.4	-.2
1969.	52.9	52.8	-.2	-.1
1970.	52.7	52.7	.0	.0
1971.	52.5	52.5	.0	.0
1972.	50.3	50.3	.0	.0
1973.	50.8	50.4	-.8	-.4
1974.	52.4	52.4	.0	.0
1975.	52.2	52.0	-.4	-.2
1976.	55.1	55.1	.0	.0
1977.	52.9	52.9	.0	.0
1978.	51.4	51.2	-.4	-.2
1979.	51.8	51.5	-.6	-.3
1980.	53.0	52.7	-.6	-.3
1981.	53.4	53.3	-.2	-.1
1982.	50.5	50.4	-.2	-.1
1983.	52.8	52.6	-.4	-.2
1984.	51.1	51.0	-.2	-.1
1985.	49.8	49.7	-.2	-.1
1986.	53.8	53.9	.2	.1
1987.	52.8	53.2	.8	.4
1988.	52.4	52.3	-.2	-.1
1989.	53.3	53.1	-.4	-.2
1990.	52.0	52.0	.0	.0
Mean:	52.6	52.5	-.2	-.1
Median:	52.4	52.3	-.2	-.1
Min:	49.7	49.7	-.8	-.4
Max:	56.4	56.4	.8	.4
X > 56.0	1	1		
Mean X > 56.0	56.4	56.4	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

December

Water Year	Base Temp (deg)	2030 w/ WFP Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	45.9	45.6	-.7	-.3
1923.	45.6	45.4	-.4	-.2
1924.	42.3	42.3	.0	.0
1925.	46.3	46.4	.2	.1
1926.	46.0	46.0	.0	.0
1927.	45.9	45.8	-.2	-.1
1928.	44.4	44.3	-.2	-.1
1929.	47.9	47.8	-.2	-.1
1930.	46.0	45.8	-.4	-.2
1931.	44.5	44.5	.0	.0
1932.	43.4	43.6	.5	.2
1933.	45.2	45.1	-.2	-.1
1934.	46.7	46.4	-.6	-.3
1935.	47.0	47.3	.6	.3
1936.	46.3	46.2	-.2	-.1
1937.	48.2	47.9	-.6	-.3
1938.	47.9	47.9	.0	.0
1939.	48.6	48.5	-.2	-.1
1940.	47.9	47.7	-.4	-.2
1941.	48.0	47.9	-.2	-.1
1942.	46.6	46.5	-.2	-.1
1943.	47.6	47.4	-.4	-.2
1944.	46.8	46.9	.2	.1
1945.	46.6	46.4	-.4	-.2
1946.	45.6	45.4	-.4	-.2
1947.	45.0	44.8	-.4	-.2
1948.	43.9	43.7	-.5	-.2
1949.	44.9	44.6	-.7	-.3
1950.	47.8	47.8	.0	.0
1951.	46.0	45.8	-.4	-.2
1952.	46.3	46.3	.0	.0
1953.	47.8	47.8	.0	.0
1954.	44.5	44.3	-.4	-.2
1955.	47.4	47.4	.0	.0
1956.	46.3	46.4	.2	.1
1957.	46.0	45.9	-.2	-.1
1958.	50.6	50.5	-.2	-.1
1959.	47.3	47.4	.2	.1
1960.	45.5	45.6	.2	.1
1961.	44.9	44.9	.0	.0
1962.	47.5	47.5	.0	.0
1963.	43.6	43.3	-.7	-.3
1964.	47.5	47.4	-.2	-.1
1965.	43.3	43.2	-.2	-.1
1966.	46.3	46.1	-.4	-.2
1967.	46.2	46.2	.0	.0
1968.	44.5	44.4	-.2	-.1
1969.	48.6	48.5	-.2	-.1
1970.	46.0	45.9	-.2	-.1
1971.	44.5	44.1	-.9	-.4
1972.	42.6	42.5	-.2	-.1
1973.	47.2	47.2	.0	.0
1974.	45.9	45.9	.0	.0
1975.	46.7	46.7	.0	.0
1976.	47.4	47.1	-.6	-.3
1977.	47.3	47.3	.0	.0
1978.	44.1	44.4	.7	.3
1979.	46.7	46.4	-.6	-.3
1980.	47.1	47.0	-.2	-.1
1981.	48.2	48.2	.0	.0
1982.	46.2	46.2	.0	.0
1983.	47.9	47.9	.0	.0
1984.	45.3	45.2	-.2	-.1
1985.	43.1	43.1	.0	.0
1986.	46.5	46.4	-.2	-.1
1987.	45.8	45.7	-.2	-.1
1988.	45.5	45.5	.0	.0
1989.	45.2	45.3	.2	.1
1990.	41.8	41.6	-.5	-.2
Mean:	46.1	46.0	-.2	-.1
Median:	46.1	46.0	-.2	-.1
Min:	41.8	41.6	-.9	-.4
Max:	50.6	50.5	.7	.3
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 24

DELTA OUTFLOW

DELTA OUTFLOW

October

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4216.3	4158.7	-1.4	-57.6
1923	6494.1	5353.8	-17.6	-1140.3
1924	4116.5	4000.8	-2.8	-115.7
1925	3414.5	4100.0	20.1	685.5
1926	4000.8	4000.8	.0	.0
1927	4000.8	4000.8	.0	.0
1928	5155.0	4983.4	-3.3	-171.6
1929	4000.8	4000.8	.0	.0
1930	3000.6	3016.2	.5	15.6
1931	4000.8	4000.8	.0	.0
1932	3652.7	3630.5	-.6	-22.2
1933	4000.8	4000.8	.0	.0
1934	3065.8	3093.8	.9	28.0
1935	3719.9	4267.1	14.7	547.2
1936	4348.1	4255.3	-2.1	-92.8
1937	4016.8	4000.8	-.4	-16.0
1938	4005.7	4021.4	.4	15.7
1939	11381.9	11338.8	-.4	-43.1
1940	4637.8	5079.6	9.5	441.8
1941	4178.4	4000.8	-4.3	-177.6
1942	6878.3	5434.2	-21.0	-1444.1
1943	6200.8	5128.9	-17.3	-1071.9
1944	4844.2	4402.4	-9.1	-441.8
1945	4000.8	4000.8	.0	.0
1946	4794.3	4575.5	-4.6	-218.8
1947	4106.3	4000.8	-2.6	-105.5
1948	4347.9	4288.7	-1.4	-59.2
1949	4701.0	4659.5	-.9	-41.5
1950	4000.8	4000.8	.0	.0
1951	4470.3	4595.6	2.8	125.3
1952	4784.7	4680.2	-2.2	-104.5
1953	12812.0	8899.6	-30.5	-3912.4
1954	5815.2	4895.1	-15.8	-920.1
1955	4558.9	4209.1	-7.7	-349.8
1956	4000.8	4000.8	.0	.0
1957	9367.8	7934.0	-15.3	-1433.8
1958	13206.8	13171.4	-.3	-35.4
1959	7922.6	6069.0	-23.4	-1853.6
1960	4000.8	4000.8	.0	.0
1961	4000.8	4000.8	.0	.0
1962	4000.8	4000.8	.0	.0
1963	25896.3	25124.4	-3.0	-771.9
1964	6747.5	6743.3	-.1	-4.2
1965	4000.8	4000.8	.0	.0
1966	4411.3	4000.8	-9.3	-410.5
1967	4000.8	4000.8	.0	.0
1968	9059.4	6442.6	-28.9	-2616.8
1969	4438.5	4159.6	-6.3	-278.9
1970	14801.4	11521.2	-22.2	-3280.2
1971	4241.5	4115.7	-3.0	-125.8
1972	5825.3	5037.9	-13.5	-787.4
1973	5064.6	4967.6	-1.9	-97.0
1974	6754.3	5179.9	-23.3	-1574.4
1975	5451.7	5385.2	-1.2	-66.5
1976	9880.7	10201.1	3.2	320.4
1977	3168.9	3210.4	1.3	41.5
1978	5538.2	5524.1	-.3	-14.1
1979	4350.1	4101.1	-5.7	-249.0
1980	5047.1	4629.1	-8.3	-418.0
1981	4297.9	4232.7	-1.5	-65.2
1982	4321.7	4416.0	2.2	94.3
1983	19619.4	19700.7	.4	81.3
1984	20807.6	15848.5	-23.8	-4959.1
1985	5379.2	5062.6	-5.9	-316.6
1986	4000.8	4000.8	.0	.0
1987	4693.8	4321.5	-7.9	-372.3
1988	5763.6	6421.2	11.4	657.6
1989	3607.2	3937.3	9.2	330.1
1990	4682.8	4634.4	-1.0	-48.4
1991	4277.6	4625.7	8.1	348.1
Mean:	6033.6	5654.3	-3.8	-379.3
Median:	4411.3	4288.7	-1.0	-48.4
Min:	3000.6	3016.2	-30.5	-4959.1
Max:	25896.3	25124.4	20.1	685.5
Alt-Base >= .0				28
Rel Dif >= .0%			28	
.0% > Rel Dif >= -1.0%			8	
-1.0% > Rel Dif >= -2.0%			5	
-2.0% > Rel Dif >= -3.0%			6	
-3.0% > Rel Dif >= -5.0%			3	
-5.0% > Rel Dif >= -6.0%			2	
Rel Dif < -6.0%			18	

DELTA OUTFLOW

November

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (cfs)
1922	5414.9	5600.7	3.4	185.8
1923	7965.5	7745.8	-2.8	-219.7
1924	4850.6	4919.5	1.4	68.9
1925	4424.9	4532.9	2.4	108.0
1926	4740.6	4958.2	4.6	217.6
1927	13798.9	15024.1	8.9	1225.2
1928	12763.9	8862.4	-30.6	-3901.5
1929	5899.8	5972.9	1.2	73.1
1930	3987.5	3909.7	-2.0	-77.8
1931	4704.0	4752.2	1.0	48.2
1932	4293.2	4407.5	2.7	114.3
1933	4812.2	4775.6	-.8	-36.6
1934	4073.7	4076.8	.1	3.1
1935	5775.8	6046.7	4.7	270.9
1936	5012.1	5404.5	7.8	392.4
1937	4838.0	4980.4	2.9	142.4
1938	14006.1	14603.3	4.3	597.2
1939	8562.9	6009.6	-29.8	-2553.3
1940	5876.8	6341.6	7.9	464.8
1941	5544.9	5444.1	-1.8	-100.8
1942	8686.0	6110.8	-29.6	-2575.2
1943	11890.4	8224.2	-30.8	-3666.2
1944	5401.3	5332.7	-1.3	-68.6
1945	6774.4	7062.9	4.3	288.5
1946	6890.7	6258.3	-9.2	-632.4
1947	5937.4	5751.0	-3.1	-186.4
1948	5121.1	4964.2	-3.1	-156.9
1949	5325.9	5344.4	.3	18.5
1950	5186.2	4905.7	-5.4	-280.5
1951	42410.8	42275.1	-.3	-135.7
1952	6687.9	6714.5	.4	26.6
1953	9746.2	7040.3	-27.8	-2705.9
1954	9151.6	6442.2	-29.6	-2709.4
1955	7355.3	6722.0	-8.6	-633.3
1956	5056.5	5370.5	6.2	314.0
1957	5380.2	5342.0	-.7	-38.2
1958	6708.1	6444.9	-3.9	-263.2
1959	6787.0	5436.6	-19.9	-1350.4
1960	4748.1	4784.1	.8	36.0
1961	6136.2	6597.7	7.5	461.5
1962	4880.5	5294.5	8.5	414.0
1963	6403.4	6252.3	-2.4	-151.1
1964	22366.7	17995.9	-19.5	-4370.8
1965	6724.1	6924.1	3.0	200.0
1966	18572.7	14451.1	-22.2	-4121.6
1967	6997.0	7208.5	3.0	211.5
1968	7341.2	6063.0	-17.4	-1278.2
1969	6048.7	6002.3	-.8	-46.4
1970	11179.7	7337.5	-34.4	-3842.2
1971	10210.7	11043.7	8.2	833.0
1972	5748.2	5382.6	-6.4	-365.6
1973	11179.2	11669.6	4.4	490.4
1974	56548.2	50883.0	-10.0	-5665.2
1975	5779.6	5804.1	.4	24.5
1976	6699.2	6267.7	-6.4	-431.5
1977	3930.8	3810.3	-3.1	-120.5
1978	4124.2	4212.4	2.1	88.2
1979	5852.3	5877.0	.4	24.7
1980	6294.5	6055.3	-3.8	-239.2
1981	4627.5	4605.3	-.5	-22.2
1982	32220.3	29901.2	-7.2	-2319.1
1983	39416.5	40252.2	2.1	835.7
1984	76876.5	77184.4	.4	307.9
1985	23687.7	23343.4	-1.5	-344.3
1986	5503.8	5533.6	.5	29.8
1987	4785.1	4503.1	-5.9	-282.0
1988	5719.6	5572.9	-2.6	-146.7
1989	4760.7	4798.5	.8	37.8
1990	4542.7	4776.3	5.1	233.6
1991	4351.2	4648.8	6.8	297.6
Mean:	10230.0	9702.1	-3.8	-527.9
Median:	5899.8	5972.9	-.5	-36.6
Min:	3930.8	3810.3	-34.4	-5665.2
Max:	76876.5	77184.4	8.9	1225.2
Alt-Base >= .0				34
Rel Dif >= .0%			34	
.0% > Rel Dif >= -1.0%			5	
-1.0% > Rel Dif >= -2.0%			4	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			5	
-5.0% > Rel Dif >= -6.0%			2	
Rel Dif < -6.0%			17	

DELTA OUTFLOW

December

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	10342.6	11266.4	8.9	923.8
1923	35098.2	28918.4	-17.6	-6179.8
1924	6652.4	6674.2	.3	21.8
1925	6424.7	7041.4	9.6	616.7
1926	6516.5	6557.2	.6	40.7
1927	9183.2	9676.6	5.4	493.4
1928	7623.2	7868.7	3.2	245.5
1929	7446.7	7407.0	-.5	-39.7
1930	7281.9	7347.8	.9	65.9
1931	6059.5	6138.2	1.3	78.7
1932	12591.1	13559.6	7.7	968.5
1933	5966.5	6514.7	9.2	548.2
1934	7369.9	7487.5	1.6	117.6
1935	5322.1	5711.6	7.3	389.5
1936	7082.0	6967.3	-1.6	-114.7
1937	7396.0	7246.0	-2.0	-150.0
1938	58139.3	49483.9	-14.9	-8655.4
1939	9730.5	6852.0	-29.6	-2878.5
1940	5352.6	5849.4	9.3	496.8
1941	37885.2	34859.4	-8.0	-3025.8
1942	66346.0	61516.9	-7.3	-4829.1
1943	24811.9	21562.0	-13.1	-3249.9
1944	6360.2	7208.0	13.3	847.8
1945	8135.5	8657.6	6.4	522.1
1946	65713.0	58994.1	-10.2	-6718.9
1947	7926.3	7345.2	-7.3	-581.1
1948	5722.8	5150.8	-10.0	-572.0
1949	7562.9	7556.9	-.1	-6.0
1950	6670.8	6525.3	-2.2	-145.5
1951	84563.7	82230.9	-2.8	-2332.8
1952	36944.0	33750.7	-8.6	-3193.3
1953	39081.1	38751.4	-.8	-329.7
1954	6347.6	6542.3	3.1	194.7
1955	15940.3	13875.5	-13.0	-2064.8
1956	86382.5	91763.4	6.2	5380.9
1957	6105.1	7018.0	15.0	912.9
1958	14026.1	14122.1	.7	96.0
1959	7965.2	6313.3	-20.7	-1651.9
1960	6912.0	7126.1	3.1	214.1
1961	7039.5	7449.1	5.8	409.6
1962	7207.0	7800.3	8.2	593.3
1963	17541.9	17803.2	1.5	261.3
1964	6389.1	6407.3	.3	18.2
1965	90300.5	81585.7	-9.7	-8714.8
1966	11172.9	9716.6	-13.0	-1456.3
1967	33598.8	29440.3	-12.4	-4158.5
1968	10326.6	7363.9	-28.7	-2962.7
1969	14938.3	14799.1	-.9	-139.2
1970	54183.1	49731.1	-8.2	-4452.0
1971	58855.5	56114.0	-4.7	-2741.5
1972	12428.0	9077.3	-27.0	-3350.7
1973	13930.6	13663.4	-1.9	-267.2
1974	66925.8	66911.9	.0	-13.9
1975	9997.4	8468.5	-15.3	-1528.9
1976	6583.0	6780.7	3.0	197.7
1977	5689.0	5099.0	-10.4	-590.0
1978	7043.2	7187.9	2.1	144.7
1979	5789.7	7085.3	22.4	1295.6
1980	11066.2	10217.3	-7.7	-848.9
1981	6961.1	7307.5	5.0	346.4
1982	87039.7	87028.9	.0	-10.8
1983	86124.2	83878.4	-2.6	-2245.8
1984	158453.4	157310.2	-.7	-1143.2
1985	14092.1	13649.2	-3.1	-442.9
1986	8329.6	8039.9	-3.5	-289.7
1987	7232.6	7232.6	.0	.0
1988	9069.0	7611.7	-16.1	-1457.3
1989	5283.6	5340.5	1.1	56.9
1990	5765.2	6427.0	11.5	661.8
1991	5922.1	5515.2	-6.9	-406.9
Mean:	22975.1	22021.2	-2.4	-954.0
Median:	8135.5	7611.7	-.7	-114.7
Min:	5283.6	5099.0	-29.6	-8714.8
Max:	158453.4	157310.2	22.4	5380.9
Alt-Base >= .0				31
Rel Dif >= .0%			33	
.0% > Rel Dif >= -1.0%			5	
-1.0% > Rel Dif >= -2.0%			3	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			3	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			23	

DELTA OUTFLOW

January

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	12105.2	12234.6	1.1	129.4
1923	35591.9	27531.0	-22.6	-8060.9
1924	7046.5	7040.8	-.1	-5.7
1925	6238.9	6588.6	5.6	349.7
1926	9217.9	10048.4	9.0	830.5
1927	24265.8	25598.0	5.5	1332.2
1928	18108.8	16547.3	-8.6	-1561.5
1929	8045.2	8043.9	.0	-1.3
1930	13659.2	13915.0	1.9	255.8
1931	7186.2	7286.3	1.4	100.1
1932	14763.0	14572.0	-1.3	-191.0
1933	7270.2	7926.6	9.0	656.4
1934	9422.8	9697.1	2.9	274.3
1935	22761.7	23356.2	2.6	594.5
1936	30061.9	32069.8	6.7	2007.9
1937	7322.3	9345.1	27.6	2022.8
1938	28850.2	25946.6	-10.1	-2903.6
1939	11620.9	8093.3	-30.4	-3527.6
1940	27385.5	28076.4	2.5	690.9
1941	102903.3	92852.5	-9.8	-10050.8
1942	87645.8	80555.7	-8.1	-7090.1
1943	89400.8	83924.7	-6.1	-5476.1
1944	8187.5	8300.4	1.4	112.9
1945	6597.3	6638.7	.6	41.4
1946	45422.7	42128.0	-7.3	-3294.7
1947	6773.1	6814.9	.6	41.8
1948	6770.5	6785.5	.2	15.0
1949	6985.1	6983.0	.0	-2.1
1950	12624.0	12646.9	.2	22.9
1951	71330.2	69701.9	-2.3	-1628.3
1952	87450.2	86830.9	-.7	-619.3
1953	105633.7	103609.4	-1.9	-2024.3
1954	27480.1	20308.7	-26.1	-7171.4
1955	16425.9	16448.7	.1	22.8
1956	170911.1	171345.0	.3	433.9
1957	8598.0	8300.0	-3.5	-298.0
1958	30877.6	31213.2	1.1	335.6
1959	29174.0	25155.1	-13.8	-4018.9
1960	7198.3	7492.5	4.1	294.2
1961	6865.7	6967.8	1.5	102.1
1962	6427.0	6507.0	1.2	80.0
1963	10506.6	16175.2	54.0	5668.6
1964	19973.6	17386.4	-13.0	-2587.2
1965	122182.7	121902.8	-.2	-279.9
1966	23874.0	21626.8	-9.4	-2247.2
1967	53764.3	56736.7	5.5	2972.4
1968	28167.6	24585.6	-12.7	-3582.0
1969	126729.0	120776.6	-4.7	-5952.4
1970	210246.5	207462.2	-1.3	-2784.3
1971	47827.4	43412.7	-9.2	-4414.7
1972	11223.6	10173.3	-9.4	-1050.3
1973	75056.9	73264.9	-2.4	-1792.0
1974	128317.9	128210.3	-.1	-107.6
1975	12869.5	9184.9	-28.6	-3684.6
1976	10114.8	7823.5	-22.7	-2291.3
1977	6189.7	6123.6	-1.1	-66.1
1978	59615.9	58558.7	-1.8	-1057.2
1979	22445.8	19254.7	-14.2	-3191.1
1980	103247.0	90390.4	-12.5	-12856.6
1981	20346.9	14433.0	-29.1	-5913.9
1982	79236.5	78885.0	-.4	-351.5
1983	111542.3	106462.0	-4.6	-5080.3
1984	77265.8	75563.4	-2.2	-1702.4
1985	8164.9	7969.2	-2.4	-195.7
1986	14630.6	14939.5	2.1	308.9
1987	8099.6	8285.7	2.3	186.1
1988	21683.2	19366.8	-10.7	-2316.4
1989	6492.0	6495.6	.1	3.6
1990	11078.2	12286.4	10.9	1208.2
1991	5843.6	5610.9	-4.0	-232.7
Mean:	38276.3	36839.6	-2.7	-1436.7
Median:	18108.8	16448.7	-.7	-195.7
Min:	5843.6	5610.9	-30.4	-12856.6
Max:	210246.5	207462.2	54.0	5668.6
Alt-Base >= .0				29
Rel Dif >= .0%			31	
.0% > Rel Dif >= -1.0%			5	
-1.0% > Rel Dif >= -2.0%			5	
-2.0% > Rel Dif >= -3.0%			4	
-3.0% > Rel Dif >= -5.0%			4	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			21	

DELTA OUTFLOW

February

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	35896.6	35259.9	-1.8	-636.7
1923	21305.9	16454.5	-22.8	-4851.4
1924	10430.5	11190.2	7.3	759.7
1925	56243.1	60555.2	7.7	4312.1
1926	35070.4	35738.6	1.9	668.2
1927	115396.4	118994.8	3.1	3598.4
1928	24017.1	18132.4	-24.5	-5884.7
1929	10312.9	10296.9	-.2	-16.0
1930	13121.4	13248.8	1.0	127.4
1931	8579.3	8583.1	.0	3.8
1932	17852.8	22189.2	24.3	4336.4
1933	8844.6	8868.7	.3	24.1
1934	12377.4	15530.7	25.5	3153.3
1935	11856.8	11939.2	.7	82.4
1936	82026.4	83625.5	1.9	1599.1
1937	44952.2	46081.0	2.5	1128.8
1938	141185.4	127364.3	-9.8	-13821.1
1939	11238.6	10608.5	-5.6	-630.1
1940	66326.8	63329.9	-4.5	-2996.9
1941	126836.3	123271.7	-2.8	-3564.6
1942	145480.1	143613.1	-1.3	-1867.0
1943	61108.8	56546.1	-7.5	-4562.7
1944	21711.8	20941.7	-3.5	-770.1
1945	53099.7	48836.4	-8.0	-4263.3
1946	21896.8	22786.2	4.1	889.4
1947	12928.1	12933.6	.0	5.5
1948	11400.1	11400.1	.0	.0
1949	9624.9	9084.7	-5.6	-540.2
1950	28865.4	28307.5	-1.9	-557.9
1951	67604.0	66401.2	-1.8	-1202.8
1952	84161.6	80985.4	-3.8	-3176.2
1953	27879.6	26173.7	-6.1	-1705.9
1954	58358.3	55317.9	-5.2	-3040.4
1955	11504.8	11528.8	.2	24.0
1956	92265.5	91418.7	-.9	-846.8
1957	23301.9	18942.1	-18.7	-4359.8
1958	178798.8	172326.1	-3.6	-6472.7
1959	51919.4	49360.1	-4.9	-2559.3
1960	23930.4	24567.0	2.7	636.6
1961	20246.4	20648.0	2.0	401.6
1962	49614.0	51901.1	4.6	2287.1
1963	67868.6	73811.6	8.8	5943.0
1964	12436.0	12322.3	-.9	-113.7
1965	33315.0	33198.9	-.3	-116.1
1966	22986.5	21396.0	-6.9	-1590.5
1967	54153.4	53344.9	-1.5	-808.5
1968	60362.6	56179.4	-6.9	-4183.2
1969	140749.2	140658.6	-.1	-90.6
1970	92192.9	90280.0	-2.1	-1912.9
1971	24738.7	23814.7	-3.7	-924.0
1972	18099.5	16426.4	-9.2	-1673.1
1973	94323.7	93428.1	-.9	-895.6
1974	41751.8	39179.1	-6.2	-2572.7
1975	60619.7	57444.3	-5.2	-3175.4
1976	9262.3	9271.3	.1	9.0
1977	8748.5	8740.5	-.1	-8.0
1978	49747.7	48147.0	-3.2	-1600.7
1979	50200.3	35003.3	-30.3	-15197.0
1980	144420.2	136549.7	-5.4	-7870.5
1981	26364.8	19996.9	-24.2	-6367.9
1982	102770.4	103468.2	.7	697.8
1983	183638.8	181257.5	-1.3	-2381.3
1984	45390.1	44053.3	-2.9	-1336.8
1985	16431.7	12188.7	-25.8	-4243.0
1986	235071.3	225280.3	-4.2	-9791.0
1987	13339.8	13402.1	.5	62.3
1988	11400.1	11400.1	.0	.0
1989	8218.1	8218.1	.0	.0
1990	11400.1	11400.1	.0	.0
1991	9101.0	9033.9	-.7	-67.1
Mean:	50838.2	49345.4	-2.7	-1492.8
Median:	28865.4	28307.5	-1.3	-636.7
Min:	8218.1	8218.1	-30.3	-15197.0
Max:	235071.3	225280.3	25.5	5943.0
Alt-Base >= .0				26
Rel Dif >= .0%			26	
.0% > Rel Dif >= -1.0%			8	
-1.0% > Rel Dif >= -2.0%			6	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			8	
-5.0% > Rel Dif >= -6.0%			5	
Rel Dif < -6.0%			14	

DELTA OUTFLOW

March

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	34103.6	32319.1	-5.2	-1784.5
1923	13235.9	11390.0	-13.9	-1845.9
1924	11400.1	11400.1	.0	.0
1925	27473.5	27473.5	.0	.0
1926	11941.3	11953.5	.1	12.2
1927	43313.4	40586.1	-6.3	-2727.3
1928	97645.2	81479.9	-16.6	-16165.3
1929	11400.1	11400.1	.0	.0
1930	23277.8	26739.5	14.9	3461.7
1931	11400.1	11400.1	.0	.0
1932	11400.1	10627.4	-6.8	-772.7
1933	10833.8	10901.5	.6	67.7
1934	11400.1	11400.1	.0	.0
1935	22375.1	22817.7	2.0	442.6
1936	33516.3	29262.7	-12.7	-4253.6
1937	51577.1	51300.0	-.5	-277.1
1938	173064.8	168900.3	-2.4	-4164.5
1939	13976.2	11771.5	-15.8	-2204.7
1940	105643.5	101920.6	-3.5	-3722.9
1941	99056.5	94185.9	-4.9	-4870.6
1942	31589.7	29955.3	-5.2	-1634.4
1943	89912.6	87543.6	-2.6	-2369.0
1944	21690.4	18088.0	-16.6	-3602.4
1945	29672.8	26903.9	-9.3	-2768.9
1946	18918.1	15223.1	-19.5	-3695.0
1947	15357.4	15462.6	.7	105.2
1948	12904.8	13197.2	2.3	292.4
1949	36193.2	36399.0	.6	205.8
1950	17129.4	16725.8	-2.4	-403.6
1951	30609.1	30062.4	-1.8	-546.7
1952	75614.9	73503.0	-2.8	-2111.9
1953	19838.2	18344.2	-7.5	-1494.0
1954	46968.2	43921.6	-6.5	-3046.6
1955	11400.1	11400.1	.0	.0
1956	39302.5	40125.4	2.1	822.9
1957	42770.7	38788.4	-9.3	-3982.3
1958	106003.2	103888.5	-2.0	-2114.7
1959	16788.7	17549.6	4.5	760.9
1960	16809.7	16615.7	-1.2	-194.0
1961	13578.1	13534.1	-.3	-44.0
1962	26903.9	26903.9	.0	.0
1963	29018.2	26929.5	-7.2	-2088.7
1964	11400.1	11400.1	.0	.0
1965	19308.0	19016.1	-1.5	-291.9
1966	22350.6	17826.0	-20.2	-4524.6
1967	63006.5	60760.1	-3.6	-2246.4
1968	35044.0	36934.1	5.4	1890.1
1969	74599.9	69804.9	-6.4	-4795.0
1970	39863.0	37973.8	-4.7	-1889.2
1971	46757.7	36051.0	-22.9	-10706.7
1972	25222.7	21422.7	-15.1	-3800.0
1973	57912.9	57722.9	-.3	-190.0
1974	113031.3	111125.8	-1.7	-1905.5
1975	89122.0	85154.5	-4.5	-3967.5
1976	11400.1	11400.1	.0	.0
1977	9870.5	9870.5	.0	.0
1978	73279.8	71473.5	-2.5	-1806.3
1979	35454.1	28886.6	-18.5	-6567.5
1980	64875.1	59300.8	-8.6	-5574.3
1981	25735.5	19611.4	-23.8	-6124.1
1982	95742.3	93736.4	-2.1	-2005.9
1983	264875.7	263665.4	-.5	-1210.3
1984	30225.6	27850.0	-7.9	-2375.6
1985	18662.9	14016.0	-24.9	-4646.9
1986	155687.1	156409.6	.5	722.5
1987	19598.5	18382.5	-6.2	-1216.0
1988	11400.1	11400.1	.0	.0
1989	36478.8	35423.6	-2.9	-1055.2
1990	11400.1	11400.1	.0	.0
1991	23381.1	27142.8	16.1	3761.7
Mean:	43609.9	41792.2	-4.5	-1817.7
Median:	27473.5	26929.5	-2.4	-1494.0
Min:	9870.5	9870.5	-24.9	-16165.3
Max:	264875.7	263665.4	16.1	3761.7

Alt-Base			
Rel Dif >=	.0%		24
.0% > Rel Dif >=	-1.0%	24	
-1.0% > Rel Dif >=	-2.0%	4	
-2.0% > Rel Dif >=	-3.0%	5	
-3.0% > Rel Dif >=	-5.0%	7	
-5.0% > Rel Dif >=	-6.0%	5	
Rel Dif <	-6.0%	2	
		23	

DELTA OUTFLOW

April

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	27521.3	27507.5	-.1	-13.8
1923	24790.5	24756.5	-.1	-34.0
1924	5597.4	5555.0	-.8	-42.4
1925	23142.3	22989.0	-.7	-153.3
1926	20545.6	21389.3	4.1	843.7
1927	46760.5	46170.9	-1.3	-589.6
1928	28147.9	27959.2	-.7	-188.7
1929	7603.5	7605.0	.0	1.5
1930	11958.4	11619.1	-2.8	-339.3
1931	7243.1	7237.8	-.1	-5.3
1932	11258.8	11258.8	.0	.0
1933	10718.2	10718.2	.0	.0
1934	10730.5	10730.5	.0	.0
1935	49312.0	50743.4	2.9	1431.4
1936	24444.8	23480.9	-3.9	-963.9
1937	27207.5	27453.1	.9	245.6
1938	80813.0	80732.3	-.1	-80.7
1939	10755.1	10755.1	.0	.0
1940	69942.7	67560.4	-3.4	-2382.3
1941	80443.4	80436.1	.0	-7.3
1942	50233.3	51076.4	1.7	843.1
1943	32561.8	32655.2	.3	93.4
1944	11339.7	10121.8	-10.7	-1217.9
1945	17009.7	17005.8	.0	-3.9
1946	13619.1	13265.3	-2.6	-353.8
1947	11905.7	11977.8	.6	72.1
1948	24003.3	24378.0	1.6	374.7
1949	12586.2	12837.8	2.0	251.6
1950	18072.9	18360.4	1.6	287.5
1951	16402.6	16223.3	-1.1	-179.3
1952	72724.1	72691.4	.0	-32.7
1953	16196.5	17330.9	7.0	1134.4
1954	39584.8	39179.9	-1.0	-404.9
1955	9878.1	10292.2	4.2	414.1
1956	23400.7	24527.4	4.8	1126.7
1957	16004.9	16897.2	5.6	892.3
1958	105418.1	105370.9	.0	-47.2
1959	9021.7	8849.6	-1.9	-172.1
1960	11226.5	11217.4	-.1	-9.1
1961	10816.5	10808.0	-.1	-8.5
1962	12001.1	11355.6	-5.4	-645.5
1963	90293.7	90164.1	-.1	-129.6
1964	7997.8	7793.7	-2.6	-204.1
1965	41463.7	41732.3	.6	268.6
1966	12315.1	11978.1	-2.7	-337.0
1967	59680.8	60475.0	1.3	794.2
1968	10653.7	10658.1	.0	4.4
1969	65352.9	63859.6	-2.3	-1493.3
1970	12493.7	12151.0	-2.7	-342.7
1971	19882.0	19820.2	-.3	-61.8
1972	10302.6	10625.1	3.1	322.5
1973	20933.4	20827.3	-.5	-106.1
1974	69150.3	69463.8	.5	313.5
1975	29740.7	30714.6	3.3	973.9
1976	8035.4	8106.8	.9	71.4
1977	6024.3	6035.8	.2	11.5
1978	50990.4	50477.2	-1.0	-513.2
1979	19276.7	19108.2	-.9	-168.5
1980	23213.4	23150.8	-.3	-62.6
1981	16012.7	15617.2	-2.5	-395.5
1982	142852.2	142748.1	-.1	-104.1
1983	99182.9	99068.8	-.1	-114.1
1984	18738.2	18396.1	-1.8	-342.1
1985	11721.9	11632.1	-.8	-89.8
1986	29678.2	28909.6	-2.6	-768.6
1987	11050.2	11272.5	2.0	222.3
1988	7314.5	7861.5	7.5	547.0
1989	20645.0	20394.6	-1.2	-250.4
1990	10583.1	10583.1	.0	.0
1991	13877.0	13703.4	-1.3	-173.6
Mean:	29320.0	29291.6	-.1	-28.4
Median:	18072.9	18360.4	-.1	-32.7
Min:	5597.4	5555.0	-10.7	-2382.3
Max:	142852.2	142748.1	7.5	1431.4

Alt-Base >= .0		29
Rel Dif >= .0%	33	
.0% > Rel Dif >= -1.0%	19	
-1.0% > Rel Dif >= -2.0%	6	
-2.0% > Rel Dif >= -3.0%	8	
-3.0% > Rel Dif >= -5.0%	2	
-5.0% > Rel Dif >= -6.0%	1	
Rel Dif < -6.0%	1	

DELTA OUTFLOW

May

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	44890.1	43697.2	-2.7	-1192.9
1923	16566.5	15294.5	-7.7	-1272.0
1924	5216.2	5348.6	2.5	132.4
1925	14961.9	13973.7	-6.6	-988.2
1926	10663.7	10504.8	-1.5	-158.9
1927	26062.2	25017.1	-4.0	-1045.1
1928	12649.1	13072.1	3.3	423.0
1929	7168.8	7308.8	2.0	140.0
1930	10647.7	10583.8	-.6	-63.9
1931	6152.2	5983.1	-2.7	-169.1
1932	11259.7	11056.1	-1.8	-203.6
1933	7889.5	8051.9	2.1	162.4
1934	5586.8	5540.2	-.8	-46.6
1935	26074.7	25753.3	-1.2	-321.4
1936	17959.7	16317.8	-9.1	-1641.9
1937	19860.1	18900.2	-4.8	-959.9
1938	79234.2	75109.9	-5.2	-4124.3
1939	8696.1	8194.6	-5.8	-501.5
1940	18365.7	17987.9	-2.1	-377.8
1941	45762.6	44752.7	-2.2	-1009.9
1942	34953.7	32549.4	-6.9	-2404.3
1943	21631.8	21447.0	-.9	-184.8
1944	10754.1	9757.9	-9.3	-996.2
1945	14185.9	14212.4	.2	26.5
1946	13648.2	13651.7	.0	3.5
1947	7845.0	7698.7	-1.9	-146.3
1948	26509.2	26330.5	-.7	-178.7
1949	11711.5	11400.1	-2.7	-311.4
1950	14834.0	14883.2	.3	49.2
1951	17304.4	17171.6	-.8	-132.8
1952	72201.3	69850.4	-3.3	-2350.9
1953	20795.0	20316.4	-2.3	-478.6
1954	17775.3	18068.2	1.6	292.9
1955	11024.9	10315.3	-6.4	-709.6
1956	39915.4	37569.4	-5.9	-2346.0
1957	16573.7	16172.7	-2.4	-401.0
1958	53478.5	52517.8	-1.8	-960.7
1959	10078.8	9901.0	-1.8	-177.8
1960	10568.4	10161.7	-3.8	-406.7
1961	9938.2	10570.0	6.4	631.8
1962	11400.1	11400.1	.0	.0
1963	31768.2	29436.2	-7.3	-2332.0
1964	8862.5	8618.0	-2.8	-244.5
1965	20470.0	20284.3	-.9	-185.7
1966	11726.2	11894.7	1.4	168.5
1967	60781.7	58063.5	-4.5	-2718.2
1968	10624.4	10610.7	-.1	-13.7
1969	65871.5	61449.6	-6.7	-4421.9
1970	14147.1	13798.2	-2.5	-348.9
1971	26853.6	25300.0	-5.8	-1553.6
1972	11081.8	11149.9	.6	68.1
1973	15493.8	14844.2	-4.2	-649.6
1974	27309.3	25175.8	-7.8	-2133.5
1975	28586.5	26983.2	-5.6	-1603.3
1976	7166.0	7199.7	.5	33.7
1977	6418.8	6394.0	-.4	-24.8
1978	26662.4	25967.6	-2.6	-694.8
1979	14671.6	14068.1	-4.1	-603.5
1980	21350.2	21247.8	-.5	-102.4
1981	9773.5	9394.1	-3.9	-379.4
1982	49667.7	49263.5	-.8	-404.2
1983	83337.5	82610.4	-.9	-727.1
1984	15252.6	15398.0	1.0	145.4
1985	11142.1	11142.1	.0	.0
1986	20393.9	19536.9	-4.2	-857.0
1987	7578.8	7578.8	.0	.0
1988	6972.6	7074.0	1.5	101.4
1989	9988.9	10059.4	.7	70.5
1990	7942.4	8116.7	2.2	174.3
1991	6886.8	6769.2	-1.7	-117.6
Mean:	21165.4	20540.3	-2.2	-625.1
Median:	14671.6	14068.1	-1.8	-311.4
Min:	5216.2	5348.6	-9.3	-4421.9
Max:	83337.5	82610.4	6.4	631.8
Alt-Base >= .0				19
Rel Dif >= .0%			19	
.0% > Rel Dif >= -1.0%			11	
-1.0% > Rel Dif >= -2.0%			7	
-2.0% > Rel Dif >= -3.0%			10	
-3.0% > Rel Dif >= -5.0%			9	
-5.0% > Rel Dif >= -6.0%			5	
Rel Dif < -6.0%			9	

DELTA OUTFLOW

June

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	30678.8	30215.5	-1.5	-463.3
1923	9199.0	9534.1	3.6	335.1
1924	4435.2	3999.7	-9.8	-435.5
1925	9477.5	9687.0	2.2	209.5
1926	6117.2	6117.2	.0	.0
1927	10315.0	9809.0	-4.9	-506.0
1928	7579.3	7579.3	.0	.0
1929	7182.1	7136.9	-.6	-45.2
1930	6117.2	6117.2	.0	.0
1931	4380.9	3999.7	-8.7	-381.2
1932	11203.5	11203.5	.0	.0
1933	6531.2	6483.5	-.7	-47.7
1934	6854.2	6854.1	.0	-.1
1935	9703.4	9703.4	.0	.0
1936	8744.1	9100.8	4.1	356.7
1937	9551.8	9688.9	1.4	137.1
1938	38474.3	35499.9	-7.7	-2974.4
1939	6117.2	6117.2	.0	.0
1940	7617.5	7710.1	1.2	92.6
1941	15695.9	14512.7	-7.5	-1183.2
1942	22766.6	18988.8	-16.6	-3777.8
1943	7579.3	7579.3	.0	.0
1944	9757.2	9931.9	1.8	174.7
1945	10269.9	10308.2	.4	38.3
1946	10382.1	10490.4	1.0	108.3
1947	6117.2	6117.2	.0	.0
1948	12957.6	12669.2	-2.2	-288.4
1949	9589.9	9658.8	.7	68.9
1950	10050.0	10033.3	-.2	-16.7
1951	7579.3	7579.3	.0	.0
1952	35674.5	32832.7	-8.0	-2841.8
1953	15939.9	13934.0	-12.6	-2005.9
1954	7579.3	7579.3	.0	.0
1955	9346.8	9512.0	1.8	165.2
1956	16248.8	14015.8	-13.7	-2233.0
1957	9874.3	9953.9	.8	79.6
1958	34946.7	32351.3	-7.4	-2595.4
1959	7090.1	7005.4	-1.2	-84.7
1960	7250.3	6117.2	-15.6	-1133.1
1961	6973.6	6117.2	-12.3	-856.4
1962	8184.3	8227.2	.5	42.9
1963	9307.7	9298.1	-.1	-9.6
1964	6539.6	6622.7	1.3	83.1
1965	9355.8	9190.1	-1.8	-165.7
1966	6845.8	6839.9	-.1	-5.9
1967	44123.8	40128.7	-9.1	-3995.1
1968	6970.6	6901.8	-1.0	-68.8
1969	28390.5	25405.8	-10.5	-2984.7
1970	7579.3	7579.3	.0	.0
1971	13216.4	11692.3	-11.5	-1524.1
1972	6955.6	6862.2	-1.3	-93.4
1973	10417.7	10573.9	1.5	156.2
1974	15096.1	13260.2	-12.2	-1835.9
1975	20086.8	17706.3	-11.9	-2380.5
1976	6536.7	6526.7	-.2	-10.0
1977	3999.7	3999.7	.0	.0
1978	9723.1	9192.9	-5.5	-530.2
1979	10704.5	10990.7	2.7	286.2
1980	10326.4	10191.7	-1.3	-134.7
1981	6117.2	6117.2	.0	.0
1982	21637.4	18754.3	-13.3	-2883.1
1983	71296.6	70277.0	-1.4	-1019.6
1984	9129.8	9150.2	.2	20.4
1985	6117.2	6117.2	.0	.0
1986	9129.2	9033.2	-1.1	-96.0
1987	6117.2	6117.2	.0	.0
1988	6625.5	6547.9	-1.2	-77.6
1989	6698.3	6571.6	-1.9	-126.7
1990	7172.0	6076.6	-15.3	-1095.4
1991	6535.2	6548.5	.2	13.3
Mean:	12355.5	11804.9	-3.0	-550.6
Median:	9129.8	9150.2	-.2	-10.0
Min:	3999.7	3999.7	-16.6	-3995.1
Max:	71296.6	70277.0	4.1	356.7
Alt-Base >= .0				32
Rel Dif >= .0%			33	
.0% > Rel Dif >= -1.0%			7	
-1.0% > Rel Dif >= -2.0%			9	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			18	

DELTA OUTFLOW

July

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	8001.6	8001.6	.0	.0
1923	6502.1	6502.1	.0	.0
1924	4000.8	4000.8	.0	.0
1925	5001.0	5001.0	.0	.0
1926	5001.0	5001.0	.0	.0
1927	8001.6	8968.3	12.1	966.7
1928	8001.6	8001.6	.0	.0
1929	4000.8	4000.8	.0	.0
1930	5001.0	5001.0	.0	.0
1931	4000.8	4000.8	.0	.0
1932	5001.0	5001.0	.0	.0
1933	4000.8	4000.8	.0	.0
1934	4000.8	4000.8	.0	.0
1935	6502.1	6502.1	.0	.0
1936	6502.1	6502.1	.0	.0
1937	6502.1	6502.1	.0	.0
1938	8404.0	8001.6	-4.8	-402.4
1939	5001.0	5001.0	.0	.0
1940	8001.6	8781.4	9.7	779.8
1941	8001.6	8001.6	.0	.0
1942	8001.6	8001.6	.0	.0
1943	8001.6	8381.5	4.7	379.9
1944	5001.0	5001.0	.0	.0
1945	6502.1	6921.8	6.5	419.7
1946	6502.1	7380.9	13.5	878.8
1947	5001.0	5001.0	.0	.0
1948	7644.1	6947.5	-9.1	-696.6
1949	5001.0	5001.0	.0	.0
1950	7705.4	7121.9	-7.6	-583.5
1951	8440.3	8396.8	-.5	-43.5
1952	10449.2	9443.4	-9.6	-1005.8
1953	8001.6	8106.7	1.3	105.1
1954	8001.6	8552.7	6.9	551.1
1955	5001.0	5001.0	.0	.0
1956	8001.6	8001.6	.0	.0
1957	8001.6	8001.6	.0	.0
1958	8506.3	8001.6	-5.9	-504.7
1959	6502.1	6502.1	.0	.0
1960	5555.7	5001.0	-10.0	-554.7
1961	5001.0	5001.0	.0	.0
1962	7054.5	6502.1	-7.8	-552.4
1963	8001.6	8400.4	5.0	398.8
1964	5001.0	5001.0	.0	.0
1965	8001.6	8644.9	8.0	643.3
1966	6502.1	6502.1	.0	.0
1967	14649.0	13350.9	-8.9	-1298.1
1968	6502.1	6502.1	.0	.0
1969	8411.4	8056.1	-4.2	-355.3
1970	8001.6	8112.0	1.4	110.4
1971	8001.6	9212.9	15.1	1211.3
1972	6663.1	6517.8	-2.2	-145.3
1973	8001.6	8001.6	.0	.0
1974	9401.3	8969.9	-4.6	-431.4
1975	8123.0	8001.6	-1.5	-121.4
1976	4000.8	4000.8	.0	.0
1977	4000.8	4000.8	.0	.0
1978	8001.6	8001.6	.0	.0
1979	6502.1	6658.8	2.4	156.7
1980	8001.6	8001.6	.0	.0
1981	5001.0	5001.0	.0	.0
1982	8339.1	8001.6	-4.0	-337.5
1983	25910.4	24733.6	-4.5	-1176.8
1984	8001.6	8792.5	9.9	790.9
1985	5001.0	5001.0	.0	.0
1986	8001.6	8001.6	.0	.0
1987	5001.0	5001.0	.0	.0
1988	4000.8	4000.8	.0	.0
1989	5001.0	5001.0	.0	.0
1990	4000.8	4000.8	.0	.0
1991	4000.8	4000.8	.0	.0
Mean:	6933.3	6921.7	.2	-11.7
Median:	6502.1	6517.8	.0	.0
Min:	4000.8	4000.8	-10.0	-1298.1
Max:	25910.4	24733.6	15.1	1211.3

Alt-Base >= .0	55
Rel Dif >= .0%	55
.0% > Rel Dif >= -1.0%	1
-1.0% > Rel Dif >= -2.0%	1
-2.0% > Rel Dif >= -3.0%	1
-3.0% > Rel Dif >= -5.0%	5
-5.0% > Rel Dif >= -6.0%	1
Rel Dif < -6.0%	6

DELTA OUTFLOW

August

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	5122.3	7653.6	49.4	2531.3
1923	5030.4	6923.6	37.6	1893.2
1924	3415.3	3415.3	.0	.0
1925	5163.6	4009.7	-22.3	-1153.9
1926	3805.6	3805.6	.0	.0
1927	7963.1	7738.4	-2.8	-224.7
1928	7890.1	7906.6	.2	16.5
1929	3415.3	3415.3	.0	.0
1930	4050.6	4330.2	6.9	279.6
1931	3415.3	3415.3	.0	.0
1932	4323.4	3844.9	-11.1	-478.5
1933	3415.3	3415.3	.0	.0
1934	3415.3	3415.3	.0	.0
1935	5348.9	6219.0	16.3	870.1
1936	5414.2	4840.7	-10.6	-573.5
1937	5257.2	4803.7	-8.6	-453.5
1938	7096.7	7202.4	1.5	105.7
1939	4225.8	3948.7	-6.6	-277.1
1940	7736.1	7278.9	-5.9	-457.2
1941	7271.9	7872.0	8.3	600.1
1942	7043.3	8061.2	14.5	1017.9
1943	7780.0	7776.6	.0	-3.4
1944	5745.1	3820.2	-33.5	-1924.9
1945	4737.0	5356.6	13.1	619.6
1946	5077.7	5197.3	2.4	119.6
1947	4579.4	3805.6	-16.9	-773.8
1948	6471.6	6808.3	5.2	336.7
1949	5070.8	4609.1	-9.1	-461.7
1950	6569.4	5801.2	-11.7	-768.2
1951	7599.4	7596.3	.0	-3.1
1952	8544.6	7535.4	-11.8	-1009.2
1953	7782.6	7866.7	1.1	84.1
1954	7789.3	7560.5	-2.9	-228.8
1955	5215.7	3805.6	-27.0	-1410.1
1956	7720.5	8066.8	4.5	346.3
1957	7775.1	7659.4	-1.5	-115.7
1958	8378.2	7513.1	-10.3	-865.1
1959	5326.0	5242.9	-1.6	-83.1
1960	5516.2	4337.6	-21.4	-1178.6
1961	4771.5	4188.5	-12.2	-583.0
1962	6710.7	5232.7	-22.0	-1478.0
1963	8133.7	7998.9	-1.7	-134.8
1964	5491.9	3895.9	-29.1	-1596.0
1965	8171.6	7920.5	-3.1	-251.1
1966	5268.9	5126.5	-2.7	-142.4
1967	8191.7	7216.6	-11.9	-975.1
1968	5068.6	5565.2	9.8	496.6
1969	7450.3	7063.2	-5.2	-387.1
1970	7973.2	7971.0	.0	-2.2
1971	7822.6	7671.8	-1.9	-150.8
1972	6937.4	7139.5	2.9	202.1
1973	7794.4	7784.2	-.1	-10.2
1974	9196.5	8122.4	-11.7	-1074.1
1975	8827.7	7957.4	-9.9	-870.3
1976	6275.5	5364.4	-14.5	-911.1
1977	3427.6	3431.6	.1	4.0
1978	5260.6	7805.0	48.4	2544.4
1979	4786.3	5597.8	17.0	811.5
1980	6510.3	7777.9	19.5	1267.6
1981	6201.0	4296.2	-30.7	-1904.8
1982	7784.5	7683.2	-1.3	-101.3
1983	15537.2	14133.2	-9.0	-1404.0
1984	7791.8	7569.0	-2.9	-222.8
1985	5880.0	4288.8	-27.1	-1591.2
1986	7759.0	7929.0	2.2	170.0
1987	3805.6	3805.6	.0	.0
1988	3526.1	3657.2	3.7	131.1
1989	4733.6	6485.7	37.0	1752.1
1990	4794.7	3415.3	-28.8	-1379.4
1991	3415.3	3415.3	.0	.0
Mean:	6182.8	6019.8	-2.0	-163.1
Median:	5745.1	5801.2	-1.5	-101.3
Min:	3415.3	3415.3	-33.5	-1924.9
Max:	15537.2	14133.2	49.4	2544.4

Alt-Base >= .0		30
Rel Dif >= .0%	33	
.0% > Rel Dif >= -1.0%	1	
-1.0% > Rel Dif >= -2.0%	5	
-2.0% > Rel Dif >= -3.0%	4	
-3.0% > Rel Dif >= -5.0%	1	
-5.0% > Rel Dif >= -6.0%	2	
Rel Dif < -6.0%	24	

DELTA OUTFLOW

September

Water Year	Base Flow (cfs)	2030 w/ WFP Flow (cfs)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (cfs)
1922	5449.1	5531.9	1.5	82.8
1923	5633.4	5590.4	-.8	-43.0
1924	3301.6	3238.5	-1.9	-63.1
1925	4875.9	5036.8	3.3	160.9
1926	4448.3	4099.9	-7.8	-348.4
1927	4797.6	5644.7	17.7	847.1
1928	5305.5	5176.2	-2.4	-129.3
1929	3637.2	3268.8	-10.1	-368.4
1930	4603.6	4683.7	1.7	80.1
1931	3307.1	3351.2	1.3	44.1
1932	4381.7	4056.3	-7.4	-325.4
1933	3313.7	3310.7	-.1	-3.0
1934	3241.9	3415.9	5.4	174.0
1935	5544.5	5451.0	-1.7	-93.5
1936	5401.4	5787.5	7.1	386.1
1937	5376.5	5513.3	2.5	136.8
1938	7888.1	5613.7	-28.8	-2274.4
1939	4252.3	4518.6	6.3	266.3
1940	5072.5	5646.4	11.3	573.9
1941	6491.5	5005.0	-22.9	-1486.5
1942	5570.7	5119.2	-8.1	-451.5
1943	4558.5	5558.5	21.9	1000.0
1944	4765.4	4276.7	-10.3	-488.7
1945	5441.5	5701.1	4.8	259.6
1946	5751.2	5745.9	-.1	-5.3
1947	5113.4	4241.7	-17.0	-871.7
1948	5465.7	5576.4	2.0	110.7
1949	4970.0	4374.1	-12.0	-595.9
1950	5632.1	5399.8	-4.1	-232.3
1951	5633.4	5462.0	-3.0	-171.4
1952	10907.0	8232.9	-24.5	-2674.1
1953	6230.8	5712.3	-8.3	-518.5
1954	5529.5	5744.7	3.9	215.2
1955	4901.9	4297.3	-12.3	-604.6
1956	7889.5	5603.4	-29.0	-2286.1
1957	5553.5	5416.1	-2.5	-137.4
1958	10941.1	10338.1	-5.5	-603.0
1959	6083.7	6070.9	-.2	-12.8
1960	5284.2	4405.5	-16.6	-878.7
1961	4563.5	4139.1	-9.3	-424.4
1962	5663.4	5647.9	-.3	-15.5
1963	5425.7	5589.5	3.0	163.8
1964	4895.7	4755.8	-2.9	-139.9
1965	5090.0	5341.6	4.9	251.6
1966	5830.0	5092.5	-12.7	-737.5
1967	10139.8	8939.6	-11.8	-1200.2
1968	5827.0	5891.0	1.1	64.0
1969	11152.8	10484.9	-6.0	-667.9
1970	4957.7	5696.0	14.9	738.3
1971	7645.2	5546.3	-27.5	-2098.9
1972	5786.1	5501.9	-4.9	-284.2
1973	5079.3	5336.7	5.1	257.4
1974	10560.0	9745.6	-7.7	-814.4
1975	8937.5	8248.0	-7.7	-689.5
1976	4534.3	4157.2	-8.3	-377.1
1977	3529.6	3484.3	-1.3	-45.3
1978	5720.4	5341.3	-6.6	-379.1
1979	5457.0	5829.4	6.8	372.4
1980	5291.8	4500.1	-15.0	-791.7
1981	5174.3	5326.0	2.9	151.7
1982	14021.6	11556.3	-17.6	-2465.3
1983	24459.5	22181.5	-9.3	-2278.0
1984	4537.8	5516.1	21.6	978.3
1985	4949.5	4945.7	-.1	-3.8
1986	4645.7	5461.2	17.6	815.5
1987	4572.5	3468.4	-24.1	-1104.1
1988	3008.2	3295.2	9.5	287.0
1989	5012.7	5482.3	9.4	469.6
1990	4004.6	3248.0	-18.9	-756.6
1991	3232.8	3330.7	3.0	97.9
Mean:	5946.5	5632.8	-3.4	-313.6
Median:	5291.8	5416.1	-2.4	-129.3
Min:	3008.2	3238.5	-29.0	-2674.1
Max:	24459.5	22181.5	21.9	1000.0
Alt-Base >= .0				26
Rel Dif >= .0%			26	
.0% > Rel Dif >= -1.0%			6	
-1.0% > Rel Dif >= -2.0%			3	
-2.0% > Rel Dif >= -3.0%			4	
-3.0% > Rel Dif >= -5.0%			2	
-5.0% > Rel Dif >= -6.0%			2	
Rel Dif < -6.0%			27	

RETURN TO TABLE OF CONTENTS

Section 25

X2 POSITION

X2 POSITION

October

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	82.4	82.5	.1	.1
1923	82.0	83.1	1.3	1.1
1924	85.6	85.6	.0	.0
1925	88.9	87.6	-1.5	-1.3
1926	86.2	86.3	.1	.1
1927	86.8	87.0	.2	.2
1928	83.8	83.7	-.1	-.1
1929	85.6	85.6	.0	.0
1930	89.6	89.8	.2	.2
1931	86.6	86.5	-.1	-.1
1932	88.4	88.4	.0	.0
1933	86.6	86.9	.3	.3
1934	89.7	89.6	-.1	-.1
1935	88.3	87.1	-1.4	-1.2
1936	85.1	85.2	.1	.1
1937	85.8	85.8	.0	.0
1938	85.9	85.9	.0	.0
1939	76.5	77.3	1.0	.8
1940	85.7	84.9	-.9	-.8
1941	85.3	85.4	.1	.1
1942	80.9	83.3	3.0	2.4
1943	82.1	83.6	1.8	1.5
1944	84.5	84.7	.2	.2
1945	86.2	86.8	.7	.6
1946	84.6	84.7	.1	.1
1947	85.6	85.7	.1	.1
1948	85.6	86.4	.9	.8
1949	84.4	84.4	.0	.0
1950	86.2	86.6	.5	.4
1951	84.7	84.7	.0	.0
1952	84.1	84.3	.2	.2
1953	74.5	78.2	5.0	3.7
1954	82.2	83.8	1.9	1.6
1955	84.5	85.0	.6	.5
1956	86.2	86.8	.7	.6
1957	78.0	80.1	2.7	2.1
1958	76.3	76.4	.1	.1
1959	78.3	80.6	2.9	2.3
1960	85.6	85.6	.0	.0
1961	86.0	86.7	.8	.7
1962	86.5	86.9	.5	.4
1963	71.3	71.8	.7	.5
1964	81.4	81.4	.0	.0
1965	86.2	86.6	.5	.4
1966	84.9	85.5	.7	.6
1967	85.7	86.1	.5	.4
1968	77.3	80.4	4.0	3.1
1969	85.0	85.4	.5	.4
1970	73.6	75.7	2.9	2.1
1971	85.3	85.2	-.1	-.1
1972	81.7	83.6	2.3	1.9
1973	83.7	84.0	.4	.3
1974	81.7	83.6	2.3	1.9
1975	81.2	81.6	.5	.4
1976	77.2	77.2	.0	.0
1977	88.1	88.4	.3	.3
1978	85.1	85.1	.0	.0
1979	85.0	85.3	.4	.3
1980	84.2	84.5	.4	.3
1981	85.1	85.5	.5	.4
1982	85.4	85.5	.1	.1
1983	70.8	71.3	.7	.5
1984	68.0	70.4	3.5	2.4
1985	83.7	83.7	.0	.0
1986	86.1	86.4	.3	.3
1987	84.7	84.9	.2	.2
1988	83.9	83.8	-.1	-.1
1989	88.7	87.7	-1.1	-1.0
1990	85.1	84.7	-.5	-.4
1991	86.4	86.6	.2	.2
Mean:	83.5	84.0	.6	.5
Median:	85.0	85.1	.2	.2
Min:	68.0	70.4	-1.5	-1.3
Max:	89.7	89.8	5.0	3.7
Alt-Base >= .0				60
Rel Dif >= .0%			60	
.0% > Rel Dif >= -1.0%			7	
-1.0% > Rel Dif >= -2.0%			3	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

November

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (km)
1922	83.3	83.0	-.4	-.3
1923	80.2	80.8	.7	.6
1924	85.2	85.0	-.2	-.2
1925	86.9	86.3	-.7	-.6
1926	85.5	85.2	-.4	-.3
1927	77.6	77.0	-.8	-.6
1928	77.2	79.9	3.5	2.7
1929	83.6	83.6	.0	.0
1930	88.0	88.2	.2	.2
1931	85.7	85.6	-.1	-.1
1932	87.0	86.8	-.2	-.2
1933	85.6	85.7	.1	.1
1934	87.8	87.8	.0	.0
1935	84.7	84.0	-.8	-.7
1936	84.8	84.2	-.7	-.6
1937	85.2	85.0	-.2	-.2
1938	77.1	76.8	-.4	-.3
1939	77.8	80.8	3.9	3.0
1940	83.7	82.9	-1.0	-.8
1941	84.0	84.2	.2	.2
1942	79.2	82.6	4.3	3.4
1943	77.2	80.5	4.3	3.3
1944	84.0	84.1	.1	.1
1945	82.8	82.7	-.1	-.1
1946	82.1	82.9	1.0	.8
1947	83.6	83.9	.4	.3
1948	84.8	85.2	.5	.4
1949	84.0	84.0	.0	.0
1950	84.8	85.4	.7	.6
1951	68.3	68.3	.0	.0
1952	82.2	82.3	.1	.1
1953	76.2	79.9	4.9	3.7
1954	79.2	82.4	4.0	3.2
1955	81.6	82.5	1.1	.9
1956	85.0	84.8	-.2	-.2
1957	81.9	82.6	.9	.7
1958	79.6	80.0	.5	.4
1959	80.2	82.6	3.0	2.4
1960	85.3	85.3	.0	.0
1961	83.5	83.2	-.4	-.3
1962	85.4	84.9	-.6	-.5
1963	78.4	78.7	.4	.3
1964	72.1	73.8	2.4	1.7
1965	82.9	82.8	-.1	-.1
1966	74.7	76.8	2.8	2.1
1967	82.4	82.3	-.1	-.1
1968	79.3	81.7	3.0	2.4
1969	83.3	83.5	.2	.2
1970	74.8	78.8	5.3	4.0
1971	79.4	78.7	-.9	-.7
1972	82.6	83.7	1.3	1.1
1973	78.2	77.9	-.4	-.3
1974	65.1	66.5	2.2	1.4
1975	82.4	82.5	.1	.1
1976	79.9	80.4	.6	.5
1977	87.6	87.9	.3	.3
1978	86.2	86.1	-.1	-.1
1979	83.5	83.6	.1	.1
1980	82.7	83.1	.5	.4
1981	85.4	85.5	.1	.1
1982	70.6	71.2	.8	.6
1983	64.3	64.3	.0	.0
1984	58.3	59.0	1.2	.7
1985	72.4	72.5	.1	.1
1986	84.4	84.4	.0	.0
1987	84.9	85.5	.7	.6
1988	83.3	83.5	.2	.2
1989	86.3	85.9	-.5	-.4
1990	85.5	85.0	-.6	-.5
1991	86.2	85.8	-.5	-.4
Mean:	81.1	81.6	.7	.5
Median:	82.9	83.0	.1	.1
Min:	58.3	59.0	-1.0	-.8
Max:	88.0	88.2	5.3	4.0
Alt-Base >= .0				46
Rel Dif >= .0%			46	
.0% > Rel Dif >= -1.0%			24	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

December

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (km)
1922	78.6	77.9	-.9	-.7
1923	68.3	69.9	2.3	1.6
1924	82.6	82.6	.0	.0
1925	83.5	82.6	-1.1	-.9
1926	82.9	82.8	-.1	-.1
1927	77.7	77.1	-.8	-.6
1928	79.0	79.6	.8	.6
1929	81.3	81.3	.0	.0
1930	82.8	82.9	.1	.1
1931	83.5	83.4	-.1	-.1
1932	78.3	77.7	-.8	-.6
1933	83.6	83.0	-.7	-.6
1934	82.7	82.6	-.1	-.1
1935	84.2	83.4	-1.0	-.8
1936	82.0	82.0	.0	.0
1937	81.8	81.9	.1	.1
1938	63.4	64.5	1.7	1.1
1939	77.3	81.0	4.8	3.7
1940	83.8	82.9	-1.1	-.9
1941	68.9	69.6	1.0	.7
1942	63.0	64.8	2.9	1.8
1943	69.9	72.1	3.1	2.2
1944	82.6	81.7	-1.1	-.9
1945	80.3	79.8	-.6	-.5
1946	64.1	65.2	1.7	1.1
1947	80.8	81.4	.7	.6
1948	83.6	84.6	1.2	1.0
1949	81.3	81.3	.0	.0
1950	82.5	82.8	.4	.3
1951	57.6	57.8	.3	.2
1952	68.5	69.2	1.0	.7
1953	66.1	67.4	2.0	1.3
1954	81.0	81.8	1.0	.8
1955	74.8	76.1	1.7	1.3
1956	62.9	62.4	-.8	-.5
1957	82.2	81.4	-1.0	-.8
1958	75.1	75.2	.1	.1
1959	79.6	82.2	3.3	2.6
1960	82.4	82.1	-.4	-.3
1961	81.6	81.1	-.6	-.5
1962	82.1	81.3	-1.0	-.8
1963	73.0	73.0	.0	.0
1964	78.7	79.2	.6	.5
1965	61.9	62.6	1.1	.7
1966	75.2	77.0	2.4	1.8
1967	69.3	70.3	1.4	1.0
1968	77.3	80.7	4.4	3.4
1969	75.8	75.9	.1	.1
1970	63.2	65.1	3.0	1.9
1971	64.0	64.2	.3	.2
1972	77.0	79.8	3.6	2.8
1973	74.7	74.7	.0	.0
1974	58.4	58.8	.7	.4
1975	78.6	79.9	1.7	1.3
1976	81.0	80.9	-.1	-.1
1977	84.6	85.6	1.2	1.0
1978	82.5	82.3	-.2	-.2
1979	83.1	81.6	-1.8	-1.5
1980	77.9	78.7	1.0	.8
1981	82.3	82.0	-.4	-.3
1982	58.2	58.4	.3	.2
1983	56.2	56.4	.4	.2
1984	49.5	49.8	.6	.3
1985	72.7	73.0	.4	.3
1986	80.6	80.9	.4	.3
1987	81.9	82.1	.2	.2
1988	79.7	81.0	1.6	1.3
1989	84.8	84.6	-.2	-.2
1990	83.8	82.8	-1.2	-1.0
1991	83.9	84.3	.5	.4
Mean:	76.0	76.4	.6	.4
Median:	79.0	80.7	.3	.2
Min:	49.5	49.8	-1.8	-1.5
Max:	84.8	85.6	4.8	3.7
Alt-Base >= .0				47
Rel Dif >= .0%			47	
.0% > Rel Dif >= -1.0%			18	
-1.0% > Rel Dif >= -2.0%			5	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

January

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (km)
1922	75.9	75.6	-.4	-.3
1923	64.2	66.8	4.0	2.6
1924	81.3	81.3	.0	.0
1925	82.6	81.8	-1.0	-.8
1926	79.4	78.7	-.9	-.7
1927	70.3	69.7	-.9	-.6
1928	72.9	73.8	1.2	.9
1929	79.9	79.9	.0	.0
1930	76.4	76.2	-.3	-.2
1931	81.5	81.3	-.2	-.2
1932	74.3	74.2	-.1	-.1
1933	81.4	80.6	-1.0	-.8
1934	79.2	78.9	-.4	-.3
1935	72.9	72.4	-.7	-.5
1936	70.0	69.5	-.7	-.5
1937	80.8	79.0	-2.2	-1.8
1938	64.3	65.4	1.7	1.1
1939	75.8	79.7	5.1	3.9
1940	71.3	70.8	-.7	-.5
1941	56.3	57.3	1.8	1.0
1942	55.6	56.8	2.2	1.2
1943	57.7	58.9	2.1	1.2
1944	80.2	79.8	-.5	-.4
1945	81.1	80.9	-.2	-.2
1946	61.0	61.9	1.5	.9
1947	81.0	81.2	.2	.2
1948	82.0	82.3	.4	.3
1949	81.0	81.0	.0	.0
1950	76.8	76.9	.1	.1
1951	55.4	55.7	.5	.3
1952	57.4	57.7	.5	.3
1953	55.2	55.8	1.1	.6
1954	70.4	73.0	3.7	2.6
1955	72.3	72.7	.6	.4
1956	50.5	50.3	-.4	-.2
1957	79.7	79.7	.0	.0
1958	67.6	67.5	-.1	-.1
1959	69.5	71.5	2.9	2.0
1960	81.1	80.7	-.5	-.4
1961	81.2	80.9	-.4	-.3
1962	81.9	81.5	-.5	-.4
1963	75.1	71.8	-4.4	-3.3
1964	72.1	73.3	1.7	1.2
1965	52.7	53.0	.6	.3
1966	69.6	70.9	1.9	1.3
1967	61.4	61.3	-.2	-.1
1968	69.0	71.2	3.2	2.2
1969	57.0	57.4	.7	.4
1970	49.0	49.7	1.4	.7
1971	60.6	61.4	1.3	.8
1972	75.9	77.6	2.2	1.7
1973	60.6	60.8	.3	.2
1974	51.2	51.3	.2	.1
1975	75.4	78.4	4.0	3.0
1976	78.0	80.0	2.6	2.0
1977	83.0	83.4	.5	.4
1978	65.0	65.0	.0	.0
1979	72.7	73.3	.8	.6
1980	59.2	60.5	2.2	1.3
1981	73.1	75.7	3.6	2.6
1982	54.8	54.9	.2	.1
1983	51.5	51.9	.8	.4
1984	52.2	52.4	.4	.2
1985	77.0	77.2	.3	.2
1986	75.1	75.0	-.1	-.1
1987	80.1	79.9	-.2	-.2
1988	71.8	73.1	1.8	1.3
1989	82.7	82.6	-.1	-.1
1990	78.3	77.2	-1.4	-1.1
1991	83.2	83.6	.5	.4
Mean:	70.5	70.9	.6	.4
Median:	72.9	73.3	.2	.2
Min:	49.0	49.7	-4.4	-3.3
Max:	83.2	83.6	5.1	3.9

Alt-Base			Count
Alt-Base >=	.0		44
Rel Dif >=	.0%	44	
.0% > Rel Dif >=	-1.0%	23	
-1.0% > Rel Dif >=	-2.0%	1	
-2.0% > Rel Dif >=	-3.0%	1	
-3.0% > Rel Dif >=	-5.0%	1	
-5.0% > Rel Dif >=	-6.0%	0	
Rel Dif <	-6.0%	0	

X2 POSITION

February

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (km)
1922	66.7	66.7	.0	.0
1923	66.9	69.7	4.2	2.8
1924	77.9	77.4	-.6	-.5
1925	65.4	64.6	-1.2	-.8
1926	68.0	67.6	-.6	-.4
1927	55.9	55.4	-.9	-.5
1928	68.8	71.2	3.5	2.4
1929	77.5	77.6	.1	.1
1930	74.5	74.4	-.1	-.1
1931	79.5	79.4	-.1	-.1
1932	71.5	69.8	-2.4	-1.7
1933	79.2	78.9	-.4	-.3
1934	75.9	74.1	-2.4	-1.8
1935	74.2	74.0	-.3	-.2
1936	58.4	58.1	-.5	-.3
1937	66.6	65.8	-1.2	-.8
1938	52.4	53.5	2.1	1.1
1939	75.5	77.3	2.4	1.8
1940	60.5	60.7	.3	.2
1941	50.6	51.1	1.0	.5
1942	49.3	49.8	1.0	.5
1943	56.6	57.6	1.8	1.0
1944	71.9	72.1	.3	.2
1945	65.4	66.0	.9	.6
1946	65.6	65.6	.0	.0
1947	76.2	76.2	.0	.0
1948	77.5	77.6	.1	.1
1949	78.4	78.9	.6	.5
1950	68.7	68.8	.1	.1
1951	55.1	55.3	.4	.2
1952	54.1	54.5	.7	.4
1953	61.8	62.5	1.1	.7
1954	61.2	62.4	2.0	1.2
1955	74.2	74.3	.1	.1
1956	51.1	51.1	.0	.0
1957	71.2	72.8	2.2	1.6
1958	51.6	51.9	.6	.3
1959	61.7	62.8	1.8	1.1
1960	71.5	71.2	-.4	-.3
1961	72.8	72.6	-.3	-.2
1962	66.2	65.7	-.8	-.5
1963	61.5	59.8	-2.8	-1.7
1964	73.5	74.0	.7	.5
1965	59.6	59.8	.3	.2
1966	68.0	69.0	1.5	1.0
1967	58.8	58.9	.2	.1
1968	60.4	61.7	2.2	1.3
1969	50.0	50.1	.2	.1
1970	50.6	51.0	.8	.4
1971	64.5	65.1	.9	.6
1972	71.9	73.2	1.8	1.3
1973	54.3	54.4	.2	.1
1974	57.4	58.0	1.0	.6
1975	62.5	63.9	2.2	1.4
1976	77.8	78.4	.8	.6
1977	79.8	79.9	.1	.1
1978	60.6	60.9	.5	.3
1979	63.0	66.0	4.8	3.0
1980	50.6	51.4	1.6	.8
1981	68.1	71.1	4.4	3.0
1982	51.7	51.7	.0	.0
1983	46.2	46.4	.4	.2
1984	57.1	57.4	.5	.3
1985	73.0	75.4	3.3	2.4
1986	52.0	52.3	.6	.3
1987	75.6	75.5	-.1	-.1
1988	74.1	74.5	.5	.4
1989	80.2	80.2	.0	.0
1990	76.2	75.9	-.4	-.3
1991	79.6	79.8	.3	.2
Mean:	65.5	65.9	.6	.4
Median:	66.2	66.0	.3	.2
Min:	46.2	46.4	-2.8	-1.8
Max:	80.2	80.2	4.8	3.0

Alt-Base >= .0		52
Rel Dif >= .0%	52	
.0% > Rel Dif >= -1.0%	13	
-1.0% > Rel Dif >= -2.0%	2	
-2.0% > Rel Dif >= -3.0%	3	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

X2 POSITION

March

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	64.0	64.5	.8	.5
1923	71.3	73.4	2.9	2.1
1924	76.1	75.9	-.3	-.2
1925	65.3	65.0	-.5	-.3
1926	72.5	72.4	-.1	-.1
1927	58.7	59.0	.5	.3
1928	56.7	58.9	3.9	2.2
1929	76.0	76.0	.0	.0
1930	69.5	68.4	-1.6	-1.1
1931	76.6	76.6	.0	.0
1932	74.0	74.0	.0	.0
1933	76.9	76.8	-.1	-.1
1934	75.5	74.9	-.8	-.6
1935	69.7	69.5	-.3	-.2
1936	61.5	62.4	1.5	.9
1937	60.8	60.6	-.3	-.2
1938	46.9	47.5	1.3	.6
1939	73.8	75.7	2.6	1.9
1940	53.4	53.7	.6	.3
1941	50.6	51.2	1.2	.6
1942	58.9	59.5	1.0	.6
1943	53.3	53.9	1.1	.6
1944	69.2	70.7	2.2	1.5
1945	64.7	65.6	1.4	.9
1946	68.2	69.9	2.5	1.7
1947	73.3	73.2	-.1	-.1
1948	75.0	74.9	-.1	-.1
1949	67.4	67.5	.1	.1
1950	70.0	70.2	.3	.2
1951	61.1	61.3	.3	.2
1952	53.8	54.2	.7	.4
1953	66.6	67.4	1.2	.8
1954	59.8	60.7	1.5	.9
1955	74.9	74.9	.0	.0
1956	57.9	57.7	-.3	-.2
1957	63.8	65.1	2.0	1.3
1958	50.4	50.7	.6	.3
1959	67.9	67.9	.0	.0
1960	71.0	71.0	.0	.0
1961	73.1	73.0	-.1	-.1
1962	65.7	65.5	-.3	-.2
1963	63.6	63.6	.0	.0
1964	74.7	74.8	.1	.1
1965	66.1	66.2	.2	.1
1966	67.7	69.8	3.1	2.1
1967	56.8	57.1	.5	.3
1968	61.8	61.8	.0	.0
1969	52.6	53.1	1.0	.5
1970	57.6	58.1	.9	.5
1971	60.9	63.1	3.6	2.2
1972	68.1	69.8	2.5	1.7
1973	55.9	56.0	.2	.1
1974	51.8	52.1	.6	.3
1975	55.3	56.1	1.4	.8
1976	76.1	76.3	.3	.2
1977	77.8	77.9	.1	.1
1978	56.2	56.5	.5	.3
1979	62.6	65.1	4.0	2.5
1980	53.8	54.8	1.9	1.0
1981	66.7	69.7	4.5	3.0
1982	51.2	51.4	.4	.2
1983	41.6	41.7	.2	.1
1984	61.8	62.6	1.3	.8
1985	70.7	73.7	4.2	3.0
1986	47.6	47.7	.2	.1
1987	71.2	71.7	.7	.5
1988	74.9	75.0	.1	.1
1989	68.0	68.2	.3	.2
1990	75.6	75.4	-.3	-.2
1991	71.2	70.1	-1.5	-1.1
Mean:	64.5	65.0	.8	.5
Median:	65.7	65.6	.3	.2
Min:	41.6	41.7	-1.6	-1.1
Max:	77.8	77.9	4.5	3.0
Alt-Base >= .0				55
Rel Dif >= .0%			55	
.0% > Rel Dif >= -1.0%			13	
-1.0% > Rel Dif >= -2.0%			2	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

April

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	64.8	65.0	.3	.2
1923	68.0	68.7	1.0	.7
1924	81.0	81.0	.0	.0
1925	66.6	66.5	-.2	-.1
1926	69.8	69.5	-.4	-.3
1927	59.0	59.2	.3	.2
1928	62.2	63.0	1.3	.8
1929	78.6	78.6	.0	.0
1930	73.0	72.9	-.1	-.1
1931	79.2	79.2	.0	.0
1932	74.9	74.9	.0	.0
1933	76.3	76.2	-.1	-.1
1934	75.8	75.6	-.3	-.2
1935	62.2	61.9	-.5	-.3
1936	64.9	65.5	.9	.6
1937	63.9	63.7	-.3	-.2
1938	51.0	51.2	.4	.2
1939	75.2	75.8	.8	.6
1940	54.2	54.6	.7	.4
1941	52.2	52.4	.4	.2
1942	58.5	58.6	.2	.1
1943	60.0	60.2	.3	.2
1944	73.3	74.6	1.8	1.3
1945	68.7	69.0	.4	.3
1946	71.6	72.3	1.0	.7
1947	74.3	74.2	-.1	-.1
1948	69.5	69.3	-.3	-.2
1949	71.9	71.8	-.1	-.1
1950	70.0	69.9	-.1	-.1
1951	67.8	68.0	.3	.2
1952	54.0	54.1	.2	.1
1953	69.7	69.5	-.3	-.2
1954	60.6	61.0	.7	.4
1955	76.2	75.9	-.4	-.3
1956	64.0	63.6	-.6	-.4
1957	68.9	68.9	.0	.0
1958	50.1	50.2	.2	.1
1959	74.6	74.8	.3	.2
1960	74.0	74.0	.0	.0
1961	74.9	74.9	.0	.0
1962	71.7	72.1	.6	.4
1963	55.6	55.6	.0	.0
1964	77.8	78.0	.3	.2
1965	62.4	62.4	.0	.0
1966	72.2	73.1	1.2	.9
1967	56.5	56.5	.0	.0
1968	71.3	71.3	.0	.0
1969	54.4	54.8	.7	.4
1970	68.8	69.1	.4	.3
1971	66.3	67.0	1.1	.7
1972	73.7	74.0	.4	.3
1973	64.3	64.3	.0	.0
1974	53.8	53.8	.0	.0
1975	61.4	61.4	.0	.0
1976	78.2	78.2	.0	.0
1977	81.0	81.0	.0	.0
1978	57.5	57.7	.3	.2
1979	67.1	68.0	1.3	.9
1980	62.8	63.1	.5	.3
1981	69.8	71.0	1.7	1.2
1982	48.0	48.1	.2	.1
1983	47.7	47.7	.0	.0
1984	67.0	67.4	.6	.4
1985	73.5	74.6	1.5	1.1
1986	58.9	59.1	.3	.2
1987	74.2	74.2	.0	.0
1988	78.5	78.0	-.6	-.5
1989	68.3	68.5	.3	.2
1990	75.9	75.9	.0	.0
1991	72.4	72.1	-.4	-.3
Mean:	67.1	67.3	.3	.2
Median:	68.7	68.9	.0	.0
Min:	47.7	47.7	-.6	-.5
Max:	81.0	81.0	1.8	1.3
Alt-Base >= .0				54
Rel Dif >= .0%			54	
.0% > Rel Dif >= -1.0%			16	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

May

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (km)
1922	61.3	61.6	.5	.3
1923	70.0	70.8	1.1	.8
1924	83.1	82.9	-.2	-.2
1925	70.3	70.8	.7	.5
1926	74.0	74.0	.0	.0
1927	63.6	64.0	.6	.4
1928	70.2	70.2	.0	.0
1929	79.9	79.7	-.3	-.2
1930	75.0	75.0	.0	.0
1931	81.2	81.4	.2	.2
1932	75.2	75.4	.3	.2
1933	78.4	78.2	-.3	-.2
1934	80.9	80.9	.0	.0
1935	64.6	64.6	.0	.0
1936	68.4	69.3	1.3	.9
1937	67.3	67.6	.4	.3
1938	52.4	52.9	1.0	.5
1939	77.3	77.9	.8	.6
1940	64.7	65.0	.5	.3
1941	57.0	57.3	.5	.3
1942	61.2	61.8	1.0	.6
1943	65.4	65.5	.2	.1
1944	75.1	76.2	1.5	1.1
1945	71.4	71.5	.1	.1
1946	72.7	72.9	.3	.2
1947	77.8	77.9	.1	.1
1948	66.9	66.9	.0	.0
1949	73.9	74.1	.3	.2
1950	71.5	71.5	.0	.0
1951	69.6	69.7	.1	.1
1952	54.2	54.4	.4	.2
1953	68.8	68.9	.1	.1
1954	67.1	67.1	.0	.0
1955	75.8	76.2	.5	.4
1956	62.0	62.3	.5	.3
1957	70.3	70.5	.3	.2
1958	55.2	55.3	.2	.1
1959	76.0	76.2	.3	.2
1960	75.4	75.7	.4	.3
1961	76.2	75.7	-.7	-.5
1962	74.1	74.2	.1	.1
1963	61.0	61.5	.8	.5
1964	78.0	78.3	.4	.3
1965	66.5	66.6	.2	.1
1966	74.0	74.2	.3	.2
1967	56.3	56.6	.5	.3
1968	74.5	74.5	.0	.0
1969	55.0	55.6	1.1	.6
1970	71.5	71.8	.4	.3
1971	65.7	66.4	1.1	.7
1972	74.9	75.0	.1	.1
1973	69.3	69.6	.4	.3
1974	61.5	62.2	1.1	.7
1975	63.7	64.1	.6	.4
1976	79.7	79.7	.0	.0
1977	81.5	81.5	.0	.0
1978	62.9	63.2	.5	.3
1979	70.6	71.2	.8	.6
1980	66.4	66.5	.2	.1
1981	74.6	75.3	.9	.7
1982	55.0	55.1	.2	.1
1983	51.0	51.0	.0	.0
1984	70.3	70.4	.1	.1
1985	74.9	75.2	.4	.3
1986	65.4	65.8	.6	.4
1987	78.0	78.0	.0	.0
1988	80.1	79.8	-.4	-.3
1989	74.0	74.0	.0	.0
1990	78.2	78.0	-.3	-.2
1991	78.2	78.2	.0	.0
Mean:	69.8	70.0	.3	.2
Median:	70.3	70.8	.3	.2
Min:	51.0	51.0	-.7	-.5
Max:	83.1	82.9	1.5	1.1
Alt-Base >= .0				64
Rel Dif >= .0%			64	
.0% > Rel Dif >= -1.0%			6	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

June

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (km)
1922	63.1	63.3	.3	.2
1923	75.2	75.2	.0	.0
1924	85.0	85.8	.9	.8
1925	75.0	75.0	.0	.0
1926	79.6	79.6	.0	.0
1927	72.2	72.7	.7	.5
1928	76.7	76.7	.0	.0
1929	80.3	80.3	.0	.0
1930	79.9	79.9	.0	.0
1931	84.5	85.3	.9	.8
1932	75.4	75.4	.0	.0
1933	80.5	80.5	.0	.0
1934	81.0	81.0	.0	.0
1935	73.0	73.0	.0	.0
1936	75.0	75.0	.0	.0
1937	74.0	74.0	.0	.0
1938	58.5	59.2	1.2	.7
1939	80.7	80.9	.2	.2
1940	74.9	74.9	.0	.0
1941	66.8	67.5	1.0	.7
1942	65.3	66.9	2.5	1.6
1943	75.1	75.2	.1	.1
1944	76.4	76.6	.3	.2
1945	74.8	74.8	.0	.0
1946	75.1	75.1	.0	.0
1947	80.8	80.9	.1	.1
1948	71.5	71.7	.3	.2
1949	76.1	76.1	.0	.0
1950	75.0	75.0	.0	.0
1951	76.5	76.6	.1	.1
1952	59.6	60.3	1.2	.7
1953	70.6	71.6	1.4	1.0
1954	75.7	75.7	.0	.0
1955	77.0	77.0	.0	.0
1956	68.2	69.4	1.8	1.2
1957	74.7	74.7	.0	.0
1958	60.1	60.7	1.0	.6
1959	79.1	79.3	.3	.2
1960	78.8	80.2	1.8	1.4
1961	79.3	80.2	1.1	.9
1962	77.4	77.4	.0	.0
1963	72.1	72.3	.3	.2
1964	80.4	80.4	.0	.0
1965	73.9	74.1	.3	.2
1966	78.8	78.8	.0	.0
1967	58.7	59.5	1.4	.8
1968	78.8	78.8	.0	.0
1969	61.6	62.7	1.8	1.1
1970	77.1	77.2	.1	.1
1971	71.0	72.2	1.7	1.2
1972	78.9	79.1	.3	.2
1973	74.0	74.0	.0	.0
1974	68.6	69.8	1.7	1.2
1975	67.1	68.2	1.6	1.1
1976	81.0	81.0	.0	.0
1977	85.3	85.3	.0	.0
1978	72.4	72.9	.7	.5
1979	74.2	74.2	.0	.0
1980	73.1	73.2	.1	.1
1981	79.8	80.0	.3	.2
1982	63.7	64.8	1.7	1.1
1983	53.2	53.4	.4	.2
1984	75.3	75.3	.0	.0
1985	79.9	80.0	.1	.1
1986	73.7	73.9	.3	.2
1987	80.9	80.9	.0	.0
1988	81.0	81.0	.0	.0
1989	78.9	79.0	.1	.1
1990	79.8	81.0	1.5	1.2
1991	80.5	80.5	.0	.0
Mean:	74.5	74.8	.5	.3
Median:	75.2	75.2	.1	.1
Min:	53.2	53.4	.0	.0
Max:	85.3	85.8	2.5	1.6
Alt-Base >= .0				70
Rel Dif >= .0%			70	
.0% > Rel Dif >= -1.0%			0	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

July

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	74.0	74.1	.1	.1
1923	79.5	79.5	.0	.0
1924	86.5	86.7	.2	.2
1925	81.5	81.5	.0	.0
1926	83.0	83.0	.0	.0
1927	77.0	76.3	-.9	-.7
1928	78.5	78.5	.0	.0
1929	84.9	84.9	.0	.0
1930	83.1	83.1	.0	.0
1931	86.3	86.6	.3	.3
1932	81.6	81.6	.0	.0
1933	85.0	85.0	.0	.0
1934	85.2	85.2	.0	.0
1935	78.8	78.8	.0	.0
1936	79.5	79.5	.0	.0
1937	79.2	79.2	.0	.0
1938	72.1	72.7	.8	.6
1939	83.4	83.4	.0	.0
1940	77.9	77.1	-1.0	-.8
1941	75.2	75.4	.3	.2
1942	74.7	75.2	.7	.5
1943	77.9	77.6	-.4	-.3
1944	81.9	82.0	.1	.1
1945	79.4	78.9	-.6	-.5
1946	79.5	78.6	-1.1	-.9
1947	83.4	83.4	.0	.0
1948	77.1	77.9	1.0	.8
1949	81.9	81.9	.0	.0
1950	78.2	78.8	.8	.6
1951	78.0	78.0	.0	.0
1952	70.8	71.8	1.4	1.0
1953	76.4	76.7	.4	.3
1954	78.1	77.6	-.6	-.5
1955	82.1	82.1	.0	.0
1956	75.7	76.1	.5	.4
1957	77.8	77.8	.0	.0
1958	72.5	73.2	1.0	.7
1959	80.8	80.9	.1	.1
1960	81.9	83.2	1.6	1.3
1961	82.9	83.2	.4	.3
1962	79.6	80.3	.9	.7
1963	76.9	76.6	-.4	-.3
1964	83.3	83.3	.0	.0
1965	77.5	77.0	-.6	-.5
1966	80.7	80.7	.0	.0
1967	67.9	68.9	1.5	1.0
1968	80.7	80.7	.0	.0
1969	73.1	73.8	1.0	.7
1970	78.6	78.5	-.1	-.1
1971	76.6	75.9	-.9	-.7
1972	80.6	80.8	.2	.2
1973	77.6	77.6	.0	.0
1974	74.6	75.3	.9	.7
1975	75.2	75.7	.7	.5
1976	85.2	85.2	.0	.0
1977	86.6	86.6	.0	.0
1978	77.1	77.2	.1	.1
1979	79.2	79.0	-.3	-.2
1980	77.3	77.3	.0	.0
1981	83.1	83.1	.0	.0
1982	73.9	74.6	.9	.7
1983	61.8	62.2	.6	.4
1984	78.0	77.3	-.9	-.7
1985	83.1	83.1	.0	.0
1986	77.5	77.5	.0	.0
1987	83.4	83.4	.0	.0
1988	85.2	85.2	.0	.0
1989	82.8	82.8	.0	.0
1990	84.8	85.2	.5	.4
1991	85.0	85.0	.0	.0
Mean:	79.3	79.4	.1	.1
Median:	79.2	78.9	.0	.0
Min:	61.8	62.2	-1.1	-.9
Max:	86.6	86.7	1.6	1.3

Alt-Base >= .0		58
Rel Dif >= .0%	58	
.0% > Rel Dif >= -1.0%	11	
-1.0% > Rel Dif >= -2.0%	1	
-2.0% > Rel Dif >= -3.0%	0	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

X2 POSITION

August

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (km)
1922	81.0	77.9	-3.8	-3.1
1923	82.9	80.5	-2.9	-2.4
1924	88.2	88.3	.1	.1
1925	83.4	85.3	2.3	1.9
1926	86.2	86.2	.0	.0
1927	78.6	78.6	.0	.0
1928	79.1	79.1	.0	.0
1929	87.7	87.7	.0	.0
1930	85.8	85.3	-.6	-.5
1931	88.1	88.2	.1	.1
1932	84.8	85.7	1.1	.9
1933	87.7	87.7	.0	.0
1934	87.8	87.8	.0	.0
1935	82.2	81.1	-1.3	-1.1
1936	82.4	83.2	1.0	.8
1937	82.5	83.2	.8	.7
1938	77.9	78.0	.1	.1
1939	85.5	86.1	.7	.6
1940	79.1	79.3	.3	.2
1941	78.7	78.2	-.6	-.5
1942	78.8	77.9	-1.1	-.9
1943	79.1	79.0	-.1	-.1
1944	82.7	85.9	3.9	3.2
1945	83.4	82.3	-1.3	-1.1
1946	82.9	82.4	-.6	-.5
1947	84.9	86.4	1.8	1.5
1948	80.2	80.1	-.1	-.1
1949	83.6	84.4	1.0	.8
1950	80.4	81.6	1.5	1.2
1951	79.3	79.3	.0	.0
1952	76.0	77.3	1.7	1.3
1953	78.6	78.6	.0	.0
1954	79.1	79.2	.1	.1
1955	83.5	85.9	2.9	2.4
1956	78.4	78.2	-.3	-.2
1957	79.0	79.1	.1	.1
1958	76.7	77.8	1.4	1.1
1959	82.9	83.1	.2	.2
1960	83.0	85.3	2.8	2.3
1961	84.5	85.5	1.2	1.0
1962	80.8	82.9	2.6	2.1
1963	78.4	78.4	.0	.0
1964	83.5	86.1	3.1	2.6
1965	78.6	78.6	.0	.0
1966	83.0	83.2	.2	.2
1967	75.4	76.7	1.7	1.3
1968	83.3	82.6	-.8	-.7
1969	77.8	78.5	.9	.7
1970	79.1	79.1	.0	.0
1971	78.6	78.5	-.1	-.1
1972	80.8	80.7	-.1	-.1
1973	78.9	78.9	.0	.0
1974	76.7	77.9	1.6	1.2
1975	77.2	78.2	1.3	1.0
1976	83.1	84.3	1.4	1.2
1977	88.2	88.2	.0	.0
1978	81.8	78.8	-3.7	-3.0
1979	83.2	82.0	-1.4	-1.2
1980	80.2	78.9	-1.6	-1.3
1981	82.5	85.3	3.4	2.8
1982	77.7	78.1	.5	.4
1983	68.5	69.3	1.2	.8
1984	79.1	79.1	.0	.0
1985	82.9	85.3	2.9	2.4
1986	78.9	78.8	-.1	-.1
1987	86.4	86.4	.0	.0
1988	87.5	87.2	-.3	-.3
1989	84.5	82.1	-2.8	-2.4
1990	85.0	87.8	3.3	2.8
1991	87.7	87.7	.0	.0
Mean:	81.7	81.9	.4	.3
Median:	82.2	81.6	.0	.0
Min:	68.5	69.3	-3.8	-3.1
Max:	88.2	88.3	3.9	3.2
Alt-Base >= .0				50
Rel Dif >= .0%			50	
.0% > Rel Dif >= -1.0%			11	
-1.0% > Rel Dif >= -2.0%			5	
-2.0% > Rel Dif >= -3.0%			2	
-3.0% > Rel Dif >= -5.0%			2	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

September

Water Year	Base Location (km)	2030 w/ WFP Location (cfs)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (km)
1922	82.8	81.6	-1.4	-1.2
1923	83.1	82.4	-.8	-.7
1924	88.9	89.1	.2	.2
1925	84.4	84.8	.5	.4
1926	86.0	86.6	.7	.6
1927	82.9	81.7	-1.4	-1.2
1928	82.4	82.5	.1	.1
1929	88.0	88.8	.9	.8
1930	85.6	85.3	-.4	-.3
1931	88.9	88.8	-.1	-.1
1932	85.7	86.5	.9	.8
1933	88.7	88.7	.0	.0
1934	88.9	88.5	-.4	-.4
1935	83.0	82.8	-.2	-.2
1936	83.3	83.0	-.4	-.3
1937	83.3	83.4	.1	.1
1938	78.9	81.5	3.3	2.6
1939	86.1	85.8	-.3	-.3
1940	82.7	81.9	-1.0	-.8
1941	80.7	82.5	2.2	1.8
1942	81.9	82.2	.4	.3
1943	83.5	81.9	-1.9	-1.6
1944	84.3	86.2	2.3	1.9
1945	83.5	82.8	-.8	-.7
1946	83.0	82.8	-.2	-.2
1947	84.5	86.4	2.2	1.9
1948	82.5	82.3	-.2	-.2
1949	84.3	85.5	1.4	1.2
1950	82.3	83.0	.9	.7
1951	81.9	82.2	.4	.3
1952	75.8	78.4	3.4	2.6
1953	80.9	81.6	.9	.7
1954	82.0	81.8	-.2	-.2
1955	84.4	86.2	2.1	1.8
1956	79.1	81.6	3.2	2.5
1957	82.0	82.2	.2	.2
1958	76.0	76.8	1.1	.8
1959	82.6	82.6	.0	.0
1960	83.7	85.8	2.5	2.1
1961	85.2	86.3	1.3	1.1
1962	82.4	83.1	.8	.7
1963	81.9	81.7	-.2	-.2
1964	84.4	85.5	1.3	1.1
1965	82.5	82.1	-.5	-.4
1966	82.9	84.0	1.3	1.1
1967	76.2	77.6	1.8	1.4
1968	83.0	82.7	-.4	-.3
1969	76.3	76.9	.8	.6
1970	82.9	81.8	-1.3	-1.1
1971	79.4	81.8	3.0	2.4
1972	82.2	82.6	.5	.4
1973	82.6	82.2	-.5	-.4
1974	76.3	77.3	1.3	1.0
1975	77.7	78.7	1.3	1.0
1976	84.8	85.9	1.3	1.1
1977	88.4	88.5	.1	.1
1978	82.6	82.2	-.5	-.4
1979	83.5	82.6	-1.1	-.9
1980	82.7	83.5	1.0	.8
1981	83.6	84.4	1.0	.8
1982	74.5	76.1	2.1	1.6
1983	67.2	68.2	1.5	1.0
1984	83.5	82.0	-1.8	-1.5
1985	84.1	84.9	1.0	.8
1986	83.3	82.0	-1.6	-1.3
1987	85.8	88.0	2.6	2.2
1988	89.4	88.6	-.9	-.8
1989	84.5	83.1	-1.7	-1.4
1990	86.4	88.9	2.9	2.5
1991	88.9	88.7	-.2	-.2
Mean:	82.9	83.3	.5	.4
Median:	83.0	82.7	.4	.3
Min:	67.2	68.2	-1.9	-1.6
Max:	89.4	89.1	3.4	2.6
Alt-Base >= .0				43
Rel Dif >= .0%			43	
.0% > Rel Dif >= -1.0%			19	
-1.0% > Rel Dif >= -2.0%			8	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

RETURN TO TABLE OF CONTENTS

Section 26

BANKS PLUS TRACY EXPORTS

BANKS PLUS TRACY EXPORTS

October

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (taf)
1922	492.0	484.4	-1.5	-7.6
1923	676.8	676.4	-.1	-.4
1924	556.2	533.4	-4.1	-22.8
1925	334.0	309.5	-7.3	-24.5
1926	487.9	511.3	4.8	23.4
1927	347.3	359.0	3.4	11.7
1928	609.8	585.1	-4.1	-24.7
1929	453.7	432.0	-4.8	-21.7
1930	276.3	236.2	-14.5	-40.1
1931	370.9	318.8	-14.0	-52.1
1932	165.0	161.9	-1.9	-3.1
1933	313.7	313.1	-.2	-.6
1934	261.4	260.5	-.3	-.9
1935	166.2	92.8	-44.2	-73.4
1936	481.4	468.9	-2.6	-12.5
1937	526.3	456.6	-13.2	-69.7
1938	532.0	506.3	-4.8	-25.7
1939	676.1	677.4	.2	1.3
1940	256.0	232.1	-9.3	-23.9
1941	560.3	540.5	-3.5	-19.8
1942	677.4	677.4	.0	.0
1943	677.1	676.8	.0	-.3
1944	646.5	593.7	-8.2	-52.8
1945	363.2	376.4	3.6	13.2
1946	591.8	562.9	-4.9	-28.9
1947	553.4	505.0	-8.7	-48.4
1948	426.5	421.3	-1.2	-5.2
1949	529.0	523.0	-1.1	-6.0
1950	448.6	377.2	-15.9	-71.4
1951	549.2	563.3	2.6	14.1
1952	624.0	609.9	-2.3	-14.1
1953	460.7	677.4	47.0	216.7
1954	675.8	662.0	-2.0	-13.8
1955	512.4	473.0	-7.7	-39.4
1956	349.3	361.6	3.5	12.3
1957	677.4	677.4	.0	.0
1958	676.4	675.8	-.1	-.6
1959	582.7	677.4	16.3	94.7
1960	339.2	349.3	3.0	10.1
1961	351.4	376.4	7.1	25.0
1962	294.4	336.7	14.4	42.3
1963	675.5	675.8	.0	.3
1964	676.4	676.4	.0	.0
1965	339.7	351.7	3.5	12.0
1966	631.3	579.8	-8.2	-51.5
1967	403.8	376.5	-6.8	-27.3
1968	536.5	677.4	26.3	140.9
1969	492.7	459.9	-6.7	-32.8
1970	484.3	677.4	39.9	193.1
1971	571.4	555.6	-2.8	-15.8
1972	675.5	647.2	-4.2	-28.3
1973	504.6	492.0	-2.5	-12.6
1974	676.8	646.4	-4.5	-30.4
1975	676.4	676.4	.0	.0
1976	676.2	676.2	.0	.0
1977	315.5	302.8	-4.0	-12.7
1978	126.7	124.6	-1.7	-2.1
1979	541.8	513.6	-5.2	-28.2
1980	634.1	580.1	-8.5	-54.0
1981	634.1	626.2	-1.2	-7.9
1982	457.4	467.4	2.2	10.0
1983	677.4	677.4	.0	.0
1984	451.1	677.1	50.1	226.0
1985	661.1	641.7	-2.9	-19.4
1986	359.7	341.6	-5.0	-18.1
1987	622.5	581.1	-6.7	-41.4
1988	246.5	80.9	-67.2	-165.6
1989	165.6	176.5	6.6	10.9
1990	470.9	464.3	-1.4	-6.6
1991	195.0	87.7	-55.0	-107.3
Mean:	487.6	483.2	-2.0	-4.4
Median:	504.6	506.3	-1.9	-7.9
Min:	126.7	80.9	-67.2	-165.6
Max:	677.4	677.4	50.1	226.0
Alt-Base >= .0				24
Rel Dif >= .0%			25	
.0% > Rel Dif >= -1.0%			4	
-1.0% > Rel Dif >= -2.0%			8	
-2.0% > Rel Dif >= -3.0%			5	
-3.0% > Rel Dif >= -5.0%			10	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			17	

BANKS PLUS TRACY EXPORTS

November

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	457.1	487.6	6.7	30.5
1923	654.8	654.5	.0	-.3
1924	430.2	438.1	1.8	7.9
1925	254.0	249.7	-1.7	-4.3
1926	373.5	397.4	6.4	23.9
1927	650.0	650.0	.0	.0
1928	654.8	654.8	.0	.0
1929	462.9	477.0	3.0	14.1
1930	200.2	175.6	-12.3	-24.6
1931	351.2	356.8	1.6	5.6
1932	174.1	185.2	6.4	11.1
1933	303.8	302.9	-.3	-.9
1934	188.6	186.0	-1.4	-2.6
1935	332.0	319.8	-3.7	-12.2
1936	415.7	470.1	13.1	54.4
1937	426.1	445.7	4.6	19.6
1938	653.9	653.0	-.1	-.9
1939	503.0	655.4	30.3	152.4
1940	234.0	195.0	-16.7	-39.0
1941	519.3	504.7	-2.8	-14.6
1942	526.7	655.4	24.4	128.7
1943	654.3	654.8	.1	.5
1944	503.4	493.4	-2.0	-10.0
1945	614.4	650.3	5.8	35.9
1946	654.5	654.5	.0	.0
1947	514.8	482.4	-6.3	-32.4
1948	421.8	403.7	-4.3	-18.1
1949	471.0	472.8	.4	1.8
1950	426.2	393.9	-7.6	-32.3
1951	653.3	653.6	.0	.3
1952	645.1	645.1	.0	.0
1953	425.7	602.7	41.6	177.0
1954	653.9	654.3	.1	.4
1955	654.5	612.5	-6.4	-42.0
1956	405.8	439.3	8.3	33.5
1957	569.2	564.1	-.9	-5.1
1958	654.5	653.9	-.1	-.6
1959	510.6	584.6	14.5	74.0
1960	395.1	399.3	1.1	4.2
1961	462.8	507.8	9.7	45.0
1962	319.1	368.5	15.5	49.4
1963	653.6	640.5	-2.0	-13.1
1964	654.5	654.5	.0	.0
1965	576.6	614.6	6.6	38.0
1966	654.8	655.1	.0	.3
1967	570.0	602.0	5.6	32.0
1968	503.0	590.0	17.3	87.0
1969	530.0	521.9	-1.5	-8.1
1970	425.5	655.4	54.0	229.9
1971	654.8	654.5	.0	-.3
1972	529.0	474.6	-10.3	-54.4
1973	653.6	653.9	.0	.3
1974	654.8	654.3	-.1	-.5
1975	558.8	562.8	.7	4.0
1976	654.3	654.3	.0	.0
1977	218.1	227.4	4.3	9.3
1978	202.5	218.7	8.0	16.2
1979	530.8	535.1	.8	4.3
1980	630.6	574.1	-9.0	-56.5
1981	453.0	449.9	-.7	-3.1
1982	652.4	650.9	-.2	-1.5
1983	655.4	655.4	.0	.0
1984	417.6	465.3	11.4	47.7
1985	654.8	654.8	.0	.0
1986	408.6	414.2	1.4	5.6
1987	438.0	399.1	-8.9	-38.9
1988	306.6	154.1	-49.7	-152.5
1989	327.6	342.4	4.5	14.8
1990	338.3	363.4	7.4	25.1
1991	232.0	131.9	-43.1	-100.1
Mean:	487.4	497.6	1.8	10.2
Median:	503.0	507.8	.0	.0
Min:	174.1	131.9	-49.7	-152.5
Max:	655.4	655.4	54.0	229.9
Alt-Base >= .0				43
Rel Dif >= .0%			45	
.0% > Rel Dif >= -1.0%			7	
-1.0% > Rel Dif >= -2.0%			5	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			2	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			10	

BANKS PLUS TRACY EXPORTS

December

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (taf)
1922	705.5	705.5	.0	.0
1923	729.5	729.5	.0	.0
1924	567.5	574.4	1.2	6.9
1925	452.0	453.4	.3	1.4
1926	517.5	531.1	2.6	13.6
1927	693.1	693.1	.0	.0
1928	699.3	699.3	.0	.0
1929	691.0	690.2	-.1	-.8
1930	602.5	631.9	4.9	29.4
1931	463.6	475.0	2.5	11.4
1932	704.3	704.3	.0	.0
1933	397.3	466.0	17.3	68.7
1934	467.5	515.6	10.3	48.1
1935	336.6	301.7	-10.4	-34.9
1936	610.3	611.2	.1	.9
1937	644.0	621.3	-3.5	-22.7
1938	732.9	731.7	-.2	-1.2
1939	499.3	689.3	38.1	190.0
1940	355.1	398.2	12.1	43.1
1941	707.9	707.5	-.1	-.4
1942	412.8	733.8	77.8	321.0
1943	501.0	709.7	41.7	208.7
1944	571.0	698.3	22.3	127.3
1945	694.4	692.5	-.3	-1.9
1946	733.5	733.5	.0	.0
1947	698.7	698.7	.0	.0
1948	440.4	357.8	-18.8	-82.6
1949	691.2	692.2	.1	1.0
1950	541.7	509.3	-6.0	-32.4
1951	732.2	732.5	.0	.3
1952	706.8	706.2	-.1	-.6
1953	420.2	482.5	14.8	62.3
1954	584.8	638.8	9.2	54.0
1955	693.5	692.9	-.1	-.6
1956	730.2	729.1	-.2	-1.1
1957	555.7	696.2	25.3	140.5
1958	695.5	695.0	-.1	-.5
1959	506.4	613.9	21.2	107.5
1960	582.2	625.8	7.5	43.6
1961	652.3	687.4	5.4	35.1
1962	648.5	687.2	6.0	38.7
1963	690.8	691.2	.1	.4
1964	637.9	642.9	.8	5.0
1965	717.3	716.2	-.2	-1.1
1966	726.7	726.8	.0	.1
1967	704.2	703.8	-.1	-.4
1968	499.3	697.1	39.6	197.8
1969	698.0	698.0	.0	.0
1970	420.1	715.8	70.4	295.7
1971	702.7	702.6	.0	-.1
1972	694.3	694.3	.0	.0
1973	692.2	692.6	.1	.4
1974	706.9	706.7	.0	-.2
1975	560.2	697.5	24.5	137.3
1976	684.2	678.2	-.9	-6.0
1977	380.0	302.1	-20.5	-77.9
1978	522.9	561.9	7.5	39.0
1979	482.0	695.7	44.3	213.7
1980	695.8	695.4	-.1	-.4
1981	600.7	695.8	15.8	95.1
1982	695.2	693.3	-.3	-1.9
1983	604.7	733.8	21.3	129.1
1984	300.9	360.0	19.6	59.1
1985	697.4	697.4	.0	.0
1986	691.6	690.4	-.2	-1.2
1987	695.1	695.1	.0	.0
1988	685.1	663.2	-3.2	-21.9
1989	332.4	353.9	6.5	21.5
1990	423.5	511.7	20.8	88.2
1991	387.7	326.6	-15.8	-61.1
Mean:	595.7	631.2	7.3	35.5
Median:	644.0	692.6	.0	.1
Min:	300.9	301.7	-20.5	-82.6
Max:	733.5	733.8	77.8	321.0
Alt-Base >= .0				47
Rel Dif >= .0%			49	
.0% > Rel Dif >= -1.0%			14	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			2	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			4	

BANKS PLUS TRACY EXPORTS

January

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	736.7	736.7	.0	.0
1923	510.4	789.9	54.8	279.5
1924	710.6	709.1	-.2	-1.5
1925	513.5	497.8	-3.1	-15.7
1926	703.6	701.2	-.3	-2.4
1927	709.3	605.2	-14.7	-104.1
1928	720.6	722.0	.2	1.4
1929	706.1	705.6	-.1	-.5
1930	699.5	698.5	-.1	-1.0
1931	635.2	696.1	9.6	60.9
1932	744.4	744.4	.0	.0
1933	700.8	706.8	.9	6.0
1934	699.4	674.7	-3.5	-24.7
1935	734.5	734.5	.0	.0
1936	716.2	715.2	-.1	-1.0
1937	730.7	729.2	-.2	-1.5
1938	789.7	751.2	-4.9	-38.5
1939	464.2	682.1	46.9	217.9
1940	760.0	759.9	.0	-.1
1941	789.5	789.2	.0	-.3
1942	379.9	786.6	107.1	406.7
1943	465.1	790.0	69.9	324.9
1944	676.4	719.4	6.4	43.0
1945	650.6	663.6	2.0	13.0
1946	774.3	774.3	.0	.0
1947	702.3	719.3	2.4	17.0
1948	642.2	648.4	1.0	6.2
1949	704.3	704.6	.0	.3
1950	711.5	710.1	-.2	-1.4
1951	789.5	789.6	.0	.1
1952	790.0	789.7	.0	-.3
1953	385.6	471.3	22.2	85.7
1954	483.9	712.6	47.3	228.7
1955	715.2	715.1	.0	-.1
1956	787.2	785.8	-.2	-1.4
1957	714.1	714.1	.0	.0
1958	718.6	718.4	.0	-.2
1959	469.6	715.0	52.3	245.4
1960	705.6	705.9	.0	.3
1961	597.1	638.8	7.0	41.7
1962	503.3	526.5	4.6	23.2
1963	715.5	715.6	.0	.1
1964	711.4	711.9	.1	.5
1965	785.8	784.3	-.2	-1.5
1966	773.0	773.1	.0	.1
1967	739.8	739.3	-.1	-.5
1968	415.8	677.8	63.0	262.0
1969	789.8	789.8	.0	.0
1970	385.5	554.6	43.9	169.1
1971	737.5	738.2	.1	.7
1972	712.2	712.2	.0	.0
1973	720.6	720.7	.0	.1
1974	788.3	789.8	.2	1.5
1975	487.4	717.9	47.3	230.5
1976	510.5	650.5	27.4	140.0
1977	449.7	436.6	-2.9	-13.1
1978	741.3	741.3	.0	.0
1979	775.2	775.2	.0	.0
1980	789.6	789.5	.0	-.1
1981	672.1	720.9	7.3	48.8
1982	788.2	785.8	-.3	-2.4
1983	501.6	790.2	57.5	288.6
1984	215.0	292.8	36.2	77.8
1985	702.7	714.6	1.7	11.9
1986	709.1	707.6	-.2	-1.5
1987	645.1	712.9	10.5	67.8
1988	697.8	697.7	.0	-.1
1989	545.3	548.1	.5	2.8
1990	700.2	699.3	-.1	-.9
1991	411.1	372.3	-9.4	-38.8
Mean:	653.7	697.3	9.9	43.6
Median:	705.6	715.0	.0	.0
Min:	215.0	292.8	-14.7	-104.1
Max:	790.0	790.2	107.1	406.7
Alt-Base >= .0				44
Rel Dif >= .0%			51	
.0% > Rel Dif >= -1.0%			13	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			3	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			2	

BANKS PLUS TRACY EXPORTS

February

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (taf)
1922	715.8	715.8	.0	.0
1923	322.6	506.0	56.9	183.4
1924	488.8	523.4	7.1	34.6
1925	660.7	452.9	-31.5	-207.8
1926	649.6	648.3	-.2	-1.3
1927	529.8	466.1	-12.0	-63.7
1928	474.3	660.7	39.3	186.4
1929	480.2	480.0	.0	-.2
1930	463.3	466.6	.7	3.3
1931	395.1	395.9	.2	.8
1932	595.2	347.6	-41.6	-247.6
1933	419.6	421.6	.5	2.0
1934	411.5	221.5	-46.2	-190.0
1935	360.6	363.6	.8	3.0
1936	714.7	714.1	-.1	-.6
1937	714.7	713.9	-.1	-.8
1938	494.8	557.9	12.8	63.1
1939	447.0	494.7	10.7	47.7
1940	710.2	710.2	.0	.0
1941	655.9	705.8	7.6	49.9
1942	380.4	464.5	22.1	84.1
1943	469.1	702.3	49.7	233.2
1944	670.7	671.6	.1	.9
1945	713.6	626.6	-12.2	-87.0
1946	452.5	631.0	39.4	178.5
1947	586.8	586.9	.0	.1
1948	359.2	359.2	.0	.0
1949	438.9	414.9	-5.5	-24.0
1950	664.7	664.0	-.1	-.7
1951	713.0	672.3	-5.7	-40.7
1952	569.0	654.0	14.9	85.0
1953	386.3	466.8	20.8	80.5
1954	472.5	656.6	39.0	184.1
1955	431.9	433.5	.4	1.6
1956	713.6	566.5	-20.6	-147.1
1957	555.5	671.1	20.8	115.6
1958	587.7	639.2	8.8	51.5
1959	472.9	633.6	34.0	160.7
1960	654.6	654.8	.0	.2
1961	639.6	638.2	-.2	-1.4
1962	713.9	713.4	-.1	-.5
1963	673.9	657.2	-2.5	-16.7
1964	389.4	387.3	-.5	-2.1
1965	712.7	710.2	-.4	-2.5
1966	540.4	637.1	17.9	96.7
1967	689.9	709.8	2.9	19.9
1968	441.0	589.4	33.7	148.4
1969	714.6	715.1	.1	.5
1970	333.2	433.6	30.1	100.4
1971	474.4	688.9	45.2	214.5
1972	532.0	623.0	17.1	91.0
1973	714.7	714.9	.0	.2
1974	491.8	619.1	25.9	127.3
1975	491.1	715.2	45.6	224.1
1976	433.7	449.5	3.6	15.8
1977	430.4	430.1	-.1	-.3
1978	560.2	580.5	3.6	20.3
1979	428.5	715.8	67.0	287.3
1980	469.1	714.5	52.3	245.4
1981	380.5	609.8	60.3	229.3
1982	712.3	655.8	-7.9	-56.5
1983	482.5	596.6	23.6	114.1
1984	332.7	406.0	22.0	73.3
1985	468.6	564.9	20.6	96.3
1986	712.7	710.2	-.4	-2.5
1987	598.9	601.2	.4	2.3
1988	355.8	216.6	-39.1	-139.2
1989	231.5	349.5	51.0	118.0
1990	420.0	419.5	-.1	-.5
1991	441.5	419.1	-5.1	-22.4
Mean:	528.7	567.5	9.7	38.8
Median:	488.8	609.8	.4	2.0
Min:	231.5	216.6	-46.2	-247.6
Max:	715.8	715.8	67.0	287.3
Alt-Base >= .0				46
Rel Dif >= .0%			47	
.0% > Rel Dif >= -1.0%			11	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			3	
Rel Dif < -6.0%			8	

BANKS PLUS TRACY EXPORTS

March

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (taf)
1922	605.6	735.5	21.4	129.9
1923	477.5	418.6	-12.3	-58.9
1924	10.3	108.5	953.4	98.2
1925	449.1	17.0	-96.2	-432.1
1926	439.0	439.8	.2	.8
1927	462.4	626.0	35.4	163.6
1928	542.3	720.3	32.8	178.0
1929	192.7	208.3	8.1	15.6
1930	692.1	488.6	-29.4	-203.5
1931	190.2	226.1	18.9	35.9
1932	322.7	369.5	14.5	46.8
1933	372.5	373.6	.3	1.1
1934	124.0	95.2	-23.2	-28.8
1935	718.2	719.5	.2	1.3
1936	667.8	734.1	9.9	66.3
1937	560.4	640.1	14.2	79.7
1938	409.5	583.5	42.5	174.0
1939	255.9	405.8	58.6	149.9
1940	734.5	734.5	.0	.0
1941	409.9	685.5	67.2	275.6
1942	519.8	635.3	22.2	115.5
1943	523.4	657.7	25.7	134.3
1944	512.8	633.9	23.6	121.1
1945	621.0	567.1	-8.7	-53.9
1946	572.0	529.2	-7.5	-42.8
1947	521.0	525.1	.8	4.1
1948	441.6	450.6	2.0	9.0
1949	706.4	705.6	-.1	-.8
1950	587.1	575.0	-2.1	-12.1
1951	517.9	543.8	5.0	25.9
1952	436.7	533.8	22.2	97.1
1953	523.9	624.6	19.2	100.7
1954	560.2	707.5	26.3	147.3
1955	410.1	410.4	.1	.3
1956	635.6	581.9	-8.4	-53.7
1957	560.2	710.5	26.8	150.3
1958	524.2	642.2	22.5	118.0
1959	442.1	471.4	6.6	29.3
1960	584.3	578.4	-1.0	-5.9
1961	460.7	459.9	-.2	-.8
1962	725.6	725.8	.0	.2
1963	544.1	690.3	26.9	146.2
1964	390.9	414.8	6.1	23.9
1965	625.7	642.4	2.7	16.7
1966	539.7	615.5	14.0	75.8
1967	583.6	709.1	21.5	125.5
1968	448.7	456.9	1.8	8.2
1969	436.6	736.0	68.6	299.4
1970	462.4	576.5	24.7	114.1
1971	558.5	702.3	25.7	143.8
1972	558.3	694.9	24.5	136.6
1973	652.4	651.5	-.1	-.9
1974	544.2	653.8	20.1	109.6
1975	559.7	697.7	24.7	138.0
1976	402.8	399.1	-.9	-3.7
1977	277.6	244.0	-12.1	-33.6
1978	430.2	619.3	44.0	189.1
1979	516.7	734.7	42.2	218.0
1980	321.4	657.3	104.5	335.9
1981	520.6	646.1	24.1	125.5
1982	559.8	669.2	19.5	109.4
1983	321.4	410.0	27.6	88.6
1984	454.9	587.6	29.2	132.7
1985	442.1	458.2	3.6	16.1
1986	697.4	652.2	-6.5	-45.2
1987	537.2	610.0	13.6	72.8
1988	76.7	11.6	-84.9	-65.1
1989	694.3	694.0	.0	-.3
1990	264.4	346.4	31.0	82.0
1991	698.8	697.1	-.2	-1.7
Mean:	487.8	546.8	25.5	59.1
Median:	519.8	610.0	13.6	46.8
Min:	10.3	11.6	-96.2	-432.1
Max:	734.5	736.0	953.4	335.9
Alt-Base >= .0				52
Rel Dif >= .0%			53	
.0% > Rel Dif >= -1.0%			6	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			10	

BANKS PLUS TRACY EXPORTS

April

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	408.4	408.4	.0	.0
1923	393.9	393.0	-.2	-.9
1924	28.7	40.1	39.7	11.4
1925	347.3	345.1	-.6	-2.2
1926	296.9	305.7	3.0	8.8
1927	360.8	360.8	.0	.0
1928	408.4	408.4	.0	.0
1929	64.7	59.3	-8.3	-5.4
1930	201.1	196.9	-2.1	-4.2
1931	28.0	9.3	-66.8	-18.7
1932	226.0	98.7	-56.3	-127.3
1933	40.8	34.9	-14.5	-5.9
1934	13.5	11.9	-11.9	-1.6
1935	408.4	360.8	-11.7	-47.6
1936	350.1	395.6	13.0	45.5
1937	360.8	341.3	-5.4	-19.5
1938	360.8	360.8	.0	.0
1939	186.6	61.1	-67.3	-125.5
1940	408.4	408.4	.0	.0
1941	360.8	360.8	.0	.0
1942	408.3	408.4	.0	.1
1943	360.8	360.8	.0	.0
1944	175.4	217.8	24.2	42.4
1945	267.2	267.2	.0	.0
1946	280.1	275.9	-1.5	-4.2
1947	209.7	210.4	.3	.7
1948	362.7	366.5	1.0	3.8
1949	219.9	222.7	1.3	2.8
1950	302.1	305.1	1.0	3.0
1951	248.9	246.6	-.9	-2.3
1952	393.5	360.8	-8.3	-32.7
1953	303.5	259.5	-14.5	-44.0
1954	384.6	384.6	.0	.0
1955	172.9	177.2	2.5	4.3
1956	337.8	350.6	3.8	12.8
1957	300.3	310.4	3.4	10.1
1958	407.5	408.4	.2	.9
1959	195.5	194.2	-.7	-1.3
1960	197.3	196.9	-.2	-.4
1961	199.0	77.4	-61.1	-121.6
1962	241.8	234.8	-2.9	-7.0
1963	408.4	408.4	.0	.0
1964	164.3	160.7	-2.2	-3.6
1965	360.8	360.8	.0	.0
1966	230.7	226.8	-1.7	-3.9
1967	360.8	360.8	.0	.0
1968	212.0	211.8	-.1	-.2
1969	360.8	408.4	13.2	47.6
1970	211.5	207.7	-1.8	-3.8
1971	344.9	344.1	-.2	-.8
1972	184.6	189.1	2.4	4.5
1973	365.3	364.1	-.3	-1.2
1974	408.4	360.8	-11.7	-47.6
1975	408.4	360.8	-11.7	-47.6
1976	102.9	103.1	.2	.2
1977	58.8	63.7	8.3	4.9
1978	386.6	408.4	5.6	21.8
1979	342.6	340.7	-.6	-1.9
1980	341.6	340.8	-.2	-.8
1981	299.1	294.1	-1.7	-5.0
1982	360.8	360.8	.0	.0
1983	360.8	360.8	.0	.0
1984	278.9	275.0	-1.4	-3.9
1985	222.4	221.1	-.6	-1.3
1986	360.8	408.4	13.2	47.6
1987	194.1	11.3	-94.2	-182.8
1988	120.6	153.6	27.4	33.0
1989	317.3	314.3	-.9	-3.0
1990	120.7	42.6	-64.7	-78.1
1991	235.4	232.9	-1.1	-2.5
Mean:	276.4	267.0	-5.2	-9.3
Median:	300.3	305.1	-.2	-.4
Min:	13.5	9.3	-94.2	-182.8
Max:	408.4	408.4	39.7	47.6
Alt-Base >= .0				34
Rel Dif >= .0%			34	
.0% > Rel Dif >= -1.0%			12	
-1.0% > Rel Dif >= -2.0%			6	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			14	

BANKS PLUS TRACY EXPORTS

May

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (taf)
1922	419.0	410.4	-2.1	-8.6
1923	240.0	236.4	-1.5	-3.6
1924	99.0	50.2	-49.3	-48.8
1925	198.3	189.8	-4.3	-8.5
1926	146.6	91.6	-37.5	-55.0
1927	236.0	228.4	-3.2	-7.6
1928	215.4	218.6	1.5	3.2
1929	123.5	123.6	.1	.1
1930	141.4	140.6	-.6	-.8
1931	101.9	64.7	-36.5	-37.2
1932	183.7	170.1	-7.4	-13.6
1933	123.7	124.0	.2	.3
1934	38.9	46.4	19.3	7.5
1935	311.8	258.9	-17.0	-52.9
1936	201.3	245.3	21.9	44.0
1937	223.4	215.0	-3.8	-8.4
1938	402.6	402.6	.0	.0
1939	124.0	169.8	36.9	45.8
1940	261.0	257.7	-1.3	-3.3
1941	361.9	355.0	-1.9	-6.9
1942	367.5	349.4	-4.9	-18.1
1943	242.7	241.0	-.7	-1.7
1944	151.8	193.2	27.3	41.4
1945	158.8	158.8	.0	.0
1946	225.1	224.5	-.3	-.6
1947	132.3	130.3	-1.5	-2.0
1948	276.3	274.4	-.7	-1.9
1949	156.7	154.3	-1.5	-2.4
1950	201.3	201.2	.0	-.1
1951	180.9	179.6	-.7	-1.3
1952	447.2	402.6	-10.0	-44.6
1953	278.7	223.7	-19.7	-55.0
1954	224.8	226.8	.9	2.0
1955	146.5	140.4	-4.2	-6.1
1956	324.4	308.5	-4.9	-15.9
1957	244.3	240.1	-1.7	-4.2
1958	447.2	447.2	.0	.0
1959	173.1	170.9	-1.3	-2.2
1960	144.1	140.4	-2.6	-3.7
1961	143.3	147.9	3.2	4.6
1962	187.0	186.5	-.3	-.5
1963	310.0	294.3	-5.1	-15.7
1964	133.1	135.0	1.4	1.9
1965	199.8	198.5	-.7	-1.3
1966	179.9	180.6	.4	.7
1967	402.6	402.6	.0	.0
1968	175.6	175.1	-.3	-.5
1969	402.6	447.2	11.1	44.6
1970	164.6	161.7	-1.8	-2.9
1971	313.3	300.8	-4.0	-12.5
1972	152.3	152.1	-.1	-.2
1973	222.4	217.2	-2.3	-5.2
1974	327.1	259.8	-20.6	-67.3
1975	326.3	275.9	-15.4	-50.4
1976	95.7	103.8	8.5	8.1
1977	64.6	67.1	3.9	2.5
1978	316.0	310.4	-1.8	-5.6
1979	236.2	230.8	-2.3	-5.4
1980	209.4	208.5	-.4	-.9
1981	183.2	179.7	-1.9	-3.5
1982	390.3	387.4	-.7	-2.9
1983	402.6	402.6	.0	.0
1984	172.1	172.7	.3	.6
1985	177.7	177.4	-.2	-.3
1986	204.2	247.7	21.3	43.5
1987	129.1	106.6	-17.4	-22.5
1988	128.3	120.1	-6.4	-8.2
1989	148.5	148.6	.1	.1
1990	128.9	128.9	.0	.0
1991	127.1	118.5	-6.8	-8.6
Mean:	220.4	215.0	-2.2	-5.4
Median:	198.3	193.2	-.7	-2.0
Min:	38.9	46.4	-49.3	-67.3
Max:	447.2	447.2	36.9	45.8
Alt-Base >= .0				23
Rel Dif >= .0%			24	
.0% > Rel Dif >= -1.0%			12	
-1.0% > Rel Dif >= -2.0%			10	
-2.0% > Rel Dif >= -3.0%			4	
-3.0% > Rel Dif >= -5.0%			7	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			12	

BANKS PLUS TRACY EXPORTS

June

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (taf)
1922	662.3	662.0	.0	-.3
1923	409.5	421.2	2.9	11.7
1924	144.8	13.8	-90.5	-131.0
1925	245.1	201.5	-17.8	-43.6
1926	201.6	110.5	-45.2	-91.1
1927	461.8	442.7	-4.1	-19.1
1928	380.8	384.0	.8	3.2
1929	115.5	45.5	-60.6	-70.0
1930	96.7	135.8	40.4	39.1
1931	124.7	14.8	-88.1	-109.9
1932	37.6	30.3	-19.4	-7.3
1933	18.2	14.8	-18.7	-3.4
1934	20.1	18.0	-10.4	-2.1
1935	337.5	418.7	24.1	81.2
1936	373.8	418.5	12.0	44.7
1937	287.6	387.0	34.6	99.4
1938	663.1	663.1	.0	.0
1939	32.5	226.1	595.7	193.6
1940	356.3	400.1	12.3	43.8
1941	640.7	599.9	-6.4	-40.8
1942	662.7	662.3	-.1	-.4
1943	349.8	378.3	8.1	28.5
1944	95.0	237.7	150.2	142.7
1945	435.3	479.3	10.1	44.0
1946	438.6	475.4	8.4	36.8
1947	146.4	276.5	88.9	130.1
1948	538.1	526.1	-2.2	-12.0
1949	342.8	342.2	-.2	-.6
1950	462.4	458.4	-.9	-4.0
1951	384.0	380.8	-.8	-3.2
1952	663.1	663.1	.0	.0
1953	634.5	567.3	-10.6	-67.2
1954	379.0	376.1	-.8	-2.9
1955	430.5	193.4	-55.1	-237.1
1956	663.1	591.0	-10.9	-72.1
1957	458.3	457.9	-.1	-.4
1958	662.7	663.1	.1	.4
1959	379.3	372.4	-1.8	-6.9
1960	391.3	199.5	-49.0	-191.8
1961	333.3	32.1	-90.4	-301.2
1962	411.8	409.5	-.6	-2.3
1963	433.3	431.0	-.5	-2.3
1964	162.6	328.2	101.8	165.6
1965	430.0	422.4	-1.8	-7.6
1966	361.8	356.7	-1.4	-5.1
1967	663.1	663.1	.0	.0
1968	374.4	368.9	-1.5	-5.5
1969	663.1	663.1	.0	.0
1970	383.9	380.1	-1.0	-3.8
1971	560.1	508.4	-9.2	-51.7
1972	371.1	364.0	-1.9	-7.1
1973	430.2	490.2	13.9	60.0
1974	625.2	563.5	-9.9	-61.7
1975	661.7	661.7	.0	.0
1976	92.7	175.3	89.1	82.6
1977	49.2	46.4	-5.7	-2.8
1978	456.8	436.4	-4.5	-20.4
1979	325.8	500.6	53.7	174.8
1980	462.2	455.0	-1.6	-7.2
1981	80.1	227.2	183.6	147.1
1982	663.1	663.1	.0	.0
1983	663.1	663.1	.0	.0
1984	398.8	433.6	8.7	34.8
1985	41.1	226.4	450.9	185.3
1986	435.6	429.7	-1.4	-5.9
1987	50.5	42.9	-15.0	-7.6
1988	179.2	39.1	-78.2	-140.1
1989	354.2	347.2	-2.0	-7.0
1990	377.8	54.7	-85.5	-323.1
1991	170.5	40.8	-76.1	-129.7
Mean:	368.5	361.9	14.4	-6.6
Median:	379.3	384.0	-.8	-2.8
Min:	18.2	13.8	-90.5	-323.1
Max:	663.1	663.1	595.7	193.6
Alt-Base >= .0				28
Rel Dif >= .0%			29	
.0% > Rel Dif >= -1.0%			9	
-1.0% > Rel Dif >= -2.0%			8	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			2	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			20	

BANKS PLUS TRACY EXPORTS

July

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (taf)
1922	282.8	487.1	72.2	204.3
1923	410.9	393.1	-4.3	-17.8
1924	21.9	11.9	-45.7	-10.0
1925	333.1	159.9	-52.0	-173.2
1926	85.5	34.2	-60.0	-51.3
1927	299.4	629.6	110.3	330.2
1928	440.4	394.3	-10.5	-46.1
1929	27.8	20.1	-27.7	-7.7
1930	65.7	87.7	33.5	22.0
1931	20.8	13.5	-35.1	-7.3
1932	51.1	42.6	-16.6	-8.5
1933	19.1	14.0	-26.7	-5.1
1934	20.2	18.1	-10.4	-2.1
1935	306.5	270.3	-11.8	-36.2
1936	232.0	311.0	34.1	79.0
1937	144.2	145.0	.6	.8
1938	578.2	522.9	-9.6	-55.3
1939	27.9	125.3	349.1	97.4
1940	439.2	622.6	41.8	183.4
1941	351.5	317.3	-9.7	-34.2
1942	431.9	317.3	-26.5	-114.6
1943	364.7	599.8	64.5	235.1
1944	149.0	134.0	-10.1	-15.0
1945	411.7	577.0	40.2	165.3
1946	440.4	654.0	48.5	213.6
1947	94.0	75.8	-19.4	-18.2
1948	683.7	593.2	-13.2	-90.5
1949	359.0	217.0	-39.6	-142.0
1950	674.4	592.8	-12.1	-81.6
1951	572.2	567.7	-.8	-4.5
1952	686.2	686.2	.0	.0
1953	426.6	596.6	39.8	170.0
1954	480.7	584.2	21.5	103.5
1955	252.6	30.1	-88.1	-222.5
1956	524.1	503.3	-4.0	-20.8
1957	502.1	552.1	10.0	50.0
1958	637.6	594.9	-6.7	-42.7
1959	365.8	350.6	-4.2	-15.2
1960	396.6	133.8	-66.3	-262.8
1961	196.4	31.5	-84.0	-164.9
1962	569.8	403.7	-29.2	-166.1
1963	344.4	574.4	66.8	230.0
1964	104.7	187.2	78.8	82.5
1965	482.6	600.1	24.3	117.5
1966	456.5	273.6	-40.1	-182.9
1967	686.2	686.2	.0	.0
1968	375.5	466.4	24.2	90.9
1969	579.0	539.0	-6.9	-40.0
1970	419.5	552.1	31.6	132.6
1971	518.9	683.7	31.8	164.8
1972	465.5	451.1	-3.1	-14.4
1973	446.8	467.0	4.5	20.2
1974	685.0	661.7	-3.4	-23.3
1975	589.1	532.8	-9.6	-56.3
1976	92.9	150.0	61.5	57.1
1977	29.6	28.2	-4.7	-1.4
1978	339.5	384.5	13.3	45.0
1979	395.9	558.9	41.2	163.0
1980	183.1	411.6	124.8	228.5
1981	91.8	144.4	57.3	52.6
1982	646.7	461.4	-28.7	-185.3
1983	686.2	686.2	.0	.0
1984	402.2	642.3	59.7	240.1
1985	46.7	138.1	195.7	91.4
1986	230.5	535.5	132.3	305.0
1987	36.5	32.6	-10.7	-3.9
1988	100.3	33.4	-66.7	-66.9
1989	272.4	308.0	13.1	35.6
1990	201.7	20.1	-90.0	-181.6
1991	25.3	19.9	-21.3	-5.4
Mean:	333.0	352.1	11.7	19.1
Median:	359.0	393.1	-4.0	-4.5
Min:	19.1	11.9	-90.0	-262.8
Max:	686.2	686.2	349.1	330.2
Alt-Base >= .0				32
Rel Dif >= .0%			32	
.0% > Rel Dif >= -1.0%			1	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			6	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			31	

BANKS PLUS TRACY EXPORTS

August

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	416.3	684.1	64.3	267.8
1923	476.6	681.2	42.9	204.6
1924	97.2	74.0	-23.9	-23.2
1925	503.1	369.6	-26.5	-133.5
1926	186.4	149.7	-19.7	-36.7
1927	639.5	684.5	7.0	45.0
1928	676.8	680.5	.5	3.7
1929	154.4	106.4	-31.1	-48.0
1930	295.5	324.4	9.8	28.9
1931	62.3	63.3	1.6	1.0
1932	357.2	280.6	-21.4	-76.6
1933	76.1	70.5	-7.4	-5.6
1934	61.8	73.3	18.6	11.5
1935	441.3	531.9	20.5	90.6
1936	441.3	409.3	-7.3	-32.0
1937	427.3	384.4	-10.0	-42.9
1938	602.9	617.4	2.4	14.5
1939	350.0	311.6	-11.0	-38.4
1940	675.6	682.1	1.0	6.5
1941	577.5	659.8	14.3	82.3
1942	564.9	684.5	21.2	119.6
1943	638.3	684.8	7.3	46.5
1944	542.4	302.7	-44.2	-239.7
1945	449.2	520.2	15.8	71.0
1946	476.7	493.6	3.5	16.9
1947	351.5	214.3	-39.0	-137.2
1948	653.7	684.1	4.7	30.4
1949	464.2	395.6	-14.8	-68.6
1950	653.7	519.9	-20.5	-133.8
1951	684.5	683.4	-.2	-1.1
1952	666.6	661.5	-.8	-5.1
1953	629.0	683.8	8.7	54.8
1954	684.1	683.4	-.1	-.7
1955	428.7	223.6	-47.8	-205.1
1956	647.5	685.2	5.8	37.7
1957	684.1	683.4	-.1	-.7
1958	684.8	661.9	-3.3	-22.9
1959	442.5	431.9	-2.4	-10.6
1960	482.4	322.6	-33.1	-159.8
1961	370.9	306.1	-17.5	-64.8
1962	639.2	443.8	-30.6	-195.4
1963	667.1	684.1	2.5	17.0
1964	448.8	305.0	-32.0	-143.8
1965	684.5	684.8	.0	.3
1966	471.3	419.4	-11.0	-51.9
1967	685.2	658.1	-4.0	-27.1
1968	448.3	513.8	14.6	65.5
1969	657.2	602.4	-8.3	-54.8
1970	651.3	684.1	5.0	32.8
1971	656.3	682.9	4.1	26.6
1972	633.1	661.4	4.5	28.3
1973	682.8	683.8	.1	1.0
1974	684.1	684.1	.0	.0
1975	683.8	683.6	.0	-.2
1976	597.4	444.4	-25.6	-153.0
1977	208.3	209.6	.6	1.3
1978	415.8	685.2	64.8	269.4
1979	434.4	532.3	22.5	97.9
1980	511.1	685.2	34.1	174.1
1981	622.0	372.3	-40.1	-249.7
1982	685.2	655.8	-4.3	-29.4
1983	646.3	685.2	6.0	38.9
1984	640.3	684.5	6.9	44.2
1985	525.7	334.3	-36.4	-191.4
1986	631.3	685.2	8.5	53.9
1987	183.8	121.0	-34.2	-62.8
1988	241.2	245.9	1.9	4.7
1989	378.4	641.1	69.4	262.7
1990	366.1	149.5	-59.2	-216.6
1991	131.6	53.7	-59.2	-77.9
Mean:	494.7	484.9	-3.3	-9.8
Median:	511.1	531.9	.0	-.2
Min:	61.8	53.7	-59.2	-249.7
Max:	685.2	685.2	69.4	269.4
Alt-Base >= .0				35
Rel Dif >= .0%			36	
.0% > Rel Dif >= -1.0%			4	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			3	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			26	

BANKS PLUS TRACY EXPORTS

September

Water Year	Base Export (taf)	2030 w/ WFP Export (taf)	2030 w/ WFP Rel Change (%)	2030 w/ WFP Abs Diff (taf)
1922	580.6	658.0	13.3	77.4
1923	601.0	650.8	8.3	49.8
1924	244.1	179.8	-26.3	-64.3
1925	530.8	509.9	-3.9	-20.9
1926	385.4	356.6	-7.5	-28.8
1927	514.4	658.2	28.0	143.8
1928	552.8	537.8	-2.7	-15.0
1929	315.2	264.6	-16.1	-50.6
1930	417.8	432.1	3.4	14.3
1931	226.9	152.8	-32.7	-74.1
1932	440.9	389.5	-11.7	-51.4
1933	214.6	208.0	-3.1	-6.6
1934	167.4	140.2	-16.2	-27.2
1935	559.6	599.2	7.1	39.6
1936	561.9	599.8	6.7	37.9
1937	557.4	564.7	1.3	7.3
1938	658.6	658.6	.0	.0
1939	404.6	408.1	.9	3.5
1940	552.4	657.0	18.9	104.6
1941	658.6	594.0	-9.8	-64.6
1942	658.4	611.1	-7.2	-47.3
1943	509.6	658.4	29.2	148.8
1944	485.1	404.2	-16.7	-80.9
1945	573.4	626.2	9.2	52.8
1946	601.1	608.3	1.2	7.2
1947	470.1	371.1	-21.1	-99.0
1948	593.1	617.0	4.0	23.9
1949	510.8	443.8	-13.1	-67.0
1950	625.5	584.7	-6.5	-40.8
1951	632.3	602.9	-4.6	-29.4
1952	539.1	658.6	22.2	119.5
1953	657.7	657.9	.0	.2
1954	604.9	657.7	8.7	52.8
1955	479.1	379.7	-20.7	-99.4
1956	658.6	658.6	.0	.0
1957	605.1	582.2	-3.8	-22.9
1958	658.4	658.6	.0	.2
1959	570.1	565.9	-.7	-4.2
1960	525.1	417.5	-20.5	-107.6
1961	432.2	387.4	-10.4	-44.8
1962	626.9	572.0	-8.8	-54.9
1963	623.7	658.0	5.5	34.3
1964	480.0	435.5	-9.3	-44.5
1965	614.8	658.4	7.1	43.6
1966	598.4	500.4	-16.4	-98.0
1967	658.0	658.6	.1	.6
1968	573.2	604.2	5.4	31.0
1969	658.6	658.6	.0	.0
1970	526.9	658.0	24.9	131.1
1971	657.4	657.4	.0	.0
1972	626.8	567.8	-9.4	-59.0
1973	556.2	598.7	7.6	42.5
1974	658.0	658.0	.0	.0
1975	657.9	657.9	.0	.0
1976	426.0	385.6	-9.5	-40.4
1977	145.0	152.7	5.3	7.7
1978	624.4	633.6	1.5	9.2
1979	561.1	638.1	13.7	77.0
1980	658.6	606.6	-7.9	-52.0
1981	519.8	494.7	-4.8	-25.1
1982	658.6	658.6	.0	.0
1983	528.1	658.6	24.7	130.5
1984	516.1	658.2	27.5	142.1
1985	496.6	464.9	-6.4	-31.7
1986	514.5	633.1	23.1	118.6
1987	386.1	301.4	-21.9	-84.7
1988	289.6	316.1	9.2	26.5
1989	458.3	530.1	15.7	71.8
1990	366.2	273.6	-25.3	-92.6
1991	247.1	230.6	-6.7	-16.5
Mean:	520.7	522.2	-.7	1.5
Median:	552.8	594.0	.0	.0
Min:	145.0	140.2	-32.7	-107.6
Max:	658.6	658.6	29.2	148.8
Alt-Base >= .0				38
Rel Dif >= .0%			38	
.0% > Rel Dif >= -1.0%			1	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			5	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			25	

RETURN TO TABLE OF CONTENTS

Water Forum Proposal
Environmental Impact Report

TECHNICAL APPENDIX K
No Project Constrained versus 2030 with Water Forum Proposal

TECHNICAL APPENDIX K CONTENTS

HOME

Section 1

FOLSOM RESERVOIR STORAGE

FOLSOM RESERVOIR STORAGE
October

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	443.9	452.5	1.9	8.6
1923	562.6	571.2	1.5	8.6
1924	495.1	556.5	12.4	61.4
1925	266.1	271.0	1.8	4.9
1926	544.3	519.5	-4.6	-24.8
1927	335.0	352.6	5.3	17.6
1928	410.7	446.2	8.6	35.5
1929	319.0	378.1	18.5	59.1
1930	260.7	274.1	5.1	13.4
1931	374.3	394.8	5.5	20.5
1932	245.7	254.9	3.7	9.2
1933	544.1	559.7	2.9	15.6
1934	305.5	346.0	13.3	40.5
1935	267.5	274.6	2.7	7.1
1936	555.9	544.4	-2.1	-11.5
1937	555.4	563.6	1.5	8.2
1938	561.5	570.7	1.6	9.2
1939	564.1	574.5	1.8	10.4
1940	310.7	323.5	4.1	12.8
1941	378.2	399.5	5.6	21.3
1942	560.9	572.3	2.0	11.4
1943	559.8	569.2	1.7	9.4
1944	391.0	438.9	12.3	47.9
1945	363.3	389.5	7.2	26.2
1946	399.3	431.3	8.0	32.0
1947	376.6	411.3	9.2	34.7
1948	383.8	398.1	3.7	14.3
1949	447.7	519.9	16.1	72.2
1950	380.3	414.3	8.9	34.0
1951	591.3	601.2	1.7	9.9
1952	391.4	421.7	7.7	30.3
1953	577.5	587.7	1.8	10.2
1954	557.5	567.6	1.8	10.1
1955	367.4	386.9	5.3	19.5
1956	360.3	362.2	.5	1.9
1957	578.4	588.5	1.7	10.1
1958	400.3	437.4	9.3	37.1
1959	554.3	564.5	1.8	10.2
1960	318.5	329.0	3.3	10.5
1961	362.9	366.3	.9	3.4
1962	306.3	329.6	7.6	23.3
1963	650.0	650.0	.0	.0
1964	507.0	567.8	12.0	60.8
1965	401.9	407.9	1.5	6.0
1966	480.9	541.7	12.6	60.8
1967	319.8	345.5	8.0	25.7
1968	573.2	583.3	1.8	10.1
1969	354.9	365.4	3.0	10.5
1970	578.6	588.9	1.8	10.3
1971	373.1	387.4	3.8	14.3
1972	557.4	567.6	1.8	10.2
1973	348.8	359.0	2.9	10.2
1974	396.2	418.5	5.6	22.3
1975	566.6	575.8	1.6	9.2
1976	613.1	623.2	1.6	10.1
1977	250.2	248.8	-.6	-1.4
1978	81.1	85.0	4.8	3.9
1979	450.3	518.7	15.2	68.4
1980	372.2	402.2	8.1	30.0
1981	457.3	521.5	14.0	64.2
1982	358.6	366.9	2.3	8.3
1983	650.0	650.0	.0	.0
1984	650.0	650.0	.0	.0
1985	425.1	444.2	4.5	19.1
1986	310.7	309.4	-.4	-1.3
1987	420.6	443.3	5.4	22.7
1988	221.9	228.0	2.7	6.1
1989	250.3	253.3	1.2	3.0
1990	360.2	365.5	1.5	5.3
1991	243.9	235.0	-3.6	-8.9
Mean:	425.0	443.1	4.5	18.1
Median:	396.2	421.7	2.9	10.3
Min:	81.1	85.0	-4.6	-24.8
Max:	650.0	650.0	18.5	72.2
Littoral Habitat(ac)	-252.8	-61.9	-75.5	190.9

FOLSOM RESERVOIR STORAGE
November

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	361.4	376.1	4.1	14.7
1923	526.2	542.1	3.0	15.9
1924	401.6	469.1	16.8	67.5
1925	284.7	305.4	7.3	20.7
1926	473.0	453.1	-4.2	-19.9
1927	458.5	479.7	4.6	21.2
1928	422.7	469.2	11.0	46.5
1929	271.6	322.9	18.9	51.3
1930	213.7	229.0	7.2	15.3
1931	353.1	362.3	2.6	9.2
1932	229.7	241.0	4.9	11.3
1933	458.8	480.2	4.7	21.4
1934	264.5	308.0	16.4	43.5
1935	336.7	335.5	-.4	-1.2
1936	490.4	485.0	-1.1	-5.4
1937	470.1	484.4	3.0	14.3
1938	509.8	526.4	3.3	16.6
1939	497.9	515.3	3.5	17.4
1940	274.9	276.3	.5	1.4
1941	354.5	367.1	3.6	12.6
1942	507.3	525.8	3.6	18.5
1943	575.0	575.0	.0	.0
1944	331.0	370.0	11.8	39.0
1945	409.2	423.0	3.4	13.8
1946	468.5	492.3	5.1	23.8
1947	411.7	423.2	2.8	11.5
1948	356.7	374.3	4.9	17.6
1949	377.7	456.7	20.9	79.0
1950	324.6	334.7	3.1	10.1
1951	396.0	396.0	.0	.0
1952	422.9	460.2	8.8	37.3
1953	519.7	535.7	3.1	16.0
1954	520.5	537.4	3.2	16.9
1955	330.3	339.6	2.8	9.3
1956	323.8	314.3	-2.9	-9.5
1957	508.5	526.4	3.5	17.9
1958	351.9	380.9	8.2	29.0
1959	486.3	503.3	3.5	17.0
1960	258.0	271.8	5.3	13.8
1961	327.7	335.6	2.4	7.9
1962	251.6	279.1	10.9	27.5
1963	575.0	575.0	.0	.0
1964	575.0	575.0	.0	.0
1965	401.2	397.9	-.8	-3.3
1966	467.7	534.3	14.2	66.6
1967	338.1	366.7	8.5	28.6
1968	546.1	563.0	3.1	16.9
1969	385.2	400.9	4.1	15.7
1970	522.9	540.1	3.3	17.2
1971	470.5	488.5	3.8	18.0
1972	508.4	525.4	3.3	17.0
1973	390.0	406.1	4.1	16.1
1974	571.0	573.0	.4	2.0
1975	483.9	499.9	3.3	16.0
1976	575.0	575.0	.0	.0
1977	236.4	235.3	-.5	-1.1
1978	86.9	96.4	10.9	9.5
1979	379.5	452.9	19.3	73.4
1980	374.8	415.5	10.9	40.7
1981	384.4	455.4	18.5	71.0
1982	553.0	553.0	.0	.0
1983	574.0	574.0	.0	.0
1984	403.0	408.0	1.2	5.0
1985	516.7	526.6	1.9	9.9
1986	336.8	325.0	-3.5	-11.8
1987	357.7	372.3	4.1	14.6
1988	182.1	192.9	5.9	10.8
1989	318.4	324.0	1.8	5.6
1990	347.9	359.1	3.2	11.2
1991	215.9	194.9	-9.7	-21.0
Mean:	402.7	419.9	4.6	17.1
Median:	396.0	423.0	3.3	14.7
Min:	86.9	96.4	-9.7	-21.0
Max:	575.0	575.0	20.9	79.0
Littoral Habitat(ac)	-496.4	-308.7	-37.8	187.7

FOLSOM RESERVOIR STORAGE
December

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	379.5	400.8	5.6	21.3
1923	575.0	575.0	.0	.0
1924	306.2	378.8	23.7	72.6
1925	322.7	360.8	11.8	38.1
1926	403.7	388.0	-3.9	-15.7
1927	520.7	545.1	4.7	24.4
1928	403.7	456.6	13.1	52.9
1929	229.7	272.8	18.8	43.1
1930	324.7	342.7	5.5	18.0
1931	290.9	287.8	-1.1	-3.1
1932	328.9	343.0	4.3	14.1
1933	368.4	395.8	7.4	27.4
1934	302.5	349.6	15.6	47.1
1935	382.7	380.6	-.5	-2.1
1936	410.6	410.7	.0	.1
1937	384.8	404.3	5.1	19.5
1938	564.0	564.0	.0	.0
1939	421.7	445.4	5.6	23.7
1940	249.5	237.6	-4.8	-11.9
1941	522.3	525.8	.7	3.5
1942	575.0	575.0	.0	.0
1943	574.0	574.0	.0	.0
1944	257.6	287.4	11.6	29.8
1945	437.2	438.7	.3	1.5
1946	575.0	575.0	.0	.0
1947	422.1	407.8	-3.4	-14.3
1948	307.4	328.1	6.7	20.7
1949	327.6	412.9	26.0	85.3
1950	258.6	243.3	-5.9	-15.3
1951	319.0	319.0	.0	.0
1952	575.0	575.0	.0	.0
1953	521.2	542.1	4.0	20.9
1954	470.6	492.4	4.6	21.8
1955	376.9	373.1	-1.0	-3.8
1956	547.0	547.0	.0	.0
1957	440.6	463.4	5.2	22.8
1958	353.8	373.6	5.6	19.8
1959	395.4	418.4	5.8	23.0
1960	187.3	212.0	13.2	24.7
1961	285.1	297.9	4.5	12.8
1962	228.7	260.1	13.7	31.4
1963	575.0	575.0	.0	.0
1964	538.1	504.8	-6.2	-33.3
1965	420.0	413.0	-1.7	-7.0
1966	429.1	501.7	16.9	72.6
1967	523.3	555.3	6.1	32.0
1968	504.2	527.0	4.5	22.8
1969	444.2	465.3	4.8	21.1
1970	573.0	573.0	.0	.0
1971	575.0	575.0	.0	.0
1972	529.1	553.1	4.5	24.0
1973	513.4	533.8	4.0	20.4
1974	564.0	566.0	.4	2.0
1975	435.3	457.4	5.1	22.1
1976	502.9	507.7	1.0	4.8
1977	193.0	193.0	.0	.0
1978	232.4	246.8	6.2	14.4
1979	299.7	380.3	26.9	80.6
1980	397.8	446.6	12.3	48.8
1981	312.4	389.7	24.7	77.3
1982	399.0	400.0	.3	1.0
1983	570.0	570.0	.0	.0
1984	353.0	353.0	.0	.0
1985	529.7	527.6	-.4	-2.1
1986	421.5	397.2	-5.8	-24.3
1987	272.2	281.5	3.4	9.3
1988	231.2	244.0	5.5	12.8
1989	355.8	363.9	2.3	8.1
1990	303.8	320.0	5.3	16.2
1991	184.0	149.2	-18.9	-34.8
Mean:	404.4	419.3	4.3	14.9
Median:	399.0	407.8	4.0	12.8
Min:	184.0	149.2	-18.9	-34.8
Max:	575.0	575.0	26.9	85.3
Littoral Habitat(ac)	-477.5	-314.4	-34.2	163.1

FOLSOM RESERVOIR STORAGE
January

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	372.8	400.6	7.5	27.8
1923	575.0	575.0	.0	.0
1924	224.8	302.8	34.7	78.0
1925	278.7	301.8	8.3	23.1
1926	338.6	328.1	-3.1	-10.5
1927	573.0	575.0	.3	2.0
1928	388.0	432.0	11.3	44.0
1929	187.8	225.0	19.8	37.2
1930	360.1	380.7	5.7	20.6
1931	264.3	258.3	-2.3	-6.0
1932	382.4	397.9	4.1	15.5
1933	306.2	338.5	10.5	32.3
1934	349.6	400.2	14.5	50.6
1935	427.2	427.0	.0	-.2
1936	575.0	575.0	.0	.0
1937	325.1	348.9	7.3	23.8
1938	562.0	561.0	-.2	-1.0
1939	360.8	375.4	4.0	14.6
1940	572.0	572.0	.0	.0
1941	575.0	575.0	.0	.0
1942	566.0	564.0	-.4	-2.0
1943	557.0	557.0	.0	.0
1944	220.2	243.9	10.8	23.7
1945	401.2	405.8	1.1	4.6
1946	566.0	566.0	.0	.0
1947	350.5	342.0	-2.4	-8.5
1948	348.6	371.1	6.5	22.5
1949	261.8	353.3	35.0	91.5
1950	469.7	435.2	-7.3	-34.5
1951	342.0	342.0	.0	.0
1952	575.0	575.0	.0	.0
1953	574.0	574.0	.0	.0
1954	460.6	488.4	6.0	27.8
1955	407.4	406.8	-.1	-.6
1956	392.0	394.0	.5	2.0
1957	373.5	402.4	7.7	28.9
1958	402.3	428.3	6.5	26.0
1959	428.0	457.1	6.8	29.1
1960	176.6	209.3	18.5	32.7
1961	223.4	240.1	7.5	16.7
1962	203.9	239.0	17.2	35.1
1963	555.0	554.0	-.2	-1.0
1964	538.7	511.8	-5.0	-26.9
1965	368.0	368.0	.0	.0
1966	415.4	477.8	15.0	62.4
1967	563.0	567.0	.7	4.0
1968	479.0	509.0	6.3	30.0
1969	554.0	554.0	.0	.0
1970	420.0	420.0	.0	.0
1971	575.0	575.0	.0	.0
1972	487.6	518.7	6.4	31.1
1973	564.0	564.0	.0	.0
1974	505.0	508.0	.6	3.0
1975	396.5	424.7	7.1	28.2
1976	392.1	403.0	2.8	10.9
1977	169.8	170.4	.4	.6
1978	575.0	568.0	-1.2	-7.0
1979	348.9	435.9	24.9	87.0
1980	460.0	488.0	6.1	28.0
1981	292.6	377.2	28.9	84.6
1982	387.0	388.0	.3	1.0
1983	561.0	561.0	.0	.0
1984	359.0	361.0	.6	2.0
1985	453.8	455.0	.3	1.2
1986	562.0	562.0	.0	.0
1987	221.1	224.3	1.4	3.2
1988	322.7	337.4	4.6	14.7
1989	313.2	323.4	3.3	10.2
1990	293.0	314.3	7.3	21.3
1991	144.9	101.3	-30.1	-43.6
Mean:	408.2	422.4	4.5	14.2
Median:	392.1	406.8	.6	3.0
Min:	144.9	101.3	-30.1	-43.6
Max:	575.0	575.0	35.0	91.5
Littoral Habitat(ac)	-435.5	-281.3	-35.4	154.2

FOLSOM RESERVOIR STORAGE
February

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	575.0	575.0	.0	.0
1923	573.0	573.0	.0	.0
1924	218.6	293.4	34.2	74.8
1925	564.0	554.0	-1.8	-10.0
1926	486.6	481.2	-1.1	-5.4
1927	560.0	563.0	.5	3.0
1928	396.5	447.0	12.7	50.5
1929	216.0	250.6	16.0	34.6
1930	373.5	396.7	6.2	23.2
1931	257.5	252.9	-1.8	-4.6
1932	570.6	575.0	.8	4.4
1933	257.7	294.9	14.4	37.2
1934	392.8	432.0	10.0	39.2
1935	457.8	459.6	.4	1.8
1936	574.0	574.0	.0	.0
1937	547.3	575.0	5.1	27.7
1938	559.0	558.0	-.2	-1.0
1939	314.9	335.9	6.7	21.0
1940	560.0	559.0	-.2	-1.0
1941	575.0	574.0	-.2	-1.0
1942	557.0	555.0	-.4	-2.0
1943	546.0	546.0	.0	.0
1944	276.5	297.6	7.6	21.1
1945	566.0	566.0	.0	.0
1946	550.0	550.0	.0	.0
1947	382.8	394.2	3.0	11.4
1948	309.0	321.6	4.1	12.6
1949	256.3	330.8	29.1	74.5
1950	575.0	575.0	.0	.0
1951	354.0	354.0	.0	.0
1952	575.0	575.0	.0	.0
1953	569.0	568.0	-.2	-1.0
1954	533.9	567.9	6.4	34.0
1955	386.7	389.2	.6	2.5
1956	387.0	390.0	.8	3.0
1957	506.0	541.0	6.9	35.0
1958	566.0	566.0	.0	.0
1959	493.8	529.0	7.1	35.2
1960	423.8	463.9	9.5	40.1
1961	246.9	266.6	8.0	19.7
1962	528.4	558.9	5.8	30.5
1963	475.0	478.0	.6	3.0
1964	514.6	494.1	-4.0	-20.5
1965	367.0	367.0	.0	.0
1966	402.9	471.6	17.1	68.7
1967	553.0	556.0	.5	3.0
1968	558.0	558.0	.0	.0
1969	538.0	538.0	.0	.0
1970	391.0	391.0	.0	.0
1971	568.0	567.0	-.2	-1.0
1972	540.9	575.0	6.3	34.1
1973	560.0	560.0	.0	.0
1974	510.0	508.0	-.4	-2.0
1975	519.6	552.9	6.4	33.3
1976	332.7	349.8	5.1	17.1
1977	154.1	155.3	.8	1.2
1978	575.0	562.0	-2.3	-13.0
1979	446.9	526.3	17.8	79.4
1980	374.0	390.0	4.3	16.0
1981	304.0	371.7	22.3	67.7
1982	338.0	339.0	.3	1.0
1983	550.0	550.0	.0	.0
1984	362.0	364.0	.6	2.0
1985	465.7	469.2	.8	3.5
1986	383.0	386.0	.8	3.0
1987	251.9	252.4	.2	.5
1988	292.7	309.3	5.7	16.6
1989	307.3	319.6	4.0	12.3
1990	300.5	308.3	2.6	7.8
1991	123.7	72.9	-41.1	-50.8
Mean:	438.3	451.0	3.4	12.8
Median:	465.7	478.0	.6	2.5
Min:	123.7	72.9	-41.1	-50.8
Max:	575.0	575.0	34.2	79.4
Littoral Habitat(ac)	-112.7	19.8	-117.6	132.5

FOLSOM RESERVOIR STORAGE
March

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	595.4	602.8	1.2	7.4
1923	573.2	579.2	1.0	6.0
1924	180.9	240.8	33.1	59.9
1925	590.0	560.8	-4.9	-29.2
1926	485.8	483.0	-.6	-2.8
1927	662.0	662.0	.0	.0
1928	643.0	648.0	.8	5.0
1929	251.5	288.9	14.9	37.4
1930	521.0	547.7	5.1	26.7
1931	304.0	294.1	-3.3	-9.9
1932	626.1	636.2	1.6	10.1
1933	279.5	319.6	14.3	40.1
1934	462.0	486.9	5.4	24.9
1935	452.8	460.8	1.8	8.0
1936	670.0	669.0	-.1	-1.0
1937	675.0	675.0	.0	.0
1938	670.0	670.0	.0	.0
1939	390.5	413.7	5.9	23.2
1940	626.0	615.0	-1.8	-11.0
1941	673.0	673.0	.0	.0
1942	523.5	528.7	1.0	5.2
1943	622.0	623.0	.2	1.0
1944	367.0	391.5	6.7	24.5
1945	617.7	624.7	1.1	7.0
1946	656.7	663.0	1.0	6.3
1947	503.3	517.1	2.7	13.8
1948	272.6	292.2	7.2	19.6
1949	421.5	501.9	19.1	80.4
1950	670.9	663.3	-1.1	-7.6
1951	587.0	587.0	.0	.0
1952	675.0	675.0	.0	.0
1953	557.7	563.7	1.1	6.0
1954	671.0	671.0	.0	.0
1955	377.2	382.9	1.5	5.7
1956	479.7	489.8	2.1	10.1
1957	665.0	665.0	.0	.0
1958	672.0	672.0	.0	.0
1959	526.2	563.3	7.1	37.1
1960	619.3	662.6	7.0	43.3
1961	298.5	320.1	7.2	21.6
1962	592.5	626.0	5.7	33.5
1963	486.0	496.1	2.1	10.1
1964	483.6	466.6	-3.5	-17.0
1965	444.1	451.2	1.6	7.1
1966	459.4	516.4	12.4	57.0
1967	647.0	646.0	-.2	-1.0
1968	537.9	654.0	21.6	116.1
1969	594.5	600.6	1.0	6.1
1970	595.0	584.6	-1.7	-10.4
1971	660.0	659.0	-.2	-1.0
1972	656.0	657.0	.2	1.0
1973	671.0	671.0	.0	.0
1974	608.0	605.0	-.5	-3.0
1975	675.0	675.0	.0	.0
1976	317.6	329.6	3.8	12.0
1977	153.8	153.0	-.5	-.8
1978	662.0	639.0	-3.5	-23.0
1979	589.8	660.6	12.0	70.8
1980	597.0	608.0	1.8	11.0
1981	410.7	474.3	15.5	63.6
1982	581.0	582.0	.2	1.0
1983	632.0	634.0	.3	2.0
1984	589.0	580.4	-1.5	-8.6
1985	503.8	510.6	1.3	6.8
1986	578.0	578.0	.0	.0
1987	348.1	339.6	-2.4	-8.5
1988	296.2	308.4	4.1	12.2
1989	663.0	640.0	-3.5	-23.0
1990	380.2	389.7	2.5	9.5
1991	273.3	226.1	-17.3	-47.2
Mean:	525.7	536.4	2.7	10.6
Median:	581.0	580.4	1.0	5.2
Min:	153.8	153.0	-17.3	-47.2
Max:	675.0	675.0	33.1	116.1
Littoral Habitat(ac)	744.3	841.0	13.0	96.7

FOLSOM RESERVOIR STORAGE
April

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	714.5	731.3	2.4	16.8
1923	800.0	800.0	.0	.0
1924	215.9	266.1	23.3	50.2
1925	800.0	800.0	.0	.0
1926	715.9	718.2	.3	2.3
1927	800.0	800.0	.0	.0
1928	800.0	800.0	.0	.0
1929	347.6	358.3	3.1	10.7
1930	606.4	637.0	5.0	30.6
1931	347.5	333.9	-3.9	-13.6
1932	691.3	708.3	2.5	17.0
1933	326.8	355.1	8.7	28.3
1934	400.0	400.0	.0	.0
1935	800.0	800.0	.0	.0
1936	800.0	800.0	.0	.0
1937	800.0	800.0	.0	.0
1938	800.0	800.0	.0	.0
1939	499.1	510.0	2.2	10.9
1940	800.0	800.0	.0	.0
1941	800.0	800.0	.0	.0
1942	743.1	757.5	1.9	14.4
1943	800.0	800.0	.0	.0
1944	400.2	428.5	7.1	28.3
1945	718.2	734.1	2.2	15.9
1946	800.0	800.0	.0	.0
1947	549.7	567.4	3.2	17.7
1948	544.3	573.1	5.3	28.8
1949	599.7	687.4	14.6	87.7
1950	800.0	800.0	.0	.0
1951	800.0	800.0	.0	.0
1952	800.0	800.0	.0	.0
1953	685.1	686.2	.2	1.1
1954	800.0	800.0	.0	.0
1955	428.2	437.6	2.2	9.4
1956	593.8	612.0	3.1	18.2
1957	674.7	683.7	1.3	9.0
1958	800.0	800.0	.0	.0
1959	569.2	608.7	6.9	39.5
1960	696.5	743.5	6.7	47.0
1961	390.9	414.9	6.1	24.0
1962	800.0	800.0	.0	.0
1963	800.0	800.0	.0	.0
1964	532.2	519.1	-2.5	-13.1
1965	800.0	800.0	.0	.0
1966	604.6	650.9	7.7	46.3
1967	761.7	769.8	1.1	8.1
1968	570.2	691.3	21.2	121.1
1969	800.0	800.0	.0	.0
1970	647.7	641.7	-.9	-6.0
1971	756.2	764.4	1.1	8.2
1972	712.0	718.3	.9	6.3
1973	782.3	791.3	1.2	9.0
1974	800.0	800.0	.0	.0
1975	684.5	695.4	1.6	10.9
1976	364.5	371.3	1.9	6.8
1977	157.3	153.6	-2.4	-3.7
1978	800.0	800.0	.0	.0
1979	677.8	742.4	9.5	64.6
1980	777.1	797.3	2.6	20.2
1981	504.2	541.6	7.4	37.4
1982	800.0	800.0	.0	.0
1983	800.0	800.0	.0	.0
1984	721.4	717.1	-.6	-4.3
1985	657.5	668.1	1.6	10.6
1986	783.6	792.7	1.2	9.1
1987	431.6	422.5	-2.1	-9.1
1988	366.5	375.8	2.5	9.3
1989	800.0	800.0	.0	.0
1990	400.0	400.0	.0	.0
1991	375.0	331.6	-11.6	-43.4
Mean:	650.4	661.6	2.1	11.2
Median:	714.5	731.3	.0	.0
Min:	157.3	153.6	-11.6	-43.4
Max:	800.0	800.0	23.3	121.1
Littoral Habitat(ac)	1788.8	1873.8	4.8	85.0

FOLSOM RESERVOIR STORAGE
May

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	975.0	975.0	.0	.0
1923	975.0	975.0	.0	.0
1924	250.4	286.1	14.3	35.7
1925	975.0	975.0	.0	.0
1926	643.2	650.6	1.2	7.4
1927	975.0	975.0	.0	.0
1928	869.0	881.5	1.4	12.5
1929	384.0	398.9	3.9	14.9
1930	582.0	600.1	3.1	18.1
1931	383.1	382.9	-.1	-.2
1932	858.2	878.9	2.4	20.7
1933	356.4	388.6	9.0	32.2
1934	415.6	414.6	-.2	-1.0
1935	951.2	975.0	2.5	23.8
1936	938.1	950.9	1.4	12.8
1937	975.0	975.0	.0	.0
1938	975.0	975.0	.0	.0
1939	460.7	476.2	3.4	15.5
1940	934.7	939.7	.5	5.0
1941	975.0	975.0	.0	.0
1942	975.0	975.0	.0	.0
1943	882.2	894.4	1.4	12.2
1944	471.8	504.9	7.0	33.1
1945	881.1	908.7	3.1	27.6
1946	956.8	968.2	1.2	11.4
1947	507.4	523.0	3.1	15.6
1948	716.4	759.2	6.0	42.8
1949	764.4	846.6	10.8	82.2
1950	951.1	962.5	1.2	11.4
1951	964.9	975.0	1.0	10.1
1952	975.0	975.0	.0	.0
1953	768.0	781.2	1.7	13.2
1954	835.6	841.2	.7	5.6
1955	517.8	532.0	2.7	14.2
1956	906.6	935.8	3.2	29.2
1957	881.0	887.8	.8	6.8
1958	975.0	975.0	.0	.0
1959	513.8	541.5	5.4	27.7
1960	675.2	726.0	7.5	50.8
1961	431.6	458.9	6.3	27.3
1962	843.7	855.5	1.4	11.8
1963	975.0	975.0	.0	.0
1964	583.1	576.1	-1.2	-7.0
1965	951.7	964.9	1.4	13.2
1966	556.4	609.3	9.5	52.9
1967	975.0	975.0	.0	.0
1968	523.3	650.7	24.3	127.4
1969	975.0	975.0	.0	.0
1970	713.4	713.3	.0	-.1
1971	888.8	909.1	2.3	20.3
1972	778.2	790.1	1.5	11.9
1973	975.0	975.0	.0	.0
1974	975.0	975.0	.0	.0
1975	926.9	949.8	2.5	22.9
1976	420.3	421.2	.2	.9
1977	164.2	159.5	-2.9	-4.7
1978	954.8	975.0	2.1	20.2
1979	904.1	975.0	7.8	70.9
1980	890.6	910.0	2.2	19.4
1981	482.6	509.2	5.5	26.6
1982	975.0	975.0	.0	.0
1983	975.0	975.0	.0	.0
1984	873.1	872.5	-.1	-.6
1985	629.3	645.6	2.6	16.3
1986	869.6	890.7	2.4	21.1
1987	448.7	446.0	-.6	-2.7
1988	389.9	396.7	1.7	6.8
1989	820.7	843.0	2.7	22.3
1990	382.8	386.8	1.0	4.0
1991	415.4	392.3	-5.6	-23.1
Mean:	752.0	767.0	2.4	15.0
Median:	869.0	878.9	1.4	11.4
Min:	164.2	159.5	-5.6	-23.1
Max:	975.0	975.0	24.3	127.4
Littoral Habitat(ac)	2515.9	2615.0	3.9	99.1

FOLSOM RESERVOIR STORAGE
June

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	975.0	975.0	.0	.0
1923	877.4	912.6	4.0	35.2
1924	265.9	286.3	7.7	20.4
1925	797.3	793.7	-.5	-3.6
1926	534.7	538.7	.7	4.0
1927	975.0	975.0	.0	.0
1928	659.6	683.6	3.6	24.0
1929	343.2	363.5	5.9	20.3
1930	530.1	540.8	2.0	10.7
1931	404.0	404.1	.0	.1
1932	829.2	855.3	3.1	26.1
1933	380.4	416.9	9.6	36.5
1934	340.0	350.0	2.9	10.0
1935	958.1	975.0	1.8	16.9
1936	975.0	975.0	.0	.0
1937	890.9	898.6	.9	7.7
1938	975.0	975.0	.0	.0
1939	454.1	468.1	3.1	14.0
1940	843.2	863.8	2.4	20.6
1941	934.8	936.5	.2	1.7
1942	975.0	975.0	.0	.0
1943	845.6	872.4	3.2	26.8
1944	458.0	483.5	5.6	25.5
1945	737.2	773.1	4.9	35.9
1946	740.7	761.5	2.8	20.8
1947	471.4	493.4	4.7	22.0
1948	804.8	864.8	7.5	60.0
1949	693.8	717.1	3.4	23.3
1950	952.6	975.0	2.4	22.4
1951	858.8	884.4	3.0	25.6
1952	975.0	975.0	.0	.0
1953	902.7	932.1	3.3	29.4
1954	676.9	680.5	.5	3.6
1955	499.1	519.6	4.1	20.5
1956	975.0	975.0	.0	.0
1957	788.3	800.1	1.5	11.8
1958	975.0	975.0	.0	.0
1959	480.9	499.0	3.8	18.1
1960	596.6	654.7	9.7	58.1
1961	452.5	485.0	7.2	32.5
1962	782.0	812.4	3.9	30.4
1963	942.7	958.0	1.6	15.3
1964	547.1	546.8	-.1	-.3
1965	931.5	960.2	3.1	28.7
1966	484.0	545.2	12.6	61.2
1967	975.0	975.0	.0	.0
1968	467.1	572.7	22.6	105.6
1969	975.0	975.0	.0	.0
1970	631.7	638.5	1.1	6.8
1971	945.1	975.0	3.2	29.9
1972	580.0	600.0	3.4	20.0
1973	689.1	704.4	2.2	15.3
1974	975.0	975.0	.0	.0
1975	975.0	975.0	.0	.0
1976	340.0	350.0	2.9	10.0
1977	150.0	145.5	-3.0	-4.5
1978	950.6	975.0	2.6	24.4
1979	594.0	680.6	14.6	86.6
1980	863.5	897.3	3.9	33.8
1981	460.7	463.7	.7	3.0
1982	975.0	975.0	.0	.0
1983	975.0	975.0	.0	.0
1984	774.5	781.1	.9	6.6
1985	514.6	519.6	1.0	5.0
1986	858.0	879.4	2.5	21.4
1987	432.4	431.2	-.3	-1.2
1988	340.0	350.0	2.9	10.0
1989	663.9	664.4	.1	.5
1990	340.0	350.0	2.9	10.0
1991	368.3	350.0	-5.0	-18.3
Mean:	704.3	721.2	2.8	16.9
Median:	740.7	773.1	2.4	11.8
Min:	150.0	145.5	-5.0	-18.3
Max:	975.0	975.0	22.6	105.6
Littoral Habitat(ac)	2187.3	2306.1	5.4	118.7

FOLSOM RESERVOIR STORAGE
July

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	897.8	910.5	1.4	12.7
1923	828.2	863.5	4.3	35.3
1924	276.8	280.0	1.2	3.2
1925	739.8	702.2	-5.1	-37.6
1926	400.3	405.9	1.4	5.6
1927	690.6	708.7	2.6	18.1
1928	587.6	600.0	2.1	12.4
1929	290.0	307.3	6.0	17.3
1930	415.8	433.3	4.2	17.5
1931	289.2	300.0	3.7	10.8
1932	760.4	802.3	5.5	41.9
1933	308.3	349.2	13.3	40.9
1934	279.5	289.9	3.7	10.4
1935	886.8	889.6	.3	2.8
1936	857.2	864.3	.8	7.1
1937	828.2	872.8	5.4	44.6
1938	950.0	950.0	.0	.0
1939	375.0	389.1	3.8	14.1
1940	590.0	600.0	1.7	10.0
1941	917.6	937.3	2.1	19.7
1942	950.0	950.0	.0	.0
1943	600.0	618.7	3.1	18.7
1944	431.8	454.8	5.3	23.0
1945	580.0	600.0	3.4	20.0
1946	580.0	600.0	3.4	20.0
1947	407.8	410.7	.7	2.9
1948	771.1	809.9	5.0	38.8
1949	572.5	601.2	5.0	28.7
1950	857.6	873.4	1.8	15.8
1951	590.0	600.0	1.7	10.0
1952	950.0	950.0	.0	.0
1953	947.5	950.0	.3	2.5
1954	590.0	600.0	1.7	10.0
1955	471.4	499.5	6.0	28.1
1956	950.0	950.0	.0	.0
1957	590.0	600.0	1.7	10.0
1958	950.0	950.0	.0	.0
1959	461.8	484.3	4.9	22.5
1960	526.2	581.8	10.6	55.6
1961	428.1	464.8	8.6	36.7
1962	580.0	600.0	3.4	20.0
1963	684.3	710.6	3.8	26.3
1964	462.7	464.2	.3	1.5
1965	667.6	713.8	6.9	46.2
1966	455.6	505.6	11.0	50.0
1967	950.0	950.0	.0	.0
1968	436.6	505.1	15.7	68.5
1969	950.0	950.0	.0	.0
1970	600.0	600.0	.0	.0
1971	950.0	950.0	.0	.0
1972	537.6	565.2	5.1	27.6
1973	590.0	600.0	1.7	10.0
1974	950.0	950.0	.0	.0
1975	950.0	950.0	.0	.0
1976	290.0	300.0	3.4	10.0
1977	123.4	118.4	-4.1	-5.0
1978	718.0	776.1	8.1	58.1
1979	572.0	600.0	4.9	28.0
1980	764.0	807.9	5.7	43.9
1981	443.1	450.9	1.8	7.8
1982	950.0	950.0	.0	.0
1983	950.0	950.0	.0	.0
1984	600.0	600.0	.0	.0
1985	419.6	421.4	.4	1.8
1986	638.3	625.5	-2.0	-12.8
1987	375.0	375.0	.0	.0
1988	290.0	300.0	3.4	10.0
1989	522.4	520.0	-.5	-2.4
1990	290.0	300.0	3.4	10.0
1991	294.7	300.0	1.8	5.3
Mean:	619.7	634.5	2.8	14.8
Median:	590.0	600.0	1.8	10.0
Min:	123.4	118.4	-5.1	-37.6
Max:	950.0	950.0	15.7	68.5
Littoral Habitat(ac)	1548.7	1665.7	7.6	117.0

FOLSOM RESERVOIR STORAGE
August

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	794.7	800.0	.7	5.3
1923	629.7	701.6	11.4	71.9
1924	284.3	270.7	-4.8	-13.6
1925	711.2	637.2	-10.4	-74.0
1926	400.3	414.1	3.4	13.8
1927	543.9	573.6	5.5	29.7
1928	400.0	450.0	12.5	50.0
1929	315.2	335.6	6.5	20.4
1930	437.4	462.7	5.8	25.3
1931	289.2	297.6	2.9	8.4
1932	725.9	776.8	7.0	50.9
1933	360.2	393.6	9.3	33.4
1934	251.0	263.4	4.9	12.4
1935	717.4	727.4	1.4	10.0
1936	800.0	800.0	.0	.0
1937	784.0	800.0	2.0	16.0
1938	800.0	800.0	.0	.0
1939	361.6	379.7	5.0	18.1
1940	466.9	488.0	4.5	21.1
1941	800.0	800.0	.0	.0
1942	800.0	800.0	.0	.0
1943	497.1	539.0	8.4	41.9
1944	458.0	489.0	6.8	31.0
1945	510.4	539.8	5.8	29.4
1946	512.9	562.3	9.6	49.4
1947	435.4	430.8	-1.1	-4.6
1948	665.9	725.9	9.0	60.0
1949	468.1	535.3	14.4	67.2
1950	765.6	794.0	3.7	28.4
1951	474.7	496.1	4.5	21.4
1952	800.0	800.0	.0	.0
1953	800.0	800.0	.0	.0
1954	427.1	450.0	5.4	22.9
1955	437.1	441.7	1.1	4.6
1956	800.0	800.0	.0	.0
1957	507.8	544.0	7.1	36.2
1958	800.0	800.0	.0	.0
1959	400.0	400.0	.0	.0
1960	453.0	450.4	-.6	-2.6
1961	403.6	434.0	7.5	30.4
1962	476.8	504.4	5.8	27.6
1963	645.8	682.2	5.6	36.4
1964	483.6	493.3	2.0	9.7
1965	610.7	662.3	8.4	51.6
1966	400.0	410.4	2.6	10.4
1967	800.0	800.0	.0	.0
1968	400.0	444.6	11.2	44.6
1969	800.0	800.0	.0	.0
1970	450.0	454.1	.9	4.1
1971	800.0	800.0	.0	.0
1972	400.0	400.0	.0	.0
1973	429.9	450.9	4.9	21.0
1974	800.0	800.0	.0	.0
1975	800.0	800.0	.0	.0
1976	259.0	265.0	2.3	6.0
1977	105.0	100.3	-4.5	-4.7
1978	584.7	657.3	12.4	72.6
1979	451.1	486.9	7.9	35.8
1980	598.2	654.0	9.3	55.8
1981	428.6	426.5	-.5	-2.1
1982	800.0	800.0	.0	.0
1983	800.0	813.9	1.7	13.9
1984	500.4	522.9	4.5	22.5
1985	334.0	339.5	1.6	5.5
1986	502.6	516.4	2.7	13.8
1987	291.5	294.7	1.1	3.2
1988	256.3	261.1	1.9	4.8
1989	375.5	361.9	-3.6	-13.6
1990	259.0	265.0	2.3	6.0
1991	321.1	332.4	3.5	11.3
Mean:	535.0	551.5	3.3	16.4
Median:	476.8	504.4	2.3	10.4
Min:	105.0	100.3	-10.4	-74.0
Max:	800.0	813.9	14.4	72.6
Littoral Habitat(ac)	829.1	975.8	17.7	146.7

FOLSOM RESERVOIR STORAGE
September

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	650.0	650.0	.0	.0
1923	586.6	641.0	9.3	54.4
1924	272.7	258.1	-5.4	-14.6
1925	631.4	599.5	-5.1	-31.9
1926	383.4	396.5	3.4	13.1
1927	500.0	525.1	5.0	25.1
1928	375.7	439.9	17.1	64.2
1929	303.4	315.0	3.8	11.6
1930	423.3	454.7	7.4	31.4
1931	275.2	281.2	2.2	6.0
1932	642.1	650.0	1.2	7.9
1933	350.6	388.7	10.9	38.1
1934	251.6	262.9	4.5	11.3
1935	636.8	616.6	-3.2	-20.2
1936	650.0	650.0	.0	.0
1937	650.0	650.0	.0	.0
1938	650.0	650.0	.0	.0
1939	336.4	360.2	7.1	23.8
1940	439.1	466.4	6.2	27.3
1941	650.0	650.0	.0	.0
1942	650.0	650.0	.0	.0
1943	466.6	521.8	11.8	55.2
1944	429.7	466.7	8.6	37.0
1945	437.9	475.6	8.6	37.7
1946	420.0	475.9	13.3	55.9
1947	396.9	406.7	2.5	9.8
1948	543.0	604.9	11.4	61.9
1949	443.9	500.3	12.7	56.4
1950	650.0	650.0	.0	.0
1951	430.0	450.0	4.7	20.0
1952	650.0	650.0	.0	.0
1953	650.0	650.0	.0	.0
1954	413.9	443.7	7.2	29.8
1955	417.7	430.5	3.1	12.8
1956	650.0	650.0	.0	.0
1957	467.5	509.7	9.0	42.2
1958	650.0	650.0	.0	.0
1959	380.0	386.0	1.6	6.0
1960	429.4	430.3	.2	.9
1961	371.8	390.8	5.1	19.0
1962	412.6	444.8	7.8	32.2
1963	585.6	636.1	8.6	50.5
1964	461.1	477.9	3.6	16.8
1965	565.5	616.2	9.0	50.7
1966	376.7	397.2	5.4	20.5
1967	650.0	650.0	.0	.0
1968	392.7	400.0	1.9	7.3
1969	650.0	650.0	.0	.0
1970	433.8	445.0	2.6	11.2
1971	650.0	650.0	.0	.0
1972	383.9	389.0	1.3	5.1
1973	422.6	450.0	6.5	27.4
1974	650.0	650.0	.0	.0
1975	650.0	650.0	.0	.0
1976	254.1	253.1	-.4	-1.0
1977	89.8	90.1	.3	.3
1978	555.4	614.5	10.6	59.1
1979	400.0	420.0	5.0	20.0
1980	549.9	603.8	9.8	53.9
1981	388.6	390.5	.5	1.9
1982	650.0	650.0	.0	.0
1983	650.6	676.9	4.0	26.3
1984	476.4	505.9	6.2	29.5
1985	339.5	350.1	3.1	10.6
1986	485.4	513.2	5.7	27.8
1987	298.3	298.7	.1	.4
1988	266.5	268.4	.7	1.9
1989	385.4	382.9	-.6	-2.5
1990	272.6	276.4	1.4	3.8
1991	300.9	313.7	4.3	12.8
Mean:	475.1	491.6	3.7	16.6
Median:	437.9	475.6	2.6	10.6
Min:	89.8	90.1	-5.4	-31.9
Max:	650.6	676.9	17.1	64.2
Littoral Habitat(ac)	262.0	423.7	61.7	161.7

RETURN TO TABLE OF CONTENTS

Section 2

FOLSOM RESERVOIR ELEVATION
2.1 Recreation and Fisheries

FOLSOM RESERVOIR ELEVATION

October

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	405.5	.0	406.6	.0	.3	1.1
1923	419.9	-9.5	420.9	-8.5	.2	1.0
1924	411.9	-10.7	419.2	-9.3	1.8	7.3
1925	377.8	-1.2	378.7	2.5	.2	.9
1926	417.8	-9.7	414.9	-9.1	-.7	-2.9
1927	389.8	-7.3	392.5	-6.5	.7	2.7
1928	401.0	-11.5	405.8	-9.7	1.2	4.8
1929	387.2	-8.8	396.4	-8.5	2.4	9.2
1930	376.7	-7.8	379.3	-7.2	.7	2.6
1931	395.8	-6.9	398.8	-8.1	.8	3.0
1932	373.7	-5.8	375.6	-5.0	.5	1.9
1933	417.8	-10.8	419.6	-9.8	.4	1.8
1934	384.9	-7.3	391.5	-6.4	1.7	6.6
1935	378.0	3.1	379.4	2.3	.4	1.4
1936	419.1	-8.9	417.8	-8.1	-.3	-1.3
1937	419.1	-10.3	420.0	-9.4	.2	.9
1938	419.8	-9.6	420.8	-8.6	.2	1.0
1939	420.1	-9.3	421.2	-8.2	.3	1.1
1940	385.8	-4.2	387.9	-5.8	.5	2.1
1941	396.4	-8.4	399.4	-9.0	.8	3.0
1942	419.7	-9.7	421.0	-8.4	.3	1.3
1943	419.6	-9.8	420.6	-8.8	.2	1.0
1944	398.2	-10.2	404.8	-10.3	1.7	6.6
1945	394.2	-9.4	398.0	-10.4	1.0	3.8
1946	399.4	-5.3	403.8	-5.7	1.1	4.4
1947	396.1	-6.2	401.1	-8.5	1.3	5.0
1948	397.2	-1.9	399.2	-1.2	.5	2.0
1949	406.0	-11.6	414.9	-9.7	2.2	8.9
1950	396.7	-8.7	401.5	-11.1	1.2	4.8
1951	423.1	-6.3	424.2	-5.2	.3	1.1
1952	398.3	-5.3	402.5	-3.7	1.1	4.2
1953	421.6	-7.8	422.7	-6.7	.3	1.1
1954	419.3	-10.1	420.5	-8.9	.3	1.2
1955	394.8	-6.6	397.6	-7.8	.7	2.8
1956	393.7	-8.3	394.0	-9.7	.1	.3
1957	421.7	-7.7	422.8	-6.6	.3	1.1
1958	399.5	-9.0	404.6	-9.1	1.3	5.1
1959	418.9	-10.5	420.1	-9.3	.3	1.2
1960	387.1	-9.5	388.8	-8.7	.4	1.7
1961	394.1	-9.4	394.6	-9.1	.1	.5
1962	385.0	-10.4	388.9	-9.3	1.0	3.9
1963	429.4	28.2	429.4	23.8	.0	.0
1964	413.4	-9.1	420.5	-7.5	1.7	7.1
1965	399.8	-7.9	400.6	-9.2	.2	.8
1966	410.2	-10.0	417.5	-8.3	1.8	7.3
1967	387.3	-8.9	391.4	-7.7	1.1	4.1
1968	421.1	-8.3	422.2	-7.2	.3	1.1
1969	392.9	-5.6	394.5	-5.0	.4	1.6
1970	421.7	-7.7	422.8	-6.6	.3	1.1
1971	395.6	-8.5	397.7	-7.9	.5	2.1
1972	419.3	-10.1	420.5	-8.9	.3	1.2
1973	391.9	-5.3	393.5	-4.4	.4	1.6
1974	399.0	-3.6	402.1	-4.1	.8	3.1
1975	420.3	-9.1	421.4	-8.0	.3	1.1
1976	425.5	-3.9	426.6	-2.8	.3	1.1
1977	374.6	-.8	374.4	-.8	-.1	-.2
1978	322.1	-4.5	324.2	-2.5	.7	2.1
1979	406.3	-12.8	414.8	-10.8	2.1	8.5
1980	395.5	-4.0	399.8	-2.5	1.1	4.3
1981	407.2	-11.2	415.1	-9.4	1.9	7.9
1982	393.4	-4.5	394.7	-3.4	.3	1.3
1983	429.4	.0	429.4	.0	.0	.0
1984	429.4	-.1	429.4	-2.8	.0	.0
1985	403.0	-6.6	405.5	-7.8	.6	2.5
1986	385.8	-4.7	385.5	-6.6	-.1	-.3
1987	402.3	-8.4	405.4	-8.7	.8	3.1
1988	368.7	-14.9	370.0	-13.7	.4	1.3
1989	374.7	-3.1	375.3	-2.9	.2	.6
1990	393.7	-3.7	394.5	-2.5	.2	.8
1991	373.4	-5.6	371.5	-8.2	-.5	-1.9
Mean:	401.0	-6.8	403.5	-6.4	.6	2.5
Median:	399.0	-8.3	402.5	-8.0	.4	1.6
Min:	322.1	-14.9	324.2	-13.7	-.7	-2.9
Max:	429.4	28.2	429.4	23.8	2.4	9.2
X < 360.0	1		1			
X < 375.0	6		4			
X < 395.0	25		22			
X < 405.0	41		38			
X < 420.0	59		50			
X inc > 20.0		1		1		
X dec > 9.0		25		18		
X dec > 10.0		13		5		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

November

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	393.9	.0	396.1	.0	.6	2.2
1923	415.7	-4.2	417.5	-3.4	.4	1.8
1924	399.7	-12.2	408.7	-10.5	2.3	9.0
1925	381.2	3.4	384.9	6.2	1.0	3.7
1926	409.2	-8.6	406.7	-8.2	-.6	-2.5
1927	407.3	17.5	410.0	17.5	.7	2.7
1928	402.6	1.6	408.7	2.9	1.5	6.1
1929	378.8	-8.4	387.8	-8.6	2.4	9.0
1930	366.8	-9.9	370.2	-9.1	.9	3.4
1931	392.6	-3.2	394.0	-4.8	.4	1.4
1932	370.4	-3.3	372.8	-2.8	.6	2.4
1933	407.4	-10.4	410.1	-9.5	.7	2.7
1934	377.4	-7.5	385.3	-6.2	2.1	7.9
1935	390.0	12.0	389.8	10.4	-.1	-.2
1936	411.4	-7.7	410.7	-7.1	-.2	-.7
1937	408.8	-10.3	410.6	-9.4	.4	1.8
1938	413.7	-6.1	415.7	-5.1	.5	2.0
1939	412.3	-7.8	414.4	-6.8	.5	2.1
1940	379.4	-6.4	379.7	-8.2	.1	.3
1941	392.8	-3.6	394.7	-4.7	.5	1.9
1942	413.4	-6.3	415.6	-5.4	.5	2.2
1943	421.3	1.7	421.3	.7	.0	.0
1944	389.1	-9.1	395.2	-9.6	1.6	6.1
1945	400.8	6.6	402.7	4.7	.5	1.9
1946	408.6	9.2	411.6	7.8	.7	3.0
1947	401.1	5.0	402.7	1.6	.4	1.6
1948	393.1	-4.1	395.8	-3.4	.7	2.7
1949	396.3	-9.7	407.1	-7.8	2.7	10.8
1950	388.1	-8.6	389.7	-11.8	.4	1.6
1951	398.9	-24.2	398.9	-25.3	.0	.0
1952	402.7	4.4	407.6	5.1	1.2	4.9
1953	414.9	-6.7	416.8	-5.9	.5	1.9
1954	415.0	-4.3	417.0	-3.5	.5	2.0
1955	389.0	-5.8	390.5	-7.1	.4	1.5
1956	388.0	-5.7	386.4	-7.6	-.4	-1.6
1957	413.6	-8.1	415.7	-7.1	.5	2.1
1958	392.4	-7.1	396.8	-7.8	1.1	4.4
1959	410.9	-8.0	412.9	-7.2	.5	2.0
1960	376.2	-10.9	378.8	-10.0	.7	2.6
1961	388.6	-5.5	389.9	-4.7	.3	1.3
1962	374.9	-10.1	380.2	-8.7	1.4	5.3
1963	421.3	-8.1	421.3	-8.1	.0	.0
1964	421.3	7.9	421.3	.8	.0	.0
1965	399.7	-.1	399.2	-1.4	-.1	-.5
1966	408.5	-1.7	416.6	-.9	2.0	8.1
1967	390.3	3.0	394.7	3.3	1.1	4.4
1968	418.0	-3.1	419.9	-2.3	.5	1.9
1969	397.4	4.5	399.6	5.1	.6	2.2
1970	415.3	-6.4	417.3	-5.5	.5	2.0
1971	408.9	13.3	411.1	13.4	.5	2.2
1972	413.6	-5.7	415.6	-4.9	.5	2.0
1973	398.1	6.2	400.3	6.8	.6	2.2
1974	420.8	21.8	421.1	19.0	.1	.3
1975	410.6	-9.7	412.5	-8.9	.5	1.9
1976	421.3	-4.2	421.3	-5.3	.0	.0
1977	371.8	-2.8	371.6	-2.8	-.1	-.2
1978	325.1	3.0	329.7	5.5	1.4	4.6
1979	396.6	-9.7	406.6	-8.2	2.5	10.0
1980	395.9	.4	401.7	1.9	1.5	5.8
1981	397.3	-9.9	407.0	-8.1	2.4	9.7
1982	418.8	25.4	418.8	24.1	.0	.0
1983	421.2	-8.2	421.2	-8.2	.0	.0
1984	399.9	-29.5	400.6	-28.8	.2	.7
1985	414.5	11.5	415.7	10.2	.3	1.2
1986	390.0	4.2	388.1	2.6	-.5	-1.9
1987	393.3	-9.0	395.5	-9.9	.6	2.2
1988	359.1	-9.6	361.8	-8.2	.8	2.7
1989	387.1	12.4	388.0	12.7	.2	.9
1990	391.8	-1.9	393.5	-1.0	.4	1.7
1991	367.3	-6.1	362.3	-9.2	-1.4	-5.0
Mean:	398.0	-2.8	400.5	-2.8	.6	2.5
Median:	398.9	-5.7	402.7	-5.1	.5	2.0
Min:	325.1	-29.5	329.7	-28.8	-1.4	-5.0
Max:	421.3	25.4	421.3	24.1	2.7	10.8
X < 360.0	2		1			
X < 375.0	7		6			
X < 395.0	28		23			
X < 405.0	42		36			
X < 420.0	64		64			
X inc > 20.0		2		1		
X dec > 9.0		14		11		
X dec > 10.0		7		4		
X dec > 15.0		2		2		

FOLSOM RESERVOIR ELEVATION

December

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	396.6	.0	399.6	.0	.8	3.0
1923	421.3	5.6	421.3	3.8	.0	.0
1924	385.0	-14.7	396.5	-12.2	3.0	11.5
1925	387.8	6.6	393.8	8.9	1.5	6.0
1926	400.0	-9.2	397.8	-8.9	-.6	-2.2
1927	415.0	7.7	417.9	7.9	.7	2.9
1928	400.0	-2.6	407.1	-1.6	1.8	7.1
1929	370.4	-8.4	379.0	-8.8	2.3	8.6
1930	388.1	21.3	391.0	20.8	.7	2.9
1931	382.3	-10.3	381.8	-12.2	-.1	-.5
1932	388.8	18.4	391.0	18.2	.6	2.2
1933	394.9	-12.5	398.9	-11.2	1.0	4.0
1934	384.4	7.0	392.1	6.8	2.0	7.7
1935	397.0	7.0	396.7	6.9	-.1	-.3
1936	401.0	-10.4	401.0	-9.7	.0	.0
1937	397.3	-11.5	400.1	-10.5	.7	2.8
1938	420.0	6.3	420.0	4.3	.0	.0
1939	402.5	-9.8	405.6	-8.8	.8	3.1
1940	374.5	-4.9	372.1	-7.6	-.6	-2.4
1941	415.2	22.4	415.6	20.9	.1	.4
1942	421.3	7.9	421.3	5.7	.0	.0
1943	421.2	-.1	421.2	-.1	.0	.0
1944	376.1	-13.0	381.7	-13.5	1.5	5.6
1945	404.6	3.8	404.8	2.1	.0	.2
1946	421.3	12.7	421.3	9.7	.0	.0
1947	402.5	1.4	400.6	-2.1	-.5	-1.9
1948	385.2	-7.9	388.6	-7.2	.9	3.4
1949	388.6	-7.7	401.3	-5.8	3.3	12.7
1950	376.3	-11.8	373.2	-16.5	-.8	-3.1
1951	387.2	-11.7	387.2	-11.7	.0	.0
1952	421.3	18.6	421.3	13.7	.0	.0
1953	415.1	.2	417.5	.7	.6	2.4
1954	408.9	-6.1	411.6	-5.4	.7	2.7
1955	396.2	7.2	395.6	5.1	-.2	-.6
1956	418.1	30.1	418.1	31.7	.0	.0
1957	405.0	-8.6	408.0	-7.7	.7	3.0
1958	392.7	.3	395.7	-1.1	.8	3.0
1959	398.8	-12.1	402.0	-10.9	.8	3.2
1960	360.4	-15.8	366.4	-12.4	1.7	6.0
1961	381.3	-7.3	383.6	-6.3	.6	2.3
1962	370.2	-4.7	376.6	-3.6	1.7	6.4
1963	421.3	.0	421.3	.0	.0	.0
1964	417.1	-4.2	413.1	-8.2	-1.0	-4.0
1965	402.3	2.6	401.3	2.1	-.2	-1.0
1966	403.5	-5.0	412.7	-3.9	2.3	9.2
1967	415.3	25.0	419.1	24.4	.9	3.8
1968	413.0	-5.0	415.8	-4.1	.7	2.8
1969	405.5	8.1	408.2	8.6	.7	2.7
1970	421.1	5.8	421.1	3.8	.0	.0
1971	421.3	12.4	421.3	10.2	.0	.0
1972	416.0	2.4	418.8	3.2	.7	2.8
1973	414.2	16.1	416.6	16.3	.6	2.4
1974	420.0	-.8	420.3	-.8	.1	.3
1975	404.3	-6.3	407.2	-5.3	.7	2.9
1976	412.9	-8.4	413.5	-7.8	.1	.6
1977	361.9	-9.9	361.9	-9.7	.0	.0
1978	371.0	45.9	374.0	44.3	.8	3.0
1979	383.9	-12.7	396.7	-9.9	3.3	12.8
1980	399.2	3.3	405.8	4.1	1.7	6.6
1981	386.1	-11.2	398.0	-9.0	3.1	11.9
1982	399.4	-19.4	399.5	-19.3	.0	.1
1983	420.7	-.5	420.7	-.5	.0	.0
1984	392.6	-7.3	392.6	-8.0	.0	.0
1985	416.1	1.6	415.8	.1	-.1	-.3
1986	402.5	12.5	399.1	11.0	-.8	-3.4
1987	378.9	-14.4	380.6	-14.9	.4	1.7
1988	370.7	11.6	373.4	11.6	.7	2.7
1989	393.0	5.9	394.2	6.2	.3	1.2
1990	384.6	-7.2	387.3	-6.2	.7	2.7
1991	359.6	-7.7	349.7	-12.6	-2.8	-9.9
Mean:	398.3	.2	400.5	.0	.6	2.2
Median:	399.4	-.8	400.6	-1.6	.6	2.2
Min:	359.6	-19.4	349.7	-19.3	-2.8	-9.9
Max:	421.3	45.9	421.3	44.3	3.3	12.8
X < 360.0	1		1			
X < 375.0	8		7			
X < 395.0	28		22			
X < 405.0	45		40			
X < 420.0	59		59			
X inc > 20.0		5		5		
X dec > 9.0		17		15		
X dec > 10.0		14		12		
X dec > 15.0		2		2		

FOLSOM RESERVOIR ELEVATION

January

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	395.6	.0	399.6	.0	1.0	4.0
1923	421.3	.0	421.3	.0	.0	.0
1924	369.3	-15.7	384.4	-12.1	4.1	15.1
1925	380.1	-7.7	384.2	-9.6	1.1	4.1
1926	390.3	-9.7	388.6	-9.2	-.4	-1.7
1927	421.1	6.1	421.3	3.4	.0	.2
1928	397.8	-2.2	403.9	-3.2	1.5	6.1
1929	360.5	-9.9	369.3	-9.7	2.4	8.8
1930	393.7	5.6	396.7	5.7	.8	3.0
1931	377.4	-4.9	376.2	-5.6	-.3	-1.2
1932	397.0	8.2	399.2	8.2	.6	2.2
1933	385.0	-9.9	390.3	-8.6	1.4	5.3
1934	392.1	7.7	399.5	7.4	1.9	7.4
1935	403.2	6.2	403.2	6.5	.0	.0
1936	421.3	20.3	421.3	20.3	.0	.0
1937	388.2	-9.1	392.0	-8.1	1.0	3.8
1938	419.8	-.2	419.7	-.3	.0	-.1
1939	393.8	-8.7	396.0	-9.6	.6	2.2
1940	420.9	46.4	420.9	48.8	.0	.0
1941	421.3	6.1	421.3	5.7	.0	.0
1942	420.3	-1.0	420.0	-1.3	-.1	-.3
1943	419.2	-2.0	419.2	-2.0	.0	.0
1944	368.3	-7.8	373.4	-8.3	1.4	5.1
1945	399.7	-4.9	400.3	-4.5	.2	.6
1946	420.3	-1.0	420.3	-1.0	.0	.0
1947	392.2	-10.3	390.9	-9.7	-.3	-1.3
1948	391.9	6.7	395.3	6.7	.9	3.4
1949	376.9	-11.7	392.6	-8.7	4.2	15.7
1950	408.8	32.5	404.3	31.1	-1.1	-4.5
1951	390.9	3.7	390.9	3.7	.0	.0
1952	421.3	.0	421.3	.0	.0	.0
1953	421.2	6.1	421.2	3.7	.0	.0
1954	407.6	-1.3	411.1	-.5	.9	3.5
1955	400.5	4.3	400.4	4.8	.0	-.1
1956	398.4	-19.7	398.6	-19.5	.1	.2
1957	395.7	-9.3	399.8	-8.2	1.0	4.1
1958	399.8	7.1	403.4	7.7	.9	3.6
1959	403.3	4.5	407.2	5.2	1.0	3.9
1960	357.6	-2.8	365.8	-.6	2.3	8.2
1961	369.0	-12.3	372.6	-11.0	1.0	3.6
1962	364.5	-5.7	372.4	-4.2	2.2	7.9
1963	419.0	-2.3	418.9	-2.4	.0	-.1
1964	417.1	.0	414.0	.9	-.7	-3.1
1965	394.9	-7.4	394.9	-6.4	.0	.0
1966	401.6	-1.9	409.8	-2.9	2.0	8.2
1967	419.9	4.6	420.4	1.3	.1	.5
1968	409.9	-3.1	413.6	-2.2	.9	3.7
1969	418.9	13.4	418.9	10.7	.0	.0
1970	402.3	-18.8	402.3	-18.8	.0	.0
1971	421.3	.0	421.3	.0	.0	.0
1972	411.0	-5.0	414.8	-4.0	.9	3.8
1973	420.0	5.8	420.0	3.4	.0	.0
1974	413.1	-6.9	413.5	-6.8	.1	.4
1975	399.0	-5.3	402.9	-4.3	1.0	3.9
1976	398.4	-14.5	399.9	-13.6	.4	1.5
1977	355.7	-6.2	355.9	-6.0	.1	.2
1978	421.3	50.3	420.5	46.5	-.2	-.8
1979	392.0	8.1	404.4	7.7	3.2	12.4
1980	407.5	8.3	411.1	5.3	.9	3.6
1981	382.6	-3.5	396.2	-1.8	3.6	13.6
1982	397.6	-1.8	397.8	-1.7	.1	.2
1983	419.7	-1.0	419.7	-1.0	.0	.0
1984	393.5	.9	393.8	1.2	.1	.3
1985	406.7	-9.4	406.9	-8.9	.0	.2
1986	419.8	17.3	419.8	20.7	.0	.0
1987	368.5	-10.4	369.2	-11.4	.2	.7
1988	387.8	17.1	390.1	16.7	.6	2.3
1989	386.2	-6.8	387.9	-6.3	.4	1.7
1990	382.7	-1.9	386.4	-.9	1.0	3.7
1991	348.3	-11.3	331.9	-17.8	-4.7	-16.4
Mean:	398.5	.2	400.7	.2	.6	2.2
Median:	398.4	-1.9	400.4	-1.3	.1	.4
Min:	348.3	-19.7	331.9	-19.5	-4.7	-16.4
Max:	421.3	50.3	421.3	48.8	4.2	15.7
X < 360.0	3		2			
X < 375.0	9		8			
X < 395.0	28		22			
X < 405.0	43		42			
X < 420.0	58		57			
X inc > 20.0		4		5		
X dec > 9.0		15		12		
X dec > 10.0		9		7		
X dec > 15.0		3		3		

FOLSOM RESERVOIR ELEVATION

February

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	421.3	.0	421.3	.0	.0	.0
1923	421.1	-.2	421.1	-.2	.0	.0
1924	367.9	-1.4	382.8	-1.6	4.1	14.9
1925	420.0	39.9	418.9	34.7	-.3	-1.1
1926	410.9	20.6	410.2	21.6	-.2	-.7
1927	419.6	-1.5	419.9	-1.4	.1	.3
1928	399.0	1.2	405.9	2.0	1.7	6.9
1929	367.3	6.8	374.7	5.4	2.0	7.4
1930	395.7	2.0	399.0	2.3	.8	3.3
1931	376.1	-1.3	375.2	-1.0	-.2	-.9
1932	420.8	23.8	421.3	22.1	.1	.5
1933	376.1	-8.9	383.0	-7.3	1.8	6.9
1934	398.5	6.4	403.9	4.4	1.4	5.4
1935	407.3	4.1	407.5	4.3	.0	.2
1936	421.2	-.1	421.2	-.1	.0	.0
1937	418.1	29.9	421.3	29.3	.8	3.2
1938	419.5	-.3	419.4	-.3	.0	-.1
1939	386.5	-7.3	389.9	-6.1	.9	3.4
1940	419.6	-1.3	419.5	-1.4	.0	-.1
1941	421.3	.0	421.2	-.1	.0	-.1
1942	419.2	-1.1	419.0	-1.0	.0	-.2
1943	418.0	-1.2	418.0	-1.2	.0	.0
1944	379.7	11.4	383.5	10.1	1.0	3.8
1945	420.3	20.6	420.3	20.0	.0	.0
1946	418.4	-1.9	418.4	-1.9	.0	.0
1947	397.0	4.8	398.7	7.8	.4	1.7
1948	385.5	-6.4	387.6	-7.7	.5	2.1
1949	375.9	-1.0	389.1	-3.5	3.5	13.2
1950	421.3	12.5	421.3	17.0	.0	.0
1951	392.7	1.8	392.7	1.8	.0	.0
1952	421.3	.0	421.3	.0	.0	.0
1953	420.6	-.6	420.5	-.7	.0	-.1
1954	416.6	9.0	420.5	9.4	.9	3.9
1955	397.6	-2.9	398.0	-2.4	.1	.4
1956	397.6	-.8	398.1	-.5	.1	.5
1957	413.3	17.6	417.4	17.6	1.0	4.1
1958	420.3	20.5	420.3	16.9	.0	.0
1959	411.8	8.5	416.0	8.8	1.0	4.2
1960	402.8	45.2	408.0	42.2	1.3	5.2
1961	374.0	5.0	377.8	5.2	1.0	3.8
1962	415.9	51.4	419.5	47.1	.9	3.6
1963	409.4	-9.6	409.8	-9.1	.1	.4
1964	414.3	-2.8	411.8	-2.2	-.6	-2.5
1965	394.7	-.2	394.7	-.2	.0	.0
1966	399.9	-1.7	409.0	-.8	2.3	9.1
1967	418.8	-1.1	419.1	-1.3	.1	.3
1968	419.4	9.5	419.4	5.8	.0	.0
1969	417.1	-1.8	417.1	-1.8	.0	.0
1970	398.2	-4.1	398.2	-4.1	.0	.0
1971	420.5	.8	420.4	-.9	.0	-.1
1972	417.4	6.4	421.3	6.5	.9	3.9
1973	419.6	-.4	419.6	-.4	.0	.0
1974	413.7	.6	413.5	.0	.0	-.2
1975	414.9	15.9	418.8	15.9	.9	3.9
1976	389.4	-9.0	392.1	-7.8	.7	2.7
1977	351.2	-4.5	351.5	-4.4	.1	.3
1978	421.3	.0	419.8	-.7	-.4	-1.5
1979	405.8	13.8	415.7	11.3	2.4	9.9
1980	395.7	-11.8	398.1	-13.0	.6	2.4
1981	384.6	2.0	395.4	-.8	2.8	10.8
1982	390.2	-7.4	390.4	-7.4	.1	.2
1983	418.4	-1.3	418.4	-1.3	.0	.0
1984	394.0	.5	394.3	.5	.1	.3
1985	408.3	1.6	408.7	1.8	.1	.4
1986	397.1	-22.7	397.5	-22.3	.1	.4
1987	375.0	6.5	375.1	5.9	.0	.1
1988	382.7	-5.1	385.5	-4.6	.7	2.8
1989	385.2	-1.0	387.3	-.6	.5	2.1
1990	384.0	1.3	385.4	-1.0	.4	1.4
1991	341.0	-7.3	317.4	-14.5	-6.9	-23.6
Mean:	402.7	3.9	404.4	3.4	.4	1.7
Median:	408.3	-.1	409.8	-.3	.1	.3
Min:	341.0	-22.7	317.4	-22.3	-6.9	-23.6
Max:	421.3	51.4	421.3	47.1	4.1	14.9
X < 360.0	2		2			
X < 375.0	5		3			
X < 395.0	21		20			
X < 405.0	32		29			
X < 420.0	57		56			
X inc > 20.0		8		6		
X dec > 9.0		3		4		
X dec > 10.0		2		3		
X dec > 15.0		1		1		

FOLSOM RESERVOIR ELEVATION

March

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	423.6	.0	424.4	.0	.2	.8
1923	421.1	.0	421.8	.7	.2	.7
1924	358.8	-9.1	372.7	-10.1	3.9	13.9
1925	423.0	3.0	419.7	.8	-.8	-3.3
1926	410.8	-.1	410.4	.2	-.1	-.4
1927	430.7	11.1	430.7	10.8	.0	.0
1928	428.7	29.7	429.2	23.3	.1	.5
1929	374.9	7.6	382.0	7.3	1.9	7.1
1930	415.1	19.4	418.2	19.2	.7	3.1
1931	384.6	8.5	382.9	7.7	-.4	-1.7
1932	426.9	6.1	428.0	6.7	.3	1.1
1933	380.3	4.2	387.3	4.3	1.8	7.0
1934	407.8	9.3	410.9	7.0	.8	3.1
1935	406.6	-.7	407.6	.1	.2	1.0
1936	431.5	10.3	431.4	10.2	.0	-.1
1937	432.0	13.9	432.0	10.7	.0	.0
1938	431.5	12.0	431.5	12.1	.0	.0
1939	398.1	11.6	401.4	11.5	.8	3.3
1940	426.9	7.3	425.7	6.2	-.3	-1.2
1941	431.8	10.5	431.8	10.6	.0	.0
1942	415.4	-3.8	416.0	-3.0	.1	.6
1943	426.5	8.5	426.6	8.6	.0	.1
1944	394.7	15.0	398.3	14.8	.9	3.6
1945	426.0	5.7	426.7	6.4	.2	.7
1946	430.1	11.7	430.8	12.4	.2	.7
1947	412.9	15.9	414.6	15.9	.4	1.7
1948	379.0	-6.5	382.6	-5.0	.9	3.6
1949	402.5	26.6	412.8	23.7	2.6	10.3
1950	431.6	10.3	430.8	9.5	-.2	-.8
1951	422.6	29.9	422.6	29.9	.0	.0
1952	432.0	10.7	432.0	10.7	.0	.0
1953	419.3	-1.3	420.0	-.5	.2	.7
1954	431.6	15.0	431.6	11.1	.0	.0
1955	396.2	-1.4	397.0	-1.0	.2	.8
1956	410.0	12.4	411.3	13.2	.3	1.3
1957	431.0	17.7	431.0	13.6	.0	.0
1958	431.7	11.4	431.7	11.4	.0	.0
1959	415.7	3.9	420.0	4.0	1.0	4.3
1960	426.2	23.4	430.8	22.8	1.1	4.6
1961	383.7	9.7	387.3	9.5	.9	3.6
1962	423.2	7.3	426.9	7.4	.9	3.7
1963	410.8	1.4	412.1	2.3	.3	1.3
1964	410.5	-3.8	408.4	-3.4	-.5	-2.1
1965	405.5	10.8	406.4	11.7	.2	.9
1966	407.5	7.6	414.5	5.5	1.7	7.0
1967	429.1	10.3	429.0	9.9	.0	-.1
1968	417.0	-2.4	429.9	10.5	3.1	12.9
1969	423.5	6.4	424.1	7.0	.1	.6
1970	423.5	25.3	422.4	24.2	-.3	-1.1
1971	430.5	10.0	430.4	10.0	.0	-.1
1972	430.1	12.7	430.2	8.9	.0	.1
1973	431.6	12.0	431.6	12.0	.0	.0
1974	424.9	11.2	424.6	11.1	-.1	-.3
1975	432.0	17.1	432.0	13.2	.0	.0
1976	386.9	-2.5	388.9	-3.2	.5	2.0
1977	351.1	-.1	350.8	-.7	-.1	-.3
1978	430.7	9.4	428.3	8.5	-.6	-2.4
1979	422.9	17.1	430.5	14.8	1.8	7.6
1980	423.7	28.0	424.9	26.8	.3	1.2
1981	401.0	16.4	409.4	14.0	2.1	8.4
1982	422.0	31.8	422.1	31.7	.0	.1
1983	427.5	9.1	427.7	9.3	.0	.2
1984	422.8	28.8	421.9	27.6	-.2	-.9
1985	413.0	4.7	413.8	5.1	.2	.8
1986	421.6	24.5	421.6	24.1	.0	.0
1987	391.8	16.8	390.5	15.4	-.3	-1.3
1988	383.3	.6	385.4	-.1	.5	2.1
1989	430.8	45.6	428.4	41.1	-.6	-2.4
1990	396.7	12.7	398.0	12.6	.3	1.3
1991	379.1	38.1	369.6	52.2	-2.5	-9.5
Mean:	413.8	11.1	415.3	10.8	.4	1.4
Median:	422.0	10.3	421.9	10.0	.1	.6
Min:	351.1	-9.1	350.8	-10.1	-2.5	-9.5
Max:	432.0	45.6	432.0	52.2	3.9	13.9
X < 360.0	2		1			
X < 375.0	3		3			
X < 395.0	12		11			
X < 405.0	17		15			
X < 420.0	32		30			
X inc > 20.0		11		11		
X dec > 9.0		1		1		
X dec > 10.0		0		1		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

April

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	436.1	.0	437.8	.0	.4	1.7
1923	444.5	23.4	444.5	22.7	.0	.0
1924	367.3	8.5	377.7	5.0	2.8	10.4
1925	444.5	21.5	444.5	24.8	.0	.0
1926	436.2	25.4	436.4	26.0	.0	.2
1927	444.5	13.8	444.5	13.8	.0	.0
1928	444.5	15.8	444.5	15.3	.0	.0
1929	391.7	16.8	393.4	11.4	.4	1.7
1930	424.8	9.7	428.1	9.9	.8	3.3
1931	391.7	7.1	389.6	6.7	-.5	-2.1
1932	433.7	6.8	435.4	7.4	.4	1.7
1933	388.4	8.1	392.9	5.6	1.2	4.5
1934	399.5	-8.3	399.5	-11.4	.0	.0
1935	444.5	37.9	444.5	36.9	.0	.0
1936	444.5	13.0	444.5	13.1	.0	.0
1937	444.5	12.5	444.5	12.5	.0	.0
1938	444.5	13.0	444.5	13.0	.0	.0
1939	412.4	14.3	413.7	12.3	.3	1.3
1940	444.5	17.6	444.5	18.8	.0	.0
1941	444.5	12.7	444.5	12.7	.0	.0
1942	438.9	23.5	440.3	24.3	.3	1.4
1943	444.5	18.0	444.5	17.9	.0	.0
1944	399.5	4.8	403.4	5.1	1.0	3.9
1945	436.5	10.5	438.0	11.3	.3	1.5
1946	444.5	14.4	444.5	13.7	.0	.0
1947	418.4	5.5	420.4	5.8	.5	2.0
1948	417.8	38.8	421.1	38.5	.8	3.3
1949	424.0	21.5	433.3	20.5	2.2	9.3
1950	444.5	12.9	444.5	13.7	.0	.0
1951	444.5	21.9	444.5	21.9	.0	.0
1952	444.5	12.5	444.5	12.5	.0	.0
1953	433.1	13.8	433.2	13.2	.0	.1
1954	444.5	12.9	444.5	12.9	.0	.0
1955	403.4	7.2	404.6	7.6	.3	1.2
1956	423.4	13.4	425.4	14.1	.5	2.0
1957	432.0	1.0	432.9	1.9	.2	.9
1958	444.5	12.8	444.5	12.8	.0	.0
1959	420.6	4.9	425.0	5.0	1.0	4.4
1960	434.2	8.0	439.0	8.2	1.1	4.8
1961	398.2	14.5	401.6	14.3	.9	3.4
1962	444.5	21.3	444.5	17.6	.0	.0
1963	444.5	33.7	444.5	32.4	.0	.0
1964	416.4	5.9	414.8	6.4	-.4	-1.6
1965	444.5	39.0	444.5	38.1	.0	.0
1966	424.6	17.1	429.5	15.0	1.2	4.9
1967	440.8	11.7	441.5	12.5	.2	.7
1968	420.7	3.7	433.7	3.8	3.1	13.0
1969	444.5	21.0	444.5	20.4	.0	.0
1970	429.2	5.7	428.6	6.2	-.1	-.6
1971	440.2	9.7	441.0	10.6	.2	.8
1972	435.8	5.7	436.5	6.3	.2	.7
1973	442.8	11.2	443.6	12.0	.2	.8
1974	444.5	19.6	444.5	19.9	.0	.0
1975	433.0	1.0	434.1	2.1	.3	1.1
1976	394.3	7.4	395.4	6.5	.3	1.1
1977	352.1	1.0	351.0	.2	-.3	-1.1
1978	444.5	13.8	444.5	16.2	.0	.0
1979	432.3	9.4	438.9	8.4	1.5	6.6
1980	442.3	18.6	444.2	19.3	.4	1.9
1981	413.0	12.0	417.5	8.1	1.1	4.5
1982	444.5	22.5	444.5	22.4	.0	.0
1983	444.5	17.0	444.5	16.8	.0	.0
1984	436.8	14.0	436.3	14.4	-.1	-.5
1985	430.2	17.2	431.3	17.5	.3	1.1
1986	442.9	21.3	443.8	22.2	.2	.9
1987	403.8	12.0	402.6	12.1	-.3	-1.2
1988	394.6	11.3	396.0	10.6	.4	1.4
1989	444.5	13.7	444.5	16.1	.0	.0
1990	399.5	2.8	399.5	1.5	.0	.0
1991	395.9	16.8	389.2	19.6	-1.7	-6.7
Mean:	427.7	13.7	429.0	13.5	.3	1.3
Median:	436.1	12.9	437.8	12.8	.0	.0
Min:	352.1	-8.3	351.0	-11.4	-1.7	-6.7
Max:	444.5	39.0	444.5	38.5	3.1	13.0
X < 360.0	1		1			
X < 375.0	2		1			
X < 395.0	7		6			
X < 405.0	14		14			
X < 420.0	19		17			
X inc > 20.0		14		13		
X dec > 9.0		0		1		
X dec > 10.0		0		1		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

May

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	460.7	16.2	460.7	16.2	.0	.0
1924	374.7	7.4	381.5	3.8	1.8	6.8
1925	460.7	16.2	460.7	16.2	.0	.0
1926	428.7	-7.5	429.5	-6.9	.2	.8
1927	460.7	16.2	460.7	16.2	.0	.0
1928	451.0	6.5	452.2	7.7	.3	1.2
1929	397.2	5.5	399.3	5.9	.5	2.1
1930	422.1	-2.7	424.1	-4.0	.5	2.0
1931	397.1	5.4	397.0	7.4	.0	-.1
1932	450.0	16.3	451.9	16.5	.4	1.9
1933	393.1	4.7	397.9	5.0	1.2	4.8
1934	401.7	2.2	401.5	2.0	.0	-.2
1935	458.5	14.0	460.7	16.2	.5	2.2
1936	457.4	12.9	458.5	14.0	.2	1.1
1937	460.7	16.2	460.7	16.2	.0	.0
1938	460.7	16.2	460.7	16.2	.0	.0
1939	407.6	-4.8	409.6	-4.1	.5	2.0
1940	457.0	12.5	457.5	13.0	.1	.5
1941	460.7	16.2	460.7	16.2	.0	.0
1942	460.7	21.8	460.7	20.4	.0	.0
1943	452.2	7.7	453.4	8.9	.3	1.2
1944	409.0	9.5	413.1	9.7	1.0	4.1
1945	452.1	15.6	454.7	16.7	.6	2.6
1946	459.0	14.5	460.1	15.6	.2	1.1
1947	413.4	-5.0	415.3	-5.1	.5	1.9
1948	436.3	18.5	440.5	19.4	1.0	4.2
1949	441.0	17.0	448.9	15.6	1.8	7.9
1950	458.5	14.0	459.6	15.1	.2	1.1
1951	459.8	15.3	460.7	16.2	.2	.9
1952	460.7	16.2	460.7	16.2	.0	.0
1953	441.4	8.3	442.7	9.5	.3	1.3
1954	447.9	3.4	448.4	3.9	.1	.5
1955	414.7	11.3	416.4	11.8	.4	1.7
1956	454.5	31.1	457.1	31.7	.6	2.6
1957	452.1	20.1	452.7	19.8	.1	.6
1958	460.7	16.2	460.7	16.2	.0	.0
1959	414.2	-6.4	417.5	-7.5	.8	3.3
1960	432.1	-2.1	437.2	-1.8	1.2	5.1
1961	403.8	5.6	407.4	5.8	.9	3.6
1962	448.6	4.1	449.7	5.2	.2	1.1
1963	460.7	16.2	460.7	16.2	.0	.0
1964	422.2	5.8	421.4	6.6	-.2	-.8
1965	458.6	14.1	459.8	15.3	.3	1.2
1966	419.2	-5.4	425.1	-4.4	1.4	5.9
1967	460.7	19.9	460.7	19.2	.0	.0
1968	415.3	-5.4	429.5	-4.2	3.4	14.2
1969	460.7	16.2	460.7	16.2	.0	.0
1970	436.0	6.8	435.9	7.3	.0	-.1
1971	452.8	12.6	454.7	13.7	.4	1.9
1972	442.4	6.6	443.5	7.0	.2	1.1
1973	460.7	17.9	460.7	17.1	.0	.0
1974	460.7	16.2	460.7	16.2	.0	.0
1975	456.3	23.3	458.4	24.3	.5	2.1
1976	402.3	8.0	402.4	7.0	.0	.1
1977	354.2	2.1	352.8	1.8	-.4	-1.4
1978	458.9	14.4	460.7	16.2	.4	1.8
1979	454.2	21.9	460.7	21.8	1.4	6.5
1980	453.0	10.7	454.8	10.6	.4	1.8
1981	410.4	-2.6	413.6	-3.9	.8	3.2
1982	460.7	16.2	460.7	16.2	.0	.0
1983	460.7	16.2	460.7	16.2	.0	.0
1984	451.4	14.6	451.3	15.0	.0	-.1
1985	427.2	-3.0	429.0	-2.3	.4	1.8
1986	451.1	8.2	453.0	9.2	.4	1.9
1987	406.1	2.3	405.7	3.1	-.1	-.4
1988	398.1	3.5	399.0	3.0	.2	.9
1989	446.5	2.0	448.6	4.1	.5	2.1
1990	397.0	-2.5	397.6	-1.9	.2	.6
1991	401.6	5.7	398.4	9.2	-.8	-3.2
Mean:	437.6	9.6	439.2	9.9	.4	1.6
Median:	451.0	10.7	451.9	10.6	.2	1.1
Min:	354.2	-7.5	352.8	-7.5	-.8	-3.2
Max:	460.7	31.1	460.7	31.7	3.4	14.2
X < 360.0	1		1			
X < 375.0	2		1			
X < 395.0	3		2			
X < 405.0	11		10			
X < 420.0	20		18			
X inc > 20.0		5		4		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

FOLSOM RESERVOIR ELEVATION

June

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	451.8	-8.9	455.0	-5.7	.7	3.2
1924	377.7	3.0	381.5	.0	1.0	3.8
1925	444.2	-16.5	443.9	-16.8	-.1	-.3
1926	416.7	-12.0	417.1	-12.4	.1	.4
1927	460.7	.0	460.7	.0	.0	.0
1928	430.4	-20.6	432.9	-19.3	.6	2.5
1929	391.1	-6.1	394.2	-5.1	.8	3.1
1930	416.1	-6.0	417.4	-6.7	.3	1.3
1931	400.1	3.0	400.1	3.1	.0	.0
1932	447.3	-2.7	449.7	-2.2	.5	2.4
1933	396.7	3.6	401.8	3.9	1.3	5.1
1934	390.6	-11.1	392.1	-9.4	.4	1.5
1935	459.2	.7	460.7	.0	.3	1.5
1936	460.7	3.3	460.7	2.2	.0	.0
1937	453.0	-7.7	453.7	-7.0	.2	.7
1938	460.7	.0	460.7	.0	.0	.0
1939	406.8	-.8	408.6	-1.0	.4	1.8
1940	448.6	-8.4	450.5	-7.0	.4	1.9
1941	457.1	-3.6	457.2	-3.5	.0	.1
1942	460.7	.0	460.7	.0	.0	.0
1943	448.8	-3.4	451.3	-2.1	.6	2.5
1944	407.3	-1.7	410.5	-2.6	.8	3.2
1945	438.3	-13.8	441.9	-12.8	.8	3.6
1946	438.7	-20.3	440.7	-19.4	.5	2.0
1947	409.0	-4.4	411.7	-3.6	.7	2.7
1948	444.9	8.6	450.6	10.1	1.3	5.7
1949	434.0	-7.0	436.3	-12.6	.5	2.3
1950	458.7	.2	460.7	1.1	.4	2.0
1951	450.0	-9.8	452.4	-8.3	.5	2.4
1952	460.7	.0	460.7	.0	.0	.0
1953	454.1	12.7	456.8	14.1	.6	2.7
1954	432.2	-15.7	432.6	-15.8	.1	.4
1955	412.4	-2.3	414.9	-1.5	.6	2.5
1956	460.7	6.2	460.7	3.6	.0	.0
1957	443.3	-8.8	444.5	-8.2	.3	1.2
1958	460.7	.0	460.7	.0	.0	.0
1959	410.2	-4.0	412.4	-5.1	.5	2.2
1960	423.7	-8.4	429.9	-7.3	1.5	6.2
1961	406.6	2.8	410.7	3.3	1.0	4.1
1962	442.7	-5.9	445.7	-4.0	.7	3.0
1963	457.8	-2.9	459.2	-1.5	.3	1.4
1964	418.1	-4.1	418.1	-3.3	.0	.0
1965	456.8	-1.8	459.4	-.4	.6	2.6
1966	410.6	-8.6	417.9	-7.2	1.8	7.3
1967	460.7	.0	460.7	.0	.0	.0
1968	408.4	-6.9	421.0	-8.5	3.1	12.6
1969	460.7	.0	460.7	.0	.0	.0
1970	427.5	-8.5	428.2	-7.7	.2	.7
1971	458.0	5.2	460.7	6.0	.6	2.7
1972	421.8	-20.6	424.1	-19.4	.5	2.3
1973	433.5	-27.2	435.1	-25.6	.4	1.6
1974	460.7	.0	460.7	.0	.0	.0
1975	460.7	4.4	460.7	2.3	.0	.0
1976	390.6	-11.7	392.1	-10.3	.4	1.5
1977	349.9	-4.3	348.5	-4.3	-.4	-1.4
1978	458.5	-.4	460.7	.0	.5	2.2
1979	423.4	-30.8	432.6	-28.1	2.2	9.2
1980	450.5	-2.5	453.6	-1.2	.7	3.1
1981	407.6	-2.8	408.0	-5.6	.1	.4
1982	460.7	.0	460.7	.0	.0	.0
1983	460.7	.0	460.7	.0	.0	.0
1984	442.0	-9.4	442.7	-8.6	.2	.7
1985	414.3	-12.9	414.9	-14.1	.1	.6
1986	450.0	-1.1	452.0	-1.0	.4	2.0
1987	403.9	-2.2	403.8	-1.9	.0	-.1
1988	390.6	-7.5	392.1	-6.9	.4	1.5
1989	430.9	-15.6	430.9	-17.7	.0	.0
1990	390.6	-6.4	392.1	-5.5	.4	1.5
1991	394.9	-6.7	392.1	-6.3	-.7	-2.8
Mean:	432.6	-5.0	434.4	-4.8	.4	1.8
Median:	438.7	-3.6	441.9	-3.5	.4	1.5
Min:	349.9	-30.8	348.5	-28.1	-.7	-2.8
Max:	460.7	12.7	460.7	14.1	3.1	12.6
X < 360.0	1		1			
X < 375.0	1		1			
X < 395.0	8		8			
X < 405.0	11		11			
X < 420.0	24		23			
X inc > 20.0		0		0		
X dec > 9.0		15		14		
X dec > 10.0		13		13		
X dec > 15.0		8		8		

FOLSOM RESERVOIR ELEVATION

July

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	453.7	.0	454.8	.0	.2	1.1
1923	447.2	-4.6	450.5	-4.5	.7	3.3
1924	379.8	2.1	380.4	-1.1	.2	.6
1925	438.6	-5.6	434.8	-9.1	-.9	-3.8
1926	399.5	-17.2	400.3	-16.8	.2	.8
1927	433.6	-27.1	435.5	-25.2	.4	1.9
1928	422.7	-7.7	424.1	-8.8	.3	1.4
1929	382.2	-8.9	385.2	-9.0	.8	3.0
1930	401.7	-14.4	404.1	-13.3	.6	2.4
1931	382.0	-18.1	383.9	-16.2	.5	1.9
1932	440.6	-6.7	444.7	-5.0	.9	4.1
1933	385.4	-11.3	392.0	-9.8	1.7	6.6
1934	380.3	-10.3	382.1	-10.0	.5	1.8
1935	452.7	-6.5	452.9	-7.8	.0	.2
1936	449.9	-10.8	450.6	-10.1	.2	.7
1937	447.2	-5.8	451.4	-2.3	.9	4.2
1938	458.4	-2.3	458.4	-2.3	.0	.0
1939	395.9	-10.9	397.9	-10.7	.5	2.0
1940	423.0	-25.6	424.1	-26.4	.3	1.1
1941	455.5	-1.6	457.3	.1	.4	1.8
1942	458.4	-2.3	458.4	-2.3	.0	.0
1943	424.1	-24.7	426.1	-25.2	.5	2.0
1944	403.8	-3.5	406.9	-3.6	.8	3.1
1945	421.8	-16.5	424.1	-17.8	.5	2.3
1946	421.8	-16.9	424.1	-16.6	.5	2.3
1947	400.6	-8.4	401.0	-10.7	.1	.4
1948	441.7	-3.2	445.4	-5.2	.8	3.7
1949	421.0	-13.0	424.2	-12.1	.8	3.2
1950	449.9	-8.8	451.4	-9.3	.3	1.5
1951	423.0	-27.0	424.1	-28.3	.3	1.1
1952	458.4	-2.3	458.4	-2.3	.0	.0
1953	458.2	4.1	458.4	1.6	.0	.2
1954	423.0	-9.2	424.1	-8.5	.3	1.1
1955	409.0	-3.4	412.5	-2.4	.9	3.5
1956	458.4	-2.3	458.4	-2.3	.0	.0
1957	423.0	-20.3	424.1	-20.4	.3	1.1
1958	458.4	-2.3	458.4	-2.3	.0	.0
1959	407.8	-2.4	410.6	-1.8	.7	2.8
1960	415.7	-8.0	422.0	-7.9	1.5	6.3
1961	403.3	-3.3	408.1	-2.6	1.2	4.8
1962	421.8	-20.9	424.1	-21.6	.5	2.3
1963	433.0	-24.8	435.7	-23.5	.6	2.7
1964	407.9	-10.2	408.1	-10.0	.0	.2
1965	431.3	-25.5	436.0	-23.4	1.1	4.7
1966	407.0	-3.6	413.2	-4.7	1.5	6.2
1967	458.4	-2.3	458.4	-2.3	.0	.0
1968	404.5	-3.9	413.1	-7.9	2.1	8.6
1969	458.4	-2.3	458.4	-2.3	.0	.0
1970	424.1	-3.4	424.1	-4.1	.0	.0
1971	458.4	.4	458.4	-2.3	.0	.0
1972	417.0	-4.8	420.2	-3.9	.8	3.2
1973	423.0	-10.5	424.1	-11.0	.3	1.1
1974	458.4	-2.3	458.4	-2.3	.0	.0
1975	458.4	-2.3	458.4	-2.3	.0	.0
1976	382.2	-8.4	383.9	-8.2	.4	1.7
1977	340.9	-9.0	339.0	-9.5	-.6	-1.9
1978	436.4	-22.1	442.2	-18.5	1.3	5.8
1979	420.9	-2.5	424.1	-8.5	.8	3.2
1980	441.0	-9.5	445.2	-8.4	1.0	4.2
1981	405.4	-2.2	406.4	-1.6	.2	1.0
1982	458.4	-2.3	458.4	-2.3	.0	.0
1983	458.4	-2.3	458.4	-2.3	.0	.0
1984	424.1	-17.9	424.1	-18.6	.0	.0
1985	402.2	-12.1	402.4	-12.5	.0	.2
1986	428.2	-21.8	426.8	-25.2	-.3	-1.4
1987	395.9	-8.0	395.9	-7.9	.0	.0
1988	382.2	-8.4	383.9	-8.2	.4	1.7
1989	415.2	-15.7	414.9	-16.0	-.1	-.3
1990	382.2	-8.4	383.9	-8.2	.4	1.7
1991	383.0	-11.9	383.9	-8.2	.2	.9
Mean:	423.3	-9.2	425.0	-9.3	.4	1.7
Median:	423.0	-8.4	424.1	-8.2	.3	1.1
Min:	340.9	-27.1	339.0	-28.3	-.9	-3.8
Max:	458.4	4.1	458.4	1.6	2.1	8.6
X < 360.0	1		1			
X < 375.0	1		1			
X < 395.0	10		10			
X < 405.0	19		16			
X < 420.0	27		25			
X inc > 20.0		0		0		
X dec > 9.0		28		29		
X dec > 10.0		26		23		
X dec > 15.0		16		16		

FOLSOM RESERVOIR ELEVATION

August

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	444.0	.0	444.5	.0	.1	.5
1923	427.3	-19.9	434.8	-15.7	1.8	7.5
1924	381.2	1.4	378.6	-1.8	-.7	-2.6
1925	435.7	-2.9	428.1	-6.7	-1.7	-7.6
1926	399.5	.0	401.4	1.1	.5	1.9
1927	417.7	-15.9	421.1	-14.4	.8	3.4
1928	399.5	-23.2	406.2	-17.9	1.7	6.7
1929	386.5	4.3	389.9	4.7	.9	3.4
1930	404.6	2.9	407.9	3.8	.8	3.3
1931	382.0	.0	383.5	-.4	.4	1.5
1932	437.2	-3.4	442.2	-2.5	1.1	5.0
1933	393.7	8.3	398.6	6.6	1.2	4.9
1934	374.8	-5.5	377.2	-4.9	.6	2.4
1935	436.4	-16.3	437.4	-15.5	.2	1.0
1936	444.5	-5.4	444.5	-6.1	.0	.0
1937	442.9	-4.3	444.5	-6.9	.4	1.6
1938	444.5	-13.9	444.5	-13.9	.0	.0
1939	393.9	-2.0	396.6	-1.3	.7	2.7
1940	408.4	-14.6	411.1	-13.0	.7	2.7
1941	444.5	-11.0	444.5	-12.8	.0	.0
1942	444.5	-13.9	444.5	-13.9	.0	.0
1943	412.2	-11.9	417.2	-8.9	1.2	5.0
1944	407.3	3.5	411.2	4.3	1.0	3.9
1945	413.8	-8.0	417.3	-6.8	.8	3.5
1946	414.1	-7.7	419.8	-4.3	1.4	5.7
1947	404.3	3.7	403.7	2.7	-.1	-.6
1948	431.1	-10.6	437.2	-8.2	1.4	6.1
1949	408.6	-12.4	416.7	-7.5	2.0	8.1
1950	441.1	-8.8	443.9	-7.5	.6	2.8
1951	409.4	-13.6	412.1	-12.0	.7	2.7
1952	444.5	-13.9	444.5	-13.9	.0	.0
1953	444.5	-13.7	444.5	-13.9	.0	.0
1954	403.2	-19.8	406.2	-17.9	.7	3.0
1955	404.6	-4.4	405.2	-7.3	.1	.6
1956	444.5	-13.9	444.5	-13.9	.0	.0
1957	413.5	-9.5	417.8	-6.3	1.0	4.3
1958	444.5	-13.9	444.5	-13.9	.0	.0
1959	399.5	-8.3	399.5	-11.1	.0	.0
1960	406.6	-9.1	406.3	-15.7	-.1	-.3
1961	400.0	-3.3	404.1	-4.0	1.0	4.1
1962	409.7	-12.1	413.1	-11.0	.8	3.4
1963	429.0	-4.0	432.8	-2.9	.9	3.8
1964	410.5	2.6	411.7	3.6	.3	1.2
1965	425.2	-6.1	430.7	-5.3	1.3	5.5
1966	399.5	-7.5	400.9	-12.3	.4	1.4
1967	444.5	-13.9	444.5	-13.9	.0	.0
1968	399.5	-5.0	405.5	-7.6	1.5	6.0
1969	444.5	-13.9	444.5	-13.9	.0	.0
1970	406.2	-17.9	406.8	-17.3	.1	.6
1971	444.5	-13.9	444.5	-13.9	.0	.0
1972	399.5	-17.5	399.5	-20.7	.0	.0
1973	403.6	-19.4	406.4	-17.7	.7	2.8
1974	444.5	-13.9	444.5	-13.9	.0	.0
1975	444.5	-13.9	444.5	-13.9	.0	.0
1976	376.4	-5.8	377.5	-6.4	.3	1.1
1977	333.6	-7.3	331.5	-7.5	-.6	-2.1
1978	422.4	-14.0	430.2	-12.0	1.8	7.8
1979	406.4	-14.5	410.9	-13.2	1.1	4.5
1980	423.9	-17.1	429.8	-15.4	1.4	5.9
1981	403.4	-2.0	403.1	-3.3	-.1	-.3
1982	444.5	-13.9	444.5	-13.9	.0	.0
1983	444.5	-13.9	445.8	-12.6	.3	1.3
1984	412.6	-11.5	415.3	-8.8	.7	2.7
1985	389.6	-12.6	390.5	-11.9	.2	.9
1986	412.8	-15.4	414.5	-12.3	.4	1.7
1987	382.4	-13.5	383.0	-12.9	.2	.6
1988	375.9	-6.3	376.8	-7.1	.2	.9
1989	396.0	-19.2	393.9	-21.0	-.5	-2.1
1990	376.4	-5.8	377.5	-6.4	.3	1.1
1991	387.5	4.5	389.3	5.4	.5	1.8
Mean:	414.1	-9.1	416.0	-8.8	.5	2.0
Median:	409.7	-11.0	413.1	-11.0	.4	1.4
Min:	333.6	-23.2	331.5	-21.0	-1.7	-7.6
Max:	444.5	8.3	445.8	6.6	2.0	8.1
X < 360.0	1		1			
X < 375.0	2		1			
X < 395.0	13		12			
X < 405.0	27		21			
X < 420.0	43		42			
X inc > 20.0		0		0		
X dec > 9.0		38		35		
X dec > 10.0		36		35		
X dec > 15.0		11		10		

FOLSOM RESERVOIR ELEVATION

September

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	429.4	.0	429.4	.0	.0	.0
1923	422.6	-4.7	428.5	-6.3	1.4	5.9
1924	379.0	-2.2	376.2	-2.4	-.7	-2.8
1925	427.5	-8.2	424.0	-4.1	-.8	-3.5
1926	397.1	-2.4	399.0	-2.4	.5	1.9
1927	412.5	-5.2	415.5	-5.6	.7	3.0
1928	396.0	-3.5	404.9	-1.3	2.2	8.9
1929	384.5	-2.0	386.5	-3.4	.5	2.0
1930	402.7	-1.9	406.9	-1.0	1.0	4.2
1931	379.5	-2.5	380.6	-2.9	.3	1.1
1932	428.6	-8.6	429.4	-12.8	.2	.8
1933	392.2	-1.5	397.9	-.7	1.5	5.7
1934	374.9	.1	377.1	-.1	.6	2.2
1935	428.0	-8.4	425.9	-11.5	-.5	-2.1
1936	429.4	-15.1	429.4	-15.1	.0	.0
1937	429.4	-13.5	429.4	-15.1	.0	.0
1938	429.4	-15.1	429.4	-15.1	.0	.0
1939	390.0	-3.9	393.7	-2.9	.9	3.7
1940	404.8	-3.6	408.4	-2.7	.9	3.6
1941	429.4	-15.1	429.4	-15.1	.0	.0
1942	429.4	-15.1	429.4	-15.1	.0	.0
1943	408.4	-3.8	415.1	-2.1	1.6	6.7
1944	403.6	-3.7	408.4	-2.8	1.2	4.8
1945	404.7	-9.1	409.5	-7.8	1.2	4.8
1946	402.3	-11.8	409.6	-10.2	1.8	7.3
1947	399.1	-5.2	400.4	-3.3	.3	1.3
1948	417.6	-13.5	424.6	-12.6	1.7	7.0
1949	405.4	-3.2	412.6	-4.1	1.8	7.2
1950	429.4	-11.7	429.4	-14.5	.0	.0
1951	403.6	-5.8	406.2	-5.9	.6	2.6
1952	429.4	-15.1	429.4	-15.1	.0	.0
1953	429.4	-15.1	429.4	-15.1	.0	.0
1954	401.4	-1.8	405.4	-.8	1.0	4.0
1955	402.0	-2.6	403.7	-1.5	.4	1.7
1956	429.4	-15.1	429.4	-15.1	.0	.0
1957	408.5	-5.0	413.7	-4.1	1.3	5.2
1958	429.4	-15.1	429.4	-15.1	.0	.0
1959	396.6	-2.9	397.5	-2.0	.2	.9
1960	403.5	-3.1	403.7	-2.6	.0	.2
1961	395.4	-4.6	398.2	-5.9	.7	2.8
1962	401.2	-8.5	405.6	-7.5	1.1	4.4
1963	422.5	-6.5	428.0	-4.8	1.3	5.5
1964	407.7	-2.8	409.8	-1.9	.5	2.1
1965	420.2	-5.0	425.8	-4.9	1.3	5.6
1966	396.2	-3.3	399.1	-1.8	.7	2.9
1967	429.4	-15.1	429.4	-15.1	.0	.0
1968	398.5	-1.0	399.5	-6.0	.3	1.0
1969	429.4	-15.1	429.4	-15.1	.0	.0
1970	404.1	-2.1	405.6	-1.2	.4	1.5
1971	429.4	-15.1	429.4	-15.1	.0	.0
1972	397.2	-2.3	397.9	-1.6	.2	.7
1973	402.6	-1.0	406.2	-.2	.9	3.6
1974	429.4	-15.1	429.4	-15.1	.0	.0
1975	429.4	-15.1	429.4	-15.1	.0	.0
1976	375.4	-1.0	375.2	-2.3	-.1	-.2
1977	326.6	-7.0	326.7	-4.8	.0	.1
1978	419.1	-3.3	425.6	-4.6	1.6	6.5
1979	399.5	-6.9	402.3	-8.6	.7	2.8
1980	418.4	-5.5	424.5	-5.3	1.5	6.1
1981	397.9	-5.5	398.1	-5.0	.1	.2
1982	429.4	-15.1	429.4	-15.1	.0	.0
1983	429.5	-15.0	432.2	-13.6	.6	2.7
1984	409.6	-3.0	413.3	-2.0	.9	3.7
1985	390.5	.9	392.1	1.6	.4	1.6
1986	410.7	-2.1	414.1	-.4	.8	3.4
1987	383.6	1.2	383.7	.7	.0	.1
1988	377.8	1.9	378.2	1.4	.1	.4
1989	397.4	1.4	397.0	3.1	-.1	-.4
1990	379.0	2.6	379.7	2.2	.2	.7
1991	384.1	-3.4	386.3	-3.0	.6	2.2
Mean:	407.4	-6.4	409.6	-6.2	.5	2.1
Median:	404.7	-4.7	409.5	-4.6	.4	1.5
Min:	326.6	-15.1	326.7	-15.1	-.8	-3.5
Max:	429.5	2.6	432.2	3.1	2.2	8.9
X < 360.0	1		1			
X < 375.0	2		1			
X < 395.0	13		12			
X < 405.0	36		26			
X < 420.0	46		43			
X inc > 20.0		0		0		
X dec > 9.0		20		21		
X dec > 10.0		19		21		
X dec > 15.0		14		15		

RETURN TO TABLE OF CONTENTS

Section 2

FOLSOM RESERVOIR ELEVATION
2.2 Recreation

FOLSOM RESERVOIR ELEVATION

October

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	405.5	.0	406.6	.0	.3	1.1
1923	419.9	-9.5	420.9	-8.5	.2	1.0
1924	411.9	-10.7	419.2	-9.3	1.8	7.3
1925	377.8	-1.2	378.7	2.5	.2	.9
1926	417.8	-9.7	414.9	-9.1	-.7	-2.9
1927	389.8	-7.3	392.5	-6.5	.7	2.7
1928	401.0	-11.5	405.8	-9.7	1.2	4.8
1929	387.2	-8.8	396.4	-8.5	2.4	9.2
1930	376.7	-7.8	379.3	-7.2	.7	2.6
1931	395.8	-6.9	398.8	-8.1	.8	3.0
1932	373.7	-5.8	375.6	-5.0	.5	1.9
1933	417.8	-10.8	419.6	-9.8	.4	1.8
1934	384.9	-7.3	391.5	-6.4	1.7	6.6
1935	378.0	3.1	379.4	2.3	.4	1.4
1936	419.1	-8.9	417.8	-8.1	-.3	-1.3
1937	419.1	-10.3	420.0	-9.4	.2	.9
1938	419.8	-9.6	420.8	-8.6	.2	1.0
1939	420.1	-9.3	421.2	-8.2	.3	1.1
1940	385.8	-4.2	387.9	-5.8	.5	2.1
1941	396.4	-8.4	399.4	-9.0	.8	3.0
1942	419.7	-9.7	421.0	-8.4	.3	1.3
1943	419.6	-9.8	420.6	-8.8	.2	1.0
1944	398.2	-10.2	404.8	-10.3	1.7	6.6
1945	394.2	-9.4	398.0	-10.4	1.0	3.8
1946	399.4	-5.3	403.8	-5.7	1.1	4.4
1947	396.1	-6.2	401.1	-8.5	1.3	5.0
1948	397.2	-1.9	399.2	-1.2	.5	2.0
1949	406.0	-11.6	414.9	-9.7	2.2	8.9
1950	396.7	-8.7	401.5	-11.1	1.2	4.8
1951	423.1	-6.3	424.2	-5.2	.3	1.1
1952	398.3	-5.3	402.5	-3.7	1.1	4.2
1953	421.6	-7.8	422.7	-6.7	.3	1.1
1954	419.3	-10.1	420.5	-8.9	.3	1.2
1955	394.8	-6.6	397.6	-7.8	.7	2.8
1956	393.7	-8.3	394.0	-9.7	.1	.3
1957	421.7	-7.7	422.8	-6.6	.3	1.1
1958	399.5	-9.0	404.6	-9.1	1.3	5.1
1959	418.9	-10.5	420.1	-9.3	.3	1.2
1960	387.1	-9.5	388.8	-8.7	.4	1.7
1961	394.1	-9.4	394.6	-9.1	.1	.5
1962	385.0	-10.4	388.9	-9.3	1.0	3.9
1963	429.4	28.2	429.4	23.8	.0	.0
1964	413.4	-9.1	420.5	-7.5	1.7	7.1
1965	399.8	-7.9	400.6	-9.2	.2	.8
1966	410.2	-10.0	417.5	-8.3	1.8	7.3
1967	387.3	-8.9	391.4	-7.7	1.1	4.1
1968	421.1	-8.3	422.2	-7.2	.3	1.1
1969	392.9	-5.6	394.5	-5.0	.4	1.6
1970	421.7	-7.7	422.8	-6.6	.3	1.1
1971	395.6	-8.5	397.7	-7.9	.5	2.1
1972	419.3	-10.1	420.5	-8.9	.3	1.2
1973	391.9	-5.3	393.5	-4.4	.4	1.6
1974	399.0	-3.6	402.1	-4.1	.8	3.1
1975	420.3	-9.1	421.4	-8.0	.3	1.1
1976	425.5	-3.9	426.6	-2.8	.3	1.1
1977	374.6	-.8	374.4	-.8	-.1	-.2
1978	322.1	-4.5	324.2	-2.5	.7	2.1
1979	406.3	-12.8	414.8	-10.8	2.1	8.5
1980	395.5	-4.0	399.8	-2.5	1.1	4.3
1981	407.2	-11.2	415.1	-9.4	1.9	7.9
1982	393.4	-4.5	394.7	-3.4	.3	1.3
1983	429.4	.0	429.4	.0	.0	.0
1984	429.4	-.1	429.4	-2.8	.0	.0
1985	403.0	-6.6	405.5	-7.8	.6	2.5
1986	385.8	-4.7	385.5	-6.6	-.1	-.3
1987	402.3	-8.4	405.4	-8.7	.8	3.1
1988	368.7	-14.9	370.0	-13.7	.4	1.3
1989	374.7	-3.1	375.3	-2.9	.2	.6
1990	393.7	-3.7	394.5	-2.5	.2	.8
1991	373.4	-5.6	371.5	-8.2	-.5	-1.9
Mean:	401.0	-6.8	403.5	-6.4	.6	2.5
Median:	399.0	-8.3	402.5	-8.0	.4	1.6
Min:	322.1	-14.9	324.2	-13.7	-.7	-2.9
Max:	429.4	28.2	429.4	23.8	2.4	9.2
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	11		19			
X > 412.0	23		28			
X > 405.0	29		32			
X > 395.0	45		48			
X > 375.0	64		66			
X > 360.0	69		69			

FOLSOM RESERVOIR ELEVATION

November

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	393.9	.0	396.1	.0	.6	2.2
1923	415.7	-4.2	417.5	-3.4	.4	1.8
1924	399.7	-12.2	408.7	-10.5	2.3	9.0
1925	381.2	3.4	384.9	6.2	1.0	3.7
1926	409.2	-8.6	406.7	-8.2	-.6	-2.5
1927	407.3	17.5	410.0	17.5	.7	2.7
1928	402.6	1.6	408.7	2.9	1.5	6.1
1929	378.8	-8.4	387.8	-8.6	2.4	9.0
1930	366.8	-9.9	370.2	-9.1	.9	3.4
1931	392.6	-3.2	394.0	-4.8	.4	1.4
1932	370.4	-3.3	372.8	-2.8	.6	2.4
1933	407.4	-10.4	410.1	-9.5	.7	2.7
1934	377.4	-7.5	385.3	-6.2	2.1	7.9
1935	390.0	12.0	389.8	10.4	-.1	-.2
1936	411.4	-7.7	410.7	-7.1	-.2	-.7
1937	408.8	-10.3	410.6	-9.4	.4	1.8
1938	413.7	-6.1	415.7	-5.1	.5	2.0
1939	412.3	-7.8	414.4	-6.8	.5	2.1
1940	379.4	-6.4	379.7	-8.2	.1	.3
1941	392.8	-3.6	394.7	-4.7	.5	1.9
1942	413.4	-6.3	415.6	-5.4	.5	2.2
1943	421.3	1.7	421.3	.7	.0	.0
1944	389.1	-9.1	395.2	-9.6	1.6	6.1
1945	400.8	6.6	402.7	4.7	.5	1.9
1946	408.6	9.2	411.6	7.8	.7	3.0
1947	401.1	5.0	402.7	1.6	.4	1.6
1948	393.1	-4.1	395.8	-3.4	.7	2.7
1949	396.3	-9.7	407.1	-7.8	2.7	10.8
1950	388.1	-8.6	389.7	-11.8	.4	1.6
1951	398.9	-24.2	398.9	-25.3	.0	.0
1952	402.7	4.4	407.6	5.1	1.2	4.9
1953	414.9	-6.7	416.8	-5.9	.5	1.9
1954	415.0	-4.3	417.0	-3.5	.5	2.0
1955	389.0	-5.8	390.5	-7.1	.4	1.5
1956	388.0	-5.7	386.4	-7.6	-.4	-1.6
1957	413.6	-8.1	415.7	-7.1	.5	2.1
1958	392.4	-7.1	396.8	-7.8	1.1	4.4
1959	410.9	-8.0	412.9	-7.2	.5	2.0
1960	376.2	-10.9	378.8	-10.0	.7	2.6
1961	388.6	-5.5	389.9	-4.7	.3	1.3
1962	374.9	-10.1	380.2	-8.7	1.4	5.3
1963	421.3	-8.1	421.3	-8.1	.0	.0
1964	421.3	7.9	421.3	.8	.0	.0
1965	399.7	-.1	399.2	-1.4	-.1	-.5
1966	408.5	-1.7	416.6	-.9	2.0	8.1
1967	390.3	3.0	394.7	3.3	1.1	4.4
1968	418.0	-3.1	419.9	-2.3	.5	1.9
1969	397.4	4.5	399.6	5.1	.6	2.2
1970	415.3	-6.4	417.3	-5.5	.5	2.0
1971	408.9	13.3	411.1	13.4	.5	2.2
1972	413.6	-5.7	415.6	-4.9	.5	2.0
1973	398.1	6.2	400.3	6.8	.6	2.2
1974	420.8	21.8	421.1	19.0	.1	.3
1975	410.6	-9.7	412.5	-8.9	.5	1.9
1976	421.3	-4.2	421.3	-5.3	.0	.0
1977	371.8	-2.8	371.6	-2.8	-.1	-.2
1978	325.1	3.0	329.7	5.5	1.4	4.6
1979	396.6	-9.7	406.6	-8.2	2.5	10.0
1980	395.9	.4	401.7	1.9	1.5	5.8
1981	397.3	-9.9	407.0	-8.1	2.4	9.7
1982	418.8	25.4	418.8	24.1	.0	.0
1983	421.2	-8.2	421.2	-8.2	.0	.0
1984	399.9	-29.5	400.6	-28.8	.2	.7
1985	414.5	11.5	415.7	10.2	.3	1.2
1986	390.0	4.2	388.1	2.6	-.5	-1.9
1987	393.3	-9.0	395.5	-9.9	.6	2.2
1988	359.1	-9.6	361.8	-8.2	.8	2.7
1989	387.1	12.4	388.0	12.7	.2	.9
1990	391.8	-1.9	393.5	-1.0	.4	1.7
1991	367.3	-6.1	362.3	-9.2	-1.4	-5.0
Mean:	398.0	-2.8	400.5	-2.8	.6	2.5
Median:	398.9	-5.7	402.7	-5.1	.5	2.0
Min:	325.1	-29.5	329.7	-28.8	-1.4	-5.0
Max:	421.3	25.4	421.3	24.1	2.7	10.8
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	6		6			
X > 412.0	18		21			
X > 405.0	28		34			
X > 395.0	42		47			
X > 375.0	63		64			
X > 360.0	68		69			

FOLSOM RESERVOIR ELEVATION

December

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	396.6	.0	399.6	.0	.8	3.0
1923	421.3	5.6	421.3	3.8	.0	.0
1924	385.0	-14.7	396.5	-12.2	3.0	11.5
1925	387.8	6.6	393.8	8.9	1.5	6.0
1926	400.0	-9.2	397.8	-8.9	-.6	-2.2
1927	415.0	7.7	417.9	7.9	.7	2.9
1928	400.0	-2.6	407.1	-1.6	1.8	7.1
1929	370.4	-8.4	379.0	-8.8	2.3	8.6
1930	388.1	21.3	391.0	20.8	.7	2.9
1931	382.3	-10.3	381.8	-12.2	-.1	-.5
1932	388.8	18.4	391.0	18.2	.6	2.2
1933	394.9	-12.5	398.9	-11.2	1.0	4.0
1934	384.4	7.0	392.1	6.8	2.0	7.7
1935	397.0	7.0	396.7	6.9	-.1	-.3
1936	401.0	-10.4	401.0	-9.7	.0	.0
1937	397.3	-11.5	400.1	-10.5	.7	2.8
1938	420.0	6.3	420.0	4.3	.0	.0
1939	402.5	-9.8	405.6	-8.8	.8	3.1
1940	374.5	-4.9	372.1	-7.6	-.6	-2.4
1941	415.2	22.4	415.6	20.9	.1	.4
1942	421.3	7.9	421.3	5.7	.0	.0
1943	421.2	-.1	421.2	-.1	.0	.0
1944	376.1	-13.0	381.7	-13.5	1.5	5.6
1945	404.6	3.8	404.8	2.1	.0	.2
1946	421.3	12.7	421.3	9.7	.0	.0
1947	402.5	1.4	400.6	-2.1	-.5	-1.9
1948	385.2	-7.9	388.6	-7.2	.9	3.4
1949	388.6	-7.7	401.3	-5.8	3.3	12.7
1950	376.3	-11.8	373.2	-16.5	-.8	-3.1
1951	387.2	-11.7	387.2	-11.7	.0	.0
1952	421.3	18.6	421.3	13.7	.0	.0
1953	415.1	.2	417.5	.7	.6	2.4
1954	408.9	-6.1	411.6	-5.4	.7	2.7
1955	396.2	7.2	395.6	5.1	-.2	-.6
1956	418.1	30.1	418.1	31.7	.0	.0
1957	405.0	-8.6	408.0	-7.7	.7	3.0
1958	392.7	.3	395.7	-1.1	.8	3.0
1959	398.8	-12.1	402.0	-10.9	.8	3.2
1960	360.4	-15.8	366.4	-12.4	1.7	6.0
1961	381.3	-7.3	383.6	-6.3	.6	2.3
1962	370.2	-4.7	376.6	-3.6	1.7	6.4
1963	421.3	.0	421.3	.0	.0	.0
1964	417.1	-4.2	413.1	-8.2	-1.0	-4.0
1965	402.3	2.6	401.3	2.1	-.2	-1.0
1966	403.5	-5.0	412.7	-3.9	2.3	9.2
1967	415.3	25.0	419.1	24.4	.9	3.8
1968	413.0	-5.0	415.8	-4.1	.7	2.8
1969	405.5	8.1	408.2	8.6	.7	2.7
1970	421.1	5.8	421.1	3.8	.0	.0
1971	421.3	12.4	421.3	10.2	.0	.0
1972	416.0	2.4	418.8	3.2	.7	2.8
1973	414.2	16.1	416.6	16.3	.6	2.4
1974	420.0	-.8	420.3	-.8	.1	.3
1975	404.3	-6.3	407.2	-5.3	.7	2.9
1976	412.9	-8.4	413.5	-7.8	.1	.6
1977	361.9	-9.9	361.9	-9.7	.0	.0
1978	371.0	45.9	374.0	44.3	.8	3.0
1979	383.9	-12.7	396.7	-9.9	3.3	12.8
1980	399.2	3.3	405.8	4.1	1.7	6.6
1981	386.1	-11.2	398.0	-9.0	3.1	11.9
1982	399.4	-19.4	399.5	-19.3	.0	.1
1983	420.7	-.5	420.7	-.5	.0	.0
1984	392.6	-7.3	392.6	-8.0	.0	.0
1985	416.1	1.6	415.8	.1	-.1	-.3
1986	402.5	12.5	399.1	11.0	-.8	-3.4
1987	378.9	-14.4	380.6	-14.9	.4	1.7
1988	370.7	11.6	373.4	11.6	.7	2.7
1989	393.0	5.9	394.2	6.2	.3	1.2
1990	384.6	-7.2	387.3	-6.2	.7	2.7
1991	359.6	-7.7	349.7	-12.6	-2.8	-9.9
Mean:	398.3	.2	400.5	.0	.6	2.2
Median:	399.4	-.8	400.6	-1.6	.6	2.2
Min:	359.6	-19.4	349.7	-19.3	-2.8	-9.9
Max:	421.3	45.9	421.3	44.3	3.3	12.8
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	9		10			
X > 412.0	22		23			
X > 405.0	24		30			
X > 395.0	42		48			
X > 375.0	62		63			
X > 360.0	69		69			

FOLSOM RESERVOIR ELEVATION

January

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	395.6	.0	399.6	.0	1.0	4.0
1923	421.3	.0	421.3	.0	.0	.0
1924	369.3	-15.7	384.4	-12.1	4.1	15.1
1925	380.1	-7.7	384.2	-9.6	1.1	4.1
1926	390.3	-9.7	388.6	-9.2	-.4	-1.7
1927	421.1	6.1	421.3	3.4	.0	.2
1928	397.8	-2.2	403.9	-3.2	1.5	6.1
1929	360.5	-9.9	369.3	-9.7	2.4	8.8
1930	393.7	5.6	396.7	5.7	.8	3.0
1931	377.4	-4.9	376.2	-5.6	-.3	-1.2
1932	397.0	8.2	399.2	8.2	.6	2.2
1933	385.0	-9.9	390.3	-8.6	1.4	5.3
1934	392.1	7.7	399.5	7.4	1.9	7.4
1935	403.2	6.2	403.2	6.5	.0	.0
1936	421.3	20.3	421.3	20.3	.0	.0
1937	388.2	-9.1	392.0	-8.1	1.0	3.8
1938	419.8	-.2	419.7	-.3	.0	-.1
1939	393.8	-8.7	396.0	-9.6	.6	2.2
1940	420.9	46.4	420.9	48.8	.0	.0
1941	421.3	6.1	421.3	5.7	.0	.0
1942	420.3	-1.0	420.0	-1.3	-.1	-.3
1943	419.2	-2.0	419.2	-2.0	.0	.0
1944	368.3	-7.8	373.4	-8.3	1.4	5.1
1945	399.7	-4.9	400.3	-4.5	.2	.6
1946	420.3	-1.0	420.3	-1.0	.0	.0
1947	392.2	-10.3	390.9	-9.7	-.3	-1.3
1948	391.9	6.7	395.3	6.7	.9	3.4
1949	376.9	-11.7	392.6	-8.7	4.2	15.7
1950	408.8	32.5	404.3	31.1	-1.1	-4.5
1951	390.9	3.7	390.9	3.7	.0	.0
1952	421.3	.0	421.3	.0	.0	.0
1953	421.2	6.1	421.2	3.7	.0	.0
1954	407.6	-1.3	411.1	-.5	.9	3.5
1955	400.5	4.3	400.4	4.8	.0	-.1
1956	398.4	-19.7	398.6	-19.5	.1	.2
1957	395.7	-9.3	399.8	-8.2	1.0	4.1
1958	399.8	7.1	403.4	7.7	.9	3.6
1959	403.3	4.5	407.2	5.2	1.0	3.9
1960	357.6	-2.8	365.8	-.6	2.3	8.2
1961	369.0	-12.3	372.6	-11.0	1.0	3.6
1962	364.5	-5.7	372.4	-4.2	2.2	7.9
1963	419.0	-2.3	418.9	-2.4	.0	-.1
1964	417.1	.0	414.0	.9	-.7	-3.1
1965	394.9	-7.4	394.9	-6.4	.0	.0
1966	401.6	-1.9	409.8	-2.9	2.0	8.2
1967	419.9	4.6	420.4	1.3	.1	.5
1968	409.9	-3.1	413.6	-2.2	.9	3.7
1969	418.9	13.4	418.9	10.7	.0	.0
1970	402.3	-18.8	402.3	-18.8	.0	.0
1971	421.3	.0	421.3	.0	.0	.0
1972	411.0	-5.0	414.8	-4.0	.9	3.8
1973	420.0	5.8	420.0	3.4	.0	.0
1974	413.1	-6.9	413.5	-6.8	.1	.4
1975	399.0	-5.3	402.9	-4.3	1.0	3.9
1976	398.4	-14.5	399.9	-13.6	.4	1.5
1977	355.7	-6.2	355.9	-6.0	.1	.2
1978	421.3	50.3	420.5	46.5	-.2	-.8
1979	392.0	8.1	404.4	7.7	3.2	12.4
1980	407.5	8.3	411.1	5.3	.9	3.6
1981	382.6	-3.5	396.2	-1.8	3.6	13.6
1982	397.6	-1.8	397.8	-1.7	.1	.2
1983	419.7	-1.0	419.7	-1.0	.0	.0
1984	393.5	.9	393.8	1.2	.1	.3
1985	406.7	-9.4	406.9	-8.9	.0	.2
1986	419.8	17.3	419.8	20.7	.0	.0
1987	368.5	-10.4	369.2	-11.4	.2	.7
1988	387.8	17.1	390.1	16.7	.6	2.3
1989	386.2	-6.8	387.9	-6.3	.4	1.7
1990	382.7	-1.9	386.4	-.9	1.0	3.7
1991	348.3	-11.3	331.9	-17.8	-4.7	-16.4
Mean:	398.5	.2	400.7	.2	.6	2.2
Median:	398.4	-1.9	400.4	-1.3	.1	.4
Min:	348.3	-19.7	331.9	-19.5	-4.7	-16.4
Max:	421.3	50.3	421.3	48.8	4.2	15.7
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	11		11			
X > 412.0	21		23			
X > 405.0	27		28			
X > 395.0	42		48			
X > 375.0	61		62			
X > 360.0	67		68			

FOLSOM RESERVOIR ELEVATION

February

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	421.3	.0	421.3	.0	.0	.0
1923	421.1	-.2	421.1	-.2	.0	.0
1924	367.9	-1.4	382.8	-1.6	4.1	14.9
1925	420.0	39.9	418.9	34.7	-.3	-1.1
1926	410.9	20.6	410.2	21.6	-.2	-.7
1927	419.6	-1.5	419.9	-1.4	.1	.3
1928	399.0	1.2	405.9	2.0	1.7	6.9
1929	367.3	6.8	374.7	5.4	2.0	7.4
1930	395.7	2.0	399.0	2.3	.8	3.3
1931	376.1	-1.3	375.2	-1.0	-.2	-.9
1932	420.8	23.8	421.3	22.1	.1	.5
1933	376.1	-8.9	383.0	-7.3	1.8	6.9
1934	398.5	6.4	403.9	4.4	1.4	5.4
1935	407.3	4.1	407.5	4.3	.0	.2
1936	421.2	-.1	421.2	-.1	.0	.0
1937	418.1	29.9	421.3	29.3	.8	3.2
1938	419.5	-.3	419.4	-.3	.0	-.1
1939	386.5	-7.3	389.9	-6.1	.9	3.4
1940	419.6	-1.3	419.5	-1.4	.0	-.1
1941	421.3	.0	421.2	-.1	.0	-.1
1942	419.2	-1.1	419.0	-1.0	.0	-.2
1943	418.0	-1.2	418.0	-1.2	.0	.0
1944	379.7	11.4	383.5	10.1	1.0	3.8
1945	420.3	20.6	420.3	20.0	.0	.0
1946	418.4	-1.9	418.4	-1.9	.0	.0
1947	397.0	4.8	398.7	7.8	.4	1.7
1948	385.5	-6.4	387.6	-7.7	.5	2.1
1949	375.9	-1.0	389.1	-3.5	3.5	13.2
1950	421.3	12.5	421.3	17.0	.0	.0
1951	392.7	1.8	392.7	1.8	.0	.0
1952	421.3	.0	421.3	.0	.0	.0
1953	420.6	-.6	420.5	-.7	.0	-.1
1954	416.6	9.0	420.5	9.4	.9	3.9
1955	397.6	-2.9	398.0	-2.4	.1	.4
1956	397.6	-.8	398.1	-.5	.1	.5
1957	413.3	17.6	417.4	17.6	1.0	4.1
1958	420.3	20.5	420.3	16.9	.0	.0
1959	411.8	8.5	416.0	8.8	1.0	4.2
1960	402.8	45.2	408.0	42.2	1.3	5.2
1961	374.0	5.0	377.8	5.2	1.0	3.8
1962	415.9	51.4	419.5	47.1	.9	3.6
1963	409.4	-9.6	409.8	-9.1	.1	.4
1964	414.3	-2.8	411.8	-2.2	-.6	-2.5
1965	394.7	-.2	394.7	-.2	.0	.0
1966	399.9	-1.7	409.0	-.8	2.3	9.1
1967	418.8	-1.1	419.1	-1.3	.1	.3
1968	419.4	9.5	419.4	5.8	.0	.0
1969	417.1	-1.8	417.1	-1.8	.0	.0
1970	398.2	-4.1	398.2	-4.1	.0	.0
1971	420.5	-.8	420.4	-.9	.0	-.1
1972	417.4	6.4	421.3	6.5	.9	3.9
1973	419.6	-.4	419.6	-.4	.0	.0
1974	413.7	.6	413.5	.0	.0	-.2
1975	414.9	15.9	418.8	15.9	.9	3.9
1976	389.4	-9.0	392.1	-7.8	.7	2.7
1977	351.2	-4.5	351.5	-4.4	.1	.3
1978	421.3	.0	419.8	-.7	-.4	-1.5
1979	405.8	13.8	415.7	11.3	2.4	9.9
1980	395.7	-11.8	398.1	-13.0	.6	2.4
1981	384.6	2.0	395.4	-.8	2.8	10.8
1982	390.2	-7.4	390.4	-7.4	.1	.2
1983	418.4	-1.3	418.4	-1.3	.0	.0
1984	394.0	.5	394.3	.5	.1	.3
1985	408.3	1.6	408.7	1.8	.1	.4
1986	397.1	-22.7	397.5	-22.3	.1	.4
1987	375.0	6.5	375.1	5.9	.0	.1
1988	382.7	-5.1	385.5	-4.6	.7	2.8
1989	385.2	-1.0	387.3	-.6	.5	2.1
1990	384.0	1.3	385.4	-1.0	.4	1.4
1991	341.0	-7.3	317.4	-14.5	-6.9	-23.6
Mean:	402.7	3.9	404.4	3.4	.4	1.7
Median:	408.3	-.1	409.8	-.3	.1	.3
Min:	341.0	-22.7	317.4	-22.3	-6.9	-23.6
Max:	421.3	51.4	421.3	47.1	4.1	14.9
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	12		14			
X > 412.0	32		33			
X > 405.0	38		41			
X > 395.0	49		50			
X > 375.0	64		67			
X > 360.0	68		68			

FOLSOM RESERVOIR ELEVATION

March

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	423.6	.0	424.4	.0	.2	.8
1923	421.1	.0	421.8	.7	.2	.7
1924	358.8	-9.1	372.7	-10.1	3.9	13.9
1925	423.0	3.0	419.7	.8	-.8	-3.3
1926	410.8	-.1	410.4	.2	-.1	-.4
1927	430.7	11.1	430.7	10.8	.0	.0
1928	428.7	29.7	429.2	23.3	.1	.5
1929	374.9	7.6	382.0	7.3	1.9	7.1
1930	415.1	19.4	418.2	19.2	.7	3.1
1931	384.6	8.5	382.9	7.7	-.4	-1.7
1932	426.9	6.1	428.0	6.7	.3	1.1
1933	380.3	4.2	387.3	4.3	1.8	7.0
1934	407.8	9.3	410.9	7.0	.8	3.1
1935	406.6	-.7	407.6	.1	.2	1.0
1936	431.5	10.3	431.4	10.2	.0	-.1
1937	432.0	13.9	432.0	10.7	.0	.0
1938	431.5	12.0	431.5	12.1	.0	.0
1939	398.1	11.6	401.4	11.5	.8	3.3
1940	426.9	7.3	425.7	6.2	-.3	-1.2
1941	431.8	10.5	431.8	10.6	.0	.0
1942	415.4	-3.8	416.0	-3.0	.1	.6
1943	426.5	8.5	426.6	8.6	.0	.1
1944	394.7	15.0	398.3	14.8	.9	3.6
1945	426.0	5.7	426.7	6.4	.2	.7
1946	430.1	11.7	430.8	12.4	.2	.7
1947	412.9	15.9	414.6	15.9	.4	1.7
1948	379.0	-6.5	382.6	-5.0	.9	3.6
1949	402.5	26.6	412.8	23.7	2.6	10.3
1950	431.6	10.3	430.8	9.5	-.2	-.8
1951	422.6	29.9	422.6	29.9	.0	.0
1952	432.0	10.7	432.0	10.7	.0	.0
1953	419.3	-1.3	420.0	-.5	.2	.7
1954	431.6	15.0	431.6	11.1	.0	.0
1955	396.2	-1.4	397.0	-1.0	.2	.8
1956	410.0	12.4	411.3	13.2	.3	1.3
1957	431.0	17.7	431.0	13.6	.0	.0
1958	431.7	11.4	431.7	11.4	.0	.0
1959	415.7	3.9	420.0	4.0	1.0	4.3
1960	426.2	23.4	430.8	22.8	1.1	4.6
1961	383.7	9.7	387.3	9.5	.9	3.6
1962	423.2	7.3	426.9	7.4	.9	3.7
1963	410.8	1.4	412.1	2.3	.3	1.3
1964	410.5	-3.8	408.4	-3.4	-.5	-2.1
1965	405.5	10.8	406.4	11.7	.2	.9
1966	407.5	7.6	414.5	5.5	1.7	7.0
1967	429.1	10.3	429.0	9.9	.0	-.1
1968	417.0	-2.4	429.9	10.5	3.1	12.9
1969	423.5	6.4	424.1	7.0	.1	.6
1970	423.5	25.3	422.4	24.2	-.3	-1.1
1971	430.5	10.0	430.4	10.0	.0	-.1
1972	430.1	12.7	430.2	8.9	.0	.1
1973	431.6	12.0	431.6	12.0	.0	.0
1974	424.9	11.2	424.6	11.1	-.1	-.3
1975	432.0	17.1	432.0	13.2	.0	.0
1976	386.9	-2.5	388.9	-3.2	.5	2.0
1977	351.1	-.1	350.8	-.7	-.1	-.3
1978	430.7	9.4	428.3	8.5	-.6	-2.4
1979	422.9	17.1	430.5	14.8	1.8	7.6
1980	423.7	28.0	424.9	26.8	.3	1.2
1981	401.0	16.4	409.4	14.0	2.1	8.4
1982	422.0	31.8	422.1	31.7	.0	.1
1983	427.5	9.1	427.7	9.3	.0	.2
1984	422.8	28.8	421.9	27.6	-.2	-.9
1985	413.0	4.7	413.8	5.1	.2	.8
1986	421.6	24.5	421.6	24.1	.0	.0
1987	391.8	16.8	390.5	15.4	-.3	-1.3
1988	383.3	.6	385.4	-.1	.5	2.1
1989	430.8	45.6	428.4	41.1	-.6	-2.4
1990	396.7	12.7	398.0	12.6	.3	1.3
1991	379.1	38.1	369.6	52.2	-2.5	-9.5
Mean:	413.8	11.1	415.3	10.8	.4	1.4
Median:	422.0	10.3	421.9	10.0	.1	.6
Min:	351.1	-9.1	350.8	-10.1	-2.5	-9.5
Max:	432.0	45.6	432.0	52.2	3.9	13.9
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	38		38			
X > 412.0	45		48			
X > 405.0	53		55			
X > 395.0	58		59			
X > 375.0	67		67			
X > 360.0	68		69			

FOLSOM RESERVOIR ELEVATION

April

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	436.1	.0	437.8	.0	.4	1.7
1923	444.5	23.4	444.5	22.7	.0	.0
1924	367.3	8.5	377.7	5.0	2.8	10.4
1925	444.5	21.5	444.5	24.8	.0	.0
1926	436.2	25.4	436.4	26.0	.0	.2
1927	444.5	13.8	444.5	13.8	.0	.0
1928	444.5	15.8	444.5	15.3	.0	.0
1929	391.7	16.8	393.4	11.4	.4	1.7
1930	424.8	9.7	428.1	9.9	.8	3.3
1931	391.7	7.1	389.6	6.7	-.5	-2.1
1932	433.7	6.8	435.4	7.4	.4	1.7
1933	388.4	8.1	392.9	5.6	1.2	4.5
1934	399.5	-8.3	399.5	-11.4	.0	.0
1935	444.5	37.9	444.5	36.9	.0	.0
1936	444.5	13.0	444.5	13.1	.0	.0
1937	444.5	12.5	444.5	12.5	.0	.0
1938	444.5	13.0	444.5	13.0	.0	.0
1939	412.4	14.3	413.7	12.3	.3	1.3
1940	444.5	17.6	444.5	18.8	.0	.0
1941	444.5	12.7	444.5	12.7	.0	.0
1942	438.9	23.5	440.3	24.3	.3	1.4
1943	444.5	18.0	444.5	17.9	.0	.0
1944	399.5	4.8	403.4	5.1	1.0	3.9
1945	436.5	10.5	438.0	11.3	.3	1.5
1946	444.5	14.4	444.5	13.7	.0	.0
1947	418.4	5.5	420.4	5.8	.5	2.0
1948	417.8	38.8	421.1	38.5	.8	3.3
1949	424.0	21.5	433.3	20.5	2.2	9.3
1950	444.5	12.9	444.5	13.7	.0	.0
1951	444.5	21.9	444.5	21.9	.0	.0
1952	444.5	12.5	444.5	12.5	.0	.0
1953	433.1	13.8	433.2	13.2	.0	.1
1954	444.5	12.9	444.5	12.9	.0	.0
1955	403.4	7.2	404.6	7.6	.3	1.2
1956	423.4	13.4	425.4	14.1	.5	2.0
1957	432.0	1.0	432.9	1.9	.2	.9
1958	444.5	12.8	444.5	12.8	.0	.0
1959	420.6	4.9	425.0	5.0	1.0	4.4
1960	434.2	8.0	439.0	8.2	1.1	4.8
1961	398.2	14.5	401.6	14.3	.9	3.4
1962	444.5	21.3	444.5	17.6	.0	.0
1963	444.5	33.7	444.5	32.4	.0	.0
1964	416.4	5.9	414.8	6.4	-.4	-1.6
1965	444.5	39.0	444.5	38.1	.0	.0
1966	424.6	17.1	429.5	15.0	1.2	4.9
1967	440.8	11.7	441.5	12.5	.2	.7
1968	420.7	3.7	433.7	3.8	3.1	13.0
1969	444.5	21.0	444.5	20.4	.0	.0
1970	429.2	5.7	428.6	6.2	-.1	-.6
1971	440.2	9.7	441.0	10.6	.2	.8
1972	435.8	5.7	436.5	6.3	.2	.7
1973	442.8	11.2	443.6	12.0	.2	.8
1974	444.5	19.6	444.5	19.9	.0	.0
1975	433.0	1.0	434.1	2.1	.3	1.1
1976	394.3	7.4	395.4	6.5	.3	1.1
1977	352.1	1.0	351.0	.2	-.3	-1.1
1978	444.5	13.8	444.5	16.2	.0	.0
1979	432.3	9.4	438.9	8.4	1.5	6.6
1980	442.3	18.6	444.2	19.3	.4	1.9
1981	413.0	12.0	417.5	8.1	1.1	4.5
1982	444.5	22.5	444.5	22.4	.0	.0
1983	444.5	17.0	444.5	16.8	.0	.0
1984	436.8	14.0	436.3	14.4	-.1	-.5
1985	430.2	17.2	431.3	17.5	.3	1.1
1986	442.9	21.3	443.8	22.2	.2	.9
1987	403.8	12.0	402.6	12.1	-.3	-1.2
1988	394.6	11.3	396.0	10.6	.4	1.4
1989	444.5	13.7	444.5	16.1	.0	.0
1990	399.5	2.8	399.5	1.5	.0	.0
1991	395.9	16.8	389.2	19.6	-1.7	-6.7
Mean:	427.7	13.7	429.0	13.5	.3	1.3
Median:	436.1	12.9	437.8	12.8	.0	.0
Min:	352.1	-8.3	351.0	-11.4	-1.7	-6.7
Max:	444.5	39.0	444.5	38.5	3.1	13.0

X > 466.0	0	0
X > 455.0	0	0
X > 435.0	37	40
X > 420.0	51	53
X > 412.0	56	56
X > 405.0	56	56
X > 395.0	63	64
X > 375.0	68	69
X > 360.0	69	69

FOLSOM RESERVOIR ELEVATION

May

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	460.7	16.2	460.7	16.2	.0	.0
1924	374.7	7.4	381.5	3.8	1.8	6.8
1925	460.7	16.2	460.7	16.2	.0	.0
1926	428.7	-7.5	429.5	-6.9	.2	.8
1927	460.7	16.2	460.7	16.2	.0	.0
1928	451.0	6.5	452.2	7.7	.3	1.2
1929	397.2	5.5	399.3	5.9	.5	2.1
1930	422.1	-2.7	424.1	-4.0	.5	2.0
1931	397.1	5.4	397.0	7.4	.0	-.1
1932	450.0	16.3	451.9	16.5	.4	1.9
1933	393.1	4.7	397.9	5.0	1.2	4.8
1934	401.7	2.2	401.5	2.0	.0	-.2
1935	458.5	14.0	460.7	16.2	.5	2.2
1936	457.4	12.9	458.5	14.0	.2	1.1
1937	460.7	16.2	460.7	16.2	.0	.0
1938	460.7	16.2	460.7	16.2	.0	.0
1939	407.6	-4.8	409.6	-4.1	.5	2.0
1940	457.0	12.5	457.5	13.0	.1	.5
1941	460.7	16.2	460.7	16.2	.0	.0
1942	460.7	21.8	460.7	20.4	.0	.0
1943	452.2	7.7	453.4	8.9	.3	1.2
1944	409.0	9.5	413.1	9.7	1.0	4.1
1945	452.1	15.6	454.7	16.7	.6	2.6
1946	459.0	14.5	460.1	15.6	.2	1.1
1947	413.4	-5.0	415.3	-5.1	.5	1.9
1948	436.3	18.5	440.5	19.4	1.0	4.2
1949	441.0	17.0	448.9	15.6	1.8	7.9
1950	458.5	14.0	459.6	15.1	.2	1.1
1951	459.8	15.3	460.7	16.2	.2	.9
1952	460.7	16.2	460.7	16.2	.0	.0
1953	441.4	8.3	442.7	9.5	.3	1.3
1954	447.9	3.4	448.4	3.9	.1	.5
1955	414.7	11.3	416.4	11.8	.4	1.7
1956	454.5	31.1	457.1	31.7	.6	2.6
1957	452.1	20.1	452.7	19.8	.1	.6
1958	460.7	16.2	460.7	16.2	.0	.0
1959	414.2	-6.4	417.5	-7.5	.8	3.3
1960	432.1	-2.1	437.2	-1.8	1.2	5.1
1961	403.8	5.6	407.4	5.8	.9	3.6
1962	448.6	4.1	449.7	5.2	.2	1.1
1963	460.7	16.2	460.7	16.2	.0	.0
1964	422.2	5.8	421.4	6.6	-.2	-.8
1965	458.6	14.1	459.8	15.3	.3	1.2
1966	419.2	-5.4	425.1	-4.4	1.4	5.9
1967	460.7	19.9	460.7	19.2	.0	0
1968	415.3	-5.4	429.5	-4.2	3.4	14.2
1969	460.7	16.2	460.7	16.2	.0	.0
1970	436.0	6.8	435.9	7.3	.0	-.1
1971	452.8	12.6	454.7	13.7	.4	1.9
1972	442.4	6.6	443.5	7.0	.2	1.1
1973	460.7	17.9	460.7	17.1	.0	.0
1974	460.7	16.2	460.7	16.2	.0	.0
1975	456.3	23.3	458.4	24.3	.5	2.1
1976	402.3	8.0	402.4	7.0	.0	.1
1977	354.2	2.1	352.8	1.8	-.4	-1.4
1978	458.9	14.4	460.7	16.2	.4	1.8
1979	454.2	21.9	460.7	21.8	1.4	6.5
1980	453.0	10.7	454.8	10.6	.4	1.8
1981	410.4	-2.6	413.6	-3.9	.8	3.2
1982	460.7	16.2	460.7	16.2	.0	.0
1983	460.7	16.2	460.7	16.2	.0	.0
1984	451.4	14.6	451.3	15.0	.0	-.1
1985	427.2	-3.0	429.0	-2.3	.4	1.8
1986	451.1	8.2	453.0	9.2	.4	1.9
1987	406.1	2.3	405.7	3.1	-.1	-.4
1988	398.1	3.5	399.0	3.0	.2	.9
1989	446.5	2.0	448.6	4.1	.5	2.1
1990	397.0	-2.5	397.6	-1.9	.2	.6
1991	401.6	5.7	398.4	9.2	-.8	-3.2
Mean:	437.6	9.6	439.2	9.9	.4	1.6
Median:	451.0	10.7	451.9	10.6	.2	1.1
Min:	354.2	-7.5	352.8	-7.5	-.8	-3.2
Max:	460.7	31.1	460.7	31.7	3.4	14.2

X > 466.0	0	0
X > 455.0	26	28
X > 435.0	45	46
X > 420.0	50	52
X > 412.0	55	57
X > 405.0	59	60
X > 395.0	67	68
X > 375.0	68	69
X > 360.0	69	69

FOLSOM RESERVOIR ELEVATION

June

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	460.7	.0	460.7	.0	.0	.0
1923	451.8	-8.9	455.0	-5.7	.7	3.2
1924	377.7	3.0	381.5	.0	1.0	3.8
1925	444.2	-16.5	443.9	-16.8	-.1	-.3
1926	416.7	-12.0	417.1	-12.4	.1	.4
1927	460.7	.0	460.7	.0	.0	.0
1928	430.4	-20.6	432.9	-19.3	.6	2.5
1929	391.1	-6.1	394.2	-5.1	.8	3.1
1930	416.1	-6.0	417.4	-6.7	.3	1.3
1931	400.1	3.0	400.1	3.1	.0	.0
1932	447.3	-2.7	449.7	-2.2	.5	2.4
1933	396.7	3.6	401.8	3.9	1.3	5.1
1934	390.6	-11.1	392.1	-9.4	.4	1.5
1935	459.2	.7	460.7	.0	.3	1.5
1936	460.7	3.3	460.7	2.2	.0	.0
1937	453.0	-7.7	453.7	-7.0	.2	.7
1938	460.7	.0	460.7	.0	.0	.0
1939	406.8	-.8	408.6	-1.0	.4	1.8
1940	448.6	-8.4	450.5	-7.0	.4	1.9
1941	457.1	-3.6	457.2	-3.5	.0	.1
1942	460.7	.0	460.7	.0	.0	.0
1943	448.8	-3.4	451.3	-2.1	.6	2.5
1944	407.3	-1.7	410.5	-2.6	.8	3.2
1945	438.3	-13.8	441.9	-12.8	.8	3.6
1946	438.7	-20.3	440.7	-19.4	.5	2.0
1947	409.0	-4.4	411.7	-3.6	.7	2.7
1948	444.9	8.6	450.6	10.1	1.3	5.7
1949	434.0	-7.0	436.3	-12.6	.5	2.3
1950	458.7	.2	460.7	1.1	.4	2.0
1951	450.0	-9.8	452.4	-8.3	.5	2.4
1952	460.7	.0	460.7	.0	.0	.0
1953	454.1	12.7	456.8	14.1	.6	2.7
1954	432.2	-15.7	432.6	-15.8	.1	.4
1955	412.4	-2.3	414.9	-1.5	.6	2.5
1956	460.7	6.2	460.7	3.6	.0	.0
1957	443.3	-8.8	444.5	-8.2	.3	1.2
1958	460.7	.0	460.7	.0	.0	.0
1959	410.2	-4.0	412.4	-5.1	.5	2.2
1960	423.7	-8.4	429.9	-7.3	1.5	6.2
1961	406.6	2.8	410.7	3.3	1.0	4.1
1962	442.7	-5.9	445.7	-4.0	.7	3.0
1963	457.8	-2.9	459.2	-1.5	.3	1.4
1964	418.1	-4.1	418.1	-3.3	.0	.0
1965	456.8	-1.8	459.4	-.4	.6	2.6
1966	410.6	-8.6	417.9	-7.2	1.8	7.3
1967	460.7	.0	460.7	.0	.0	.0
1968	408.4	-6.9	421.0	-8.5	3.1	12.6
1969	460.7	.0	460.7	.0	.0	.0
1970	427.5	-8.5	428.2	-7.7	.2	.7
1971	458.0	5.2	460.7	6.0	.6	2.7
1972	421.8	-20.6	424.1	-19.4	.5	2.3
1973	433.5	-27.2	435.1	-25.6	.4	1.6
1974	460.7	.0	460.7	.0	.0	.0
1975	460.7	4.4	460.7	2.3	.0	.0
1976	390.6	-11.7	392.1	-10.3	.4	1.5
1977	349.9	-4.3	348.5	-4.3	-.4	-1.4
1978	458.5	-.4	460.7	.0	.5	2.2
1979	423.4	-30.8	432.6	-28.1	2.2	9.2
1980	450.5	-2.5	453.6	-1.2	.7	3.1
1981	407.6	-2.8	408.0	-5.6	.1	.4
1982	460.7	.0	460.7	.0	.0	.0
1983	460.7	.0	460.7	.0	.0	.0
1984	442.0	-9.4	442.7	-8.6	.2	.7
1985	414.3	-12.9	414.9	-14.1	.1	.6
1986	450.0	-1.1	452.0	-1.0	.4	2.0
1987	403.9	-2.2	403.8	-1.9	.0	-.1
1988	390.6	-7.5	392.1	-6.9	.4	1.5
1989	430.9	-15.6	430.9	-17.7	.0	.0
1990	390.6	-6.4	392.1	-5.5	.4	1.5
1991	394.9	-6.7	392.1	-6.3	-.7	-2.8
Mean:	432.6	-5.0	434.4	-4.8	.4	1.8
Median:	438.7	-3.6	441.9	-3.5	.4	1.5
Min:	349.9	-30.8	348.5	-28.1	-.7	-2.8
Max:	460.7	12.7	460.7	14.1	3.1	12.6

X > 466.0	0	0
X > 455.0	21	22
X > 435.0	37	39
X > 420.0	46	47
X > 412.0	51	54
X > 405.0	59	59
X > 395.0	62	62
X > 375.0	69	69
X > 360.0	69	69

FOLSOM RESERVOIR ELEVATION

July

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	453.7	.0	454.8	.0	.2	1.1
1923	447.2	-4.6	450.5	-4.5	.7	3.3
1924	379.8	2.1	380.4	-1.1	.2	.6
1925	438.6	-5.6	434.8	-9.1	-.9	-3.8
1926	399.5	-17.2	400.3	-16.8	.2	.8
1927	433.6	-27.1	435.5	-25.2	.4	1.9
1928	422.7	-7.7	424.1	-8.8	.3	1.4
1929	382.2	-8.9	385.2	-9.0	.8	3.0
1930	401.7	-14.4	404.1	-13.3	.6	2.4
1931	382.0	-18.1	383.9	-16.2	.5	1.9
1932	440.6	-6.7	444.7	-5.0	.9	4.1
1933	385.4	-11.3	392.0	-9.8	1.7	6.6
1934	380.3	-10.3	382.1	-10.0	.5	1.8
1935	452.7	-6.5	452.9	-7.8	.0	.2
1936	449.9	-10.8	450.6	-10.1	.2	.7
1937	447.2	-5.8	451.4	-2.3	.9	4.2
1938	458.4	-2.3	458.4	-2.3	.0	.0
1939	395.9	-10.9	397.9	-10.7	.5	2.0
1940	423.0	-25.6	424.1	-26.4	.3	1.1
1941	455.5	-1.6	457.3	.1	.4	1.8
1942	458.4	-2.3	458.4	-2.3	.0	.0
1943	424.1	-24.7	426.1	-25.2	.5	2.0
1944	403.8	-3.5	406.9	-3.6	.8	3.1
1945	421.8	-16.5	424.1	-17.8	.5	2.3
1946	421.8	-16.9	424.1	-16.6	.5	2.3
1947	400.6	-8.4	401.0	-10.7	.1	.4
1948	441.7	-3.2	445.4	-5.2	.8	3.7
1949	421.0	-13.0	424.2	-12.1	.8	3.2
1950	449.9	-8.8	451.4	-9.3	.3	1.5
1951	423.0	-27.0	424.1	-28.3	.3	1.1
1952	458.4	-2.3	458.4	-2.3	.0	.0
1953	458.2	4.1	458.4	1.6	.0	.2
1954	423.0	-9.2	424.1	-8.5	.3	1.1
1955	409.0	-3.4	412.5	-2.4	.9	3.5
1956	458.4	-2.3	458.4	-2.3	.0	.0
1957	423.0	-20.3	424.1	-20.4	.3	1.1
1958	458.4	-2.3	458.4	-2.3	.0	.0
1959	407.8	-2.4	410.6	-1.8	.7	2.8
1960	415.7	-8.0	422.0	-7.9	1.5	6.3
1961	403.3	-3.3	408.1	-2.6	1.2	4.8
1962	421.8	-20.9	424.1	-21.6	.5	2.3
1963	433.0	-24.8	435.7	-23.5	.6	2.7
1964	407.9	-10.2	408.1	-10.0	.0	.2
1965	431.3	-25.5	436.0	-23.4	1.1	4.7
1966	407.0	-3.6	413.2	-4.7	1.5	6.2
1967	458.4	-2.3	458.4	-2.3	.0	.0
1968	404.5	-3.9	413.1	-7.9	2.1	8.6
1969	458.4	-2.3	458.4	-2.3	.0	.0
1970	424.1	-3.4	424.1	-4.1	.0	.0
1971	458.4	.4	458.4	-2.3	.0	.0
1972	417.0	-4.8	420.2	-3.9	.8	3.2
1973	423.0	-10.5	424.1	-11.0	.3	1.1
1974	458.4	-2.3	458.4	-2.3	.0	.0
1975	458.4	-2.3	458.4	-2.3	.0	.0
1976	382.2	-8.4	383.9	-8.2	.4	1.7
1977	340.9	-9.0	339.0	-9.5	-.6	-1.9
1978	436.4	-22.1	442.2	-18.5	1.3	5.8
1979	420.9	-2.5	424.1	-8.5	.8	3.2
1980	441.0	-9.5	445.2	-8.4	1.0	4.2
1981	405.4	-2.2	406.4	-1.6	.2	1.0
1982	458.4	-2.3	458.4	-2.3	.0	.0
1983	458.4	-2.3	458.4	-2.3	.0	.0
1984	424.1	-17.9	424.1	-18.6	.0	.0
1985	402.2	-12.1	402.4	-12.5	.0	.2
1986	428.2	-21.8	426.8	-25.2	-.3	-1.4
1987	395.9	-8.0	395.9	-7.9	.0	.0
1988	382.2	-8.4	383.9	-8.2	.4	1.7
1989	415.2	-15.7	414.9	-16.0	-.1	-.3
1990	382.2	-8.4	383.9	-8.2	.4	1.7
1991	383.0	-11.9	383.9	-8.2	.2	.9
Mean:	423.3	-9.2	425.0	-9.3	.4	1.7
Median:	423.0	-8.4	424.1	-8.2	.3	1.1
Min:	340.9	-27.1	339.0	-28.3	-.9	-3.8
Max:	458.4	4.1	458.4	1.6	2.1	8.6
X > 466.0	0		0			
X > 455.0	14		14			
X > 435.0	25		27			
X > 420.0	43		45			
X > 412.0	46		49			
X > 405.0	51		54			
X > 395.0	60		60			
X > 375.0	69		69			
X > 360.0	69		69			

FOLSOM RESERVOIR ELEVATION

August

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	444.0	.0	444.5	.0	.1	.5
1923	427.3	-19.9	434.8	-15.7	1.8	7.5
1924	381.2	1.4	378.6	-1.8	-.7	-2.6
1925	435.7	-2.9	428.1	-6.7	-1.7	-7.6
1926	399.5	.0	401.4	1.1	.5	1.9
1927	417.7	-15.9	421.1	-14.4	.8	3.4
1928	399.5	-23.2	406.2	-17.9	1.7	6.7
1929	386.5	4.3	389.9	4.7	.9	3.4
1930	404.6	2.9	407.9	3.8	.8	3.3
1931	382.0	.0	383.5	-.4	.4	1.5
1932	437.2	-3.4	442.2	-2.5	1.1	5.0
1933	393.7	8.3	398.6	6.6	1.2	4.9
1934	374.8	-5.5	377.2	-4.9	.6	2.4
1935	436.4	-16.3	437.4	-15.5	.2	1.0
1936	444.5	-5.4	444.5	-6.1	.0	.0
1937	442.9	-4.3	444.5	-6.9	.4	1.6
1938	444.5	-13.9	444.5	-13.9	.0	.0
1939	393.9	-2.0	396.6	-1.3	.7	2.7
1940	408.4	-14.6	411.1	-13.0	.7	2.7
1941	444.5	-11.0	444.5	-12.8	.0	.0
1942	444.5	-13.9	444.5	-13.9	.0	.0
1943	412.2	-11.9	417.2	-8.9	1.2	5.0
1944	407.3	3.5	411.2	4.3	1.0	3.9
1945	413.8	-8.0	417.3	-6.8	.8	3.5
1946	414.1	-7.7	419.8	-4.3	1.4	5.7
1947	404.3	3.7	403.7	2.7	-.1	-.6
1948	431.1	-10.6	437.2	-8.2	1.4	6.1
1949	408.6	-12.4	416.7	-7.5	2.0	8.1
1950	441.1	-8.8	443.9	-7.5	.6	2.8
1951	409.4	-13.6	412.1	-12.0	.7	2.7
1952	444.5	-13.9	444.5	-13.9	.0	.0
1953	444.5	-13.7	444.5	-13.9	.0	.0
1954	403.2	-19.8	406.2	-17.9	.7	3.0
1955	404.6	-4.4	405.2	-7.3	.1	.6
1956	444.5	-13.9	444.5	-13.9	.0	.0
1957	413.5	-9.5	417.8	-6.3	1.0	4.3
1958	444.5	-13.9	444.5	-13.9	.0	.0
1959	399.5	-8.3	399.5	-11.1	.0	.0
1960	406.6	-9.1	406.3	-15.7	-.1	-.3
1961	400.0	-3.3	404.1	-4.0	1.0	4.1
1962	409.7	-12.1	413.1	-11.0	.8	3.4
1963	429.0	-4.0	432.8	-2.9	.9	3.8
1964	410.5	2.6	411.7	3.6	.3	1.2
1965	425.2	-6.1	430.7	-5.3	1.3	5.5
1966	399.5	-7.5	400.9	-12.3	.4	1.4
1967	444.5	-13.9	444.5	-13.9	.0	.0
1968	399.5	-5.0	405.5	-7.6	1.5	6.0
1969	444.5	-13.9	444.5	-13.9	.0	.0
1970	406.2	-17.9	406.8	-17.3	.1	.6
1971	444.5	-13.9	444.5	-13.9	.0	.0
1972	399.5	-17.5	399.5	-20.7	.0	.0
1973	403.6	-19.4	406.4	-17.7	.7	2.8
1974	444.5	-13.9	444.5	-13.9	.0	.0
1975	444.5	-13.9	444.5	-13.9	.0	.0
1976	376.4	-5.8	377.5	-6.4	.3	1.1
1977	333.6	-7.3	331.5	-7.5	-.6	-2.1
1978	422.4	-14.0	430.2	-12.0	1.8	7.8
1979	406.4	-14.5	410.9	-13.2	1.1	4.5
1980	423.9	-17.1	429.8	-15.4	1.4	5.9
1981	403.4	-2.0	403.1	-3.3	-.1	-.3
1982	444.5	-13.9	444.5	-13.9	.0	.0
1983	444.5	-13.9	445.8	-12.6	.3	1.3
1984	412.6	-11.5	415.3	-8.8	.7	2.7
1985	389.6	-12.6	390.5	-11.9	.2	.9
1986	412.8	-15.4	414.5	-12.3	.4	1.7
1987	382.4	-13.5	383.0	-12.9	.2	.6
1988	375.9	-6.3	376.8	-7.1	.2	.9
1989	396.0	-19.2	393.9	-21.0	-.5	-2.1
1990	376.4	-5.8	377.5	-6.4	.3	1.1
1991	387.5	4.5	389.3	5.4	.5	1.8
Mean:	414.1	-9.1	416.0	-8.8	.5	2.0
Median:	409.7	-11.0	413.1	-11.0	.4	1.4
Min:	333.6	-23.2	331.5	-21.0	-1.7	-7.6
Max:	444.5	8.3	445.8	6.6	2.0	8.1
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	21		21			
X > 420.0	27		28			
X > 412.0	34		37			
X > 405.0	43		49			
X > 395.0	57		58			
X > 375.0	68		69			
X > 360.0	69		69			

FOLSOM RESERVOIR ELEVATION

September

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	429.4	.0	429.4	.0	.0	.0
1923	422.6	-4.7	428.5	-6.3	1.4	5.9
1924	379.0	-2.2	376.2	-2.4	-.7	-2.8
1925	427.5	-8.2	424.0	-4.1	-.8	-3.5
1926	397.1	-2.4	399.0	-2.4	.5	1.9
1927	412.5	-5.2	415.5	-5.6	.7	3.0
1928	396.0	-3.5	404.9	-1.3	2.2	8.9
1929	384.5	-2.0	386.5	-3.4	.5	2.0
1930	402.7	-1.9	406.9	-1.0	1.0	4.2
1931	379.5	-2.5	380.6	-2.9	.3	1.1
1932	428.6	-8.6	429.4	-12.8	.2	.8
1933	392.2	-1.5	397.9	-.7	1.5	5.7
1934	374.9	.1	377.1	-.1	.6	2.2
1935	428.0	-8.4	425.9	-11.5	-.5	-2.1
1936	429.4	-15.1	429.4	-15.1	.0	.0
1937	429.4	-13.5	429.4	-15.1	.0	.0
1938	429.4	-15.1	429.4	-15.1	.0	.0
1939	390.0	-3.9	393.7	-2.9	.9	3.7
1940	404.8	-3.6	408.4	-2.7	.9	3.6
1941	429.4	-15.1	429.4	-15.1	.0	.0
1942	429.4	-15.1	429.4	-15.1	.0	.0
1943	408.4	-3.8	415.1	-2.1	1.6	6.7
1944	403.6	-3.7	408.4	-2.8	1.2	4.8
1945	404.7	-9.1	409.5	-7.8	1.2	4.8
1946	402.3	-11.8	409.6	-10.2	1.8	7.3
1947	399.1	-5.2	400.4	-3.3	.3	1.3
1948	417.6	-13.5	424.6	-12.6	1.7	7.0
1949	405.4	-3.2	412.6	-4.1	1.8	7.2
1950	429.4	-11.7	429.4	-14.5	.0	.0
1951	403.6	-5.8	406.2	-5.9	.6	2.6
1952	429.4	-15.1	429.4	-15.1	.0	.0
1953	429.4	-15.1	429.4	-15.1	.0	.0
1954	401.4	-1.8	405.4	-.8	1.0	4.0
1955	402.0	-2.6	403.7	-1.5	.4	1.7
1956	429.4	-15.1	429.4	-15.1	.0	.0
1957	408.5	-5.0	413.7	-4.1	1.3	5.2
1958	429.4	-15.1	429.4	-15.1	.0	.0
1959	396.6	-2.9	397.5	-2.0	.2	.9
1960	403.5	-3.1	403.7	-2.6	.0	.2
1961	395.4	-4.6	398.2	-5.9	.7	2.8
1962	401.2	-8.5	405.6	-7.5	1.1	4.4
1963	422.5	-6.5	428.0	-4.8	1.3	5.5
1964	407.7	-2.8	409.8	-1.9	.5	2.1
1965	420.2	-5.0	425.8	-4.9	1.3	5.6
1966	396.2	-3.3	399.1	-1.8	.7	2.9
1967	429.4	-15.1	429.4	-15.1	.0	.0
1968	398.5	-1.0	399.5	-6.0	.3	1.0
1969	429.4	-15.1	429.4	-15.1	.0	.0
1970	404.1	-2.1	405.6	-1.2	.4	1.5
1971	429.4	-15.1	429.4	-15.1	.0	.0
1972	397.2	-2.3	397.9	-1.6	.2	.7
1973	402.6	-1.0	406.2	-.2	.9	3.6
1974	429.4	-15.1	429.4	-15.1	.0	.0
1975	429.4	-15.1	429.4	-15.1	.0	.0
1976	375.4	-1.0	375.2	-2.3	-.1	-.2
1977	326.6	-7.0	326.7	-4.8	.0	.1
1978	419.1	-3.3	425.6	-4.6	1.6	6.5
1979	399.5	-6.9	402.3	-8.6	.7	2.8
1980	418.4	-5.5	424.5	-5.3	1.5	6.1
1981	397.9	-5.5	398.1	-5.0	.1	.2
1982	429.4	-15.1	429.4	-15.1	.0	.0
1983	429.5	-15.0	432.2	-13.6	.6	2.7
1984	409.6	-3.0	413.3	-2.0	.9	3.7
1985	390.5	.9	392.1	1.6	.4	1.6
1986	410.7	-2.1	414.1	-.4	.8	3.4
1987	383.6	1.2	383.7	.7	.0	.1
1988	377.8	1.9	378.2	1.4	.1	.4
1989	397.4	1.4	397.0	3.1	-.1	-.4
1990	379.0	2.6	379.7	2.2	.2	.7
1991	384.1	-3.4	386.3	-3.0	.6	2.2
Mean:	407.4	-6.4	409.6	-6.2	.5	2.1
Median:	404.7	-4.7	409.5	-4.6	.4	1.5
Min:	326.6	-15.1	326.7	-15.1	-.8	-3.5
Max:	429.5	2.6	432.2	3.1	2.2	8.9
X > 466.0	0		0			
X > 455.0	0		0			
X > 435.0	0		0			
X > 420.0	24		27			
X > 412.0	28		33			
X > 405.0	34		44			
X > 395.0	57		58			
X > 375.0	68		69			
X > 360.0	69		69			

RETURN TO TABLE OF CONTENTS

Section 3

FOLSOM RESERVOIR COLD WATER POOL

Not Applicable

RETURN TO TABLE OF CONTENTS

Section 4

FOLSOM RESERVOIR SURFACE AREA

FOLSOM RESERVOIR SURFACE AREA

October

Water Year	Cuml. Area (acre)	Cuml. Change from Prev (acre)	No Proj-constrained Area (acre)	No Proj-constrained Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	7470.9	.0	7560.3	.0	1.2	89.4
1923	8605.5	-718.1	8680.0	-643.6	.9	74.5
1924	7984.9	-826.9	8552.1	-701.3	7.1	567.2
1925	5296.2	-94.2	5365.9	184.8	1.3	69.7
1926	8443.2	-734.5	8216.6	-703.1	-2.7	-226.6
1927	6221.9	-584.1	6440.4	-514.5	3.5	218.5
1928	7113.8	-918.6	7494.6	-773.9	5.4	380.8
1929	6017.5	-698.3	6744.1	-684.7	12.1	726.6
1930	5218.7	-593.9	5409.7	-555.7	3.7	191.0
1931	6700.0	-551.8	6935.5	-646.6	3.5	235.5
1932	4996.5	-428.5	5134.1	-375.0	2.8	137.6
1933	8441.5	-820.7	8580.4	-743.2	1.6	138.9
1934	5839.9	-575.4	6359.1	-507.0	8.9	519.2
1935	5316.2	230.9	5417.8	167.3	1.9	101.6
1936	8546.8	-674.0	8444.5	-615.1	-1.2	-102.3
1937	8542.0	-781.6	8614.5	-709.1	.8	72.5
1938	8595.7	-727.9	8675.8	-647.8	.9	80.1
1939	8618.6	-705.0	8708.4	-615.2	1.0	89.8
1940	5908.5	-330.4	6075.6	-456.4	2.8	167.1
1941	6745.7	-674.8	6989.3	-712.3	3.6	243.6
1942	8590.6	-733.0	8689.5	-634.1	1.2	98.9
1943	8581.0	-742.6	8662.7	-660.9	1.0	81.7
1944	6892.3	-811.5	7418.0	-819.8	7.6	525.7
1945	6569.2	-750.9	6876.0	-829.2	4.7	306.8
1946	6986.2	-421.7	7337.8	-456.3	5.0	351.6
1947	6726.9	-488.7	7120.8	-676.4	5.9	393.9
1948	6810.5	-149.6	6973.7	-95.9	2.4	163.2
1949	7510.5	-920.7	8220.4	-743.7	9.5	709.9
1950	6769.0	-701.3	7153.2	-881.7	5.7	384.2
1951	8851.1	-472.5	8933.5	-390.1	.9	82.4
1952	6896.7	-426.9	7233.9	-300.2	4.9	337.2
1953	8734.3	-589.3	8820.8	-502.8	1.0	86.5
1954	8560.7	-762.9	8648.9	-674.7	1.0	88.2
1955	6618.3	-530.5	6845.9	-622.7	3.4	227.6
1956	6532.8	-658.3	6555.6	-773.2	.3	22.8
1957	8742.0	-581.6	8827.5	-496.1	1.0	85.5
1958	6998.5	-714.2	7401.8	-723.0	5.8	403.3
1959	8532.5	-791.1	8621.9	-701.7	1.0	89.4
1960	6011.1	-755.3	6145.4	-689.9	2.2	134.3
1961	6564.0	-753.6	6604.8	-722.1	.6	40.8
1962	5851.6	-819.0	6153.8	-737.0	5.2	302.2
1963	9323.6	2189.2	9323.6	1843.6	.0	.0
1964	8099.5	-703.4	8650.6	-564.3	6.8	551.1
1965	7016.0	-631.8	7082.9	-734.4	1.0	66.9
1966	7846.7	-784.0	8420.3	-635.7	7.3	573.6
1967	6028.1	-699.9	6352.4	-610.2	5.4	324.3
1968	8697.4	-626.2	8783.6	-540.0	1.0	86.2
1969	6467.3	-445.2	6594.2	-400.4	2.0	126.9
1970	8743.7	-579.9	8830.9	-492.7	1.0	87.2
1971	6685.6	-678.5	6851.1	-630.7	2.5	165.5
1972	8559.9	-763.7	8648.9	-674.7	1.0	89.0
1973	6393.5	-417.2	6517.6	-351.9	1.9	124.1
1974	6952.1	-291.6	7199.1	-335.0	3.6	247.0
1975	8640.3	-683.3	8719.6	-604.0	.9	79.3
1976	9031.2	-292.4	9112.6	-211.0	.9	81.4
1977	5064.2	-58.0	5043.2	-63.1	-.4	-21.0
1978	1974.5	-196.1	2062.5	-114.7	4.5	88.0
1979	7537.3	-1004.6	8209.6	-832.6	8.9	672.3
1980	6674.9	-319.7	7019.8	-195.9	5.2	344.9
1981	7609.8	-883.5	8235.1	-719.8	8.2	625.3
1982	6512.3	-353.4	6611.9	-275.1	1.5	99.6
1983	9323.6	.0	9323.6	.0	.0	.0
1984	9323.6	-5.0	9323.6	-204.3	.0	.0
1985	7271.5	-530.9	7473.7	-615.3	2.8	202.2
1986	5908.7	-369.3	5891.6	-518.1	-.3	-17.1
1987	7222.5	-668.5	7464.0	-694.0	3.3	241.5
1988	4631.4	-1112.5	4726.3	-1022.9	2.0	94.9
1989	5065.8	-236.0	5110.1	-219.5	.9	44.3
1990	6531.7	-297.3	6595.2	-204.1	1.0	63.5
1991	4970.4	-418.9	4834.4	-607.5	-2.7	-136.0
Mean:	7129.4	-523.5	7323.7	-494.5	2.9	194.2
Median:	6952.1	-631.8	7233.9	-615.2	1.9	101.6
Min:	1974.5	-1112.5	2062.5	-1022.9	-2.7	-226.6
Max:	9323.6	2189.2	9323.6	1843.6	12.1	726.6
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	67		67			
X < 8223.8	48		45			
X < 7614.2	45		42			
X < 7074.2	38		30			
X < 6301.3	17		13			
X < 4805.3	2		2			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

November

Water Year	Cuml. Area (acre)	Cuml. Change from Prev (acre)	No Proj-constrained Area (acre)	No Proj-constrained Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	6545.7	.0	6721.0	.0	2.7	175.3
1923	8278.9	-326.6	8423.4	-256.6	1.7	144.5
1924	7012.9	-972.0	7729.3	-822.8	10.2	716.4
1925	5558.5	262.3	5838.8	472.9	5.0	280.3
1926	7768.1	-675.1	7566.2	-650.4	-2.6	-201.9
1927	7621.4	1399.5	7835.0	1394.6	2.8	213.6
1928	7244.7	130.9	7730.2	235.6	6.7	485.5
1929	5375.0	-642.5	6067.6	-676.5	12.9	692.6
1930	4500.9	-717.8	4742.3	-667.4	5.4	241.4
1931	6445.7	-254.3	6557.3	-378.2	1.7	111.6
1932	4753.8	-242.7	4926.5	-207.6	3.6	172.7
1933	7624.7	-816.8	7839.9	-740.5	2.8	215.2
1934	5273.0	-566.9	5873.5	-485.6	11.4	600.5
1935	6243.2	927.0	6228.6	810.8	-.2	-14.6
1936	7940.0	-606.8	7886.9	-557.6	-.7	-53.1
1937	7738.9	-803.1	7881.2	-733.3	1.8	142.3
1938	8125.5	-470.2	8280.7	-395.1	1.9	155.2
1939	8012.4	-606.2	8177.2	-531.2	2.1	164.8
1940	5422.1	-486.4	5441.5	-634.1	.4	19.4
1941	6463.2	-282.5	6614.2	-375.1	2.3	151.0
1942	8102.2	-488.4	8274.8	-414.7	2.1	172.6
1943	8712.8	131.8	8712.8	50.1	.0	.0
1944	6171.8	-720.5	6649.1	-768.9	7.7	477.3
1945	7097.0	527.8	7248.0	372.0	2.1	151.0
1946	7722.9	736.7	7958.6	620.8	3.1	235.7
1947	7124.6	397.7	7250.1	129.3	1.8	125.5
1948	6489.2	-321.3	6699.7	-274.0	3.2	210.5
1949	6738.7	-771.8	7603.6	-616.8	12.8	864.9
1950	6089.7	-679.3	6218.4	-934.8	2.1	128.7
1951	6949.5	-1901.6	6949.5	-1984.0	.0	.0
1952	7247.2	350.5	7638.7	404.8	5.4	391.5
1953	8218.5	-515.8	8365.4	-455.4	1.8	146.9
1954	8226.2	-334.5	8381.0	-267.9	1.9	154.8
1955	6162.0	-456.3	6280.1	-565.8	1.9	118.1
1956	6079.8	-453.0	5956.7	-598.9	-2.0	-123.1
1957	8113.4	-628.6	8280.2	-547.3	2.1	166.8
1958	6431.4	-567.1	6776.4	-625.4	5.4	345.0
1959	7899.9	-632.6	8063.9	-558.0	2.1	164.0
1960	5179.0	-832.1	5378.0	-767.4	3.8	199.0
1961	6130.0	-434.0	6229.9	-374.9	1.6	99.9
1962	5084.4	-767.2	5480.3	-673.5	7.8	395.9
1963	8712.8	-610.8	8712.8	-610.8	.0	.0
1964	8712.8	613.3	8712.8	62.2	.0	.0
1965	7008.3	-7.7	6971.3	-111.6	-.5	-37.0
1966	7715.0	-131.7	8352.5	-67.8	8.3	637.5
1967	6261.0	232.9	6610.2	257.8	5.6	349.2
1968	8459.5	-237.9	8608.6	-175.0	1.8	149.1
1969	6826.4	359.1	7004.2	410.0	2.6	177.8
1970	8248.2	-495.5	8405.2	-425.7	1.9	157.0
1971	7742.8	1057.2	7921.2	1070.1	2.3	178.4
1972	8112.6	-447.3	8271.2	-377.7	2.0	158.6
1973	6881.0	487.5	7062.5	544.9	2.6	181.5
1974	8678.4	1726.3	8695.6	1496.5	.2	17.2
1975	7876.3	-764.0	8031.2	-688.4	2.0	154.9
1976	8712.8	-318.4	8712.8	-399.8	.0	.0
1977	4856.9	-207.3	4839.5	-203.7	-.4	-17.4
1978	2105.7	131.2	2314.9	252.4	9.9	209.2
1979	6760.7	-776.6	7563.9	-645.7	11.9	803.2
1980	6704.8	29.9	7167.1	147.3	6.9	462.3
1981	6816.6	-793.2	7590.1	-645.0	11.3	773.5
1982	8520.9	2008.6	8520.9	1909.0	.0	.0
1983	8704.2	-619.4	8704.2	-619.4	.0	.0
1984	7028.3	-2295.3	7083.9	-2239.7	.8	55.6
1985	8190.2	918.7	8282.5	808.8	1.1	92.3
1986	6244.0	335.3	6094.4	202.8	-2.4	-149.6
1987	6501.3	-721.2	6675.9	-788.1	2.7	174.6
1988	3974.8	-656.6	4158.1	-568.2	4.6	183.3
1989	6009.2	943.4	6082.0	971.9	1.2	72.8
1990	6382.8	-148.9	6518.8	-76.4	2.1	136.0
1991	4535.7	-434.7	4192.8	-641.6	-7.6	-342.9
Mean:	6902.9	-213.3	7094.5	-217.1	3.0	191.6
Median:	6949.5	-434.7	7248.0	-395.1	2.1	155.2
Min:	2105.7	-2295.3	2314.9	-2239.7	-7.6	-342.9
Max:	8712.8	2008.6	8712.8	1909.0	12.9	864.9
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	59		52			
X < 7614.2	42		40			
X < 7074.2	38		32			
X < 6301.3	21		19			
X < 4805.3	5		4			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

December

Water Year	Cuml. Area (acre)	Cuml. Change from Prev (acre)	No Proj-constrained Area (acre)	No Proj-constrained Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	6760.3	.0	7003.5	.0	3.6	243.2
1923	8712.8	433.9	8712.8	289.4	.0	.0
1924	5849.1	-1163.8	6752.4	-976.9	15.4	903.3
1925	6066.0	507.5	6538.7	699.9	7.8	472.7
1926	7035.9	-732.2	6858.2	-708.0	-2.5	-177.7
1927	8227.8	606.4	8450.8	615.8	2.7	223.0
1928	7036.1	-208.6	7602.3	-127.9	8.0	566.2
1929	4752.6	-622.4	5391.7	-675.9	13.4	639.1
1930	6091.7	1590.8	6318.0	1575.7	3.7	226.3
1931	5642.9	-802.8	5601.1	-956.2	-.7	-41.8
1932	6145.2	1391.4	6321.8	1395.3	2.9	176.6
1933	6630.0	-994.7	6947.0	-892.9	4.8	317.0
1934	5800.7	527.7	6403.1	529.6	10.4	602.4
1935	6797.3	554.1	6773.0	544.4	-.4	-24.3
1936	7112.8	-827.2	7113.4	-773.5	.0	.6
1937	6821.4	-917.5	7042.5	-838.7	3.2	221.1
1938	8617.6	492.1	8617.6	336.9	.0	.0
1939	7234.3	-778.1	7485.8	-691.4	3.5	251.5
1940	5054.4	-367.7	4875.3	-566.2	-3.5	-179.1
1941	8243.0	1779.8	8275.1	1660.9	.4	32.1
1942	8712.8	610.6	8712.8	438.0	.0	.0
1943	8704.2	-8.6	8704.2	-8.6	.0	.0
1944	5173.0	-998.8	5595.3	-1053.8	8.2	422.3
1945	7400.6	303.6	7416.4	168.4	.2	15.8
1946	8712.8	989.9	8712.8	754.2	.0	.0
1947	7238.8	114.2	7081.3	-168.8	-2.2	-157.5
1948	5866.0	-623.2	6134.0	-565.7	4.6	268.0
1949	6128.3	-610.4	7137.5	-466.1	16.5	1009.2
1950	5187.9	-901.8	4961.0	-1257.4	-4.4	-226.9
1951	6017.6	-931.9	6017.6	-931.9	.0	.0
1952	8712.8	1465.6	8712.8	1074.1	.0	.0
1953	8232.3	13.8	8423.9	58.5	2.3	191.6
1954	7744.2	-482.0	7958.6	-422.4	2.8	214.4
1955	6729.4	567.4	6684.9	404.8	-.7	-44.5
1956	8467.5	2387.7	8467.5	2510.8	.0	.0
1957	7435.9	-677.5	7671.8	-608.4	3.2	235.9
1958	6455.1	23.7	6691.6	-84.8	3.7	236.5
1959	6943.0	-956.9	7198.0	-865.9	3.7	255.0
1960	4064.4	-1114.6	4473.0	-905.0	10.1	408.6
1961	5563.4	-566.6	5739.0	-490.9	3.2	175.6
1962	4737.9	-346.5	5209.3	-271.0	9.9	471.4
1963	8712.8	.0	8712.8	.0	.0	.0
1964	8387.1	-325.7	8078.4	-634.4	-3.7	-308.7
1965	7215.7	207.4	7139.2	167.9	-1.1	-76.5
1966	7314.1	-400.9	8048.9	-303.6	10.0	734.8
1967	8251.9	1990.9	8541.4	1931.2	3.5	289.5
1968	8072.3	-387.2	8286.3	-322.3	2.7	214.0
1969	7473.4	647.0	7690.8	686.6	2.9	217.4
1970	8695.6	447.4	8695.6	290.4	.0	.0
1971	8712.8	970.0	8712.8	791.6	.0	.0
1972	8305.5	192.9	8521.4	250.2	2.6	215.9
1973	8159.8	1278.8	8348.5	1286.0	2.3	188.7
1974	8617.6	-60.8	8635.1	-60.5	.2	17.5
1975	7380.2	-496.1	7609.9	-421.3	3.1	229.7
1976	8059.8	-653.0	8106.3	-606.5	.6	46.5
1977	4160.8	-696.1	4159.6	-679.9	.0	-1.2
1978	4795.6	2689.9	5013.7	2698.8	4.5	218.1
1979	5762.8	-997.9	6769.4	-794.5	17.5	1006.6
1980	6970.2	265.4	7498.6	331.5	7.6	528.4
1981	5931.8	-884.8	6878.2	-711.9	16.0	946.4
1982	6983.4	-1537.5	6994.6	-1526.3	.2	11.2
1983	8669.7	-34.5	8669.7	-34.5	.0	.0
1984	6444.7	-583.6	6444.7	-639.2	.0	.0
1985	8311.0	120.8	8291.5	9.0	-.2	-19.5
1986	7232.2	988.2	6963.4	869.0	-3.7	-268.8
1987	5383.3	-1118.0	5514.6	-1161.3	2.4	131.3
1988	4775.9	801.1	4971.3	813.2	4.1	195.4
1989	6478.3	469.1	6576.1	494.1	1.5	97.8
1990	5817.9	-564.9	6031.2	-487.6	3.7	213.3
1991	4006.6	-529.1	3382.3	-810.5	-15.6	-624.3
Mean:	6913.5	7.5	7086.8	-11.8	2.8	173.3
Median:	6983.4	-60.8	7081.3	-127.9	2.3	175.6
Min:	4006.6	-1537.5	3382.3	-1526.3	-15.6	-624.3
Max:	8712.8	2689.9	8712.8	2698.8	17.5	1009.2
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	51		50			
X < 7614.2	47		44			
X < 7074.2	37		34			
X < 6301.3	24		16			
X < 4805.3	7		3			
X < 3782.9	0		1			

FOLSOM RESERVOIR SURFACE AREA

January

Water Year	Cuml. Area (acre)	Cuml. Change from Prev (acre)	No Proj-constrained Area (acre)	No Proj-constrained Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	6681.7	.0	7000.9	.0	4.8	319.2
1923	8712.8	.0	8712.8	.0	.0	.0
1924	4676.8	-1172.3	5804.8	-947.6	24.1	1128.0
1925	5475.4	-590.6	5790.9	-747.8	5.8	315.5
1926	6266.5	-769.4	6133.9	-724.3	-2.1	-132.6
1927	8695.6	467.8	8712.8	262.0	.2	17.2
1928	6858.3	-177.8	7344.8	-257.5	7.1	486.5
1929	4071.5	-681.1	4679.3	-712.4	14.9	607.8
1930	6531.2	439.5	6773.9	455.9	3.7	242.7
1931	5270.8	-372.1	5182.6	-418.5	-1.7	-88.2
1932	6794.2	649.0	6971.1	649.3	2.6	176.9
1933	5849.7	-780.3	6266.3	-680.7	7.1	416.6
1934	6403.5	602.8	6996.9	593.8	9.3	593.4
1935	7293.3	496.0	7291.5	518.5	.0	-1.8
1936	8712.8	1600.0	8712.8	1599.4	.0	.0
1937	6095.7	-725.7	6395.0	-647.5	4.9	299.3
1938	8600.2	-17.4	8591.4	-26.2	-.1	-8.8
1939	6539.0	-695.3	6712.8	-773.0	2.7	173.8
1940	8687.0	3632.6	8687.0	3811.7	.0	.0
1941	8712.8	469.8	8712.8	437.7	.0	.0
1942	8635.1	-77.7	8617.6	-95.2	-.2	-17.5
1943	8556.3	-147.9	8556.3	-147.9	.0	.0
1944	4604.1	-568.9	4970.4	-624.9	8.0	366.3
1945	7008.4	-392.2	7059.5	-356.9	.7	51.1
1946	8635.1	-77.7	8635.1	-77.7	.0	.0
1947	6414.2	-824.6	6309.9	-771.4	-1.6	-104.3
1948	6391.3	525.3	6662.2	528.2	4.2	270.9
1949	5234.9	-893.4	6448.7	-688.8	23.2	1213.8
1950	7734.9	2547.0	7378.9	2417.9	-4.6	-356.0
1951	6309.4	291.8	6309.4	291.8	.0	.0
1952	8712.8	.0	8712.8	.0	.0	.0
1953	8704.2	471.9	8704.2	280.3	.0	.0
1954	7642.9	-101.3	7920.3	-38.3	3.6	277.4
1955	7077.8	348.4	7070.2	385.3	-.1	-7.6
1956	6904.1	-1563.4	6926.9	-1540.6	.3	22.8
1957	6689.9	-746.0	7021.7	-650.1	5.0	331.8
1958	7020.1	565.0	7305.7	614.1	4.1	285.6
1959	7302.3	359.3	7607.7	409.7	4.2	305.4
1960	3878.5	-185.9	4430.2	-42.8	14.2	551.7
1961	4655.0	-908.4	4913.4	-825.6	5.6	258.4
1962	4341.5	-396.4	4896.4	-312.9	12.8	554.9
1963	8538.6	-174.2	8529.8	-183.0	-.1	-8.8
1964	8393.2	6.1	8144.5	66.1	-3.0	-248.7
1965	6625.1	-590.6	6625.1	-514.1	.0	.0
1966	7165.7	-148.4	7815.9	-233.0	9.1	650.2
1967	8608.9	357.0	8643.7	102.3	.4	34.8
1968	7827.5	-244.8	8118.1	-168.2	3.7	290.6
1969	8529.8	1056.4	8529.8	839.0	.0	.0
1970	7215.7	-1479.9	7215.7	-1479.9	.0	.0
1971	8712.8	.0	8712.8	.0	.0	.0
1972	7912.3	-393.2	8209.3	-312.1	3.8	297.0
1973	8617.6	457.8	8617.6	269.1	.0	.0
1974	8080.2	-537.4	8108.6	-526.5	.4	28.4
1975	6955.3	-424.9	7267.0	-342.9	4.5	311.7
1976	6904.7	-1155.1	7028.6	-1077.7	1.8	123.9
1977	3758.6	-402.2	3769.1	-390.5	.3	10.5
1978	8712.8	3917.2	8652.4	3638.7	-.7	-60.4
1979	6395.2	632.4	7386.2	616.8	15.5	991.0
1980	7636.9	666.7	7916.3	417.7	3.7	279.4
1981	5666.3	-265.5	6733.6	-144.6	18.8	1067.3
1982	6846.9	-136.5	6858.4	-136.2	.2	11.5
1983	8591.4	-78.3	8591.4	-78.3	.0	.0
1984	6517.5	72.8	6541.5	96.8	.4	24.0
1985	7573.1	-737.9	7585.3	-706.2	.2	12.2
1986	8600.2	1368.0	8600.2	1636.8	.0	.0
1987	4618.3	-765.0	4669.1	-845.5	1.1	50.8
1988	6065.8	1289.9	6251.6	1280.3	3.1	185.8
1989	5941.6	-536.7	6074.2	-501.9	2.2	132.6
1990	5672.5	-145.4	5956.8	-74.4	5.0	284.3
1991	3300.0	-706.6	2420.1	-962.2	-26.7	-879.9
Mean:	6933.8	21.5	7107.2	20.5	2.9	173.4
Median:	6904.7	-145.4	7070.2	-95.2	.4	28.4
Min:	3300.0	-1563.4	2420.1	-1540.6	-26.7	-879.9
Max:	8712.8	3917.2	8712.8	3811.7	24.1	1213.8
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	50		51			
X < 7614.2	44		44			
X < 7074.2	38		35			
X < 6301.3	19		16			
X < 4805.3	9		5			
X < 3782.9	2		2			

FOLSOM RESERVOIR SURFACE AREA

February

Water Year	Cuml. Area (acre)	Cuml. Change from Prev (acre)	No Proj-constrained Area (acre)	No Proj-constrained Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	8712.8	.0	8712.8	.0	.0	.0
1923	8695.6	-17.2	8695.6	-17.2	.0	.0
1924	4578.5	-98.3	5677.4	-127.4	24.0	1098.9
1925	8617.6	3142.2	8529.8	2738.9	-1.0	-87.8
1926	7903.0	1636.5	7849.9	1716.0	-.7	-53.1
1927	8582.7	-112.9	8608.9	-103.9	.3	26.2
1928	6955.7	97.4	7502.8	158.0	7.9	547.1
1929	4537.1	465.6	5070.1	390.8	11.7	533.0
1930	6690.2	159.0	6957.7	183.8	4.0	267.5
1931	5171.5	-99.3	5103.5	-79.1	-1.3	-68.0
1932	8674.7	1880.5	8712.8	1741.7	.4	38.1
1933	5174.9	-674.8	5698.3	-568.0	10.1	523.4
1934	6913.2	509.7	7345.4	348.5	6.3	432.2
1935	7614.2	320.9	7633.2	341.7	.2	19.0
1936	8704.2	-8.6	8704.2	-8.6	.0	.0
1937	8469.9	2374.2	8712.8	2317.8	2.9	242.9
1938	8573.9	-26.3	8565.1	-26.3	-.1	-8.8
1939	5963.9	-575.1	6233.2	-479.6	4.5	269.3
1940	8582.7	-104.3	8573.9	-113.1	-.1	-8.8
1941	8712.8	.0	8704.2	-8.6	-.1	-8.6
1942	8556.3	-78.8	8538.6	-79.0	-.2	-17.7
1943	8458.6	-97.7	8458.6	-97.7	.0	.0
1944	5443.3	839.2	5734.3	763.9	5.3	291.0
1945	8635.1	1626.7	8635.1	1575.6	.0	.0
1946	8494.3	-140.8	8494.3	-140.8	.0	.0
1947	6798.5	384.3	6929.4	619.5	1.9	130.9
1948	5886.8	-504.5	6050.9	-611.3	2.8	164.1
1949	5153.8	-81.1	6168.9	-279.8	19.7	1015.1
1950	8712.8	977.9	8712.8	1333.9	.0	.0
1951	6456.9	147.5	6456.9	147.5	.0	.0
1952	8712.8	.0	8712.8	.0	.0	.0
1953	8661.1	-43.1	8652.4	-51.8	-.1	-8.7
1954	8348.9	706.0	8651.1	730.8	3.6	302.2
1955	6843.0	-234.8	6872.0	-198.2	.4	29.0
1956	6846.9	-57.2	6881.3	-45.6	.5	34.4
1957	8089.3	1399.4	8414.0	1392.3	4.0	324.7
1958	8635.1	1615.0	8635.1	1329.4	.0	.0
1959	7973.0	670.7	8304.6	696.9	4.2	331.6
1960	7256.7	3378.2	7676.8	3246.6	5.8	420.1
1961	5014.3	359.3	5302.7	389.3	5.8	288.4
1962	8298.5	3957.0	8573.0	3676.6	3.3	274.5
1963	7788.1	-750.5	7817.9	-711.9	.4	29.8
1964	8171.2	-222.0	7975.7	-168.8	-2.4	-195.5
1965	6613.2	-11.9	6613.2	-11.9	.0	.0
1966	7027.6	-138.1	7753.6	-62.3	10.3	726.0
1967	8520.9	-88.0	8547.5	-96.2	.3	26.6
1968	8565.1	737.6	8565.1	447.0	.0	.0
1969	8386.5	-143.3	8386.5	-143.3	.0	.0
1970	6892.7	-323.0	6892.7	-323.0	.0	.0
1971	8652.4	-60.4	8643.7	-69.1	-.1	-8.7
1972	8413.1	500.8	8712.8	503.5	3.6	299.7
1973	8582.7	-34.9	8582.7	-34.9	.0	.0
1974	8127.6	47.4	8108.6	.0	-.2	-19.0
1975	8217.2	1261.9	8520.4	1253.4	3.7	303.2
1976	6192.9	-711.8	6405.1	-623.5	3.4	212.2
1977	3473.0	-285.6	3496.0	-273.1	.7	23.0
1978	8712.8	.0	8600.2	-52.2	-1.3	-112.6
1979	7502.3	1107.1	8279.4	893.2	10.4	777.1
1980	6695.9	-941.0	6881.3	-1035.0	2.8	185.4
1981	5819.8	153.5	6668.6	-65.0	14.6	848.8
1982	6259.5	-587.4	6272.0	-586.4	.2	12.5
1983	8494.3	-97.1	8494.3	-97.1	.0	.0
1984	6553.5	36.0	6577.5	36.0	.4	24.0
1985	7695.2	122.1	7730.3	145.0	.5	35.1
1986	6800.8	-1799.4	6835.4	-1764.8	.5	34.6
1987	5088.6	470.3	5096.4	427.3	.2	7.8
1988	5668.7	-397.1	5890.2	-361.4	3.9	221.5
1989	5864.0	-77.6	6025.3	-48.9	2.8	161.3
1990	5773.6	101.1	5877.9	-78.9	1.8	104.3
1991	2886.0	-414.0	1786.0	-634.1	-38.1	-1100.0
Mean:	7264.9	302.1	7406.9	275.2	2.1	142.0
Median:	7695.2	-8.6	7817.9	-26.3	.4	26.2
Min:	2886.0	-1799.4	1786.0	-1764.8	-38.1	-1100.0
Max:	8712.8	3957.0	8712.8	3676.6	24.0	1098.9
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	70		70			
X < 8223.8	42		38			
X < 7614.2	33		30			
X < 7074.2	31		28			
X < 6301.3	18		16			
X < 4805.3	4		2			
X < 3782.9	2		2			

FOLSOM RESERVOIR SURFACE AREA

March

Water Year	Cuml. Area (acre)	Cuml. Change from Prev (acre)	No Proj-constrained Area (acre)	No Proj-constrained Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	8885.1	.0	8946.4	.0	.7	61.3
1923	8697.0	1.4	8748.5	52.9	.6	51.5
1924	3953.5	-625.0	4922.9	-754.5	24.5	969.4
1925	8840.2	222.6	8589.5	59.7	-2.8	-250.7
1926	7894.4	-8.6	7867.5	17.6	-.3	-26.9
1927	9415.5	832.8	9415.5	806.6	.0	.0
1928	9269.3	2313.6	9308.1	1805.3	.4	38.8
1929	5082.9	545.8	5616.3	546.2	10.5	533.4
1930	8230.3	1540.1	8473.6	1515.9	3.0	243.3
1931	5820.7	649.2	5687.1	583.6	-2.3	-133.6
1932	9136.2	461.5	9216.3	503.5	.9	80.1
1933	5486.6	311.7	6025.2	326.9	9.8	538.6
1934	7657.3	744.1	7905.9	560.5	3.2	248.6
1935	7563.0	-51.2	7645.1	11.9	1.1	82.1
1936	9476.0	771.8	9468.5	764.3	-.1	-7.5
1937	9513.4	1043.5	9513.4	800.6	.0	.0
1938	9476.0	902.1	9476.0	910.9	.0	.0
1939	6886.6	922.7	7146.7	913.5	3.8	260.1
1940	9135.1	552.4	9046.6	472.7	-1.0	-88.5
1941	9498.5	785.7	9498.5	794.3	.0	.0
1942	8253.8	-302.5	8301.6	-237.0	.6	47.8
1943	9103.1	644.5	9111.1	652.5	.1	8.0
1944	6613.8	1170.5	6898.5	1164.2	4.3	284.7
1945	9068.3	433.2	9124.5	489.4	.6	56.2
1946	9375.2	880.9	9423.1	928.8	.5	47.9
1947	8064.3	1265.8	8194.5	1265.1	1.6	130.2
1948	5389.1	-497.7	5662.0	-388.9	5.1	272.9
1949	7231.8	2078.0	8050.9	1882.0	11.3	819.1
1950	9482.7	769.9	9425.5	712.7	-.6	-57.2
1951	8814.9	2358.0	8814.9	2358.0	.0	.0
1952	9513.4	800.6	9513.4	800.6	.0	.0
1953	8562.5	-98.6	8615.0	-37.4	.6	52.5
1954	9483.5	1134.6	9483.5	832.4	.0	.0
1955	6733.3	-109.7	6799.6	-72.4	1.0	66.3
1956	7834.8	987.9	7933.8	1052.5	1.3	99.0
1957	9438.3	1349.0	9438.3	1024.3	.0	.0
1958	9491.0	855.9	9491.0	855.9	.0	.0
1959	8278.8	305.8	8611.7	307.1	4.0	332.9
1960	9081.0	1824.3	9420.2	1743.4	3.7	339.2
1961	5747.2	732.9	6031.5	728.8	4.9	284.3
1962	8860.8	562.3	9134.8	561.8	3.1	274.0
1963	7897.1	109.0	7995.0	177.1	1.2	97.9
1964	7873.3	-297.9	7704.0	-271.7	-2.2	-169.3
1965	7472.7	859.5	7546.4	933.2	1.0	73.7
1966	7630.8	603.2	8187.8	434.2	7.3	557.0
1967	9300.4	779.5	9292.6	745.1	-.1	-7.8
1968	8385.4	-179.7	9354.4	789.3	11.6	969.0
1969	8878.1	491.6	8928.7	542.2	.6	50.6
1970	8882.1	1989.4	8794.5	1901.8	-1.0	-87.6
1971	9400.3	747.9	9392.7	749.0	-.1	-7.6
1972	9369.8	956.7	9377.4	664.6	.1	7.6
1973	9483.5	900.8	9483.5	900.8	.0	.0
1974	8989.5	861.9	8964.9	856.3	-.3	-24.6
1975	9513.4	1296.2	9513.4	993.0	.0	.0
1976	6000.0	-192.9	6153.0	-252.1	2.5	153.0
1977	3468.2	-4.8	3452.2	-43.8	-.5	-16.0
1978	9415.5	702.7	9238.0	637.8	-1.9	-177.5
1979	8838.5	1336.2	9405.0	1125.6	6.4	566.5
1980	8898.7	2202.8	8989.5	2108.2	1.0	90.8
1981	7114.0	1294.2	7781.3	1112.7	9.4	667.3
1982	8764.1	2504.6	8772.6	2500.6	.1	8.5
1983	9182.8	688.5	9198.6	704.3	.2	15.8
1984	8831.8	2278.3	8758.7	2181.2	-.8	-73.1
1985	8068.8	373.6	8133.0	402.7	.8	64.2
1986	8738.5	1937.7	8738.5	1903.1	.0	.0
1987	6384.2	1295.6	6279.0	1182.6	-1.6	-105.2
1988	5715.4	46.7	5878.2	-12.0	2.8	162.8
1989	9423.1	3559.1	9245.8	3220.5	-1.9	-177.3
1990	6768.0	994.4	6877.7	999.8	1.6	109.7
1991	5399.5	2513.5	4697.1	2911.1	-13.0	-702.4
Mean:	8120.4	853.0	8230.4	820.2	1.7	110.1
Median:	8764.1	771.8	8758.7	749.0	.5	47.8
Min:	3468.2	-625.0	3452.2	-754.5	-13.0	-702.4
Max:	9513.4	3559.1	9513.4	3220.5	24.5	969.4
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	53		52			
X < 8223.8	27		27			
X < 7614.2	19		16			
X < 7074.2	15		14			
X < 6301.3	10		11			
X < 4805.3	2		2			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

April

	Cuml.		No Proj-constrained			
Water Year	Area (acre)	Change from Prev (acre)	Area (acre)	Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	9800.3	.0	9918.2	.0	1.2	117.9
1923	10372.4	1675.4	10372.4	1623.9	.0	.0
1924	4536.6	583.1	5295.5	372.6	16.7	758.9
1925	10372.4	1532.2	10372.4	1782.9	.0	.0
1926	9810.5	1916.1	9826.6	1959.1	.2	16.1
1927	10372.4	956.9	10372.4	956.9	.0	.0
1928	10372.4	1103.1	10372.4	1064.3	.0	.0
1929	6378.2	1295.3	6509.4	893.1	2.1	131.2
1930	8976.5	746.2	9222.0	748.4	2.7	245.5
1931	6376.9	556.2	6208.2	521.1	-2.6	-168.7
1932	9633.5	497.3	9756.3	540.0	1.3	122.8
1933	6118.0	631.4	6470.9	445.7	5.8	352.9
1934	6994.6	-662.7	6994.6	-911.3	.0	.0
1935	10372.4	2809.4	10372.4	2727.3	.0	.0
1936	10372.4	896.4	10372.4	903.9	.0	.0
1937	10372.4	859.0	10372.4	859.0	.0	.0
1938	10372.4	896.4	10372.4	896.4	.0	.0
1939	8023.8	1137.2	8127.4	980.7	1.3	103.6
1940	10372.4	1237.3	10372.4	1325.8	.0	.0
1941	10372.4	873.9	10372.4	873.9	.0	.0
1942	9999.0	1745.2	10095.9	1794.3	1.0	96.9
1943	10372.4	1269.3	10372.4	1261.3	.0	.0
1944	6996.7	382.9	7307.3	408.8	4.4	310.6
1945	9827.0	758.7	9937.5	813.0	1.1	110.5
1946	10372.4	997.2	10372.4	949.3	.0	.0
1947	8491.8	427.5	8647.3	452.8	1.8	155.5
1948	8443.6	3054.5	8696.1	3034.1	3.0	252.5
1949	8921.0	1689.2	9605.2	1554.3	7.7	684.2
1950	10372.4	889.7	10372.4	946.9	.0	.0
1951	10372.4	1557.5	10372.4	1557.5	.0	.0
1952	10372.4	859.0	10372.4	859.0	.0	.0
1953	9588.2	1025.7	9596.2	981.2	.1	8.0
1954	10372.4	888.9	10372.4	888.9	.0	.0
1955	7304.2	570.9	7404.4	604.8	1.4	100.2
1956	8871.9	1037.1	9022.4	1088.6	1.7	150.5
1957	9510.9	72.6	9578.3	140.0	.7	67.4
1958	10372.4	881.4	10372.4	881.4	.0	.0
1959	8662.9	384.1	8995.4	383.7	3.8	332.5
1960	9671.3	590.3	10002.0	581.8	3.4	330.7
1961	6891.3	1144.1	7160.6	1129.1	3.9	269.3
1962	10372.4	1511.6	10372.4	1237.6	.0	.0
1963	10372.4	2475.3	10372.4	2377.4	.0	.0
1964	8333.4	460.1	8213.3	509.3	-1.4	-120.1
1965	10372.4	2899.7	10372.4	2826.0	.0	.0
1966	8961.7	1330.9	9330.3	1142.5	4.1	368.6
1967	10124.0	823.6	10177.5	884.9	.5	53.5
1968	8671.1	285.7	9633.8	279.4	11.1	962.7
1969	10372.4	1494.3	10372.4	1443.7	.0	.0
1970	9305.5	423.4	9258.9	464.4	-.5	-46.6
1971	10087.7	687.4	10142.2	749.5	.5	54.5
1972	9783.0	413.2	9827.6	450.2	.5	44.6
1973	10259.6	776.1	10317.3	833.8	.6	57.7
1974	10372.4	1382.9	10372.4	1407.5	.0	.0
1975	9583.6	70.2	9663.9	150.5	.8	80.3
1976	6583.8	583.8	6664.4	511.4	1.2	80.6
1977	3532.7	64.5	3463.3	11.1	-2.0	-69.4
1978	10372.4	956.9	10372.4	1134.4	.0	.0
1979	9534.4	695.9	9994.1	589.1	4.8	459.7
1980	10225.7	1327.0	10355.2	1365.7	1.3	129.5
1981	8072.6	958.6	8418.9	637.6	4.3	346.3
1982	10372.4	1608.3	10372.4	1599.8	.0	.0
1983	10372.4	1189.6	10372.4	1173.8	.0	.0
1984	9849.3	1017.5	9819.0	1060.3	-.3	-30.3
1985	9381.2	1312.4	9461.5	1328.5	.9	80.3
1986	10267.5	1529.0	10325.8	1587.3	.6	58.3
1987	7340.2	956.0	7243.0	964.0	-1.3	-97.2
1988	6607.3	891.9	6717.3	839.1	1.7	110.0
1989	10372.4	949.3	10372.4	1126.6	.0	.0
1990	6994.6	226.6	6994.6	116.9	.0	.0
1991	6708.1	1308.6	6179.2	1482.1	-7.9	-528.9
Mean:	9138.8	1005.4	9232.3	988.0	1.2	93.5
Median:	9800.3	896.4	9918.2	896.4	.0	.0
Min:	3532.7	-662.7	3463.3	-911.3	-7.9	-528.9
Max:	10372.4	3054.5	10372.4	3034.1	16.7	962.7
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	26		23			
X < 8223.8	16		16			
X < 7614.2	14		14			
X < 7074.2	12		10			
X < 6301.3	3		4			
X < 4805.3	2		1			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

May

Water Year	Cuml. Area (acre)	Cuml. Change from Prev (acre)	No Proj-constrained Area (acre)	No Proj-constrained Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	11361.7	.0	11361.7	.0	.0	.0
1923	11361.7	989.3	11361.7	989.3	.0	.0
1924	5067.4	530.8	5578.0	282.5	10.1	510.6
1925	11361.7	989.3	11361.7	989.3	.0	.0
1926	9270.7	-539.8	9328.2	-498.4	.6	57.5
1927	11361.7	989.3	11361.7	989.3	.0	.0
1928	10789.3	416.9	10860.8	488.4	.7	71.5
1929	6812.8	434.6	6981.8	472.4	2.5	169.0
1930	8772.5	-204.0	8924.4	-297.6	1.7	151.9
1931	6802.2	425.3	6799.3	591.1	.0	-2.9
1932	10726.4	1092.9	10846.0	1089.7	1.1	119.6
1933	6485.9	367.9	6865.3	394.4	5.8	379.4
1934	7168.0	173.4	7156.5	161.9	-.2	-11.5
1935	11239.8	867.4	11361.7	989.3	1.1	121.9
1936	11171.3	798.9	11238.4	866.0	.6	67.1
1937	11361.7	989.3	11361.7	989.3	.0	.0
1938	11361.7	989.3	11361.7	989.3	.0	.0
1939	7643.7	-380.1	7800.4	-327.0	2.1	156.7
1940	11153.5	781.1	11180.0	807.6	.2	26.5
1941	11361.7	989.3	11361.7	989.3	.0	.0
1942	11361.7	1362.7	11361.7	1265.8	.0	.0
1943	10864.8	492.4	10934.0	561.6	.6	69.2
1944	7756.5	759.8	8079.3	772.0	4.2	322.8
1945	10858.6	1031.6	11012.8	1075.3	1.4	154.2
1946	11268.7	896.3	11327.6	955.2	.5	58.9
1947	8103.4	-388.4	8248.9	-398.4	1.8	145.5
1948	9814.2	1370.6	10107.8	1411.7	3.0	293.6
1949	10142.2	1221.2	10658.4	1053.2	5.1	516.2
1950	11239.3	866.9	11298.1	925.7	.5	58.8
1951	11310.7	938.3	11361.7	989.3	.5	51.0
1952	11361.7	989.3	11361.7	989.3	.0	.0
1953	10165.9	577.7	10251.9	655.7	.8	86.0
1954	10591.9	219.5	10625.6	253.2	.3	33.7
1955	8200.7	896.5	8331.8	927.4	1.6	131.1
1956	11001.3	2129.4	11159.2	2136.8	1.4	157.9
1957	10858.3	1347.4	10896.6	1318.3	.4	38.3
1958	11361.7	989.3	11361.7	989.3	.0	.0
1959	8163.5	-499.4	8418.3	-577.1	3.1	254.8
1960	9515.1	-156.2	9881.0	-121.0	3.8	365.9
1961	7340.3	449.0	7626.0	465.4	3.9	285.7
1962	10640.7	268.3	10710.7	338.3	.7	70.0
1963	11361.7	989.3	11361.7	989.3	.0	.0
1964	8781.6	448.2	8722.4	509.1	-.7	-59.2
1965	11242.5	870.1	11310.4	938.0	.6	67.9
1966	8551.0	-410.7	9000.1	-330.2	5.3	449.1
1967	11361.7	1237.7	11361.7	1184.2	.0	0
1968	8251.9	-419.2	9328.8	-305.0	13.1	1076.9
1969	11361.7	989.3	11361.7	989.3	.0	.0
1970	9792.8	487.3	9791.7	532.8	.0	-1.1
1971	10902.2	814.5	11015.3	873.1	1.0	113.1
1972	10232.3	449.3	10309.7	482.1	.8	77.4
1973	11361.7	1102.1	11361.7	1044.4	.0	.0
1974	11361.7	989.3	11361.7	989.3	.0	.0
1975	11111.6	1528.0	11232.8	1568.9	1.1	121.2
1976	7219.1	635.3	7228.6	564.2	.1	9.5
1977	3658.1	125.4	3572.3	109.0	-2.3	-85.8
1978	11258.6	886.2	11361.7	989.3	.9	103.1
1979	10987.4	1453.0	11361.7	1367.6	3.4	374.3
1980	10912.4	686.7	11019.9	664.7	1.0	107.5
1981	7863.8	-208.8	8120.0	-298.9	3.3	256.2
1982	11361.7	989.3	11361.7	989.3	.0	.0
1983	11361.7	989.3	11361.7	989.3	.0	.0
1984	10813.0	963.7	10809.6	990.6	.0	-3.4
1985	9161.2	-220.0	9289.8	-171.7	1.4	128.6
1986	10792.8	525.3	10913.2	587.4	1.1	120.4
1987	7521.1	180.9	7492.3	249.3	-.4	-28.8
1988	6880.4	273.1	6957.0	239.7	1.1	76.6
1989	10501.5	129.1	10636.9	264.5	1.3	135.4
1990	6799.0	-195.6	6844.2	-150.4	.7	45.2
1991	7165.9	457.8	6907.5	728.3	-3.6	-258.4
Mean:	9778.4	617.3	9888.9	636.0	1.3	110.5
Median:	10789.3	759.8	10846.0	772.0	.6	67.1
Min:	3658.1	-539.8	3572.3	-577.1	-3.6	-258.4
Max:	11361.7	2129.4	11361.7	2136.8	13.1	1076.9
X > 11267.9	19		24			
X > 10638.3	38		39			
X < 9318.8	24		22			
X < 8223.8	18		15			
X < 7614.2	12		11			
X < 7074.2	7		8			
X < 6301.3	2		2			
X < 4805.3	1		1			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

June

Water Year	Cuml. Area (acre)	Cuml. Change from Prev (acre)	No Proj-constrained Area (acre)	No Proj-constrained Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	11361.7	.0	11361.7	.0	.0	.0
1923	10837.9	-523.8	11034.4	-327.3	1.8	196.5
1924	5294.0	226.6	5580.2	2.2	5.4	286.2
1925	10355.2	-1006.5	10332.5	-1029.2	-.2	-22.7
1926	8357.0	-913.7	8392.5	-935.7	.4	35.5
1927	11361.7	.0	11361.7	.0	.0	.0
1928	9397.2	-1392.1	9577.0	-1283.8	1.9	179.8
1929	6324.4	-488.4	6571.2	-410.6	3.9	246.8
1930	8314.7	-457.8	8411.8	-512.6	1.2	97.1
1931	7039.8	237.6	7040.3	241.0	.0	.5
1932	10553.6	-172.8	10709.5	-136.5	1.5	155.9
1933	6770.8	284.9	7181.5	316.2	6.1	410.7
1934	6284.5	-883.5	6408.1	-748.4	2.0	123.6
1935	11275.6	35.8	11361.7	.0	.8	86.1
1936	11361.7	190.4	11361.7	123.3	.0	.0
1937	10914.2	-447.5	10956.9	-404.8	.4	42.7
1938	11361.7	.0	11361.7	.0	.0	.0
1939	7576.0	-67.7	7718.7	-81.7	1.9	142.7
1940	10637.8	-515.7	10759.0	-421.0	1.1	121.2
1941	11153.6	-208.1	11162.6	-199.1	.1	9.0
1942	11361.7	.0	11361.7	.0	.0	.0
1943	10652.2	-212.6	10809.2	-124.8	1.5	157.0
1944	7616.0	-140.5	7872.3	-207.0	3.4	256.3
1945	9958.7	-899.9	10199.4	-813.4	2.4	240.7
1946	9982.4	-1286.3	10122.7	-1204.9	1.4	140.3
1947	7752.4	-351.0	7969.0	-279.9	2.8	216.6
1948	10402.6	588.4	10765.0	657.2	3.5	362.4
1949	9651.8	-490.4	9819.1	-839.3	1.7	167.3
1950	11247.3	8.0	11361.7	63.6	1.0	114.4
1951	10730.1	-580.6	10877.5	-484.2	1.4	147.4
1952	11361.7	.0	11361.7	.0	.0	.0
1953	10979.8	813.9	11139.3	887.4	1.5	159.5
1954	9527.9	-1064.0	9554.6	-1071.0	.3	26.7
1955	8023.4	-177.3	8217.9	-113.9	2.4	194.5
1956	11361.7	360.4	11361.7	202.5	.0	.0
1957	10297.8	-560.5	10373.2	-523.4	.7	75.4
1958	11361.7	.0	11361.7	.0	.0	.0
1959	7847.0	-316.5	8022.4	-395.9	2.2	175.4
1960	8895.7	-619.4	9359.9	-521.1	5.2	464.2
1961	7559.8	219.5	7887.2	261.2	4.3	327.4
1962	10257.6	-383.1	10450.2	-260.5	1.9	192.6
1963	11195.3	-166.4	11275.3	-86.4	.7	80.0
1964	8468.5	-313.1	8465.4	-257.0	.0	-3.1
1965	11136.5	-106.0	11286.2	-24.2	1.3	149.7
1966	7877.2	-673.8	8451.8	-548.3	7.3	574.6
1967	11361.7	.0	11361.7	.0	.0	.0
1968	7708.8	-543.1	8692.8	-636.0	12.8	984.0
1969	11361.7	.0	11361.7	.0	.0	.0
1970	9180.1	-612.7	9234.2	-557.5	.6	54.1
1971	11208.3	306.1	11361.7	346.4	1.4	153.4
1972	8755.6	-1476.7	8923.6	-1386.1	1.9	168.0
1973	9617.8	-1743.9	9728.5	-1633.2	1.2	110.7
1974	11361.7	.0	11361.7	.0	.0	.0
1975	11361.7	250.1	11361.7	128.9	.0	.0
1976	6284.5	-934.6	6408.1	-820.5	2.0	123.6
1977	3396.3	-261.8	3312.0	-260.3	-2.5	-84.3
1978	11237.0	-21.6	11361.7	.0	1.1	124.7
1979	8873.6	-2113.8	9555.0	-1806.7	7.7	681.4
1980	10757.6	-154.8	10949.9	-70.0	1.8	192.3
1981	7644.1	-219.7	7674.6	-445.4	.4	30.5
1982	11361.7	.0	11361.7	.0	.0	.0
1983	11361.7	.0	11361.7	.0	.0	.0
1984	10208.6	-604.4	10251.5	-558.1	.4	42.9
1985	8171.2	-990.0	8217.8	-1072.0	.6	46.6
1986	10725.2	-67.6	10849.2	-64.0	1.2	124.0
1987	7349.3	-171.8	7336.4	-155.9	-.2	-12.9
1988	6284.5	-595.9	6408.1	-548.9	2.0	123.6
1989	9429.9	-1071.6	9433.8	-1203.1	.0	3.9
1990	6284.5	-514.5	6408.1	-436.1	2.0	123.6
1991	6628.5	-537.4	6408.1	-499.4	-3.3	-220.4
Mean:	9427.9	-350.5	9557.9	-331.0	1.5	130.0
Median:	9982.4	-219.7	10199.4	-257.0	1.1	114.4
Min:	3396.3	-2113.8	3312.0	-1806.7	-3.3	-220.4
Max:	11361.7	813.9	11361.7	887.4	12.8	984.0
X > 11267.9	15		20			
X > 10638.3	28		31			
X < 9318.8	28		26			
X < 8223.8	21		19			
X < 7614.2	13		11			
X < 7074.2	10		9			
X < 6301.3	6		2			
X < 4805.3	1		1			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

July

Water Year	Cuml. Area (acre)	Cuml. Change from Prev (acre)	No Proj-constrained Area (acre)	No Proj-constrained Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	10952.9	.0	11022.6	.0	.6	69.7
1923	10547.5	-290.4	10757.2	-277.2	2.0	209.7
1924	5448.3	154.3	5492.4	-87.8	.8	44.1
1925	9976.5	-378.7	9712.6	-619.9	-2.6	-263.9
1926	6997.7	-1359.3	7061.0	-1331.5	.9	63.3
1927	9628.6	-1733.1	9759.1	-1602.6	1.4	130.5
1928	8820.2	-577.0	8923.6	-653.4	1.2	103.4
1929	5631.3	-693.1	5864.9	-706.3	4.1	233.6
1930	7169.8	-1144.9	7358.9	-1052.9	2.6	189.1
1931	5620.6	-1419.2	5766.9	-1273.4	2.6	146.3
1932	10115.4	-438.2	10387.0	-322.5	2.7	271.6
1933	5877.5	-893.3	6398.6	-782.9	8.9	521.1
1934	5485.4	-799.1	5629.4	-778.7	2.6	144.0
1935	10890.8	-384.8	10906.6	-455.1	.1	15.8
1936	10720.6	-641.1	10762.2	-599.5	.4	41.6
1937	10547.4	-366.8	10811.2	-145.7	2.5	263.8
1938	11233.7	-128.0	11233.7	-128.0	.0	.0
1939	6707.7	-868.3	6871.0	-847.7	2.4	163.3
1940	8840.2	-1797.6	8923.6	-1835.4	.9	83.4
1941	11061.8	-91.8	11167.1	4.5	1.0	105.3
1942	11233.7	-128.0	11233.7	-128.0	.0	.0
1943	8923.6	-1728.6	9076.2	-1733.0	1.7	152.6
1944	7342.3	-273.7	7584.1	-288.2	3.3	241.8
1945	8755.6	-1203.1	8923.6	-1275.8	1.9	168.0
1946	8755.6	-1226.8	8923.6	-1199.1	1.9	168.0
1947	7081.3	-671.1	7113.3	-855.7	.5	32.0
1948	10186.2	-216.4	10434.7	-330.3	2.4	248.5
1949	8691.7	-960.1	8933.4	-885.7	2.8	241.7
1950	10723.1	-524.2	10814.5	-547.2	.9	91.4
1951	8840.2	-1889.9	8923.6	-1953.9	.9	83.4
1952	11233.7	-128.0	11233.7	-128.0	.0	.0
1953	11220.7	240.9	11233.7	94.4	.1	13.0
1954	8840.2	-687.7	8923.6	-631.0	.9	83.4
1955	7752.1	-271.3	8027.8	-190.1	3.6	275.7
1956	11233.7	-128.0	11233.7	-128.0	.0	.0
1957	8840.2	-1457.6	8923.6	-1449.6	.9	83.4
1958	11233.7	-128.0	11233.7	-128.0	.0	.0
1959	7655.4	-191.6	7880.0	-142.4	2.9	224.6
1960	8278.4	-617.3	8770.5	-589.4	5.9	492.1
1961	7302.8	-257.0	7685.4	-201.8	5.2	382.6
1962	8755.6	-1502.0	8923.6	-1526.6	1.9	168.0
1963	9582.8	-1612.5	9772.8	-1502.5	2.0	190.0
1964	7664.0	-804.5	7680.0	-785.4	.2	16.0
1965	9457.9	-1678.6	9795.5	-1490.7	3.6	337.6
1966	7591.9	-285.3	8086.2	-365.6	6.5	494.3
1967	11233.7	-128.0	11233.7	-128.0	.0	.0
1968	7393.3	-315.5	8080.7	-612.1	9.3	687.4
1969	11233.7	-128.0	11233.7	-128.0	.0	.0
1970	8923.6	-256.5	8923.6	-310.6	.0	.0
1971	11233.7	25.4	11233.7	-128.0	.0	.0
1972	8383.2	-372.4	8628.3	-295.3	2.9	245.1
1973	8840.2	-777.6	8923.6	-804.9	.9	83.4
1974	11233.7	-128.0	11233.7	-128.0	.0	.0
1975	11233.7	-128.0	11233.7	-128.0	.0	.0
1976	5631.3	-653.2	5766.9	-641.2	2.4	135.6
1977	2881.0	-515.3	2779.3	-532.7	-3.5	-101.7
1978	9825.2	-1411.8	10219.3	-1142.4	4.0	394.1
1979	8686.7	-186.9	8923.6	-631.4	2.7	236.9
1980	10139.7	-617.9	10422.3	-527.6	2.8	282.6
1981	7462.5	-181.6	7543.3	-131.3	1.1	80.8
1982	11233.7	-128.0	11233.7	-128.0	.0	.0
1983	11233.7	-128.0	11233.7	-128.0	.0	.0
1984	8923.6	-1285.0	8923.6	-1327.9	.0	.0
1985	7211.2	-960.0	7230.7	-987.1	.3	19.5
1986	9232.9	-1492.3	9131.4	-1717.8	-1.1	-101.5
1987	6707.7	-641.6	6707.7	-628.7	.0	.0
1988	5631.3	-653.2	5766.9	-641.2	2.4	135.6
1989	8243.2	-1186.7	8221.6	-1212.2	-.3	-21.6
1990	5631.3	-653.2	5766.9	-641.2	2.4	135.6
1991	5695.6	-932.9	5766.9	-641.2	1.3	71.3
Mean:	8764.7	-657.4	8893.4	-659.7	1.6	128.7
Median:	8840.2	-617.3	8923.6	-619.9	1.0	83.4
Min:	2881.0	-1889.9	2779.3	-1953.9	-3.5	-263.9
Max:	11233.7	240.9	11233.7	94.4	9.3	687.4
X > 11267.9	0		0			
X > 10638.3	18		20			
X < 9318.8	42		42			
X < 8223.8	24		25			
X < 7614.2	21		18			
X < 7074.2	13		13			
X < 6301.3	10		9			
X < 4805.3	1		1			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

August

Water Year	Cuml. Area (acre)	Cuml. Change from Prev (acre)	No Proj-constrained Area (acre)	No Proj-constrained Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	10338.8	.0	10372.4	.0	.3	33.6
1923	9164.9	-1382.6	9708.3	-1048.9	5.9	543.4
1924	5553.4	105.1	5361.8	-130.6	-3.5	-191.6
1925	9777.2	-199.3	9223.9	-488.7	-5.7	-553.3
1926	6998.2	.5	7150.7	89.7	2.2	152.5
1927	8439.6	-1189.0	8701.2	-1057.9	3.1	261.6
1928	6994.6	-1825.6	7534.1	-1389.5	7.7	539.5
1929	5968.4	337.1	6229.8	364.9	4.4	261.4
1930	7401.8	232.0	7664.1	305.2	3.5	262.3
1931	5620.6	.0	5735.0	-31.9	2.0	114.4
1932	9880.6	-234.8	10223.5	-163.5	3.5	342.9
1933	6532.4	654.9	6921.9	523.3	6.0	389.5
1934	5076.6	-408.8	5257.1	-372.3	3.6	180.5
1935	9821.1	-1069.7	9891.1	-1015.5	.7	70.0
1936	10372.4	-348.2	10372.4	-389.8	.0	.0
1937	10270.2	-277.2	10372.4	-438.8	1.0	102.2
1938	10372.4	-861.3	10372.4	-861.3	.0	.0
1939	6548.9	-158.8	6762.8	-108.2	3.3	213.9
1940	7707.0	-1133.2	7915.9	-1007.7	2.7	208.9
1941	10372.4	-689.4	10372.4	-794.7	.0	.0
1942	10372.4	-861.3	10372.4	-861.3	.0	.0
1943	8004.2	-919.4	8396.0	-680.2	4.9	391.8
1944	7616.6	274.3	7925.6	341.5	4.1	309.0
1945	8131.5	-624.1	8403.1	-520.5	3.3	271.6
1946	8154.8	-600.8	8602.5	-321.1	5.5	447.7
1947	7380.6	299.3	7332.6	219.3	-.7	-48.0
1948	9445.3	-740.9	9880.3	-554.4	4.6	435.0
1949	7718.5	-973.2	8362.3	-571.1	8.3	643.8
1950	10149.9	-573.2	10334.6	-479.9	1.8	184.7
1951	7785.3	-1054.9	7995.0	-928.6	2.7	209.7
1952	10372.4	-861.3	10372.4	-861.3	.0	.0
1953	10372.4	-848.3	10372.4	-861.3	.0	.0
1954	7292.0	-1548.2	7534.1	-1389.5	3.3	242.1
1955	7398.8	-353.3	7447.3	-580.5	.7	48.5
1956	10372.4	-861.3	10372.4	-861.3	.0	.0
1957	8106.5	-733.7	8440.9	-482.7	4.1	334.4
1958	10372.4	-861.3	10372.4	-861.3	.0	.0
1959	6994.6	-660.8	6994.6	-885.4	.0	.0
1960	7564.7	-713.7	7538.2	-1232.3	-.4	-26.5
1961	7035.4	-267.4	7366.0	-319.4	4.7	330.6
1962	7806.4	-949.2	8074.7	-848.9	3.4	268.3
1963	9291.0	-291.8	9567.2	-205.6	3.0	276.2
1964	7873.5	209.5	7967.7	287.7	1.2	94.2
1965	9011.7	-446.2	9417.5	-378.0	4.5	405.8
1966	6994.6	-597.3	7110.1	-976.1	1.7	115.5
1967	10372.4	-861.3	10372.4	-861.3	.0	.0
1968	6994.6	-398.7	7477.4	-603.3	6.9	482.8
1969	10372.4	-861.3	10372.4	-861.3	.0	.0
1970	7534.1	-1389.5	7576.2	-1347.4	.6	42.1
1971	10372.4	-861.3	10372.4	-861.3	.0	.0
1972	6994.6	-1388.6	6994.6	-1633.7	.0	.0
1973	7322.9	-1517.3	7543.7	-1379.9	3.0	220.8
1974	10372.4	-861.3	10372.4	-861.3	.0	.0
1975	10372.4	-861.3	10372.4	-861.3	.0	.0
1976	5193.5	-437.8	5280.4	-486.5	1.7	86.9
1977	2499.1	-381.9	2399.7	-379.6	-4.0	-99.4
1978	8795.5	-1029.7	9380.1	-839.2	6.6	584.6
1979	7545.5	-1141.2	7905.6	-1018.0	4.8	360.1
1980	8908.3	-1231.4	9354.1	-1068.2	5.0	445.8
1981	7308.9	-153.6	7286.2	-257.1	-.3	-22.7
1982	10372.4	-861.3	10372.4	-861.3	.0	.0
1983	10372.4	-861.3	10459.7	-774.0	.8	87.3
1984	8036.7	-886.9	8248.5	-675.1	2.6	211.8
1985	6209.0	-1002.2	6278.3	-952.4	1.1	69.3
1986	8057.3	-1175.6	8187.7	-943.7	1.6	130.4
1987	5651.1	-1056.6	5695.7	-1012.0	.8	44.6
1988	5154.7	-476.6	5224.7	-542.2	1.4	70.0
1989	6713.2	-1530.0	6551.9	-1669.7	-2.4	-161.3
1990	5193.5	-437.8	5280.4	-486.5	1.7	86.9
1991	6045.3	349.7	6188.6	421.7	2.4	143.3
Mean:	8108.5	-647.5	8260.6	-623.5	1.9	152.1
Median:	7806.4	-740.9	8074.7	-774.0	1.7	102.2
Min:	2499.1	-1825.6	2399.7	-1669.7	-5.7	-553.3
Max:	10372.4	654.9	10459.7	523.3	8.3	643.8
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	48		44			
X < 8223.8	42		36			
X < 7614.2	30		28			
X < 7074.2	21		16			
X < 6301.3	11		11			
X < 4805.3	1		1			
X < 3782.9	1		1			

FOLSOM RESERVOIR SURFACE AREA

September

Water Year	Cuml. Area (acre)	Cuml. Change from Prev (acre)	No Proj-constrained Area (acre)	No Proj-constrained Change from Prev (acre)	Rel Diff (%)	Abs Diff (acre)
1922	9323.6	.0	9323.6	.0	.0	.0
1923	8811.8	-353.1	9253.4	-454.9	5.0	441.6
1924	5390.4	-163.0	5181.1	-180.7	-3.9	-209.3
1925	9177.7	-599.5	8919.7	-304.2	-2.8	-258.0
1926	6806.0	-192.2	6954.9	-195.8	2.2	148.9
1927	8032.4	-407.2	8268.5	-432.7	2.9	236.1
1928	6715.8	-278.8	7428.8	-105.3	10.6	713.0
1929	5812.6	-155.8	5965.4	-264.4	2.6	152.8
1930	7251.8	-150.0	7582.1	-82.0	4.6	330.3
1931	5425.0	-195.6	5509.1	-225.9	1.6	84.1
1932	9262.2	-618.4	9323.6	-899.9	.7	61.4
1933	6415.3	-117.1	6866.1	-55.8	7.0	450.8
1934	5085.3	8.7	5250.5	-6.6	3.2	165.2
1935	9220.8	-600.3	9059.6	-831.5	-1.7	-161.2
1936	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1937	9323.6	-946.6	9323.6	-1048.8	.0	.0
1938	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1939	6238.9	-310.0	6532.0	-230.8	4.7	293.1
1940	7420.5	-286.5	7701.6	-214.3	3.8	281.1
1941	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1942	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1943	7703.8	-300.4	8237.8	-158.2	6.9	534.0
1944	7320.1	-296.5	7705.2	-220.4	5.3	385.1
1945	7407.9	-723.6	7794.1	-609.0	5.2	386.2
1946	7215.6	-939.2	7797.2	-805.3	8.1	581.6
1947	6960.1	-420.5	7069.6	-263.0	1.6	109.5
1948	8431.2	-1014.1	8964.1	-916.2	6.3	532.9
1949	7470.3	-248.2	8034.9	-327.4	7.6	564.6
1950	9323.6	-826.3	9323.6	-1011.0	.0	.0
1951	7323.6	-461.7	7534.1	-460.9	2.9	210.5
1952	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1953	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1954	7148.8	-143.2	7468.6	-65.5	4.5	319.8
1955	7191.1	-207.7	7328.8	-118.5	1.9	137.7
1956	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1957	7712.7	-393.8	8124.8	-316.1	5.3	412.1
1958	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1959	6766.4	-228.2	6835.3	-159.3	1.0	68.9
1960	7317.6	-247.1	7326.9	-211.3	.1	9.3
1961	6670.6	-364.8	6890.8	-475.2	3.3	220.2
1962	7134.4	-672.0	7480.0	-594.7	4.8	345.6
1963	8802.9	-488.1	9214.9	-352.3	4.7	412.0
1964	7647.8	-225.7	7817.3	-150.4	2.2	169.5
1965	8630.7	-381.0	9056.0	-361.5	4.9	425.3
1966	6728.0	-266.6	6962.6	-147.5	3.5	234.6
1967	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1968	6912.5	-82.1	6994.6	-482.8	1.2	82.1
1969	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1970	7364.1	-170.0	7481.8	-94.4	1.6	117.7
1971	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1972	6810.7	-183.9	6869.5	-125.1	.9	58.8
1973	7243.7	-79.2	7534.1	-9.6	4.0	290.4
1974	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1975	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1976	5122.2	-71.3	5106.3	-174.1	-.3	-15.9
1977	2170.6	-328.5	2177.2	-222.5	.3	6.6
1978	8541.9	-253.6	9042.2	-337.9	5.9	500.3
1979	6994.6	-550.9	7215.7	-689.9	3.2	221.1
1980	8493.3	-415.0	8954.9	-399.2	5.4	461.6
1981	6865.7	-443.2	6887.0	-399.2	.3	21.3
1982	9323.6	-1048.8	9323.6	-1048.8	.0	.0
1983	9328.6	-1043.8	9527.9	-931.8	2.1	199.3
1984	7802.4	-234.3	8089.0	-159.5	3.7	286.6
1985	6278.0	69.0	6409.7	131.4	2.1	131.7
1986	7891.0	-166.3	8158.0	-29.7	3.4	267.0
1987	5743.9	92.8	5749.2	53.5	.1	5.3
1988	5301.8	147.1	5329.6	104.9	.5	27.8
1989	6829.0	115.8	6799.3	247.4	-.4	-29.7
1990	5389.3	195.8	5441.9	161.5	1.0	52.6
1991	5779.0	-266.3	5949.0	-239.6	2.9	170.0
Mean:	7628.8	-465.2	7795.1	-450.5	2.3	166.3
Median:	7407.9	-353.1	7794.1	-327.4	1.6	117.7
Min:	2170.6	-1048.8	2177.2	-1048.8	-3.9	-258.0
Max:	9328.6	195.8	9527.9	247.4	10.6	713.0
X > 11267.9	0		0			
X > 10638.3	0		0			
X < 9318.8	52		51			
X < 8223.8	43		41			
X < 7614.2	37		32			
X < 7074.2	24		22			
X < 6301.3	12		10			
X < 4805.3	1		1			
X < 3782.9	1		1			

RETURN TO TABLE OF CONTENTS

Section 5

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM
5.1 Fisheries

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

January

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	43.5	43.5	.0	.0
1923	44.2	44.3	.2	.1
1924	46.5	46.8	.6	.3
1925	47.3	47.1	-.4	-.2
1926	45.1	45.0	-.2	-.1
1927	47.8	47.8	.0	.0
1928	46.9	47.0	.2	.1
1929	43.7	43.8	.2	.1
1930	46.4	46.5	.2	.1
1931	48.0	48.0	.0	.0
1932	45.6	45.6	.0	.0
1933	44.4	44.5	.2	.1
1934	47.2	47.1	-.2	-.1
1935	47.7	47.7	.0	.0
1936	47.9	47.9	.0	.0
1937	42.8	42.9	.2	.1
1938	47.0	47.0	.0	.0
1939	47.6	47.7	.2	.1
1940	47.9	47.9	.0	.0
1941	48.7	48.7	.0	.0
1942	46.3	46.3	.0	.0
1943	46.4	46.4	.0	.0
1944	47.7	47.8	.2	.1
1945	46.3	46.3	.0	.0
1946	45.6	45.6	.0	.0
1947	45.1	45.1	.0	.0
1948	48.2	48.0	-.4	-.2
1949	42.1	42.3	.5	.2
1950	44.4	44.4	.0	.0
1951	45.0	45.0	.0	.0
1952	45.2	45.3	.2	.1
1953	48.8	48.9	.2	.1
1954	48.1	48.2	.2	.1
1955	43.9	43.9	.0	.0
1956	46.0	46.0	.0	.0
1957	47.7	47.8	.2	.1
1958	47.2	47.2	.0	.0
1959	51.1	51.2	.2	.1
1960	47.9	48.0	.2	.1
1961	45.5	45.5	.0	.0
1962	44.5	44.6	.2	.1
1963	45.8	45.8	.0	.0
1964	44.9	44.9	.0	.0
1965	44.9	44.9	.0	.0
1966	46.2	46.3	.2	.1
1967	46.7	46.7	.0	.0
1968	46.7	46.8	.2	.1
1969	45.0	45.0	.0	.0
1970	47.2	47.2	.0	.0
1971	45.8	45.8	.0	.0
1972	44.5	44.5	.0	.0
1973	44.8	44.8	.0	.0
1974	46.7	46.7	.0	.0
1975	45.8	45.9	.2	.1
1976	48.7	48.7	.0	.0
1977	46.3	46.3	.0	.0
1978	47.8	47.9	.2	.1
1979	46.3	46.4	.2	.1
1980	46.2	47.2	2.2	1.0
1981	49.0	49.3	.6	.3
1982	45.3	45.3	.0	.0
1983	45.5	45.5	.0	.0
1984	46.2	46.2	.0	.0
1985	45.8	45.8	.0	.0
1986	47.2	47.3	.2	.1
1987	47.5	47.6	.2	.1
1988	48.0	48.0	.0	.0
1989	46.8	46.8	.0	.0
1990	47.7	47.7	.0	.0
Mean:	46.4	46.4	.1	.0
Median:	46.3	46.3	.0	.0
Min:	42.1	42.3	-.4	-.2
Max:	51.1	51.2	2.2	1.0
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0			26	
X < 0.0			4	
0.0 < X <= .5			23	
.5 < X <= 1.0			2	
X > 1.0			1	
0.0 > X >= -.5			4	
-.5 > X > -1.0			0	
X < -1.0			0	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

February

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	46.0	45.9	-.2	-.1
1923	46.3	46.3	.0	.0
1924	50.8	52.5	3.3	1.7
1925	48.1	48.0	-.2	-.1
1926	48.7	48.7	.0	.0
1927	48.7	48.7	.0	.0
1928	49.3	49.0	-.6	-.3
1929	47.3	46.8	-1.1	-.5
1930	52.4	52.0	-.8	-.4
1931	50.5	50.5	.0	.0
1932	47.0	46.9	-.2	-.1
1933	45.8	46.2	.9	.4
1934	50.1	49.7	-.8	-.4
1935	48.3	48.3	.0	.0
1936	47.7	47.7	.0	.0
1937	45.9	45.8	-.2	-.1
1938	48.2	48.2	.0	.0
1939	47.7	47.7	.0	.0
1940	49.1	49.1	.0	.0
1941	49.7	49.7	.0	.0
1942	46.6	46.6	.0	.0
1943	49.3	49.3	.0	.0
1944	47.6	48.1	1.1	.5
1945	47.5	47.4	-.2	-.1
1946	46.1	46.1	.0	.0
1947	48.7	48.8	.2	.1
1948	47.5	47.5	.0	.0
1949	44.2	45.0	1.8	.8
1950	47.1	47.1	.0	.0
1951	46.4	46.4	.0	.0
1952	47.3	47.3	.0	.0
1953	50.3	50.3	.0	.0
1954	47.9	48.1	.4	.2
1955	46.5	46.5	.0	.0
1956	46.6	46.6	.0	.0
1957	49.3	49.3	.0	.0
1958	49.1	49.5	.8	.4
1959	49.7	49.8	.2	.1
1960	48.8	48.9	.2	.1
1961	49.7	49.5	-.4	-.2
1962	47.0	46.9	-.2	-.1
1963	49.5	49.5	.0	.0
1964	46.9	47.1	.4	.2
1965	47.2	47.1	-.2	-.1
1966	47.8	47.6	-.4	-.2
1967	48.2	48.2	.0	.0
1968	49.2	49.8	1.2	.6
1969	46.3	46.3	.0	.0
1970	48.1	48.1	.0	.0
1971	47.2	47.2	.0	.0
1972	46.8	47.6	1.7	.8
1973	49.4	49.4	.0	.0
1974	46.6	46.7	.2	.1
1975	47.4	47.2	-.4	-.2
1976	50.7	50.5	-.4	-.2
1977	50.3	50.2	-.2	-.1
1978	50.8	50.9	.2	.1
1979	47.7	47.5	-.4	-.2
1980	47.5	47.2	-.6	-.3
1981	52.2	51.2	-1.9	-1.0
1982	46.6	46.6	.0	.0
1983	49.0	49.0	.0	.0
1984	47.9	47.8	-.2	-.1
1985	48.1	48.1	.0	.0
1986	48.0	48.0	.0	.0
1987	50.0	49.8	-.4	-.2
1988	54.2	53.9	-.6	-.3
1989	47.7	47.7	.0	.0
1990	48.2	48.2	.0	.0
Mean:	48.3	48.3	.0	.0
Median:	47.9	48.0	.0	.0
Min:	44.2	45.0	-1.9	-1.0
Max:	54.2	53.9	3.3	1.7

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0			14	
X < 0.0			22	
0.0 < X <= .5			7	
.5 < X <= 1.0			2	
X > 1.0			5	
0.0 > X >= -.5			15	
-.5 > X > -1.0			5	
X < -1.0			2	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

March

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	50.9	50.9	.0	.0
1923	53.7	53.6	-.2	-.1
1924	53.5	52.6	-1.7	-.9
1925	54.0	54.2	.4	.2
1926	53.3	53.4	.2	.1
1927	51.5	51.5	.0	.0
1928	51.8	52.1	.6	.3
1929	51.9	52.3	.8	.4
1930	52.8	52.8	.0	.0
1931	55.7	55.3	-.7	-.4
1932	53.8	53.7	-.2	-.1
1933	51.9	53.4	2.9	1.5
1934	56.4	55.6	-1.4	-.8
1935	49.8	49.8	.0	.0
1936	52.7	52.7	.0	.0
1937	52.2	51.9	-.6	-.3
1938	49.8	49.8	.0	.0
1939	52.4	52.2	-.4	-.2
1940	51.8	51.8	.0	.0
1941	53.0	52.9	-.2	-.1
1942	49.2	49.2	.0	.0
1943	51.1	51.1	.0	.0
1944	52.6	52.3	-.6	-.3
1945	50.0	50.0	.0	.0
1946	51.4	51.3	-.2	-.1
1947	52.4	52.4	.0	.0
1948	49.9	49.8	-.2	-.1
1949	50.3	50.1	-.4	-.2
1950	51.6	51.6	.0	.0
1951	50.6	50.6	.0	.0
1952	49.5	49.5	.0	.0
1953	52.7	52.7	.0	.0
1954	50.7	50.6	-.2	-.1
1955	51.7	51.7	.0	.0
1956	51.3	51.3	.0	.0
1957	53.4	53.7	.6	.3
1958	50.9	50.8	-.2	-.1
1959	53.3	53.3	.0	.0
1960	53.2	53.3	.2	.1
1961	53.0	53.5	.9	.5
1962	50.4	51.5	2.2	1.1
1963	50.9	50.8	-.2	-.1
1964	50.1	50.3	.4	.2
1965	51.3	51.3	.0	.0
1966	52.4	51.3	-2.1	-1.1
1967	51.0	51.0	.0	.0
1968	53.0	54.9	3.6	1.9
1969	51.4	51.8	.8	.4
1970	52.6	52.6	.0	.0
1971	50.7	50.7	.0	.0
1972	55.6	55.0	-1.1	-.6
1973	50.5	50.5	.0	.0
1974	51.6	51.6	.0	.0
1975	50.6	50.7	.2	.1
1976	53.3	53.2	-.2	-.1
1977	52.5	52.5	.0	.0
1978	54.2	54.4	.4	.2
1979	52.0	53.0	1.9	1.0
1980	51.4	51.4	.0	.0
1981	53.0	52.5	-.9	-.5
1982	50.4	50.4	.0	.0
1983	50.5	50.4	-.2	-.1
1984	53.3	53.2	-.2	-.1
1985	50.6	50.5	-.2	-.1
1986	52.2	52.6	.8	.4
1987	52.9	52.9	.0	.0
1988	57.8	57.6	-.3	-.2
1989	51.5	51.5	.0	.0
1990	54.6	54.4	-.4	-.2
Mean:	52.1	52.1	.1	.0
Median:	51.8	51.8	.0	.0
Min:	49.2	49.2	-2.1	-1.1
Max:	57.8	57.6	3.6	1.9
X > 56.0	2	1		
Mean X > 56.0	57.1	57.6	.9	.5
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0			16	
X < 0.0			24	
0.0 < X <= .5			6	
.5 < X <= 1.0			6	
X > 1.0			4	
0.0 > X >= -.5			16	
-.5 > X > -1.0			4	
X < -1.0			4	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

April

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	54.2	54.1	-.2	-.1
1923	55.0	55.0	.0	.0
1924	61.2	60.2	-1.6	-1.0
1925	55.5	55.5	.0	.0
1926	59.6	59.6	.0	.0
1927	53.8	53.8	.0	.0
1928	54.5	54.4	-.2	-.1
1929	56.6	56.1	-.9	-.5
1930	57.6	58.6	1.7	1.0
1931	63.8	64.0	.3	.2
1932	56.1	56.0	-.2	-.1
1933	58.1	57.2	-1.5	-.9
1934	59.8	59.5	-.5	-.3
1935	54.5	54.5	.0	.0
1936	55.3	55.3	.0	.0
1937	54.1	54.1	.0	.0
1938	53.8	53.8	.0	.0
1939	61.2	59.8	-2.3	-1.4
1940	55.0	55.0	.0	.0
1941	54.6	54.5	-.2	-.1
1942	54.5	54.5	.0	.0
1943	54.6	54.6	.0	.0
1944	54.9	54.9	.0	.0
1945	56.1	56.0	-.2	-.1
1946	55.4	55.3	-.2	-.1
1947	56.0	56.6	1.1	.6
1948	53.1	53.3	.4	.2
1949	57.0	58.0	1.8	1.0
1950	55.5	55.5	.0	.0
1951	56.0	56.0	.0	.0
1952	54.0	54.0	.0	.0
1953	56.0	55.9	-.2	-.1
1954	56.2	56.1	-.2	-.1
1955	53.6	53.6	.0	.0
1956	56.1	56.3	.4	.2
1957	57.7	57.7	.0	.0
1958	54.1	54.1	.0	.0
1959	59.0	62.7	6.3	3.7
1960	57.9	57.4	-.9	-.5
1961	60.5	60.1	-.7	-.4
1962	57.8	57.3	-.9	-.5
1963	53.2	53.2	.0	.0
1964	53.9	54.2	.6	.3
1965	54.8	54.9	.2	.1
1966	58.6	59.9	2.2	1.3
1967	51.6	51.6	.0	.0
1968	57.1	58.3	2.1	1.2
1969	54.3	54.2	-.2	-.1
1970	56.2	56.3	.2	.1
1971	54.2	54.2	.0	.0
1972	56.9	56.8	-.2	-.1
1973	56.4	56.4	.0	.0
1974	53.8	53.8	.0	.0
1975	52.9	52.9	.0	.0
1976	57.7	57.5	-.3	-.2
1977	61.8	61.8	.0	.0
1978	54.9	54.9	.0	.0
1979	57.1	56.3	-1.4	-.8
1980	56.4	56.3	-.2	-.1
1981	57.9	56.2	-2.9	-1.7
1982	53.1	53.1	.0	.0
1983	53.5	53.5	.0	.0
1984	56.7	56.7	.0	.0
1985	58.8	58.7	-.2	-.1
1986	56.7	56.7	.0	.0
1987	63.4	63.5	.2	.1
1988	62.7	62.6	-.2	-.1
1989	57.4	57.2	-.3	-.2
1990	59.5	59.3	-.3	-.2
Mean:	56.4	56.4	.0	.0
Median:	56.0	56.0	.0	.0
Min:	51.6	51.6	-2.9	-1.7
Max:	63.8	64.0	6.3	3.7

X > 56.0	35	34		
Mean X > 56.0	58.4	58.5	.2	.1
X > 60.0	7	7		
Mean X > 60.0	62.1	62.1	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0		13		
X < 0.0		26		
0.0 < X <= .5		6		
.5 < X <= 1.0		1		
X > 1.0		6		
0.0 > X >= -.5		17		
-.5 > X > -1.0		4		
X < -1.0		5		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

May

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	58.2	58.1	-.2	-.1
1923	58.2	58.2	.0	.0
1924	69.7	68.7	-1.4	-1.0
1925	59.0	58.9	-.2	-.1
1926	64.1	64.0	-.2	-.1
1927	58.0	58.0	.0	.0
1928	60.1	60.1	.0	.0
1929	62.5	62.2	-.5	-.3
1930	61.5	61.1	-.7	-.4
1931	69.1	70.1	1.4	1.0
1932	60.0	59.8	-.3	-.2
1933	59.5	59.2	-.5	-.3
1934	68.1	68.0	-.1	-.1
1935	58.3	58.3	.0	.0
1936	59.3	59.3	.0	.0
1937	58.6	58.6	.0	.0
1938	58.3	58.3	.0	.0
1939	62.7	62.4	-.5	-.3
1940	59.9	59.9	.0	.0
1941	58.1	58.1	.0	.0
1942	57.2	57.1	-.2	-.1
1943	59.4	59.4	.0	.0
1944	60.8	60.2	-1.0	-.6
1945	58.7	58.5	-.3	-.2
1946	58.6	58.6	.0	.0
1947	61.5	61.8	.5	.3
1948	58.3	58.1	-.3	-.2
1949	61.6	60.8	-1.3	-.8
1950	59.2	59.2	.0	.0
1951	59.4	59.4	.0	.0
1952	58.3	58.4	.2	.1
1953	58.2	58.2	.0	.0
1954	60.7	60.7	.0	.0
1955	59.3	59.0	-.5	-.3
1956	59.8	59.7	-.2	-.1
1957	59.5	59.5	.0	.0
1958	58.7	58.7	.0	.0
1959	60.8	61.7	1.5	.9
1960	61.9	61.2	-1.1	-.7
1961	60.7	60.5	-.3	-.2
1962	59.6	59.5	-.2	-.1
1963	56.9	56.9	.0	.0
1964	59.6	58.9	-1.2	-.7
1965	58.5	58.5	.0	.0
1966	65.9	65.1	-1.2	-.8
1967	57.3	57.3	.0	.0
1968	59.6	62.3	4.5	2.7
1969	58.4	58.4	.0	.0
1970	62.6	62.6	.0	.0
1971	56.9	56.8	-.2	-.1
1972	61.6	61.5	-.2	-.1
1973	60.5	60.4	-.2	-.1
1974	58.1	58.1	.0	.0
1975	59.1	58.9	-.3	-.2
1976	66.7	66.4	-.4	-.3
1977	61.6	61.7	.2	.1
1978	59.0	58.9	-.2	-.1
1979	60.7	60.0	-1.2	-.7
1980	58.9	58.8	-.2	-.1
1981	61.5	60.7	-1.3	-.8
1982	58.2	58.2	.0	.0
1983	57.7	57.7	.0	.0
1984	61.7	61.7	.0	.0
1985	63.8	63.5	-.5	-.3
1986	60.2	60.1	-.2	-.1
1987	67.3	68.1	1.2	.8
1988	65.3	65.2	-.2	-.1
1989	61.3	61.1	-.3	-.2
1990	63.9	63.9	.0	.0
Mean:	60.6	60.5	-.1	-.1
Median:	59.5	59.5	-.2	-.1
Min:	56.9	56.8	-1.4	-1.0
Max:	69.7	70.1	4.5	2.7

X > 56.0	69	69	
Mean X > 56.0	60.6	60.5	-.2	-.1
X > 60.0	30	30		
Mean X > 60.0	63.0	62.9	-.2	-.1
X > 65.0	7	7		
Mean X > 65.0	67.4	67.4	.0	.0
X > 68.0	3	3		
Mean X > 68.0	69.0	69.0	.0	.0
X > 70.0	0	1		
Mean X > 70.0	.0	70.1	.0	70.1
X > 0.0		7		
X < 0.0		35		
0.0 < X <= .5		3		
.5 < X <= 1.0		0		
X > 1.0		4		
0.0 > X >= -.5		26		
-.5 > X > -1.0		2		
X < -1.0		7		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

June

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	61.0	61.4	.7	.4
1923	61.2	61.1	-.2	-.1
1924	68.1	66.1	-2.9	-2.0
1925	61.9	62.0	.2	.1
1926	63.7	63.8	.2	.1
1927	62.1	62.1	.0	.0
1928	61.6	61.9	.5	.3
1929	65.6	65.9	.5	.3
1930	62.5	62.1	-.6	-.4
1931	63.1	63.0	-.2	-.1
1932	64.1	64.0	-.2	-.1
1933	65.9	66.0	.2	.1
1934	65.4	64.5	-1.4	-.9
1935	60.9	61.1	.3	.2
1936	63.2	63.1	-.2	-.1
1937	62.2	62.2	.0	.0
1938	62.1	62.1	.0	.0
1939	63.8	62.1	-2.7	-1.7
1940	65.0	64.9	-.2	-.1
1941	59.1	59.8	1.2	.7
1942	61.2	61.3	.2	.1
1943	62.9	62.8	-.2	-.1
1944	64.7	64.0	-1.1	-.7
1945	63.8	63.2	-.9	-.6
1946	62.9	60.8	-3.3	-2.1
1947	67.5	67.1	-.6	-.4
1948	61.4	61.5	.2	.1
1949	64.1	63.1	-1.6	-1.0
1950	61.8	61.9	.2	.1
1951	63.0	62.8	-.3	-.2
1952	61.6	61.6	.0	.0
1953	62.4	62.3	-.2	-.1
1954	63.7	63.7	.0	.0
1955	64.0	63.8	-.3	-.2
1956	63.0	63.0	.0	.0
1957	64.4	64.7	.5	.3
1958	62.4	62.4	.0	.0
1959	62.3	64.5	3.5	2.2
1960	62.9	63.6	1.1	.7
1961	65.0	64.5	-.8	-.5
1962	64.1	62.8	-2.0	-1.3
1963	59.9	60.3	.7	.4
1964	62.9	63.1	.3	.2
1965	61.6	61.4	-.3	-.2
1966	63.7	63.7	.0	.0
1967	61.8	61.8	.0	.0
1968	65.2	64.4	-1.2	-.8
1969	61.8	61.8	.0	.0
1970	66.0	66.0	.0	.0
1971	59.6	59.8	.3	.2
1972	65.4	65.0	-.6	-.4
1973	65.0	63.4	-2.5	-1.6
1974	61.8	62.3	.8	.5
1975	60.1	60.4	.5	.3
1976	64.9	64.6	-.5	-.3
1977	71.0	71.2	.3	.2
1978	62.7	62.5	-.3	-.2
1979	65.3	64.9	-.6	-.4
1980	62.0	61.8	-.3	-.2
1981	65.1	61.9	-4.9	-3.2
1982	60.5	61.2	1.2	.7
1983	62.5	62.5	.0	.0
1984	65.6	65.6	.0	.0
1985	63.0	64.2	1.9	1.2
1986	64.7	64.5	-.3	-.2
1987	64.3	63.9	-.6	-.4
1988	63.2	63.0	-.3	-.2
1989	65.0	65.1	.2	.1
1990	64.6	64.5	-.2	-.1
Mean:	63.3	63.2	-.2	-.2
Median:	63.0	62.9	-.1	.0
Min:	59.1	59.8	-4.9	-3.2
Max:	71.0	71.2	3.5	2.2
X > 56.0	69	69		
Mean X > 56.0	63.3	63.2	-.2	-.1
X > 60.0	66	67		
Mean X > 60.0	63.5	63.3	-.3	-.2
X > 65.0	12	8		
Mean X > 65.0	66.3	66.6	.5	.3
X > 68.0	2	1		
Mean X > 68.0	69.6	71.2	2.3	1.6
X > 70.0	1	1		
Mean X > 70.0	71.0	71.2	.3	.2
X > 0.0		23		
X < 0.0		33		
0.0 < X <= .5		15		
.5 < X <= 1.0		3		
X > 1.0		5		
0.0 > X >= -.5		16		
-.5 > X > -1.0		7		
X < -1.0		10		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

July

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	63.1	63.4	.5	.3
1923	67.6	65.2	-3.6	-2.4
1924	71.4	69.7	-2.4	-1.7
1925	63.5	64.1	.9	.6
1926	68.7	70.6	2.8	1.9
1927	68.5	68.4	-.1	-.1
1928	62.7	63.5	1.3	.8
1929	66.9	67.1	.3	.2
1930	69.8	69.2	-.9	-.6
1931	67.8	68.3	.7	.5
1932	65.5	65.6	.2	.1
1933	66.0	66.1	.2	.1
1934	66.1	66.1	.0	.0
1935	64.0	64.3	.5	.3
1936	65.4	65.4	.0	.0
1937	62.9	62.4	-.8	-.5
1938	64.0	64.2	.3	.2
1939	66.3	66.5	.3	.2
1940	68.7	68.9	.3	.2
1941	61.2	61.2	.0	.0
1942	63.2	63.5	.5	.3
1943	65.5	68.4	4.4	2.9
1944	68.2	69.0	1.2	.8
1945	67.9	68.5	.9	.6
1946	65.9	63.6	-3.5	-2.3
1947	70.3	70.3	.0	.0
1948	64.0	64.4	.6	.4
1949	66.5	65.3	-1.8	-1.2
1950	64.1	64.3	.3	.2
1951	66.5	66.8	.5	.3
1952	64.9	65.0	.2	.1
1953	62.8	63.6	1.3	.8
1954	63.9	64.1	.3	.2
1955	68.9	68.5	-.6	-.4
1956	64.8	64.9	.2	.1
1957	66.9	68.6	2.5	1.7
1958	65.6	65.8	.3	.2
1959	67.9	66.8	-1.6	-1.1
1960	62.6	64.6	3.2	2.0
1961	68.5	67.7	-1.2	-.8
1962	66.5	65.9	-.9	-.6
1963	64.6	64.9	.5	.3
1964	67.4	67.6	.3	.2
1965	65.2	65.3	.2	.1
1966	62.1	67.5	8.7	5.4
1967	65.5	65.7	.3	.2
1968	63.4	66.5	4.9	3.1
1969	63.3	63.6	.5	.3
1970	66.1	66.5	.6	.4
1971	61.4	62.6	2.0	1.2
1972	64.6	64.1	-.8	-.5
1973	65.8	64.8	-1.5	-1.0
1974	64.2	64.7	.8	.5
1975	62.0	62.2	.3	.2
1976	65.3	65.1	-.3	-.2
1977	74.1	74.3	.3	.2
1978	68.5	65.4	-4.5	-3.1
1979	64.3	67.4	4.8	3.1
1980	67.9	64.9	-4.4	-3.0
1981	67.1	66.7	-.6	-.4
1982	63.3	63.6	.5	.3
1983	65.9	65.9	.0	.0
1984	67.9	67.9	.0	.0
1985	64.4	71.5	11.0	7.1
1986	69.1	69.0	-.1	-.1
1987	67.1	67.2	.1	.1
1988	67.3	66.8	-.7	-.5
1989	65.8	65.8	.0	.0
1990	64.6	65.0	.6	.4
Mean:	65.9	66.1	.4	.3
Median:	65.6	65.6	.3	.2
Min:	61.2	61.2	-4.5	-3.1
Max:	74.1	74.3	11.0	7.1

X > 56.0	69	69	
Mean X > 56.0	65.9	66.1	.3	.2
X > 60.0	69	69	
Mean X > 60.0	65.9	66.1	.3	.2
X > 65.0	42	43	
Mean X > 65.0	67.4	67.5	.1	.1
X > 68.0	12	15	
Mean X > 68.0	69.6	69.5	-.1	-.1
X > 70.0	3	4	
Mean X > 70.0	71.9	71.7	-.3	-.2

X > 0.0			43	
X < 0.0			19	
0.0 < X <= .5			24	
.5 < X <= 1.0			7	
X > 1.0			12	
0.0 > X >= -.5			3	
-.5 > X > -1.0			7	
X < -1.0			9	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

August

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	64.3	64.6	.5	.3
1923	67.8	65.4	-3.5	-2.4
1924	71.8	71.0	-1.1	-.8
1925	64.3	65.3	1.6	1.0
1926	62.1	62.0	-.2	-.1
1927	68.0	68.0	.0	.0
1928	68.6	68.5	-.1	-.1
1929	68.2	67.0	-1.8	-1.2
1930	63.8	61.9	-3.0	-1.9
1931	73.1	72.8	-.4	-.3
1932	65.5	65.7	.3	.2
1933	68.3	64.7	-5.3	-3.6
1934	68.5	68.3	-.3	-.2
1935	65.0	65.1	.2	.1
1936	65.0	65.4	.6	.4
1937	63.1	64.1	1.6	1.0
1938	64.7	65.2	.8	.5
1939	67.2	66.8	-.6	-.4
1940	66.8	66.6	-.3	-.2
1941	64.1	64.3	.3	.2
1942	64.8	64.9	.2	.1
1943	65.6	66.1	.8	.5
1944	64.4	63.8	-.9	-.6
1945	66.2	66.6	.6	.4
1946	65.7	63.3	-3.7	-2.4
1947	64.4	65.7	2.0	1.3
1948	65.3	65.0	-.5	-.3
1949	68.1	66.1	-2.9	-2.0
1950	64.4	64.6	.3	.2
1951	67.1	66.7	-.6	-.4
1952	65.1	65.3	.3	.2
1953	65.8	65.9	.2	.1
1954	67.7	67.7	.0	.0
1955	69.3	71.0	2.5	1.7
1956	65.6	65.7	.2	.1
1957	68.1	67.2	-1.3	-.9
1958	65.9	65.9	.0	.0
1959	66.5	67.0	.8	.5
1960	66.7	70.2	5.2	3.5
1961	68.7	67.2	-2.2	-1.5
1962	66.3	66.4	.2	.1
1963	62.4	63.0	1.0	.6
1964	61.8	61.7	-.2	-.1
1965	64.4	64.4	.0	.0
1966	65.6	70.8	7.9	5.2
1967	65.7	65.9	.3	.2
1968	67.0	69.6	3.9	2.6
1969	64.6	64.8	.3	.2
1970	68.7	68.8	.1	.1
1971	63.6	64.0	.6	.4
1972	70.0	69.6	-.6	-.4
1973	66.9	68.0	1.6	1.1
1974	65.4	65.5	.2	.1
1975	63.9	63.9	.0	.0
1976	66.0	66.0	.0	.0
1977	74.8	75.1	.4	.3
1978	67.4	64.9	-3.7	-2.5
1979	68.2	66.4	-2.6	-1.8
1980	68.1	65.8	-3.4	-2.3
1981	65.6	66.5	1.4	.9
1982	64.5	64.7	.3	.2
1983	65.2	65.2	.0	.0
1984	68.9	68.3	-.9	-.6
1985	66.3	69.6	5.0	3.3
1986	66.0	66.3	.5	.3
1987	66.0	65.8	-.3	-.2
1988	71.2	70.8	-.6	-.4
1989	70.0	70.1	.1	.1
1990	69.1	68.8	-.4	-.3
Mean:	66.5	66.5	.0	.0
Median:	65.9	65.9	.0	.0
Min:	61.8	61.7	-5.3	-3.6
Max:	74.8	75.1	7.9	5.2

X > 56.0	69	69		
Mean X > 56.0	66.5	66.5	.0	.0
X > 60.0	69	69		
Mean X > 60.0	66.5	66.5	.0	.0
X > 65.0	49	50		
Mean X > 65.0	67.5	67.5	.0	.0
X > 68.0	19	16		
Mean X > 68.0	69.6	70.2	.9	.6
X > 70.0	4	8		
Mean X > 70.0	72.7	71.5	-1.7	-1.2
X > 0.0		35		
X < 0.0		27		
0.0 < X <= .5		18		
.5 < X <= 1.0		7		
X > 1.0		10		
0.0 > X >= -.5		9		
-.5 > X > -1.0		6		
X < -1.0		12		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

September

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	64.5	64.7	.3	.2
1923	67.9	65.6	-3.4	-2.3
1924	69.6	69.9	.4	.3
1925	66.2	66.7	.8	.5
1926	68.0	67.9	-.1	-.1
1927	62.7	63.8	1.8	1.1
1928	65.2	65.3	.2	.1
1929	68.1	68.2	.1	.1
1930	68.2	67.1	-1.6	-1.1
1931	70.0	70.0	.0	.0
1932	66.4	66.7	.5	.3
1933	69.0	69.0	.0	.0
1934	68.4	68.4	.0	.0
1935	65.9	66.0	.2	.1
1936	66.9	66.8	-.1	-.1
1937	66.0	66.1	.2	.1
1938	65.2	65.6	.6	.4
1939	67.8	67.8	.0	.0
1940	67.8	67.8	.0	.0
1941	65.0	65.1	.2	.1
1942	65.7	65.7	.0	.0
1943	68.8	65.9	-4.2	-2.9
1944	66.9	66.5	-.6	-.4
1945	68.7	67.8	-1.3	-.9
1946	68.1	64.9	-4.7	-3.2
1947	67.1	67.1	.0	.0
1948	66.2	65.8	-.6	-.4
1949	69.2	68.7	-.7	-.5
1950	65.8	66.1	.5	.3
1951	69.5	69.4	-.1	-.1
1952	65.5	65.7	.3	.2
1953	65.8	65.9	.2	.1
1954	67.5	67.5	.0	.0
1955	68.1	69.9	2.6	1.8
1956	66.0	66.1	.2	.1
1957	69.7	68.7	-1.4	-1.0
1958	66.8	66.9	.1	.1
1959	68.7	68.7	.0	.0
1960	67.8	70.5	4.0	2.7
1961	68.4	68.5	.1	.1
1962	68.5	68.4	-.1	-.1
1963	64.1	64.5	.6	.4
1964	67.0	67.1	.1	.1
1965	66.5	66.5	.0	.0
1966	67.8	67.7	-.1	-.1
1967	66.7	66.8	.1	.1
1968	67.7	69.2	2.2	1.5
1969	65.7	65.7	.0	.0
1970	69.3	69.2	-.1	-.1
1971	64.7	65.0	.5	.3
1972	68.0	68.1	.1	.1
1973	67.4	67.4	.0	.0
1974	66.0	66.0	.0	.0
1975	64.2	64.2	.0	.0
1976	68.4	68.0	-.6	-.4
1977	69.8	70.0	.3	.2
1978	68.1	66.1	-2.9	-2.0
1979	70.8	70.1	-1.0	-.7
1980	67.3	66.1	-1.8	-1.2
1981	68.7	68.9	.3	.2
1982	65.3	65.5	.3	.2
1983	65.7	65.7	.0	.0
1984	71.6	69.2	-3.4	-2.4
1985	67.7	67.8	.1	.1
1986	66.0	65.8	-.3	-.2
1987	67.6	67.6	.0	.0
1988	70.2	70.3	.1	.1
1989	68.0	68.0	.0	.0
1990	71.1	71.2	.1	.1
Mean:	67.4	67.3	-.2	-.1
Median:	67.6	67.0	.0	.0
Min:	62.7	63.8	-4.7	-3.2
Max:	71.6	71.2	4.0	2.7
X > 56.0	69	69		
Mean X > 56.0	67.4	67.3	-.1	-.1
X > 60.0	69	69		
Mean X > 60.0	67.4	67.3	-.1	-.1
X > 65.0	63	63		
Mean X > 65.0	67.7	67.5	-.3	-.2
X > 68.0	25	22		
Mean X > 68.0	69.2	69.3	.1	.1
X > 70.0	4	4		
Mean X > 70.0	70.9	70.5	-.6	-.4
X > 0.0			31	
X < 0.0			21	
0.0 < X <= .5			24	
.5 < X <= 1.0			3	
X > 1.0			4	
0.0 > X >= -.5			7	
-.5 > X > -1.0			5	
X < -1.0			9	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

October"

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	56.9	56.4	-.9	-.5
1923	56.6	59.4	4.9	2.8
1924	62.9	62.5	-.6	-.4
1925	57.5	57.6	.2	.1
1926	60.8	61.4	1.0	.6
1927	54.4	54.2	-.4	-.2
1928	57.4	58.2	1.4	.8
1929	65.1	64.6	-.8	-.5
1930	59.0	59.3	.5	.3
1931	64.3	64.3	.0	.0
1932	59.4	59.2	-.3	-.2
1933	65.2	64.8	-.6	-.4
1934	64.6	64.8	.3	.2
1935	58.4	58.5	.2	.1
1936	58.8	58.8	.0	.0
1937	58.1	57.8	-.5	-.3
1938	57.8	57.7	-.2	-.1
1939	65.1	65.5	.6	.4
1940	55.1	54.9	-.4	-.2
1941	57.4	56.6	-1.4	-.8
1942	56.1	56.6	.9	.5
1943	55.0	55.0	.0	.0
1944	61.8	61.5	-.5	-.3
1945	54.5	55.3	1.5	.8
1946	54.6	57.6	5.5	3.0
1947	58.6	57.9	-1.2	-.7
1948	58.3	57.8	-.9	-.5
1949	57.1	58.7	2.8	1.6
1950	56.5	56.9	.7	.4
1951	54.5	54.4	-.2	-.1
1952	57.0	56.7	-.5	-.3
1953	57.8	58.1	.5	.3
1954	55.3	55.5	.4	.2
1955	56.6	55.6	-1.8	-1.0
1956	59.4	59.9	.8	.5
1957	55.7	56.2	.9	.5
1958	59.7	60.5	1.3	.8
1959	65.5	63.4	-3.2	-2.1
1960	61.3	56.4	-8.0	-4.9
1961	65.2	65.3	.2	.1
1962	55.2	56.4	2.2	1.2
1963	57.2	56.5	-1.2	-.7
1964	59.8	60.6	1.3	.8
1965	57.4	57.4	.0	.0
1966	62.4	59.3	-5.0	-3.1
1967	60.7	60.4	-.5	-.3
1968	61.4	55.5	-9.6	-5.9
1969	58.4	58.4	.0	.0
1970	55.0	55.0	.0	.0
1971	57.6	57.0	-1.0	-.6
1972	54.4	54.4	.0	.0
1973	54.0	54.2	.4	.2
1974	57.2	57.8	1.0	.6
1975	56.9	56.9	.0	.0
1976	66.3	66.4	.2	.1
1977	65.0	65.2	.3	.2
1978	55.0	57.9	5.3	2.9
1979	55.3	54.5	-1.4	-.8
1980	56.1	58.1	3.6	2.0
1981	64.1	64.6	.8	.5
1982	57.3	57.1	-.3	-.2
1983	56.8	57.0	.4	.2
1984	55.1	56.2	2.0	1.1
1985	60.4	55.7	-7.8	-4.7
1986	57.5	58.3	1.4	.8
1987	66.8	67.2	.6	.4
1988	67.1	67.2	.1	.1
1989	55.8	55.8	.0	.0
1990	67.6	67.9	.4	.3
Mean:	59.0	58.9	-.1	-.1
Median:	57.5	57.8	.0	.0
Min:	54.0	54.2	-9.6	-5.9
Max:	67.6	67.9	5.5	3.0

X > 56.0	53	55		
Mean X > 56.0	60.2	59.9	-.5	-.3
X > 60.0	21	19		
Mean X > 60.0	64.0	64.1	.2	.1
X > 65.0	9	7		
Mean X > 65.0	66.0	66.4	.6	.4
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0			34	
X < 0.0			26	
0.0 < X <= .5			13	
.5 < X <= 1.0			9	
X > 1.0			12	
0.0 > X >= -.5			10	
-.5 > X > -1.0			6	
X < -1.0			10	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

November

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	54.5	54.5	.0	.0
1923	55.7	56.8	2.0	1.1
1924	55.3	55.1	-.4	-.2
1925	56.8	56.9	.2	.1
1926	58.5	58.2	-.5	-.3
1927	54.0	54.0	.0	.0
1928	56.7	56.6	-.2	-.1
1929	59.1	59.2	.2	.1
1930	57.2	57.8	1.0	.6
1931	55.4	55.5	.2	.1
1932	57.1	57.1	.0	.0
1933	59.2	59.5	.5	.3
1934	56.6	57.0	.7	.4
1935	56.4	56.3	-.2	-.1
1936	57.7	57.9	.3	.2
1937	56.9	56.8	-.2	-.1
1938	56.7	56.7	.0	.0
1939	58.8	59.0	.3	.2
1940	54.6	55.2	1.1	.6
1941	56.3	56.6	.5	.3
1942	56.5	56.6	.2	.1
1943	56.2	56.1	-.2	-.1
1944	55.7	56.0	.5	.3
1945	54.8	54.8	.0	.0
1946	52.4	55.0	5.0	2.6
1947	53.4	53.4	.0	.0
1948	56.7	56.8	.2	.1
1949	56.1	56.2	.2	.1
1950	56.2	56.2	.0	.0
1951	55.6	55.6	.0	.0
1952	56.8	57.2	.7	.4
1953	57.4	57.3	-.2	-.1
1954	54.6	54.9	.5	.3
1955	55.8	55.7	-.2	-.1
1956	58.2	57.8	-.7	-.4
1957	56.8	56.8	.0	.0
1958	57.6	57.5	-.2	-.1
1959	60.9	60.8	-.2	-.1
1960	57.3	56.7	-1.0	-.6
1961	57.7	57.9	.3	.2
1962	56.4	56.2	-.4	-.2
1963	56.3	56.4	.2	.1
1964	56.3	56.5	.4	.2
1965	57.0	56.3	-1.2	-.7
1966	58.1	56.4	-2.9	-1.7
1967	57.6	57.9	.5	.3
1968	56.3	55.0	-2.3	-1.3
1969	56.6	56.7	.2	.1
1970	55.5	55.6	.2	.1
1971	57.0	56.9	-.2	-.1
1972	52.8	52.9	.2	.1
1973	53.3	53.9	1.1	.6
1974	57.8	57.1	-1.2	-.7
1975	55.8	56.0	.4	.2
1976	59.9	59.9	.0	.0
1977	56.2	56.3	.2	.1
1978	56.1	57.9	3.2	1.8
1979	56.1	55.8	-.5	-.3
1980	56.3	57.0	1.2	.7
1981	56.4	56.6	.4	.2
1982	56.4	56.4	.0	.0
1983	56.5	56.8	.5	.3
1984	54.9	55.6	1.3	.7
1985	54.9	54.5	-.7	-.4
1986	56.0	56.0	.0	.0
1987	58.8	58.9	.2	.1
1988	57.5	57.5	.0	.0
1989	56.4	56.5	.2	.1
1990	58.1	58.2	.2	.1
Mean:	56.5	56.6	.2	.1
Median:	56.4	56.5	.1	.0
Min:	52.4	52.9	-2.9	-1.7
Max:	60.9	60.8	5.0	2.6
X > 56.0	49	48		
Mean X > 56.0	57.2	57.3	.2	.1
X > 60.0	1	1		
Mean X > 60.0	60.9	60.8	-.2	-.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0			36	
X < 0.0			20	
0.0 < X <= .5			26	
.5 < X <= 1.0			3	
X > 1.0			7	
0.0 > X >= -.5			13	
-.5 > X > -1.0			3	
X < -1.0			4	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

December

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922	47.7	47.8	.2	.1
1923	51.2	51.7	1.0	.5
1924	46.7	46.4	-.6	-.3
1925	50.1	50.0	-.2	-.1
1926	50.7	50.8	.2	.1
1927	48.9	49.0	.2	.1
1928	48.4	48.7	.6	.3
1929	51.0	51.1	.2	.1
1930	50.1	50.3	.4	.2
1931	47.8	47.8	.0	.0
1932	49.9	50.0	.2	.1
1933	49.2	49.5	.6	.3
1934	49.6	49.7	.2	.1
1935	50.3	50.3	.0	.0
1936	50.3	50.3	.0	.0
1937	51.4	51.5	.2	.1
1938	50.6	50.7	.2	.1
1939	52.4	52.5	.2	.1
1940	50.7	50.8	.2	.1
1941	50.2	50.3	.2	.1
1942	49.4	49.4	.0	.0
1943	51.0	51.3	.6	.3
1944	49.9	50.0	.2	.1
1945	48.7	48.8	.2	.1
1946	48.6	49.0	.8	.4
1947	47.6	47.7	.2	.1
1948	48.0	48.4	.8	.4
1949	49.7	49.9	.4	.2
1950	48.8	48.8	.0	.0
1951	49.0	49.3	.6	.3
1952	50.8	50.9	.2	.1
1953	51.9	52.0	.2	.1
1954	47.3	47.5	.4	.2
1955	48.4	48.4	.0	.0
1956	52.1	52.1	.0	.0
1957	49.9	50.1	.4	.2
1958	55.7	55.7	.0	.0
1959	52.9	52.8	-.2	-.1
1960	50.1	50.0	-.2	-.1
1961	48.5	48.6	.2	.1
1962	51.1	51.1	.0	.0
1963	47.2	47.4	.4	.2
1964	47.7	47.7	.0	.0
1965	48.7	49.1	.8	.4
1966	49.1	49.1	.0	.0
1967	51.6	51.6	.0	.0
1968	48.6	48.5	-.2	-.1
1969	52.2	52.3	.2	.1
1970	49.0	49.1	.2	.1
1971	48.8	48.9	.2	.1
1972	45.2	45.3	.2	.1
1973	49.3	49.3	.0	.0
1974	50.5	50.5	.0	.0
1975	50.2	50.2	.0	.0
1976	52.8	52.8	.0	.0
1977	49.9	50.1	.4	.2
1978	48.6	49.2	1.2	.6
1979	51.8	52.0	.4	.2
1980	52.5	53.0	1.0	.5
1981	50.3	50.3	.0	.0
1982	49.2	49.2	.0	.0
1983	48.6	48.6	.0	.0
1984	49.6	49.8	.4	.2
1985	46.4	46.3	-.2	-.1
1986	51.8	51.9	.2	.1
1987	49.7	49.9	.4	.2
1988	50.3	50.3	.0	.0
1989	50.1	50.1	.0	.0
1990	47.5	47.7	.4	.2
Mean:	49.8	49.9	.2	.1
Median:	49.7	49.9	.2	.1
Min:	45.2	45.3	-.6	-.3
Max:	55.7	55.7	1.2	.6
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
X > 0.0			42	
X < 0.0			6	
0.0 < X <= .5			32	
.5 < X <= 1.0			9	
X > 1.0			1	
0.0 > X >= -.5			5	
-.5 > X > -1.0			1	
X < -1.0			0	

RETURN TO TABLE OF CONTENTS

Section 5

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM
5.2 Fisheries

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

January

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	43.5	43.5	.0	.0
1923.	44.2	44.3	.2	.1
1924.	46.5	46.8	.6	.3
1925.	47.3	47.1	-.4	-.2
1926.	45.1	45.0	-.2	-.1
1927.	47.8	47.8	.0	.0
1928.	46.9	47.0	.2	.1
1929.	43.7	43.8	.2	.1
1930.	46.4	46.5	.2	.1
1931.	48.0	48.0	.0	.0
1932.	45.6	45.6	.0	.0
1933.	44.4	44.5	.2	.1
1934.	47.2	47.1	-.2	-.1
1935.	47.7	47.7	.0	.0
1936.	47.9	47.9	.0	.0
1937.	42.8	42.9	.2	.1
1938.	47.0	47.0	.0	.0
1939.	47.6	47.7	.2	.1
1940.	47.9	47.9	.0	.0
1941.	48.7	48.7	.0	.0
1942.	46.3	46.3	.0	.0
1943.	46.4	46.4	.0	.0
1944.	47.7	47.8	.2	.1
1945.	46.3	46.3	.0	.0
1946.	45.6	45.6	.0	.0
1947.	45.1	45.1	.0	.0
1948.	48.2	48.0	-.4	-.2
1949.	42.1	42.3	.5	.2
1950.	44.4	44.4	.0	.0
1951.	45.0	45.0	.0	.0
1952.	45.2	45.3	.2	.1
1953.	48.8	48.9	.2	.1
1954.	48.1	48.2	.2	.1
1955.	43.9	43.9	.0	.0
1956.	46.0	46.0	.0	.0
1957.	47.7	47.8	.2	.1
1958.	47.2	47.2	.0	.0
1959.	51.1	51.2	.2	.1
1960.	47.9	48.0	.2	.1
1961.	45.5	45.5	.0	.0
1962.	44.5	44.6	.2	.1
1963.	45.8	45.8	.0	.0
1964.	44.9	44.9	.0	.0
1965.	44.9	44.9	.0	.0
1966.	46.2	46.3	.2	.1
1967.	46.7	46.7	.0	.0
1968.	46.7	46.8	.2	.1
1969.	45.0	45.0	.0	.0
1970.	47.2	47.2	.0	.0
1971.	45.8	45.8	.0	.0
1972.	44.5	44.5	.0	.0
1973.	44.8	44.8	.0	.0
1974.	46.7	46.7	.0	.0
1975.	45.8	45.9	.2	.1
1976.	48.7	48.7	.0	.0
1977.	46.3	46.3	.0	.0
1978.	47.8	47.9	.2	.1
1979.	46.3	46.4	.2	.1
1980.	46.2	47.2	2.2	1.0
1981.	49.0	49.3	.6	.3
1982.	45.3	45.3	.0	.0
1983.	45.5	45.5	.0	.0
1984.	46.2	46.2	.0	.0
1985.	45.8	45.8	.0	.0
1986.	47.2	47.3	.2	.1
1987.	47.5	47.6	.2	.1
1988.	48.0	48.0	.0	.0
1989.	46.8	46.8	.0	.0
1990.	47.7	47.7	.0	.0
Mean:	46.4	46.4	.1	.0
Median:	46.3	46.3	.0	.0
Min:	42.1	42.3	-.4	-.2
Max:	51.1	51.2	2.2	1.0
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	9	10		
No. Years inc (avg):		26	(	.2)
No. Years dec (avg):		4	(	-.2)
No. Years no change		39		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

February

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	46.0	45.9	-.2	-.1
1923.	46.3	46.3	.0	.0
1924.	50.8	52.5	3.3	1.7
1925.	48.1	48.0	-.2	-.1
1926.	48.7	48.7	.0	.0
1927.	48.7	48.7	.0	.0
1928.	49.3	49.0	-.6	-.3
1929.	47.3	46.8	-1.1	-.5
1930.	52.4	52.0	-.8	-.4
1931.	50.5	50.5	.0	.0
1932.	47.0	46.9	-.2	-.1
1933.	45.8	46.2	.9	.4
1934.	50.1	49.7	-.8	-.4
1935.	48.3	48.3	.0	.0
1936.	47.7	47.7	.0	.0
1937.	45.9	45.8	-.2	-.1
1938.	48.2	48.2	.0	.0
1939.	47.7	47.7	.0	.0
1940.	49.1	49.1	.0	.0
1941.	49.7	49.7	.0	.0
1942.	46.6	46.6	.0	.0
1943.	49.3	49.3	.0	.0
1944.	47.6	48.1	1.1	.5
1945.	47.5	47.4	-.2	-.1
1946.	46.1	46.1	.0	.0
1947.	48.7	48.8	.2	.1
1948.	47.5	47.5	.0	.0
1949.	44.2	45.0	1.8	.8
1950.	47.1	47.1	.0	.0
1951.	46.4	46.4	.0	.0
1952.	47.3	47.3	.0	.0
1953.	50.3	50.3	.0	.0
1954.	47.9	48.1	.4	.2
1955.	46.5	46.5	.0	.0
1956.	46.6	46.6	.0	.0
1957.	49.3	49.3	.0	.0
1958.	49.1	49.5	.8	.4
1959.	49.7	49.8	.2	.1
1960.	48.8	48.9	.2	.1
1961.	49.7	49.5	-.4	-.2
1962.	47.0	46.9	-.2	-.1
1963.	49.5	49.5	.0	.0
1964.	46.9	47.1	.4	.2
1965.	47.2	47.1	-.2	-.1
1966.	47.8	47.6	-.4	-.2
1967.	48.2	48.2	.0	.0
1968.	49.2	49.8	1.2	.6
1969.	46.3	46.3	.0	.0
1970.	48.1	48.1	.0	.0
1971.	47.2	47.2	.0	.0
1972.	46.8	47.6	1.7	.8
1973.	49.4	49.4	.0	.0
1974.	46.6	46.7	.2	.1
1975.	47.4	47.2	-.4	-.2
1976.	50.7	50.5	-.4	-.2
1977.	50.3	50.2	-.2	-.1
1978.	50.8	50.9	.2	.1
1979.	47.7	47.5	-.4	-.2
1980.	47.5	47.2	-.6	-.3
1981.	52.2	51.2	-1.9	-1.0
1982.	46.6	46.6	.0	.0
1983.	49.0	49.0	.0	.0
1984.	47.9	47.8	-.2	-.1
1985.	48.1	48.1	.0	.0
1986.	48.0	48.0	.0	.0
1987.	50.0	49.8	-.4	-.2
1988.	54.2	53.9	-.6	-.3
1989.	47.7	47.7	.0	.0
1990.	48.2	48.2	.0	.0
Mean:	48.3	48.3	.0	.0
Median:	47.9	48.0	.0	.0
Min:	44.2	45.0	-1.9	-1.0
Max:	54.2	53.9	3.3	1.7

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	35	37		

No. Years inc (avg):		14	(.4)
No. Years dec (avg):		22	(-.2)
No. Years no change		33	

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

March

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.9	50.9	.0	.0
1923.	53.7	53.6	-.2	-.1
1924.	53.5	52.6	-1.7	-.9
1925.	54.0	54.2	.4	.2
1926.	53.3	53.4	.2	.1
1927.	51.5	51.5	.0	.0
1928.	51.8	52.1	.6	.3
1929.	51.9	52.3	.8	.4
1930.	52.8	52.8	.0	.0
1931.	55.7	55.3	-.7	-.4
1932.	53.8	53.7	-.2	-.1
1933.	51.9	53.4	2.9	1.5
1934.	56.4	55.6	-1.4	-.8
1935.	49.8	49.8	.0	.0
1936.	52.7	52.7	.0	.0
1937.	52.2	51.9	-.6	-.3
1938.	49.8	49.8	.0	.0
1939.	52.4	52.2	-.4	-.2
1940.	51.8	51.8	.0	.0
1941.	53.0	52.9	-.2	-.1
1942.	49.2	49.2	.0	.0
1943.	51.1	51.1	.0	.0
1944.	52.6	52.3	-.6	-.3
1945.	50.0	50.0	.0	.0
1946.	51.4	51.3	-.2	-.1
1947.	52.4	52.4	.0	.0
1948.	49.9	49.8	-.2	-.1
1949.	50.3	50.1	-.4	-.2
1950.	51.6	51.6	.0	.0
1951.	50.6	50.6	.0	.0
1952.	49.5	49.5	.0	.0
1953.	52.7	52.7	.0	.0
1954.	50.7	50.6	-.2	-.1
1955.	51.7	51.7	.0	.0
1956.	51.3	51.3	.0	.0
1957.	53.4	53.7	.6	.3
1958.	50.9	50.8	-.2	-.1
1959.	53.3	53.3	.0	.0
1960.	53.2	53.3	.2	.1
1961.	53.0	53.5	.9	.5
1962.	50.4	51.5	2.2	1.1
1963.	50.9	50.8	-.2	-.1
1964.	50.1	50.3	.4	.2
1965.	51.3	51.3	.0	.0
1966.	52.4	51.3	-2.1	-1.1
1967.	51.0	51.0	.0	.0
1968.	53.0	54.9	3.6	1.9
1969.	51.4	51.8	.8	.4
1970.	52.6	52.6	.0	.0
1971.	50.7	50.7	.0	.0
1972.	55.6	55.0	-1.1	-.6
1973.	50.5	50.5	.0	.0
1974.	51.6	51.6	.0	.0
1975.	50.6	50.7	.2	.1
1976.	53.3	53.2	-.2	-.1
1977.	52.5	52.5	.0	.0
1978.	54.2	54.4	.4	.2
1979.	52.0	53.0	1.9	1.0
1980.	51.4	51.4	.0	.0
1981.	53.0	52.5	-.9	-.5
1982.	50.4	50.4	.0	.0
1983.	50.5	50.4	-.2	-.1
1984.	53.3	53.2	-.2	-.1
1985.	50.6	50.5	-.2	-.1
1986.	52.2	52.6	.8	.4
1987.	52.9	52.9	.0	.0
1988.	57.8	57.6	-.3	-.2
1989.	51.5	51.5	.0	.0
1990.	54.6	54.4	-.4	-.2
Mean:	52.1	52.1	.1	.0
Median:	51.8	51.8	.0	.0
Min:	49.2	49.2	-2.1	-1.1
Max:	57.8	57.6	3.6	1.9
X > 56.0	2	1		
Mean X > 56.0	57.1	57.6	.9	.5
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		16	(.5)	
No. Years dec (avg):		24	(-.3)	
No. Years no change		29		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

April

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.2	54.1	-.2	-.1
1923.	55.0	55.0	.0	.0
1924.	61.2	60.2	-1.6	-1.0
1925.	55.5	55.5	.0	.0
1926.	59.6	59.6	.0	.0
1927.	53.8	53.8	.0	.0
1928.	54.5	54.4	-.2	-.1
1929.	56.6	56.1	-.9	-.5
1930.	57.6	58.6	1.7	1.0
1931.	63.8	64.0	.3	.2
1932.	56.1	56.0	-.2	-.1
1933.	58.1	57.2	-1.5	-.9
1934.	59.8	59.5	-.5	-.3
1935.	54.5	54.5	.0	.0
1936.	55.3	55.3	.0	.0
1937.	54.1	54.1	.0	.0
1938.	53.8	53.8	.0	.0
1939.	61.2	59.8	-2.3	-1.4
1940.	55.0	55.0	.0	.0
1941.	54.6	54.5	-.2	-.1
1942.	54.5	54.5	.0	.0
1943.	54.6	54.6	.0	.0
1944.	54.9	54.9	.0	.0
1945.	56.1	56.0	-.2	-.1
1946.	55.4	55.3	-.2	-.1
1947.	56.0	56.6	1.1	.6
1948.	53.1	53.3	.4	.2
1949.	57.0	58.0	1.8	1.0
1950.	55.5	55.5	.0	.0
1951.	56.0	56.0	.0	.0
1952.	54.0	54.0	.0	.0
1953.	56.0	55.9	-.2	-.1
1954.	56.2	56.1	-.2	-.1
1955.	53.6	53.6	.0	.0
1956.	56.1	56.3	.4	.2
1957.	57.7	57.7	.0	.0
1958.	54.1	54.1	.0	.0
1959.	59.0	62.7	6.3	3.7
1960.	57.9	57.4	-.9	-.5
1961.	60.5	60.1	-.7	-.4
1962.	57.8	57.3	-.9	-.5
1963.	53.2	53.2	.0	.0
1964.	53.9	54.2	.6	.3
1965.	54.8	54.9	.2	.1
1966.	58.6	59.9	2.2	1.3
1967.	51.6	51.6	.0	.0
1968.	57.1	58.3	2.1	1.2
1969.	54.3	54.2	-.2	-.1
1970.	56.2	56.3	.2	.1
1971.	54.2	54.2	.0	.0
1972.	56.9	56.8	-.2	-.1
1973.	56.4	56.4	.0	.0
1974.	53.8	53.8	.0	.0
1975.	52.9	52.9	.0	.0
1976.	57.7	57.5	-.3	-.2
1977.	61.8	61.8	.0	.0
1978.	54.9	54.9	.0	.0
1979.	57.1	56.3	-1.4	-.8
1980.	56.4	56.3	-.2	-.1
1981.	57.9	56.2	-2.9	-1.7
1982.	53.1	53.1	.0	.0
1983.	53.5	53.5	.0	.0
1984.	56.7	56.7	.0	.0
1985.	58.8	58.7	-.2	-.1
1986.	56.7	56.7	.0	.0
1987.	63.4	63.5	.2	.1
1988.	62.7	62.6	-.2	-.1
1989.	57.4	57.2	-.3	-.2
1990.	59.5	59.3	-.3	-.2
Mean:	56.4	56.4	.0	.0
Median:	56.0	56.0	.0	.0
Min:	51.6	51.6	-2.9	-1.7
Max:	63.8	64.0	6.3	3.7
X > 56.0	35	34		
Mean X > 56.0	58.4	58.5	.2	.1
X > 60.0	7	7		
Mean X > 60.0	62.1	62.1	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	7	7		
61.0 <= X <= 73.0	6	5		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		13	(	.8)
No. Years dec (avg):		26	(	-.4)
No. Years no change		30		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

May

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	58.2	58.1	-.2	-.1
1923.	58.2	58.2	.0	.0
1924.	69.7	68.7	-1.4	-1.0
1925.	59.0	58.9	-.2	-.1
1926.	64.1	64.0	-.2	-.1
1927.	58.0	58.0	.0	.0
1928.	60.1	60.1	.0	.0
1929.	62.5	62.2	-.5	-.3
1930.	61.5	61.1	-.7	-.4
1931.	69.1	70.1	1.4	1.0
1932.	60.0	59.8	-.3	-.2
1933.	59.5	59.2	-.5	-.3
1934.	68.1	68.0	-.1	-.1
1935.	58.3	58.3	.0	.0
1936.	59.3	59.3	.0	.0
1937.	58.6	58.6	.0	.0
1938.	58.3	58.3	.0	.0
1939.	62.7	62.4	-.5	-.3
1940.	59.9	59.9	.0	.0
1941.	58.1	58.1	.0	.0
1942.	57.2	57.1	-.2	-.1
1943.	59.4	59.4	.0	.0
1944.	60.8	60.2	-1.0	-.6
1945.	58.7	58.5	-.3	-.2
1946.	58.6	58.6	.0	.0
1947.	61.5	61.8	.5	.3
1948.	58.3	58.1	-.3	-.2
1949.	61.6	60.8	-1.3	-.8
1950.	59.2	59.2	.0	.0
1951.	59.4	59.4	.0	.0
1952.	58.3	58.4	.2	.1
1953.	58.2	58.2	.0	.0
1954.	60.7	60.7	.0	.0
1955.	59.3	59.0	-.5	-.3
1956.	59.8	59.7	-.2	-.1
1957.	59.5	59.5	.0	.0
1958.	58.7	58.7	.0	.0
1959.	60.8	61.7	1.5	.9
1960.	61.9	61.2	-1.1	-.7
1961.	60.7	60.5	-.3	-.2
1962.	59.6	59.5	-.2	-.1
1963.	56.9	56.9	.0	.0
1964.	59.6	58.9	-1.2	-.7
1965.	58.5	58.5	.0	.0
1966.	65.9	65.1	-1.2	-.8
1967.	57.3	57.3	.0	.0
1968.	59.6	62.3	4.5	2.7
1969.	58.4	58.4	.0	.0
1970.	62.6	62.6	.0	.0
1971.	56.9	56.8	-.2	-.1
1972.	61.6	61.5	-.2	-.1
1973.	60.5	60.4	-.2	-.1
1974.	58.1	58.1	.0	.0
1975.	59.1	58.9	-.3	-.2
1976.	66.7	66.4	-.4	-.3
1977.	61.6	61.7	.2	.1
1978.	59.0	58.9	-.2	-.1
1979.	60.7	60.0	-1.2	-.7
1980.	58.9	58.8	-.2	-.1
1981.	61.5	60.7	-1.3	-.8
1982.	58.2	58.2	.0	.0
1983.	57.7	57.7	.0	.0
1984.	61.7	61.7	.0	.0
1985.	63.8	63.5	-.5	-.3
1986.	60.2	60.1	-.2	-.1
1987.	67.3	68.1	1.2	.8
1988.	65.3	65.2	-.2	-.1
1989.	61.3	61.1	-.3	-.2
1990.	63.9	63.9	.0	.0
Mean:	60.6	60.5	-.1	-.1
Median:	59.5	59.5	-.2	-.1
Min:	56.9	56.8	-1.4	-1.0
Max:	69.7	70.1	4.5	2.7
X > 56.0	69	69		
Mean X > 56.0	60.6	60.5	-.2	-.1
X > 60.0	30	30		
Mean X > 60.0	63.0	62.9	-.2	-.1
X > 65.0	7	7		
Mean X > 65.0	67.4	67.4	.0	.0
X > 68.0	3	3		
Mean X > 68.0	69.0	69.0	.0	.0
X > 70.0	0	1		
Mean X > 70.0	.0	70.1	.0	70.1
60.0 <= X <= 70.0	31	30		
61.0 <= X <= 73.0	22	22		
48.0 <= X <= 68.0	66	66		
No. Years inc (avg):		7		(.8)
No. Years dec (avg):		35		(-.3)
No. Years no change		27		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

June

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	61.0	61.4	.7	.4
1923.	61.2	61.1	-.2	-.1
1924.	68.1	66.1	-2.9	-2.0
1925.	61.9	62.0	.2	.1
1926.	63.7	63.8	.2	.1
1927.	62.1	62.1	.0	.0
1928.	61.6	61.9	.5	.3
1929.	65.6	65.9	.5	.3
1930.	62.5	62.1	-.6	-.4
1931.	63.1	63.0	-.2	-.1
1932.	64.1	64.0	-.2	-.1
1933.	65.9	66.0	.2	.1
1934.	65.4	64.5	-1.4	-.9
1935.	60.9	61.1	.3	.2
1936.	63.2	63.1	-.2	-.1
1937.	62.2	62.2	.0	.0
1938.	62.1	62.1	.0	.0
1939.	63.8	62.1	-2.7	-1.7
1940.	65.0	64.9	-.2	-.1
1941.	59.1	59.8	1.2	.7
1942.	61.2	61.3	.2	.1
1943.	62.9	62.8	-.2	-.1
1944.	64.7	64.0	-1.1	-.7
1945.	63.8	63.2	-.9	-.6
1946.	62.9	60.8	-3.3	-2.1
1947.	67.5	67.1	-.6	-.4
1948.	61.4	61.5	.2	.1
1949.	64.1	63.1	-1.6	-1.0
1950.	61.8	61.9	.2	.1
1951.	63.0	62.8	-.3	-.2
1952.	61.6	61.6	.0	.0
1953.	62.4	62.3	-.2	-.1
1954.	63.7	63.7	.0	.0
1955.	64.0	63.8	-.3	-.2
1956.	63.0	63.0	.0	.0
1957.	64.4	64.7	.5	.3
1958.	62.4	62.4	.0	.0
1959.	62.3	64.5	3.5	2.2
1960.	62.9	63.6	1.1	.7
1961.	65.0	64.5	-.8	-.5
1962.	64.1	62.8	-2.0	-1.3
1963.	59.9	60.3	.7	.4
1964.	62.9	63.1	.3	.2
1965.	61.6	61.4	-.3	-.2
1966.	63.7	63.7	.0	.0
1967.	61.8	61.8	.0	.0
1968.	65.2	64.4	-1.2	-.8
1969.	61.8	61.8	.0	.0
1970.	66.0	66.0	.0	.0
1971.	59.6	59.8	.3	.2
1972.	65.4	65.0	-.6	-.4
1973.	65.0	63.4	-2.5	-1.6
1974.	61.8	62.3	.8	.5
1975.	60.1	60.4	.5	.3
1976.	64.9	64.6	-.5	-.3
1977.	71.0	71.2	.3	.2
1978.	62.7	62.5	-.3	-.2
1979.	65.3	64.9	-.6	-.4
1980.	62.0	61.8	-.3	-.2
1981.	65.1	61.9	-4.9	-3.2
1982.	60.5	61.2	1.2	.7
1983.	62.5	62.5	.0	.0
1984.	65.6	65.6	.0	.0
1985.	63.0	64.2	1.9	1.2
1986.	64.7	64.5	-.3	-.2
1987.	64.3	63.9	-.6	-.4
1988.	63.2	63.0	-.3	-.2
1989.	65.0	65.1	.2	.1
1990.	64.6	64.5	-.2	-.1
Mean:	63.3	63.2	-.2	-.2
Median:	63.0	62.9	-.1	.0
Min:	59.1	59.8	-4.9	-3.2
Max:	71.0	71.2	3.5	2.2
X > 56.0	69	69		
Mean X > 56.0	63.3	63.2	-.2	-.1
X > 60.0	66	67		
Mean X > 60.0	63.5	63.3	-.3	-.2
X > 65.0	12	8		
Mean X > 65.0	66.3	66.6	.5	.3
X > 68.0	2	1		
Mean X > 68.0	69.6	71.2	2.3	1.6
X > 70.0	1	1		
Mean X > 70.0	71.0	71.2	.3	.2
60.0 <= X <= 70.0	65	66		
61.0 <= X <= 73.0	63	64		
48.0 <= X <= 68.0	67	68		
No. Years inc (avg):		23	(	.4)
No. Years dec (avg):		33	(	-.6)
No. Years no change		13		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

July

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	63.1	63.4	.5	.3
1923.	67.6	65.2	-3.6	-2.4
1924.	71.4	69.7	-2.4	-1.7
1925.	63.5	64.1	.9	.6
1926.	68.7	70.6	2.8	1.9
1927.	68.5	68.4	-.1	-.1
1928.	62.7	63.5	1.3	.8
1929.	66.9	67.1	.3	.2
1930.	69.8	69.2	-.9	-.6
1931.	67.8	68.3	.7	.5
1932.	65.5	65.6	.2	.1
1933.	66.0	66.1	.2	.1
1934.	66.1	66.1	.0	.0
1935.	64.0	64.3	.5	.3
1936.	65.4	65.4	.0	.0
1937.	62.9	62.4	-.8	-.5
1938.	64.0	64.2	.3	.2
1939.	66.3	66.5	.3	.2
1940.	68.7	68.9	.3	.2
1941.	61.2	61.2	.0	.0
1942.	63.2	63.5	.5	.3
1943.	65.5	68.4	4.4	2.9
1944.	68.2	69.0	1.2	.8
1945.	67.9	68.5	.9	.6
1946.	65.9	63.6	-3.5	-2.3
1947.	70.3	70.3	.0	.0
1948.	64.0	64.4	.6	.4
1949.	66.5	65.3	-1.8	-1.2
1950.	64.1	64.3	.3	.2
1951.	66.5	66.8	.5	.3
1952.	64.9	65.0	.2	.1
1953.	62.8	63.6	1.3	.8
1954.	63.9	64.1	.3	.2
1955.	68.9	68.5	-.6	-.4
1956.	64.8	64.9	.2	.1
1957.	66.9	68.6	2.5	1.7
1958.	65.6	65.8	.3	.2
1959.	67.9	66.8	-1.6	-1.1
1960.	62.6	64.6	3.2	2.0
1961.	68.5	67.7	-1.2	-.8
1962.	66.5	65.9	-.9	-.6
1963.	64.6	64.9	.5	.3
1964.	67.4	67.6	.3	.2
1965.	65.2	65.3	.2	.1
1966.	62.1	67.5	8.7	5.4
1967.	65.5	65.7	.3	.2
1968.	63.4	66.5	4.9	3.1
1969.	63.3	63.6	.5	.3
1970.	66.1	66.5	.6	.4
1971.	61.4	62.6	2.0	1.2
1972.	64.6	64.1	-.8	-.5
1973.	65.8	64.8	-1.5	-1.0
1974.	64.2	64.7	.8	.5
1975.	62.0	62.2	.3	.2
1976.	65.3	65.1	-.3	-.2
1977.	74.1	74.3	.3	.2
1978.	68.5	65.4	-4.5	-3.1
1979.	64.3	67.4	4.8	3.1
1980.	67.9	64.9	-4.4	-3.0
1981.	67.1	66.7	-.6	-.4
1982.	63.3	63.6	.5	.3
1983.	65.9	65.9	.0	.0
1984.	67.9	67.9	.0	.0
1985.	64.4	71.5	11.0	7.1
1986.	69.1	69.0	-.1	-.1
1987.	67.1	67.2	.1	.1
1988.	67.3	66.8	-.7	-.5
1989.	65.8	65.8	.0	.0
1990.	64.6	65.0	.6	.4
Mean:	65.9	66.1	.4	.3
Median:	65.6	65.6	.3	.2
Min:	61.2	61.2	-4.5	-3.1
Max:	74.1	74.3	11.0	7.1
X > 56.0	69	69		
Mean X > 56.0	65.9	66.1	.3	.2
X > 60.0	69	69		
Mean X > 60.0	65.9	66.1	.3	.2
X > 65.0	42	43		
Mean X > 65.0	67.4	67.5	.1	.1
X > 68.0	12	15		
Mean X > 68.0	69.6	69.5	-.1	-.1
X > 70.0	3	4		
Mean X > 70.0	71.9	71.7	-.3	-.2
60.0 <= X <= 70.0	66	65		
61.0 <= X <= 73.0	68	68		
48.0 <= X <= 68.0	57	54		
No. Years inc (avg):		43		(.9)
No. Years dec (avg):		19		(-1.1)
No. Years no change		7		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

August

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	64.3	64.6	.5	.3
1923.	67.8	65.4	-3.5	-2.4
1924.	71.8	71.0	-1.1	-.8
1925.	64.3	65.3	1.6	1.0
1926.	62.1	62.0	-.2	-.1
1927.	68.0	68.0	.0	.0
1928.	68.6	68.5	-.1	-.1
1929.	68.2	67.0	-1.8	-1.2
1930.	63.8	61.9	-3.0	-1.9
1931.	73.1	72.8	-.4	-.3
1932.	65.5	65.7	.3	.2
1933.	68.3	64.7	-5.3	-3.6
1934.	68.5	68.3	-.3	-.2
1935.	65.0	65.1	.2	.1
1936.	65.0	65.4	.6	.4
1937.	63.1	64.1	1.6	1.0
1938.	64.7	65.2	.8	.5
1939.	67.2	66.8	-.6	-.4
1940.	66.8	66.6	-.3	-.2
1941.	64.1	64.3	.3	.2
1942.	64.8	64.9	.2	.1
1943.	65.6	66.1	.8	.5
1944.	64.4	63.8	-.9	-.6
1945.	66.2	66.6	.6	.4
1946.	65.7	63.3	-3.7	-2.4
1947.	64.4	65.7	2.0	1.3
1948.	65.3	65.0	-.5	-.3
1949.	68.1	66.1	-2.9	-2.0
1950.	64.4	64.6	.3	.2
1951.	67.1	66.7	-.6	-.4
1952.	65.1	65.3	.3	.2
1953.	65.8	65.9	.2	.1
1954.	67.7	67.7	.0	.0
1955.	69.3	71.0	2.5	1.7
1956.	65.6	65.7	.2	.1
1957.	68.1	67.2	-1.3	-.9
1958.	65.9	65.9	.0	.0
1959.	66.5	67.0	.8	.5
1960.	66.7	70.2	5.2	3.5
1961.	68.7	67.2	-2.2	-1.5
1962.	66.3	66.4	.2	.1
1963.	62.4	63.0	1.0	.6
1964.	61.8	61.7	-.2	-.1
1965.	64.4	64.4	.0	.0
1966.	65.6	70.8	7.9	5.2
1967.	65.7	65.9	.3	.2
1968.	67.0	69.6	3.9	2.6
1969.	64.6	64.8	.3	.2
1970.	68.7	68.8	.1	.1
1971.	63.6	64.0	.6	.4
1972.	70.0	69.6	-.6	-.4
1973.	66.9	68.0	1.6	1.1
1974.	65.4	65.5	.2	.1
1975.	63.9	63.9	.0	.0
1976.	66.0	66.0	.0	.0
1977.	74.8	75.1	.4	.3
1978.	67.4	64.9	-3.7	-2.5
1979.	68.2	66.4	-2.6	-1.8
1980.	68.1	65.8	-3.4	-2.3
1981.	65.6	66.5	1.4	.9
1982.	64.5	64.7	.3	.2
1983.	65.2	65.2	.0	.0
1984.	68.9	68.3	-.9	-.6
1985.	66.3	69.6	5.0	3.3
1986.	66.0	66.3	.5	.3
1987.	66.0	65.8	-.3	-.2
1988.	71.2	70.8	-.6	-.4
1989.	70.0	70.1	.1	.1
1990.	69.1	68.8	-.4	-.3
Mean:	66.5	66.5	.0	.0
Median:	65.9	65.9	.0	.0
Min:	61.8	61.7	-5.3	-3.6
Max:	74.8	75.1	7.9	5.2
X > 56.0	69	69		
Mean X > 56.0	66.5	66.5	.0	.0
X > 60.0	69	69		
Mean X > 60.0	66.5	66.5	.0	.0
X > 65.0	49	50		
Mean X > 65.0	67.5	67.5	.0	.0
X > 68.0	19	16		
Mean X > 68.0	69.6	70.2	.9	.6
X > 70.0	4	8		
Mean X > 70.0	72.7	71.5	-1.7	-1.2
60.0 <= X <= 70.0	65	61		
61.0 <= X <= 73.0	67	68		
48.0 <= X <= 68.0	50	53		
No. Years inc (avg):		35		(.8)
No. Years dec (avg):		27		(-1.0)
No. Years no change		7		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

September

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	64.5	64.7	.3	.2
1923.	67.9	65.6	-3.4	-2.3
1924.	69.6	69.9	.4	.3
1925.	66.2	66.7	.8	.5
1926.	68.0	67.9	-.1	-.1
1927.	62.7	63.8	1.8	1.1
1928.	65.2	65.3	.2	.1
1929.	68.1	68.2	.1	.1
1930.	68.2	67.1	-1.6	-1.1
1931.	70.0	70.0	.0	.0
1932.	66.4	66.7	.5	.3
1933.	69.0	69.0	.0	.0
1934.	68.4	68.4	.0	.0
1935.	65.9	66.0	.2	.1
1936.	66.9	66.8	-.1	-.1
1937.	66.0	66.1	.2	.1
1938.	65.2	65.6	.6	.4
1939.	67.8	67.8	.0	.0
1940.	67.8	67.8	.0	.0
1941.	65.0	65.1	.2	.1
1942.	65.7	65.7	.0	.0
1943.	68.8	65.9	-4.2	-2.9
1944.	66.9	66.5	-.6	-.4
1945.	68.7	67.8	-1.3	-.9
1946.	68.1	64.9	-4.7	-3.2
1947.	67.1	67.1	.0	.0
1948.	66.2	65.8	-.6	-.4
1949.	69.2	68.7	-.7	-.5
1950.	65.8	66.1	.5	.3
1951.	69.5	69.4	-.1	-.1
1952.	65.5	65.7	.3	.2
1953.	65.8	65.9	.2	.1
1954.	67.5	67.5	.0	.0
1955.	68.1	69.9	2.6	1.8
1956.	66.0	66.1	.2	.1
1957.	69.7	68.7	-1.4	-1.0
1958.	66.8	66.9	.1	.1
1959.	68.7	68.7	.0	.0
1960.	67.8	70.5	4.0	2.7
1961.	68.4	68.5	.1	.1
1962.	68.5	68.4	-.1	-.1
1963.	64.1	64.5	.6	.4
1964.	67.0	67.1	.1	.1
1965.	66.5	66.5	.0	.0
1966.	67.8	67.7	-.1	-.1
1967.	66.7	66.8	.1	.1
1968.	67.7	69.2	2.2	1.5
1969.	65.7	65.7	.0	.0
1970.	69.3	69.2	-.1	-.1
1971.	64.7	65.0	.5	.3
1972.	68.0	68.1	.1	.1
1973.	67.4	67.4	.0	.0
1974.	66.0	66.0	.0	.0
1975.	64.2	64.2	.0	.0
1976.	68.4	68.0	-.6	-.4
1977.	69.8	70.0	.3	.2
1978.	68.1	66.1	-2.9	-2.0
1979.	70.8	70.1	-1.0	-.7
1980.	67.3	66.1	-1.8	-1.2
1981.	68.7	68.9	.3	.2
1982.	65.3	65.5	.3	.2
1983.	65.7	65.7	.0	.0
1984.	71.6	69.2	-3.4	-2.4
1985.	67.7	67.8	.1	.1
1986.	66.0	65.8	-.3	-.2
1987.	67.6	67.6	.0	.0
1988.	70.2	70.3	.1	.1
1989.	68.0	68.0	.0	.0
1990.	71.1	71.2	.1	.1
Mean:	67.4	67.3	-.2	-.1
Median:	67.6	67.0	.0	.0
Min:	62.7	63.8	-4.7	-3.2
Max:	71.6	71.2	4.0	2.7
X > 56.0	69	69		
Mean X > 56.0	67.4	67.3	-.1	-.1
X > 60.0	69	69		
Mean X > 60.0	67.4	67.3	-.1	-.1
X > 65.0	63	63		
Mean X > 65.0	67.7	67.5	-.3	-.2
X > 68.0	25	22		
Mean X > 68.0	69.2	69.3	.1	.1
X > 70.0	4	4		
Mean X > 70.0	70.9	70.5	-.6	-.4
60.0 <= X <= 70.0	65	65		
61.0 <= X <= 73.0	69	69		
48.0 <= X <= 68.0	44	47		
No. Years inc (avg):		31		(.4)
No. Years dec (avg):		21		(-1.0)
No. Years no change		17		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

October"

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	56.9	56.4	-.9	-.5
1923.	56.6	59.4	4.9	2.8
1924.	62.9	62.5	-.6	-.4
1925.	57.5	57.6	.2	.1
1926.	60.8	61.4	1.0	.6
1927.	54.4	54.2	-.4	-.2
1928.	57.4	58.2	1.4	.8
1929.	65.1	64.6	-.8	-.5
1930.	59.0	59.3	.5	.3
1931.	64.3	64.3	.0	.0
1932.	59.4	59.2	-.3	-.2
1933.	65.2	64.8	-.6	-.4
1934.	64.6	64.8	.3	.2
1935.	58.4	58.5	.2	.1
1936.	58.8	58.8	.0	.0
1937.	58.1	57.8	-.5	-.3
1938.	57.8	57.7	-.2	-.1
1939.	65.1	65.5	.6	.4
1940.	55.1	54.9	-.4	-.2
1941.	57.4	56.6	-1.4	-.8
1942.	56.1	56.6	.9	.5
1943.	55.0	55.0	.0	.0
1944.	61.8	61.5	-.5	-.3
1945.	54.5	55.3	1.5	.8
1946.	54.6	57.6	5.5	3.0
1947.	58.6	57.9	-1.2	-.7
1948.	58.3	57.8	-.9	-.5
1949.	57.1	58.7	2.8	1.6
1950.	56.5	56.9	.7	.4
1951.	54.5	54.4	-.2	-.1
1952.	57.0	56.7	-.5	-.3
1953.	57.8	58.1	.5	.3
1954.	55.3	55.5	.4	.2
1955.	56.6	55.6	-1.8	-1.0
1956.	59.4	59.9	.8	.5
1957.	55.7	56.2	.9	.5
1958.	59.7	60.5	1.3	.8
1959.	65.5	63.4	-3.2	-2.1
1960.	61.3	56.4	-8.0	-4.9
1961.	65.2	65.3	.2	.1
1962.	55.2	56.4	2.2	1.2
1963.	57.2	56.5	-1.2	-.7
1964.	59.8	60.6	1.3	.8
1965.	57.4	57.4	.0	.0
1966.	62.4	59.3	-5.0	-3.1
1967.	60.7	60.4	-.5	-.3
1968.	61.4	55.5	-9.6	-5.9
1969.	58.4	58.4	.0	.0
1970.	55.0	55.0	.0	.0
1971.	57.6	57.0	-1.0	-.6
1972.	54.4	54.4	.0	.0
1973.	54.0	54.2	.4	.2
1974.	57.2	57.8	1.0	.6
1975.	56.9	56.9	.0	.0
1976.	66.3	66.4	.2	.1
1977.	65.0	65.2	.3	.2
1978.	55.0	57.9	5.3	2.9
1979.	55.3	54.5	-1.4	-.8
1980.	56.1	58.1	3.6	2.0
1981.	64.1	64.6	.8	.5
1982.	57.3	57.1	-.3	-.2
1983.	56.8	57.0	.4	.2
1984.	55.1	56.2	2.0	1.1
1985.	60.4	55.7	-7.8	-4.7
1986.	57.5	58.3	1.4	.8
1987.	66.8	67.2	.6	.4
1988.	67.1	67.2	.1	.1
1989.	55.8	55.8	.0	.0
1990.	67.6	67.9	.4	.3
Mean:	59.0	58.9	-.1	-.1
Median:	57.5	57.8	.0	.0
Min:	54.0	54.2	-9.6	-5.9
Max:	67.6	67.9	5.5	3.0
X > 56.0	53	55		
Mean X > 56.0	60.2	59.9	-.5	-.3
X > 60.0	21	19		
Mean X > 60.0	64.0	64.1	.2	.1
X > 65.0	9	7		
Mean X > 65.0	66.0	66.4	.6	.4
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	21	19		
61.0 <= X <= 73.0	18	16		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		34		(.7)
No. Years dec (avg):		26		(-1.1)
No. Years no change		9		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

November

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.5	54.5	.0	.0
1923.	55.7	56.8	2.0	1.1
1924.	55.3	55.1	-.4	-.2
1925.	56.8	56.9	.2	.1
1926.	58.5	58.2	-.5	-.3
1927.	54.0	54.0	.0	.0
1928.	56.7	56.6	-.2	-.1
1929.	59.1	59.2	.2	.1
1930.	57.2	57.8	1.0	.6
1931.	55.4	55.5	.2	.1
1932.	57.1	57.1	.0	.0
1933.	59.2	59.5	.5	.3
1934.	56.6	57.0	.7	.4
1935.	56.4	56.3	-.2	-.1
1936.	57.7	57.9	.3	.2
1937.	56.9	56.8	-.2	-.1
1938.	56.7	56.7	.0	.0
1939.	58.8	59.0	.3	.2
1940.	54.6	55.2	1.1	.6
1941.	56.3	56.6	.5	.3
1942.	56.5	56.6	.2	.1
1943.	56.2	56.1	-.2	-.1
1944.	55.7	56.0	.5	.3
1945.	54.8	54.8	.0	.0
1946.	52.4	55.0	5.0	2.6
1947.	53.4	53.4	.0	.0
1948.	56.7	56.8	.2	.1
1949.	56.1	56.2	.2	.1
1950.	56.2	56.2	.0	.0
1951.	55.6	55.6	.0	.0
1952.	56.8	57.2	.7	.4
1953.	57.4	57.3	-.2	-.1
1954.	54.6	54.9	.5	.3
1955.	55.8	55.7	-.2	-.1
1956.	58.2	57.8	-.7	-.4
1957.	56.8	56.8	.0	.0
1958.	57.6	57.5	-.2	-.1
1959.	60.9	60.8	-.2	-.1
1960.	57.3	56.7	-1.0	-.6
1961.	57.7	57.9	.3	.2
1962.	56.4	56.2	-.4	-.2
1963.	56.3	56.4	.2	.1
1964.	56.3	56.5	.4	.2
1965.	57.0	56.3	-1.2	-.7
1966.	58.1	56.4	-2.9	-1.7
1967.	57.6	57.9	.5	.3
1968.	56.3	55.0	-2.3	-1.3
1969.	56.6	56.7	.2	.1
1970.	55.5	55.6	.2	.1
1971.	57.0	56.9	-.2	-.1
1972.	52.8	52.9	.2	.1
1973.	53.3	53.9	1.1	.6
1974.	57.8	57.1	-1.2	-.7
1975.	55.8	56.0	.4	.2
1976.	59.9	59.9	.0	.0
1977.	56.2	56.3	.2	.1
1978.	56.1	57.9	3.2	1.8
1979.	56.1	55.8	-.5	-.3
1980.	56.3	57.0	1.2	.7
1981.	56.4	56.6	.4	.2
1982.	56.4	56.4	.0	.0
1983.	56.5	56.8	.5	.3
1984.	54.9	55.6	1.3	.7
1985.	54.9	54.5	-.7	-.4
1986.	56.0	56.0	.0	.0
1987.	58.8	58.9	.2	.1
1988.	57.5	57.5	.0	.0
1989.	56.4	56.5	.2	.1
1990.	58.1	58.2	.2	.1
Mean:	56.5	56.6	.2	.1
Median:	56.4	56.5	.1	.0
Min:	52.4	52.9	-2.9	-1.7
Max:	60.9	60.8	5.0	2.6
X > 56.0	49	48		
Mean X > 56.0	57.2	57.3	.2	.1
X > 60.0	1	1		
Mean X > 60.0	60.9	60.8	-.2	-.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	1	1		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		36	(	.4)
No. Years dec (avg):		20	(	-.4)
No. Years no change		13		

LOWER AMERICAN RIVER TEMPERATURE BELOW NIMBUS DAM

December

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.7	47.8	.2	.1
1923.	51.2	51.7	1.0	.5
1924.	46.7	46.4	-.6	-.3
1925.	50.1	50.0	-.2	-.1
1926.	50.7	50.8	.2	.1
1927.	48.9	49.0	.2	.1
1928.	48.4	48.7	.6	.3
1929.	51.0	51.1	.2	.1
1930.	50.1	50.3	.4	.2
1931.	47.8	47.8	.0	.0
1932.	49.9	50.0	.2	.1
1933.	49.2	49.5	.6	.3
1934.	49.6	49.7	.2	.1
1935.	50.3	50.3	.0	.0
1936.	50.3	50.3	.0	.0
1937.	51.4	51.5	.2	.1
1938.	50.6	50.7	.2	.1
1939.	52.4	52.5	.2	.1
1940.	50.7	50.8	.2	.1
1941.	50.2	50.3	.2	.1
1942.	49.4	49.4	.0	.0
1943.	51.0	51.3	.6	.3
1944.	49.9	50.0	.2	.1
1945.	48.7	48.8	.2	.1
1946.	48.6	49.0	.8	.4
1947.	47.6	47.7	.2	.1
1948.	48.0	48.4	.8	.4
1949.	49.7	49.9	.4	.2
1950.	48.8	48.8	.0	.0
1951.	49.0	49.3	.6	.3
1952.	50.8	50.9	.2	.1
1953.	51.9	52.0	.2	.1
1954.	47.3	47.5	.4	.2
1955.	48.4	48.4	.0	.0
1956.	52.1	52.1	.0	.0
1957.	49.9	50.1	.4	.2
1958.	55.7	55.7	.0	.0
1959.	52.9	52.8	-.2	-.1
1960.	50.1	50.0	-.2	-.1
1961.	48.5	48.6	.2	.1
1962.	51.1	51.1	.0	.0
1963.	47.2	47.4	.4	.2
1964.	47.7	47.7	.0	.0
1965.	48.7	49.1	.8	.4
1966.	49.1	49.1	.0	.0
1967.	51.6	51.6	.0	.0
1968.	48.6	48.5	-.2	-.1
1969.	52.2	52.3	.2	.1
1970.	49.0	49.1	.2	.1
1971.	48.8	48.9	.2	.1
1972.	45.2	45.3	.2	.1
1973.	49.3	49.3	.0	.0
1974.	50.5	50.5	.0	.0
1975.	50.2	50.2	.0	.0
1976.	52.8	52.8	.0	.0
1977.	49.9	50.1	.4	.2
1978.	48.6	49.2	1.2	.6
1979.	51.8	52.0	.4	.2
1980.	52.5	53.0	1.0	.5
1981.	50.3	50.3	.0	.0
1982.	49.2	49.2	.0	.0
1983.	48.6	48.6	.0	.0
1984.	49.6	49.8	.4	.2
1985.	46.4	46.3	-.2	-.1
1986.	51.8	51.9	.2	.1
1987.	49.7	49.9	.4	.2
1988.	50.3	50.3	.0	.0
1989.	50.1	50.1	.0	.0
1990.	47.5	47.7	.4	.2
Mean:	49.8	49.9	.2	.1
Median:	49.7	49.9	.2	.1
Min:	45.2	45.3	-.6	-.3
Max:	55.7	55.7	1.2	.6

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	59	59		

No. Years inc (avg):		42	(.2)
No. Years dec (avg):		6	(-.1)
No. Years no change		21	

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.1 Recreation and Fisheries

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1000.0	750.0	-25.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	1750.0	2000.0	14.3	250.0
	1930	1500.0	1500.0	.0	.0
	1931	1750.0	2000.0	14.3	250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	634.5	750.0	18.2	115.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1500.0	1750.0	16.7	250.0
	1941	2000.0	2250.0	12.5	250.0
	1942	2500.0	2500.0	.0	.0
	1943	2500.0	2500.0	.0	.0
	1944	2250.0	2500.0	11.1	250.0
	1945	2000.0	2250.0	12.5	250.0
	1946	2000.0	2250.0	12.5	250.0
	1947	1750.0	2250.0	28.6	500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2000.0	2500.0	25.0	500.0
	1951	2500.0	2500.0	.0	.0
	1952	2000.0	2000.0	.0	.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	1750.0	2000.0	14.3	250.0
	1956	1750.0	2000.0	14.3	250.0
	1957	2500.0	2500.0	.0	.0
	1958	2250.0	2500.0	11.1	250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	2000.0	2000.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	2376.5	2967.6	24.9	591.1
	1964	2500.0	2500.0	.0	.0
	1965	2000.0	2250.0	12.5	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	1750.0	1750.0	.0	.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	1750.0	2000.0	14.3	250.0
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	671.5	697.5	3.9	26.0
	1978	593.4	578.7	-2.5	-14.7
	1979	2500.0	2500.0	.0	.0
	1980	1750.0	1750.0	.0	.0
	1981	2500.0	2500.0	.0	.0
	1982	1750.0	1750.0	.0	.0
	1983	3173.4	3391.1	6.9	217.7
	1984	2509.0	3135.5	25.0	626.5
	1985	2250.0	2500.0	11.1	250.0
	1986	1500.0	1750.0	16.7	250.0
	1987	2250.0	2500.0	11.1	250.0
	1988	1936.4	1911.8	-1.3	-24.6
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1250.0	25.0	250.0
	Mean	2041.4	2131.2	4.7	89.8
	Median	2000.0	2375.0	.0	.0
	Min	593.4	578.7	-25.0	-250.0
	Max	3173.4	3391.1	28.6	626.5
X <	1500.0	7	7		
X <	1750.0	10	8		
X <	1765.0	27	21		
X <	2000.0	28	22		
X <	3000.0	69	68		
X >=	2500.0	29	35		
2500.0 > X >=	2000.0	13	13		
2000.0 > X >=	1750.0	18	14		
1750.0 > X >=	800.0	7	4		
800.0 > X		3	4		
X <	3450.0	70	70		
Mean of X >=	3450.0	.0	.0	.0	.0

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1000.0	750.0	-25.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	1750.0	2000.0	14.3	250.0
	1930	1500.0	1500.0	.0	.0
	1931	1750.0	2000.0	14.3	250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	566.5	750.0	32.4	183.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1500.0	1750.0	16.7	250.0
	1941	2000.0	2250.0	12.5	250.0
	1942	2500.0	2500.0	.0	.0
	1943	3396.1	3671.1	8.1	275.0
	1944	2250.0	2500.0	11.1	250.0
	1945	2000.0	2250.0	12.5	250.0
	1946	2000.0	2250.0	12.5	250.0
	1947	1750.0	2250.0	28.6	500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2000.0	2500.0	25.0	500.0
	1951	16700.3	16973.8	1.6	273.5
	1952	2000.0	2000.0	.0	.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	1750.0	2000.0	14.3	250.0
	1956	1750.0	2000.0	14.3	250.0
	1957	2500.0	2500.0	.0	.0
	1958	2250.0	2500.0	11.1	250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	2000.0	2000.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3022.9	3090.2	2.2	67.3
	1964	2787.4	3906.3	40.1	1118.9
	1965	2000.0	2250.0	12.5	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	1750.0	1750.0	.0	.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	3927.1	4379.3	11.5	452.2
	1975	2500.0	2500.0	.0	.0
	1976	2699.5	2966.1	9.9	266.6
	1977	659.0	654.1	-.7	-4.9
	1978	540.5	530.4	-1.9	-10.1
	1979	2500.0	2500.0	.0	.0
	1980	1750.0	1750.0	.0	.0
	1981	2500.0	2500.0	.0	.0
	1982	4296.5	4492.8	4.6	196.3
	1983	6710.3	6827.8	1.8	117.5
	1984	14353.5	14381.9	.2	28.4
	1985	2250.0	2500.0	11.1	250.0
	1986	1500.0	1750.0	16.7	250.0
	1987	2250.0	2500.0	11.1	250.0
	1988	1549.1	1529.5	-1.3	-19.6
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1250.0	25.0	250.0
	Mean	2553.0	2659.3	5.0	106.4
	Median	2250.0	2500.0	.0	.0
	Min	540.5	530.4	-25.0	-250.0
	Max	16700.3	16973.8	40.1	1118.9
X <	1500.0	7	7		
X <	1750.0	11	9		
X <	1765.0	26	21		
X <	2000.0	26	21		
X <	3000.0	63	62		
X >=	2500.0	32	37		
2500.0 > X >=	2000.0	12	12		
2000.0 > X >=	1750.0	15	12		
1750.0 > X >=	1200.0	5	4		
1200.0 > X		6	5		
X <	3450.0	65	63		
Mean of X >=	3450.0	9197.5	7804.7	-15.1	-1392.8

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	6042.1	6387.7	5.7	345.6
	1924	2500.0	2500.0	.0	.0
	1925	1000.0	750.0	-25.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	1750.0	2000.0	14.3	250.0
	1930	1500.0	1500.0	.0	.0
	1931	1750.0	2000.0	14.3	250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	699.2	750.0	7.3	50.8
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	5812.1	6173.5	6.2	361.4
	1939	2500.0	2500.0	.0	.0
	1940	1500.0	1750.0	16.7	250.0
	1941	2000.0	2250.0	12.5	250.0
	1942	4487.5	4873.7	8.6	386.2
	1943	4644.5	4746.8	2.2	102.3
	1944	2250.0	2500.0	11.1	250.0
	1945	2000.0	2250.0	12.5	250.0
	1946	7091.1	7573.1	6.8	482.0
	1947	1750.0	2250.0	28.6	500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2000.0	2500.0	25.0	500.0
	1951	16300.2	16375.0	.5	74.8
	1952	3209.6	3914.5	22.0	704.9
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	1750.0	2000.0	14.3	250.0
	1956	14751.3	14658.2	-.6	-93.1
	1957	2500.0	2500.0	.0	.0
	1958	2250.0	2500.0	11.1	250.0
	1959	2500.0	2500.0	.0	.0
	1960	1981.1	1851.9	-6.5	-129.2
	1961	2000.0	2000.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3414.7	3419.7	.1	5.0
	1964	2500.0	3125.0	25.0	625.0
	1965	20275.2	20396.8	.6	121.6
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	1750.0	1750.0	.0	.0
	1970	4871.0	5232.7	7.4	361.7
	1971	4363.3	4724.7	8.3	361.4
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	7406.0	7503.5	1.3	97.5
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	760.6	759.1	-.2	-1.5
	1978	617.5	609.4	-1.3	-8.1
	1979	2500.0	2500.0	.0	.0
	1980	1750.0	1750.0	.0	.0
	1981	2500.0	2500.0	.0	.0
	1982	14207.3	14237.8	.2	30.5
	1983	9016.1	9116.8	1.1	100.7
	1984	15132.5	15309.6	1.2	177.1
	1985	2250.0	2500.0	11.1	250.0
	1986	1500.0	1750.0	16.7	250.0
	1987	2250.0	2500.0	11.1	250.0
	1988	1250.0	1250.0	.0	.0
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1250.0	25.0	250.0
	Mean	3533.3	3646.3	4.2	113.0
	Median	2500.0	2500.0	.0	.0
	Min	617.5	609.4	-25.0	-250.0
	Max	20275.2	20396.8	28.6	704.9
X < 1500.0		8	8		
X < 1750.0		11	9		
X < 1765.0		24	20		
X < 2000.0		25	21		
X < 3000.0		54	53		
X >= 2500.0		37	42		
2500.0 > X >= 2000.0		8	7		
2000.0 > X >= 1750.0		14	12		
1750.0 > X >= 1200.0		5	4		
1200.0 > X		6	5		
X < 3450.0		56	55		
Mean of X >= 3450.0		9600.0	9415.0	-1.9	-185.1

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2000.0	2000.0	.0	.0
	1923	4424.9	4532.1	2.4	107.2
	1924	2000.0	2000.0	.0	.0
	1925	1750.0	2000.0	14.3	250.0
	1926	2000.0	2000.0	.0	.0
	1927	2678.4	3093.6	15.5	415.2
	1928	2000.0	2250.0	12.5	250.0
	1929	1400.0	1600.0	14.3	200.0
	1930	1750.0	1750.0	.0	.0
	1931	1500.0	1600.0	6.7	100.0
	1932	1750.0	1750.0	.0	.0
	1933	2000.0	2000.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	2000.0	2000.0	.0	.0
	1936	3964.3	4054.5	2.3	90.2
	1937	2000.0	2000.0	.0	.0
	1938	2744.8	2853.7	4.0	108.9
	1939	2000.0	2250.0	12.5	250.0
	1940	2003.5	1841.2	-8.1	-162.3
	1941	4769.0	4929.4	3.4	160.4
	1942	9209.6	9344.5	1.5	134.9
	1943	10792.1	10892.8	.9	100.7
	1944	1800.0	2000.0	11.1	200.0
	1945	2250.0	2250.0	.0	.0
	1946	5109.6	5221.7	2.2	112.1
	1947	2000.0	2000.0	.0	.0
	1948	1750.0	1750.0	.0	.0
	1949	2000.0	2000.0	.0	.0
	1950	1600.0	2000.0	25.0	400.0
	1951	10028.2	10124.1	1.0	95.9
	1952	8889.3	8989.9	1.1	100.6
	1953	6217.4	6656.9	7.1	439.5
	1954	2250.0	2250.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	16313.5	16308.4	.0	-5.1
	1957	2250.0	2250.0	.0	.0
	1958	2000.0	2000.0	.0	.0
	1959	2000.0	2000.0	.0	.0
	1960	1584.8	1481.5	-6.5	-103.3
	1961	1600.0	1600.0	.0	.0
	1962	1400.0	1400.0	.0	.0
	1963	3842.5	3912.5	1.8	70.0
	1964	2500.0	2500.0	.0	.0
	1965	13180.5	13159.2	-.2	-21.3
	1966	2250.0	2500.0	11.1	250.0
	1967	6049.8	6558.9	8.4	509.1
	1968	2500.0	2500.0	.0	.0
	1969	14196.3	14608.2	2.9	411.9
	1970	20839.7	20951.7	.5	112.0
	1971	4699.6	4750.1	1.1	50.5
	1972	2500.0	2500.0	.0	.0
	1973	8263.8	8645.7	4.6	381.9
	1974	11276.8	11358.0	.7	81.2
	1975	2250.0	2250.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	608.5	607.3	-.2	-1.2
	1978	2127.3	2543.0	19.5	415.7
	1979	2000.0	2000.0	.0	.0
	1980	15232.2	15666.8	2.9	434.6
	1981	2000.0	2000.0	.0	.0
	1982	8155.3	8199.0	.5	43.7
	1983	7482.5	7583.2	1.3	100.7
	1984	6513.4	6579.9	1.0	66.5
	1985	2500.0	2500.0	.0	.0
	1986	2352.6	2004.7	-14.8	-347.9
	1987	1800.0	2000.0	11.1	200.0
	1988	1000.0	1000.0	.0	.0
	1989	2000.0	2000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	800.0	1000.0	25.0	200.0
	Mean	4181.4	4270.0	2.9	88.6
	Median	2188.6	2250.0	.0	.0
	Min	608.5	607.3	-14.8	-347.9
	Max	20839.7	20951.7	25.0	509.1
X <	1500.0	5	5		
X <	1750.0	9	8		
X <	1765.0	15	13		
X <	2000.0	17	14		
X <	3000.0	48	47		
X >=	2500.0	29	31		
2500.0 > X >=	2000.0	24	25		
2000.0 > X >=	1750.0	8	6		
1750.0 > X >=	1200.0	6	5		
1200.0 > X		3	3		
X <	3450.0	48	48		
Mean of X >=	3450.0	9065.9	9228.5	1.8	162.6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2483.4	3099.9	24.8	616.5
	1923	2962.8	3081.4	4.0	118.6
	1924	1600.0	1750.0	9.4	150.0
	1925	3876.6	4480.5	15.6	603.9
	1926	1750.0	1750.0	.0	.0
	1927	13368.2	13406.2	.3	38.0
	1928	2000.0	2000.0	.0	.0
	1929	1120.0	1280.0	14.3	160.0
	1930	2000.0	2000.0	.0	.0
	1931	1250.0	1280.0	2.4	30.0
	1932	2000.0	2226.2	11.3	226.2
	1933	1750.0	1750.0	.0	.0
	1934	1750.0	2000.0	14.3	250.0
	1935	2000.0	2000.0	.0	.0
	1936	13305.1	13404.0	.7	98.9
	1937	1750.0	1775.0	1.4	25.0
	1938	9671.7	9776.2	1.1	104.5
	1939	2000.0	2000.0	.0	.0
	1940	10480.0	10550.5	.7	70.5
	1941	7876.6	8009.7	1.7	133.1
	1942	9859.2	9990.5	1.3	131.3
	1943	6782.1	6895.4	1.7	113.3
	1944	1440.0	1600.0	11.1	160.0
	1945	6027.1	6183.0	2.6	155.9
	1946	2620.7	2712.4	3.5	91.7
	1947	2000.0	1750.0	-12.5	-250.0
	1948	1750.0	2000.0	14.3	250.0
	1949	1600.0	2000.0	25.0	400.0
	1950	3513.1	2988.6	-14.9	-524.5
	1951	8068.1	8174.2	1.3	106.1
	1952	9423.3	9534.8	1.2	111.5
	1953	2150.7	2276.6	5.9	125.9
	1954	2000.0	2000.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	6142.0	6192.1	.8	50.1
	1957	2000.0	2000.0	.0	.0
	1958	6827.5	7405.9	8.5	578.4
	1959	2000.0	2000.0	.0	.0
	1960	1267.9	1185.2	-6.5	-82.7
	1961	1280.0	1280.0	.0	.0
	1962	1120.0	1250.0	11.6	130.0
	1963	11949.6	11992.9	.4	43.3
	1964	2000.0	2000.0	.0	.0
	1965	5420.5	5472.4	1.0	51.9
	1966	2000.0	2000.0	.0	.0
	1967	4341.9	4421.2	1.8	79.3
	1968	4915.7	5567.3	13.3	651.6
	1969	9192.9	9270.4	.8	77.5
	1970	6244.3	6336.0	1.5	91.7
	1971	3308.2	3383.9	2.3	75.7
	1972	2000.0	2058.1	2.9	58.1
	1973	7086.0	7141.9	.8	55.9
	1974	4065.9	4267.3	5.0	201.4
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	501.2	500.0	-.2	-1.2
	1978	4617.2	4786.6	3.7	169.4
	1979	1750.0	2000.0	14.3	250.0
	1980	13584.5	13998.1	3.0	413.6
	1981	1600.0	2000.0	25.0	400.0
	1982	15316.1	15382.5	.4	66.4
	1983	12264.9	12358.3	.8	93.4
	1984	5572.2	5663.8	1.6	91.6
	1985	2000.0	2000.0	.0	.0
	1986	33122.7	33131.4	.0	8.7
	1987	1440.0	1600.0	11.1	160.0
	1988	1750.0	1750.0	.0	.0
	1989	1750.0	1750.0	.0	.0
	1990	1400.0	1750.0	25.0	350.0
	1991	640.0	800.0	25.0	160.0
	Mean	4695.7	4806.0	4.2	110.3
	Median	2000.0	2029.1	1.3	78.4
	Min	501.2	500.0	-14.9	-524.5
	Max	33122.7	33131.4	25.0	651.6
X < 1500.0		10	7		
X < 1750.0		13	9		
X < 1765.0		21	16		
X < 2000.0		21	17		
X < 3000.0		41	40		
X >= 2500.0		31	32		
2500.0 > X >= 2000.0		18	21		
2000.0 > X >= 1750.0		8	8		
1750.0 > X >= 1200.0		9	6		
1200.0 > X		4	3		
X < 3450.0		42	43		
Mean of X >= 3450.0		9032.7	9399.7	4.1	367.1

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	2750.0	2750.0	.0	.0
	1924	1280.0	1400.0	9.4	120.0
	1925	3177.3	3584.4	12.8	407.1
	1926	2000.0	2000.0	.0	.0
	1927	4399.1	4566.3	3.8	167.2
	1928	9750.6	10604.9	8.8	854.3
	1929	1500.0	1500.0	.0	.0
	1930	2000.0	2000.0	.0	.0
	1931	1000.0	1024.0	2.4	24.0
	1932	2750.0	2750.0	.0	.0
	1933	1750.0	1750.0	.0	.0
	1934	1400.0	1600.0	14.3	200.0
	1935	3250.0	3250.0	.0	.0
	1936	4082.9	4180.4	2.4	97.5
	1937	3827.6	4382.8	14.5	555.2
	1938	10681.7	10797.0	1.1	115.3
	1939	1600.0	1600.0	.0	.0
	1940	10642.6	10905.9	2.5	263.3
	1941	4686.5	4803.5	2.5	117.0
	1942	4500.0	4500.0	.0	.0
	1943	12327.9	12425.3	.8	97.4
	1944	2000.0	2000.0	.0	.0
	1945	2750.0	2750.0	.0	.0
	1946	2750.0	2758.2	.3	8.2
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	3000.0	3250.0	8.3	250.0
	1951	3652.6	3767.9	3.2	115.3
	1952	6023.4	6137.0	1.9	113.6
	1953	3000.0	3000.0	.0	.0
	1954	3673.5	4285.6	16.7	612.1
	1955	2000.0	2000.0	.0	.0
	1956	3500.0	3500.0	.0	.0
	1957	3300.5	3983.7	20.7	683.2
	1958	6537.5	6649.6	1.7	112.1
	1959	1750.0	1750.0	.0	.0
	1960	2250.0	2250.0	.0	.0
	1961	1024.0	1024.0	.0	.0
	1962	2500.0	2500.0	.0	.0
	1963	3500.0	3500.0	.0	.0
	1964	2000.0	2000.0	.0	.0
	1965	3000.0	3000.0	.0	.0
	1966	1750.0	2000.0	14.3	250.0
	1967	5749.1	5944.0	3.4	194.9
	1968	3932.5	2104.2	-46.5	-1828.3
	1969	4500.0	4500.0	.0	.0
	1970	2268.6	2500.0	10.2	231.4
	1971	3941.8	4053.9	2.8	112.1
	1972	3542.9	4139.9	16.9	597.0
	1973	3229.7	3341.7	3.5	112.0
	1974	9531.6	9642.0	1.2	110.4
	1975	3579.8	4235.5	18.3	655.7
	1976	1600.0	1600.0	.0	.0
	1977	411.4	408.2	-.8	-3.2
	1978	5556.6	5836.5	5.0	279.9
	1979	2500.0	2750.0	10.0	250.0
	1980	3230.7	3426.7	6.1	196.0
	1981	1500.0	1600.0	6.7	100.0
	1982	7506.0	7619.7	1.5	113.7
	1983	16107.4	16186.9	.5	79.5
	1984	2515.2	2750.0	9.3	234.8
	1985	2000.0	2000.0	.0	.0
	1986	11023.8	11181.2	1.4	157.4
	1987	1152.0	1280.0	11.1	128.0
	1988	1400.0	1400.0	.0	.0
	1989	5586.0	6252.4	11.9	666.4
	1990	1500.0	1500.0	.0	.0
	1991	1750.0	1750.0	.0	.0
	Mean	3809.8	3917.6	3.1	107.9
	Median	3000.0	2879.1	.6	51.8
	Min	411.4	408.2	-46.5	-1828.3
	Max	16107.4	16186.9	20.7	854.3
X <	1500.0	7	6		
X <	1750.0	12	12		
X <	1765.0	16	15		
X <	2000.0	16	15		
X <	3000.0	34	35		
X >=	4500.0	17	18		
4500.0 > X >=	3000.0	19	17		
3000.0 > X >=	2000.0	18	20		
2000.0 > X >=	1500.0	9	9		
1500.0 > X		7	6		
X <	3450.0	42	41		
Mean of X >=	3450.0	6315.8	6436.8	1.9	120.9

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	3407.5	3631.4	6.6	223.9
	1924	398.9	452.6	13.5	53.7
	1925	3444.5	3729.8	8.3	285.3
	1926	2000.0	2000.0	.0	.0
	1927	7814.6	7974.1	2.0	159.5
	1928	4645.9	4887.4	5.2	241.5
	1929	750.0	1250.0	66.7	500.0
	1930	2000.0	2000.0	.0	.0
	1931	500.0	500.0	.0	.0
	1932	2750.0	2750.0	.0	.0
	1933	1750.0	2000.0	14.3	250.0
	1934	2734.7	3141.3	14.9	406.6
	1935	4941.6	5202.5	5.3	260.9
	1936	5686.4	5794.4	1.9	108.0
	1937	4227.5	4380.4	3.6	152.9
	1938	7772.3	7926.7	2.0	154.4
	1939	750.0	1000.0	33.3	250.0
	1940	6073.4	6046.7	-.4	-26.7
	1941	3626.3	3782.3	4.3	156.0
	1942	4500.0	4500.0	.0	.0
	1943	5048.4	5236.3	3.7	187.9
	1944	2000.0	2000.0	.0	.0
	1945	2750.0	2750.0	.0	.0
	1946	3665.6	3932.3	7.3	266.7
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	4977.3	4993.0	.3	15.7
	1951	2905.5	3059.9	5.3	154.4
	1952	8844.3	8993.6	1.7	149.3
	1953	3250.0	3500.0	7.7	250.0
	1954	4407.4	4494.9	2.0	87.5
	1955	2000.0	2000.0	.0	.0
	1956	4000.0	4000.0	.0	.0
	1957	2750.0	2750.0	.0	.0
	1958	10224.2	10390.3	1.6	166.1
	1959	1750.0	1750.0	.0	.0
	1960	2250.0	2250.0	.0	.0
	1961	554.2	549.2	-.9	-5.0
	1962	2774.8	3410.4	22.9	635.6
	1963	4332.6	4637.4	7.0	304.8
	1964	2000.0	2000.0	.0	.0
	1965	3401.5	3691.4	8.5	289.9
	1966	1750.0	2000.0	14.3	250.0
	1967	4500.0	4500.0	.0	.0
	1968	2000.0	2000.0	.0	.0
	1969	5574.4	5844.3	4.8	269.9
	1970	2250.0	2250.0	.0	.0
	1971	3250.0	3250.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	2750.0	2750.0	.0	.0
	1974	6102.7	6203.4	1.7	100.7
	1975	4000.0	4000.0	.0	.0
	1976	500.0	500.0	.0	.0
	1977	403.9	397.2	-1.7	-6.7
	1978	4031.7	4123.1	2.3	91.4
	1979	2500.0	2750.0	10.0	250.0
	1980	2750.0	2750.0	.0	.0
	1981	1000.0	1500.0	50.0	500.0
	1982	14180.6	14346.7	1.2	166.1
	1983	6471.4	6657.6	2.9	186.2
	1984	2750.0	2750.0	.0	.0
	1985	2000.0	2000.0	.0	.0
	1986	2750.0	2750.0	.0	.0
	1987	544.7	539.8	-.9	-4.9
	1988	432.0	425.4	-1.5	-6.6
	1989	4083.4	4503.2	10.3	419.8
	1990	2059.9	2253.6	9.4	193.7
	1991	1750.0	1750.0	.0	.0
	Mean	3404.2	3519.8	5.0	115.5
	Median	2750.0	2750.0	.2	7.8
	Min	398.9	397.2	-1.7	-26.7
	Max	14180.6	14346.7	66.7	635.6
X <	1500.0	10	9		
X <	1750.0	10	10		
X <	1765.0	14	12		
X <	2000.0	14	12		
X <	3000.0	39	36		
X >=	4500.0	17	19		
4500.0 > X >=	3000.0	14	15		
3000.0 > X >=	2000.0	25	24		
2000.0 > X >=	1500.0	4	3		
1500.0 > X		10	9		
X <	3450.0	44	40		
Mean of X >=	3450.0	5701.2	5546.8	-2.7	-154.5

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8375.6	8885.9	6.1	510.3
	1923	4692.3	4868.1	3.7	175.8
	1924	429.1	495.8	15.5	66.7
	1925	4095.4	4590.1	12.1	494.7
	1926	2500.0	2500.0	.0	.0
	1927	4525.2	4746.1	4.9	220.9
	1928	3000.0	3000.0	.0	.0
	1929	1750.0	1750.0	.0	.0
	1930	2500.0	2750.0	10.0	250.0
	1931	750.0	500.0	-33.3	-250.0
	1932	3750.0	4000.0	6.7	250.0
	1933	2500.0	2500.0	.0	.0
	1934	500.0	500.0	.0	.0
	1935	4635.7	4690.5	1.2	54.8
	1936	4250.0	4250.0	.0	.0
	1937	4332.9	4509.2	4.1	176.3
	1938	9682.4	9900.0	2.2	217.6
	1939	1750.0	1750.0	.0	.0
	1940	3500.0	3750.0	7.1	250.0
	1941	5201.8	5403.2	3.9	201.4
	1942	5697.5	6113.7	7.3	416.2
	1943	3750.0	3750.0	.0	.0
	1944	2500.0	2500.0	.0	.0
	1945	3750.0	3750.0	.0	.0
	1946	3750.0	3750.0	.0	.0
	1947	2500.0	2500.0	.0	.0
	1948	3750.0	3750.0	.0	.0
	1949	2750.0	3000.0	9.1	250.0
	1950	4000.0	4000.0	.0	.0
	1951	3500.0	3536.1	1.0	36.1
	1952	11032.2	11230.4	1.8	198.2
	1953	4250.0	4250.0	.0	.0
	1954	3000.0	3000.0	.0	.0
	1955	2500.0	2500.0	.0	.0
	1956	4500.0	4500.0	.0	.0
	1957	3500.0	3750.0	7.1	250.0
	1958	9963.7	10174.9	2.1	211.2
	1959	2250.0	2500.0	11.1	250.0
	1960	2750.0	2750.0	.0	.0
	1961	1500.0	1500.0	.0	.0
	1962	3250.0	3250.0	.0	.0
	1963	6958.3	7205.1	3.5	246.8
	1964	2500.0	2500.0	.0	.0
	1965	4000.0	4000.0	.0	.0
	1966	2500.0	2500.0	.0	.0
	1967	7698.1	8025.7	4.3	327.6
	1968	2500.0	2500.0	.0	.0
	1969	9028.6	9208.8	2.0	180.2
	1970	2750.0	2750.0	.0	.0
	1971	4250.0	4250.0	.0	.0
	1972	2750.0	2750.0	.0	.0
	1973	3921.9	4264.0	8.7	342.1
	1974	4733.4	4994.9	5.5	261.5
	1975	4500.0	4500.0	.0	.0
	1976	507.3	530.0	4.5	22.7
	1977	406.4	395.0	-2.8	-11.4
	1978	4000.0	4411.1	10.3	411.1
	1979	3500.0	3698.1	5.7	198.1
	1980	4000.0	4000.0	.0	.0
	1981	1750.0	2000.0	14.3	250.0
	1982	9145.7	9325.9	2.0	180.2
	1983	10357.3	10505.0	1.4	147.7
	1984	3500.0	3500.0	.0	.0
	1985	2500.0	2500.0	.0	.0
	1986	3750.0	3750.0	.0	.0
	1987	750.0	584.3	-22.1	-165.7
	1988	500.0	500.0	.0	.0
	1989	3033.4	3098.0	2.1	64.6
	1990	1500.0	1500.0	.0	.0
	1991	2500.0	2250.0	-10.0	-250.0
	Mean	3813.6	3905.6	1.6	91.9
	Median	3500.0	3724.1	.0	.0
	Min	406.4	395.0	-33.3	-250.0
	Max	11032.2	11230.4	15.5	510.3
X < 1500.0		7	7		
X < 1750.0		9	9		
X < 1765.0		12	11		
X < 2000.0		12	11		
X < 3000.0		28	27		
X >= 4500.0		17	19		
4500.0 > X >= 3000.0		25	24		
3000.0 > X >= 2000.0		16	16		
2000.0 > X >= 1500.0		5	4		
1500.0 > X		7	7		
X < 3450.0		32	32		
Mean of X >= 3450.0		5311.3	5468.1	3.0	156.8

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8698.9	8997.6	3.4	298.7
	1923	4136.6	3770.9	-8.8	-365.7
	1924	452.6	533.3	17.8	80.7
	1925	5532.4	5926.3	7.1	393.9
	1926	2224.7	2411.3	8.4	186.6
	1927	5119.3	5349.1	4.5	229.8
	1928	4126.6	4196.2	1.7	69.6
	1929	2151.7	2165.6	.6	13.9
	1930	2000.0	2250.0	12.5	250.0
	1931	806.8	782.5	-3.0	-24.3
	1932	4897.3	4983.1	1.8	85.8
	1933	2246.8	2258.2	.5	11.4
	1934	1682.7	1514.6	-10.0	-168.1
	1935	3750.0	4164.6	11.1	414.6
	1936	3969.3	4410.3	11.1	441.0
	1937	3500.0	3500.0	.0	.0
	1938	8351.0	8596.0	2.9	245.0
	1939	620.5	750.0	20.9	129.5
	1940	3250.0	3250.0	.0	.0
	1941	3500.0	3750.0	7.1	250.0
	1942	7093.9	7421.2	4.6	327.3
	1943	3500.0	3500.0	.0	.0
	1944	1750.0	2000.0	14.3	250.0
	1945	4770.9	4880.2	2.3	109.3
	1946	5378.8	5466.7	1.6	87.9
	1947	1500.0	1500.0	.0	.0
	1948	3250.0	3250.0	.0	.0
	1949	2500.0	3699.5	48.0	1199.5
	1950	3750.0	3825.1	2.0	75.1
	1951	3250.0	3250.0	.0	.0
	1952	10238.3	10496.7	2.5	258.4
	1953	3750.0	3750.0	.0	.0
	1954	3595.8	3752.0	4.3	156.2
	1955	2000.0	2000.0	.0	.0
	1956	4552.8	5284.3	16.1	731.5
	1957	4235.9	4423.7	4.4	187.8
	1958	7498.9	7738.9	3.2	240.0
	1959	1250.0	1500.0	20.0	250.0
	1960	2250.0	2250.0	.0	.0
	1961	624.9	636.6	1.9	11.7
	1962	3074.6	3076.6	.1	2.0
	1963	3500.0	3500.0	.0	.0
	1964	2250.0	2250.0	.0	.0
	1965	3750.0	3750.0	.0	.0
	1966	1500.0	1500.0	.0	.0
	1967	10219.8	10463.1	2.4	243.3
	1968	1500.0	2000.0	33.3	500.0
	1969	6389.8	6648.2	4.0	258.4
	1970	3054.9	3081.7	.9	26.8
	1971	3750.0	3879.2	3.4	129.2
	1972	4448.6	4437.8	-.2	-10.8
	1973	6486.9	6486.9	.0	.0
	1974	4006.8	4263.5	6.4	256.7
	1975	4908.3	5547.4	13.0	639.1
	1976	2070.2	1872.2	-9.6	-198.0
	1977	454.3	439.2	-3.3	-15.1
	1978	3750.0	4498.8	20.0	748.8
	1979	6486.9	6486.9	.0	.0
	1980	3500.0	3500.0	.0	.0
	1981	750.0	1250.0	66.7	500.0
	1982	5991.5	6268.4	4.6	276.9
	1983	14274.9	14550.2	1.9	275.3
	1984	3927.3	3950.0	.6	22.7
	1985	2526.7	2841.8	12.5	315.1
	1986	3250.0	3500.0	7.7	250.0
	1987	600.3	613.8	2.2	13.5
	1988	1309.0	1244.6	-4.9	-64.4
	1989	3788.2	4351.2	14.9	563.0
	1990	1782.4	1766.6	-.9	-15.8
	1991	2869.5	2892.8	.8	23.3
	Mean	3770.4	3929.9	5.6	159.5
	Median	3500.0	3599.8	2.0	83.3
	Min	452.6	439.2	-10.0	-365.7
	Max	14274.9	14550.2	66.7	1199.5
X < 1500.0		9	8		
X < 1750.0		13	12		
X < 1765.0		14	12		
X < 2000.0		15	14		
X < 3000.0		26	25		
X >= 4500.0		18	18		
4500.0 > X >= 3000.0		26	27		
3000.0 > X >= 2000.0		11	11		
2000.0 > X >= 500.0		13	13		
500.0 > X		2	1		
X < 3450.0		32	30		
Mean of X >= 3450.0		5345.4	5449.1	1.9	103.7

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	3466.8	3573.3	3.1	106.5
1923	2967.0	3196.9	7.7	229.9
1924	464.9	554.4	19.3	89.5
1925	2658.0	3434.6	29.2	776.6
1926	2605.5	2703.5	3.8	98.0
1927	6489.1	6489.1	.0	.0
1928	1500.0	1980.4	32.0	480.4
1929	1471.0	1635.9	11.2	164.9
1930	2715.8	2730.3	.5	14.5
1931	2638.8	2446.5	-7.3	-192.3
1932	3151.3	3288.2	4.3	136.9
1933	2020.5	2029.5	.4	9.0
1934	1483.3	1511.3	1.9	28.0
1935	3007.9	3477.3	15.6	469.4
1936	4070.4	4190.1	2.9	119.7
1937	2510.8	2168.0	-13.7	-342.8
1938	3286.8	3562.9	8.4	276.1
1939	1752.0	1853.2	5.8	101.2
1940	5488.8	5951.7	8.4	462.9
1941	2250.0	2250.0	.0	.0
1942	3255.9	3546.6	8.9	290.7
1943	5991.6	6413.1	7.0	421.5
1944	1612.5	1776.2	10.2	163.7
1945	4325.2	4857.4	12.3	532.2
1946	4075.5	4345.6	6.6	270.1
1947	1533.8	1952.6	27.3	418.8
1948	2523.6	3152.6	24.9	629.0
1949	2720.3	2859.1	5.1	138.8
1950	3509.2	3888.8	10.8	379.6
1951	5229.3	5755.9	10.1	526.6
1952	4394.4	4683.4	6.6	289.0
1953	2336.1	3057.6	30.9	721.5
1954	2037.2	2072.9	1.8	35.7
1955	1500.0	1500.0	.0	.0
1956	2930.7	3219.7	9.9	289.0
1957	4669.6	4986.1	6.8	316.5
1958	2930.7	3201.8	9.3	271.1
1959	650.6	683.1	5.0	32.5
1960	1500.0	1629.4	8.6	129.4
1961	629.4	660.3	4.9	30.9
1962	4528.8	4840.2	6.9	311.4
1963	5777.1	5886.8	1.9	109.7
1964	2190.6	2287.8	4.4	97.2
1965	6489.1	6489.1	.0	.0
1966	663.1	1000.0	50.8	336.9
1967	4080.5	4367.9	7.0	287.4
1968	750.0	1500.0	100.0	750.0
1969	2717.6	3006.7	10.6	289.1
1970	1844.6	2115.2	14.7	270.6
1971	2251.5	3022.9	34.3	771.4
1972	1500.0	1500.0	.0	.0
1973	2771.6	3143.6	13.4	372.0
1974	3194.1	3479.9	8.9	285.8
1975	2681.8	2967.6	10.7	285.8
1976	1451.7	1404.6	-3.2	-47.1
1977	466.5	447.0	-4.2	-19.5
1978	5666.7	5603.2	-1.1	-63.5
1979	1500.0	2722.7	81.5	1222.7
1980	4077.3	4198.0	3.0	120.7
1981	627.8	657.1	4.7	29.3
1982	3127.4	3416.5	9.2	289.1
1983	6043.5	6332.5	4.8	289.0
1984	4650.9	4882.9	5.0	232.0
1985	1964.8	2142.9	9.1	178.1
1986	5161.3	5988.6	16.0	827.3
1987	1209.0	1244.8	3.0	35.8
1988	913.4	932.8	2.1	19.4
1989	3072.5	3341.4	8.8	268.9
1990	1207.8	1305.6	8.1	97.8
1991	2519.2	2256.4	-10.4	-262.8
Mean	2849.3	3082.2	10.6	232.9
Median	2669.9	3014.8	6.9	204.0
Min	464.9	447.0	-13.7	-342.8
Max	6489.1	6489.1	100.0	1222.7
X < 1500.0	13	10		
X < 1750.0	20	16		
X < 1765.0	21	16		
X < 2000.0	23	20		
X < 3000.0	43	34		
X >= 2500.0	41	41		
2500.0 > X >= 1500.0	16	19		
1500.0 > X >= 500.0	11	9		
500.0 > X >= .0	2	1		
.0 > X	0	0		
X < 3450.0	50	46		
Mean of X >= 3450.0	4909.3	4907.9	.0	-1.3

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2818.1	3217.5	14.2	399.4
	1923	4565.9	4155.8	-9.0	-410.1
	1924	460.0	547.9	19.1	87.9
	1925	1750.0	2554.0	45.9	804.0
	1926	750.0	750.0	.0	.0
	1927	3729.1	3834.7	2.8	105.6
	1928	4114.5	3798.8	-7.7	-315.7
	1929	536.5	559.3	4.2	22.8
	1930	1000.0	1000.0	.0	.0
	1931	536.9	558.1	3.9	21.2
	1932	1750.0	2000.0	14.3	250.0
	1933	541.8	750.0	38.4	208.2
	1934	540.2	561.3	3.9	21.1
	1935	4034.9	4161.9	3.1	127.0
	1936	2308.4	2661.2	15.3	352.8
	1937	2000.0	2723.7	36.2	723.7
	1938	3937.0	4232.5	7.5	295.5
	1939	621.7	646.1	3.9	24.4
	1940	3224.2	3339.3	3.6	115.1
	1941	3266.2	3878.9	18.8	612.7
	1942	4018.3	4312.2	7.3	293.9
	1943	3066.4	2979.5	-2.8	-86.9
	1944	1000.0	1000.0	.0	.0
	1945	2354.7	2481.0	5.4	126.3
	1946	2335.6	2134.1	-8.6	-201.5
	1947	750.0	1000.0	33.3	250.0
	1948	3003.6	2966.7	-1.2	-36.9
	1949	2925.8	2541.0	-13.2	-384.8
	1950	2781.3	2849.7	2.5	68.4
	1951	3204.5	3312.4	3.4	107.9
	1952	4441.1	4733.4	6.6	292.3
	1953	4012.1	4325.2	7.8	313.1
	1954	4039.2	3958.2	-2.0	-81.0
	1955	1963.3	2471.2	25.9	507.9
	1956	3987.4	4278.1	7.3	290.7
	1957	2582.4	2445.2	-5.3	-137.2
	1958	4099.6	4390.3	7.1	290.7
	1959	1617.8	2091.3	29.3	473.5
	1960	2261.8	3283.7	45.2	1021.9
	1961	626.2	750.0	19.8	123.8
	1962	2817.3	2825.9	.3	8.6
	1963	1843.5	1950.3	5.8	106.8
	1964	1000.0	1000.0	.0	.0
	1965	2598.3	2767.5	6.5	169.2
	1966	1784.0	2556.2	43.3	772.2
	1967	4062.2	4354.5	7.2	292.3
	1968	1819.4	2299.8	26.4	480.4
	1969	3886.5	4162.6	7.1	276.1
	1970	3798.6	3864.2	1.7	65.6
	1971	3808.5	4115.4	8.1	306.9
	1972	3485.7	4046.1	16.1	560.4
	1973	3783.1	3894.4	2.9	111.3
	1974	4068.7	4343.1	6.7	274.4
	1975	3868.6	4141.4	7.1	272.8
	1976	1060.5	1098.1	3.5	37.6
	1977	461.7	442.1	-4.2	-19.6
	1978	3250.0	3371.0	3.7	121.0
	1979	3055.9	3208.4	5.0	152.5
	1980	4150.9	4263.2	2.7	112.3
	1981	931.4	1250.6	34.3	319.2
	1982	4052.4	4344.7	7.2	292.3
	1983	4805.4	4870.9	1.4	65.5
	1984	3015.6	2798.1	-7.2	-217.5
	1985	2596.2	2665.5	2.7	69.3
	1986	3500.9	3359.8	-4.0	-141.1
	1987	1504.2	1444.6	-4.0	-59.6
	1988	532.9	558.9	4.9	26.0
	1989	3545.1	3936.8	11.0	391.7
	1990	1629.7	1796.0	10.2	166.3
	1991	553.6	576.4	4.1	22.8
	Mean	2554.7	2722.0	8.5	167.3
	Median	2799.3	2812.0	4.9	118.1
	Min	460.0	442.1	-13.2	-410.1
	Max	4805.4	4870.9	45.9	1021.9
X < 1500.0		17	18		
X < 1750.0		20	18		
X < 1765.0		22	18		
X < 2000.0		26	20		
X < 3000.0		38	39		
X >= 2500.0		39	43		
2500.0 > X >= 2000.0		5	7		
2000.0 > X >= 1000.0		13	9		
1000.0 > X >= 500.0		11	10		
500.0 > X		2	1		
X < 3450.0		46	46		
Mean of X >= 3450.0		3991.5	4183.2	4.8	191.7

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3446.4	3763.4	9.2	317.0
	1923	2000.0	2500.0	25.0	500.0
	1924	750.0	607.8	-19.0	-142.2
	1925	2500.0	2000.0	-20.0	-500.0
	1926	1250.0	1500.0	20.0	250.0
	1927	1894.7	2231.4	17.8	336.7
	1928	1500.0	1500.0	.0	.0
	1929	1000.0	1250.0	25.0	250.0
	1930	1500.0	1500.0	.0	.0
	1931	750.0	750.0	.0	.0
	1932	2500.0	3417.4	36.7	917.4
	1933	1250.0	1250.0	.0	.0
	1934	588.6	618.9	5.1	30.3
	1935	2505.5	3229.7	28.9	724.2
	1936	3763.2	3959.2	5.2	196.0
	1937	3399.1	3864.7	13.7	465.6
	1938	3805.8	4047.4	6.3	241.6
	1939	1250.0	1250.0	.0	.0
	1940	1633.4	1769.1	8.3	135.7
	1941	3755.3	3995.3	6.4	240.0
	1942	3789.0	4028.9	6.3	239.9
	1943	1750.0	1750.0	.0	.0
	1944	1500.0	1500.0	.0	.0
	1945	2342.3	2449.9	4.6	107.6
	1946	2755.8	2870.7	4.2	114.9
	1947	1500.0	1500.0	.0	.0
	1948	3187.6	3390.0	6.3	202.4
	1949	1562.3	1925.2	23.2	362.9
	1950	3082.7	3803.0	23.4	720.3
	1951	1976.3	2254.7	14.1	278.4
	1952	3990.6	4245.7	6.4	255.1
	1953	3757.0	3993.6	6.3	236.6
	1954	1500.0	1500.0	.0	.0
	1955	1500.0	1500.0	.0	.0
	1956	3723.4	3961.7	6.4	238.3
	1957	1763.2	1896.8	7.6	133.6
	1958	3822.6	4076.0	6.6	253.4
	1959	1250.0	1250.0	.0	.0
	1960	1500.0	1529.5	2.0	29.5
	1961	1250.0	1500.0	20.0	250.0
	1962	2179.8	2220.6	1.9	40.8
	1963	2250.0	2250.0	.0	.0
	1964	1500.0	1500.0	.0	.0
	1965	2000.0	2250.0	12.5	250.0
	1966	1250.0	1250.0	.0	.0
	1967	4069.6	4291.1	5.4	221.5
	1968	1250.0	1975.4	58.0	725.4
	1969	3787.3	4008.7	5.8	221.4
	1970	1500.0	1500.0	.0	.0
	1971	3605.8	3825.6	6.1	219.8
	1972	1500.0	1500.0	.0	.0
	1973	1500.0	1626.6	8.4	126.6
	1974	3891.5	4128.1	6.1	236.6
	1975	3668.0	3919.7	6.9	251.7
	1976	600.4	639.1	6.4	38.7
	1977	522.1	508.7	-2.6	-13.4
	1978	1750.0	2250.0	28.6	500.0
	1979	1935.6	2411.5	24.6	475.9
	1980	2000.0	2250.0	12.5	250.0
	1981	1500.0	1500.0	.0	.0
	1982	4207.4	4447.4	5.7	240.0
	1983	4826.7	4873.6	1.0	46.9
	1984	1750.0	1750.0	.0	.0
	1985	1250.0	1250.0	.0	.0
	1986	1750.0	1750.0	.0	.0
	1987	1000.0	1000.0	.0	.0
	1988	750.0	750.0	.0	.0
	1989	1250.0	1250.0	.0	.0
	1990	750.0	750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2133.4	2293.7	7.0	160.2
	Median	1750.0	1911.0	5.3	120.8
	Min	522.1	508.7	-20.0	-500.0
	Max	4826.7	4873.6	58.0	917.4
X < 1500.0		19	16		
X < 1750.0		33	30		
X < 1765.0		38	33		
X < 2000.0		41	37		
X < 3000.0		51	49		
X >= 2500.0		23	23		
2500.0 > X >= 1500.0		28	31		
1500.0 > X >= 500.0		19	16		
500.0 > X >= .0		0	0		
.0 > X		0	0		
X < 3450.0		55	52		
Mean of X >= 3450.0		3897.5	4068.5	4.4	171.0

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.2 Terrestrial

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2500.0	2500.0	.0	.0
1923	2500.0	2500.0	.0	.0
1924	2500.0	2500.0	.0	.0
1925	1000.0	750.0	-25.0	-250.0
1926	2500.0	2500.0	.0	.0
1927	1750.0	1750.0	.0	.0
1928	2500.0	2500.0	.0	.0
1929	1750.0	2000.0	14.3	250.0
1930	1500.0	1500.0	.0	.0
1931	1750.0	2000.0	14.3	250.0
1932	1250.0	1250.0	.0	.0
1933	2500.0	2500.0	.0	.0
1934	1750.0	1750.0	.0	.0
1935	634.5	750.0	18.2	115.5
1936	2500.0	2500.0	.0	.0
1937	2500.0	2500.0	.0	.0
1938	2500.0	2500.0	.0	.0
1939	2500.0	2500.0	.0	.0
1940	1500.0	1750.0	16.7	250.0
1941	2000.0	2250.0	12.5	250.0
1942	2500.0	2500.0	.0	.0
1943	2500.0	2500.0	.0	.0
1944	2250.0	2500.0	11.1	250.0
1945	2000.0	2250.0	12.5	250.0
1946	2000.0	2250.0	12.5	250.0
1947	1750.0	2250.0	28.6	500.0
1948	1750.0	1750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	2000.0	2500.0	25.0	500.0
1951	2500.0	2500.0	.0	.0
1952	2000.0	2000.0	.0	.0
1953	2500.0	2500.0	.0	.0
1954	2500.0	2500.0	.0	.0
1955	1750.0	2000.0	14.3	250.0
1956	1750.0	2000.0	14.3	250.0
1957	2500.0	2500.0	.0	.0
1958	2250.0	2500.0	11.1	250.0
1959	2500.0	2500.0	.0	.0
1960	1750.0	1750.0	.0	.0
1961	2000.0	2000.0	.0	.0
1962	1750.0	1750.0	.0	.0
1963	2376.5	2967.6	24.9	591.1
1964	2500.0	2500.0	.0	.0
1965	2000.0	2250.0	12.5	250.0
1966	2500.0	2500.0	.0	.0
1967	1750.0	1750.0	.0	.0
1968	2500.0	2500.0	.0	.0
1969	1750.0	1750.0	.0	.0
1970	2500.0	2500.0	.0	.0
1971	2000.0	2000.0	.0	.0
1972	2500.0	2500.0	.0	.0
1973	1750.0	1750.0	.0	.0
1974	1750.0	2000.0	14.3	250.0
1975	2500.0	2500.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	671.5	697.5	3.9	26.0
1978	593.4	578.7	-2.5	-14.7
1979	2500.0	2500.0	.0	.0
1980	1750.0	1750.0	.0	.0
1981	2500.0	2500.0	.0	.0
1982	1750.0	1750.0	.0	.0
1983	3173.4	3391.1	6.9	217.7
1984	2509.0	3135.5	25.0	626.5
1985	2250.0	2500.0	11.1	250.0
1986	1500.0	1750.0	16.7	250.0
1987	2250.0	2500.0	11.1	250.0
1988	1936.4	1911.8	-1.3	-24.6
1989	1000.0	1000.0	.0	.0
1990	1750.0	1750.0	.0	.0
1991	1000.0	1250.0	25.0	250.0
Mean	2041.4	2131.2	4.7	89.8
Median	2000.0	2375.0	.0	.0
Min	593.4	578.7	-25.0	-250.0
Max	3173.4	3391.1	28.6	626.5
X < 1300.0	7	7		
X < 1765.0	27	21		
X < 2000.0	28	22		
X < 2700.0	69	67		
X < 3000.0	69	68		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2500.0	2500.0	.0	.0
1923	2500.0	2500.0	.0	.0
1924	2500.0	2500.0	.0	.0
1925	1000.0	750.0	-25.0	-250.0
1926	2500.0	2500.0	.0	.0
1927	1750.0	1750.0	.0	.0
1928	2500.0	2500.0	.0	.0
1929	1750.0	2000.0	14.3	250.0
1930	1500.0	1500.0	.0	.0
1931	1750.0	2000.0	14.3	250.0
1932	1250.0	1250.0	.0	.0
1933	2500.0	2500.0	.0	.0
1934	1750.0	1750.0	.0	.0
1935	566.5	750.0	32.4	183.5
1936	2500.0	2500.0	.0	.0
1937	2500.0	2500.0	.0	.0
1938	2500.0	2500.0	.0	.0
1939	2500.0	2500.0	.0	.0
1940	1500.0	1750.0	16.7	250.0
1941	2000.0	2250.0	12.5	250.0
1942	2500.0	2500.0	.0	.0
1943	3396.1	3671.1	8.1	275.0
1944	2250.0	2500.0	11.1	250.0
1945	2000.0	2250.0	12.5	250.0
1946	2000.0	2250.0	12.5	250.0
1947	1750.0	2250.0	28.6	500.0
1948	1750.0	1750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	2000.0	2500.0	25.0	500.0
1951	16700.3	16973.8	1.6	273.5
1952	2000.0	2000.0	.0	.0
1953	2500.0	2500.0	.0	.0
1954	2500.0	2500.0	.0	.0
1955	1750.0	2000.0	14.3	250.0
1956	1750.0	2000.0	14.3	250.0
1957	2500.0	2500.0	.0	.0
1958	2250.0	2500.0	11.1	250.0
1959	2500.0	2500.0	.0	.0
1960	1750.0	1750.0	.0	.0
1961	2000.0	2000.0	.0	.0
1962	1750.0	1750.0	.0	.0
1963	3022.9	3090.2	2.2	67.3
1964	2787.4	3906.3	40.1	1118.9
1965	2000.0	2250.0	12.5	250.0
1966	2500.0	2500.0	.0	.0
1967	1750.0	1750.0	.0	.0
1968	2500.0	2500.0	.0	.0
1969	1750.0	1750.0	.0	.0
1970	2500.0	2500.0	.0	.0
1971	2000.0	2000.0	.0	.0
1972	2500.0	2500.0	.0	.0
1973	1750.0	1750.0	.0	.0
1974	3927.1	4379.3	11.5	452.2
1975	2500.0	2500.0	.0	.0
1976	2699.5	2966.1	9.9	266.6
1977	659.0	654.1	-.7	-4.9
1978	540.5	530.4	-1.9	-10.1
1979	2500.0	2500.0	.0	.0
1980	1750.0	1750.0	.0	.0
1981	2500.0	2500.0	.0	.0
1982	4296.5	4492.8	4.6	196.3
1983	6710.3	6827.8	1.8	117.5
1984	14353.5	14381.9	.2	28.4
1985	2250.0	2500.0	11.1	250.0
1986	1500.0	1750.0	16.7	250.0
1987	2250.0	2500.0	11.1	250.0
1988	1549.1	1529.5	-1.3	-19.6
1989	1000.0	1000.0	.0	.0
1990	1750.0	1750.0	.0	.0
1991	1000.0	1250.0	25.0	250.0
Mean	2553.0	2659.3	5.0	106.4
Median	2250.0	2500.0	.0	.0
Min	540.5	530.4	-25.0	-250.0
Max	16700.3	16973.8	40.1	1118.9

X < 1300.0	7	7
X < 1765.0	26	21
X < 2000.0	26	21
X < 2700.0	62	61
X < 3000.0	63	62

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	6042.1	6387.7	5.7	345.6
	1924	2500.0	2500.0	.0	.0
	1925	1000.0	750.0	-25.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	1750.0	2000.0	14.3	250.0
	1930	1500.0	1500.0	.0	.0
	1931	1750.0	2000.0	14.3	250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	699.2	750.0	7.3	50.8
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	5812.1	6173.5	6.2	361.4
	1939	2500.0	2500.0	.0	.0
	1940	1500.0	1750.0	16.7	250.0
	1941	2000.0	2250.0	12.5	250.0
	1942	4487.5	4873.7	8.6	386.2
	1943	4644.5	4746.8	2.2	102.3
	1944	2250.0	2500.0	11.1	250.0
	1945	2000.0	2250.0	12.5	250.0
	1946	7091.1	7573.1	6.8	482.0
	1947	1750.0	2250.0	28.6	500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2000.0	2500.0	25.0	500.0
	1951	16300.2	16375.0	.5	74.8
	1952	3209.6	3914.5	22.0	704.9
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	1750.0	2000.0	14.3	250.0
	1956	14751.3	14658.2	-.6	-93.1
	1957	2500.0	2500.0	.0	.0
	1958	2250.0	2500.0	11.1	250.0
	1959	2500.0	2500.0	.0	.0
	1960	1981.1	1851.9	-6.5	-129.2
	1961	2000.0	2000.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3414.7	3419.7	.1	5.0
	1964	2500.0	3125.0	25.0	625.0
	1965	20275.2	20396.8	.6	121.6
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	1750.0	1750.0	.0	.0
	1970	4871.0	5232.7	7.4	361.7
	1971	4363.3	4724.7	8.3	361.4
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	7406.0	7503.5	1.3	97.5
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	760.6	759.1	-.2	-1.5
	1978	617.5	609.4	-1.3	-8.1
	1979	2500.0	2500.0	.0	.0
	1980	1750.0	1750.0	.0	.0
	1981	2500.0	2500.0	.0	.0
	1982	14207.3	14237.8	.2	30.5
	1983	9016.1	9116.8	1.1	100.7
	1984	15132.5	15309.6	1.2	177.1
	1985	2250.0	2500.0	11.1	250.0
	1986	1500.0	1750.0	16.7	250.0
	1987	2250.0	2500.0	11.1	250.0
	1988	1250.0	1250.0	.0	.0
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1250.0	25.0	250.0
	Mean	3533.3	3646.3	4.2	113.0
	Median	2500.0	2500.0	.0	.0
	Min	617.5	609.4	-25.0	-250.0
	Max	20275.2	20396.8	28.6	704.9
X <	1300.0	8	8		
X <	1765.0	24	20		
X <	2000.0	25	21		
X <	2700.0	54	53		
X <	3000.0	54	53		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2000.0	2000.0	.0	.0
1923	4424.9	4532.1	2.4	107.2
1924	2000.0	2000.0	.0	.0
1925	1750.0	2000.0	14.3	250.0
1926	2000.0	2000.0	.0	.0
1927	2678.4	3093.6	15.5	415.2
1928	2000.0	2250.0	12.5	250.0
1929	1400.0	1600.0	14.3	200.0
1930	1750.0	1750.0	.0	.0
1931	1500.0	1600.0	6.7	100.0
1932	1750.0	1750.0	.0	.0
1933	2000.0	2000.0	.0	.0
1934	1750.0	1750.0	.0	.0
1935	2000.0	2000.0	.0	.0
1936	3964.3	4054.5	2.3	90.2
1937	2000.0	2000.0	.0	.0
1938	2744.8	2853.7	4.0	108.9
1939	2000.0	2250.0	12.5	250.0
1940	2003.5	1841.2	-8.1	-162.3
1941	4769.0	4929.4	3.4	160.4
1942	9209.6	9344.5	1.5	134.9
1943	10792.1	10892.8	.9	100.7
1944	1800.0	2000.0	11.1	200.0
1945	2250.0	2250.0	.0	.0
1946	5109.6	5221.7	2.2	112.1
1947	2000.0	2000.0	.0	.0
1948	1750.0	1750.0	.0	.0
1949	2000.0	2000.0	.0	.0
1950	1600.0	2000.0	25.0	400.0
1951	10028.2	10124.1	1.0	95.9
1952	8889.3	8989.9	1.1	100.6
1953	6217.4	6656.9	7.1	439.5
1954	2250.0	2250.0	.0	.0
1955	2000.0	2000.0	.0	.0
1956	16313.5	16308.4	.0	-5.1
1957	2250.0	2250.0	.0	.0
1958	2000.0	2000.0	.0	.0
1959	2000.0	2000.0	.0	.0
1960	1584.8	1481.5	-6.5	-103.3
1961	1600.0	1600.0	.0	.0
1962	1400.0	1400.0	.0	.0
1963	3842.5	3912.5	1.8	70.0
1964	2500.0	2500.0	.0	.0
1965	13180.5	13159.2	-.2	-21.3
1966	2250.0	2500.0	11.1	250.0
1967	6049.8	6558.9	8.4	509.1
1968	2500.0	2500.0	.0	.0
1969	14196.3	14608.2	2.9	411.9
1970	20839.7	20951.7	.5	112.0
1971	4699.6	4750.1	1.1	50.5
1972	2500.0	2500.0	.0	.0
1973	8263.8	8645.7	4.6	381.9
1974	11276.8	11358.0	.7	81.2
1975	2250.0	2250.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	608.5	607.3	-.2	-1.2
1978	2127.3	2543.0	19.5	415.7
1979	2000.0	2000.0	.0	.0
1980	15232.2	15666.8	2.9	434.6
1981	2000.0	2000.0	.0	.0
1982	8155.3	8199.0	.5	43.7
1983	7482.5	7583.2	1.3	100.7
1984	6513.4	6579.9	1.0	66.5
1985	2500.0	2500.0	.0	.0
1986	2352.6	2004.7	-14.8	-347.9
1987	1800.0	2000.0	11.1	200.0
1988	1000.0	1000.0	.0	.0
1989	2000.0	2000.0	.0	.0
1990	1750.0	1750.0	.0	.0
1991	800.0	1000.0	25.0	200.0
Mean	4181.4	4270.0	2.9	88.6
Median	2188.6	2250.0	.0	.0
Min	608.5	607.3	-14.8	-347.9
Max	20839.7	20951.7	25.0	509.1
X < 1300.0	3	3		
X < 1765.0	15	13		
X < 2000.0	17	14		
X < 2700.0	47	46		
X < 3000.0	48	47		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2483.4	3099.9	24.8	616.5
	1923	2962.8	3081.4	4.0	118.6
	1924	1600.0	1750.0	9.4	150.0
	1925	3876.6	4480.5	15.6	603.9
	1926	1750.0	1750.0	.0	.0
	1927	13368.2	13406.2	.3	38.0
	1928	2000.0	2000.0	.0	.0
	1929	1120.0	1280.0	14.3	160.0
	1930	2000.0	2000.0	.0	.0
	1931	1250.0	1280.0	2.4	30.0
	1932	2000.0	2226.2	11.3	226.2
	1933	1750.0	1750.0	.0	.0
	1934	1750.0	2000.0	14.3	250.0
	1935	2000.0	2000.0	.0	.0
	1936	13305.1	13404.0	.7	98.9
	1937	1750.0	1775.0	1.4	25.0
	1938	9671.7	9776.2	1.1	104.5
	1939	2000.0	2000.0	.0	.0
	1940	10480.0	10550.5	.7	70.5
	1941	7876.6	8009.7	1.7	133.1
	1942	9859.2	9990.5	1.3	131.3
	1943	6782.1	6895.4	1.7	113.3
	1944	1440.0	1600.0	11.1	160.0
	1945	6027.1	6183.0	2.6	155.9
	1946	2620.7	2712.4	3.5	91.7
	1947	2000.0	1750.0	-12.5	-250.0
	1948	1750.0	2000.0	14.3	250.0
	1949	1600.0	2000.0	25.0	400.0
	1950	3513.1	2988.6	-14.9	-524.5
	1951	8068.1	8174.2	1.3	106.1
	1952	9423.3	9534.8	1.2	111.5
	1953	2150.7	2276.6	5.9	125.9
	1954	2000.0	2000.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	6142.0	6192.1	.8	50.1
	1957	2000.0	2000.0	.0	.0
	1958	6827.5	7405.9	8.5	578.4
	1959	2000.0	2000.0	.0	.0
	1960	1267.9	1185.2	-6.5	-82.7
	1961	1280.0	1280.0	.0	.0
	1962	1120.0	1250.0	11.6	130.0
	1963	11949.6	11992.9	.4	43.3
	1964	2000.0	2000.0	.0	.0
	1965	5420.5	5472.4	1.0	51.9
	1966	2000.0	2000.0	.0	.0
	1967	4341.9	4421.2	1.8	79.3
	1968	4915.7	5567.3	13.3	651.6
	1969	9192.9	9270.4	.8	77.5
	1970	6244.3	6336.0	1.5	91.7
	1971	3308.2	3383.9	2.3	75.7
	1972	2000.0	2058.1	2.9	58.1
	1973	7086.0	7141.9	.8	55.9
	1974	4065.9	4267.3	5.0	201.4
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	501.2	500.0	-.2	-1.2
	1978	4617.2	4786.6	3.7	169.4
	1979	1750.0	2000.0	14.3	250.0
	1980	13584.5	13998.1	3.0	413.6
	1981	1600.0	2000.0	25.0	400.0
	1982	15316.1	15382.5	.4	66.4
	1983	12264.9	12358.3	.8	93.4
	1984	5572.2	5663.8	1.6	91.6
	1985	2000.0	2000.0	.0	.0
	1986	33122.7	33131.4	.0	8.7
	1987	1440.0	1600.0	11.1	160.0
	1988	1750.0	1750.0	.0	.0
	1989	1750.0	1750.0	.0	.0
	1990	1400.0	1750.0	25.0	350.0
	1991	640.0	800.0	25.0	160.0
	Mean	4695.7	4806.0	4.2	110.3
	Median	2000.0	2029.1	1.3	78.4
	Min	501.2	500.0	-14.9	-524.5
	Max	33122.7	33131.4	25.0	651.6
X <	1300.0	7	7		
X <	1765.0	21	16		
X <	2000.0	21	17		
X <	2700.0	40	38		
X <	3000.0	41	40		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	2750.0	2750.0	.0	.0
1924	1280.0	1400.0	9.4	120.0
1925	3177.3	3584.4	12.8	407.1
1926	2000.0	2000.0	.0	.0
1927	4399.1	4566.3	3.8	167.2
1928	9750.6	10604.9	8.8	854.3
1929	1500.0	1500.0	.0	.0
1930	2000.0	2000.0	.0	.0
1931	1000.0	1024.0	2.4	24.0
1932	2750.0	2750.0	.0	.0
1933	1750.0	1750.0	.0	.0
1934	1400.0	1600.0	14.3	200.0
1935	3250.0	3250.0	.0	.0
1936	4082.9	4180.4	2.4	97.5
1937	3827.6	4382.8	14.5	555.2
1938	10681.7	10797.0	1.1	115.3
1939	1600.0	1600.0	.0	.0
1940	10642.6	10905.9	2.5	263.3
1941	4686.5	4803.5	2.5	117.0
1942	4500.0	4500.0	.0	.0
1943	12327.9	12425.3	.8	97.4
1944	2000.0	2000.0	.0	.0
1945	2750.0	2750.0	.0	.0
1946	2750.0	2758.2	.3	8.2
1947	2000.0	2000.0	.0	.0
1948	2750.0	2750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	3000.0	3250.0	8.3	250.0
1951	3652.6	3767.9	3.2	115.3
1952	6023.4	6137.0	1.9	113.6
1953	3000.0	3000.0	.0	.0
1954	3673.5	4285.6	16.7	612.1
1955	2000.0	2000.0	.0	.0
1956	3500.0	3500.0	.0	.0
1957	3300.5	3983.7	20.7	683.2
1958	6537.5	6649.6	1.7	112.1
1959	1750.0	1750.0	.0	.0
1960	2250.0	2250.0	.0	.0
1961	1024.0	1024.0	.0	.0
1962	2500.0	2500.0	.0	.0
1963	3500.0	3500.0	.0	.0
1964	2000.0	2000.0	.0	.0
1965	3000.0	3000.0	.0	.0
1966	1750.0	2000.0	14.3	250.0
1967	5749.1	5944.0	3.4	194.9
1968	3932.5	2104.2	-46.5	-1828.3
1969	4500.0	4500.0	.0	.0
1970	2268.6	2500.0	10.2	231.4
1971	3941.8	4053.9	2.8	112.1
1972	3542.9	4139.9	16.9	597.0
1973	3229.7	3341.7	3.5	112.0
1974	9531.6	9642.0	1.2	110.4
1975	3579.8	4235.5	18.3	655.7
1976	1600.0	1600.0	.0	.0
1977	411.4	408.2	-.8	-3.2
1978	5556.6	5836.5	5.0	279.9
1979	2500.0	2750.0	10.0	250.0
1980	3230.7	3426.7	6.1	196.0
1981	1500.0	1600.0	6.7	100.0
1982	7506.0	7619.7	1.5	113.7
1983	16107.4	16186.9	.5	79.5
1984	2515.2	2750.0	9.3	234.8
1985	2000.0	2000.0	.0	.0
1986	11023.8	11181.2	1.4	157.4
1987	1152.0	1280.0	11.1	128.0
1988	1400.0	1400.0	.0	.0
1989	5586.0	6252.4	11.9	666.4
1990	1500.0	1500.0	.0	.0
1991	1750.0	1750.0	.0	.0
Mean	3809.8	3917.6	3.1	107.9
Median	3000.0	2879.1	.6	51.8
Min	411.4	408.2	-46.5	-1828.3
Max	16107.4	16186.9	20.7	854.3

X < 1300.0	5	4
X < 1765.0	16	15
X < 2000.0	16	15
X < 2700.0	29	28
X < 3000.0	34	35

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	3407.5	3631.4	6.6	223.9
	1924	398.9	452.6	13.5	53.7
	1925	3444.5	3729.8	8.3	285.3
	1926	2000.0	2000.0	.0	.0
	1927	7814.6	7974.1	2.0	159.5
	1928	4645.9	4887.4	5.2	241.5
	1929	750.0	1250.0	66.7	500.0
	1930	2000.0	2000.0	.0	.0
	1931	500.0	500.0	.0	.0
	1932	2750.0	2750.0	.0	.0
	1933	1750.0	2000.0	14.3	250.0
	1934	2734.7	3141.3	14.9	406.6
	1935	4941.6	5202.5	5.3	260.9
	1936	5686.4	5794.4	1.9	108.0
	1937	4227.5	4380.4	3.6	152.9
	1938	7772.3	7926.7	2.0	154.4
	1939	750.0	1000.0	33.3	250.0
	1940	6073.4	6046.7	-.4	-26.7
	1941	3626.3	3782.3	4.3	156.0
	1942	4500.0	4500.0	.0	.0
	1943	5048.4	5236.3	3.7	187.9
	1944	2000.0	2000.0	.0	.0
	1945	2750.0	2750.0	.0	.0
	1946	3665.6	3932.3	7.3	266.7
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	4977.3	4993.0	.3	15.7
	1951	2905.5	3059.9	5.3	154.4
	1952	8844.3	8993.6	1.7	149.3
	1953	3250.0	3500.0	7.7	250.0
	1954	4407.4	4494.9	2.0	87.5
	1955	2000.0	2000.0	.0	.0
	1956	4000.0	4000.0	.0	.0
	1957	2750.0	2750.0	.0	.0
	1958	10224.2	10390.3	1.6	166.1
	1959	1750.0	1750.0	.0	.0
	1960	2250.0	2250.0	.0	.0
	1961	554.2	549.2	-.9	-5.0
	1962	2774.8	3410.4	22.9	635.6
	1963	4332.6	4637.4	7.0	304.8
	1964	2000.0	2000.0	.0	.0
	1965	3401.5	3691.4	8.5	289.9
	1966	1750.0	2000.0	14.3	250.0
	1967	4500.0	4500.0	.0	.0
	1968	2000.0	2000.0	.0	.0
	1969	5574.4	5844.3	4.8	269.9
	1970	2250.0	2250.0	.0	.0
	1971	3250.0	3250.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	2750.0	2750.0	.0	.0
	1974	6102.7	6203.4	1.7	100.7
	1975	4000.0	4000.0	.0	.0
	1976	500.0	500.0	.0	.0
	1977	403.9	397.2	-1.7	-6.7
	1978	4031.7	4123.1	2.3	91.4
	1979	2500.0	2750.0	10.0	250.0
	1980	2750.0	2750.0	.0	.0
	1981	1000.0	1500.0	50.0	500.0
	1982	14180.6	14346.7	1.2	166.1
	1983	6471.4	6657.6	2.9	186.2
	1984	2750.0	2750.0	.0	.0
	1985	2000.0	2000.0	.0	.0
	1986	2750.0	2750.0	.0	.0
	1987	544.7	539.8	-.9	-4.9
	1988	432.0	425.4	-1.5	-6.6
	1989	4083.4	4503.2	10.3	419.8
	1990	2059.9	2253.6	9.4	193.7
	1991	1750.0	1750.0	.0	.0
	Mean	3404.2	3519.8	5.0	115.5
	Median	2750.0	2750.0	.2	7.8
	Min	398.9	397.2	-1.7	-26.7
	Max	14180.6	14346.7	66.7	635.6
X <	1300.0	10	9		
X <	1765.0	14	12		
X <	2000.0	14	12		
X <	2700.0	28	27		
X <	3000.0	39	36		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8375.6	8885.9	6.1	510.3
	1923	4692.3	4868.1	3.7	175.8
	1924	429.1	495.8	15.5	66.7
	1925	4095.4	4590.1	12.1	494.7
	1926	2500.0	2500.0	.0	.0
	1927	4525.2	4746.1	4.9	220.9
	1928	3000.0	3000.0	.0	.0
	1929	1750.0	1750.0	.0	.0
	1930	2500.0	2750.0	10.0	250.0
	1931	750.0	500.0	-33.3	-250.0
	1932	3750.0	4000.0	6.7	250.0
	1933	2500.0	2500.0	.0	.0
	1934	500.0	500.0	.0	.0
	1935	4635.7	4690.5	1.2	54.8
	1936	4250.0	4250.0	.0	.0
	1937	4332.9	4509.2	4.1	176.3
	1938	9682.4	9900.0	2.2	217.6
	1939	1750.0	1750.0	.0	.0
	1940	3500.0	3750.0	7.1	250.0
	1941	5201.8	5403.2	3.9	201.4
	1942	5697.5	6113.7	7.3	416.2
	1943	3750.0	3750.0	.0	.0
	1944	2500.0	2500.0	.0	.0
	1945	3750.0	3750.0	.0	.0
	1946	3750.0	3750.0	.0	.0
	1947	2500.0	2500.0	.0	.0
	1948	3750.0	3750.0	.0	.0
	1949	2750.0	3000.0	9.1	250.0
	1950	4000.0	4000.0	.0	.0
	1951	3500.0	3536.1	1.0	36.1
	1952	11032.2	11230.4	1.8	198.2
	1953	4250.0	4250.0	.0	.0
	1954	3000.0	3000.0	.0	.0
	1955	2500.0	2500.0	.0	.0
	1956	4500.0	4500.0	.0	.0
	1957	3500.0	3750.0	7.1	250.0
	1958	9963.7	10174.9	2.1	211.2
	1959	2250.0	2500.0	11.1	250.0
	1960	2750.0	2750.0	.0	.0
	1961	1500.0	1500.0	.0	.0
	1962	3250.0	3250.0	.0	.0
	1963	6958.3	7205.1	3.5	246.8
	1964	2500.0	2500.0	.0	.0
	1965	4000.0	4000.0	.0	.0
	1966	2500.0	2500.0	.0	.0
	1967	7698.1	8025.7	4.3	327.6
	1968	2500.0	2500.0	.0	.0
	1969	9028.6	9208.8	2.0	180.2
	1970	2750.0	2750.0	.0	.0
	1971	4250.0	4250.0	.0	.0
	1972	2750.0	2750.0	.0	.0
	1973	3921.9	4264.0	8.7	342.1
	1974	4733.4	4994.9	5.5	261.5
	1975	4500.0	4500.0	.0	.0
	1976	507.3	530.0	4.5	22.7
	1977	406.4	395.0	-2.8	-11.4
	1978	4000.0	4411.1	10.3	411.1
	1979	3500.0	3698.1	5.7	198.1
	1980	4000.0	4000.0	.0	.0
	1981	1750.0	2000.0	14.3	250.0
	1982	9145.7	9325.9	2.0	180.2
	1983	10357.3	10505.0	1.4	147.7
	1984	3500.0	3500.0	.0	.0
	1985	2500.0	2500.0	.0	.0
	1986	3750.0	3750.0	.0	.0
	1987	750.0	584.3	-22.1	-165.7
	1988	500.0	500.0	.0	.0
	1989	3033.4	3098.0	2.1	64.6
	1990	1500.0	1500.0	.0	.0
	1991	2500.0	2250.0	-10.0	-250.0
	Mean	3813.6	3905.6	1.6	91.9
	Median	3500.0	3724.1	.0	.0
	Min	406.4	395.0	-33.3	-250.0
	Max	11032.2	11230.4	15.5	510.3
X <	1300.0	7	7		
X <	1765.0	12	11		
X <	2000.0	12	11		
X <	2700.0	24	23		
X <	3000.0	28	27		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8698.9	8997.6	3.4	298.7
	1923	4136.6	3770.9	-8.8	-365.7
	1924	452.6	533.3	17.8	80.7
	1925	5532.4	5926.3	7.1	393.9
	1926	2224.7	2411.3	8.4	186.6
	1927	5119.3	5349.1	4.5	229.8
	1928	4126.6	4196.2	1.7	69.6
	1929	2151.7	2165.6	.6	13.9
	1930	2000.0	2250.0	12.5	250.0
	1931	806.8	782.5	-3.0	-24.3
	1932	4897.3	4983.1	1.8	85.8
	1933	2246.8	2258.2	.5	11.4
	1934	1682.7	1514.6	-10.0	-168.1
	1935	3750.0	4164.6	11.1	414.6
	1936	3969.3	4410.3	11.1	441.0
	1937	3500.0	3500.0	.0	.0
	1938	8351.0	8596.0	2.9	245.0
	1939	620.5	750.0	20.9	129.5
	1940	3250.0	3250.0	.0	.0
	1941	3500.0	3750.0	7.1	250.0
	1942	7093.9	7421.2	4.6	327.3
	1943	3500.0	3500.0	.0	.0
	1944	1750.0	2000.0	14.3	250.0
	1945	4770.9	4880.2	2.3	109.3
	1946	5378.8	5466.7	1.6	87.9
	1947	1500.0	1500.0	.0	.0
	1948	3250.0	3250.0	.0	.0
	1949	2500.0	3699.5	48.0	1199.5
	1950	3750.0	3825.1	2.0	75.1
	1951	3250.0	3250.0	.0	.0
	1952	10238.3	10496.7	2.5	258.4
	1953	3750.0	3750.0	.0	.0
	1954	3595.8	3752.0	4.3	156.2
	1955	2000.0	2000.0	.0	.0
	1956	4552.8	5284.3	16.1	731.5
	1957	4235.9	4423.7	4.4	187.8
	1958	7498.9	7738.9	3.2	240.0
	1959	1250.0	1500.0	20.0	250.0
	1960	2250.0	2250.0	.0	.0
	1961	624.9	636.6	1.9	11.7
	1962	3074.6	3076.6	.1	2.0
	1963	3500.0	3500.0	.0	.0
	1964	2250.0	2250.0	.0	.0
	1965	3750.0	3750.0	.0	.0
	1966	1500.0	1500.0	.0	.0
	1967	10219.8	10463.1	2.4	243.3
	1968	1500.0	2000.0	33.3	500.0
	1969	6389.8	6648.2	4.0	258.4
	1970	3054.9	3081.7	.9	26.8
	1971	3750.0	3879.2	3.4	129.2
	1972	4448.6	4437.8	-.2	-10.8
	1973	6486.9	6486.9	.0	.0
	1974	4006.8	4263.5	6.4	256.7
	1975	4908.3	5547.4	13.0	639.1
	1976	2070.2	1872.2	-9.6	-198.0
	1977	454.3	439.2	-3.3	-15.1
	1978	3750.0	4498.8	20.0	748.8
	1979	6486.9	6486.9	.0	.0
	1980	3500.0	3500.0	.0	.0
	1981	750.0	1250.0	66.7	500.0
	1982	5991.5	6268.4	4.6	276.9
	1983	14274.9	14550.2	1.9	275.3
	1984	3927.3	3950.0	.6	22.7
	1985	2526.7	2841.8	12.5	315.1
	1986	3250.0	3500.0	7.7	250.0
	1987	600.3	613.8	2.2	13.5
	1988	1309.0	1244.6	-4.9	-64.4
	1989	3788.2	4351.2	14.9	563.0
	1990	1782.4	1766.6	-.9	-15.8
	1991	2869.5	2892.8	.8	23.3
	Mean	3770.4	3929.9	5.6	159.5
	Median	3500.0	3599.8	2.0	83.3
	Min	452.6	439.2	-10.0	-365.7
	Max	14274.9	14550.2	66.7	1199.5
X <	1300.0	8	8		
X <	1765.0	14	12		
X <	2000.0	15	14		
X <	2700.0	25	23		
X <	3000.0	26	25		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3466.8	3573.3	3.1	106.5
	1923	2967.0	3196.9	7.7	229.9
	1924	464.9	554.4	19.3	89.5
	1925	2658.0	3434.6	29.2	776.6
	1926	2605.5	2703.5	3.8	98.0
	1927	6489.1	6489.1	.0	.0
	1928	1500.0	1980.4	32.0	480.4
	1929	1471.0	1635.9	11.2	164.9
	1930	2715.8	2730.3	.5	14.5
	1931	2638.8	2446.5	-7.3	-192.3
	1932	3151.3	3288.2	4.3	136.9
	1933	2020.5	2029.5	.4	9.0
	1934	1483.3	1511.3	1.9	28.0
	1935	3007.9	3477.3	15.6	469.4
	1936	4070.4	4190.1	2.9	119.7
	1937	2510.8	2168.0	-13.7	-342.8
	1938	3286.8	3562.9	8.4	276.1
	1939	1752.0	1853.2	5.8	101.2
	1940	5488.8	5951.7	8.4	462.9
	1941	2250.0	2250.0	.0	.0
	1942	3255.9	3546.6	8.9	290.7
	1943	5991.6	6413.1	7.0	421.5
	1944	1612.5	1776.2	10.2	163.7
	1945	4325.2	4857.4	12.3	532.2
	1946	4075.5	4345.6	6.6	270.1
	1947	1533.8	1952.6	27.3	418.8
	1948	2523.6	3152.6	24.9	629.0
	1949	2720.3	2859.1	5.1	138.8
	1950	3509.2	3888.8	10.8	379.6
	1951	5229.3	5755.9	10.1	526.6
	1952	4394.4	4683.4	6.6	289.0
	1953	2336.1	3057.6	30.9	721.5
	1954	2037.2	2072.9	1.8	35.7
	1955	1500.0	1500.0	.0	.0
	1956	2930.7	3219.7	9.9	289.0
	1957	4669.6	4986.1	6.8	316.5
	1958	2930.7	3201.8	9.3	271.1
	1959	650.6	683.1	5.0	32.5
	1960	1500.0	1629.4	8.6	129.4
	1961	629.4	660.3	4.9	30.9
	1962	4528.8	4840.2	6.9	311.4
	1963	5777.1	5886.8	1.9	109.7
	1964	2190.6	2287.8	4.4	97.2
	1965	6489.1	6489.1	.0	.0
	1966	663.1	1000.0	50.8	336.9
	1967	4080.5	4367.9	7.0	287.4
	1968	750.0	1500.0	100.0	750.0
	1969	2717.6	3006.7	10.6	289.1
	1970	1844.6	2115.2	14.7	270.6
	1971	2251.5	3022.9	34.3	771.4
	1972	1500.0	1500.0	.0	.0
	1973	2771.6	3143.6	13.4	372.0
	1974	3194.1	3479.9	8.9	285.8
	1975	2681.8	2967.6	10.7	285.8
	1976	1451.7	1404.6	-3.2	-47.1
	1977	466.5	447.0	-4.2	-19.5
	1978	5666.7	5603.2	-1.1	-63.5
	1979	1500.0	2722.7	81.5	1222.7
	1980	4077.3	4198.0	3.0	120.7
	1981	627.8	657.1	4.7	29.3
	1982	3127.4	3416.5	9.2	289.1
	1983	6043.5	6332.5	4.8	289.0
	1984	4650.9	4882.9	5.0	232.0
	1985	1964.8	2142.9	9.1	178.1
	1986	5161.3	5988.6	16.0	827.3
	1987	1209.0	1244.8	3.0	35.8
	1988	913.4	932.8	2.1	19.4
	1989	3072.5	3341.4	8.8	268.9
	1990	1207.8	1305.6	8.1	97.8
	1991	2519.2	2256.4	-10.4	-262.8
	Mean	2849.3	3082.2	10.6	232.9
	Median	2669.9	3014.8	6.9	204.0
	Min	464.9	447.0	-13.7	-342.8
	Max	6489.1	6489.1	100.0	1222.7
X <	1300.0	10	8		
X <	1765.0	21	16		
X <	2000.0	23	20		
X <	2700.0	36	29		
X <	3000.0	43	34		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2818.1	3217.5	14.2	399.4
	1923	4565.9	4155.8	-9.0	-410.1
	1924	460.0	547.9	19.1	87.9
	1925	1750.0	2554.0	45.9	804.0
	1926	750.0	750.0	.0	.0
	1927	3729.1	3834.7	2.8	105.6
	1928	4114.5	3798.8	-7.7	-315.7
	1929	536.5	559.3	4.2	22.8
	1930	1000.0	1000.0	.0	.0
	1931	536.9	558.1	3.9	21.2
	1932	1750.0	2000.0	14.3	250.0
	1933	541.8	750.0	38.4	208.2
	1934	540.2	561.3	3.9	21.1
	1935	4034.9	4161.9	3.1	127.0
	1936	2308.4	2661.2	15.3	352.8
	1937	2000.0	2723.7	36.2	723.7
	1938	3937.0	4232.5	7.5	295.5
	1939	621.7	646.1	3.9	24.4
	1940	3224.2	3339.3	3.6	115.1
	1941	3266.2	3878.9	18.8	612.7
	1942	4018.3	4312.2	7.3	293.9
	1943	3066.4	2979.5	-2.8	-86.9
	1944	1000.0	1000.0	.0	.0
	1945	2354.7	2481.0	5.4	126.3
	1946	2335.6	2134.1	-8.6	-201.5
	1947	750.0	1000.0	33.3	250.0
	1948	3003.6	2966.7	-1.2	-36.9
	1949	2925.8	2541.0	-13.2	-384.8
	1950	2781.3	2849.7	2.5	68.4
	1951	3204.5	3312.4	3.4	107.9
	1952	4441.1	4733.4	6.6	292.3
	1953	4012.1	4325.2	7.8	313.1
	1954	4039.2	3958.2	-2.0	-81.0
	1955	1963.3	2471.2	25.9	507.9
	1956	3987.4	4278.1	7.3	290.7
	1957	2582.4	2445.2	-5.3	-137.2
	1958	4099.6	4390.3	7.1	290.7
	1959	1617.8	2091.3	29.3	473.5
	1960	2261.8	3283.7	45.2	1021.9
	1961	626.2	750.0	19.8	123.8
	1962	2817.3	2825.9	.3	8.6
	1963	1843.5	1950.3	5.8	106.8
	1964	1000.0	1000.0	.0	.0
	1965	2598.3	2767.5	6.5	169.2
	1966	1784.0	2556.2	43.3	772.2
	1967	4062.2	4354.5	7.2	292.3
	1968	1819.4	2299.8	26.4	480.4
	1969	3886.5	4162.6	7.1	276.1
	1970	3798.6	3864.2	1.7	65.6
	1971	3808.5	4115.4	8.1	306.9
	1972	3485.7	4046.1	16.1	560.4
	1973	3783.1	3894.4	2.9	111.3
	1974	4068.7	4343.1	6.7	274.4
	1975	3868.6	4141.4	7.1	272.8
	1976	1060.5	1098.1	3.5	37.6
	1977	461.7	442.1	-4.2	-19.6
	1978	3250.0	3371.0	3.7	121.0
	1979	3055.9	3208.4	5.0	152.5
	1980	4150.9	4263.2	2.7	112.3
	1981	931.4	1250.6	34.3	319.2
	1982	4052.4	4344.7	7.2	292.3
	1983	4805.4	4870.9	1.4	65.5
	1984	3015.6	2798.1	-7.2	-217.5
	1985	2596.2	2665.5	2.7	69.3
	1986	3500.9	3359.8	-4.0	-141.1
	1987	1504.2	1444.6	-4.0	-59.6
	1988	532.9	558.9	4.9	26.0
	1989	3545.1	3936.8	11.0	391.7
	1990	1629.7	1796.0	10.2	166.3
	1991	553.6	576.4	4.1	22.8
	Mean	2554.7	2722.0	8.5	167.3
	Median	2799.3	2812.0	4.9	118.1
	Min	460.0	442.1	-13.2	-410.1
	Max	4805.4	4870.9	45.9	1021.9
X <	1300.0	17	17		
X <	1765.0	22	18		
X <	2000.0	26	20		
X <	2700.0	34	32		
X <	3000.0	38	39		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3446.4	3763.4	9.2	317.0
	1923	2000.0	2500.0	25.0	500.0
	1924	750.0	607.8	-19.0	-142.2
	1925	2500.0	2000.0	-20.0	-500.0
	1926	1250.0	1500.0	20.0	250.0
	1927	1894.7	2231.4	17.8	336.7
	1928	1500.0	1500.0	.0	.0
	1929	1000.0	1250.0	25.0	250.0
	1930	1500.0	1500.0	.0	.0
	1931	750.0	750.0	.0	.0
	1932	2500.0	3417.4	36.7	917.4
	1933	1250.0	1250.0	.0	.0
	1934	588.6	618.9	5.1	30.3
	1935	2505.5	3229.7	28.9	724.2
	1936	3763.2	3959.2	5.2	196.0
	1937	3399.1	3864.7	13.7	465.6
	1938	3805.8	4047.4	6.3	241.6
	1939	1250.0	1250.0	.0	.0
	1940	1633.4	1769.1	8.3	135.7
	1941	3755.3	3995.3	6.4	240.0
	1942	3789.0	4028.9	6.3	239.9
	1943	1750.0	1750.0	.0	.0
	1944	1500.0	1500.0	.0	.0
	1945	2342.3	2449.9	4.6	107.6
	1946	2755.8	2870.7	4.2	114.9
	1947	1500.0	1500.0	.0	.0
	1948	3187.6	3390.0	6.3	202.4
	1949	1562.3	1925.2	23.2	362.9
	1950	3082.7	3803.0	23.4	720.3
	1951	1976.3	2254.7	14.1	278.4
	1952	3990.6	4245.7	6.4	255.1
	1953	3757.0	3993.6	6.3	236.6
	1954	1500.0	1500.0	.0	.0
	1955	1500.0	1500.0	.0	.0
	1956	3723.4	3961.7	6.4	238.3
	1957	1763.2	1896.8	7.6	133.6
	1958	3822.6	4076.0	6.6	253.4
	1959	1250.0	1250.0	.0	.0
	1960	1500.0	1529.5	2.0	29.5
	1961	1250.0	1500.0	20.0	250.0
	1962	2179.8	2220.6	1.9	40.8
	1963	2250.0	2250.0	.0	.0
	1964	1500.0	1500.0	.0	.0
	1965	2000.0	2250.0	12.5	250.0
	1966	1250.0	1250.0	.0	.0
	1967	4069.6	4291.1	5.4	221.5
	1968	1250.0	1975.4	58.0	725.4
	1969	3787.3	4008.7	5.8	221.4
	1970	1500.0	1500.0	.0	.0
	1971	3605.8	3825.6	6.1	219.8
	1972	1500.0	1500.0	.0	.0
	1973	1500.0	1626.6	8.4	126.6
	1974	3891.5	4128.1	6.1	236.6
	1975	3668.0	3919.7	6.9	251.7
	1976	600.4	639.1	6.4	38.7
	1977	522.1	508.7	-2.6	-13.4
	1978	1750.0	2250.0	28.6	500.0
	1979	1935.6	2411.5	24.6	475.9
	1980	2000.0	2250.0	12.5	250.0
	1981	1500.0	1500.0	.0	.0
	1982	4207.4	4447.4	5.7	240.0
	1983	4826.7	4873.6	1.0	46.9
	1984	1750.0	1750.0	.0	.0
	1985	1250.0	1250.0	.0	.0
	1986	1750.0	1750.0	.0	.0
	1987	1000.0	1000.0	.0	.0
	1988	750.0	750.0	.0	.0
	1989	1250.0	1250.0	.0	.0
	1990	750.0	750.0	.0	.0
	1991	1000.0	1000.0	.0	.0
	Mean	2133.4	2293.7	7.0	160.2
	Median	1750.0	1911.0	5.3	120.8
	Min	522.1	508.7	-20.0	-500.0
	Max	4826.7	4873.6	58.0	917.4
X <	1300.0	19	16		
X <	1765.0	38	33		
X <	2000.0	41	37		
X <	2700.0	50	48		
X <	3000.0	51	49		

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.3 Terrestrial

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1000.0	750.0	-25.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	1750.0	2000.0	14.3	250.0
	1930	1500.0	1500.0	.0	.0
	1931	1750.0	2000.0	14.3	250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	634.5	750.0	18.2	115.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1500.0	1750.0	16.7	250.0
	1941	2000.0	2250.0	12.5	250.0
	1942	2500.0	2500.0	.0	.0
	1943	2500.0	2500.0	.0	.0
	1944	2250.0	2500.0	11.1	250.0
	1945	2000.0	2250.0	12.5	250.0
	1946	2000.0	2250.0	12.5	250.0
	1947	1750.0	2250.0	28.6	500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2000.0	2500.0	25.0	500.0
	1951	2500.0	2500.0	.0	.0
	1952	2000.0	2000.0	.0	.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	1750.0	2000.0	14.3	250.0
	1956	1750.0	2000.0	14.3	250.0
	1957	2500.0	2500.0	.0	.0
	1958	2250.0	2500.0	11.1	250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	2000.0	2000.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	2376.5	2967.6	24.9	591.1
	1964	2500.0	2500.0	.0	.0
	1965	2000.0	2250.0	12.5	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	1750.0	1750.0	.0	.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	1750.0	2000.0	14.3	250.0
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	671.5	697.5	3.9	26.0
	1978	593.4	578.7	-2.5	-14.7
	1979	2500.0	2500.0	.0	.0
	1980	1750.0	1750.0	.0	.0
	1981	2500.0	2500.0	.0	.0
	1982	1750.0	1750.0	.0	.0
	1983	3173.4	3391.1	6.9	217.7
	1984	2509.0	3135.5	25.0	626.5
	1985	2250.0	2500.0	11.1	250.0
	1986	1500.0	1750.0	16.7	250.0
	1987	2250.0	2500.0	11.1	250.0
	1988	1936.4	1911.8	-1.3	-24.6
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1250.0	25.0	250.0
	Mean	2041.4	2131.2	4.7	89.8
	Median	2000.0	2375.0	.0	.0
	Min	593.4	578.7	-25.0	-250.0
	Max	3173.4	3391.1	28.6	626.5
X <	4000.0	70	70		
X <	4500.0	70	70		
X <	5000.0	70	70		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1000.0	750.0	-25.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	1750.0	2000.0	14.3	250.0
	1930	1500.0	1500.0	.0	.0
	1931	1750.0	2000.0	14.3	250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	566.5	750.0	32.4	183.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1500.0	1750.0	16.7	250.0
	1941	2000.0	2250.0	12.5	250.0
	1942	2500.0	2500.0	.0	.0
	1943	3396.1	3671.1	8.1	275.0
	1944	2250.0	2500.0	11.1	250.0
	1945	2000.0	2250.0	12.5	250.0
	1946	2000.0	2250.0	12.5	250.0
	1947	1750.0	2250.0	28.6	500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2000.0	2500.0	25.0	500.0
	1951	16700.3	16973.8	1.6	273.5
	1952	2000.0	2000.0	.0	.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	1750.0	2000.0	14.3	250.0
	1956	1750.0	2000.0	14.3	250.0
	1957	2500.0	2500.0	.0	.0
	1958	2250.0	2500.0	11.1	250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	2000.0	2000.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3022.9	3090.2	2.2	67.3
	1964	2787.4	3906.3	40.1	1118.9
	1965	2000.0	2250.0	12.5	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	1750.0	1750.0	.0	.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	3927.1	4379.3	11.5	452.2
	1975	2500.0	2500.0	.0	.0
	1976	2699.5	2966.1	9.9	266.6
	1977	659.0	654.1	-.7	-4.9
	1978	540.5	530.4	-1.9	-10.1
	1979	2500.0	2500.0	.0	.0
	1980	1750.0	1750.0	.0	.0
	1981	2500.0	2500.0	.0	.0
	1982	4296.5	4492.8	4.6	196.3
	1983	6710.3	6827.8	1.8	117.5
	1984	14353.5	14381.9	.2	28.4
	1985	2250.0	2500.0	11.1	250.0
	1986	1500.0	1750.0	16.7	250.0
	1987	2250.0	2500.0	11.1	250.0
	1988	1549.1	1529.5	-1.3	-19.6
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1250.0	25.0	250.0
	Mean	2553.0	2659.3	5.0	106.4
	Median	2250.0	2500.0	.0	.0
	Min	540.5	530.4	-25.0	-250.0
	Max	16700.3	16973.8	40.1	1118.9
X <	4000.0	66	65		
X <	4500.0	67	67		
X <	5000.0	67	67		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	6042.1	6387.7	5.7	345.6
	1924	2500.0	2500.0	.0	.0
	1925	1000.0	750.0	-25.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	1750.0	2000.0	14.3	250.0
	1930	1500.0	1500.0	.0	.0
	1931	1750.0	2000.0	14.3	250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	699.2	750.0	7.3	50.8
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	5812.1	6173.5	6.2	361.4
	1939	2500.0	2500.0	.0	.0
	1940	1500.0	1750.0	16.7	250.0
	1941	2000.0	2250.0	12.5	250.0
	1942	4487.5	4873.7	8.6	386.2
	1943	4644.5	4746.8	2.2	102.3
	1944	2250.0	2500.0	11.1	250.0
	1945	2000.0	2250.0	12.5	250.0
	1946	7091.1	7573.1	6.8	482.0
	1947	1750.0	2250.0	28.6	500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2000.0	2500.0	25.0	500.0
	1951	16300.2	16375.0	.5	74.8
	1952	3209.6	3914.5	22.0	704.9
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	1750.0	2000.0	14.3	250.0
	1956	14751.3	14658.2	-.6	-93.1
	1957	2500.0	2500.0	.0	.0
	1958	2250.0	2500.0	11.1	250.0
	1959	2500.0	2500.0	.0	.0
	1960	1981.1	1851.9	-6.5	-129.2
	1961	2000.0	2000.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3414.7	3419.7	.1	5.0
	1964	2500.0	3125.0	25.0	625.0
	1965	20275.2	20396.8	.6	121.6
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	1750.0	1750.0	.0	.0
	1970	4871.0	5232.7	7.4	361.7
	1971	4363.3	4724.7	8.3	361.4
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	7406.0	7503.5	1.3	97.5
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	760.6	759.1	-.2	-1.5
	1978	617.5	609.4	-1.3	-8.1
	1979	2500.0	2500.0	.0	.0
	1980	1750.0	1750.0	.0	.0
	1981	2500.0	2500.0	.0	.0
	1982	14207.3	14237.8	.2	30.5
	1983	9016.1	9116.8	1.1	100.7
	1984	15132.5	15309.6	1.2	177.1
	1985	2250.0	2500.0	11.1	250.0
	1986	1500.0	1750.0	16.7	250.0
	1987	2250.0	2500.0	11.1	250.0
	1988	1250.0	1250.0	.0	.0
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1250.0	25.0	250.0
	Mean	3533.3	3646.3	4.2	113.0
	Median	2500.0	2500.0	.0	.0
	Min	617.5	609.4	-25.0	-250.0
	Max	20275.2	20396.8	28.6	704.9
X <	4000.0	56	56		
X <	4500.0	58	56		
X <	5000.0	60	59		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2000.0	2000.0	.0	.0
	1923	4424.9	4532.1	2.4	107.2
	1924	2000.0	2000.0	.0	.0
	1925	1750.0	2000.0	14.3	250.0
	1926	2000.0	2000.0	.0	.0
	1927	2678.4	3093.6	15.5	415.2
	1928	2000.0	2250.0	12.5	250.0
	1929	1400.0	1600.0	14.3	200.0
	1930	1750.0	1750.0	.0	.0
	1931	1500.0	1600.0	6.7	100.0
	1932	1750.0	1750.0	.0	.0
	1933	2000.0	2000.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	2000.0	2000.0	.0	.0
	1936	3964.3	4054.5	2.3	90.2
	1937	2000.0	2000.0	.0	.0
	1938	2744.8	2853.7	4.0	108.9
	1939	2000.0	2250.0	12.5	250.0
	1940	2003.5	1841.2	-8.1	-162.3
	1941	4769.0	4929.4	3.4	160.4
	1942	9209.6	9344.5	1.5	134.9
	1943	10792.1	10892.8	.9	100.7
	1944	1800.0	2000.0	11.1	200.0
	1945	2250.0	2250.0	.0	.0
	1946	5109.6	5221.7	2.2	112.1
	1947	2000.0	2000.0	.0	.0
	1948	1750.0	1750.0	.0	.0
	1949	2000.0	2000.0	.0	.0
	1950	1600.0	2000.0	25.0	400.0
	1951	10028.2	10124.1	1.0	95.9
	1952	8889.3	8989.9	1.1	100.6
	1953	6217.4	6656.9	7.1	439.5
	1954	2250.0	2250.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	16313.5	16308.4	.0	-5.1
	1957	2250.0	2250.0	.0	.0
	1958	2000.0	2000.0	.0	.0
	1959	2000.0	2000.0	.0	.0
	1960	1584.8	1481.5	-6.5	-103.3
	1961	1600.0	1600.0	.0	.0
	1962	1400.0	1400.0	.0	.0
	1963	3842.5	3912.5	1.8	70.0
	1964	2500.0	2500.0	.0	.0
	1965	13180.5	13159.2	-.2	-21.3
	1966	2250.0	2500.0	11.1	250.0
	1967	6049.8	6558.9	8.4	509.1
	1968	2500.0	2500.0	.0	.0
	1969	14196.3	14608.2	2.9	411.9
	1970	20839.7	20951.7	.5	112.0
	1971	4699.6	4750.1	1.1	50.5
	1972	2500.0	2500.0	.0	.0
	1973	8263.8	8645.7	4.6	381.9
	1974	11276.8	11358.0	.7	81.2
	1975	2250.0	2250.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	608.5	607.3	-.2	-1.2
	1978	2127.3	2543.0	19.5	415.7
	1979	2000.0	2000.0	.0	.0
	1980	15232.2	15666.8	2.9	434.6
	1981	2000.0	2000.0	.0	.0
	1982	8155.3	8199.0	.5	43.7
	1983	7482.5	7583.2	1.3	100.7
	1984	6513.4	6579.9	1.0	66.5
	1985	2500.0	2500.0	.0	.0
	1986	2352.6	2004.7	-14.8	-347.9
	1987	1800.0	2000.0	11.1	200.0
	1988	1000.0	1000.0	.0	.0
	1989	2000.0	2000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	800.0	1000.0	25.0	200.0
	Mean	4181.4	4270.0	2.9	88.6
	Median	2188.6	2250.0	.0	.0
	Min	608.5	607.3	-14.8	-347.9
	Max	20839.7	20951.7	25.0	509.1
X <	4000.0	50	49		
X <	4500.0	51	50		
X <	5000.0	53	53		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2483.4	3099.9	24.8	616.5
	1923	2962.8	3081.4	4.0	118.6
	1924	1600.0	1750.0	9.4	150.0
	1925	3876.6	4480.5	15.6	603.9
	1926	1750.0	1750.0	.0	.0
	1927	13368.2	13406.2	.3	38.0
	1928	2000.0	2000.0	.0	.0
	1929	1120.0	1280.0	14.3	160.0
	1930	2000.0	2000.0	.0	.0
	1931	1250.0	1280.0	2.4	30.0
	1932	2000.0	2226.2	11.3	226.2
	1933	1750.0	1750.0	.0	.0
	1934	1750.0	2000.0	14.3	250.0
	1935	2000.0	2000.0	.0	.0
	1936	13305.1	13404.0	.7	98.9
	1937	1750.0	1775.0	1.4	25.0
	1938	9671.7	9776.2	1.1	104.5
	1939	2000.0	2000.0	.0	.0
	1940	10480.0	10550.5	.7	70.5
	1941	7876.6	8009.7	1.7	133.1
	1942	9859.2	9990.5	1.3	131.3
	1943	6782.1	6895.4	1.7	113.3
	1944	1440.0	1600.0	11.1	160.0
	1945	6027.1	6183.0	2.6	155.9
	1946	2620.7	2712.4	3.5	91.7
	1947	2000.0	1750.0	-12.5	-250.0
	1948	1750.0	2000.0	14.3	250.0
	1949	1600.0	2000.0	25.0	400.0
	1950	3513.1	2988.6	-14.9	-524.5
	1951	8068.1	8174.2	1.3	106.1
	1952	9423.3	9534.8	1.2	111.5
	1953	2150.7	2276.6	5.9	125.9
	1954	2000.0	2000.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	6142.0	6192.1	.8	50.1
	1957	2000.0	2000.0	.0	.0
	1958	6827.5	7405.9	8.5	578.4
	1959	2000.0	2000.0	.0	.0
	1960	1267.9	1185.2	-6.5	-82.7
	1961	1280.0	1280.0	.0	.0
	1962	1120.0	1250.0	11.6	130.0
	1963	11949.6	11992.9	.4	43.3
	1964	2000.0	2000.0	.0	.0
	1965	5420.5	5472.4	1.0	51.9
	1966	2000.0	2000.0	.0	.0
	1967	4341.9	4421.2	1.8	79.3
	1968	4915.7	5567.3	13.3	651.6
	1969	9192.9	9270.4	.8	77.5
	1970	6244.3	6336.0	1.5	91.7
	1971	3308.2	3383.9	2.3	75.7
	1972	2000.0	2058.1	2.9	58.1
	1973	7086.0	7141.9	.8	55.9
	1974	4065.9	4267.3	5.0	201.4
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	501.2	500.0	-.2	-1.2
	1978	4617.2	4786.6	3.7	169.4
	1979	1750.0	2000.0	14.3	250.0
	1980	13584.5	13998.1	3.0	413.6
	1981	1600.0	2000.0	25.0	400.0
	1982	15316.1	15382.5	.4	66.4
	1983	12264.9	12358.3	.8	93.4
	1984	5572.2	5663.8	1.6	91.6
	1985	2000.0	2000.0	.0	.0
	1986	33122.7	33131.4	.0	8.7
	1987	1440.0	1600.0	11.1	160.0
	1988	1750.0	1750.0	.0	.0
	1989	1750.0	1750.0	.0	.0
	1990	1400.0	1750.0	25.0	350.0
	1991	640.0	800.0	25.0	160.0
	Mean	4695.7	4806.0	4.2	110.3
	Median	2000.0	2029.1	1.3	78.4
	Min	501.2	500.0	-14.9	-524.5
	Max	33122.7	33131.4	25.0	651.6
X <	4000.0	44	43		
X <	4500.0	46	46		
X <	5000.0	48	47		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	2750.0	2750.0	.0	.0
	1924	1280.0	1400.0	9.4	120.0
	1925	3177.3	3584.4	12.8	407.1
	1926	2000.0	2000.0	.0	.0
	1927	4399.1	4566.3	3.8	167.2
	1928	9750.6	10604.9	8.8	854.3
	1929	1500.0	1500.0	.0	.0
	1930	2000.0	2000.0	.0	.0
	1931	1000.0	1024.0	2.4	24.0
	1932	2750.0	2750.0	.0	.0
	1933	1750.0	1750.0	.0	.0
	1934	1400.0	1600.0	14.3	200.0
	1935	3250.0	3250.0	.0	.0
	1936	4082.9	4180.4	2.4	97.5
	1937	3827.6	4382.8	14.5	555.2
	1938	10681.7	10797.0	1.1	115.3
	1939	1600.0	1600.0	.0	.0
	1940	10642.6	10905.9	2.5	263.3
	1941	4686.5	4803.5	2.5	117.0
	1942	4500.0	4500.0	.0	.0
	1943	12327.9	12425.3	.8	97.4
	1944	2000.0	2000.0	.0	.0
	1945	2750.0	2750.0	.0	.0
	1946	2750.0	2758.2	.3	8.2
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	3000.0	3250.0	8.3	250.0
	1951	3652.6	3767.9	3.2	115.3
	1952	6023.4	6137.0	1.9	113.6
	1953	3000.0	3000.0	.0	.0
	1954	3673.5	4285.6	16.7	612.1
	1955	2000.0	2000.0	.0	.0
	1956	3500.0	3500.0	.0	.0
	1957	3300.5	3983.7	20.7	683.2
	1958	6537.5	6649.6	1.7	112.1
	1959	1750.0	1750.0	.0	.0
	1960	2250.0	2250.0	.0	.0
	1961	1024.0	1024.0	.0	.0
	1962	2500.0	2500.0	.0	.0
	1963	3500.0	3500.0	.0	.0
	1964	2000.0	2000.0	.0	.0
	1965	3000.0	3000.0	.0	.0
	1966	1750.0	2000.0	14.3	250.0
	1967	5749.1	5944.0	3.4	194.9
	1968	3932.5	2104.2	-46.5	-1828.3
	1969	4500.0	4500.0	.0	.0
	1970	2268.6	2500.0	10.2	231.4
	1971	3941.8	4053.9	2.8	112.1
	1972	3542.9	4139.9	16.9	597.0
	1973	3229.7	3341.7	3.5	112.0
	1974	9531.6	9642.0	1.2	110.4
	1975	3579.8	4235.5	18.3	655.7
	1976	1600.0	1600.0	.0	.0
	1977	411.4	408.2	-.8	-3.2
	1978	5556.6	5836.5	5.0	279.9
	1979	2500.0	2750.0	10.0	250.0
	1980	3230.7	3426.7	6.1	196.0
	1981	1500.0	1600.0	6.7	100.0
	1982	7506.0	7619.7	1.5	113.7
	1983	16107.4	16186.9	.5	79.5
	1984	2515.2	2750.0	9.3	234.8
	1985	2000.0	2000.0	.0	.0
	1986	11023.8	11181.2	1.4	157.4
	1987	1152.0	1280.0	11.1	128.0
	1988	1400.0	1400.0	.0	.0
	1989	5586.0	6252.4	11.9	666.4
	1990	1500.0	1500.0	.0	.0
	1991	1750.0	1750.0	.0	.0
	Mean	3809.8	3917.6	3.1	107.9
	Median	3000.0	2879.1	.6	51.8
	Min	411.4	408.2	-46.5	-1828.3
	Max	16107.4	16186.9	20.7	854.3
X <	4000.0	51	46		
X <	4500.0	53	52		
X <	5000.0	57	57		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	3407.5	3631.4	6.6	223.9
	1924	398.9	452.6	13.5	53.7
	1925	3444.5	3729.8	8.3	285.3
	1926	2000.0	2000.0	.0	.0
	1927	7814.6	7974.1	2.0	159.5
	1928	4645.9	4887.4	5.2	241.5
	1929	750.0	1250.0	66.7	500.0
	1930	2000.0	2000.0	.0	.0
	1931	500.0	500.0	.0	.0
	1932	2750.0	2750.0	.0	.0
	1933	1750.0	2000.0	14.3	250.0
	1934	2734.7	3141.3	14.9	406.6
	1935	4941.6	5202.5	5.3	260.9
	1936	5686.4	5794.4	1.9	108.0
	1937	4227.5	4380.4	3.6	152.9
	1938	7772.3	7926.7	2.0	154.4
	1939	750.0	1000.0	33.3	250.0
	1940	6073.4	6046.7	-.4	-26.7
	1941	3626.3	3782.3	4.3	156.0
	1942	4500.0	4500.0	.0	.0
	1943	5048.4	5236.3	3.7	187.9
	1944	2000.0	2000.0	.0	.0
	1945	2750.0	2750.0	.0	.0
	1946	3665.6	3932.3	7.3	266.7
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	4977.3	4993.0	.3	15.7
	1951	2905.5	3059.9	5.3	154.4
	1952	8844.3	8993.6	1.7	149.3
	1953	3250.0	3500.0	7.7	250.0
	1954	4407.4	4494.9	2.0	87.5
	1955	2000.0	2000.0	.0	.0
	1956	4000.0	4000.0	.0	.0
	1957	2750.0	2750.0	.0	.0
	1958	10224.2	10390.3	1.6	166.1
	1959	1750.0	1750.0	.0	.0
	1960	2250.0	2250.0	.0	.0
	1961	554.2	549.2	-.9	-5.0
	1962	2774.8	3410.4	22.9	635.6
	1963	4332.6	4637.4	7.0	304.8
	1964	2000.0	2000.0	.0	.0
	1965	3401.5	3691.4	8.5	289.9
	1966	1750.0	2000.0	14.3	250.0
	1967	4500.0	4500.0	.0	.0
	1968	2000.0	2000.0	.0	.0
	1969	5574.4	5844.3	4.8	269.9
	1970	2250.0	2250.0	.0	.0
	1971	3250.0	3250.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	2750.0	2750.0	.0	.0
	1974	6102.7	6203.4	1.7	100.7
	1975	4000.0	4000.0	.0	.0
	1976	500.0	500.0	.0	.0
	1977	403.9	397.2	-1.7	-6.7
	1978	4031.7	4123.1	2.3	91.4
	1979	2500.0	2750.0	10.0	250.0
	1980	2750.0	2750.0	.0	.0
	1981	1000.0	1500.0	50.0	500.0
	1982	14180.6	14346.7	1.2	166.1
	1983	6471.4	6657.6	2.9	186.2
	1984	2750.0	2750.0	.0	.0
	1985	2000.0	2000.0	.0	.0
	1986	2750.0	2750.0	.0	.0
	1987	544.7	539.8	-.9	-4.9
	1988	432.0	425.4	-1.5	-6.6
	1989	4083.4	4503.2	10.3	419.8
	1990	2059.9	2253.6	9.4	193.7
	1991	1750.0	1750.0	.0	.0
	Mean	3404.2	3519.8	5.0	115.5
	Median	2750.0	2750.0	.2	7.8
	Min	398.9	397.2	-1.7	-26.7
	Max	14180.6	14346.7	66.7	635.6
X <	4000.0	46	46		
X <	4500.0	53	51		
X <	5000.0	59	58		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8375.6	8885.9	6.1	510.3
	1923	4692.3	4868.1	3.7	175.8
	1924	429.1	495.8	15.5	66.7
	1925	4095.4	4590.1	12.1	494.7
	1926	2500.0	2500.0	.0	.0
	1927	4525.2	4746.1	4.9	220.9
	1928	3000.0	3000.0	.0	.0
	1929	1750.0	1750.0	.0	.0
	1930	2500.0	2750.0	10.0	250.0
	1931	750.0	500.0	-33.3	-250.0
	1932	3750.0	4000.0	6.7	250.0
	1933	2500.0	2500.0	.0	.0
	1934	500.0	500.0	.0	.0
	1935	4635.7	4690.5	1.2	54.8
	1936	4250.0	4250.0	.0	.0
	1937	4332.9	4509.2	4.1	176.3
	1938	9682.4	9900.0	2.2	217.6
	1939	1750.0	1750.0	.0	.0
	1940	3500.0	3750.0	7.1	250.0
	1941	5201.8	5403.2	3.9	201.4
	1942	5697.5	6113.7	7.3	416.2
	1943	3750.0	3750.0	.0	.0
	1944	2500.0	2500.0	.0	.0
	1945	3750.0	3750.0	.0	.0
	1946	3750.0	3750.0	.0	.0
	1947	2500.0	2500.0	.0	.0
	1948	3750.0	3750.0	.0	.0
	1949	2750.0	3000.0	9.1	250.0
	1950	4000.0	4000.0	.0	.0
	1951	3500.0	3536.1	1.0	36.1
	1952	11032.2	11230.4	1.8	198.2
	1953	4250.0	4250.0	.0	.0
	1954	3000.0	3000.0	.0	.0
	1955	2500.0	2500.0	.0	.0
	1956	4500.0	4500.0	.0	.0
	1957	3500.0	3750.0	7.1	250.0
	1958	9963.7	10174.9	2.1	211.2
	1959	2250.0	2500.0	11.1	250.0
	1960	2750.0	2750.0	.0	.0
	1961	1500.0	1500.0	.0	.0
	1962	3250.0	3250.0	.0	.0
	1963	6958.3	7205.1	3.5	246.8
	1964	2500.0	2500.0	.0	.0
	1965	4000.0	4000.0	.0	.0
	1966	2500.0	2500.0	.0	.0
	1967	7698.1	8025.7	4.3	327.6
	1968	2500.0	2500.0	.0	.0
	1969	9028.6	9208.8	2.0	180.2
	1970	2750.0	2750.0	.0	.0
	1971	4250.0	4250.0	.0	.0
	1972	2750.0	2750.0	.0	.0
	1973	3921.9	4264.0	8.7	342.1
	1974	4733.4	4994.9	5.5	261.5
	1975	4500.0	4500.0	.0	.0
	1976	507.3	530.0	4.5	22.7
	1977	406.4	395.0	-2.8	-11.4
	1978	4000.0	4411.1	10.3	411.1
	1979	3500.0	3698.1	5.7	198.1
	1980	4000.0	4000.0	.0	.0
	1981	1750.0	2000.0	14.3	250.0
	1982	9145.7	9325.9	2.0	180.2
	1983	10357.3	10505.0	1.4	147.7
	1984	3500.0	3500.0	.0	.0
	1985	2500.0	2500.0	.0	.0
	1986	3750.0	3750.0	.0	.0
	1987	750.0	584.3	-22.1	-165.7
	1988	500.0	500.0	.0	.0
	1989	3033.4	3098.0	2.1	64.6
	1990	1500.0	1500.0	.0	.0
	1991	2500.0	2250.0	-10.0	-250.0
	Mean	3813.6	3905.6	1.6	91.9
	Median	3500.0	3724.1	.0	.0
	Min	406.4	395.0	-33.3	-250.0
	Max	11032.2	11230.4	15.5	510.3
X <	4000.0	44	42		
X <	4500.0	53	51		
X <	5000.0	59	59		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8698.9	8997.6	3.4	298.7
	1923	4136.6	3770.9	-8.8	-365.7
	1924	452.6	533.3	17.8	80.7
	1925	5532.4	5926.3	7.1	393.9
	1926	2224.7	2411.3	8.4	186.6
	1927	5119.3	5349.1	4.5	229.8
	1928	4126.6	4196.2	1.7	69.6
	1929	2151.7	2165.6	.6	13.9
	1930	2000.0	2250.0	12.5	250.0
	1931	806.8	782.5	-3.0	-24.3
	1932	4897.3	4983.1	1.8	85.8
	1933	2246.8	2258.2	.5	11.4
	1934	1682.7	1514.6	-10.0	-168.1
	1935	3750.0	4164.6	11.1	414.6
	1936	3969.3	4410.3	11.1	441.0
	1937	3500.0	3500.0	.0	.0
	1938	8351.0	8596.0	2.9	245.0
	1939	620.5	750.0	20.9	129.5
	1940	3250.0	3250.0	.0	.0
	1941	3500.0	3750.0	7.1	250.0
	1942	7093.9	7421.2	4.6	327.3
	1943	3500.0	3500.0	.0	.0
	1944	1750.0	2000.0	14.3	250.0
	1945	4770.9	4880.2	2.3	109.3
	1946	5378.8	5466.7	1.6	87.9
	1947	1500.0	1500.0	.0	.0
	1948	3250.0	3250.0	.0	.0
	1949	2500.0	3699.5	48.0	1199.5
	1950	3750.0	3825.1	2.0	75.1
	1951	3250.0	3250.0	.0	.0
	1952	10238.3	10496.7	2.5	258.4
	1953	3750.0	3750.0	.0	.0
	1954	3595.8	3752.0	4.3	156.2
	1955	2000.0	2000.0	.0	.0
	1956	4552.8	5284.3	16.1	731.5
	1957	4235.9	4423.7	4.4	187.8
	1958	7498.9	7738.9	3.2	240.0
	1959	1250.0	1500.0	20.0	250.0
	1960	2250.0	2250.0	.0	.0
	1961	624.9	636.6	1.9	11.7
	1962	3074.6	3076.6	.1	2.0
	1963	3500.0	3500.0	.0	.0
	1964	2250.0	2250.0	.0	.0
	1965	3750.0	3750.0	.0	.0
	1966	1500.0	1500.0	.0	.0
	1967	10219.8	10463.1	2.4	243.3
	1968	1500.0	2000.0	33.3	500.0
	1969	6389.8	6648.2	4.0	258.4
	1970	3054.9	3081.7	.9	26.8
	1971	3750.0	3879.2	3.4	129.2
	1972	4448.6	4437.8	-.2	-10.8
	1973	6486.9	6486.9	.0	.0
	1974	4006.8	4263.5	6.4	256.7
	1975	4908.3	5547.4	13.0	639.1
	1976	2070.2	1872.2	-9.6	-198.0
	1977	454.3	439.2	-3.3	-15.1
	1978	3750.0	4498.8	20.0	748.8
	1979	6486.9	6486.9	.0	.0
	1980	3500.0	3500.0	.0	.0
	1981	750.0	1250.0	66.7	500.0
	1982	5991.5	6268.4	4.6	276.9
	1983	14274.9	14550.2	1.9	275.3
	1984	3927.3	3950.0	.6	22.7
	1985	2526.7	2841.8	12.5	315.1
	1986	3250.0	3500.0	7.7	250.0
	1987	600.3	613.8	2.2	13.5
	1988	1309.0	1244.6	-4.9	-64.4
	1989	3788.2	4351.2	14.9	563.0
	1990	1782.4	1766.6	-.9	-15.8
	1991	2869.5	2892.8	.8	23.3
	Mean	3770.4	3929.9	5.6	159.5
	Median	3500.0	3599.8	2.0	83.3
	Min	452.6	439.2	-10.0	-365.7
	Max	14274.9	14550.2	66.7	1199.5
X <	4000.0	47	44		
X <	4500.0	52	52		
X <	5000.0	56	54		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3466.8	3573.3	3.1	106.5
	1923	2967.0	3196.9	7.7	229.9
	1924	464.9	554.4	19.3	89.5
	1925	2658.0	3434.6	29.2	776.6
	1926	2605.5	2703.5	3.8	98.0
	1927	6489.1	6489.1	.0	.0
	1928	1500.0	1980.4	32.0	480.4
	1929	1471.0	1635.9	11.2	164.9
	1930	2715.8	2730.3	.5	14.5
	1931	2638.8	2446.5	-7.3	-192.3
	1932	3151.3	3288.2	4.3	136.9
	1933	2020.5	2029.5	.4	9.0
	1934	1483.3	1511.3	1.9	28.0
	1935	3007.9	3477.3	15.6	469.4
	1936	4070.4	4190.1	2.9	119.7
	1937	2510.8	2168.0	-13.7	-342.8
	1938	3286.8	3562.9	8.4	276.1
	1939	1752.0	1853.2	5.8	101.2
	1940	5488.8	5951.7	8.4	462.9
	1941	2250.0	2250.0	.0	.0
	1942	3255.9	3546.6	8.9	290.7
	1943	5991.6	6413.1	7.0	421.5
	1944	1612.5	1776.2	10.2	163.7
	1945	4325.2	4857.4	12.3	532.2
	1946	4075.5	4345.6	6.6	270.1
	1947	1533.8	1952.6	27.3	418.8
	1948	2523.6	3152.6	24.9	629.0
	1949	2720.3	2859.1	5.1	138.8
	1950	3509.2	3888.8	10.8	379.6
	1951	5229.3	5755.9	10.1	526.6
	1952	4394.4	4683.4	6.6	289.0
	1953	2336.1	3057.6	30.9	721.5
	1954	2037.2	2072.9	1.8	35.7
	1955	1500.0	1500.0	.0	.0
	1956	2930.7	3219.7	9.9	289.0
	1957	4669.6	4986.1	6.8	316.5
	1958	2930.7	3201.8	9.3	271.1
	1959	650.6	683.1	5.0	32.5
	1960	1500.0	1629.4	8.6	129.4
	1961	629.4	660.3	4.9	30.9
	1962	4528.8	4840.2	6.9	311.4
	1963	5777.1	5886.8	1.9	109.7
	1964	2190.6	2287.8	4.4	97.2
	1965	6489.1	6489.1	.0	.0
	1966	663.1	1000.0	50.8	336.9
	1967	4080.5	4367.9	7.0	287.4
	1968	750.0	1500.0	100.0	750.0
	1969	2717.6	3006.7	10.6	289.1
	1970	1844.6	2115.2	14.7	270.6
	1971	2251.5	3022.9	34.3	771.4
	1972	1500.0	1500.0	.0	.0
	1973	2771.6	3143.6	13.4	372.0
	1974	3194.1	3479.9	8.9	285.8
	1975	2681.8	2967.6	10.7	285.8
	1976	1451.7	1404.6	-3.2	-47.1
	1977	466.5	447.0	-4.2	-19.5
	1978	5666.7	5603.2	-1.1	-63.5
	1979	1500.0	2722.7	81.5	1222.7
	1980	4077.3	4198.0	3.0	120.7
	1981	627.8	657.1	4.7	29.3
	1982	3127.4	3416.5	9.2	289.1
	1983	6043.5	6332.5	4.8	289.0
	1984	4650.9	4882.9	5.0	232.0
	1985	1964.8	2142.9	9.1	178.1
	1986	5161.3	5988.6	16.0	827.3
	1987	1209.0	1244.8	3.0	35.8
	1988	913.4	932.8	2.1	19.4
	1989	3072.5	3341.4	8.8	268.9
	1990	1207.8	1305.6	8.1	97.8
	1991	2519.2	2256.4	-10.4	-262.8
	Mean	2849.3	3082.2	10.6	232.9
	Median	2669.9	3014.8	6.9	204.0
	Min	464.9	447.0	-13.7	-342.8
	Max	6489.1	6489.1	100.0	1222.7
X <	4000.0	52	52		
X <	4500.0	58	56		
X <	5000.0	61	61		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2818.1	3217.5	14.2	399.4
	1923	4565.9	4155.8	-9.0	-410.1
	1924	460.0	547.9	19.1	87.9
	1925	1750.0	2554.0	45.9	804.0
	1926	750.0	750.0	.0	.0
	1927	3729.1	3834.7	2.8	105.6
	1928	4114.5	3798.8	-7.7	-315.7
	1929	536.5	559.3	4.2	22.8
	1930	1000.0	1000.0	.0	.0
	1931	536.9	558.1	3.9	21.2
	1932	1750.0	2000.0	14.3	250.0
	1933	541.8	750.0	38.4	208.2
	1934	540.2	561.3	3.9	21.1
	1935	4034.9	4161.9	3.1	127.0
	1936	2308.4	2661.2	15.3	352.8
	1937	2000.0	2723.7	36.2	723.7
	1938	3937.0	4232.5	7.5	295.5
	1939	621.7	646.1	3.9	24.4
	1940	3224.2	3339.3	3.6	115.1
	1941	3266.2	3878.9	18.8	612.7
	1942	4018.3	4312.2	7.3	293.9
	1943	3066.4	2979.5	-2.8	-86.9
	1944	1000.0	1000.0	.0	.0
	1945	2354.7	2481.0	5.4	126.3
	1946	2335.6	2134.1	-8.6	-201.5
	1947	750.0	1000.0	33.3	250.0
	1948	3003.6	2966.7	-1.2	-36.9
	1949	2925.8	2541.0	-13.2	-384.8
	1950	2781.3	2849.7	2.5	68.4
	1951	3204.5	3312.4	3.4	107.9
	1952	4441.1	4733.4	6.6	292.3
	1953	4012.1	4325.2	7.8	313.1
	1954	4039.2	3958.2	-2.0	-81.0
	1955	1963.3	2471.2	25.9	507.9
	1956	3987.4	4278.1	7.3	290.7
	1957	2582.4	2445.2	-5.3	-137.2
	1958	4099.6	4390.3	7.1	290.7
	1959	1617.8	2091.3	29.3	473.5
	1960	2261.8	3283.7	45.2	1021.9
	1961	626.2	750.0	19.8	123.8
	1962	2817.3	2825.9	.3	8.6
	1963	1843.5	1950.3	5.8	106.8
	1964	1000.0	1000.0	.0	.0
	1965	2598.3	2767.5	6.5	169.2
	1966	1784.0	2556.2	43.3	772.2
	1967	4062.2	4354.5	7.2	292.3
	1968	1819.4	2299.8	26.4	480.4
	1969	3886.5	4162.6	7.1	276.1
	1970	3798.6	3864.2	1.7	65.6
	1971	3808.5	4115.4	8.1	306.9
	1972	3485.7	4046.1	16.1	560.4
	1973	3783.1	3894.4	2.9	111.3
	1974	4068.7	4343.1	6.7	274.4
	1975	3868.6	4141.4	7.1	272.8
	1976	1060.5	1098.1	3.5	37.6
	1977	461.7	442.1	-4.2	-19.6
	1978	3250.0	3371.0	3.7	121.0
	1979	3055.9	3208.4	5.0	152.5
	1980	4150.9	4263.2	2.7	112.3
	1981	931.4	1250.6	34.3	319.2
	1982	4052.4	4344.7	7.2	292.3
	1983	4805.4	4870.9	1.4	65.5
	1984	3015.6	2798.1	-7.2	-217.5
	1985	2596.2	2665.5	2.7	69.3
	1986	3500.9	3359.8	-4.0	-141.1
	1987	1504.2	1444.6	-4.0	-59.6
	1988	532.9	558.9	4.9	26.0
	1989	3545.1	3936.8	11.0	391.7
	1990	1629.7	1796.0	10.2	166.3
	1991	553.6	576.4	4.1	22.8
	Mean	2554.7	2722.0	8.5	167.3
	Median	2799.3	2812.0	4.9	118.1
	Min	460.0	442.1	-13.2	-410.1
	Max	4805.4	4870.9	45.9	1021.9
X <	4000.0	57	53		
X <	4500.0	68	68		
X <	5000.0	70	70		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	3446.4	3763.4	9.2	317.0
1923	2000.0	2500.0	25.0	500.0
1924	750.0	607.8	-19.0	-142.2
1925	2500.0	2000.0	-20.0	-500.0
1926	1250.0	1500.0	20.0	250.0
1927	1894.7	2231.4	17.8	336.7
1928	1500.0	1500.0	.0	.0
1929	1000.0	1250.0	25.0	250.0
1930	1500.0	1500.0	.0	.0
1931	750.0	750.0	.0	.0
1932	2500.0	3417.4	36.7	917.4
1933	1250.0	1250.0	.0	.0
1934	588.6	618.9	5.1	30.3
1935	2505.5	3229.7	28.9	724.2
1936	3763.2	3959.2	5.2	196.0
1937	3399.1	3864.7	13.7	465.6
1938	3805.8	4047.4	6.3	241.6
1939	1250.0	1250.0	.0	.0
1940	1633.4	1769.1	8.3	135.7
1941	3755.3	3995.3	6.4	240.0
1942	3789.0	4028.9	6.3	239.9
1943	1750.0	1750.0	.0	.0
1944	1500.0	1500.0	.0	.0
1945	2342.3	2449.9	4.6	107.6
1946	2755.8	2870.7	4.2	114.9
1947	1500.0	1500.0	.0	.0
1948	3187.6	3390.0	6.3	202.4
1949	1562.3	1925.2	23.2	362.9
1950	3082.7	3803.0	23.4	720.3
1951	1976.3	2254.7	14.1	278.4
1952	3990.6	4245.7	6.4	255.1
1953	3757.0	3993.6	6.3	236.6
1954	1500.0	1500.0	.0	.0
1955	1500.0	1500.0	.0	.0
1956	3723.4	3961.7	6.4	238.3
1957	1763.2	1896.8	7.6	133.6
1958	3822.6	4076.0	6.6	253.4
1959	1250.0	1250.0	.0	.0
1960	1500.0	1529.5	2.0	29.5
1961	1250.0	1500.0	20.0	250.0
1962	2179.8	2220.6	1.9	40.8
1963	2250.0	2250.0	.0	.0
1964	1500.0	1500.0	.0	.0
1965	2000.0	2250.0	12.5	250.0
1966	1250.0	1250.0	.0	.0
1967	4069.6	4291.1	5.4	221.5
1968	1250.0	1975.4	58.0	725.4
1969	3787.3	4008.7	5.8	221.4
1970	1500.0	1500.0	.0	.0
1971	3605.8	3825.6	6.1	219.8
1972	1500.0	1500.0	.0	.0
1973	1500.0	1626.6	8.4	126.6
1974	3891.5	4128.1	6.1	236.6
1975	3668.0	3919.7	6.9	251.7
1976	600.4	639.1	6.4	38.7
1977	522.1	508.7	-2.6	-13.4
1978	1750.0	2250.0	28.6	500.0
1979	1935.6	2411.5	24.6	475.9
1980	2000.0	2250.0	12.5	250.0
1981	1500.0	1500.0	.0	.0
1982	4207.4	4447.4	5.7	240.0
1983	4826.7	4873.6	1.0	46.9
1984	1750.0	1750.0	.0	.0
1985	1250.0	1250.0	.0	.0
1986	1750.0	1750.0	.0	.0
1987	1000.0	1000.0	.0	.0
1988	750.0	750.0	.0	.0
1989	1250.0	1250.0	.0	.0
1990	750.0	750.0	.0	.0
1991	1000.0	1000.0	.0	.0
Mean	2133.4	2293.7	7.0	160.2
Median	1750.0	1911.0	5.3	120.8
Min	522.1	508.7	-20.0	-500.0
Max	4826.7	4873.6	58.0	917.4
X < 4000.0	67	61		
X < 4500.0	69	69		
X < 5000.0	70	70		
X < .0	0	0		
X < .0	0	0		

RETURN TO TABLE OF CONTENTS

Section 6

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM
6.4 Recreation and Fisheries

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

October

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2500.0	2500.0	.0	.0
1923	2500.0	2500.0	.0	.0
1924	2500.0	2500.0	.0	.0
1925	1000.0	750.0	-25.0	-250.0
1926	2500.0	2500.0	.0	.0
1927	1750.0	1750.0	.0	.0
1928	2500.0	2500.0	.0	.0
1929	1750.0	2000.0	14.3	250.0
1930	1500.0	1500.0	.0	.0
1931	1750.0	2000.0	14.3	250.0
1932	1250.0	1250.0	.0	.0
1933	2500.0	2500.0	.0	.0
1934	1750.0	1750.0	.0	.0
1935	634.5	750.0	18.2	115.5
1936	2500.0	2500.0	.0	.0
1937	2500.0	2500.0	.0	.0
1938	2500.0	2500.0	.0	.0
1939	2500.0	2500.0	.0	.0
1940	1500.0	1750.0	16.7	250.0
1941	2000.0	2250.0	12.5	250.0
1942	2500.0	2500.0	.0	.0
1943	2500.0	2500.0	.0	.0
1944	2250.0	2500.0	11.1	250.0
1945	2000.0	2250.0	12.5	250.0
1946	2000.0	2250.0	12.5	250.0
1947	1750.0	2250.0	28.6	500.0
1948	1750.0	1750.0	.0	.0
1949	2500.0	2500.0	.0	.0
1950	2000.0	2500.0	25.0	500.0
1951	2500.0	2500.0	.0	.0
1952	2000.0	2000.0	.0	.0
1953	2500.0	2500.0	.0	.0
1954	2500.0	2500.0	.0	.0
1955	1750.0	2000.0	14.3	250.0
1956	1750.0	2000.0	14.3	250.0
1957	2500.0	2500.0	.0	.0
1958	2250.0	2500.0	11.1	250.0
1959	2500.0	2500.0	.0	.0
1960	1750.0	1750.0	.0	.0
1961	2000.0	2000.0	.0	.0
1962	1750.0	1750.0	.0	.0
1963	2376.5	2967.6	24.9	591.1
1964	2500.0	2500.0	.0	.0
1965	2000.0	2250.0	12.5	250.0
1966	2500.0	2500.0	.0	.0
1967	1750.0	1750.0	.0	.0
1968	2500.0	2500.0	.0	.0
1969	1750.0	1750.0	.0	.0
1970	2500.0	2500.0	.0	.0
1971	2000.0	2000.0	.0	.0
1972	2500.0	2500.0	.0	.0
1973	1750.0	1750.0	.0	.0
1974	1750.0	2000.0	14.3	250.0
1975	2500.0	2500.0	.0	.0
1976	2500.0	2500.0	.0	.0
1977	671.5	697.5	3.9	26.0
1978	593.4	578.7	-2.5	-14.7
1979	2500.0	2500.0	.0	.0
1980	1750.0	1750.0	.0	.0
1981	2500.0	2500.0	.0	.0
1982	1750.0	1750.0	.0	.0
1983	3173.4	3391.1	6.9	217.7
1984	2509.0	3135.5	25.0	626.5
1985	2250.0	2500.0	11.1	250.0
1986	1500.0	1750.0	16.7	250.0
1987	2250.0	2500.0	11.1	250.0
1988	1936.4	1911.8	-1.3	-24.6
1989	1000.0	1000.0	.0	.0
1990	1750.0	1750.0	.0	.0
1991	1000.0	1250.0	25.0	250.0
Mean	2041.4	2131.2	4.7	89.8
Median	2000.0	2375.0	.0	.0
Min	593.4	578.7	-25.0	-250.0
Max	3173.4	3391.1	28.6	626.5

X > 6000.0	0	0	
X < 3000.0	69	68	
X < 2000.0	28	22	
X < 1750.0	10	8	
X < 1500.0	7	7	

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

November

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	2500.0	2500.0	.0	.0
	1924	2500.0	2500.0	.0	.0
	1925	1000.0	750.0	-25.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	1750.0	2000.0	14.3	250.0
	1930	1500.0	1500.0	.0	.0
	1931	1750.0	2000.0	14.3	250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	566.5	750.0	32.4	183.5
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	2500.0	2500.0	.0	.0
	1939	2500.0	2500.0	.0	.0
	1940	1500.0	1750.0	16.7	250.0
	1941	2000.0	2250.0	12.5	250.0
	1942	2500.0	2500.0	.0	.0
	1943	3396.1	3671.1	8.1	275.0
	1944	2250.0	2500.0	11.1	250.0
	1945	2000.0	2250.0	12.5	250.0
	1946	2000.0	2250.0	12.5	250.0
	1947	1750.0	2250.0	28.6	500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2000.0	2500.0	25.0	500.0
	1951	16700.3	16973.8	1.6	273.5
	1952	2000.0	2000.0	.0	.0
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	1750.0	2000.0	14.3	250.0
	1956	1750.0	2000.0	14.3	250.0
	1957	2500.0	2500.0	.0	.0
	1958	2250.0	2500.0	11.1	250.0
	1959	2500.0	2500.0	.0	.0
	1960	1750.0	1750.0	.0	.0
	1961	2000.0	2000.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3022.9	3090.2	2.2	67.3
	1964	2787.4	3906.3	40.1	1118.9
	1965	2000.0	2250.0	12.5	250.0
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	1750.0	1750.0	.0	.0
	1970	2500.0	2500.0	.0	.0
	1971	2000.0	2000.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	3927.1	4379.3	11.5	452.2
	1975	2500.0	2500.0	.0	.0
	1976	2699.5	2966.1	9.9	266.6
	1977	659.0	654.1	-.7	-4.9
	1978	540.5	530.4	-1.9	-10.1
	1979	2500.0	2500.0	.0	.0
	1980	1750.0	1750.0	.0	.0
	1981	2500.0	2500.0	.0	.0
	1982	4296.5	4492.8	4.6	196.3
	1983	6710.3	6827.8	1.8	117.5
	1984	14353.5	14381.9	.2	28.4
	1985	2250.0	2500.0	11.1	250.0
	1986	1500.0	1750.0	16.7	250.0
	1987	2250.0	2500.0	11.1	250.0
	1988	1549.1	1529.5	-1.3	-19.6
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1250.0	25.0	250.0
	Mean	2553.0	2659.3	5.0	106.4
	Median	2250.0	2500.0	.0	.0
	Min	540.5	530.4	-25.0	-250.0
	Max	16700.3	16973.8	40.1	1118.9
X >	6000.0	3	3		
X <	3000.0	63	62		
X <	2000.0	26	21		
X <	1750.0	11	9		
X <	1500.0	7	7		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

December

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2500.0	2500.0	.0	.0
	1923	6042.1	6387.7	5.7	345.6
	1924	2500.0	2500.0	.0	.0
	1925	1000.0	750.0	-25.0	-250.0
	1926	2500.0	2500.0	.0	.0
	1927	1750.0	1750.0	.0	.0
	1928	2500.0	2500.0	.0	.0
	1929	1750.0	2000.0	14.3	250.0
	1930	1500.0	1500.0	.0	.0
	1931	1750.0	2000.0	14.3	250.0
	1932	1250.0	1250.0	.0	.0
	1933	2500.0	2500.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	699.2	750.0	7.3	50.8
	1936	2500.0	2500.0	.0	.0
	1937	2500.0	2500.0	.0	.0
	1938	5812.1	6173.5	6.2	361.4
	1939	2500.0	2500.0	.0	.0
	1940	1500.0	1750.0	16.7	250.0
	1941	2000.0	2250.0	12.5	250.0
	1942	4487.5	4873.7	8.6	386.2
	1943	4644.5	4746.8	2.2	102.3
	1944	2250.0	2500.0	11.1	250.0
	1945	2000.0	2250.0	12.5	250.0
	1946	7091.1	7573.1	6.8	482.0
	1947	1750.0	2250.0	28.6	500.0
	1948	1750.0	1750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	2000.0	2500.0	25.0	500.0
	1951	16300.2	16375.0	.5	74.8
	1952	3209.6	3914.5	22.0	704.9
	1953	2500.0	2500.0	.0	.0
	1954	2500.0	2500.0	.0	.0
	1955	1750.0	2000.0	14.3	250.0
	1956	14751.3	14658.2	-.6	-93.1
	1957	2500.0	2500.0	.0	.0
	1958	2250.0	2500.0	11.1	250.0
	1959	2500.0	2500.0	.0	.0
	1960	1981.1	1851.9	-6.5	-129.2
	1961	2000.0	2000.0	.0	.0
	1962	1750.0	1750.0	.0	.0
	1963	3414.7	3419.7	.1	5.0
	1964	2500.0	3125.0	25.0	625.0
	1965	20275.2	20396.8	.6	121.6
	1966	2500.0	2500.0	.0	.0
	1967	1750.0	1750.0	.0	.0
	1968	2500.0	2500.0	.0	.0
	1969	1750.0	1750.0	.0	.0
	1970	4871.0	5232.7	7.4	361.7
	1971	4363.3	4724.7	8.3	361.4
	1972	2500.0	2500.0	.0	.0
	1973	1750.0	1750.0	.0	.0
	1974	7406.0	7503.5	1.3	97.5
	1975	2500.0	2500.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	760.6	759.1	-.2	-1.5
	1978	617.5	609.4	-1.3	-8.1
	1979	2500.0	2500.0	.0	.0
	1980	1750.0	1750.0	.0	.0
	1981	2500.0	2500.0	.0	.0
	1982	14207.3	14237.8	.2	30.5
	1983	9016.1	9116.8	1.1	100.7
	1984	15132.5	15309.6	1.2	177.1
	1985	2250.0	2500.0	11.1	250.0
	1986	1500.0	1750.0	16.7	250.0
	1987	2250.0	2500.0	11.1	250.0
	1988	1250.0	1250.0	.0	.0
	1989	1000.0	1000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	1000.0	1250.0	25.0	250.0
	Mean	3533.3	3646.3	4.2	113.0
	Median	2500.0	2500.0	.0	.0
	Min	617.5	609.4	-25.0	-250.0
	Max	20275.2	20396.8	28.6	704.9
X >	6000.0	9	10		
X <	3000.0	54	53		
X <	2000.0	25	21		
X <	1750.0	11	9		
X <	1500.0	8	8		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

January

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2000.0	2000.0	.0	.0
	1923	4424.9	4532.1	2.4	107.2
	1924	2000.0	2000.0	.0	.0
	1925	1750.0	2000.0	14.3	250.0
	1926	2000.0	2000.0	.0	.0
	1927	2678.4	3093.6	15.5	415.2
	1928	2000.0	2250.0	12.5	250.0
	1929	1400.0	1600.0	14.3	200.0
	1930	1750.0	1750.0	.0	.0
	1931	1500.0	1600.0	6.7	100.0
	1932	1750.0	1750.0	.0	.0
	1933	2000.0	2000.0	.0	.0
	1934	1750.0	1750.0	.0	.0
	1935	2000.0	2000.0	.0	.0
	1936	3964.3	4054.5	2.3	90.2
	1937	2000.0	2000.0	.0	.0
	1938	2744.8	2853.7	4.0	108.9
	1939	2000.0	2250.0	12.5	250.0
	1940	2003.5	1841.2	-8.1	-162.3
	1941	4769.0	4929.4	3.4	160.4
	1942	9209.6	9344.5	1.5	134.9
	1943	10792.1	10892.8	.9	100.7
	1944	1800.0	2000.0	11.1	200.0
	1945	2250.0	2250.0	.0	.0
	1946	5109.6	5221.7	2.2	112.1
	1947	2000.0	2000.0	.0	.0
	1948	1750.0	1750.0	.0	.0
	1949	2000.0	2000.0	.0	.0
	1950	1600.0	2000.0	25.0	400.0
	1951	10028.2	10124.1	1.0	95.9
	1952	8889.3	8989.9	1.1	100.6
	1953	6217.4	6656.9	7.1	439.5
	1954	2250.0	2250.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	16313.5	16308.4	.0	-5.1
	1957	2250.0	2250.0	.0	.0
	1958	2000.0	2000.0	.0	.0
	1959	2000.0	2000.0	.0	.0
	1960	1584.8	1481.5	-6.5	-103.3
	1961	1600.0	1600.0	.0	.0
	1962	1400.0	1400.0	.0	.0
	1963	3842.5	3912.5	1.8	70.0
	1964	2500.0	2500.0	.0	.0
	1965	13180.5	13159.2	-.2	-21.3
	1966	2250.0	2500.0	11.1	250.0
	1967	6049.8	6558.9	8.4	509.1
	1968	2500.0	2500.0	.0	.0
	1969	14196.3	14608.2	2.9	411.9
	1970	20839.7	20951.7	.5	112.0
	1971	4699.6	4750.1	1.1	50.5
	1972	2500.0	2500.0	.0	.0
	1973	8263.8	8645.7	4.6	381.9
	1974	11276.8	11358.0	.7	81.2
	1975	2250.0	2250.0	.0	.0
	1976	2500.0	2500.0	.0	.0
	1977	608.5	607.3	-.2	-1.2
	1978	2127.3	2543.0	19.5	415.7
	1979	2000.0	2000.0	.0	.0
	1980	15232.2	15666.8	2.9	434.6
	1981	2000.0	2000.0	.0	.0
	1982	8155.3	8199.0	.5	43.7
	1983	7482.5	7583.2	1.3	100.7
	1984	6513.4	6579.9	1.0	66.5
	1985	2500.0	2500.0	.0	.0
	1986	2352.6	2004.7	-14.8	-347.9
	1987	1800.0	2000.0	11.1	200.0
	1988	1000.0	1000.0	.0	.0
	1989	2000.0	2000.0	.0	.0
	1990	1750.0	1750.0	.0	.0
	1991	800.0	1000.0	25.0	200.0
	Mean	4181.4	4270.0	2.9	88.6
	Median	2188.6	2250.0	.0	.0
	Min	608.5	607.3	-14.8	-347.9
	Max	20839.7	20951.7	25.0	509.1
X >	6000.0	16	16		
X <	3000.0	48	47		
X <	2000.0	17	14		
X <	1750.0	9	8		
X <	1500.0	5	5		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

February

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2483.4	3099.9	24.8	616.5
	1923	2962.8	3081.4	4.0	118.6
	1924	1600.0	1750.0	9.4	150.0
	1925	3876.6	4480.5	15.6	603.9
	1926	1750.0	1750.0	.0	.0
	1927	13368.2	13406.2	.3	38.0
	1928	2000.0	2000.0	.0	.0
	1929	1120.0	1280.0	14.3	160.0
	1930	2000.0	2000.0	.0	.0
	1931	1250.0	1280.0	2.4	30.0
	1932	2000.0	2226.2	11.3	226.2
	1933	1750.0	1750.0	.0	.0
	1934	1750.0	2000.0	14.3	250.0
	1935	2000.0	2000.0	.0	.0
	1936	13305.1	13404.0	.7	98.9
	1937	1750.0	1775.0	1.4	25.0
	1938	9671.7	9776.2	1.1	104.5
	1939	2000.0	2000.0	.0	.0
	1940	10480.0	10550.5	.7	70.5
	1941	7876.6	8009.7	1.7	133.1
	1942	9859.2	9990.5	1.3	131.3
	1943	6782.1	6895.4	1.7	113.3
	1944	1440.0	1600.0	11.1	160.0
	1945	6027.1	6183.0	2.6	155.9
	1946	2620.7	2712.4	3.5	91.7
	1947	2000.0	1750.0	-12.5	-250.0
	1948	1750.0	2000.0	14.3	250.0
	1949	1600.0	2000.0	25.0	400.0
	1950	3513.1	2988.6	-14.9	-524.5
	1951	8068.1	8174.2	1.3	106.1
	1952	9423.3	9534.8	1.2	111.5
	1953	2150.7	2276.6	5.9	125.9
	1954	2000.0	2000.0	.0	.0
	1955	2000.0	2000.0	.0	.0
	1956	6142.0	6192.1	.8	50.1
	1957	2000.0	2000.0	.0	.0
	1958	6827.5	7405.9	8.5	578.4
	1959	2000.0	2000.0	.0	.0
	1960	1267.9	1185.2	-6.5	-82.7
	1961	1280.0	1280.0	.0	.0
	1962	1120.0	1250.0	11.6	130.0
	1963	11949.6	11992.9	.4	43.3
	1964	2000.0	2000.0	.0	.0
	1965	5420.5	5472.4	1.0	51.9
	1966	2000.0	2000.0	.0	.0
	1967	4341.9	4421.2	1.8	79.3
	1968	4915.7	5567.3	13.3	651.6
	1969	9192.9	9270.4	.8	77.5
	1970	6244.3	6336.0	1.5	91.7
	1971	3308.2	3383.9	2.3	75.7
	1972	2000.0	2058.1	2.9	58.1
	1973	7086.0	7141.9	.8	55.9
	1974	4065.9	4267.3	5.0	201.4
	1975	2000.0	2000.0	.0	.0
	1976	2000.0	2000.0	.0	.0
	1977	501.2	500.0	-.2	-1.2
	1978	4617.2	4786.6	3.7	169.4
	1979	1750.0	2000.0	14.3	250.0
	1980	13584.5	13998.1	3.0	413.6
	1981	1600.0	2000.0	25.0	400.0
	1982	15316.1	15382.5	.4	66.4
	1983	12264.9	12358.3	.8	93.4
	1984	5572.2	5663.8	1.6	91.6
	1985	2000.0	2000.0	.0	.0
	1986	33122.7	33131.4	.0	8.7
	1987	1440.0	1600.0	11.1	160.0
	1988	1750.0	1750.0	.0	.0
	1989	1750.0	1750.0	.0	.0
	1990	1400.0	1750.0	25.0	350.0
	1991	640.0	800.0	25.0	160.0
	Mean	4695.7	4806.0	4.2	110.3
	Median	2000.0	2029.1	1.3	78.4
	Min	501.2	500.0	-14.9	-524.5
	Max	33122.7	33131.4	25.0	651.6
X >	6000.0	20	20		
X <	3000.0	41	40		
X <	2000.0	21	17		
X <	1750.0	13	9		
X <	1500.0	10	7		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

March

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	2750.0	2750.0	.0	.0
	1924	1280.0	1400.0	9.4	120.0
	1925	3177.3	3584.4	12.8	407.1
	1926	2000.0	2000.0	.0	.0
	1927	4399.1	4566.3	3.8	167.2
	1928	9750.6	10604.9	8.8	854.3
	1929	1500.0	1500.0	.0	.0
	1930	2000.0	2000.0	.0	.0
	1931	1000.0	1024.0	2.4	24.0
	1932	2750.0	2750.0	.0	.0
	1933	1750.0	1750.0	.0	.0
	1934	1400.0	1600.0	14.3	200.0
	1935	3250.0	3250.0	.0	.0
	1936	4082.9	4180.4	2.4	97.5
	1937	3827.6	4382.8	14.5	555.2
	1938	10681.7	10797.0	1.1	115.3
	1939	1600.0	1600.0	.0	.0
	1940	10642.6	10905.9	2.5	263.3
	1941	4686.5	4803.5	2.5	117.0
	1942	4500.0	4500.0	.0	.0
	1943	12327.9	12425.3	.8	97.4
	1944	2000.0	2000.0	.0	.0
	1945	2750.0	2750.0	.0	.0
	1946	2750.0	2758.2	.3	8.2
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	3000.0	3250.0	8.3	250.0
	1951	3652.6	3767.9	3.2	115.3
	1952	6023.4	6137.0	1.9	113.6
	1953	3000.0	3000.0	.0	.0
	1954	3673.5	4285.6	16.7	612.1
	1955	2000.0	2000.0	.0	.0
	1956	3500.0	3500.0	.0	.0
	1957	3300.5	3983.7	20.7	683.2
	1958	6537.5	6649.6	1.7	112.1
	1959	1750.0	1750.0	.0	.0
	1960	2250.0	2250.0	.0	.0
	1961	1024.0	1024.0	.0	.0
	1962	2500.0	2500.0	.0	.0
	1963	3500.0	3500.0	.0	.0
	1964	2000.0	2000.0	.0	.0
	1965	3000.0	3000.0	.0	.0
	1966	1750.0	2000.0	14.3	250.0
	1967	5749.1	5944.0	3.4	194.9
	1968	3932.5	2104.2	-46.5	-1828.3
	1969	4500.0	4500.0	.0	.0
	1970	2268.6	2500.0	10.2	231.4
	1971	3941.8	4053.9	2.8	112.1
	1972	3542.9	4139.9	16.9	597.0
	1973	3229.7	3341.7	3.5	112.0
	1974	9531.6	9642.0	1.2	110.4
	1975	3579.8	4235.5	18.3	655.7
	1976	1600.0	1600.0	.0	.0
	1977	411.4	408.2	-.8	-3.2
	1978	5556.6	5836.5	5.0	279.9
	1979	2500.0	2750.0	10.0	250.0
	1980	3230.7	3426.7	6.1	196.0
	1981	1500.0	1600.0	6.7	100.0
	1982	7506.0	7619.7	1.5	113.7
	1983	16107.4	16186.9	.5	79.5
	1984	2515.2	2750.0	9.3	234.8
	1985	2000.0	2000.0	.0	.0
	1986	11023.8	11181.2	1.4	157.4
	1987	1152.0	1280.0	11.1	128.0
	1988	1400.0	1400.0	.0	.0
	1989	5586.0	6252.4	11.9	666.4
	1990	1500.0	1500.0	.0	.0
	1991	1750.0	1750.0	.0	.0
	Mean	3809.8	3917.6	3.1	107.9
	Median	3000.0	2879.1	.6	51.8
	Min	411.4	408.2	-46.5	-1828.3
	Max	16107.4	16186.9	20.7	854.3
X >	6000.0	10	11		
X <	3000.0	34	35		
X <	2000.0	16	15		
X <	1750.0	12	12		
X <	1500.0	7	6		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

April

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4500.0	4500.0	.0	.0
	1923	3407.5	3631.4	6.6	223.9
	1924	398.9	452.6	13.5	53.7
	1925	3444.5	3729.8	8.3	285.3
	1926	2000.0	2000.0	.0	.0
	1927	7814.6	7974.1	2.0	159.5
	1928	4645.9	4887.4	5.2	241.5
	1929	750.0	1250.0	66.7	500.0
	1930	2000.0	2000.0	.0	.0
	1931	500.0	500.0	.0	.0
	1932	2750.0	2750.0	.0	.0
	1933	1750.0	2000.0	14.3	250.0
	1934	2734.7	3141.3	14.9	406.6
	1935	4941.6	5202.5	5.3	260.9
	1936	5686.4	5794.4	1.9	108.0
	1937	4227.5	4380.4	3.6	152.9
	1938	7772.3	7926.7	2.0	154.4
	1939	750.0	1000.0	33.3	250.0
	1940	6073.4	6046.7	-.4	-26.7
	1941	3626.3	3782.3	4.3	156.0
	1942	4500.0	4500.0	.0	.0
	1943	5048.4	5236.3	3.7	187.9
	1944	2000.0	2000.0	.0	.0
	1945	2750.0	2750.0	.0	.0
	1946	3665.6	3932.3	7.3	266.7
	1947	2000.0	2000.0	.0	.0
	1948	2750.0	2750.0	.0	.0
	1949	2500.0	2500.0	.0	.0
	1950	4977.3	4993.0	.3	15.7
	1951	2905.5	3059.9	5.3	154.4
	1952	8844.3	8993.6	1.7	149.3
	1953	3250.0	3500.0	7.7	250.0
	1954	4407.4	4494.9	2.0	87.5
	1955	2000.0	2000.0	.0	.0
	1956	4000.0	4000.0	.0	.0
	1957	2750.0	2750.0	.0	.0
	1958	10224.2	10390.3	1.6	166.1
	1959	1750.0	1750.0	.0	.0
	1960	2250.0	2250.0	.0	.0
	1961	554.2	549.2	-.9	-5.0
	1962	2774.8	3410.4	22.9	635.6
	1963	4332.6	4637.4	7.0	304.8
	1964	2000.0	2000.0	.0	.0
	1965	3401.5	3691.4	8.5	289.9
	1966	1750.0	2000.0	14.3	250.0
	1967	4500.0	4500.0	.0	.0
	1968	2000.0	2000.0	.0	.0
	1969	5574.4	5844.3	4.8	269.9
	1970	2250.0	2250.0	.0	.0
	1971	3250.0	3250.0	.0	.0
	1972	2500.0	2500.0	.0	.0
	1973	2750.0	2750.0	.0	.0
	1974	6102.7	6203.4	1.7	100.7
	1975	4000.0	4000.0	.0	.0
	1976	500.0	500.0	.0	.0
	1977	403.9	397.2	-1.7	-6.7
	1978	4031.7	4123.1	2.3	91.4
	1979	2500.0	2750.0	10.0	250.0
	1980	2750.0	2750.0	.0	.0
	1981	1000.0	1500.0	50.0	500.0
	1982	14180.6	14346.7	1.2	166.1
	1983	6471.4	6657.6	2.9	186.2
	1984	2750.0	2750.0	.0	.0
	1985	2000.0	2000.0	.0	.0
	1986	2750.0	2750.0	.0	.0
	1987	544.7	539.8	-.9	-4.9
	1988	432.0	425.4	-1.5	-6.6
	1989	4083.4	4503.2	10.3	419.8
	1990	2059.9	2253.6	9.4	193.7
	1991	1750.0	1750.0	.0	.0
	Mean	3404.2	3519.8	5.0	115.5
	Median	2750.0	2750.0	.2	7.8
	Min	398.9	397.2	-1.7	-26.7
	Max	14180.6	14346.7	66.7	635.6
X >	6000.0	8	8		
X <	3000.0	39	36		
X <	2000.0	14	12		
X <	1750.0	10	10		
X <	1500.0	10	9		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

May

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8375.6	8885.9	6.1	510.3
	1923	4692.3	4868.1	3.7	175.8
	1924	429.1	495.8	15.5	66.7
	1925	4095.4	4590.1	12.1	494.7
	1926	2500.0	2500.0	.0	.0
	1927	4525.2	4746.1	4.9	220.9
	1928	3000.0	3000.0	.0	.0
	1929	1750.0	1750.0	.0	.0
	1930	2500.0	2750.0	10.0	250.0
	1931	750.0	500.0	-33.3	-250.0
	1932	3750.0	4000.0	6.7	250.0
	1933	2500.0	2500.0	.0	.0
	1934	500.0	500.0	.0	.0
	1935	4635.7	4690.5	1.2	54.8
	1936	4250.0	4250.0	.0	.0
	1937	4332.9	4509.2	4.1	176.3
	1938	9682.4	9900.0	2.2	217.6
	1939	1750.0	1750.0	.0	.0
	1940	3500.0	3750.0	7.1	250.0
	1941	5201.8	5403.2	3.9	201.4
	1942	5697.5	6113.7	7.3	416.2
	1943	3750.0	3750.0	.0	.0
	1944	2500.0	2500.0	.0	.0
	1945	3750.0	3750.0	.0	.0
	1946	3750.0	3750.0	.0	.0
	1947	2500.0	2500.0	.0	.0
	1948	3750.0	3750.0	.0	.0
	1949	2750.0	3000.0	9.1	250.0
	1950	4000.0	4000.0	.0	.0
	1951	3500.0	3536.1	1.0	36.1
	1952	11032.2	11230.4	1.8	198.2
	1953	4250.0	4250.0	.0	.0
	1954	3000.0	3000.0	.0	.0
	1955	2500.0	2500.0	.0	.0
	1956	4500.0	4500.0	.0	.0
	1957	3500.0	3750.0	7.1	250.0
	1958	9963.7	10174.9	2.1	211.2
	1959	2250.0	2500.0	11.1	250.0
	1960	2750.0	2750.0	.0	.0
	1961	1500.0	1500.0	.0	.0
	1962	3250.0	3250.0	.0	.0
	1963	6958.3	7205.1	3.5	246.8
	1964	2500.0	2500.0	.0	.0
	1965	4000.0	4000.0	.0	.0
	1966	2500.0	2500.0	.0	.0
	1967	7698.1	8025.7	4.3	327.6
	1968	2500.0	2500.0	.0	.0
	1969	9028.6	9208.8	2.0	180.2
	1970	2750.0	2750.0	.0	.0
	1971	4250.0	4250.0	.0	.0
	1972	2750.0	2750.0	.0	.0
	1973	3921.9	4264.0	8.7	342.1
	1974	4733.4	4994.9	5.5	261.5
	1975	4500.0	4500.0	.0	.0
	1976	507.3	530.0	4.5	22.7
	1977	406.4	395.0	-2.8	-11.4
	1978	4000.0	4411.1	10.3	411.1
	1979	3500.0	3698.1	5.7	198.1
	1980	4000.0	4000.0	.0	.0
	1981	1750.0	2000.0	14.3	250.0
	1982	9145.7	9325.9	2.0	180.2
	1983	10357.3	10505.0	1.4	147.7
	1984	3500.0	3500.0	.0	.0
	1985	2500.0	2500.0	.0	.0
	1986	3750.0	3750.0	.0	.0
	1987	750.0	584.3	-22.1	-165.7
	1988	500.0	500.0	.0	.0
	1989	3033.4	3098.0	2.1	64.6
	1990	1500.0	1500.0	.0	.0
	1991	2500.0	2250.0	-10.0	-250.0
	Mean	3813.6	3905.6	1.6	91.9
	Median	3500.0	3724.1	.0	.0
	Min	406.4	395.0	-33.3	-250.0
	Max	11032.2	11230.4	15.5	510.3
X >	6000.0	9	10		
X <	3000.0	28	27		
X <	2000.0	12	11		
X <	1750.0	9	9		
X <	1500.0	7	7		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

June

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8698.9	8997.6	3.4	298.7
	1923	4136.6	3770.9	-8.8	-365.7
	1924	452.6	533.3	17.8	80.7
	1925	5532.4	5926.3	7.1	393.9
	1926	2224.7	2411.3	8.4	186.6
	1927	5119.3	5349.1	4.5	229.8
	1928	4126.6	4196.2	1.7	69.6
	1929	2151.7	2165.6	.6	13.9
	1930	2000.0	2250.0	12.5	250.0
	1931	806.8	782.5	-3.0	-24.3
	1932	4897.3	4983.1	1.8	85.8
	1933	2246.8	2258.2	.5	11.4
	1934	1682.7	1514.6	-10.0	-168.1
	1935	3750.0	4164.6	11.1	414.6
	1936	3969.3	4410.3	11.1	441.0
	1937	3500.0	3500.0	.0	.0
	1938	8351.0	8596.0	2.9	245.0
	1939	620.5	750.0	20.9	129.5
	1940	3250.0	3250.0	.0	.0
	1941	3500.0	3750.0	7.1	250.0
	1942	7093.9	7421.2	4.6	327.3
	1943	3500.0	3500.0	.0	.0
	1944	1750.0	2000.0	14.3	250.0
	1945	4770.9	4880.2	2.3	109.3
	1946	5378.8	5466.7	1.6	87.9
	1947	1500.0	1500.0	.0	.0
	1948	3250.0	3250.0	.0	.0
	1949	2500.0	3699.5	48.0	1199.5
	1950	3750.0	3825.1	2.0	75.1
	1951	3250.0	3250.0	.0	.0
	1952	10238.3	10496.7	2.5	258.4
	1953	3750.0	3750.0	.0	.0
	1954	3595.8	3752.0	4.3	156.2
	1955	2000.0	2000.0	.0	.0
	1956	4552.8	5284.3	16.1	731.5
	1957	4235.9	4423.7	4.4	187.8
	1958	7498.9	7738.9	3.2	240.0
	1959	1250.0	1500.0	20.0	250.0
	1960	2250.0	2250.0	.0	.0
	1961	624.9	636.6	1.9	11.7
	1962	3074.6	3076.6	.1	2.0
	1963	3500.0	3500.0	.0	.0
	1964	2250.0	2250.0	.0	.0
	1965	3750.0	3750.0	.0	.0
	1966	1500.0	1500.0	.0	.0
	1967	10219.8	10463.1	2.4	243.3
	1968	1500.0	2000.0	33.3	500.0
	1969	6389.8	6648.2	4.0	258.4
	1970	3054.9	3081.7	.9	26.8
	1971	3750.0	3879.2	3.4	129.2
	1972	4448.6	4437.8	-.2	-10.8
	1973	6486.9	6486.9	.0	.0
	1974	4006.8	4263.5	6.4	256.7
	1975	4908.3	5547.4	13.0	639.1
	1976	2070.2	1872.2	-9.6	-198.0
	1977	454.3	439.2	-3.3	-15.1
	1978	3750.0	4498.8	20.0	748.8
	1979	6486.9	6486.9	.0	.0
	1980	3500.0	3500.0	.0	.0
	1981	750.0	1250.0	66.7	500.0
	1982	5991.5	6268.4	4.6	276.9
	1983	14274.9	14550.2	1.9	275.3
	1984	3927.3	3950.0	.6	22.7
	1985	2526.7	2841.8	12.5	315.1
	1986	3250.0	3500.0	7.7	250.0
	1987	600.3	613.8	2.2	13.5
	1988	1309.0	1244.6	-4.9	-64.4
	1989	3788.2	4351.2	14.9	563.0
	1990	1782.4	1766.6	-.9	-15.8
	1991	2869.5	2892.8	.8	23.3
	Mean	3770.4	3929.9	5.6	159.5
	Median	3500.0	3599.8	2.0	83.3
	Min	452.6	439.2	-10.0	-365.7
	Max	14274.9	14550.2	66.7	1199.5
X >	6000.0	10	11		
X <	3000.0	26	25		
X <	2000.0	15	14		
X <	1750.0	13	12		
X <	1500.0	9	8		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

July

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3466.8	3573.3	3.1	106.5
	1923	2967.0	3196.9	7.7	229.9
	1924	464.9	554.4	19.3	89.5
	1925	2658.0	3434.6	29.2	776.6
	1926	2605.5	2703.5	3.8	98.0
	1927	6489.1	6489.1	.0	.0
	1928	1500.0	1980.4	32.0	480.4
	1929	1471.0	1635.9	11.2	164.9
	1930	2715.8	2730.3	.5	14.5
	1931	2638.8	2446.5	-7.3	-192.3
	1932	3151.3	3288.2	4.3	136.9
	1933	2020.5	2029.5	.4	9.0
	1934	1483.3	1511.3	1.9	28.0
	1935	3007.9	3477.3	15.6	469.4
	1936	4070.4	4190.1	2.9	119.7
	1937	2510.8	2168.0	-13.7	-342.8
	1938	3286.8	3562.9	8.4	276.1
	1939	1752.0	1853.2	5.8	101.2
	1940	5488.8	5951.7	8.4	462.9
	1941	2250.0	2250.0	.0	.0
	1942	3255.9	3546.6	8.9	290.7
	1943	5991.6	6413.1	7.0	421.5
	1944	1612.5	1776.2	10.2	163.7
	1945	4325.2	4857.4	12.3	532.2
	1946	4075.5	4345.6	6.6	270.1
	1947	1533.8	1952.6	27.3	418.8
	1948	2523.6	3152.6	24.9	629.0
	1949	2720.3	2859.1	5.1	138.8
	1950	3509.2	3888.8	10.8	379.6
	1951	5229.3	5755.9	10.1	526.6
	1952	4394.4	4683.4	6.6	289.0
	1953	2336.1	3057.6	30.9	721.5
	1954	2037.2	2072.9	1.8	35.7
	1955	1500.0	1500.0	.0	.0
	1956	2930.7	3219.7	9.9	289.0
	1957	4669.6	4986.1	6.8	316.5
	1958	2930.7	3201.8	9.3	271.1
	1959	650.6	683.1	5.0	32.5
	1960	1500.0	1629.4	8.6	129.4
	1961	629.4	660.3	4.9	30.9
	1962	4528.8	4840.2	6.9	311.4
	1963	5777.1	5886.8	1.9	109.7
	1964	2190.6	2287.8	4.4	97.2
	1965	6489.1	6489.1	.0	.0
	1966	663.1	1000.0	50.8	336.9
	1967	4080.5	4367.9	7.0	287.4
	1968	750.0	1500.0	100.0	750.0
	1969	2717.6	3006.7	10.6	289.1
	1970	1844.6	2115.2	14.7	270.6
	1971	2251.5	3022.9	34.3	771.4
	1972	1500.0	1500.0	.0	.0
	1973	2771.6	3143.6	13.4	372.0
	1974	3194.1	3479.9	8.9	285.8
	1975	2681.8	2967.6	10.7	285.8
	1976	1451.7	1404.6	-3.2	-47.1
	1977	466.5	447.0	-4.2	-19.5
	1978	5666.7	5603.2	-1.1	-63.5
	1979	1500.0	2722.7	81.5	1222.7
	1980	4077.3	4198.0	3.0	120.7
	1981	627.8	657.1	4.7	29.3
	1982	3127.4	3416.5	9.2	289.1
	1983	6043.5	6332.5	4.8	289.0
	1984	4650.9	4882.9	5.0	232.0
	1985	1964.8	2142.9	9.1	178.1
	1986	5161.3	5988.6	16.0	827.3
	1987	1209.0	1244.8	3.0	35.8
	1988	913.4	932.8	2.1	19.4
	1989	3072.5	3341.4	8.8	268.9
	1990	1207.8	1305.6	8.1	97.8
	1991	2519.2	2256.4	-10.4	-262.8
	Mean	2849.3	3082.2	10.6	232.9
	Median	2669.9	3014.8	6.9	204.0
	Min	464.9	447.0	-13.7	-342.8
	Max	6489.1	6489.1	100.0	1222.7
X >	6000.0	3	4		
X <	3000.0	43	34		
X <	2000.0	23	20		
X <	1750.0	20	16		
X <	1500.0	13	10		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

August

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2818.1	3217.5	14.2	399.4
	1923	4565.9	4155.8	-9.0	-410.1
	1924	460.0	547.9	19.1	87.9
	1925	1750.0	2554.0	45.9	804.0
	1926	750.0	750.0	.0	.0
	1927	3729.1	3834.7	2.8	105.6
	1928	4114.5	3798.8	-7.7	-315.7
	1929	536.5	559.3	4.2	22.8
	1930	1000.0	1000.0	.0	.0
	1931	536.9	558.1	3.9	21.2
	1932	1750.0	2000.0	14.3	250.0
	1933	541.8	750.0	38.4	208.2
	1934	540.2	561.3	3.9	21.1
	1935	4034.9	4161.9	3.1	127.0
	1936	2308.4	2661.2	15.3	352.8
	1937	2000.0	2723.7	36.2	723.7
	1938	3937.0	4232.5	7.5	295.5
	1939	621.7	646.1	3.9	24.4
	1940	3224.2	3339.3	3.6	115.1
	1941	3266.2	3878.9	18.8	612.7
	1942	4018.3	4312.2	7.3	293.9
	1943	3066.4	2979.5	-2.8	-86.9
	1944	1000.0	1000.0	.0	.0
	1945	2354.7	2481.0	5.4	126.3
	1946	2335.6	2134.1	-8.6	-201.5
	1947	750.0	1000.0	33.3	250.0
	1948	3003.6	2966.7	-1.2	-36.9
	1949	2925.8	2541.0	-13.2	-384.8
	1950	2781.3	2849.7	2.5	68.4
	1951	3204.5	3312.4	3.4	107.9
	1952	4441.1	4733.4	6.6	292.3
	1953	4012.1	4325.2	7.8	313.1
	1954	4039.2	3958.2	-2.0	-81.0
	1955	1963.3	2471.2	25.9	507.9
	1956	3987.4	4278.1	7.3	290.7
	1957	2582.4	2445.2	-5.3	-137.2
	1958	4099.6	4390.3	7.1	290.7
	1959	1617.8	2091.3	29.3	473.5
	1960	2261.8	3283.7	45.2	1021.9
	1961	626.2	750.0	19.8	123.8
	1962	2817.3	2825.9	.3	8.6
	1963	1843.5	1950.3	5.8	106.8
	1964	1000.0	1000.0	.0	.0
	1965	2598.3	2767.5	6.5	169.2
	1966	1784.0	2556.2	43.3	772.2
	1967	4062.2	4354.5	7.2	292.3
	1968	1819.4	2299.8	26.4	480.4
	1969	3886.5	4162.6	7.1	276.1
	1970	3798.6	3864.2	1.7	65.6
	1971	3808.5	4115.4	8.1	306.9
	1972	3485.7	4046.1	16.1	560.4
	1973	3783.1	3894.4	2.9	111.3
	1974	4068.7	4343.1	6.7	274.4
	1975	3868.6	4141.4	7.1	272.8
	1976	1060.5	1098.1	3.5	37.6
	1977	461.7	442.1	-4.2	-19.6
	1978	3250.0	3371.0	3.7	121.0
	1979	3055.9	3208.4	5.0	152.5
	1980	4150.9	4263.2	2.7	112.3
	1981	931.4	1250.6	34.3	319.2
	1982	4052.4	4344.7	7.2	292.3
	1983	4805.4	4870.9	1.4	65.5
	1984	3015.6	2798.1	-7.2	-217.5
	1985	2596.2	2665.5	2.7	69.3
	1986	3500.9	3359.8	-4.0	-141.1
	1987	1504.2	1444.6	-4.0	-59.6
	1988	532.9	558.9	4.9	26.0
	1989	3545.1	3936.8	11.0	391.7
	1990	1629.7	1796.0	10.2	166.3
	1991	553.6	576.4	4.1	22.8
	Mean	2554.7	2722.0	8.5	167.3
	Median	2799.3	2812.0	4.9	118.1
	Min	460.0	442.1	-13.2	-410.1
	Max	4805.4	4870.9	45.9	1021.9
X >	6000.0	0	0		
X <	3000.0	38	39		
X <	2000.0	26	20		
X <	1750.0	20	18		
X <	1500.0	17	18		

LOWER AMERICAN RIVER FLOW BELOW NIMBUS DAM

September

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	3446.4	3763.4	9.2	317.0
1923	2000.0	2500.0	25.0	500.0
1924	750.0	607.8	-19.0	-142.2
1925	2500.0	2000.0	-20.0	-500.0
1926	1250.0	1500.0	20.0	250.0
1927	1894.7	2231.4	17.8	336.7
1928	1500.0	1500.0	.0	.0
1929	1000.0	1250.0	25.0	250.0
1930	1500.0	1500.0	.0	.0
1931	750.0	750.0	.0	.0
1932	2500.0	3417.4	36.7	917.4
1933	1250.0	1250.0	.0	.0
1934	588.6	618.9	5.1	30.3
1935	2505.5	3229.7	28.9	724.2
1936	3763.2	3959.2	5.2	196.0
1937	3399.1	3864.7	13.7	465.6
1938	3805.8	4047.4	6.3	241.6
1939	1250.0	1250.0	.0	.0
1940	1633.4	1769.1	8.3	135.7
1941	3755.3	3995.3	6.4	240.0
1942	3789.0	4028.9	6.3	239.9
1943	1750.0	1750.0	.0	.0
1944	1500.0	1500.0	.0	.0
1945	2342.3	2449.9	4.6	107.6
1946	2755.8	2870.7	4.2	114.9
1947	1500.0	1500.0	.0	.0
1948	3187.6	3390.0	6.3	202.4
1949	1562.3	1925.2	23.2	362.9
1950	3082.7	3803.0	23.4	720.3
1951	1976.3	2254.7	14.1	278.4
1952	3990.6	4245.7	6.4	255.1
1953	3757.0	3993.6	6.3	236.6
1954	1500.0	1500.0	.0	.0
1955	1500.0	1500.0	.0	.0
1956	3723.4	3961.7	6.4	238.3
1957	1763.2	1896.8	7.6	133.6
1958	3822.6	4076.0	6.6	253.4
1959	1250.0	1250.0	.0	.0
1960	1500.0	1529.5	2.0	29.5
1961	1250.0	1500.0	20.0	250.0
1962	2179.8	2220.6	1.9	40.8
1963	2250.0	2250.0	.0	.0
1964	1500.0	1500.0	.0	.0
1965	2000.0	2250.0	12.5	250.0
1966	1250.0	1250.0	.0	.0
1967	4069.6	4291.1	5.4	221.5
1968	1250.0	1975.4	58.0	725.4
1969	3787.3	4008.7	5.8	221.4
1970	1500.0	1500.0	.0	.0
1971	3605.8	3825.6	6.1	219.8
1972	1500.0	1500.0	.0	.0
1973	1500.0	1626.6	8.4	126.6
1974	3891.5	4128.1	6.1	236.6
1975	3668.0	3919.7	6.9	251.7
1976	600.4	639.1	6.4	38.7
1977	522.1	508.7	-2.6	-13.4
1978	1750.0	2250.0	28.6	500.0
1979	1935.6	2411.5	24.6	475.9
1980	2000.0	2250.0	12.5	250.0
1981	1500.0	1500.0	.0	.0
1982	4207.4	4447.4	5.7	240.0
1983	4826.7	4873.6	1.0	46.9
1984	1750.0	1750.0	.0	.0
1985	1250.0	1250.0	.0	.0
1986	1750.0	1750.0	.0	.0
1987	1000.0	1000.0	.0	.0
1988	750.0	750.0	.0	.0
1989	1250.0	1250.0	.0	.0
1990	750.0	750.0	.0	.0
1991	1000.0	1000.0	.0	.0
Mean	2133.4	2293.7	7.0	160.2
Median	1750.0	1911.0	5.3	120.8
Min	522.1	508.7	-20.0	-500.0
Max	4826.7	4873.6	58.0	917.4
X > 6000.0	0	0		
X < 3000.0	51	49		
X < 2000.0	41	37		
X < 1750.0	33	30		
X < 1500.0	19	16		

RETURN TO TABLE OF CONTENTS

Section 7

LOWER AMERICAN RIVER FLOW AT WATT AVENUE

LOWER AMERICAN RIVER FLOWS AT WATT AVE

October

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2419.6	2426.3	.3	6.7
	1923	2437.5	2444.2	.3	6.7
	1924	2418.0	2423.1	.2	5.1
	1925	993.0	743.0	-25.2	-250.0
	1926	2414.7	2421.5	.3	6.8
	1927	1707.0	1712.1	.3	5.1
	1928	2431.0	2434.5	.1	3.5
	1929	1661.5	1914.9	15.3	253.4
	1930	1416.3	1421.5	.4	5.2
	1931	1664.7	1919.8	15.3	255.1
	1932	1174.5	1182.8	.7	8.3
	1933	2406.6	2411.7	.2	5.1
	1934	1676.1	1682.8	.4	6.7
	1935	555.7	676.3	21.7	120.6
	1936	2437.5	2442.6	.2	5.1
	1937	2411.5	2414.9	.1	3.4
	1938	2429.3	2431.2	.1	1.9
	1939	2421.2	2419.8	-.1	-1.4
	1940	1439.1	1692.6	17.6	253.5
	1941	1935.8	2187.7	13.0	251.9
	1942	2447.2	2447.5	.0	.3
	1943	2424.5	2424.7	.0	.2
	1944	2168.0	2416.6	11.5	248.6
	1945	1947.2	2197.5	12.9	250.3
	1946	1961.9	2212.1	12.8	250.2
	1947	1669.6	2166.6	29.8	497.0
	1948	1707.0	1705.6	-.1	-1.4
	1949	2424.5	2426.3	.1	1.8
	1950	1918.0	2416.6	26.0	498.6
	1951	2470.0	2468.6	-.1	-1.4
	1952	1961.9	1962.1	.0	.2
	1953	2421.2	2416.6	-.2	-4.6
	1954	2427.7	2423.1	-.2	-4.6
	1955	1672.8	1919.8	14.8	247.0
	1956	1697.2	1947.5	14.7	250.3
	1957	2445.6	2439.3	-.3	-6.3
	1958	2215.1	2465.4	11.3	250.3
	1959	2422.8	2418.2	-.2	-4.6
	1960	1671.2	1669.8	-.1	-1.4
	1961	1918.0	1918.2	.0	.2
	1962	1672.8	1674.7	.1	1.9
	1963	2453.8	3043.5	24.0	589.7
	1964	2439.1	2437.7	-.1	-1.4
	1965	1961.9	2213.7	12.8	251.8
	1966	2413.1	2411.7	-.1	-1.4
	1967	1679.3	1681.2	.1	1.9
	1968	2418.0	2411.7	-.3	-6.3
	1969	1694.0	1695.8	.1	1.8
	1970	2437.5	2434.5	-.1	-3.0
	1971	1948.9	1945.8	-.2	-3.1
	1972	2424.5	2419.8	-.2	-4.7
	1973	1715.1	1713.7	-.1	-1.4
	1974	1713.5	1960.5	14.4	247.0
	1975	2445.6	2442.6	-.1	-3.0
	1976	2465.1	2458.9	-.3	-6.2
	1977	594.3	620.6	4.4	26.3
	1978	524.6	505.1	-3.7	-19.5
	1979	2421.2	2424.7	.1	3.5
	1980	1720.0	1721.9	.1	1.9
	1981	2414.7	2414.9	.0	.2
	1982	1728.1	1731.6	.2	3.5
	1983	3171.1	3389.0	6.9	217.9
	1984	2451.4	3074.8	25.4	623.4
	1985	2207.0	2454.0	11.2	247.0
	1986	1455.4	1707.2	17.3	251.8
	1987	2176.1	2423.1	11.4	247.0
	1988	1873.8	1851.2	-1.2	-22.6
	1989	924.5	928.0	.4	3.5
	1990	1702.1	1705.6	.2	3.5
	1991	924.5	1179.6	27.6	255.1
	Mean	1980.2	2070.6	4.9	90.4
	Median	1961.9	2312.7	.2	3.5
	Min	524.6	505.1	-25.2	-250.0
	Max	3171.1	3389.0	29.8	623.4
X < 1500.0		10	8		
X < 1750.0		27	21		
X < 1765.0		27	21		
X < 2000.0		36	30		
X < 3000.0		69	67		
X >= 2500.0		1	3		
2500.0 > X >= 2000.0		33	37		
2000.0 > X >= 1750.0		9	9		
1750.0 > X >= 800.0		24	17		
800.0 > X		3	4		
X < 3450.0		70	70		
Mean of X >= 3450.0		.0	.0	.0	.0

LOWER AMERICAN RIVER FLOWS AT WATT AVE

November

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2448.1	2444.7	-.1	-3.4
	1923	2503.5	2498.5	-.2	-5.0
	1924	2424.5	2417.8	-.3	-6.7
	1925	939.7	689.7	-26.6	-250.0
	1926	2436.3	2432.9	-.1	-3.4
	1927	1790.5	1785.5	-.3	-5.0
	1928	2463.2	2456.5	-.3	-6.7
	1929	1716.6	1958.2	14.1	241.6
	1930	1414.5	1409.4	-.4	-5.1
	1931	1688.0	1932.9	14.5	244.9
	1932	1203.1	1199.8	-.3	-3.3
	1933	2417.8	2412.8	-.2	-5.0
	1934	1656.1	1651.0	-.3	-5.1
	1935	556.6	736.7	32.4	180.1
	1936	2438.0	2432.9	-.2	-5.1
	1937	2417.8	2409.4	-.3	-8.4
	1938	2495.1	2488.4	-.3	-6.7
	1939	2426.2	2416.1	-.4	-10.1
	1940	1421.2	1664.5	17.1	243.3
	1941	1964.9	2208.2	12.4	243.3
	1942	2464.9	2456.5	-.3	-8.4
	1943	3369.3	3632.6	7.8	263.3
	1944	2191.3	2429.6	10.9	238.3
	1945	1996.8	2236.7	12.0	239.9
	1946	1966.6	2204.8	12.1	238.2
	1947	1721.6	2208.2	28.3	486.6
	1948	1698.1	1686.3	-.7	-11.8
	1949	2438.0	2426.2	-.5	-11.8
	1950	1943.0	2429.6	25.0	486.6
	1951	16690.4	16945.4	1.5	255.0
	1952	1980.0	1969.9	-.5	-10.1
	1953	2469.9	2454.8	-.6	-15.1
	1954	2464.9	2449.8	-.6	-15.1
	1955	1733.4	1969.9	13.6	236.5
	1956	1721.6	1961.5	13.9	239.9
	1957	2429.6	2414.5	-.6	-15.1
	1958	2199.8	2438.0	10.8	238.2
	1959	2434.6	2419.5	-.6	-15.1
	1960	1674.5	1664.5	-.6	-10.0
	1961	1998.5	1986.7	-.6	-11.8
	1962	1723.3	1713.2	-.6	-10.1
	1963	2965.9	3023.1	1.9	57.2
	1964	2794.3	3901.4	39.6	1107.1
	1965	1996.8	2236.7	12.0	239.9
	1966	2488.4	2475.0	-.5	-13.4
	1967	1803.9	1793.9	-.6	-10.0
	1968	2449.8	2434.6	-.6	-15.2
	1969	1753.5	1743.4	-.6	-10.1
	1970	2451.4	2439.7	-.5	-11.7
	1971	2062.3	2048.9	-.6	-13.4
	1972	2448.1	2434.6	-.6	-13.5
	1973	1780.4	1767.0	-.8	-13.4
	1974	3977.7	4413.1	10.9	435.4
	1975	2464.9	2453.1	-.5	-11.8
	1976	2637.5	2890.6	9.6	253.1
	1977	595.3	580.3	-2.5	-15.0
	1978	502.0	486.9	-3.0	-15.1
	1979	2491.8	2483.4	-.3	-8.4
	1980	1721.6	1713.2	-.5	-8.4
	1981	2426.2	2417.8	-.3	-8.4
	1982	4363.9	4551.8	4.3	187.9
	1983	6764.3	6869.9	1.6	105.6
	1984	14420.9	14432.4	.1	11.5
	1985	2300.6	2537.1	10.3	236.5
	1986	1552.3	1792.2	15.5	239.9
	1987	2191.3	2427.9	10.8	236.6
	1988	1517.3	1487.6	-2.0	-29.7
	1989	968.2	961.5	-.7	-6.7
	1990	1703.1	1696.4	-.4	-6.7
	1991	936.3	1181.3	26.2	245.0
	Mean	2523.7	2620.3	4.5	96.5
	Median	2191.3	2413.6	-.3	-5.1
	Min	502.0	486.9	-26.6	-250.0
	Max	16690.4	16945.4	39.6	1107.1
X <	1500.0	9	9		
X <	1750.0	22	17		
X <	1765.0	23	17		
X <	2000.0	33	27		
X <	3000.0	64	62		
X >=	2500.0	10	10		
2500.0 > X >=	2000.0	27	33		
2000.0 > X >=	1750.0	11	10		
1750.0 > X >=	1200.0	16	10		
1200.0 > X		6	7		
X <	3450.0	65	63		
Mean of X >=	3450.0	9243.4	7820.9	-15.4	-1422.5

LOWER AMERICAN RIVER FLOWS AT WATT AVE

December

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2533.7	2538.8	.2	5.1
	1923	6121.4	6473.7	5.8	352.3
	1924	2431.2	2436.3	.2	5.1
	1925	1016.0	766.0	-24.6	-250.0
	1926	2452.4	2457.5	.2	5.1
	1927	1699.1	1704.2	.3	5.1
	1928	2457.2	2460.7	.1	3.5
	1929	1717.0	1968.9	14.7	251.9
	1930	1501.1	1506.3	.3	5.2
	1931	1666.6	1921.7	15.3	255.1
	1932	1312.9	1321.3	.6	8.4
	1933	2458.9	2464.0	.2	5.1
	1934	1760.9	1767.6	.4	6.7
	1935	659.7	715.6	8.5	55.9
	1936	2452.4	2457.5	.2	5.1
	1937	2478.4	2480.2	.1	1.8
	1938	5793.7	6155.4	6.2	361.7
	1939	2441.0	2441.2	.0	.2
	1940	1441.0	1694.5	17.6	253.5
	1941	2087.3	2339.2	12.1	251.9
	1942	4544.0	4930.4	8.5	386.4
	1943	4640.8	4741.7	2.2	100.9
	1944	2213.7	2462.4	11.2	248.7
	1945	1968.6	2220.5	12.8	251.9
	1946	7108.5	7585.8	6.7	477.3
	1947	1720.2	2218.9	29.0	498.7
	1948	1689.3	1688.0	-.1	-1.3
	1949	2493.0	2493.3	.0	.3
	1950	1955.6	2452.6	25.4	497.0
	1951	16288.4	16355.2	.4	66.8
	1952	3241.7	3945.2	21.7	703.5
	1953	2554.8	2551.8	-.1	-3.0
	1954	2442.6	2438.0	-.2	-4.6
	1955	1764.2	2009.5	13.9	245.3
	1956	14864.6	14768.6	-.6	-96.0
	1957	2436.1	2433.1	-.1	-3.0
	1958	2244.6	2494.9	11.2	250.3
	1959	2449.1	2444.5	-.2	-4.6
	1960	1931.8	1801.2	-6.8	-130.6
	1961	1942.6	1941.2	-.1	-1.4
	1962	1720.2	1720.5	.0	.3
	1963	3389.9	3395.1	.2	5.2
	1964	2432.8	3058.1	25.7	625.3
	1965	20302.3	20419.3	.6	117.0
	1966	2478.4	2477.0	-.1	-1.4
	1967	1754.4	1754.6	.0	.2
	1968	2447.5	2444.5	-.1	-3.0
	1969	1751.1	1751.4	.0	.3
	1970	4899.7	5260.2	7.4	360.5
	1971	4375.8	4734.3	8.2	358.5
	1972	2509.3	2506.3	-.1	-3.0
	1973	1736.5	1735.1	-.1	-1.4
	1974	7420.2	7511.3	1.2	91.1
	1975	2497.9	2496.5	-.1	-1.4
	1976	2444.2	2441.2	-.1	-3.0
	1977	698.4	697.1	-.2	-1.3
	1978	623.8	610.8	-2.1	-13.0
	1979	2449.1	2451.0	.1	1.9
	1980	1762.5	1764.4	.1	1.9
	1981	2470.2	2470.5	.0	.3
	1982	14224.7	14257.0	.2	32.3
	1983	9025.4	9124.7	1.1	99.3
	1984	15180.8	15350.0	1.1	169.2
	1985	2218.6	2467.2	11.2	248.6
	1986	1501.1	1751.4	16.7	250.3
	1987	2207.2	2455.8	11.3	248.6
	1988	1269.0	1269.3	.0	.3
	1989	981.6	985.1	.4	3.5
	1990	1678.0	1681.5	.2	3.5
	1991	950.7	1204.2	26.7	253.5
	Mean	3519.7	3632.8	4.3	113.1
	Median	2434.5	2447.8	.2	5.1
	Min	623.8	610.8	-24.6	-250.0
	Max	20302.3	20419.3	29.0	703.5
X <	1500.0	9	8		
X <	1750.0	19	15		
X <	1765.0	24	19		
X <	2000.0	28	24		
X <	3000.0	54	53		
X >=	2500.0	19	20		
2500.0 > X >=	2000.0	23	26		
2000.0 > X >=	1750.0	9	9		
1750.0 > X >=	1200.0	13	10		
1200.0 > X		6	5		
X <	3450.0	56	55		
Mean of X >=	3450.0	9627.9	9440.9	-1.9	-187.0

LOWER AMERICAN RIVER FLOWS AT WATT AVE

January

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	1976.7	1983.5	.3	6.8
	1923	4404.9	4517.2	2.5	112.3
	1924	1967.0	1973.7	.3	6.7
	1925	1702.6	1952.6	14.7	250.0
	1926	1973.5	1980.2	.3	6.7
	1927	2661.7	3081.9	15.8	420.2
	1928	1955.6	2209.1	13.0	253.5
	1929	1342.6	1546.1	15.2	203.5
	1930	1749.5	1754.6	.3	5.1
	1931	1478.4	1581.9	7.0	103.5
	1932	1695.8	1704.2	.5	8.4
	1933	1986.5	1991.6	.3	5.1
	1934	1691.0	1696.1	.3	5.1
	1935	2009.3	2014.4	.3	5.1
	1936	3954.1	4049.4	2.4	95.3
	1937	1989.8	1993.3	.2	3.5
	1938	2736.2	2848.6	4.1	112.4
	1939	1958.9	2209.1	12.8	250.2
	1940	2071.3	1912.5	-7.7	-158.8
	1941	4797.8	4958.5	3.3	160.7
	1942	9199.4	9331.2	1.4	131.8
	1943	10816.0	10913.7	.9	97.7
	1944	1778.4	1978.6	11.3	200.2
	1945	2200.7	2201.0	.0	.3
	1946	5048.9	5158.0	2.2	109.1
	1947	1937.7	1938.0	.0	.3
	1948	1691.0	1689.6	-.1	-1.4
	1949	1957.2	1957.5	.0	.3
	1950	1609.3	2007.9	24.8	398.6
	1951	9996.8	10089.7	.9	92.9
	1952	8981.5	9079.1	1.1	97.6
	1953	6220.1	6656.7	7.0	436.6
	1954	2241.4	2236.7	-.2	-4.7
	1955	1997.9	1994.9	-.2	-3.0
	1956	16355.3	16342.3	-.1	-13.0
	1957	2228.4	2225.4	-.1	-3.0
	1958	2028.8	2029.0	.0	.2
	1959	2032.0	2029.0	-.1	-3.0
	1960	1586.0	1481.3	-6.6	-104.7
	1961	1573.5	1572.1	-.1	-1.4
	1962	1352.4	1354.2	.1	1.8
	1963	3843.6	3913.9	1.8	70.3
	1964	2499.5	2499.8	.0	.3
	1965	13170.3	13144.3	-.2	-26.0
	1966	2213.7	2462.4	11.2	248.7
	1967	6125.7	6635.1	8.3	509.4
	1968	2504.4	2501.4	-.1	-3.0
	1969	14308.0	14717.0	2.9	409.0
	1970	20863.6	20966.1	.5	102.5
	1971	4647.0	4694.5	1.0	47.5
	1972	2450.7	2447.7	-.1	-3.0
	1973	8359.2	8738.1	4.5	378.9
	1974	11269.8	11344.7	.7	74.9
	1975	2202.4	2201.0	-.1	-1.4
	1976	2442.6	2439.6	-.1	-3.0
	1977	560.9	559.9	-.2	-1.0
	1978	2229.5	2638.7	18.4	409.2
	1979	2025.5	2027.4	.1	1.9
	1980	15274.0	15708.9	2.8	434.9
	1981	2017.4	2019.3	.1	1.9
	1982	8184.1	8224.8	.5	40.7
	1983	7530.8	7630.1	1.3	99.3
	1984	6457.6	6519.5	1.0	61.9
	1985	2460.5	2459.1	-.1	-1.4
	1986	2368.4	2022.4	-14.6	-346.0
	1987	1784.9	1983.5	11.1	198.6
	1988	1001.1	1001.4	.0	.3
	1989	1945.8	1949.3	.2	3.5
	1990	1751.1	1754.6	.2	3.5
	1991	737.7	942.8	27.8	205.1
	Mean	4173.8	4262.5	3.0	88.7
	Median	2201.5	2205.1	.3	6.8
	Min	560.9	559.9	-14.6	-346.0
	Max	20863.6	20966.1	27.8	509.4
X <	1500.0	6	5		
X <	1750.0	14	11		
X <	1765.0	15	13		
X <	2000.0	28	26		
X <	3000.0	48	47		
X >=	2500.0	25	26		
2500.0 > X >=	2000.0	17	18		
2000.0 > X >=	1750.0	14	15		
1750.0 > X >=	1200.0	11	8		
1200.0 > X		3	3		
X <	3450.0	48	48		
Mean of X >=	3450.0	9082.2	9242.4	1.8	160.2

LOWER AMERICAN RIVER FLOWS AT WATT AVE

February

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2517.5	3140.3	24.7	622.8
	1923	2901.4	3026.4	4.3	125.0
	1924	1587.2	1741.8	9.7	154.6
	1925	3900.8	4504.7	15.5	603.9
	1926	1798.4	1804.8	.4	6.4
	1927	13405.8	13448.4	.3	42.6
	1928	1960.2	1963.0	.1	2.8
	1929	1069.4	1230.4	15.1	161.0
	1930	1940.4	1945.0	.2	4.6
	1931	1203.0	1237.6	2.9	34.6
	1932	1956.6	2189.2	11.9	232.6
	1933	1683.2	1687.8	.3	4.6
	1934	1717.4	1972.0	14.8	254.6
	1935	1936.8	1943.2	.3	6.4
	1936	13382.3	13482.2	.7	99.9
	1937	1796.6	1822.6	1.4	26.0
	1938	9747.1	9850.8	1.1	103.7
	1939	1940.4	1941.4	.1	1.0
	1940	10550.1	10621.5	.7	71.4
	1941	7907.0	8037.5	1.7	130.5
	1942	9850.0	9978.7	1.3	128.7
	1943	6740.5	6849.4	1.6	108.9
	1944	1508.2	1665.6	10.4	157.4
	1945	6043.1	6200.0	2.6	156.9
	1946	2575.5	2666.4	3.5	90.9
	1947	1969.2	1716.6	-12.8	-252.6
	1948	1699.4	1948.6	14.7	249.2
	1949	1556.6	1955.8	25.6	399.2
	1950	3507.5	2980.4	-15.0	-527.1
	1951	8022.9	8126.4	1.3	103.5
	1952	9381.7	9488.7	1.1	107.0
	1953	2069.5	2187.4	5.7	117.9
	1954	1999.8	1993.6	-.3	-6.2
	1955	1958.4	1955.8	-.1	-2.6
	1956	6114.8	6160.5	.7	45.7
	1957	2012.4	2008.0	-.2	-4.4
	1958	6886.7	7458.9	8.3	572.2
	1959	2023.2	2018.8	-.2	-4.4
	1960	1264.1	1178.8	-6.7	-85.3
	1961	1236.6	1234.0	-.2	-2.6
	1962	1202.6	1331.8	10.7	129.2
	1963	11936.8	11979.3	.4	42.5
	1964	1931.4	1930.6	.0	-.8
	1965	5353.7	5403.0	.9	49.3
	1966	1965.6	1963.0	-.1	-2.6
	1967	4278.7	4357.2	1.8	78.5
	1968	4890.3	5537.5	13.2	647.2
	1969	9234.1	9305.4	.8	71.3
	1970	6188.3	6273.8	1.4	85.5
	1971	3237.8	3310.9	2.3	73.1
	1972	1962.0	2017.5	2.8	55.5
	1973	7127.3	7175.2	.7	47.9
	1974	4022.5	4221.3	4.9	198.8
	1975	2066.4	2063.8	-.1	-2.6
	1976	1949.4	1945.0	-.2	-4.4
	1977	445.2	445.0	.0	-.2
	1978	4619.8	4782.0	3.5	162.2
	1979	1749.8	1999.0	14.2	249.2
	1980	13636.5	14045.7	3.0	409.2
	1981	1545.8	1946.8	25.9	401.0
	1982	15290.7	15350.9	.4	60.2
	1983	12324.1	12413.1	.7	89.0
	1984	5519.8	5607.0	1.6	87.2
	1985	1978.2	1977.4	.0	-.8
	1986	33239.5	33236.7	.0	-2.8
	1987	1441.6	1600.8	11.0	159.2
	1988	1692.2	1691.4	.0	-.8
	1989	1697.6	1700.4	.2	2.8
	1990	1394.4	1747.2	25.3	352.8
	1991	620.0	782.8	26.3	162.8
	Mean	4683.8	4792.9	4.3	109.2
	Median	2017.8	2041.3	1.2	75.8
	Min	445.2	445.0	-15.0	-527.1
	Max	33239.5	33236.7	26.3	647.2
X <	1500.0	9	7		
X <	1750.0	19	15		
X <	1765.0	19	15		
X <	2000.0	34	32		
X <	3000.0	41	40		
X >=	2500.0	32	32		
2500.0 > X >=	2000.0	4	6		
2000.0 > X >=	1750.0	15	17		
1750.0 > X >=	1200.0	16	12		
1200.0 > X		3	3		
X <	3450.0	42	43		
Mean of X >=	3450.0	9039.4	9403.5	4.0	364.2

LOWER AMERICAN RIVER FLOWS AT WATT AVE

March

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4471.9	4478.6	.1	6.7
	1923	2681.2	2686.3	.2	5.1
	1924	1234.2	1349.3	9.3	115.1
	1925	3129.6	3546.7	13.3	417.1
	1926	1926.3	1933.1	.4	6.8
	1927	4351.4	4523.8	4.0	172.4
	1928	9724.1	10580.3	8.8	856.2
	1929	1458.9	1462.4	.2	3.5
	1930	1975.1	1978.6	.2	3.5
	1931	941.0	970.1	3.1	29.1
	1932	2674.7	2681.5	.3	6.8
	1933	1708.9	1714.0	.3	5.1
	1934	1316.6	1521.7	15.6	205.1
	1935	3233.3	3238.4	.2	5.1
	1936	4020.6	4121.6	2.5	101.0
	1937	3851.6	4408.6	14.5	557.0
	1938	10676.3	10791.8	1.1	115.5
	1939	1573.5	1573.7	.0	.2
	1940	10638.9	10904.0	2.5	265.1
	1941	4669.8	4787.0	2.5	117.2
	1942	4488.1	4490.0	.0	1.9
	1943	12301.4	12394.1	.8	92.7
	1944	1954.0	1954.2	.0	.2
	1945	2738.1	2738.4	.0	.3
	1946	2723.5	2731.9	.3	8.4
	1947	1993.0	1991.6	-.1	-1.4
	1948	2739.8	2738.4	-.1	-1.4
	1949	2527.2	2527.4	.0	.2
	1950	2970.2	3218.9	8.4	248.7
	1951	3600.1	3715.6	3.2	115.5
	1952	6021.3	6133.5	1.9	112.2
	1953	2971.9	2970.5	.0	-1.4
	1954	3671.4	4280.5	16.6	609.1
	1955	1937.7	1934.7	-.2	-3.0
	1956	3442.6	3442.8	.0	.2
	1957	3278.9	3959.1	20.7	680.2
	1958	6551.7	6659.1	1.6	107.4
	1959	1697.5	1694.5	-.2	-3.0
	1960	2208.9	2207.5	-.1	-1.4
	1961	992.6	992.9	.0	.3
	1962	2460.5	2462.4	.1	1.9
	1963	3496.3	3494.9	.0	-1.4
	1964	1950.7	1951.0	.0	.3
	1965	2962.1	2964.0	.1	1.9
	1966	1686.1	1936.3	14.8	250.2
	1967	5745.4	5937.3	3.3	191.9
	1968	3909.3	2077.9	-46.8	-1831.4
	1969	4457.2	4454.2	-.1	-3.0
	1970	2234.0	2464.0	10.3	230.0
	1971	3913.7	4022.8	2.8	109.1
	1972	3480.6	4076.2	17.1	595.6
	1973	3213.0	3320.4	3.3	107.4
	1974	9547.4	9651.6	1.1	104.2
	1975	3602.1	4256.4	18.2	654.3
	1976	1555.6	1552.6	-.2	-3.0
	1977	375.4	362.4	-3.5	-13.0
	1978	5569.1	5852.5	5.1	283.4
	1979	2473.5	2725.4	10.2	251.9
	1980	3205.8	3400.4	6.1	194.6
	1981	1497.9	1599.8	6.8	101.9
	1982	7557.6	7668.2	1.5	110.6
	1983	16207.7	16282.6	.5	74.9
	1984	2490.3	2723.7	9.4	233.4
	1985	1997.9	1998.1	.0	.2
	1986	11037.9	11189.1	1.4	151.2
	1987	1164.5	1291.1	10.9	126.6
	1988	1339.3	1339.6	.0	.3
	1989	5626.1	6294.5	11.9	668.4
	1990	1444.2	1447.7	.2	3.5
	1991	1834.1	1836.0	.1	1.9
	Mean	3787.2	3895.1	3.1	108.0
	Median	2966.1	2851.2	.6	52.0
	Min	375.4	362.4	-46.8	-1831.4
	Max	16207.7	16282.6	20.7	856.2
X <	1500.0	10	8		
X <	1750.0	15	14		
X <	1765.0	15	14		
X <	2000.0	23	23		
X <	3000.0	37	37		
X >=	4500.0	14	15		
4500.0 > X >=	3000.0	19	18		
3000.0 > X >=	2000.0	14	14		
2000.0 > X >=	1500.0	13	15		
1500.0 > X		10	8		
X <	3450.0	43	42		
Mean of X >=	3450.0	6414.4	6534.1	1.9	119.7

LOWER AMERICAN RIVER FLOWS AT WATT AVE

April

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4426.3	4432.9	.1	6.6
	1923	3397.7	3626.6	6.7	228.9
	1924	325.1	373.8	15.0	48.7
	1925	3377.5	3672.9	8.7	295.4
	1926	1996.9	2003.5	.3	6.6
	1927	7767.8	7932.2	2.1	164.4
	1928	4570.5	4815.3	5.4	244.8
	1929	672.9	1174.5	74.5	501.6
	1930	1926.3	1929.6	.2	3.3
	1931	401.1	406.1	1.2	5.0
	1932	2666.2	2672.9	.3	6.7
	1933	1649.4	1904.4	15.5	255.0
	1934	2635.8	3049.0	15.7	413.2
	1935	4935.2	5201.0	5.4	265.8
	1936	5612.7	5724.0	2.0	111.3
	1937	4153.8	4309.9	3.8	156.1
	1938	7688.5	7841.1	2.0	152.6
	1939	659.5	909.4	37.9	249.9
	1940	5989.6	5966.2	-.4	-23.4
	1941	3619.8	3777.4	4.4	157.6
	1942	4508.7	4508.6	.0	-.1
	1943	5003.3	5187.8	3.7	184.5
	1944	1949.8	1949.8	.0	.0
	1945	2671.3	2671.2	.0	-.1
	1946	3588.5	3855.1	7.4	266.6
	1947	1919.6	1917.8	-.1	-1.8
	1948	2728.4	2725.0	-.1	-3.4
	1949	2409.5	2407.7	-.1	-1.8
	1950	4910.3	4924.2	.3	13.9
	1951	2841.9	2996.2	5.4	154.3
	1952	8762.2	8904.7	1.6	142.5
	1953	3221.7	3468.2	7.7	246.5
	1954	4364.0	4446.4	1.9	82.4
	1955	1958.2	1953.1	-.3	-5.1
	1956	3963.3	3963.2	.0	-.1
	1957	2704.9	2699.8	-.2	-5.1
	1958	10216.0	10375.3	1.6	159.3
	1959	1694.8	1691.3	-.2	-3.5
	1960	2183.0	2181.3	-.1	-1.7
	1961	480.5	473.8	-1.4	-6.7
	1962	2689.3	3324.9	23.6	635.6
	1963	4312.7	4614.0	7.0	301.3
	1964	1919.6	1919.5	.0	-.1
	1965	3388.3	3678.2	8.6	289.9
	1966	1678.0	1926.2	14.8	248.2
	1967	4485.1	4481.7	-.1	-3.4
	1968	1922.9	1919.5	-.2	-3.4
	1969	5502.4	5767.1	4.8	264.7
	1970	2176.3	2176.2	.0	-.1
	1971	3186.4	3184.6	-.1	-1.8
	1972	2448.2	2444.7	-.1	-3.5
	1973	2681.3	2677.9	-.1	-3.4
	1974	6052.5	6148.1	1.6	95.6
	1975	3948.2	3946.4	.0	-1.8
	1976	443.1	439.7	-.8	-3.4
	1977	325.1	308.3	-5.2	-16.8
	1978	3988.3	4083.0	2.4	94.7
	1979	2431.3	2681.3	10.3	250.0
	1980	2689.8	2689.7	.0	-.1
	1981	926.3	1426.2	54.0	499.9
	1982	14177.5	14338.5	1.1	161.0
	1983	6473.3	6657.8	2.9	184.5
	1984	2699.8	2699.8	.0	.0
	1985	1933.0	1931.3	-.1	-1.7
	1986	2704.9	2703.1	-.1	-1.8
	1987	472.7	466.0	-1.4	-6.7
	1988	395.3	388.6	-1.7	-6.7
	1989	3999.6	4421.0	10.5	421.4
	1990	1982.9	2179.8	9.9	196.9
	1991	1667.9	1669.5	.1	1.6
	Mean	3346.5	3461.7	5.3	115.2
	Median	2702.4	2714.1	.7	10.3
	Min	325.1	308.3	-5.2	-23.4
	Max	14177.5	14338.5	74.5	635.6
X <	1500.0	10	10		
X <	1765.0	14	12		
X <	2000.0	23	21		
X <	3000.0	39	37		
X <	.0	0	0		
X >=	4500.0	15	16		
4500.0 > X >=	3000.0	16	17		
3000.0 > X >=	2000.0	16	16		
2000.0 > X >=	1500.0	13	11		
1500.0 > X		10	10		
X <	3450.0	44	40		
Mean of X >=	3450.0	5654.6	5502.3	-2.7	-152.3

LOWER AMERICAN RIVER FLOWS AT WATT AVE

May

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8259.2	8783.0	6.3	523.8
	1923	4588.9	4779.8	4.2	190.9
	1924	349.0	410.8	17.7	61.8
	1925	3996.9	4513.2	12.9	516.3
	1926	2394.9	2411.7	.7	16.8
	1927	4415.3	4649.7	5.3	234.4
	1928	2893.3	2905.2	.4	11.9
	1929	1640.1	1651.9	.7	11.8
	1930	2391.7	2655.2	11.0	263.5
	1931	659.6	424.7	-35.6	-234.9
	1932	3631.9	3898.7	7.3	266.8
	1933	2394.9	2410.1	.6	15.2
	1934	394.9	411.7	4.3	16.8
	1935	4511.1	4581.0	1.5	69.9
	1936	4135.2	4145.4	.2	10.2
	1937	4216.4	4404.6	4.5	188.2
	1938	9569.2	9795.4	2.4	226.2
	1939	1664.5	1673.1	.5	8.6
	1940	3383.6	3642.2	7.6	258.6
	1941	5126.0	5336.0	4.1	210.0
	1942	5616.8	6040.1	7.5	423.3
	1943	3644.9	3651.9	.2	7.0
	1944	2414.5	2421.5	.3	7.0
	1945	3656.3	3664.9	.2	8.6
	1946	3659.6	3666.6	.2	7.0
	1947	2401.5	2406.8	.2	5.3
	1948	3679.1	3684.5	.1	5.4
	1949	2654.7	2913.3	9.7	258.6
	1950	3896.6	3901.9	.1	5.3
	1951	3424.2	3469.0	1.3	44.8
	1952	10922.3	11124.2	1.8	201.9
	1953	4164.5	4168.2	.1	3.7
	1954	2909.6	2913.3	.1	3.7
	1955	2411.2	2416.6	.2	5.4
	1956	4421.0	4424.7	.1	3.7
	1957	3440.5	3694.2	7.4	253.7
	1958	9874.9	10088.2	2.2	213.3
	1959	2158.0	2413.3	11.8	255.3
	1960	2658.0	2664.9	.3	6.9
	1961	1406.3	1414.9	.6	8.6
	1962	3138.4	3147.1	.3	8.7
	1963	6864.6	7116.8	3.7	252.2
	1964	2406.3	2414.9	.4	8.6
	1965	3901.5	3908.4	.2	6.9
	1966	2403.1	2410.1	.3	7.0
	1967	7578.4	7909.8	4.4	331.4
	1968	2408.0	2411.7	.2	3.7
	1969	8910.5	9092.9	2.0	182.4
	1970	2658.0	2664.9	.3	6.9
	1971	4175.8	4181.2	.1	5.4
	1972	2659.6	2664.9	.2	5.3
	1973	3828.2	4175.7	9.1	347.5
	1974	4641.4	4906.6	5.7	265.2
	1975	4406.3	4410.1	.1	3.8
	1976	420.1	449.9	7.1	29.8
	1977	349.0	326.2	-6.5	-22.8
	1978	3894.9	4319.5	10.9	424.6
	1979	3398.2	3606.5	6.1	208.3
	1980	3898.2	3905.2	.2	7.0
	1981	1654.7	1913.3	15.6	258.6
	1982	9045.5	9231.1	2.1	185.6
	1983	10273.4	10424.8	1.5	151.4
	1984	3422.6	3429.6	.2	7.0
	1985	2416.1	2423.1	.3	7.0
	1986	3667.7	3673.1	.1	5.4
	1987	662.8	504.1	-23.9	-158.7
	1988	422.6	432.8	2.4	10.2
	1989	2931.6	3008.1	2.6	76.5
	1990	1445.4	1457.2	.8	11.8
	1991	2401.5	2163.3	-9.9	-238.2
	Mean	3718.8	3818.7	2.0	99.9
	Median	3423.4	3624.4	.7	11.9
	Min	349.0	326.2	-35.6	-238.2
	Max	10922.3	11124.2	17.7	523.8
X <	1500.0	9	9		
X <	1765.0	12	11		
X <	2000.0	12	12		
X <	3000.0	31	30		
X <	.0	0	0		
X >=	4500.0	14	16		
4500.0 > X >=	3000.0	25	24		
3000.0 > X >=	2000.0	19	18		
2000.0 > X >=	1500.0	3	3		
1500.0 > X		9	9		
X <	3450.0	37	33		
Mean of X >=	3450.0	5487.0	5431.6	-1.0	-55.4

LOWER AMERICAN RIVER FLOWS AT WATT AVE

June

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8568.1	8871.8	3.5	303.7
	1923	4027.7	3665.3	-9.0	-362.4
	1924	360.5	436.1	21.0	75.6
	1925	5410.1	5813.9	7.5	403.8
	1926	2119.2	2312.4	9.1	193.2
	1927	5007.0	5241.8	4.7	234.8
	1928	4012.6	4083.9	1.8	71.3
	1929	2066.3	2083.5	.8	17.2
	1930	1889.4	2144.4	13.5	255.0
	1931	714.7	693.7	-2.9	-21.0
	1932	4776.7	4869.1	1.9	92.4
	1933	2131.2	2147.5	.8	16.3
	1934	1573.8	1410.7	-10.4	-163.1
	1935	3615.9	4033.8	11.6	417.9
	1936	3848.7	4292.9	11.5	444.2
	1937	3381.0	3382.6	.0	1.6
	1938	8235.4	8478.6	3.0	243.2
	1939	516.6	647.7	25.4	131.1
	1940	3127.7	3127.6	.0	-.1
	1941	3389.4	3637.7	7.3	248.3
	1942	6985.0	7308.9	4.6	323.9
	1943	3401.2	3397.7	-.1	-3.5
	1944	1651.2	1897.7	14.9	246.5
	1945	4670.4	4777.9	2.3	107.5
	1946	5271.6	5356.0	1.6	84.4
	1947	1412.9	1411.2	-.1	-1.7
	1948	3144.5	3139.3	-.2	-5.2
	1949	2386.1	3583.8	50.2	1197.7
	1950	3634.4	3704.4	1.9	70.0
	1951	3149.5	3146.1	-.1	-3.4
	1952	10144.5	10399.4	2.5	254.9
	1953	3662.9	3656.1	-.2	-6.8
	1954	3498.6	3646.4	4.2	147.8
	1955	1906.2	1902.8	-.2	-3.4
	1956	4454.0	5180.3	16.3	726.3
	1957	4135.4	4314.7	4.3	179.3
	1958	7406.9	7640.0	3.1	233.1
	1959	1161.3	1407.8	21.2	246.5
	1960	2151.2	2149.4	-.1	-1.8
	1961	524.4	536.0	2.2	11.6
	1962	2967.4	2969.3	.1	1.9
	1963	3389.4	3382.6	-.2	-6.8
	1964	2159.6	2159.5	.0	-.1
	1965	3646.1	3642.7	-.1	-3.4
	1966	1404.5	1402.8	-.1	-1.7
	1967	10126.0	10365.8	2.4	239.8
	1968	1411.3	1906.1	35.1	494.8
	1969	6287.6	6540.9	4.0	253.3
	1970	2966.2	2987.9	.7	21.7
	1971	3652.9	3776.9	3.4	124.0
	1972	4349.8	4333.9	-.4	-15.9
	1973	6389.8	6383.0	-.1	-6.8
	1974	3919.7	4169.6	6.4	249.9
	1975	4811.2	5443.5	13.1	632.3
	1976	1983.1	1781.7	-10.2	-201.4
	1977	360.5	333.6	-7.5	-26.9
	1978	3641.1	4393.1	20.7	752.0
	1979	6381.4	6381.3	.0	-.1
	1980	3389.4	3384.3	-.2	-5.1
	1981	652.9	1152.8	76.6	499.9
	1982	5902.8	6176.2	4.6	273.4
	1983	14186.2	14456.3	1.9	270.1
	1984	3855.4	3874.7	.5	19.3
	1985	2441.3	2751.3	12.7	310.0
	1986	3166.3	3412.9	7.8	246.6
	1987	516.6	528.3	2.3	11.7
	1988	1227.0	1162.5	-5.3	-64.5
	1989	3689.4	4255.7	15.3	566.3
	1990	1680.2	1666.0	-.8	-14.2
	1991	2769.0	2795.6	1.0	26.6
	Mean	3669.3	3827.2	5.9	157.9
	Median	3389.4	3498.4	2.0	80.0
	Min	360.5	333.6	-10.4	-362.4
	Max	14186.2	14456.3	76.6	1197.7
X <	1500.0	12	12		
X <	1765.0	15	13		
X <	2000.0	18	17		
X <	3000.0	28	27		
X <	.0	0	0		
X >=	4500.0	17	18		
4500.0 > X >=	3000.0	25	25		
3000.0 > X >=	2000.0	10	10		
2000.0 > X >=	500.0	16	15		
500.0 > X		2	2		
X <	3450.0	37	35		
Mean of X >=	3450.0	5521.4	5621.4	1.8	100.1

LOWER AMERICAN RIVER FLOWS AT WATT AVE

July

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3348.5	3470.1	3.6	121.6
	1923	2853.5	3098.6	8.6	245.1
	1924	374.7	459.3	22.6	84.6
	1925	2531.6	3328.2	31.5	796.6
	1926	2488.8	2603.6	4.6	114.8
	1927	6367.6	6382.7	.2	15.1
	1928	1384.9	1878.9	35.7	494.0
	1929	1359.2	1536.0	13.0	176.8
	1930	2595.9	2623.9	1.1	28.0
	1931	2518.9	2341.7	-7.0	-177.2
	1932	3019.9	3173.7	5.1	153.8
	1933	1895.7	1918.2	1.2	22.5
	1934	1358.5	1401.6	3.2	43.1
	1935	2878.3	3361.1	16.8	482.8
	1936	3945.6	4078.8	3.4	133.2
	1937	2387.6	2056.7	-13.9	-330.9
	1938	3175.0	3462.9	9.1	287.9
	1939	1640.2	1751.6	6.8	111.4
	1940	5367.2	5842.0	8.8	474.8
	1941	2138.2	2148.4	.5	10.2
	1942	3149.0	3448.3	9.5	299.3
	1943	5884.7	6314.8	7.3	430.1
	1944	1508.8	1681.1	11.4	172.3
	1945	4213.4	4754.2	12.8	540.8
	1946	3967.0	4245.7	7.0	278.7
	1947	1425.3	1851.0	29.9	425.7
	1948	2408.6	3044.5	26.4	635.9
	1949	2608.5	2755.9	5.7	147.4
	1950	3392.5	3777.5	11.3	385.0
	1951	5127.2	5662.4	10.4	535.2
	1952	4290.7	4586.8	6.9	296.1
	1953	2237.4	2964.2	32.5	726.8
	1954	1935.2	1974.6	2.0	39.4
	1955	1396.3	1401.7	.4	5.4
	1956	2830.2	3127.9	10.5	297.7
	1957	4567.5	4887.8	7.0	320.3
	1958	2831.9	3110.0	9.8	278.1
	1959	551.8	591.3	7.2	39.5
	1960	1391.5	1529.4	9.9	137.9
	1961	520.9	560.4	7.6	39.5
	1962	4412.1	4732.1	7.3	320.0
	1963	5663.7	5778.8	2.0	115.1
	1964	2083.7	2189.5	5.1	105.8
	1965	6380.6	6389.2	.1	8.6
	1966	559.4	903.3	61.5	343.9
	1967	3968.7	4263.1	7.4	294.4
	1968	646.3	1401.7	116.9	755.4
	1969	2610.7	2906.7	11.3	296.0
	1970	1744.2	2023.4	16.0	279.2
	1971	2151.1	2927.9	36.1	776.8
	1972	1398.0	1403.3	.4	5.3
	1973	2671.2	3048.6	14.1	377.4
	1974	3116.5	3407.7	9.3	291.2
	1975	2579.8	2869.3	11.2	289.5
	1976	1352.9	1312.8	-3.0	-40.1
	1977	374.7	343.8	-8.2	-30.9
	1978	5550.0	5500.0	-.9	-50.0
	1979	1386.6	2619.5	88.9	1232.9
	1980	3970.4	4096.4	3.2	126.0
	1981	520.9	560.4	7.6	39.5
	1982	3028.7	3326.3	9.8	297.6
	1983	5954.5	6250.5	5.0	296.0
	1984	4563.5	4804.1	5.3	240.6
	1985	1874.1	2059.2	9.9	185.1
	1986	5072.3	5908.2	16.5	835.9
	1987	1116.8	1161.2	4.0	44.4
	1988	813.0	842.6	3.6	29.6
	1989	2957.4	3238.2	9.5	280.8
	1990	1096.0	1205.6	10.0	109.6
	1991	2402.5	2153.2	-10.4	-249.3
	Mean	2741.3	2983.1	11.9	241.8
	Median	2555.7	2917.3	7.5	212.9
	Min	374.7	343.8	-13.9	-330.9
	Max	6380.6	6389.2	116.9	1232.9
X <	1500.0	19	14		
X <	1765.0	22	18		
X <	2000.0	25	22		
X <	3000.0	45	37		
X <	.0	0	0		
X >=	2500.0	37	41		
2500.0 > X >=	1500.0	14	15		
1500.0 > X >=	500.0	17	12		
500.0 > X >=	.0	2	2		
.0 > X		0	0		
X <	3450.0	52	49		
Mean of X >=	3450.0	4959.3	5009.0	1.0	49.7

LOWER AMERICAN RIVER FLOWS AT WATT AVE

August

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2701.5	3117.6	15.4	416.1
	1923	4454.1	4060.7	-8.8	-393.4
	1924	371.5	454.4	22.3	82.9
	1925	1626.8	2452.4	50.7	825.6
	1926	636.6	653.3	2.6	16.7
	1927	3610.8	3729.9	3.3	119.1
	1928	4002.7	3700.5	-7.5	-302.2
	1929	426.3	462.6	8.5	36.3
	1930	884.9	900.1	1.7	15.2
	1931	418.6	454.9	8.7	36.3
	1932	1620.3	1887.1	16.5	266.8
	1933	418.6	641.9	53.3	223.3
	1934	418.6	454.9	8.7	36.3
	1935	3908.5	4050.6	3.6	142.1
	1936	2186.8	2551.5	16.7	364.7
	1937	1880.1	2615.6	39.1	735.5
	1938	3826.8	4134.2	8.0	307.4
	1939	511.5	547.8	7.1	36.3
	1940	3105.9	3231.2	4.0	125.3
	1941	3156.0	3780.6	19.8	624.6
	1942	3913.0	4215.5	7.7	302.5
	1943	2961.1	2882.9	-2.6	-78.2
	1944	898.0	908.2	1.1	10.2
	1945	2244.5	2379.5	6.0	135.0
	1946	2228.7	2035.7	-8.7	-193.0
	1947	643.1	901.7	40.2	258.6
	1948	2891.8	2863.5	-1.0	-28.3
	1949	2817.2	2441.0	-13.4	-376.2
	1950	2666.3	2741.7	2.8	75.4
	1951	3104.1	3220.6	3.8	116.5
	1952	4337.5	4638.4	6.9	300.9
	1953	3921.4	4239.9	8.1	318.5
	1954	3942.0	3866.4	-1.9	-75.6
	1955	1862.9	2376.2	27.6	513.3
	1956	3888.6	4186.3	7.7	297.7
	1957	2482.0	2350.1	-5.3	-131.9
	1958	4002.4	4298.5	7.4	296.1
	1959	1520.6	2001.1	31.6	480.5
	1960	2156.5	3185.4	47.7	1028.9
	1961	519.3	651.7	25.5	132.4
	1962	2703.9	2722.7	.7	18.8
	1963	1731.7	1843.8	6.5	112.1
	1964	894.7	904.9	1.1	10.2
	1965	2501.1	2677.3	7.0	176.2
	1966	1680.4	2461.1	46.5	780.7
	1967	3950.4	4249.7	7.6	299.3
	1968	1720.6	2208.0	28.3	487.4
	1969	3779.6	4062.7	7.5	283.1
	1970	3699.8	3774.0	2.0	74.2
	1971	3709.7	4023.6	8.5	313.9
	1972	3385.3	3952.7	16.8	567.4
	1973	3684.3	3800.9	3.2	116.6
	1974	3969.9	4249.7	7.0	279.8
	1975	3769.9	4046.4	7.3	276.5
	1976	968.2	1012.8	4.6	44.6
	1977	371.5	342.2	-7.9	-29.3
	1978	3136.5	3271.0	4.3	134.5
	1979	2942.5	3105.2	5.5	162.7
	1980	4035.8	4155.2	3.0	119.4
	1981	826.1	1157.1	40.1	331.0
	1982	3955.3	4256.2	7.6	300.9
	1983	4718.0	4792.1	1.6	74.1
	1984	2933.1	2724.2	-7.1	-208.9
	1985	2508.8	2585.1	3.0	76.3
	1986	3413.5	3279.4	-3.9	-134.1
	1987	1413.5	1362.5	-3.6	-51.0
	1988	434.1	470.3	8.3	36.2
	1989	3436.5	3840.1	11.7	403.6
	1990	1521.2	1699.3	11.7	178.1
	1991	441.8	478.1	8.2	36.3
	Mean	2448.7	2625.3	10.0	176.7
	Median	2683.9	2723.4	7.1	128.9
	Min	371.5	342.2	-13.4	-393.4
	Max	4718.0	4792.1	53.3	1028.9
X <	1500.0	18	18		
X <	1765.0	25	19		
X <	2000.0	27	21		
X <	3000.0	42	39		
X <	.0	0	0		
X >=	2500.0	38	40		
2500.0 > X >=	2000.0	5	9		
2000.0 > X >=	1000.0	10	6		
1000.0 > X >=	500.0	9	8		
500.0 > X		8	7		
X <	3450.0	49	46		
Mean of X >=	3450.0	3956.2	4087.7	3.3	131.5

LOWER AMERICAN RIVER FLOWS AT WATT AVE

September

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3340.9	3664.5	9.7	323.6
	1923	1914.6	2419.6	26.4	505.0
	1924	662.9	517.3	-22.0	-145.6
	1925	2394.5	1904.5	-20.5	-490.0
	1926	1149.5	1406.1	22.3	256.6
	1927	1787.5	2127.5	19.0	340.0
	1928	1401.2	1404.5	.2	3.3
	1929	902.9	1154.5	27.9	251.6
	1930	1399.5	1404.5	.4	5.0
	1931	644.5	649.4	.8	4.9
	1932	2384.4	3308.4	38.8	924.0
	1933	1141.1	1146.1	.4	5.0
	1934	479.7	516.6	7.7	36.9
	1935	2391.5	3122.4	30.6	730.9
	1936	3652.6	3851.9	5.5	199.3
	1937	3290.2	3757.3	14.2	467.1
	1938	3712.0	3955.2	6.6	243.2
	1939	1162.9	1164.5	.1	1.6
	1940	1526.2	1663.5	9.0	137.3
	1941	3656.5	3898.1	6.6	241.6
	1942	3695.2	3935.0	6.5	239.8
	1943	1656.2	1654.5	-.1	-1.7
	1944	1411.3	1409.5	-.1	-1.8
	1945	2243.5	2349.3	4.7	105.8
	1946	2665.4	2778.5	4.2	113.1
	1947	1406.2	1404.5	-.1	-1.7
	1948	3090.4	3291.1	6.5	200.7
	1949	1466.8	1829.6	24.7	362.8
	1950	2987.2	3704.1	24.0	716.9
	1951	1887.5	2164.2	14.7	276.7
	1952	3901.9	4153.5	6.4	251.6
	1953	3670.0	3903.1	6.4	233.1
	1954	1412.9	1407.8	-.4	-5.1
	1955	1423.0	1419.6	-.2	-3.4
	1956	3646.4	3882.9	6.5	236.5
	1957	1694.6	1824.8	7.7	130.2
	1958	3737.2	3987.1	6.7	249.9
	1959	1199.9	1196.5	-.3	-3.4
	1960	1406.2	1435.6	2.1	29.4
	1961	1157.9	1407.8	21.6	249.9
	1962	2079.3	2120.0	2.0	40.7
	1963	2152.9	2147.7	-.2	-5.2
	1964	1407.9	1407.8	.0	-.1
	1965	1902.9	2151.1	13.0	248.2
	1966	1157.9	1157.8	.0	-.1
	1967	3969.1	4187.1	5.5	218.0
	1968	1159.6	1881.6	62.3	722.0
	1969	3691.8	3909.8	5.9	218.0
	1970	1412.9	1411.2	-.1	-1.7
	1971	3518.7	3735.1	6.2	216.4
	1972	1429.8	1426.3	-.2	-3.5
	1973	1418.0	1541.1	8.7	123.1
	1974	3804.4	4035.9	6.1	231.5
	1975	3577.5	3822.4	6.8	244.9
	1976	518.4	555.3	7.1	36.9
	1977	445.0	421.5	-5.3	-23.5
	1978	1656.2	2159.5	30.4	503.3
	1979	1835.1	2312.6	26.0	477.5
	1980	1896.1	2142.7	13.0	246.6
	1981	1414.6	1416.2	.1	1.6
	1982	4157.3	4395.5	5.7	238.2
	1983	4758.2	4803.3	.9	45.1
	1984	1676.4	1674.6	-.1	-1.8
	1985	1181.4	1179.7	-.1	-1.7
	1986	1689.8	1688.1	-.1	-1.7
	1987	919.7	919.6	.0	-.1
	1988	662.9	662.9	.0	.0
	1989	1193.2	1194.8	.1	1.6
	1990	654.5	656.1	.2	1.6
	1991	897.8	901.1	.4	3.3
	Mean	2042.8	2202.8	7.4	160.0
	Median	1666.3	1827.2	5.6	118.1
	Min	445.0	421.5	-22.0	-490.0
	Max	4758.2	4803.3	62.3	924.0
X <	1500.0	32	29		
X <	1765.0	38	34		
X <	2000.0	44	38		
X <	3000.0	52	49		
X <	.0	0	0		
X >=	2500.0	20	22		
2500.0 > X >=	1500.0	18	19		
1500.0 > X >=	500.0	30	28		
500.0 > X >=	.0	2	1		
.0 > X		0	0		
X <	3450.0	55	52		
Mean of X >=	3450.0	3809.9	3976.8	4.4	166.8

RETURN TO TABLE OF CONTENTS

Section 8

LOWER AMERICAN RIVER FLOW AT H STREET
8.1 Fisheries

LOWER AMERICAN RIVER FLOW AT HST.

October

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2280.4	2296.7	.7	16.3
	1923	2298.5	2314.6	.7	16.1
	1924	2279.0	2293.5	.6	14.5
	1925	920.3	613.4	-33.3	-306.9
	1926	2275.7	2291.8	.7	16.1
	1927	1603.6	1582.5	-1.3	-21.1
	1928	2292.0	2304.8	.6	12.8
	1929	1558.1	1785.3	14.6	227.2
	1930	1313.0	1291.8	-1.6	-21.2
	1931	1561.3	1790.2	14.7	228.9
	1932	1071.1	1053.2	-1.7	-17.9
	1933	2267.6	2282.1	.6	14.5
	1934	1572.7	1553.2	-1.2	-19.5
	1935	452.3	546.7	20.9	94.4
	1936	2298.5	2313.0	.6	14.5
	1937	2272.5	2285.3	.6	12.8
	1938	2290.3	2301.6	.5	11.3
	1939	2282.2	2290.2	.4	8.0
	1940	1335.7	1563.0	17.0	227.3
	1941	1832.5	2058.1	12.3	225.6
	1942	2308.2	2317.8	.4	9.6
	1943	2285.5	2295.1	.4	9.6
	1944	2029.0	2286.9	12.7	257.9
	1945	1843.9	2067.8	12.1	223.9
	1946	1858.5	2082.5	12.1	224.0
	1947	1566.2	2036.9	30.1	470.7
	1948	1603.6	1576.0	-1.7	-27.6
	1949	2285.5	2296.7	.5	11.2
	1950	1814.6	2286.9	26.0	472.3
	1951	2331.0	2339.0	.3	8.0
	1952	1858.5	1832.5	-1.4	-26.0
	1953	2282.2	2286.9	.2	4.7
	1954	2288.7	2293.5	.2	4.8
	1955	1569.5	1790.2	14.1	220.7
	1956	1593.9	1817.8	14.0	223.9
	1957	2306.6	2309.7	.1	3.1
	1958	2076.1	2335.7	12.5	259.6
	1959	2283.8	2288.6	.2	4.8
	1960	1567.8	1540.2	-1.8	-27.6
	1961	1814.6	1788.6	-1.4	-26.0
	1962	1569.5	1545.1	-1.6	-24.4
	1963	2314.8	2913.9	25.9	599.1
	1964	2300.1	2308.1	.3	8.0
	1965	1858.5	2084.1	12.1	225.6
	1966	2274.1	2282.1	.4	8.0
	1967	1576.0	1551.6	-1.5	-24.4
	1968	2279.0	2282.1	.1	3.1
	1969	1590.6	1566.2	-1.5	-24.4
	1970	2298.5	2304.8	.3	6.3
	1971	1845.5	1816.2	-1.6	-29.3
	1972	2285.5	2290.2	.2	4.7
	1973	1611.8	1584.1	-1.7	-27.7
	1974	1610.1	1830.9	13.7	220.8
	1975	2306.6	2313.0	.3	6.4
	1976	2326.1	2329.2	.1	3.1
	1977	491.0	491.0	.0	.0
	1978	451.9	451.9	.0	.0
	1979	2282.2	2295.1	.6	12.9
	1980	1616.6	1592.2	-1.5	-24.4
	1981	2275.7	2285.3	.4	9.6
	1982	1624.8	1602.0	-1.4	-22.8
	1983	3032.1	3259.4	7.5	227.3
	1984	2312.4	2945.2	27.4	632.8
	1985	2068.0	2324.4	12.4	256.4
	1986	1352.0	1577.6	16.7	225.6
	1987	2037.1	2293.5	12.6	256.4
	1988	1770.5	1721.5	-2.8	-49.0
	1989	821.1	798.3	-2.8	-22.8
	1990	1598.8	1576.0	-1.4	-22.8
	1991	821.1	1050.0	27.9	228.9
	Mean	1860.4	1942.1	4.5	81.7
	Median	1858.5	2183.1	.4	9.6
	Min	451.9	451.9	-33.3	-306.9
	Max	3032.1	3259.4	30.1	632.8
X <	1500.0	10	8		
X <	1750.0	27	22		
X <	1765.0	27	22		
X <	2000.0	36	30		
X <	3000.0	69	69		
X >=	2500.0	1	3		
2500.0 > X >=	2000.0	33	37		
2000.0 > X >=	1750.0	9	8		
1750.0 > X >=	800.0	24	17		
800.0 > X		3	5		
X <	3450.0	70	70		
Mean of X >=	3450.0	.0	.0	.0	.0

LOWER AMERICAN RIVER FLOW AT HST.

November

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2343.7	2355.5	.5	11.8
	1923	2399.3	2409.3	.4	10.0
	1924	2320.3	2328.6	.4	8.3
	1925	890.8	600.4	-32.6	-290.4
	1926	2332.0	2343.7	.5	11.7
	1927	1686.2	1696.2	.6	10.0
	1928	2358.9	2367.2	.4	8.3
	1929	1612.3	1868.9	15.9	256.6
	1930	1310.2	1320.2	.8	10.0
	1931	1583.7	1843.7	16.4	260.0
	1932	1098.9	1110.5	1.1	11.6
	1933	2313.6	2323.5	.4	9.9
	1934	1551.8	1561.8	.6	10.0
	1935	452.4	647.5	43.1	195.1
	1936	2333.7	2343.7	.4	10.0
	1937	2313.6	2320.2	.3	6.6
	1938	2390.9	2399.2	.3	8.3
	1939	2322.0	2326.9	.2	4.9
	1940	1316.9	1575.2	19.6	258.3
	1941	1860.6	2118.9	13.9	258.3
	1942	2360.6	2367.2	.3	6.6
	1943	3265.1	3543.3	8.5	278.2
	1944	2087.1	2340.3	12.1	253.2
	1945	1892.5	2147.5	13.5	255.0
	1946	1862.3	2115.6	13.6	253.3
	1947	1617.3	2118.9	31.0	501.6
	1948	1593.8	1597.1	.2	3.3
	1949	2333.7	2337.0	.1	3.3
	1950	1838.8	2340.3	27.3	501.5
	1951	16586.1	16856.2	1.6	270.1
	1952	1875.7	1880.7	.3	5.0
	1953	2365.7	2365.6	.0	-.1
	1954	2360.6	2360.5	.0	-.1
	1955	1629.1	1880.7	15.4	251.6
	1956	1617.3	1872.3	15.8	255.0
	1957	2325.3	2325.2	.0	-.1
	1958	2095.5	2348.8	12.1	253.3
	1959	2330.4	2330.3	.0	-.1
	1960	1570.3	1575.2	.3	4.9
	1961	1894.2	1897.5	.2	3.3
	1962	1619.0	1624.0	.3	5.0
	1963	2861.7	2933.9	2.5	72.2
	1964	2690.1	3812.2	41.7	1122.1
	1965	1892.5	2147.5	13.5	255.0
	1966	2384.1	2385.7	.1	1.6
	1967	1699.7	1704.6	.3	4.9
	1968	2345.5	2345.4	.0	-.1
	1969	1649.3	1654.2	.3	4.9
	1970	2347.2	2350.4	.1	3.2
	1971	1958.1	1959.7	.1	1.6
	1972	2343.8	2345.4	.1	1.6
	1973	1676.2	1677.7	.1	1.5
	1974	3873.4	4323.8	11.6	450.4
	1975	2360.6	2363.9	.1	3.3
	1976	2533.2	2801.4	10.6	268.2
	1977	491.1	491.1	.0	.0
	1978	453.1	453.1	.0	.0
	1979	2387.5	2394.1	.3	6.6
	1980	1617.3	1624.0	.4	6.7
	1981	2322.0	2328.6	.3	6.6
	1982	4259.6	4462.6	4.8	203.0
	1983	6660.0	6780.7	1.8	120.7
	1984	14316.6	14343.2	.2	26.6
	1985	2196.3	2447.9	11.5	251.6
	1986	1448.0	1702.9	17.6	254.9
	1987	2087.1	2338.7	12.1	251.6
	1988	1413.1	1398.4	-1.0	-14.7
	1989	864.0	872.3	1.0	8.3
	1990	1598.9	1607.2	.5	8.3
	1991	832.0	1092.0	31.3	260.0
	Mean	2421.1	2531.8	5.7	110.8
	Median	2087.1	2324.4	.4	9.9
	Min	452.4	453.1	-32.6	-290.4
	Max	16586.1	16856.2	43.1	1122.1
X <	1500.0	11	9		
X <	1750.0	26	21		
X <	1765.0	26	21		
X <	2000.0	34	28		
X <	3000.0	64	63		
X >=	2500.0	9	9		
2500.0 > X >=	2000.0	27	33		
2000.0 > X >=	1750.0	8	7		
1750.0 > X >=	1200.0	19	14		
1200.0 > X		7	7		
X <	3450.0	65	63		
Mean of X >=	3450.0	9139.1	7731.7	-15.4	-1407.4

LOWER AMERICAN RIVER FLOW AT HST.

December

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2451.2	2457.7	.3	6.5
	1923	6039.0	6392.6	5.9	353.6
	1924	2348.8	2355.3	.3	6.5
	1925	969.1	684.9	-29.3	-284.2
	1926	2370.0	2376.4	.3	6.4
	1927	1616.7	1623.1	.4	6.4
	1928	2374.9	2379.7	.2	4.8
	1929	1634.6	1887.8	15.5	253.2
	1930	1418.8	1425.2	.5	6.4
	1931	1584.2	1840.6	16.2	256.4
	1932	1230.6	1240.2	.8	9.6
	1933	2376.5	2382.9	.3	6.4
	1934	1678.5	1686.6	.5	8.1
	1935	577.3	634.5	9.9	57.2
	1936	2370.0	2376.4	.3	6.4
	1937	2396.0	2399.2	.1	3.2
	1938	5711.3	6074.3	6.4	363.0
	1939	2358.6	2360.1	.1	1.5
	1940	1358.6	1613.4	18.8	254.8
	1941	2005.0	2258.1	12.6	253.1
	1942	4461.6	4849.3	8.7	387.7
	1943	4558.4	4660.6	2.2	102.2
	1944	2131.4	2381.3	11.7	249.9
	1945	1886.2	2139.4	13.4	253.2
	1946	7026.1	7504.8	6.8	478.7
	1947	1637.9	2137.8	30.5	499.9
	1948	1607.0	1606.9	.0	-.1
	1949	2410.6	2412.2	.1	1.6
	1950	1873.2	2371.5	26.6	498.3
	1951	16206.0	16274.1	.4	68.1
	1952	3159.3	3864.1	22.3	704.8
	1953	2472.4	2470.7	-.1	-1.7
	1954	2360.2	2356.9	-.1	-3.3
	1955	1681.8	1928.4	14.7	246.6
	1956	14782.3	14687.5	-.6	-94.8
	1957	2353.7	2352.0	-.1	-1.7
	1958	2162.3	2413.8	11.6	251.5
	1959	2366.7	2363.4	-.1	-3.3
	1960	1849.4	1720.2	-7.0	-129.2
	1961	1860.2	1860.1	.0	-.1
	1962	1637.9	1639.4	.1	1.5
	1963	3307.5	3314.0	.2	6.5
	1964	2350.5	2977.0	26.7	626.5
	1965	20219.9	20338.3	.6	118.4
	1966	2396.0	2395.9	.0	-.1
	1967	1672.0	1673.6	.1	1.6
	1968	2365.1	2363.4	-.1	-1.7
	1969	1668.8	1670.3	.1	1.5
	1970	4817.4	5179.1	7.5	361.7
	1971	4293.4	4653.2	8.4	359.8
	1972	2426.9	2425.2	-.1	-1.7
	1973	1654.1	1654.0	.0	-.1
	1974	7337.8	7430.3	1.3	92.5
	1975	2415.5	2415.4	.0	-.1
	1976	2361.8	2360.1	-.1	-1.7
	1977	616.0	616.0	.0	.0
	1978	576.9	576.9	.0	.0
	1979	2366.7	2369.9	.1	3.2
	1980	1680.2	1683.3	.2	3.1
	1981	2387.9	2389.4	.1	1.5
	1982	14142.4	14176.0	.2	33.6
	1983	8943.0	9043.6	1.1	100.6
	1984	15098.5	15268.9	1.1	170.4
	1985	2136.2	2386.2	11.7	250.0
	1986	1418.8	1670.3	17.7	251.5
	1987	2124.9	2374.8	11.8	249.9
	1988	1186.7	1188.2	.1	1.5
	1989	899.3	904.0	.5	4.7
	1990	1595.6	1600.4	.3	4.8
	1991	868.4	1123.1	29.3	254.7
	Mean	3438.3	3552.3	4.6	114.0
	Median	2352.1	2366.6	.3	6.4
	Min	576.9	576.9	-29.3	-284.2
	Max	20219.9	20338.3	30.5	704.8
X <	1500.0	11	9		
X <	1750.0	24	21		
X <	1765.0	24	21		
X <	2000.0	28	25		
X <	3000.0	54	54		
X >=	2500.0	16	17		
2500.0 > X >=	2000.0	26	28		
2000.0 > X >=	1750.0	4	4		
1750.0 > X >=	1200.0	17	14		
1200.0 > X		7	7		
X <	3450.0	56	55		
Mean of X >=	3450.0	9545.5	9359.8	-1.9	-185.7

LOWER AMERICAN RIVER FLOW AT HST.

January

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	1899.2	1907.3	.4	8.1
	1923	4327.4	4441.0	2.6	113.6
	1924	1889.5	1897.5	.4	8.0
	1925	1658.9	1876.4	13.1	217.5
	1926	1896.0	1904.0	.4	8.0
	1927	2584.2	3005.7	16.3	421.5
	1928	1878.1	2132.9	13.6	254.8
	1929	1265.1	1469.9	16.2	204.8
	1930	1672.0	1678.4	.4	6.4
	1931	1400.9	1505.7	7.5	104.8
	1932	1618.3	1628.0	.6	9.7
	1933	1909.0	1915.4	.3	6.4
	1934	1613.5	1619.9	.4	6.4
	1935	1931.8	1938.2	.3	6.4
	1936	3876.6	3973.2	2.5	96.6
	1937	1912.3	1917.1	.3	4.8
	1938	2658.7	2772.4	4.3	113.7
	1939	1881.4	2132.9	13.4	251.5
	1940	1993.8	1836.3	-7.9	-157.5
	1941	4720.3	4882.3	3.4	162.0
	1942	9121.9	9255.0	1.5	133.1
	1943	10738.5	10837.5	.9	99.0
	1944	1700.9	1902.4	11.8	201.5
	1945	2123.2	2124.8	.1	1.6
	1946	4971.4	5081.8	2.2	110.4
	1947	1860.2	1861.8	.1	1.6
	1948	1613.5	1613.4	.0	-.1
	1949	1879.7	1881.3	.1	1.6
	1950	1531.8	1931.7	26.1	399.9
	1951	9919.3	10013.5	.9	94.2
	1952	8904.0	9002.9	1.1	98.9
	1953	6142.6	6580.5	7.1	437.9
	1954	2163.9	2160.6	-.2	-3.3
	1955	1920.4	1918.7	-.1	-1.7
	1956	16277.8	16266.1	-.1	-11.7
	1957	2150.9	2149.2	-.1	-1.7
	1958	1951.3	1952.8	.1	1.5
	1959	1954.5	1952.8	-.1	-1.7
	1960	1508.5	1405.1	-6.9	-103.4
	1961	1496.0	1495.9	.0	-.1
	1962	1274.9	1278.0	.2	3.1
	1963	3766.1	3837.7	1.9	71.6
	1964	2422.0	2423.6	.1	1.6
	1965	13092.8	13068.1	-.2	-24.7
	1966	2136.2	2386.2	11.7	250.0
	1967	6048.2	6558.9	8.4	510.7
	1968	2426.9	2425.2	-.1	-1.7
	1969	14230.5	14640.8	2.9	410.3
	1970	20786.1	20889.9	.5	103.8
	1971	4569.5	4618.3	1.1	48.8
	1972	2373.2	2371.5	-.1	-1.7
	1973	8281.7	8662.0	4.6	380.3
	1974	11192.3	11268.5	.7	76.2
	1975	2124.9	2124.8	.0	-.1
	1976	2365.1	2363.4	-.1	-1.7
	1977	483.4	483.7	.1	.3
	1978	2185.8	2606.5	19.2	420.7
	1979	1948.0	1951.2	.2	3.2
	1980	15196.5	15632.7	2.9	436.2
	1981	1939.9	1943.1	.2	3.2
	1982	8106.6	8148.6	.5	42.0
	1983	7453.3	7553.9	1.3	100.6
	1984	6380.1	6443.3	1.0	63.2
	1985	2383.0	2382.9	.0	-.1
	1986	2290.9	1946.2	-15.0	-344.7
	1987	1707.4	1907.3	11.7	199.9
	1988	923.6	925.2	.2	1.6
	1989	1868.3	1873.1	.3	4.8
	1990	1673.6	1678.4	.3	4.8
	1991	660.2	866.6	31.3	206.4
	Mean	4097.3	4186.9	3.1	89.6
	Median	2124.0	2128.9	.4	8.1
	Min	483.4	483.7	-15.0	-344.7
	Max	20786.1	20889.9	31.3	510.7
X <	1500.0	7	7		
X <	1750.0	17	13		
X <	1765.0	17	13		
X <	2000.0	34	33		
X <	3000.0	48	47		
X >=	2500.0	24	25		
2500.0 > X >=	2000.0	12	12		
2000.0 > X >=	1750.0	17	20		
1750.0 > X >=	1200.0	14	10		
1200.0 > X		3	3		
X <	3450.0	48	48		
Mean of X >=	3450.0	9004.7	9166.2	1.8	161.5

LOWER AMERICAN RIVER FLOW AT HST.

February

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2438.4	3062.1	25.6	623.7
	1923	2822.4	2948.2	4.5	125.8
	1924	1508.3	1663.6	10.3	155.3
	1925	3856.8	4426.5	14.8	569.7
	1926	1719.5	1726.6	.4	7.1
	1927	13326.8	13370.2	.3	43.4
	1928	1881.2	1884.8	.2	3.6
	1929	990.4	1152.2	16.3	161.8
	1930	1861.4	1866.8	.3	5.4
	1931	1124.0	1159.4	3.1	35.4
	1932	1877.6	2111.0	12.4	233.4
	1933	1604.2	1609.6	.3	5.4
	1934	1638.4	1893.8	15.6	255.4
	1935	1857.8	1865.0	.4	7.2
	1936	13303.4	13404.0	.8	100.6
	1937	1717.7	1744.4	1.6	26.7
	1938	9668.2	9772.5	1.1	104.3
	1939	1861.4	1863.2	.1	1.8
	1940	10471.1	10543.3	.7	72.2
	1941	7828.1	7959.2	1.7	131.1
	1942	9771.0	9900.5	1.3	129.5
	1943	6661.6	6771.1	1.6	109.5
	1944	1429.3	1587.4	11.1	158.1
	1945	5964.1	6121.7	2.6	157.6
	1946	2496.5	2588.2	3.7	91.7
	1947	1890.2	1638.4	-13.3	-251.8
	1948	1620.4	1870.4	15.4	250.0
	1949	1477.6	1877.6	27.1	400.0
	1950	3428.5	2902.2	-15.4	-526.3
	1951	7943.9	8048.2	1.3	104.3
	1952	9302.7	9410.5	1.2	107.8
	1953	1990.5	2109.1	6.0	118.6
	1954	1920.9	1915.4	-.3	-5.5
	1955	1879.4	1877.6	-.1	-1.8
	1956	6035.9	6082.3	.8	46.4
	1957	1933.5	1929.8	-.2	-3.7
	1958	6807.8	7380.7	8.4	572.9
	1959	1944.3	1940.6	-.2	-3.7
	1960	1185.1	1100.6	-7.1	-84.5
	1961	1157.6	1155.8	-.2	-1.8
	1962	1123.7	1253.6	11.6	129.9
	1963	11857.8	11901.1	.4	43.3
	1964	1852.4	1852.4	.0	.0
	1965	5274.7	5324.8	.9	50.1
	1966	1886.6	1884.8	-.1	-1.8
	1967	4199.8	4278.9	1.9	79.1
	1968	4811.3	5459.2	13.5	647.9
	1969	9155.2	9227.2	.8	72.0
	1970	6109.4	6195.6	1.4	86.2
	1971	3158.8	3232.7	2.3	73.9
	1972	1883.0	1939.3	3.0	56.3
	1973	7048.3	7096.9	.7	48.6
	1974	3943.5	4143.1	5.1	199.6
	1975	1987.5	1985.6	-.1	-1.9
	1976	1870.4	1866.8	-.2	-3.6
	1977	366.2	366.8	.2	.6
	1978	4575.8	4748.8	3.8	173.0
	1979	1670.9	1920.8	15.0	249.9
	1980	13557.6	13967.5	3.0	409.9
	1981	1466.8	1868.6	27.4	401.8
	1982	15211.8	15272.7	.4	60.9
	1983	12245.1	12334.9	.7	89.8
	1984	5440.8	5528.7	1.6	87.9
	1985	1899.2	1899.2	.0	.0
	1986	33160.6	33158.4	.0	-2.2
	1987	1362.7	1522.6	11.7	159.9
	1988	1613.2	1613.2	.0	.0
	1989	1618.6	1622.2	.2	3.6
	1990	1315.5	1669.0	26.9	353.5
	1991	541.1	704.6	30.2	163.5
	Mean	4605.8	4715.4	4.5	109.5
	Median	1938.9	1963.1	1.3	76.5
	Min	366.2	366.8	-15.4	-526.3
	Max	33160.6	33158.4	30.2	647.9
X <	1500.0	12	7		
X <	1750.0	21	17		
X <	1765.0	21	17		
X <	2000.0	38	36		
X <	3000.0	41	41		
X >=	2500.0	30	32		
2500.0 > X >=	2000.0	2	2		
2000.0 > X >=	1750.0	17	19		
1750.0 > X >=	1200.0	14	11		
1200.0 > X		7	6		
X <	3450.0	43	43		
Mean of X >=	3450.0	9167.9	9327.0	1.7	159.1

LOWER AMERICAN RIVER FLOW AT HST.

March

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4384.6	4394.3	.2	9.7
	1923	2594.0	2602.0	.3	8.0
	1924	1185.7	1265.0	6.7	79.3
	1925	3042.4	3462.4	13.8	420.0
	1926	1839.1	1848.7	.5	9.6
	1927	4264.2	4439.4	4.1	175.2
	1928	9636.8	10495.9	8.9	859.1
	1929	1371.6	1378.0	.5	6.4
	1930	1887.9	1894.3	.3	6.4
	1931	853.7	885.8	3.8	32.1
	1932	2587.5	2597.1	.4	9.6
	1933	1621.6	1629.7	.5	8.1
	1934	1229.3	1437.4	16.9	208.1
	1935	3146.0	3154.0	.3	8.0
	1936	3933.3	4037.2	2.6	103.9
	1937	3764.3	4324.3	14.9	560.0
	1938	10589.0	10707.5	1.1	118.5
	1939	1486.2	1489.4	.2	3.2
	1940	10551.6	10819.7	2.5	268.1
	1941	4582.5	4702.6	2.6	120.1
	1942	4400.9	4405.7	.1	4.8
	1943	12214.1	12309.8	.8	95.7
	1944	1866.7	1869.9	.2	3.2
	1945	2650.9	2654.0	.1	3.1
	1946	2636.2	2647.6	.4	11.4
	1947	1905.8	1907.3	.1	1.5
	1948	2652.5	2654.0	.1	1.5
	1949	2439.9	2443.1	.1	3.2
	1950	2883.0	3134.5	8.7	251.5
	1951	3512.9	3631.3	3.4	118.4
	1952	5934.0	6049.2	1.9	115.2
	1953	2884.6	2886.2	.1	1.6
	1954	3584.2	4196.2	17.1	612.0
	1955	1850.5	1850.4	.0	-.1
	1956	3355.3	3358.5	.1	3.2
	1957	3191.6	3874.7	21.4	683.1
	1958	6464.4	6574.8	1.7	110.4
	1959	1610.2	1610.1	.0	-.1
	1960	2121.6	2123.1	.1	1.5
	1961	905.4	908.5	.3	3.1
	1962	2373.2	2378.0	.2	4.8
	1963	3409.0	3410.6	.0	1.6
	1964	1863.5	1866.6	.2	3.1
	1965	2874.9	2879.7	.2	4.8
	1966	1598.8	1852.0	15.8	253.2
	1967	5658.1	5852.9	3.4	194.8
	1968	3822.0	1993.6	-47.8	-1828.4
	1969	4370.0	4369.9	.0	-.1
	1970	2146.7	2379.7	10.9	233.0
	1971	3826.5	3938.4	2.9	111.9
	1972	3393.3	3991.9	17.6	598.6
	1973	3125.7	3236.0	3.5	110.3
	1974	9460.1	9567.2	1.1	107.1
	1975	3514.9	4172.1	18.7	657.2
	1976	1468.4	1468.3	.0	-.1
	1977	326.9	326.9	.0	.0
	1978	5481.9	5768.2	5.2	286.3
	1979	2386.2	2641.0	10.7	254.8
	1980	3118.5	3316.1	6.3	197.6
	1981	1410.6	1515.4	7.4	104.8
	1982	7470.4	7583.9	1.5	113.5
	1983	16120.5	16198.3	.5	77.8
	1984	2403.1	2639.4	9.8	236.3
	1985	1910.6	1913.8	.2	3.2
	1986	10950.7	11104.8	1.4	154.1
	1987	1077.3	1206.8	12.0	129.5
	1988	1252.1	1255.3	.3	3.2
	1989	5538.9	6210.1	12.1	671.2
	1990	1357.0	1363.4	.5	6.4
	1991	1746.8	1751.6	.3	4.8
	Mean	3701.0	3811.5	3.3	110.5
	Median	2878.9	2766.9	.6	55.0
	Min	326.9	326.9	-47.8	-1828.4
	Max	16120.5	16198.3	21.4	859.1
X < 1500.0		12	11		
X < 1750.0		16	14		
X < 1765.0		16	15		
X < 2000.0		23	24		
X < 3000.0		37	37		
X >= 4500.0		14	14		
4500.0 > X >= 3000.0		19	19		
3000.0 > X >= 2000.0		14	13		
2000.0 > X >= 1500.0		11	13		
1500.0 > X		12	11		
X < 3450.0		45	43		
Mean of X >= 3450.0		6561.2	6562.3	.0	1.1

LOWER AMERICAN RIVER FLOW AT HST.

April

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4311.9	4325.2	.3	13.3
	1923	3283.3	3518.9	7.2	235.6
	1924	266.1	266.1	.0	.0
	1925	3263.1	3565.1	9.3	302.0
	1926	1882.5	1895.8	.7	13.3
	1927	7653.4	7824.5	2.2	171.1
	1928	4456.1	4707.6	5.6	251.5
	1929	558.5	1066.8	91.0	508.3
	1930	1811.9	1821.9	.6	10.0
	1931	286.7	298.3	4.0	11.6
	1932	2551.8	2565.1	.5	13.3
	1933	1535.0	1796.7	17.0	261.7
	1934	2521.4	2941.3	16.7	419.9
	1935	4820.8	5093.3	5.7	272.5
	1936	5498.3	5616.3	2.1	118.0
	1937	4039.4	4202.2	4.0	162.8
	1938	7574.1	7733.4	2.1	159.3
	1939	545.1	801.7	47.1	256.6
	1940	5875.2	5858.5	-.3	-16.7
	1941	3505.4	3669.7	4.7	164.3
	1942	4394.2	4400.8	.2	6.6
	1943	4888.9	5080.0	3.9	191.1
	1944	1835.4	1842.0	.4	6.6
	1945	2556.9	2563.5	.3	6.6
	1946	3474.1	3747.4	7.9	273.3
	1947	1805.2	1810.1	.3	4.9
	1948	2614.0	2617.2	.1	3.2
	1949	2295.1	2300.0	.2	4.9
	1950	4795.9	4816.5	.4	20.6
	1951	2727.5	2888.5	5.9	161.0
	1952	8647.8	8797.0	1.7	149.2
	1953	3107.3	3360.5	8.1	253.2
	1954	4249.6	4338.7	2.1	89.1
	1955	1843.8	1845.4	.1	1.6
	1956	3848.9	3855.5	.2	6.6
	1957	2590.5	2592.0	.1	1.5
	1958	10101.6	10267.6	1.6	166.0
	1959	1580.4	1583.6	.2	3.2
	1960	2068.6	2073.5	.2	4.9
	1961	366.1	366.1	.0	.0
	1962	2574.9	3217.2	24.9	642.3
	1963	4198.3	4506.3	7.3	308.0
	1964	1805.2	1811.8	.4	6.6
	1965	3273.9	3570.4	9.1	296.5
	1966	1563.6	1818.5	16.3	254.9
	1967	4370.7	4374.0	.1	3.3
	1968	1808.5	1811.8	.2	3.3
	1969	5388.0	5659.4	5.0	271.4
	1970	2061.9	2068.5	.3	6.6
	1971	3072.0	3076.9	.2	4.9
	1972	2333.7	2337.0	.1	3.3
	1973	2566.9	2570.2	.1	3.3
	1974	5938.1	6040.4	1.7	102.3
	1975	3833.7	3838.7	.1	5.0
	1976	328.7	331.9	1.0	3.2
	1977	266.1	266.1	.0	.0
	1978	3873.9	3975.3	2.6	101.4
	1979	2316.9	2573.5	11.1	256.6
	1980	2575.3	2581.9	.3	6.6
	1981	811.9	1318.5	62.4	506.6
	1982	14063.1	14230.8	1.2	167.7
	1983	6358.9	6550.1	3.0	191.2
	1984	2585.4	2592.0	.3	6.6
	1985	1818.6	1823.5	.3	4.9
	1986	2590.5	2595.4	.2	4.9
	1987	358.3	358.3	.0	.0
	1988	280.8	280.8	.0	.0
	1989	3885.2	4313.3	11.0	428.1
	1990	1868.4	2072.1	10.9	203.7
	1991	1553.5	1561.8	.5	8.3
	Mean	3233.7	3354.9	6.1	121.2
	Median	2587.9	2606.3	.9	13.3
	Min	266.1	266.1	-.3	-16.7
	Max	14063.1	14230.8	91.0	642.3
X < 1500.0		10	10		
X < 1750.0		14	12		
X < 1765.0		14	12		
X < 2000.0		23	22		
X < 3000.0		39	38		
X >= 4500.0		13	15		
4500.0 > X >= 3000.0		18	17		
3000.0 > X >= 2000.0		16	16		
2000.0 > X >= 1500.0		13	12		
1500.0 > X		10	10		
X < 3450.0		44	41		
Mean of X >= 3450.0		5540.2	5464.7	-1.4	-75.5

LOWER AMERICAN RIVER FLOW AT HST.

May

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8110.7	8637.1	6.5	526.4
	1923	4440.4	4633.9	4.4	193.5
	1924	264.9	264.9	.0	.0
	1925	3848.4	4367.3	13.5	518.9
	1926	2278.8	2265.8	-.6	-13.0
	1927	4266.8	4503.8	5.6	237.0
	1928	2777.2	2759.3	-.6	-17.9
	1929	1523.9	1506.0	-1.2	-17.9
	1930	2275.6	2509.3	10.3	233.7
	1931	543.5	278.8	-48.7	-264.7
	1932	3483.4	3752.8	7.7	269.4
	1933	2278.8	2264.2	-.6	-14.6
	1934	278.8	265.8	-4.7	-13.0
	1935	4362.6	4435.1	1.7	72.5
	1936	3986.7	3999.5	.3	12.8
	1937	4067.9	4258.7	4.7	190.8
	1938	9420.7	9649.5	2.4	228.8
	1939	1548.3	1527.2	-1.4	-21.1
	1940	3235.1	3496.3	8.1	261.2
	1941	4977.5	5190.1	4.3	212.6
	1942	5468.3	5894.2	7.8	425.9
	1943	3496.4	3506.0	.3	9.6
	1944	2298.3	2275.6	-1.0	-22.7
	1945	3507.8	3519.1	.3	11.3
	1946	3511.1	3520.7	.3	9.6
	1947	2285.3	2260.9	-1.1	-24.4
	1948	3530.6	3538.6	.2	8.0
	1949	2538.6	2767.4	9.0	228.8
	1950	3748.1	3756.0	.2	7.9
	1951	3275.7	3323.1	1.4	47.4
	1952	10773.8	10978.3	1.9	204.5
	1953	4016.0	4022.3	.2	6.3
	1954	2793.5	2767.4	-.9	-26.1
	1955	2295.1	2270.7	-1.1	-24.4
	1956	4272.5	4278.8	.1	6.3
	1957	3292.0	3548.3	7.8	256.3
	1958	9726.4	9942.3	2.2	215.9
	1959	2041.8	2267.4	11.0	225.6
	1960	2541.8	2519.1	-.9	-22.7
	1961	1290.2	1269.1	-1.6	-21.1
	1962	3000.6	3001.2	.0	.6
	1963	6716.1	6971.0	3.8	254.9
	1964	2290.2	2269.1	-.9	-21.1
	1965	3753.0	3762.6	.3	9.6
	1966	2286.9	2264.2	-1.0	-22.7
	1967	7429.9	7763.9	4.5	334.0
	1968	2291.8	2265.8	-1.1	-26.0
	1969	8762.0	8947.0	2.1	185.0
	1970	2541.8	2519.1	-.9	-22.7
	1971	4027.3	4035.3	.2	8.0
	1972	2543.5	2519.1	-1.0	-24.4
	1973	3679.7	4029.9	9.5	350.2
	1974	4492.9	4760.8	6.0	267.9
	1975	4257.8	4264.2	.2	6.4
	1976	304.0	304.0	.0	.0
	1977	264.9	264.9	.0	.0
	1978	3746.4	4173.6	11.4	427.2
	1979	3249.7	3460.6	6.5	210.9
	1980	3749.7	3759.3	.3	9.6
	1981	1538.6	1767.4	14.9	228.8
	1982	8897.0	9085.2	2.1	188.2
	1983	10124.9	10278.9	1.5	154.0
	1984	3274.1	3283.7	.3	9.6
	1985	2300.0	2277.2	-1.0	-22.8
	1986	3519.2	3527.2	.2	8.0
	1987	546.7	358.2	-34.5	-188.5
	1988	306.5	286.9	-6.4	-19.6
	1989	2815.5	2862.2	1.7	46.7
	1990	1329.2	1311.3	-1.3	-17.9
	1991	2285.3	2017.4	-11.7	-267.9
	Mean	3585.7	3674.0	.8	88.3
	Median	3274.9	3478.5	.3	9.6
	Min	264.9	264.9	-48.7	-267.9
	Max	10773.8	10978.3	14.9	526.4
X < 1500.0		9	9		
X < 1750.0		12	11		
X < 1765.0		12	11		
X < 2000.0		12	12		
X < 3000.0		31	31		
X >= 4500.0		11	14		
4500.0 > X >= 3000.0		28	25		
3000.0 > X >= 2000.0		19	19		
2000.0 > X >= 1500.0		3	3		
1500.0 > X		9	9		
X < 3450.0		37	34		
Mean of X >= 3450.0		5338.5	5340.2	.0	1.7

LOWER AMERICAN RIVER FLOW AT HST.

June

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8381.4	8701.8	3.8	320.4
	1923	3841.0	3495.3	-9.0	-345.7
	1924	266.1	266.1	.0	.0
	1925	5223.4	5643.9	8.1	420.5
	1926	1960.9	2142.4	9.3	181.5
	1927	4820.3	5071.8	5.2	251.5
	1928	3825.9	3913.9	2.3	88.0
	1929	1908.0	1913.5	.3	5.5
	1930	1731.1	1974.4	14.1	243.3
	1931	556.4	523.7	-5.9	-32.7
	1932	4590.0	4699.1	2.4	109.1
	1933	1972.9	1977.5	.2	4.6
	1934	1415.5	1240.7	-12.3	-174.8
	1935	3429.2	3863.8	12.7	434.6
	1936	3662.0	4122.9	12.6	460.9
	1937	3194.3	3212.6	.6	18.3
	1938	8048.7	8308.6	3.2	259.9
	1939	358.3	477.8	33.4	119.5
	1940	2969.3	2957.6	-.4	-11.7
	1941	3202.7	3467.7	8.3	265.0
	1942	6798.3	7138.9	5.0	340.6
	1943	3214.5	3227.8	.4	13.3
	1944	1492.9	1727.7	15.7	234.8
	1945	4483.7	4607.9	2.8	124.2
	1946	5084.9	5186.0	2.0	101.1
	1947	1254.6	1241.2	-1.1	-13.4
	1948	2986.2	2969.3	-.6	-16.9
	1949	2227.8	3413.8	53.2	1186.0
	1950	3447.7	3534.4	2.5	86.7
	1951	2991.2	2976.1	-.5	-15.1
	1952	9957.8	10229.5	2.7	271.7
	1953	3476.3	3486.2	.3	9.9
	1954	3311.9	3476.4	5.0	164.5
	1955	1747.9	1732.8	-.9	-15.1
	1956	4267.3	5010.3	17.4	743.0
	1957	3948.8	4144.7	5.0	195.9
	1958	7220.2	7470.0	3.5	249.8
	1959	1003.0	1237.8	23.4	234.8
	1960	1992.9	1979.4	-.7	-13.5
	1961	366.1	366.1	.0	.0
	1962	2809.1	2799.3	-.3	-9.8
	1963	3202.7	3212.6	.3	9.9
	1964	2001.3	1989.5	-.6	-11.8
	1965	3459.5	3472.7	.4	13.2
	1966	1246.2	1232.8	-1.1	-13.4
	1967	9939.3	10195.8	2.6	256.5
	1968	1253.0	1736.2	38.6	483.2
	1969	6100.9	6370.9	4.4	270.0
	1970	2807.9	2817.9	.4	10.0
	1971	3466.2	3606.9	4.1	140.7
	1972	4163.1	4163.9	.0	.8
	1973	6203.1	6213.0	.2	9.9
	1974	3733.0	3999.6	7.1	266.6
	1975	4624.5	5273.5	14.0	649.0
	1976	1824.8	1611.7	-11.7	-213.1
	1977	266.1	266.1	.0	.0
	1978	3454.4	4223.1	22.3	768.7
	1979	6194.7	6211.3	.3	16.6
	1980	3202.7	3214.3	.4	11.6
	1981	494.6	982.8	98.7	488.2
	1982	5716.1	6006.2	5.1	290.1
	1983	13999.5	14286.3	2.0	286.8
	1984	3668.7	3704.7	1.0	36.0
	1985	2283.0	2581.3	13.1	298.3
	1986	2999.8	3242.9	8.1	243.1
	1987	358.3	358.3	.0	.0
	1988	1068.7	992.5	-7.1	-76.2
	1989	3502.7	4085.7	16.6	583.0
	1990	1521.9	1496.0	-1.7	-25.9
	1991	2610.6	2625.6	.6	15.0
	Mean	3497.3	3658.6	6.3	161.4
	Median	3202.7	3328.4	2.2	94.6
	Min	266.1	266.1	-12.3	-345.7
	Max	13999.5	14286.3	98.7	1186.0
X <	1500.0	14	13		
X <	1750.0	17	17		
X <	1765.0	17	17		
X <	2000.0	22	22		
X <	3000.0	32	30		
X >=	4500.0	16	18		
4500.0 > X >=	3000.0	22	22		
3000.0 > X >=	2000.0	10	8		
2000.0 > X >=	500.0	16	17		
500.0 > X		6	5		
X <	3450.0	40	36		
Mean of X >=	3450.0	5528.5	5511.4	-.3	-17.2

LOWER AMERICAN RIVER FLOW AT HST.

July

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3143.4	3275.7	4.2	132.3
	1923	2648.4	2904.2	9.7	255.8
	1924	264.9	264.9	.0	.0
	1925	2326.5	3133.7	34.7	807.2
	1926	2283.7	2409.2	5.5	125.5
	1927	6162.4	6188.2	.4	25.8
	1928	1230.0	1684.4	36.9	454.4
	1929	1204.3	1341.5	11.4	137.2
	1930	2390.7	2429.5	1.6	38.8
	1931	2313.8	2147.2	-7.2	-166.6
	1932	2814.8	2979.2	5.8	164.4
	1933	1740.8	1723.8	-1.0	-17.0
	1934	1203.6	1207.1	.3	3.5
	1935	2673.1	3166.7	18.5	493.6
	1936	3740.4	3884.3	3.8	143.9
	1937	2182.5	1862.2	-14.7	-320.3
	1938	2969.9	3268.5	10.1	298.6
	1939	1485.3	1557.2	4.8	71.9
	1940	5162.1	5647.5	9.4	485.4
	1941	1933.1	1954.0	1.1	20.9
	1942	2943.9	3253.9	10.5	310.0
	1943	5679.5	6120.3	7.8	440.8
	1944	1353.9	1486.7	9.8	132.8
	1945	4008.3	4559.8	13.8	551.5
	1946	3761.9	4051.3	7.7	289.4
	1947	1270.4	1656.6	30.4	386.2
	1948	2203.5	2850.1	29.3	646.6
	1949	2403.4	2561.5	6.6	158.1
	1950	3187.4	3583.1	12.4	395.7
	1951	4922.1	5468.0	11.1	545.9
	1952	4085.6	4392.3	7.5	306.7
	1953	2032.2	2769.7	36.3	737.5
	1954	1780.2	1780.2	.0	.0
	1955	1241.4	1207.3	-2.7	-34.1
	1956	2625.1	2933.5	11.7	308.4
	1957	4362.4	4693.4	7.6	331.0
	1958	2626.7	2915.6	11.0	288.9
	1959	396.9	396.9	.0	.0
	1960	1236.5	1335.0	8.0	98.5
	1961	366.0	366.0	.0	.0
	1962	4207.0	4537.7	7.9	330.7
	1963	5458.5	5584.3	2.3	125.8
	1964	1878.6	1995.0	6.2	116.4
	1965	6175.4	6194.7	.3	19.3
	1966	404.5	708.9	75.3	304.4
	1967	3763.6	4068.7	8.1	305.1
	1968	491.4	1207.3	145.7	715.9
	1969	2405.6	2712.3	12.7	306.7
	1970	1589.3	1829.0	15.1	239.7
	1971	1946.0	2733.4	40.5	787.4
	1972	1243.0	1208.9	-2.7	-34.1
	1973	2466.1	2854.1	15.7	388.0
	1974	2911.4	3213.2	10.4	301.8
	1975	2374.7	2674.9	12.6	300.2
	1976	1198.0	1118.4	-6.6	-79.6
	1977	264.9	264.9	.0	.0
	1978	5344.9	5305.6	-.7	-39.3
	1979	1231.7	2425.1	96.9	1193.4
	1980	3765.3	3902.0	3.6	136.7
	1981	366.0	366.0	.0	.0
	1982	2823.5	3131.9	10.9	308.4
	1983	5749.3	6056.1	5.3	306.8
	1984	4358.3	4609.6	5.8	251.3
	1985	1719.2	1864.8	8.5	145.6
	1986	4867.2	5713.7	17.4	846.5
	1987	961.8	966.7	.5	4.9
	1988	658.1	648.2	-1.5	-9.9
	1989	2752.3	3043.7	10.6	291.4
	1990	941.1	1011.2	7.4	70.1
	1991	2197.4	1958.8	-10.9	-238.6
	Mean	2555.4	2790.3	12.2	234.9
	Median	2350.6	2722.9	7.6	202.0
	Min	264.9	264.9	-14.7	-320.3
	Max	6175.4	6194.7	145.7	1193.4
X <	1500.0	21	17		
X <	1750.0	24	21		
X <	1765.0	24	21		
X <	2000.0	28	28		
X <	3000.0	50	43		
X >=	2500.0	30	38		
2500.0 > X >=	1500.0	19	15		
1500.0 > X >=	500.0	14	12		
500.0 > X >=	.0	7	5		
.0 > X		0	0		
X <	3450.0	52	51		
Mean of X >=	3450.0	4754.1	4976.9	4.7	222.8

LOWER AMERICAN RIVER FLOW AT HST.

August

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2502.8	2928.0	17.0	425.2
	1923	4255.5	3871.2	-9.0	-384.3
	1924	264.9	264.9	.0	.0
	1925	1473.5	2262.8	53.6	789.3
	1926	483.3	463.8	-4.0	-19.5
	1927	3412.1	3540.4	3.8	128.3
	1928	3804.1	3510.9	-7.7	-293.2
	1929	273.1	273.1	.0	.0
	1930	731.7	710.5	-2.9	-21.2
	1931	265.3	265.3	.0	.0
	1932	1467.0	1697.5	15.7	230.5
	1933	265.3	452.4	70.5	187.1
	1934	265.3	265.3	.0	.0
	1935	3709.8	3861.0	4.1	151.2
	1936	1988.2	2361.9	18.8	373.7
	1937	1726.8	2426.1	40.5	699.3
	1938	3628.2	3944.7	8.7	316.5
	1939	358.2	358.2	.0	.0
	1940	2907.3	3041.7	4.6	134.4
	1941	2957.4	3591.1	21.4	633.7
	1942	3714.4	4026.0	8.4	311.6
	1943	2762.5	2693.3	-2.5	-69.2
	1944	744.7	718.6	-3.5	-26.1
	1945	2045.9	2189.9	7.0	144.0
	1946	2030.1	1846.2	-9.1	-183.9
	1947	489.8	712.1	45.4	222.3
	1948	2693.1	2673.9	-.7	-19.2
	1949	2618.6	2251.5	-14.0	-367.1
	1950	2467.7	2552.1	3.4	84.4
	1951	2905.4	3031.0	4.3	125.6
	1952	4138.8	4448.8	7.5	310.0
	1953	3722.8	4050.4	8.8	327.6
	1954	3743.4	3676.8	-1.8	-66.6
	1955	1709.6	2186.6	27.9	477.0
	1956	3690.0	3996.7	8.3	306.7
	1957	2283.3	2160.6	-5.4	-122.7
	1958	3803.8	4108.9	8.0	305.1
	1959	1367.3	1811.5	32.5	444.2
	1960	1957.9	2995.9	53.0	1038.0
	1961	366.0	462.1	26.3	96.1
	1962	2505.3	2533.2	1.1	27.9
	1963	1578.4	1654.3	4.8	75.9
	1964	741.4	715.4	-3.5	-26.0
	1965	2302.5	2487.8	8.0	185.3
	1966	1527.1	2271.6	48.8	744.5
	1967	3751.8	4060.1	8.2	308.3
	1968	1567.3	2018.5	28.8	451.2
	1969	3581.0	3873.1	8.2	292.1
	1970	3501.2	3584.5	2.4	83.3
	1971	3511.1	3834.1	9.2	323.0
	1972	3186.7	3763.1	18.1	576.4
	1973	3485.7	3611.4	3.6	125.7
	1974	3771.3	4060.1	7.7	288.8
	1975	3571.2	3856.8	8.0	285.6
	1976	814.9	823.2	1.0	8.3
	1977	264.9	264.9	.0	.0
	1978	2937.9	3081.5	4.9	143.6
	1979	2743.9	2915.6	6.3	171.7
	1980	3837.2	3965.6	3.3	128.4
	1981	672.8	967.6	43.8	294.8
	1982	3756.6	4066.6	8.3	310.0
	1983	4519.4	4602.6	1.8	83.2
	1984	2734.4	2534.7	-7.3	-199.7
	1985	2310.2	2395.5	3.7	85.3
	1986	3214.9	3089.8	-3.9	-125.1
	1987	1260.2	1173.0	-6.9	-87.2
	1988	280.8	280.8	.0	.0
	1989	3237.9	3650.6	12.7	412.7
	1990	1367.9	1509.8	10.4	141.9
	1991	288.5	288.5	.0	.0
	Mean	2268.8	2437.4	9.6	168.6
	Median	2485.3	2533.9	4.7	131.4
	Min	264.9	264.9	-14.0	-384.3
	Max	4519.4	4602.6	70.5	1038.0
X < 1500.0		22	18		
X < 1750.0		27	21		
X < 1765.0		27	21		
X < 2000.0		29	23		
X < 3000.0		46	42		
X >= 2500.0		35	36		
2500.0 > X >= 2000.0		6	11		
2000.0 > X >= 1000.0		12	6		
1000.0 > X >= 500.0		5	6		
500.0 > X		12	11		
X < 3450.0		50	46		
Mean of X >= 3450.0		3774.9	3898.1	3.3	123.3

LOWER AMERICAN RIVER FLOW AT HST.

September

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3167.6	3506.2	10.7	338.6
	1923	1749.5	2261.4	29.3	511.9
	1924	576.9	359.1	-37.8	-217.8
	1925	2221.2	1746.2	-21.4	-475.0
	1926	1028.2	1247.9	21.4	219.7
	1927	1666.2	1969.3	18.2	303.1
	1928	1279.8	1246.2	-2.6	-33.6
	1929	781.5	996.2	27.5	214.7
	1930	1278.2	1246.2	-2.5	-32.0
	1931	523.1	491.2	-6.1	-31.9
	1932	2211.1	3150.2	42.5	939.1
	1933	1019.8	987.8	-3.1	-32.0
	1934	358.4	358.4	.0	.0
	1935	2218.3	2964.1	33.6	745.8
	1936	3479.3	3693.6	6.2	214.3
	1937	3117.0	3599.1	15.5	482.1
	1938	3538.7	3797.0	7.3	258.3
	1939	1041.6	1006.3	-3.4	-35.3
	1940	1404.8	1505.2	7.1	100.4
	1941	3483.3	3739.8	7.4	256.5
	1942	3521.9	3776.8	7.2	254.9
	1943	1534.9	1496.2	-2.5	-38.7
	1944	1289.9	1251.3	-3.0	-38.6
	1945	2070.3	2191.1	5.8	120.8
	1946	2492.1	2620.3	5.1	128.2
	1947	1284.9	1246.2	-3.0	-38.7
	1948	2917.2	3132.9	7.4	215.7
	1949	1345.5	1671.4	24.2	325.9
	1950	2814.0	3545.9	26.0	731.9
	1951	1766.2	2006.0	13.6	239.8
	1952	3728.6	3995.3	7.2	266.7
	1953	3496.7	3744.9	7.1	248.2
	1954	1291.6	1249.6	-3.3	-42.0
	1955	1301.7	1261.4	-3.1	-40.3
	1956	3473.2	3724.7	7.2	251.5
	1957	1573.3	1666.6	5.9	93.3
	1958	3563.9	3828.9	7.4	265.0
	1959	1078.6	1038.3	-3.7	-40.3
	1960	1284.9	1277.4	-.6	-7.5
	1961	1036.6	1249.6	20.5	213.0
	1962	1906.0	1961.8	2.9	55.8
	1963	1979.6	1989.5	.5	9.9
	1964	1286.6	1249.6	-2.9	-37.0
	1965	1749.5	1992.9	13.9	243.4
	1966	1036.6	999.6	-3.6	-37.0
	1967	3795.9	4028.9	6.1	233.0
	1968	1038.3	1723.4	66.0	685.1
	1969	3518.6	3751.6	6.6	233.0
	1970	1291.6	1253.0	-3.0	-38.6
	1971	3345.5	3576.8	6.9	231.3
	1972	1308.4	1268.1	-3.1	-40.3
	1973	1296.7	1382.9	6.6	86.2
	1974	3631.2	3877.6	6.8	246.4
	1975	3404.3	3664.2	7.6	259.9
	1976	397.1	397.1	.0	.0
	1977	359.1	359.1	.0	.0
	1978	1534.9	2001.3	30.4	466.4
	1979	1713.7	2154.4	25.7	440.7
	1980	1749.5	1984.5	13.4	235.0
	1981	1293.3	1258.0	-2.7	-35.3
	1982	3984.1	4237.3	6.4	253.2
	1983	4584.9	4645.1	1.3	60.2
	1984	1555.1	1516.4	-2.5	-38.7
	1985	1060.1	1021.4	-3.7	-38.7
	1986	1568.5	1529.8	-2.5	-38.7
	1987	798.3	761.4	-4.6	-36.9
	1988	541.6	504.6	-6.8	-37.0
	1989	1071.9	1036.6	-3.3	-35.3
	1990	533.2	497.9	-6.6	-35.3
	1991	776.5	742.9	-4.3	-33.6
	Mean	1901.7	2045.9	6.1	144.2
	Median	1545.0	1669.0	5.9	96.9
	Min	358.4	358.4	-37.8	-475.0
	Max	4584.9	4645.1	66.0	939.1
X <	1500.0	33	31		
X <	1750.0	43	38		
X <	1765.0	43	38		
X <	2000.0	46	43		
X <	3000.0	53	50		
X >=	2500.0	19	22		
2500.0 > X >=	1500.0	18	17		
1500.0 > X >=	500.0	30	25		
500.0 > X >=	.0	3	6		
.0 > X		0	0		
X <	3450.0	57	52		
Mean of X >=	3450.0	3676.9	3818.5	3.9	141.6

RETURN TO TABLE OF CONTENTS

Section 8

FOLSOM RESERVOIR ELEVATION
8.2 Terrestrial

LOWER AMERICAN RIVER FLOW AT H ST.

October

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2280.4	2296.7	.7	16.3
1923	2298.5	2314.6	.7	16.1
1924	2279.0	2293.5	.6	14.5
1925	920.3	613.4	-33.3	-306.9
1926	2275.7	2291.8	.7	16.1
1927	1603.6	1582.5	-1.3	-21.1
1928	2292.0	2304.8	.6	12.8
1929	1558.1	1785.3	14.6	227.2
1930	1313.0	1291.8	-1.6	-21.2
1931	1561.3	1790.2	14.7	228.9
1932	1071.1	1053.2	-1.7	-17.9
1933	2267.6	2282.1	.6	14.5
1934	1572.7	1553.2	-1.2	-19.5
1935	452.3	546.7	20.9	94.4
1936	2298.5	2313.0	.6	14.5
1937	2272.5	2285.3	.6	12.8
1938	2290.3	2301.6	.5	11.3
1939	2282.2	2290.2	.4	8.0
1940	1335.7	1563.0	17.0	227.3
1941	1832.5	2058.1	12.3	225.6
1942	2308.2	2317.8	.4	9.6
1943	2285.5	2295.1	.4	9.6
1944	2029.0	2286.9	12.7	257.9
1945	1843.9	2067.8	12.1	223.9
1946	1858.5	2082.5	12.1	224.0
1947	1566.2	2036.9	30.1	470.7
1948	1603.6	1576.0	-1.7	-27.6
1949	2285.5	2296.7	.5	11.2
1950	1814.6	2286.9	26.0	472.3
1951	2331.0	2339.0	.3	8.0
1952	1858.5	1832.5	-1.4	-26.0
1953	2282.2	2286.9	.2	4.7
1954	2288.7	2293.5	.2	4.8
1955	1569.5	1790.2	14.1	220.7
1956	1593.9	1817.8	14.0	223.9
1957	2306.6	2309.7	.1	3.1
1958	2076.1	2335.7	12.5	259.6
1959	2283.8	2288.6	.2	4.8
1960	1567.8	1540.2	-1.8	-27.6
1961	1814.6	1788.6	-1.4	-26.0
1962	1569.5	1545.1	-1.6	-24.4
1963	2314.8	2913.9	25.9	599.1
1964	2300.1	2308.1	.3	8.0
1965	1858.5	2084.1	12.1	225.6
1966	2274.1	2282.1	.4	8.0
1967	1576.0	1551.6	-1.5	-24.4
1968	2279.0	2282.1	.1	3.1
1969	1590.6	1566.2	-1.5	-24.4
1970	2298.5	2304.8	.3	6.3
1971	1845.5	1816.2	-1.6	-29.3
1972	2285.5	2290.2	.2	4.7
1973	1611.8	1584.1	-1.7	-27.7
1974	1610.1	1830.9	13.7	220.8
1975	2306.6	2313.0	.3	6.4
1976	2326.1	2329.2	.1	3.1
1977	491.0	491.0	.0	.0
1978	451.9	451.9	.0	.0
1979	2282.2	2295.1	.6	12.9
1980	1616.6	1592.2	-1.5	-24.4
1981	2275.7	2285.3	.4	9.6
1982	1624.8	1602.0	-1.4	-22.8
1983	3032.1	3259.4	7.5	227.3
1984	2312.4	2945.2	27.4	632.8
1985	2068.0	2324.4	12.4	256.4
1986	1352.0	1577.6	16.7	225.6
1987	2037.1	2293.5	12.6	256.4
1988	1770.5	1721.5	-2.8	-49.0
1989	821.1	798.3	-2.8	-22.8
1990	1598.8	1576.0	-1.4	-22.8
1991	821.1	1050.0	27.9	228.9
Mean	1860.4	1942.1	4.5	81.7
Median	1858.5	2183.1	.4	9.6
Min	451.9	451.9	-33.3	-306.9
Max	3032.1	3259.4	30.1	632.8
X < 1300.0	7	8		
X < 1765.0	27	22		
X < 2000.0	36	30		
X < 2700.0	69	67		
X < 3000.0	69	69		

LOWER AMERICAN RIVER FLOW AT H ST.

November

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2343.7	2355.5	.5	11.8
	1923	2399.3	2409.3	.4	10.0
	1924	2320.3	2328.6	.4	8.3
	1925	890.8	600.4	-32.6	-290.4
	1926	2332.0	2343.7	.5	11.7
	1927	1686.2	1696.2	.6	10.0
	1928	2358.9	2367.2	.4	8.3
	1929	1612.3	1868.9	15.9	256.6
	1930	1310.2	1320.2	.8	10.0
	1931	1583.7	1843.7	16.4	260.0
	1932	1098.9	1110.5	1.1	11.6
	1933	2313.6	2323.5	.4	9.9
	1934	1551.8	1561.8	.6	10.0
	1935	452.4	647.5	43.1	195.1
	1936	2333.7	2343.7	.4	10.0
	1937	2313.6	2320.2	.3	6.6
	1938	2390.9	2399.2	.3	8.3
	1939	2322.0	2326.9	.2	4.9
	1940	1316.9	1575.2	19.6	258.3
	1941	1860.6	2118.9	13.9	258.3
	1942	2360.6	2367.2	.3	6.6
	1943	3265.1	3543.3	8.5	278.2
	1944	2087.1	2340.3	12.1	253.2
	1945	1892.5	2147.5	13.5	255.0
	1946	1862.3	2115.6	13.6	253.3
	1947	1617.3	2118.9	31.0	501.6
	1948	1593.8	1597.1	.2	3.3
	1949	2333.7	2337.0	.1	3.3
	1950	1838.8	2340.3	27.3	501.5
	1951	16586.1	16856.2	1.6	270.1
	1952	1875.7	1880.7	.3	5.0
	1953	2365.7	2365.6	.0	-.1
	1954	2360.6	2360.5	.0	-.1
	1955	1629.1	1880.7	15.4	251.6
	1956	1617.3	1872.3	15.8	255.0
	1957	2325.3	2325.2	.0	-.1
	1958	2095.5	2348.8	12.1	253.3
	1959	2330.4	2330.3	.0	-.1
	1960	1570.3	1575.2	.3	4.9
	1961	1894.2	1897.5	.2	3.3
	1962	1619.0	1624.0	.3	5.0
	1963	2861.7	2933.9	2.5	72.2
	1964	2690.1	3812.2	41.7	1122.1
	1965	1892.5	2147.5	13.5	255.0
	1966	2384.1	2385.7	.1	1.6
	1967	1699.7	1704.6	.3	4.9
	1968	2345.5	2345.4	.0	-.1
	1969	1649.3	1654.2	.3	4.9
	1970	2347.2	2350.4	.1	3.2
	1971	1958.1	1959.7	.1	1.6
	1972	2343.8	2345.4	.1	1.6
	1973	1676.2	1677.7	.1	1.5
	1974	3873.4	4323.8	11.6	450.4
	1975	2360.6	2363.9	.1	3.3
	1976	2533.2	2801.4	10.6	268.2
	1977	491.1	491.1	.0	.0
	1978	453.1	453.1	.0	.0
	1979	2387.5	2394.1	.3	6.6
	1980	1617.3	1624.0	.4	6.7
	1981	2322.0	2328.6	.3	6.6
	1982	4259.6	4462.6	4.8	203.0
	1983	6660.0	6780.7	1.8	120.7
	1984	14316.6	14343.2	.2	26.6
	1985	2196.3	2447.9	11.5	251.6
	1986	1448.0	1702.9	17.6	254.9
	1987	2087.1	2338.7	12.1	251.6
	1988	1413.1	1398.4	-1.0	-14.7
	1989	864.0	872.3	1.0	8.3
	1990	1598.9	1607.2	.5	8.3
	1991	832.0	1092.0	31.3	260.0
	Mean	2421.1	2531.8	5.7	110.8
	Median	2087.1	2324.4	.4	9.9
	Min	452.4	453.1	-32.6	-290.4
	Max	16586.1	16856.2	43.1	1122.1
X <	1300.0	7	7		
X <	1765.0	26	21		
X <	2000.0	34	28		
X <	2700.0	63	61		
X <	3000.0	64	63		

LOWER AMERICAN RIVER FLOW AT H ST.

December

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2451.2	2457.7	.3	6.5
1923	6039.0	6392.6	5.9	353.6
1924	2348.8	2355.3	.3	6.5
1925	969.1	684.9	-29.3	-284.2
1926	2370.0	2376.4	.3	6.4
1927	1616.7	1623.1	.4	6.4
1928	2374.9	2379.7	.2	4.8
1929	1634.6	1887.8	15.5	253.2
1930	1418.8	1425.2	.5	6.4
1931	1584.2	1840.6	16.2	256.4
1932	1230.6	1240.2	.8	9.6
1933	2376.5	2382.9	.3	6.4
1934	1678.5	1686.6	.5	8.1
1935	577.3	634.5	9.9	57.2
1936	2370.0	2376.4	.3	6.4
1937	2396.0	2399.2	.1	3.2
1938	5711.3	6074.3	6.4	363.0
1939	2358.6	2360.1	.1	1.5
1940	1358.6	1613.4	18.8	254.8
1941	2005.0	2258.1	12.6	253.1
1942	4461.6	4849.3	8.7	387.7
1943	4558.4	4660.6	2.2	102.2
1944	2131.4	2381.3	11.7	249.9
1945	1886.2	2139.4	13.4	253.2
1946	7026.1	7504.8	6.8	478.7
1947	1637.9	2137.8	30.5	499.9
1948	1607.0	1606.9	.0	-.1
1949	2410.6	2412.2	.1	1.6
1950	1873.2	2371.5	26.6	498.3
1951	16206.0	16274.1	.4	68.1
1952	3159.3	3864.1	22.3	704.8
1953	2472.4	2470.7	-.1	-1.7
1954	2360.2	2356.9	-.1	-3.3
1955	1681.8	1928.4	14.7	246.6
1956	14782.3	14687.5	-.6	-94.8
1957	2353.7	2352.0	-.1	-1.7
1958	2162.3	2413.8	11.6	251.5
1959	2366.7	2363.4	-.1	-3.3
1960	1849.4	1720.2	-7.0	-129.2
1961	1860.2	1860.1	.0	-.1
1962	1637.9	1639.4	.1	1.5
1963	3307.5	3314.0	.2	6.5
1964	2350.5	2977.0	26.7	626.5
1965	20219.9	20338.3	.6	118.4
1966	2396.0	2395.9	.0	-.1
1967	1672.0	1673.6	.1	1.6
1968	2365.1	2363.4	-.1	-1.7
1969	1668.8	1670.3	.1	1.5
1970	4817.4	5179.1	7.5	361.7
1971	4293.4	4653.2	8.4	359.8
1972	2426.9	2425.2	-.1	-1.7
1973	1654.1	1654.0	.0	-.1
1974	7337.8	7430.3	1.3	92.5
1975	2415.5	2415.4	.0	-.1
1976	2361.8	2360.1	-.1	-1.7
1977	616.0	616.0	.0	.0
1978	576.9	576.9	.0	.0
1979	2366.7	2369.9	.1	3.2
1980	1680.2	1683.3	.2	3.1
1981	2387.9	2389.4	.1	1.5
1982	14142.4	14176.0	.2	33.6
1983	8943.0	9043.6	1.1	100.6
1984	15098.5	15268.9	1.1	170.4
1985	2136.2	2386.2	11.7	250.0
1986	1418.8	1670.3	17.7	251.5
1987	2124.9	2374.8	11.8	249.9
1988	1186.7	1188.2	.1	1.5
1989	899.3	904.0	.5	4.7
1990	1595.6	1600.4	.3	4.8
1991	868.4	1123.1	29.3	254.7
Mean	3438.3	3552.3	4.6	114.0
Median	2352.1	2366.6	.3	6.4
Min	576.9	576.9	-29.3	-284.2
Max	20219.9	20338.3	30.5	704.8
X < 1300.0	8	8		
X < 1765.0	24	21		
X < 2000.0	28	25		
X < 2700.0	54	53		
X < 3000.0	54	54		

LOWER AMERICAN RIVER FLOW AT H ST.

January

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	1899.2	1907.3	.4	8.1
	1923	4327.4	4441.0	2.6	113.6
	1924	1889.5	1897.5	.4	8.0
	1925	1658.9	1876.4	13.1	217.5
	1926	1896.0	1904.0	.4	8.0
	1927	2584.2	3005.7	16.3	421.5
	1928	1878.1	2132.9	13.6	254.8
	1929	1265.1	1469.9	16.2	204.8
	1930	1672.0	1678.4	.4	6.4
	1931	1400.9	1505.7	7.5	104.8
	1932	1618.3	1628.0	.6	9.7
	1933	1909.0	1915.4	.3	6.4
	1934	1613.5	1619.9	.4	6.4
	1935	1931.8	1938.2	.3	6.4
	1936	3876.6	3973.2	2.5	96.6
	1937	1912.3	1917.1	.3	4.8
	1938	2658.7	2772.4	4.3	113.7
	1939	1881.4	2132.9	13.4	251.5
	1940	1993.8	1836.3	-7.9	-157.5
	1941	4720.3	4882.3	3.4	162.0
	1942	9121.9	9255.0	1.5	133.1
	1943	10738.5	10837.5	.9	99.0
	1944	1700.9	1902.4	11.8	201.5
	1945	2123.2	2124.8	.1	1.6
	1946	4971.4	5081.8	2.2	110.4
	1947	1860.2	1861.8	.1	1.6
	1948	1613.5	1613.4	.0	-.1
	1949	1879.7	1881.3	.1	1.6
	1950	1531.8	1931.7	26.1	399.9
	1951	9919.3	10013.5	.9	94.2
	1952	8904.0	9002.9	1.1	98.9
	1953	6142.6	6580.5	7.1	437.9
	1954	2163.9	2160.6	-.2	-3.3
	1955	1920.4	1918.7	-.1	-1.7
	1956	16277.8	16266.1	-.1	-11.7
	1957	2150.9	2149.2	-.1	-1.7
	1958	1951.3	1952.8	.1	1.5
	1959	1954.5	1952.8	-.1	-1.7
	1960	1508.5	1405.1	-6.9	-103.4
	1961	1496.0	1495.9	.0	-.1
	1962	1274.9	1278.0	.2	3.1
	1963	3766.1	3837.7	1.9	71.6
	1964	2422.0	2423.6	.1	1.6
	1965	13092.8	13068.1	-.2	-24.7
	1966	2136.2	2386.2	11.7	250.0
	1967	6048.2	6558.9	8.4	510.7
	1968	2426.9	2425.2	-.1	-1.7
	1969	14230.5	14640.8	2.9	410.3
	1970	20786.1	20889.9	.5	103.8
	1971	4569.5	4618.3	1.1	48.8
	1972	2373.2	2371.5	-.1	-1.7
	1973	8281.7	8662.0	4.6	380.3
	1974	11192.3	11268.5	.7	76.2
	1975	2124.9	2124.8	.0	-.1
	1976	2365.1	2363.4	-.1	-1.7
	1977	483.4	483.7	.1	.3
	1978	2185.8	2606.5	19.2	420.7
	1979	1948.0	1951.2	.2	3.2
	1980	15196.5	15632.7	2.9	436.2
	1981	1939.9	1943.1	.2	3.2
	1982	8106.6	8148.6	.5	42.0
	1983	7453.3	7553.9	1.3	100.6
	1984	6380.1	6443.3	1.0	63.2
	1985	2383.0	2382.9	.0	-.1
	1986	2290.9	1946.2	-15.0	-344.7
	1987	1707.4	1907.3	11.7	199.9
	1988	923.6	925.2	.2	1.6
	1989	1868.3	1873.1	.3	4.8
	1990	1673.6	1678.4	.3	4.8
	1991	660.2	866.6	31.3	206.4
	Mean	4097.3	4186.9	3.1	89.6
	Median	2124.0	2128.9	.4	8.1
	Min	483.4	483.7	-15.0	-344.7
	Max	20786.1	20889.9	31.3	510.7
X <	1300.0	5	4		
X <	1765.0	17	13		
X <	2000.0	34	33		
X <	2700.0	48	46		
X <	3000.0	48	47		

LOWER AMERICAN RIVER FLOW AT H ST.

February

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	2438.4	3062.1	25.6	623.7
1923	2822.4	2948.2	4.5	125.8
1924	1508.3	1663.6	10.3	155.3
1925	3856.8	4426.5	14.8	569.7
1926	1719.5	1726.6	.4	7.1
1927	13326.8	13370.2	.3	43.4
1928	1881.2	1884.8	.2	3.6
1929	990.4	1152.2	16.3	161.8
1930	1861.4	1866.8	.3	5.4
1931	1124.0	1159.4	3.1	35.4
1932	1877.6	2111.0	12.4	233.4
1933	1604.2	1609.6	.3	5.4
1934	1638.4	1893.8	15.6	255.4
1935	1857.8	1865.0	.4	7.2
1936	13303.4	13404.0	.8	100.6
1937	1717.7	1744.4	1.6	26.7
1938	9668.2	9772.5	1.1	104.3
1939	1861.4	1863.2	.1	1.8
1940	10471.1	10543.3	.7	72.2
1941	7828.1	7959.2	1.7	131.1
1942	9771.0	9900.5	1.3	129.5
1943	6661.6	6771.1	1.6	109.5
1944	1429.3	1587.4	11.1	158.1
1945	5964.1	6121.7	2.6	157.6
1946	2496.5	2588.2	3.7	91.7
1947	1890.2	1638.4	-13.3	-251.8
1948	1620.4	1870.4	15.4	250.0
1949	1477.6	1877.6	27.1	400.0
1950	3428.5	2902.2	-15.4	-526.3
1951	7943.9	8048.2	1.3	104.3
1952	9302.7	9410.5	1.2	107.8
1953	1990.5	2109.1	6.0	118.6
1954	1920.9	1915.4	-.3	-5.5
1955	1879.4	1877.6	-.1	-1.8
1956	6035.9	6082.3	.8	46.4
1957	1933.5	1929.8	-.2	-3.7
1958	6807.8	7380.7	8.4	572.9
1959	1944.3	1940.6	-.2	-3.7
1960	1185.1	1100.6	-7.1	-84.5
1961	1157.6	1155.8	-.2	-1.8
1962	1123.7	1253.6	11.6	129.9
1963	11857.8	11901.1	.4	43.3
1964	1852.4	1852.4	.0	.0
1965	5274.7	5324.8	.9	50.1
1966	1886.6	1884.8	-.1	-1.8
1967	4199.8	4278.9	1.9	79.1
1968	4811.3	5459.2	13.5	647.9
1969	9155.2	9227.2	.8	72.0
1970	6109.4	6195.6	1.4	86.2
1971	3158.8	3232.7	2.3	73.9
1972	1883.0	1939.3	3.0	56.3
1973	7048.3	7096.9	.7	48.6
1974	3943.5	4143.1	5.1	199.6
1975	1987.5	1985.6	-.1	-1.9
1976	1870.4	1866.8	-.2	-3.6
1977	366.2	366.8	.2	.6
1978	4575.8	4748.8	3.8	173.0
1979	1670.9	1920.8	15.0	249.9
1980	13557.6	13967.5	3.0	409.9
1981	1466.8	1868.6	27.4	401.8
1982	15211.8	15272.7	.4	60.9
1983	12245.1	12334.9	.7	89.8
1984	5440.8	5528.7	1.6	87.9
1985	1899.2	1899.2	.0	.0
1986	33160.6	33158.4	.0	-2.2
1987	1362.7	1522.6	11.7	159.9
1988	1613.2	1613.2	.0	.0
1989	1618.6	1622.2	.2	3.6
1990	1315.5	1669.0	26.9	353.5
1991	541.1	704.6	30.2	163.5
Mean	4605.8	4715.4	4.5	109.5
Median	1938.9	1963.1	1.3	76.5
Min	366.2	366.8	-15.4	-526.3
Max	33160.6	33158.4	30.2	647.9
X < 1300.0	7	7		
X < 1765.0	21	17		
X < 2000.0	38	36		
X < 2700.0	40	39		
X < 3000.0	41	41		

LOWER AMERICAN RIVER FLOW AT H ST.

March

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4384.6	4394.3	.2	9.7
1923	2594.0	2602.0	.3	8.0
1924	1185.7	1265.0	6.7	79.3
1925	3042.4	3462.4	13.8	420.0
1926	1839.1	1848.7	.5	9.6
1927	4264.2	4439.4	4.1	175.2
1928	9636.8	10495.9	8.9	859.1
1929	1371.6	1378.0	.5	6.4
1930	1887.9	1894.3	.3	6.4
1931	853.7	885.8	3.8	32.1
1932	2587.5	2597.1	.4	9.6
1933	1621.6	1629.7	.5	8.1
1934	1229.3	1437.4	16.9	208.1
1935	3146.0	3154.0	.3	8.0
1936	3933.3	4037.2	2.6	103.9
1937	3764.3	4324.3	14.9	560.0
1938	10589.0	10707.5	1.1	118.5
1939	1486.2	1489.4	.2	3.2
1940	10551.6	10819.7	2.5	268.1
1941	4582.5	4702.6	2.6	120.1
1942	4400.9	4405.7	.1	4.8
1943	12214.1	12309.8	.8	95.7
1944	1866.7	1869.9	.2	3.2
1945	2650.9	2654.0	.1	3.1
1946	2636.2	2647.6	.4	11.4
1947	1905.8	1907.3	.1	1.5
1948	2652.5	2654.0	.1	1.5
1949	2439.9	2443.1	.1	3.2
1950	2883.0	3134.5	8.7	251.5
1951	3512.9	3631.3	3.4	118.4
1952	5934.0	6049.2	1.9	115.2
1953	2884.6	2886.2	.1	1.6
1954	3584.2	4196.2	17.1	612.0
1955	1850.5	1850.4	.0	-.1
1956	3355.3	3358.5	.1	3.2
1957	3191.6	3874.7	21.4	683.1
1958	6464.4	6574.8	1.7	110.4
1959	1610.2	1610.1	.0	-.1
1960	2121.6	2123.1	.1	1.5
1961	905.4	908.5	.3	3.1
1962	2373.2	2378.0	.2	4.8
1963	3409.0	3410.6	.0	1.6
1964	1863.5	1866.6	.2	3.1
1965	2874.9	2879.7	.2	4.8
1966	1598.8	1852.0	15.8	253.2
1967	5658.1	5852.9	3.4	194.8
1968	3822.0	1993.6	-47.8	-1828.4
1969	4370.0	4369.9	.0	-.1
1970	2146.7	2379.7	10.9	233.0
1971	3826.5	3938.4	2.9	111.9
1972	3393.3	3991.9	17.6	598.6
1973	3125.7	3236.0	3.5	110.3
1974	9460.1	9567.2	1.1	107.1
1975	3514.9	4172.1	18.7	657.2
1976	1468.4	1468.3	.0	-.1
1977	326.9	326.9	.0	.0
1978	5481.9	5768.2	5.2	286.3
1979	2386.2	2641.0	10.7	254.8
1980	3118.5	3316.1	6.3	197.6
1981	1410.6	1515.4	7.4	104.8
1982	7470.4	7583.9	1.5	113.5
1983	16120.5	16198.3	.5	77.8
1984	2403.1	2639.4	9.8	236.3
1985	1910.6	1913.8	.2	3.2
1986	10950.7	11104.8	1.4	154.1
1987	1077.3	1206.8	12.0	129.5
1988	1252.1	1255.3	.3	3.2
1989	5538.9	6210.1	12.1	671.2
1990	1357.0	1363.4	.5	6.4
1991	1746.8	1751.6	.3	4.8
Mean	3701.0	3811.5	3.3	110.5
Median	2878.9	2766.9	.6	55.0
Min	326.9	326.9	-47.8	-1828.4
Max	16120.5	16198.3	21.4	859.1

X < 1300.0	7	6
X < 1765.0	16	15
X < 2000.0	23	24
X < 2700.0	34	35
X < 3000.0	37	37

LOWER AMERICAN RIVER FLOW AT H ST.

April

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4311.9	4325.2	.3	13.3
	1923	3283.3	3518.9	7.2	235.6
	1924	266.1	266.1	.0	.0
	1925	3263.1	3565.1	9.3	302.0
	1926	1882.5	1895.8	.7	13.3
	1927	7653.4	7824.5	2.2	171.1
	1928	4456.1	4707.6	5.6	251.5
	1929	558.5	1066.8	91.0	508.3
	1930	1811.9	1821.9	.6	10.0
	1931	286.7	298.3	4.0	11.6
	1932	2551.8	2565.1	.5	13.3
	1933	1535.0	1796.7	17.0	261.7
	1934	2521.4	2941.3	16.7	419.9
	1935	4820.8	5093.3	5.7	272.5
	1936	5498.3	5616.3	2.1	118.0
	1937	4039.4	4202.2	4.0	162.8
	1938	7574.1	7733.4	2.1	159.3
	1939	545.1	801.7	47.1	256.6
	1940	5875.2	5858.5	-.3	-16.7
	1941	3505.4	3669.7	4.7	164.3
	1942	4394.2	4400.8	.2	6.6
	1943	4888.9	5080.0	3.9	191.1
	1944	1835.4	1842.0	.4	6.6
	1945	2556.9	2563.5	.3	6.6
	1946	3474.1	3747.4	7.9	273.3
	1947	1805.2	1810.1	.3	4.9
	1948	2614.0	2617.2	.1	3.2
	1949	2295.1	2300.0	.2	4.9
	1950	4795.9	4816.5	.4	20.6
	1951	2727.5	2888.5	5.9	161.0
	1952	8647.8	8797.0	1.7	149.2
	1953	3107.3	3360.5	8.1	253.2
	1954	4249.6	4338.7	2.1	89.1
	1955	1843.8	1845.4	.1	1.6
	1956	3848.9	3855.5	.2	6.6
	1957	2590.5	2592.0	.1	1.5
	1958	10101.6	10267.6	1.6	166.0
	1959	1580.4	1583.6	.2	3.2
	1960	2068.6	2073.5	.2	4.9
	1961	366.1	366.1	.0	.0
	1962	2574.9	3217.2	24.9	642.3
	1963	4198.3	4506.3	7.3	308.0
	1964	1805.2	1811.8	.4	6.6
	1965	3273.9	3570.4	9.1	296.5
	1966	1563.6	1818.5	16.3	254.9
	1967	4370.7	4374.0	.1	3.3
	1968	1808.5	1811.8	.2	3.3
	1969	5388.0	5659.4	5.0	271.4
	1970	2061.9	2068.5	.3	6.6
	1971	3072.0	3076.9	.2	4.9
	1972	2333.7	2337.0	.1	3.3
	1973	2566.9	2570.2	.1	3.3
	1974	5938.1	6040.4	1.7	102.3
	1975	3833.7	3838.7	.1	5.0
	1976	328.7	331.9	1.0	3.2
	1977	266.1	266.1	.0	.0
	1978	3873.9	3975.3	2.6	101.4
	1979	2316.9	2573.5	11.1	256.6
	1980	2575.3	2581.9	.3	6.6
	1981	811.9	1318.5	62.4	506.6
	1982	14063.1	14230.8	1.2	167.7
	1983	6358.9	6550.1	3.0	191.2
	1984	2585.4	2592.0	.3	6.6
	1985	1818.6	1823.5	.3	4.9
	1986	2590.5	2595.4	.2	4.9
	1987	358.3	358.3	.0	.0
	1988	280.8	280.8	.0	.0
	1989	3885.2	4313.3	11.0	428.1
	1990	1868.4	2072.1	10.9	203.7
	1991	1553.5	1561.8	.5	8.3
	Mean	3233.7	3354.9	6.1	121.2
	Median	2587.9	2606.3	.9	13.3
	Min	266.1	266.1	-.3	-16.7
	Max	14063.1	14230.8	91.0	642.3
X <	1300.0	10	9		
X <	1765.0	14	12		
X <	2000.0	23	22		
X <	2700.0	38	36		
X <	3000.0	39	38		

LOWER AMERICAN RIVER FLOW AT H ST.

May

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	8110.7	8637.1	6.5	526.4
1923	4440.4	4633.9	4.4	193.5
1924	264.9	264.9	.0	.0
1925	3848.4	4367.3	13.5	518.9
1926	2278.8	2265.8	-.6	-13.0
1927	4266.8	4503.8	5.6	237.0
1928	2777.2	2759.3	-.6	-17.9
1929	1523.9	1506.0	-1.2	-17.9
1930	2275.6	2509.3	10.3	233.7
1931	543.5	278.8	-48.7	-264.7
1932	3483.4	3752.8	7.7	269.4
1933	2278.8	2264.2	-.6	-14.6
1934	278.8	265.8	-4.7	-13.0
1935	4362.6	4435.1	1.7	72.5
1936	3986.7	3999.5	.3	12.8
1937	4067.9	4258.7	4.7	190.8
1938	9420.7	9649.5	2.4	228.8
1939	1548.3	1527.2	-1.4	-21.1
1940	3235.1	3496.3	8.1	261.2
1941	4977.5	5190.1	4.3	212.6
1942	5468.3	5894.2	7.8	425.9
1943	3496.4	3506.0	.3	9.6
1944	2298.3	2275.6	-1.0	-22.7
1945	3507.8	3519.1	.3	11.3
1946	3511.1	3520.7	.3	9.6
1947	2285.3	2260.9	-1.1	-24.4
1948	3530.6	3538.6	.2	8.0
1949	2538.6	2767.4	9.0	228.8
1950	3748.1	3756.0	.2	7.9
1951	3275.7	3323.1	1.4	47.4
1952	10773.8	10978.3	1.9	204.5
1953	4016.0	4022.3	.2	6.3
1954	2793.5	2767.4	-.9	-26.1
1955	2295.1	2270.7	-1.1	-24.4
1956	4272.5	4278.8	.1	6.3
1957	3292.0	3548.3	7.8	256.3
1958	9726.4	9942.3	2.2	215.9
1959	2041.8	2267.4	11.0	225.6
1960	2541.8	2519.1	-.9	-22.7
1961	1290.2	1269.1	-1.6	-21.1
1962	3000.6	3001.2	.0	.6
1963	6716.1	6971.0	3.8	254.9
1964	2290.2	2269.1	-.9	-21.1
1965	3753.0	3762.6	.3	9.6
1966	2286.9	2264.2	-1.0	-22.7
1967	7429.9	7763.9	4.5	334.0
1968	2291.8	2265.8	-1.1	-26.0
1969	8762.0	8947.0	2.1	185.0
1970	2541.8	2519.1	-.9	-22.7
1971	4027.3	4035.3	.2	8.0
1972	2543.5	2519.1	-1.0	-24.4
1973	3679.7	4029.9	9.5	350.2
1974	4492.9	4760.8	6.0	267.9
1975	4257.8	4264.2	.2	6.4
1976	304.0	304.0	.0	.0
1977	264.9	264.9	.0	.0
1978	3746.4	4173.6	11.4	427.2
1979	3249.7	3460.6	6.5	210.9
1980	3749.7	3759.3	.3	9.6
1981	1538.6	1767.4	14.9	228.8
1982	8897.0	9085.2	2.1	188.2
1983	10124.9	10278.9	1.5	154.0
1984	3274.1	3283.7	.3	9.6
1985	2300.0	2277.2	-1.0	-22.8
1986	3519.2	3527.2	.2	8.0
1987	546.7	358.2	-34.5	-188.5
1988	306.5	286.9	-6.4	-19.6
1989	2815.5	2862.2	1.7	46.7
1990	1329.2	1311.3	-1.3	-17.9
1991	2285.3	2017.4	-11.7	-267.9
Mean	3585.7	3674.0	.8	88.3
Median	3274.9	3478.5	.3	9.6
Min	264.9	264.9	-48.7	-267.9
Max	10773.8	10978.3	14.9	526.4
X < 1300.0	8	8		
X < 1765.0	12	11		
X < 2000.0	12	12		
X < 2700.0	28	27		
X < 3000.0	31	31		

LOWER AMERICAN RIVER FLOW AT H ST.

June

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8381.4	8701.8	3.8	320.4
	1923	3841.0	3495.3	-9.0	-345.7
	1924	266.1	266.1	.0	.0
	1925	5223.4	5643.9	8.1	420.5
	1926	1960.9	2142.4	9.3	181.5
	1927	4820.3	5071.8	5.2	251.5
	1928	3825.9	3913.9	2.3	88.0
	1929	1908.0	1913.5	.3	5.5
	1930	1731.1	1974.4	14.1	243.3
	1931	556.4	523.7	-5.9	-32.7
	1932	4590.0	4699.1	2.4	109.1
	1933	1972.9	1977.5	.2	4.6
	1934	1415.5	1240.7	-12.3	-174.8
	1935	3429.2	3863.8	12.7	434.6
	1936	3662.0	4122.9	12.6	460.9
	1937	3194.3	3212.6	.6	18.3
	1938	8048.7	8308.6	3.2	259.9
	1939	358.3	477.8	33.4	119.5
	1940	2969.3	2957.6	-.4	-11.7
	1941	3202.7	3467.7	8.3	265.0
	1942	6798.3	7138.9	5.0	340.6
	1943	3214.5	3227.8	.4	13.3
	1944	1492.9	1727.7	15.7	234.8
	1945	4483.7	4607.9	2.8	124.2
	1946	5084.9	5186.0	2.0	101.1
	1947	1254.6	1241.2	-1.1	-13.4
	1948	2986.2	2969.3	-.6	-16.9
	1949	2227.8	3413.8	53.2	1186.0
	1950	3447.7	3534.4	2.5	86.7
	1951	2991.2	2976.1	-.5	-15.1
	1952	9957.8	10229.5	2.7	271.7
	1953	3476.3	3486.2	.3	9.9
	1954	3311.9	3476.4	5.0	164.5
	1955	1747.9	1732.8	-.9	-15.1
	1956	4267.3	5010.3	17.4	743.0
	1957	3948.8	4144.7	5.0	195.9
	1958	7220.2	7470.0	3.5	249.8
	1959	1003.0	1237.8	23.4	234.8
	1960	1992.9	1979.4	-.7	-13.5
	1961	366.1	366.1	.0	.0
	1962	2809.1	2799.3	-.3	-9.8
	1963	3202.7	3212.6	.3	9.9
	1964	2001.3	1989.5	-.6	-11.8
	1965	3459.5	3472.7	.4	13.2
	1966	1246.2	1232.8	-1.1	-13.4
	1967	9939.3	10195.8	2.6	256.5
	1968	1253.0	1736.2	38.6	483.2
	1969	6100.9	6370.9	4.4	270.0
	1970	2807.9	2817.9	.4	10.0
	1971	3466.2	3606.9	4.1	140.7
	1972	4163.1	4163.9	.0	.8
	1973	6203.1	6213.0	.2	9.9
	1974	3733.0	3999.6	7.1	266.6
	1975	4624.5	5273.5	14.0	649.0
	1976	1824.8	1611.7	-11.7	-213.1
	1977	266.1	266.1	.0	.0
	1978	3454.4	4223.1	22.3	768.7
	1979	6194.7	6211.3	.3	16.6
	1980	3202.7	3214.3	.4	11.6
	1981	494.6	982.8	98.7	488.2
	1982	5716.1	6006.2	5.1	290.1
	1983	13999.5	14286.3	2.0	286.8
	1984	3668.7	3704.7	1.0	36.0
	1985	2283.0	2581.3	13.1	298.3
	1986	2999.8	3242.9	8.1	243.1
	1987	358.3	358.3	.0	.0
	1988	1068.7	992.5	-7.1	-76.2
	1989	3502.7	4085.7	16.6	583.0
	1990	1521.9	1496.0	-1.7	-25.9
	1991	2610.6	2625.6	.6	15.0
	Mean	3497.3	3658.6	6.3	161.4
	Median	3202.7	3328.4	2.2	94.6
	Min	266.1	266.1	-12.3	-345.7
	Max	13999.5	14286.3	98.7	1186.0
X <	1300.0	12	12		
X <	1765.0	17	17		
X <	2000.0	22	22		
X <	2700.0	26	25		
X <	3000.0	32	30		

LOWER AMERICAN RIVER FLOW AT H ST.

July

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3143.4	3275.7	4.2	132.3
	1923	2648.4	2904.2	9.7	255.8
	1924	264.9	264.9	.0	.0
	1925	2326.5	3133.7	34.7	807.2
	1926	2283.7	2409.2	5.5	125.5
	1927	6162.4	6188.2	.4	25.8
	1928	1230.0	1684.4	36.9	454.4
	1929	1204.3	1341.5	11.4	137.2
	1930	2390.7	2429.5	1.6	38.8
	1931	2313.8	2147.2	-7.2	-166.6
	1932	2814.8	2979.2	5.8	164.4
	1933	1740.8	1723.8	-1.0	-17.0
	1934	1203.6	1207.1	.3	3.5
	1935	2673.1	3166.7	18.5	493.6
	1936	3740.4	3884.3	3.8	143.9
	1937	2182.5	1862.2	-14.7	-320.3
	1938	2969.9	3268.5	10.1	298.6
	1939	1485.3	1557.2	4.8	71.9
	1940	5162.1	5647.5	9.4	485.4
	1941	1933.1	1954.0	1.1	20.9
	1942	2943.9	3253.9	10.5	310.0
	1943	5679.5	6120.3	7.8	440.8
	1944	1353.9	1486.7	9.8	132.8
	1945	4008.3	4559.8	13.8	551.5
	1946	3761.9	4051.3	7.7	289.4
	1947	1270.4	1656.6	30.4	386.2
	1948	2203.5	2850.1	29.3	646.6
	1949	2403.4	2561.5	6.6	158.1
	1950	3187.4	3583.1	12.4	395.7
	1951	4922.1	5468.0	11.1	545.9
	1952	4085.6	4392.3	7.5	306.7
	1953	2032.2	2769.7	36.3	737.5
	1954	1780.2	1780.2	.0	.0
	1955	1241.4	1207.3	-2.7	-34.1
	1956	2625.1	2933.5	11.7	308.4
	1957	4362.4	4693.4	7.6	331.0
	1958	2626.7	2915.6	11.0	288.9
	1959	396.9	396.9	.0	.0
	1960	1236.5	1335.0	8.0	98.5
	1961	366.0	366.0	.0	.0
	1962	4207.0	4537.7	7.9	330.7
	1963	5458.5	5584.3	2.3	125.8
	1964	1878.6	1995.0	6.2	116.4
	1965	6175.4	6194.7	.3	19.3
	1966	404.5	708.9	75.3	304.4
	1967	3763.6	4068.7	8.1	305.1
	1968	491.4	1207.3	145.7	715.9
	1969	2405.6	2712.3	12.7	306.7
	1970	1589.3	1829.0	15.1	239.7
	1971	1946.0	2733.4	40.5	787.4
	1972	1243.0	1208.9	-2.7	-34.1
	1973	2466.1	2854.1	15.7	388.0
	1974	2911.4	3213.2	10.4	301.8
	1975	2374.7	2674.9	12.6	300.2
	1976	1198.0	1118.4	-6.6	-79.6
	1977	264.9	264.9	.0	.0
	1978	5344.9	5305.6	-.7	-39.3
	1979	1231.7	2425.1	96.9	1193.4
	1980	3765.3	3902.0	3.6	136.7
	1981	366.0	366.0	.0	.0
	1982	2823.5	3131.9	10.9	308.4
	1983	5749.3	6056.1	5.3	306.8
	1984	4358.3	4609.6	5.8	251.3
	1985	1719.2	1864.8	8.5	145.6
	1986	4867.2	5713.7	17.4	846.5
	1987	961.8	966.7	.5	4.9
	1988	658.1	648.2	-1.5	-9.9
	1989	2752.3	3043.7	10.6	291.4
	1990	941.1	1011.2	7.4	70.1
	1991	2197.4	1958.8	-10.9	-238.6
	Mean	2555.4	2790.3	12.2	234.9
	Median	2350.6	2722.9	7.6	202.0
	Min	264.9	264.9	-14.7	-320.3
	Max	6175.4	6194.7	145.7	1193.4
X <	1300.0	19	14		
X <	1765.0	24	21		
X <	2000.0	28	28		
X <	2700.0	44	34		
X <	3000.0	50	43		

LOWER AMERICAN RIVER FLOW AT H ST.

August

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2502.8	2928.0	17.0	425.2
	1923	4255.5	3871.2	-9.0	-384.3
	1924	264.9	264.9	.0	.0
	1925	1473.5	2262.8	53.6	789.3
	1926	483.3	463.8	-4.0	-19.5
	1927	3412.1	3540.4	3.8	128.3
	1928	3804.1	3510.9	-7.7	-293.2
	1929	273.1	273.1	.0	.0
	1930	731.7	710.5	-2.9	-21.2
	1931	265.3	265.3	.0	.0
	1932	1467.0	1697.5	15.7	230.5
	1933	265.3	452.4	70.5	187.1
	1934	265.3	265.3	.0	.0
	1935	3709.8	3861.0	4.1	151.2
	1936	1988.2	2361.9	18.8	373.7
	1937	1726.8	2426.1	40.5	699.3
	1938	3628.2	3944.7	8.7	316.5
	1939	358.2	358.2	.0	.0
	1940	2907.3	3041.7	4.6	134.4
	1941	2957.4	3591.1	21.4	633.7
	1942	3714.4	4026.0	8.4	311.6
	1943	2762.5	2693.3	-2.5	-69.2
	1944	744.7	718.6	-3.5	-26.1
	1945	2045.9	2189.9	7.0	144.0
	1946	2030.1	1846.2	-9.1	-183.9
	1947	489.8	712.1	45.4	222.3
	1948	2693.1	2673.9	-.7	-19.2
	1949	2618.6	2251.5	-14.0	-367.1
	1950	2467.7	2552.1	3.4	84.4
	1951	2905.4	3031.0	4.3	125.6
	1952	4138.8	4448.8	7.5	310.0
	1953	3722.8	4050.4	8.8	327.6
	1954	3743.4	3676.8	-1.8	-66.6
	1955	1709.6	2186.6	27.9	477.0
	1956	3690.0	3996.7	8.3	306.7
	1957	2283.3	2160.6	-5.4	-122.7
	1958	3803.8	4108.9	8.0	305.1
	1959	1367.3	1811.5	32.5	444.2
	1960	1957.9	2995.9	53.0	1038.0
	1961	366.0	462.1	26.3	96.1
	1962	2505.3	2533.2	1.1	27.9
	1963	1578.4	1654.3	4.8	75.9
	1964	741.4	715.4	-3.5	-26.0
	1965	2302.5	2487.8	8.0	185.3
	1966	1527.1	2271.6	48.8	744.5
	1967	3751.8	4060.1	8.2	308.3
	1968	1567.3	2018.5	28.8	451.2
	1969	3581.0	3873.1	8.2	292.1
	1970	3501.2	3584.5	2.4	83.3
	1971	3511.1	3834.1	9.2	323.0
	1972	3186.7	3763.1	18.1	576.4
	1973	3485.7	3611.4	3.6	125.7
	1974	3771.3	4060.1	7.7	288.8
	1975	3571.2	3856.8	8.0	285.6
	1976	814.9	823.2	1.0	8.3
	1977	264.9	264.9	.0	.0
	1978	2937.9	3081.5	4.9	143.6
	1979	2743.9	2915.6	6.3	171.7
	1980	3837.2	3965.6	3.3	128.4
	1981	672.8	967.6	43.8	294.8
	1982	3756.6	4066.6	8.3	310.0
	1983	4519.4	4602.6	1.8	83.2
	1984	2734.4	2534.7	-7.3	-199.7
	1985	2310.2	2395.5	3.7	85.3
	1986	3214.9	3089.8	-3.9	-125.1
	1987	1260.2	1173.0	-6.9	-87.2
	1988	280.8	280.8	.0	.0
	1989	3237.9	3650.6	12.7	412.7
	1990	1367.9	1509.8	10.4	141.9
	1991	288.5	288.5	.0	.0
	Mean	2268.8	2437.4	9.6	168.6
	Median	2485.3	2533.9	4.7	131.4
	Min	264.9	264.9	-14.0	-384.3
	Max	4519.4	4602.6	70.5	1038.0
X <	1300.0	18	18		
X <	1765.0	27	21		
X <	2000.0	29	23		
X <	2700.0	39	39		
X <	3000.0	46	42		

LOWER AMERICAN RIVER FLOW AT H ST.

September

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3167.6	3506.2	10.7	338.6
	1923	1749.5	2261.4	29.3	511.9
	1924	576.9	359.1	-37.8	-217.8
	1925	2221.2	1746.2	-21.4	-475.0
	1926	1028.2	1247.9	21.4	219.7
	1927	1666.2	1969.3	18.2	303.1
	1928	1279.8	1246.2	-2.6	-33.6
	1929	781.5	996.2	27.5	214.7
	1930	1278.2	1246.2	-2.5	-32.0
	1931	523.1	491.2	-6.1	-31.9
	1932	2211.1	3150.2	42.5	939.1
	1933	1019.8	987.8	-3.1	-32.0
	1934	358.4	358.4	.0	.0
	1935	2218.3	2964.1	33.6	745.8
	1936	3479.3	3693.6	6.2	214.3
	1937	3117.0	3599.1	15.5	482.1
	1938	3538.7	3797.0	7.3	258.3
	1939	1041.6	1006.3	-3.4	-35.3
	1940	1404.8	1505.2	7.1	100.4
	1941	3483.3	3739.8	7.4	256.5
	1942	3521.9	3776.8	7.2	254.9
	1943	1534.9	1496.2	-2.5	-38.7
	1944	1289.9	1251.3	-3.0	-38.6
	1945	2070.3	2191.1	5.8	120.8
	1946	2492.1	2620.3	5.1	128.2
	1947	1284.9	1246.2	-3.0	-38.7
	1948	2917.2	3132.9	7.4	215.7
	1949	1345.5	1671.4	24.2	325.9
	1950	2814.0	3545.9	26.0	731.9
	1951	1766.2	2006.0	13.6	239.8
	1952	3728.6	3995.3	7.2	266.7
	1953	3496.7	3744.9	7.1	248.2
	1954	1291.6	1249.6	-3.3	-42.0
	1955	1301.7	1261.4	-3.1	-40.3
	1956	3473.2	3724.7	7.2	251.5
	1957	1573.3	1666.6	5.9	93.3
	1958	3563.9	3828.9	7.4	265.0
	1959	1078.6	1038.3	-3.7	-40.3
	1960	1284.9	1277.4	-.6	-7.5
	1961	1036.6	1249.6	20.5	213.0
	1962	1906.0	1961.8	2.9	55.8
	1963	1979.6	1989.5	.5	9.9
	1964	1286.6	1249.6	-2.9	-37.0
	1965	1749.5	1992.9	13.9	243.4
	1966	1036.6	999.6	-3.6	-37.0
	1967	3795.9	4028.9	6.1	233.0
	1968	1038.3	1723.4	66.0	685.1
	1969	3518.6	3751.6	6.6	233.0
	1970	1291.6	1253.0	-3.0	-38.6
	1971	3345.5	3576.8	6.9	231.3
	1972	1308.4	1268.1	-3.1	-40.3
	1973	1296.7	1382.9	6.6	86.2
	1974	3631.2	3877.6	6.8	246.4
	1975	3404.3	3664.2	7.6	259.9
	1976	397.1	397.1	.0	.0
	1977	359.1	359.1	.0	.0
	1978	1534.9	2001.3	30.4	466.4
	1979	1713.7	2154.4	25.7	440.7
	1980	1749.5	1984.5	13.4	235.0
	1981	1293.3	1258.0	-2.7	-35.3
	1982	3984.1	4237.3	6.4	253.2
	1983	4584.9	4645.1	1.3	60.2
	1984	1555.1	1516.4	-2.5	-38.7
	1985	1060.1	1021.4	-3.7	-38.7
	1986	1568.5	1529.8	-2.5	-38.7
	1987	798.3	761.4	-4.6	-36.9
	1988	541.6	504.6	-6.8	-37.0
	1989	1071.9	1036.6	-3.3	-35.3
	1990	533.2	497.9	-6.6	-35.3
	1991	776.5	742.9	-4.3	-33.6
	Mean	1901.7	2045.9	6.1	144.2
	Median	1545.0	1669.0	5.9	96.9
	Min	358.4	358.4	-37.8	-475.0
	Max	4584.9	4645.1	66.0	939.1
X <	1300.0	29	29		
X <	1765.0	43	38		
X <	2000.0	46	43		
X <	2700.0	51	49		
X <	3000.0	53	50		

RETURN TO TABLE OF CONTENTS

Section 8

LOWER AMERICAN RIVER FLOW AT H STREET
8.3 Terrestrial

LOWER AMERICAN RIVER FLOW AT H ST.

October

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2280.4	2296.7	.7	16.3
	1923	2298.5	2314.6	.7	16.1
	1924	2279.0	2293.5	.6	14.5
	1925	920.3	613.4	-33.3	-306.9
	1926	2275.7	2291.8	.7	16.1
	1927	1603.6	1582.5	-1.3	-21.1
	1928	2292.0	2304.8	.6	12.8
	1929	1558.1	1785.3	14.6	227.2
	1930	1313.0	1291.8	-1.6	-21.2
	1931	1561.3	1790.2	14.7	228.9
	1932	1071.1	1053.2	-1.7	-17.9
	1933	2267.6	2282.1	.6	14.5
	1934	1572.7	1553.2	-1.2	-19.5
	1935	452.3	546.7	20.9	94.4
	1936	2298.5	2313.0	.6	14.5
	1937	2272.5	2285.3	.6	12.8
	1938	2290.3	2301.6	.5	11.3
	1939	2282.2	2290.2	.4	8.0
	1940	1335.7	1563.0	17.0	227.3
	1941	1832.5	2058.1	12.3	225.6
	1942	2308.2	2317.8	.4	9.6
	1943	2285.5	2295.1	.4	9.6
	1944	2029.0	2286.9	12.7	257.9
	1945	1843.9	2067.8	12.1	223.9
	1946	1858.5	2082.5	12.1	224.0
	1947	1566.2	2036.9	30.1	470.7
	1948	1603.6	1576.0	-1.7	-27.6
	1949	2285.5	2296.7	.5	11.2
	1950	1814.6	2286.9	26.0	472.3
	1951	2331.0	2339.0	.3	8.0
	1952	1858.5	1832.5	-1.4	-26.0
	1953	2282.2	2286.9	.2	4.7
	1954	2288.7	2293.5	.2	4.8
	1955	1569.5	1790.2	14.1	220.7
	1956	1593.9	1817.8	14.0	223.9
	1957	2306.6	2309.7	.1	3.1
	1958	2076.1	2335.7	12.5	259.6
	1959	2283.8	2288.6	.2	4.8
	1960	1567.8	1540.2	-1.8	-27.6
	1961	1814.6	1788.6	-1.4	-26.0
	1962	1569.5	1545.1	-1.6	-24.4
	1963	2314.8	2913.9	25.9	599.1
	1964	2300.1	2308.1	.3	8.0
	1965	1858.5	2084.1	12.1	225.6
	1966	2274.1	2282.1	.4	8.0
	1967	1576.0	1551.6	-1.5	-24.4
	1968	2279.0	2282.1	.1	3.1
	1969	1590.6	1566.2	-1.5	-24.4
	1970	2298.5	2304.8	.3	6.3
	1971	1845.5	1816.2	-1.6	-29.3
	1972	2285.5	2290.2	.2	4.7
	1973	1611.8	1584.1	-1.7	-27.7
	1974	1610.1	1830.9	13.7	220.8
	1975	2306.6	2313.0	.3	6.4
	1976	2326.1	2329.2	.1	3.1
	1977	491.0	491.0	.0	.0
	1978	451.9	451.9	.0	.0
	1979	2282.2	2295.1	.6	12.9
	1980	1616.6	1592.2	-1.5	-24.4
	1981	2275.7	2285.3	.4	9.6
	1982	1624.8	1602.0	-1.4	-22.8
	1983	3032.1	3259.4	7.5	227.3
	1984	2312.4	2945.2	27.4	632.8
	1985	2068.0	2324.4	12.4	256.4
	1986	1352.0	1577.6	16.7	225.6
	1987	2037.1	2293.5	12.6	256.4
	1988	1770.5	1721.5	-2.8	-49.0
	1989	821.1	798.3	-2.8	-22.8
	1990	1598.8	1576.0	-1.4	-22.8
	1991	821.1	1050.0	27.9	228.9
	Mean	1860.4	1942.1	4.5	81.7
	Median	1858.5	2183.1	.4	9.6
	Min	451.9	451.9	-33.3	-306.9
	Max	3032.1	3259.4	30.1	632.8
X <	4000.0	70	70		
X <	4500.0	70	70		
X <	5000.0	70	70		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

November

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2343.7	2355.5	.5	11.8
	1923	2399.3	2409.3	.4	10.0
	1924	2320.3	2328.6	.4	8.3
	1925	890.8	600.4	-32.6	-290.4
	1926	2332.0	2343.7	.5	11.7
	1927	1686.2	1696.2	.6	10.0
	1928	2358.9	2367.2	.4	8.3
	1929	1612.3	1868.9	15.9	256.6
	1930	1310.2	1320.2	.8	10.0
	1931	1583.7	1843.7	16.4	260.0
	1932	1098.9	1110.5	1.1	11.6
	1933	2313.6	2323.5	.4	9.9
	1934	1551.8	1561.8	.6	10.0
	1935	452.4	647.5	43.1	195.1
	1936	2333.7	2343.7	.4	10.0
	1937	2313.6	2320.2	.3	6.6
	1938	2390.9	2399.2	.3	8.3
	1939	2322.0	2326.9	.2	4.9
	1940	1316.9	1575.2	19.6	258.3
	1941	1860.6	2118.9	13.9	258.3
	1942	2360.6	2367.2	.3	6.6
	1943	3265.1	3543.3	8.5	278.2
	1944	2087.1	2340.3	12.1	253.2
	1945	1892.5	2147.5	13.5	255.0
	1946	1862.3	2115.6	13.6	253.3
	1947	1617.3	2118.9	31.0	501.6
	1948	1593.8	1597.1	.2	3.3
	1949	2333.7	2337.0	.1	3.3
	1950	1838.8	2340.3	27.3	501.5
	1951	16586.1	16856.2	1.6	270.1
	1952	1875.7	1880.7	.3	5.0
	1953	2365.7	2365.6	.0	-.1
	1954	2360.6	2360.5	.0	-.1
	1955	1629.1	1880.7	15.4	251.6
	1956	1617.3	1872.3	15.8	255.0
	1957	2325.3	2325.2	.0	-.1
	1958	2095.5	2348.8	12.1	253.3
	1959	2330.4	2330.3	.0	-.1
	1960	1570.3	1575.2	.3	4.9
	1961	1894.2	1897.5	.2	3.3
	1962	1619.0	1624.0	.3	5.0
	1963	2861.7	2933.9	2.5	72.2
	1964	2690.1	3812.2	41.7	1122.1
	1965	1892.5	2147.5	13.5	255.0
	1966	2384.1	2385.7	.1	1.6
	1967	1699.7	1704.6	.3	4.9
	1968	2345.5	2345.4	.0	-.1
	1969	1649.3	1654.2	.3	4.9
	1970	2347.2	2350.4	.1	3.2
	1971	1958.1	1959.7	.1	1.6
	1972	2343.8	2345.4	.1	1.6
	1973	1676.2	1677.7	.1	1.5
	1974	3873.4	4323.8	11.6	450.4
	1975	2360.6	2363.9	.1	3.3
	1976	2533.2	2801.4	10.6	268.2
	1977	491.1	491.1	.0	.0
	1978	453.1	453.1	.0	.0
	1979	2387.5	2394.1	.3	6.6
	1980	1617.3	1624.0	.4	6.7
	1981	2322.0	2328.6	.3	6.6
	1982	4259.6	4462.6	4.8	203.0
	1983	6660.0	6780.7	1.8	120.7
	1984	14316.6	14343.2	.2	26.6
	1985	2196.3	2447.9	11.5	251.6
	1986	1448.0	1702.9	17.6	254.9
	1987	2087.1	2338.7	12.1	251.6
	1988	1413.1	1398.4	-1.0	-14.7
	1989	864.0	872.3	1.0	8.3
	1990	1598.9	1607.2	.5	8.3
	1991	832.0	1092.0	31.3	260.0
	Mean	2421.1	2531.8	5.7	110.8
	Median	2087.1	2324.4	.4	9.9
	Min	452.4	453.1	-32.6	-290.4
	Max	16586.1	16856.2	43.1	1122.1
X <	4000.0	66	65		
X <	4500.0	67	67		
X <	5000.0	67	67		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

December

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2451.2	2457.7	.3	6.5
	1923	6039.0	6392.6	5.9	353.6
	1924	2348.8	2355.3	.3	6.5
	1925	969.1	684.9	-29.3	-284.2
	1926	2370.0	2376.4	.3	6.4
	1927	1616.7	1623.1	.4	6.4
	1928	2374.9	2379.7	.2	4.8
	1929	1634.6	1887.8	15.5	253.2
	1930	1418.8	1425.2	.5	6.4
	1931	1584.2	1840.6	16.2	256.4
	1932	1230.6	1240.2	.8	9.6
	1933	2376.5	2382.9	.3	6.4
	1934	1678.5	1686.6	.5	8.1
	1935	577.3	634.5	9.9	57.2
	1936	2370.0	2376.4	.3	6.4
	1937	2396.0	2399.2	.1	3.2
	1938	5711.3	6074.3	6.4	363.0
	1939	2358.6	2360.1	.1	1.5
	1940	1358.6	1613.4	18.8	254.8
	1941	2005.0	2258.1	12.6	253.1
	1942	4461.6	4849.3	8.7	387.7
	1943	4558.4	4660.6	2.2	102.2
	1944	2131.4	2381.3	11.7	249.9
	1945	1886.2	2139.4	13.4	253.2
	1946	7026.1	7504.8	6.8	478.7
	1947	1637.9	2137.8	30.5	499.9
	1948	1607.0	1606.9	.0	-.1
	1949	2410.6	2412.2	.1	1.6
	1950	1873.2	2371.5	26.6	498.3
	1951	16206.0	16274.1	.4	68.1
	1952	3159.3	3864.1	22.3	704.8
	1953	2472.4	2470.7	-.1	-1.7
	1954	2360.2	2356.9	-.1	-3.3
	1955	1681.8	1928.4	14.7	246.6
	1956	14782.3	14687.5	-.6	-94.8
	1957	2353.7	2352.0	-.1	-1.7
	1958	2162.3	2413.8	11.6	251.5
	1959	2366.7	2363.4	-.1	-3.3
	1960	1849.4	1720.2	-7.0	-129.2
	1961	1860.2	1860.1	.0	-.1
	1962	1637.9	1639.4	.1	1.5
	1963	3307.5	3314.0	.2	6.5
	1964	2350.5	2977.0	26.7	626.5
	1965	20219.9	20338.3	.6	118.4
	1966	2396.0	2395.9	.0	-.1
	1967	1672.0	1673.6	.1	1.6
	1968	2365.1	2363.4	-.1	-1.7
	1969	1668.8	1670.3	.1	1.5
	1970	4817.4	5179.1	7.5	361.7
	1971	4293.4	4653.2	8.4	359.8
	1972	2426.9	2425.2	-.1	-1.7
	1973	1654.1	1654.0	.0	-.1
	1974	7337.8	7430.3	1.3	92.5
	1975	2415.5	2415.4	.0	-.1
	1976	2361.8	2360.1	-.1	-1.7
	1977	616.0	616.0	.0	.0
	1978	576.9	576.9	.0	.0
	1979	2366.7	2369.9	.1	3.2
	1980	1680.2	1683.3	.2	3.1
	1981	2387.9	2389.4	.1	1.5
	1982	14142.4	14176.0	.2	33.6
	1983	8943.0	9043.6	1.1	100.6
	1984	15098.5	15268.9	1.1	170.4
	1985	2136.2	2386.2	11.7	250.0
	1986	1418.8	1670.3	17.7	251.5
	1987	2124.9	2374.8	11.8	249.9
	1988	1186.7	1188.2	.1	1.5
	1989	899.3	904.0	.5	4.7
	1990	1595.6	1600.4	.3	4.8
	1991	868.4	1123.1	29.3	254.7
	Mean	3438.3	3552.3	4.6	114.0
	Median	2352.1	2366.6	.3	6.4
	Min	576.9	576.9	-29.3	-284.2
	Max	20219.9	20338.3	30.5	704.8
X <	4000.0	56	56		
X <	4500.0	58	56		
X <	5000.0	60	59		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

January

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	1899.2	1907.3	.4	8.1
	1923	4327.4	4441.0	2.6	113.6
	1924	1889.5	1897.5	.4	8.0
	1925	1658.9	1876.4	13.1	217.5
	1926	1896.0	1904.0	.4	8.0
	1927	2584.2	3005.7	16.3	421.5
	1928	1878.1	2132.9	13.6	254.8
	1929	1265.1	1469.9	16.2	204.8
	1930	1672.0	1678.4	.4	6.4
	1931	1400.9	1505.7	7.5	104.8
	1932	1618.3	1628.0	.6	9.7
	1933	1909.0	1915.4	.3	6.4
	1934	1613.5	1619.9	.4	6.4
	1935	1931.8	1938.2	.3	6.4
	1936	3876.6	3973.2	2.5	96.6
	1937	1912.3	1917.1	.3	4.8
	1938	2658.7	2772.4	4.3	113.7
	1939	1881.4	2132.9	13.4	251.5
	1940	1993.8	1836.3	-7.9	-157.5
	1941	4720.3	4882.3	3.4	162.0
	1942	9121.9	9255.0	1.5	133.1
	1943	10738.5	10837.5	.9	99.0
	1944	1700.9	1902.4	11.8	201.5
	1945	2123.2	2124.8	.1	1.6
	1946	4971.4	5081.8	2.2	110.4
	1947	1860.2	1861.8	.1	1.6
	1948	1613.5	1613.4	.0	-.1
	1949	1879.7	1881.3	.1	1.6
	1950	1531.8	1931.7	26.1	399.9
	1951	9919.3	10013.5	.9	94.2
	1952	8904.0	9002.9	1.1	98.9
	1953	6142.6	6580.5	7.1	437.9
	1954	2163.9	2160.6	-.2	-3.3
	1955	1920.4	1918.7	-.1	-1.7
	1956	16277.8	16266.1	-.1	-11.7
	1957	2150.9	2149.2	-.1	-1.7
	1958	1951.3	1952.8	.1	1.5
	1959	1954.5	1952.8	-.1	-1.7
	1960	1508.5	1405.1	-6.9	-103.4
	1961	1496.0	1495.9	.0	-.1
	1962	1274.9	1278.0	.2	3.1
	1963	3766.1	3837.7	1.9	71.6
	1964	2422.0	2423.6	.1	1.6
	1965	13092.8	13068.1	-.2	-24.7
	1966	2136.2	2386.2	11.7	250.0
	1967	6048.2	6558.9	8.4	510.7
	1968	2426.9	2425.2	-.1	-1.7
	1969	14230.5	14640.8	2.9	410.3
	1970	20786.1	20889.9	.5	103.8
	1971	4569.5	4618.3	1.1	48.8
	1972	2373.2	2371.5	-.1	-1.7
	1973	8281.7	8662.0	4.6	380.3
	1974	11192.3	11268.5	.7	76.2
	1975	2124.9	2124.8	.0	-.1
	1976	2365.1	2363.4	-.1	-1.7
	1977	483.4	483.7	.1	.3
	1978	2185.8	2606.5	19.2	420.7
	1979	1948.0	1951.2	.2	3.2
	1980	15196.5	15632.7	2.9	436.2
	1981	1939.9	1943.1	.2	3.2
	1982	8106.6	8148.6	.5	42.0
	1983	7453.3	7553.9	1.3	100.6
	1984	6380.1	6443.3	1.0	63.2
	1985	2383.0	2382.9	.0	-.1
	1986	2290.9	1946.2	-15.0	-344.7
	1987	1707.4	1907.3	11.7	199.9
	1988	923.6	925.2	.2	1.6
	1989	1868.3	1873.1	.3	4.8
	1990	1673.6	1678.4	.3	4.8
	1991	660.2	866.6	31.3	206.4
	Mean	4097.3	4186.9	3.1	89.6
	Median	2124.0	2128.9	.4	8.1
	Min	483.4	483.7	-15.0	-344.7
	Max	20786.1	20889.9	31.3	510.7
X <	4000.0	50	50		
X <	4500.0	51	51		
X <	5000.0	54	53		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

February

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2438.4	3062.1	25.6	623.7
	1923	2822.4	2948.2	4.5	125.8
	1924	1508.3	1663.6	10.3	155.3
	1925	3856.8	4426.5	14.8	569.7
	1926	1719.5	1726.6	.4	7.1
	1927	13326.8	13370.2	.3	43.4
	1928	1881.2	1884.8	.2	3.6
	1929	990.4	1152.2	16.3	161.8
	1930	1861.4	1866.8	.3	5.4
	1931	1124.0	1159.4	3.1	35.4
	1932	1877.6	2111.0	12.4	233.4
	1933	1604.2	1609.6	.3	5.4
	1934	1638.4	1893.8	15.6	255.4
	1935	1857.8	1865.0	.4	7.2
	1936	13303.4	13404.0	.8	100.6
	1937	1717.7	1744.4	1.6	26.7
	1938	9668.2	9772.5	1.1	104.3
	1939	1861.4	1863.2	.1	1.8
	1940	10471.1	10543.3	.7	72.2
	1941	7828.1	7959.2	1.7	131.1
	1942	9771.0	9900.5	1.3	129.5
	1943	6661.6	6771.1	1.6	109.5
	1944	1429.3	1587.4	11.1	158.1
	1945	5964.1	6121.7	2.6	157.6
	1946	2496.5	2588.2	3.7	91.7
	1947	1890.2	1638.4	-13.3	-251.8
	1948	1620.4	1870.4	15.4	250.0
	1949	1477.6	1877.6	27.1	400.0
	1950	3428.5	2902.2	-15.4	-526.3
	1951	7943.9	8048.2	1.3	104.3
	1952	9302.7	9410.5	1.2	107.8
	1953	1990.5	2109.1	6.0	118.6
	1954	1920.9	1915.4	-.3	-5.5
	1955	1879.4	1877.6	-.1	-1.8
	1956	6035.9	6082.3	.8	46.4
	1957	1933.5	1929.8	-.2	-3.7
	1958	6807.8	7380.7	8.4	572.9
	1959	1944.3	1940.6	-.2	-3.7
	1960	1185.1	1100.6	-7.1	-84.5
	1961	1157.6	1155.8	-.2	-1.8
	1962	1123.7	1253.6	11.6	129.9
	1963	11857.8	11901.1	.4	43.3
	1964	1852.4	1852.4	.0	.0
	1965	5274.7	5324.8	.9	50.1
	1966	1886.6	1884.8	-.1	-1.8
	1967	4199.8	4278.9	1.9	79.1
	1968	4811.3	5459.2	13.5	647.9
	1969	9155.2	9227.2	.8	72.0
	1970	6109.4	6195.6	1.4	86.2
	1971	3158.8	3232.7	2.3	73.9
	1972	1883.0	1939.3	3.0	56.3
	1973	7048.3	7096.9	.7	48.6
	1974	3943.5	4143.1	5.1	199.6
	1975	1987.5	1985.6	-.1	-1.9
	1976	1870.4	1866.8	-.2	-3.6
	1977	366.2	366.8	.2	.6
	1978	4575.8	4748.8	3.8	173.0
	1979	1670.9	1920.8	15.0	249.9
	1980	13557.6	13967.5	3.0	409.9
	1981	1466.8	1868.6	27.4	401.8
	1982	15211.8	15272.7	.4	60.9
	1983	12245.1	12334.9	.7	89.8
	1984	5440.8	5528.7	1.6	87.9
	1985	1899.2	1899.2	.0	.0
	1986	33160.6	33158.4	.0	-2.2
	1987	1362.7	1522.6	11.7	159.9
	1988	1613.2	1613.2	.0	.0
	1989	1618.6	1622.2	.2	3.6
	1990	1315.5	1669.0	26.9	353.5
	1991	541.1	704.6	30.2	163.5
	Mean	4605.8	4715.4	4.5	109.5
	Median	1938.9	1963.1	1.3	76.5
	Min	366.2	366.8	-15.4	-526.3
	Max	33160.6	33158.4	30.2	647.9
X <	4000.0	45	43		
X <	4500.0	46	46		
X <	5000.0	48	47		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

March

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4384.6	4394.3	.2	9.7
	1923	2594.0	2602.0	.3	8.0
	1924	1185.7	1265.0	6.7	79.3
	1925	3042.4	3462.4	13.8	420.0
	1926	1839.1	1848.7	.5	9.6
	1927	4264.2	4439.4	4.1	175.2
	1928	9636.8	10495.9	8.9	859.1
	1929	1371.6	1378.0	.5	6.4
	1930	1887.9	1894.3	.3	6.4
	1931	853.7	885.8	3.8	32.1
	1932	2587.5	2597.1	.4	9.6
	1933	1621.6	1629.7	.5	8.1
	1934	1229.3	1437.4	16.9	208.1
	1935	3146.0	3154.0	.3	8.0
	1936	3933.3	4037.2	2.6	103.9
	1937	3764.3	4324.3	14.9	560.0
	1938	10589.0	10707.5	1.1	118.5
	1939	1486.2	1489.4	.2	3.2
	1940	10551.6	10819.7	2.5	268.1
	1941	4582.5	4702.6	2.6	120.1
	1942	4400.9	4405.7	.1	4.8
	1943	12214.1	12309.8	.8	95.7
	1944	1866.7	1869.9	.2	3.2
	1945	2650.9	2654.0	.1	3.1
	1946	2636.2	2647.6	.4	11.4
	1947	1905.8	1907.3	.1	1.5
	1948	2652.5	2654.0	.1	1.5
	1949	2439.9	2443.1	.1	3.2
	1950	2883.0	3134.5	8.7	251.5
	1951	3512.9	3631.3	3.4	118.4
	1952	5934.0	6049.2	1.9	115.2
	1953	2884.6	2886.2	.1	1.6
	1954	3584.2	4196.2	17.1	612.0
	1955	1850.5	1850.4	.0	-.1
	1956	3355.3	3358.5	.1	3.2
	1957	3191.6	3874.7	21.4	683.1
	1958	6464.4	6574.8	1.7	110.4
	1959	1610.2	1610.1	.0	-.1
	1960	2121.6	2123.1	.1	1.5
	1961	905.4	908.5	.3	3.1
	1962	2373.2	2378.0	.2	4.8
	1963	3409.0	3410.6	.0	1.6
	1964	1863.5	1866.6	.2	3.1
	1965	2874.9	2879.7	.2	4.8
	1966	1598.8	1852.0	15.8	253.2
	1967	5658.1	5852.9	3.4	194.8
	1968	3822.0	1993.6	-47.8	-1828.4
	1969	4370.0	4369.9	.0	-.1
	1970	2146.7	2379.7	10.9	233.0
	1971	3826.5	3938.4	2.9	111.9
	1972	3393.3	3991.9	17.6	598.6
	1973	3125.7	3236.0	3.5	110.3
	1974	9460.1	9567.2	1.1	107.1
	1975	3514.9	4172.1	18.7	657.2
	1976	1468.4	1468.3	.0	-.1
	1977	326.9	326.9	.0	.0
	1978	5481.9	5768.2	5.2	286.3
	1979	2386.2	2641.0	10.7	254.8
	1980	3118.5	3316.1	6.3	197.6
	1981	1410.6	1515.4	7.4	104.8
	1982	7470.4	7583.9	1.5	113.5
	1983	16120.5	16198.3	.5	77.8
	1984	2403.1	2639.4	9.8	236.3
	1985	1910.6	1913.8	.2	3.2
	1986	10950.7	11104.8	1.4	154.1
	1987	1077.3	1206.8	12.0	129.5
	1988	1252.1	1255.3	.3	3.2
	1989	5538.9	6210.1	12.1	671.2
	1990	1357.0	1363.4	.5	6.4
	1991	1746.8	1751.6	.3	4.8
	Mean	3701.0	3811.5	3.3	110.5
	Median	2878.9	2766.9	.6	55.0
	Min	326.9	326.9	-47.8	-1828.4
	Max	16120.5	16198.3	21.4	859.1
X <	4000.0	52	48		
X <	4500.0	56	56		
X <	5000.0	57	57		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

April

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4311.9	4325.2	.3	13.3
	1923	3283.3	3518.9	7.2	235.6
	1924	266.1	266.1	.0	.0
	1925	3263.1	3565.1	9.3	302.0
	1926	1882.5	1895.8	.7	13.3
	1927	7653.4	7824.5	2.2	171.1
	1928	4456.1	4707.6	5.6	251.5
	1929	558.5	1066.8	91.0	508.3
	1930	1811.9	1821.9	.6	10.0
	1931	286.7	298.3	4.0	11.6
	1932	2551.8	2565.1	.5	13.3
	1933	1535.0	1796.7	17.0	261.7
	1934	2521.4	2941.3	16.7	419.9
	1935	4820.8	5093.3	5.7	272.5
	1936	5498.3	5616.3	2.1	118.0
	1937	4039.4	4202.2	4.0	162.8
	1938	7574.1	7733.4	2.1	159.3
	1939	545.1	801.7	47.1	256.6
	1940	5875.2	5858.5	-.3	-16.7
	1941	3505.4	3669.7	4.7	164.3
	1942	4394.2	4400.8	.2	6.6
	1943	4888.9	5080.0	3.9	191.1
	1944	1835.4	1842.0	.4	6.6
	1945	2556.9	2563.5	.3	6.6
	1946	3474.1	3747.4	7.9	273.3
	1947	1805.2	1810.1	.3	4.9
	1948	2614.0	2617.2	.1	3.2
	1949	2295.1	2300.0	.2	4.9
	1950	4795.9	4816.5	.4	20.6
	1951	2727.5	2888.5	5.9	161.0
	1952	8647.8	8797.0	1.7	149.2
	1953	3107.3	3360.5	8.1	253.2
	1954	4249.6	4338.7	2.1	89.1
	1955	1843.8	1845.4	.1	1.6
	1956	3848.9	3855.5	.2	6.6
	1957	2590.5	2592.0	.1	1.5
	1958	10101.6	10267.6	1.6	166.0
	1959	1580.4	1583.6	.2	3.2
	1960	2068.6	2073.5	.2	4.9
	1961	366.1	366.1	.0	.0
	1962	2574.9	3217.2	24.9	642.3
	1963	4198.3	4506.3	7.3	308.0
	1964	1805.2	1811.8	.4	6.6
	1965	3273.9	3570.4	9.1	296.5
	1966	1563.6	1818.5	16.3	254.9
	1967	4370.7	4374.0	.1	3.3
	1968	1808.5	1811.8	.2	3.3
	1969	5388.0	5659.4	5.0	271.4
	1970	2061.9	2068.5	.3	6.6
	1971	3072.0	3076.9	.2	4.9
	1972	2333.7	2337.0	.1	3.3
	1973	2566.9	2570.2	.1	3.3
	1974	5938.1	6040.4	1.7	102.3
	1975	3833.7	3838.7	.1	5.0
	1976	328.7	331.9	1.0	3.2
	1977	266.1	266.1	.0	.0
	1978	3873.9	3975.3	2.6	101.4
	1979	2316.9	2573.5	11.1	256.6
	1980	2575.3	2581.9	.3	6.6
	1981	811.9	1318.5	62.4	506.6
	1982	14063.1	14230.8	1.2	167.7
	1983	6358.9	6550.1	3.0	191.2
	1984	2585.4	2592.0	.3	6.6
	1985	1818.6	1823.5	.3	4.9
	1986	2590.5	2595.4	.2	4.9
	1987	358.3	358.3	.0	.0
	1988	280.8	280.8	.0	.0
	1989	3885.2	4313.3	11.0	428.1
	1990	1868.4	2072.1	10.9	203.7
	1991	1553.5	1561.8	.5	8.3
	Mean	3233.7	3354.9	6.1	121.2
	Median	2587.9	2606.3	.9	13.3
	Min	266.1	266.1	-.3	-16.7
	Max	14063.1	14230.8	91.0	642.3
X <	4000.0	50	49		
X <	4500.0	57	55		
X <	5000.0	60	58		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

May

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8110.7	8637.1	6.5	526.4
	1923	4440.4	4633.9	4.4	193.5
	1924	264.9	264.9	.0	.0
	1925	3848.4	4367.3	13.5	518.9
	1926	2278.8	2265.8	-.6	-13.0
	1927	4266.8	4503.8	5.6	237.0
	1928	2777.2	2759.3	-.6	-17.9
	1929	1523.9	1506.0	-1.2	-17.9
	1930	2275.6	2509.3	10.3	233.7
	1931	543.5	278.8	-48.7	-264.7
	1932	3483.4	3752.8	7.7	269.4
	1933	2278.8	2264.2	-.6	-14.6
	1934	278.8	265.8	-4.7	-13.0
	1935	4362.6	4435.1	1.7	72.5
	1936	3986.7	3999.5	.3	12.8
	1937	4067.9	4258.7	4.7	190.8
	1938	9420.7	9649.5	2.4	228.8
	1939	1548.3	1527.2	-1.4	-21.1
	1940	3235.1	3496.3	8.1	261.2
	1941	4977.5	5190.1	4.3	212.6
	1942	5468.3	5894.2	7.8	425.9
	1943	3496.4	3506.0	.3	9.6
	1944	2298.3	2275.6	-1.0	-22.7
	1945	3507.8	3519.1	.3	11.3
	1946	3511.1	3520.7	.3	9.6
	1947	2285.3	2260.9	-1.1	-24.4
	1948	3530.6	3538.6	.2	8.0
	1949	2538.6	2767.4	9.0	228.8
	1950	3748.1	3756.0	.2	7.9
	1951	3275.7	3323.1	1.4	47.4
	1952	10773.8	10978.3	1.9	204.5
	1953	4016.0	4022.3	.2	6.3
	1954	2793.5	2767.4	-.9	-26.1
	1955	2295.1	2270.7	-1.1	-24.4
	1956	4272.5	4278.8	.1	6.3
	1957	3292.0	3548.3	7.8	256.3
	1958	9726.4	9942.3	2.2	215.9
	1959	2041.8	2267.4	11.0	225.6
	1960	2541.8	2519.1	-.9	-22.7
	1961	1290.2	1269.1	-1.6	-21.1
	1962	3000.6	3001.2	.0	.6
	1963	6716.1	6971.0	3.8	254.9
	1964	2290.2	2269.1	-.9	-21.1
	1965	3753.0	3762.6	.3	9.6
	1966	2286.9	2264.2	-1.0	-22.7
	1967	7429.9	7763.9	4.5	334.0
	1968	2291.8	2265.8	-1.1	-26.0
	1969	8762.0	8947.0	2.1	185.0
	1970	2541.8	2519.1	-.9	-22.7
	1971	4027.3	4035.3	.2	8.0
	1972	2543.5	2519.1	-1.0	-24.4
	1973	3679.7	4029.9	9.5	350.2
	1974	4492.9	4760.8	6.0	267.9
	1975	4257.8	4264.2	.2	6.4
	1976	304.0	304.0	.0	.0
	1977	264.9	264.9	.0	.0
	1978	3746.4	4173.6	11.4	427.2
	1979	3249.7	3460.6	6.5	210.9
	1980	3749.7	3759.3	.3	9.6
	1981	1538.6	1767.4	14.9	228.8
	1982	8897.0	9085.2	2.1	188.2
	1983	10124.9	10278.9	1.5	154.0
	1984	3274.1	3283.7	.3	9.6
	1985	2300.0	2277.2	-1.0	-22.8
	1986	3519.2	3527.2	.2	8.0
	1987	546.7	358.2	-34.5	-188.5
	1988	306.5	286.9	-6.4	-19.6
	1989	2815.5	2862.2	1.7	46.7
	1990	1329.2	1311.3	-1.3	-17.9
	1991	2285.3	2017.4	-11.7	-267.9
	Mean	3585.7	3674.0	.8	88.3
	Median	3274.9	3478.5	.3	9.6
	Min	264.9	264.9	-48.7	-267.9
	Max	10773.8	10978.3	14.9	526.4
X <	4000.0	50	47		
X <	4500.0	59	56		
X <	5000.0	60	59		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

June

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8381.4	8701.8	3.8	320.4
	1923	3841.0	3495.3	-9.0	-345.7
	1924	266.1	266.1	.0	.0
	1925	5223.4	5643.9	8.1	420.5
	1926	1960.9	2142.4	9.3	181.5
	1927	4820.3	5071.8	5.2	251.5
	1928	3825.9	3913.9	2.3	88.0
	1929	1908.0	1913.5	.3	5.5
	1930	1731.1	1974.4	14.1	243.3
	1931	556.4	523.7	-5.9	-32.7
	1932	4590.0	4699.1	2.4	109.1
	1933	1972.9	1977.5	.2	4.6
	1934	1415.5	1240.7	-12.3	-174.8
	1935	3429.2	3863.8	12.7	434.6
	1936	3662.0	4122.9	12.6	460.9
	1937	3194.3	3212.6	.6	18.3
	1938	8048.7	8308.6	3.2	259.9
	1939	358.3	477.8	33.4	119.5
	1940	2969.3	2957.6	-.4	-11.7
	1941	3202.7	3467.7	8.3	265.0
	1942	6798.3	7138.9	5.0	340.6
	1943	3214.5	3227.8	.4	13.3
	1944	1492.9	1727.7	15.7	234.8
	1945	4483.7	4607.9	2.8	124.2
	1946	5084.9	5186.0	2.0	101.1
	1947	1254.6	1241.2	-1.1	-13.4
	1948	2986.2	2969.3	-.6	-16.9
	1949	2227.8	3413.8	53.2	1186.0
	1950	3447.7	3534.4	2.5	86.7
	1951	2991.2	2976.1	-.5	-15.1
	1952	9957.8	10229.5	2.7	271.7
	1953	3476.3	3486.2	.3	9.9
	1954	3311.9	3476.4	5.0	164.5
	1955	1747.9	1732.8	-.9	-15.1
	1956	4267.3	5010.3	17.4	743.0
	1957	3948.8	4144.7	5.0	195.9
	1958	7220.2	7470.0	3.5	249.8
	1959	1003.0	1237.8	23.4	234.8
	1960	1992.9	1979.4	-.7	-13.5
	1961	366.1	366.1	.0	.0
	1962	2809.1	2799.3	-.3	-9.8
	1963	3202.7	3212.6	.3	9.9
	1964	2001.3	1989.5	-.6	-11.8
	1965	3459.5	3472.7	.4	13.2
	1966	1246.2	1232.8	-1.1	-13.4
	1967	9939.3	10195.8	2.6	256.5
	1968	1253.0	1736.2	38.6	483.2
	1969	6100.9	6370.9	4.4	270.0
	1970	2807.9	2817.9	.4	10.0
	1971	3466.2	3606.9	4.1	140.7
	1972	4163.1	4163.9	.0	.8
	1973	6203.1	6213.0	.2	9.9
	1974	3733.0	3999.6	7.1	266.6
	1975	4624.5	5273.5	14.0	649.0
	1976	1824.8	1611.7	-11.7	-213.1
	1977	266.1	266.1	.0	.0
	1978	3454.4	4223.1	22.3	768.7
	1979	6194.7	6211.3	.3	16.6
	1980	3202.7	3214.3	.4	11.6
	1981	494.6	982.8	98.7	488.2
	1982	5716.1	6006.2	5.1	290.1
	1983	13999.5	14286.3	2.0	286.8
	1984	3668.7	3704.7	1.0	36.0
	1985	2283.0	2581.3	13.1	298.3
	1986	2999.8	3242.9	8.1	243.1
	1987	358.3	358.3	.0	.0
	1988	1068.7	992.5	-7.1	-76.2
	1989	3502.7	4085.7	16.6	583.0
	1990	1521.9	1496.0	-1.7	-25.9
	1991	2610.6	2625.6	.6	15.0
	Mean	3497.3	3658.6	6.3	161.4
	Median	3202.7	3328.4	2.2	94.6
	Min	266.1	266.1	-12.3	-345.7
	Max	13999.5	14286.3	98.7	1186.0
X <	4000.0	51	47		
X <	4500.0	54	52		
X <	5000.0	57	54		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

July

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3143.4	3275.7	4.2	132.3
	1923	2648.4	2904.2	9.7	255.8
	1924	264.9	264.9	.0	.0
	1925	2326.5	3133.7	34.7	807.2
	1926	2283.7	2409.2	5.5	125.5
	1927	6162.4	6188.2	.4	25.8
	1928	1230.0	1684.4	36.9	454.4
	1929	1204.3	1341.5	11.4	137.2
	1930	2390.7	2429.5	1.6	38.8
	1931	2313.8	2147.2	-7.2	-166.6
	1932	2814.8	2979.2	5.8	164.4
	1933	1740.8	1723.8	-1.0	-17.0
	1934	1203.6	1207.1	.3	3.5
	1935	2673.1	3166.7	18.5	493.6
	1936	3740.4	3884.3	3.8	143.9
	1937	2182.5	1862.2	-14.7	-320.3
	1938	2969.9	3268.5	10.1	298.6
	1939	1485.3	1557.2	4.8	71.9
	1940	5162.1	5647.5	9.4	485.4
	1941	1933.1	1954.0	1.1	20.9
	1942	2943.9	3253.9	10.5	310.0
	1943	5679.5	6120.3	7.8	440.8
	1944	1353.9	1486.7	9.8	132.8
	1945	4008.3	4559.8	13.8	551.5
	1946	3761.9	4051.3	7.7	289.4
	1947	1270.4	1656.6	30.4	386.2
	1948	2203.5	2850.1	29.3	646.6
	1949	2403.4	2561.5	6.6	158.1
	1950	3187.4	3583.1	12.4	395.7
	1951	4922.1	5468.0	11.1	545.9
	1952	4085.6	4392.3	7.5	306.7
	1953	2032.2	2769.7	36.3	737.5
	1954	1780.2	1780.2	.0	.0
	1955	1241.4	1207.3	-2.7	-34.1
	1956	2625.1	2933.5	11.7	308.4
	1957	4362.4	4693.4	7.6	331.0
	1958	2626.7	2915.6	11.0	288.9
	1959	396.9	396.9	.0	.0
	1960	1236.5	1335.0	8.0	98.5
	1961	366.0	366.0	.0	.0
	1962	4207.0	4537.7	7.9	330.7
	1963	5458.5	5584.3	2.3	125.8
	1964	1878.6	1995.0	6.2	116.4
	1965	6175.4	6194.7	.3	19.3
	1966	404.5	708.9	75.3	304.4
	1967	3763.6	4068.7	8.1	305.1
	1968	491.4	1207.3	145.7	715.9
	1969	2405.6	2712.3	12.7	306.7
	1970	1589.3	1829.0	15.1	239.7
	1971	1946.0	2733.4	40.5	787.4
	1972	1243.0	1208.9	-2.7	-34.1
	1973	2466.1	2854.1	15.7	388.0
	1974	2911.4	3213.2	10.4	301.8
	1975	2374.7	2674.9	12.6	300.2
	1976	1198.0	1118.4	-6.6	-79.6
	1977	264.9	264.9	.0	.0
	1978	5344.9	5305.6	-.7	-39.3
	1979	1231.7	2425.1	96.9	1193.4
	1980	3765.3	3902.0	3.6	136.7
	1981	366.0	366.0	.0	.0
	1982	2823.5	3131.9	10.9	308.4
	1983	5749.3	6056.1	5.3	306.8
	1984	4358.3	4609.6	5.8	251.3
	1985	1719.2	1864.8	8.5	145.6
	1986	4867.2	5713.7	17.4	846.5
	1987	961.8	966.7	.5	4.9
	1988	658.1	648.2	-1.5	-9.9
	1989	2752.3	3043.7	10.6	291.4
	1990	941.1	1011.2	7.4	70.1
	1991	2197.4	1958.8	-10.9	-238.6
	Mean	2555.4	2790.3	12.2	234.9
	Median	2350.6	2722.9	7.6	202.0
	Min	264.9	264.9	-14.7	-320.3
	Max	6175.4	6194.7	145.7	1193.4
X <	4000.0	56	54		
X <	4500.0	61	57		
X <	5000.0	63	61		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

August

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2502.8	2928.0	17.0	425.2
	1923	4255.5	3871.2	-9.0	-384.3
	1924	264.9	264.9	.0	.0
	1925	1473.5	2262.8	53.6	789.3
	1926	483.3	463.8	-4.0	-19.5
	1927	3412.1	3540.4	3.8	128.3
	1928	3804.1	3510.9	-7.7	-293.2
	1929	273.1	273.1	.0	.0
	1930	731.7	710.5	-2.9	-21.2
	1931	265.3	265.3	.0	.0
	1932	1467.0	1697.5	15.7	230.5
	1933	265.3	452.4	70.5	187.1
	1934	265.3	265.3	.0	.0
	1935	3709.8	3861.0	4.1	151.2
	1936	1988.2	2361.9	18.8	373.7
	1937	1726.8	2426.1	40.5	699.3
	1938	3628.2	3944.7	8.7	316.5
	1939	358.2	358.2	.0	.0
	1940	2907.3	3041.7	4.6	134.4
	1941	2957.4	3591.1	21.4	633.7
	1942	3714.4	4026.0	8.4	311.6
	1943	2762.5	2693.3	-2.5	-69.2
	1944	744.7	718.6	-3.5	-26.1
	1945	2045.9	2189.9	7.0	144.0
	1946	2030.1	1846.2	-9.1	-183.9
	1947	489.8	712.1	45.4	222.3
	1948	2693.1	2673.9	-.7	-19.2
	1949	2618.6	2251.5	-14.0	-367.1
	1950	2467.7	2552.1	3.4	84.4
	1951	2905.4	3031.0	4.3	125.6
	1952	4138.8	4448.8	7.5	310.0
	1953	3722.8	4050.4	8.8	327.6
	1954	3743.4	3676.8	-1.8	-66.6
	1955	1709.6	2186.6	27.9	477.0
	1956	3690.0	3996.7	8.3	306.7
	1957	2283.3	2160.6	-5.4	-122.7
	1958	3803.8	4108.9	8.0	305.1
	1959	1367.3	1811.5	32.5	444.2
	1960	1957.9	2995.9	53.0	1038.0
	1961	366.0	462.1	26.3	96.1
	1962	2505.3	2533.2	1.1	27.9
	1963	1578.4	1654.3	4.8	75.9
	1964	741.4	715.4	-3.5	-26.0
	1965	2302.5	2487.8	8.0	185.3
	1966	1527.1	2271.6	48.8	744.5
	1967	3751.8	4060.1	8.2	308.3
	1968	1567.3	2018.5	28.8	451.2
	1969	3581.0	3873.1	8.2	292.1
	1970	3501.2	3584.5	2.4	83.3
	1971	3511.1	3834.1	9.2	323.0
	1972	3186.7	3763.1	18.1	576.4
	1973	3485.7	3611.4	3.6	125.7
	1974	3771.3	4060.1	7.7	288.8
	1975	3571.2	3856.8	8.0	285.6
	1976	814.9	823.2	1.0	8.3
	1977	264.9	264.9	.0	.0
	1978	2937.9	3081.5	4.9	143.6
	1979	2743.9	2915.6	6.3	171.7
	1980	3837.2	3965.6	3.3	128.4
	1981	672.8	967.6	43.8	294.8
	1982	3756.6	4066.6	8.3	310.0
	1983	4519.4	4602.6	1.8	83.2
	1984	2734.4	2534.7	-7.3	-199.7
	1985	2310.2	2395.5	3.7	85.3
	1986	3214.9	3089.8	-3.9	-125.1
	1987	1260.2	1173.0	-6.9	-87.2
	1988	280.8	280.8	.0	.0
	1989	3237.9	3650.6	12.7	412.7
	1990	1367.9	1509.8	10.4	141.9
	1991	288.5	288.5	.0	.0
	Mean	2268.8	2437.4	9.6	168.6
	Median	2485.3	2533.9	4.7	131.4
	Min	264.9	264.9	-14.0	-384.3
	Max	4519.4	4602.6	70.5	1038.0
X <	4000.0	67	62		
X <	4500.0	69	69		
X <	5000.0	70	70		
X <	.0	0	0		
X <	.0	0	0		

LOWER AMERICAN RIVER FLOW AT H ST.

September

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	3167.6	3506.2	10.7	338.6
1923	1749.5	2261.4	29.3	511.9
1924	576.9	359.1	-37.8	-217.8
1925	2221.2	1746.2	-21.4	-475.0
1926	1028.2	1247.9	21.4	219.7
1927	1666.2	1969.3	18.2	303.1
1928	1279.8	1246.2	-2.6	-33.6
1929	781.5	996.2	27.5	214.7
1930	1278.2	1246.2	-2.5	-32.0
1931	523.1	491.2	-6.1	-31.9
1932	2211.1	3150.2	42.5	939.1
1933	1019.8	987.8	-3.1	-32.0
1934	358.4	358.4	.0	.0
1935	2218.3	2964.1	33.6	745.8
1936	3479.3	3693.6	6.2	214.3
1937	3117.0	3599.1	15.5	482.1
1938	3538.7	3797.0	7.3	258.3
1939	1041.6	1006.3	-3.4	-35.3
1940	1404.8	1505.2	7.1	100.4
1941	3483.3	3739.8	7.4	256.5
1942	3521.9	3776.8	7.2	254.9
1943	1534.9	1496.2	-2.5	-38.7
1944	1289.9	1251.3	-3.0	-38.6
1945	2070.3	2191.1	5.8	120.8
1946	2492.1	2620.3	5.1	128.2
1947	1284.9	1246.2	-3.0	-38.7
1948	2917.2	3132.9	7.4	215.7
1949	1345.5	1671.4	24.2	325.9
1950	2814.0	3545.9	26.0	731.9
1951	1766.2	2006.0	13.6	239.8
1952	3728.6	3995.3	7.2	266.7
1953	3496.7	3744.9	7.1	248.2
1954	1291.6	1249.6	-3.3	-42.0
1955	1301.7	1261.4	-3.1	-40.3
1956	3473.2	3724.7	7.2	251.5
1957	1573.3	1666.6	5.9	93.3
1958	3563.9	3828.9	7.4	265.0
1959	1078.6	1038.3	-3.7	-40.3
1960	1284.9	1277.4	-.6	-7.5
1961	1036.6	1249.6	20.5	213.0
1962	1906.0	1961.8	2.9	55.8
1963	1979.6	1989.5	.5	9.9
1964	1286.6	1249.6	-2.9	-37.0
1965	1749.5	1992.9	13.9	243.4
1966	1036.6	999.6	-3.6	-37.0
1967	3795.9	4028.9	6.1	233.0
1968	1038.3	1723.4	66.0	685.1
1969	3518.6	3751.6	6.6	233.0
1970	1291.6	1253.0	-3.0	-38.6
1971	3345.5	3576.8	6.9	231.3
1972	1308.4	1268.1	-3.1	-40.3
1973	1296.7	1382.9	6.6	86.2
1974	3631.2	3877.6	6.8	246.4
1975	3404.3	3664.2	7.6	259.9
1976	397.1	397.1	.0	.0
1977	359.1	359.1	.0	.0
1978	1534.9	2001.3	30.4	466.4
1979	1713.7	2154.4	25.7	440.7
1980	1749.5	1984.5	13.4	235.0
1981	1293.3	1258.0	-2.7	-35.3
1982	3984.1	4237.3	6.4	253.2
1983	4584.9	4645.1	1.3	60.2
1984	1555.1	1516.4	-2.5	-38.7
1985	1060.1	1021.4	-3.7	-38.7
1986	1568.5	1529.8	-2.5	-38.7
1987	798.3	761.4	-4.6	-36.9
1988	541.6	504.6	-6.8	-37.0
1989	1071.9	1036.6	-3.3	-35.3
1990	533.2	497.9	-6.6	-35.3
1991	776.5	742.9	-4.3	-33.6
Mean	1901.7	2045.9	6.1	144.2
Median	1545.0	1669.0	5.9	96.9
Min	358.4	358.4	-37.8	-475.0
Max	4584.9	4645.1	66.0	939.1
X < 4000.0	69	67		
X < 4500.0	69	69		
X < 5000.0	70	70		
X < .0	0	0		
X < .0	0	0		

RETURN TO TABLE OF CONTENTS

Section 9

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVENUE

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

January

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	42.9	43.0	.2	.1
1923.	44.1	44.2	.2	.1
1924.	46.1	46.4	.7	.3
1925.	47.1	47.0	-.2	-.1
1926.	44.5	44.5	.0	.0
1927.	47.6	47.7	.2	.1
1928.	46.8	46.9	.2	.1
1929.	43.0	43.3	.7	.3
1930.	45.9	46.0	.2	.1
1931.	47.7	47.7	.0	.0
1932.	45.2	45.2	.0	.0
1933.	43.9	44.0	.2	.1
1934.	47.1	47.1	.0	.0
1935.	47.4	47.4	.0	.0
1936.	48.0	48.0	.0	.0
1937.	42.1	42.2	.2	.1
1938.	46.7	46.7	.0	.0
1939.	47.3	47.4	.2	.1
1940.	47.9	47.9	.0	.0
1941.	48.7	48.7	.0	.0
1942.	46.3	46.3	.0	.0
1943.	46.4	46.4	.0	.0
1944.	47.4	47.5	.2	.1
1945.	45.9	45.9	.0	.0
1946.	45.6	45.6	.0	.0
1947.	44.6	44.6	.0	.0
1948.	48.0	47.9	-.2	-.1
1949.	41.5	41.7	.5	.2
1950.	43.8	43.9	.2	.1
1951.	45.0	45.0	.0	.0
1952.	45.2	45.2	.0	.0
1953.	48.9	48.9	.0	.0
1954.	47.7	47.8	.2	.1
1955.	43.5	43.5	.0	.0
1956.	46.0	46.0	.0	.0
1957.	47.0	47.1	.2	.1
1958.	46.8	46.9	.2	.1
1959.	50.6	50.7	.2	.1
1960.	47.5	47.5	.0	.0
1961.	44.8	44.8	.0	.0
1962.	43.8	43.9	.2	.1
1963.	45.3	45.3	.0	.0
1964.	44.8	44.8	.0	.0
1965.	44.9	44.8	-.2	-.1
1966.	46.0	46.1	.2	.1
1967.	46.6	46.6	.0	.0
1968.	46.2	46.3	.2	.1
1969.	44.9	44.9	.0	.0
1970.	47.2	47.2	.0	.0
1971.	45.7	45.7	.0	.0
1972.	44.0	44.0	.0	.0
1973.	44.7	44.7	.0	.0
1974.	46.7	46.7	.0	.0
1975.	45.4	45.4	.0	.0
1976.	48.3	48.3	.0	.0
1977.	45.0	45.0	.0	.0
1978.	48.0	48.1	.2	.1
1979.	46.0	46.1	.2	.1
1980.	46.2	47.2	2.2	1.0
1981.	48.5	48.8	.6	.3
1982.	45.1	45.1	.0	.0
1983.	45.3	45.3	.0	.0
1984.	46.3	46.3	.0	.0
1985.	45.3	45.3	.0	.0
1986.	47.7	47.8	.2	.1
1987.	47.0	47.1	.2	.1
1988.	47.7	47.7	.0	.0
1989.	46.3	46.3	.0	.0
1990.	47.5	47.5	.0	.0
Mean:	46.1	46.1	.1	.1
Median:	46.0	46.2	.0	.0
Min:	41.5	41.7	-.2	-.1
Max:	50.6	50.7	2.2	1.0
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	8	7		
No. Years inc (avg):		26	(	.2)
No. Years dec (avg):		3	(	-.1)
No. Years no change		40		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

February

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	46.3	46.2	-.2	-.1
1923.	46.9	46.8	-.2	-.1
1924.	51.8	53.1	2.5	1.3
1925.	48.5	48.4	-.2	-.1
1926.	49.7	49.7	.0	.0
1927.	48.8	48.8	.0	.0
1928.	49.9	49.7	-.4	-.2
1929.	48.3	47.9	-.8	-.4
1930.	52.7	52.4	-.6	-.3
1931.	51.4	51.4	.0	.0
1932.	47.4	47.3	-.2	-.1
1933.	46.3	46.7	.9	.4
1934.	50.8	50.4	-.8	-.4
1935.	48.7	48.7	.0	.0
1936.	47.9	47.9	.0	.0
1937.	46.6	46.5	-.2	-.1
1938.	48.3	48.3	.0	.0
1939.	47.9	47.9	.0	.0
1940.	49.3	49.3	.0	.0
1941.	49.9	49.9	.0	.0
1942.	46.8	46.8	.0	.0
1943.	49.5	49.5	.0	.0
1944.	48.2	48.4	.4	.2
1945.	47.8	47.8	.0	.0
1946.	46.5	46.5	.0	.0
1947.	49.2	49.3	.2	.1
1948.	47.7	47.7	.0	.0
1949.	44.7	45.3	1.3	.6
1950.	47.5	47.5	.0	.0
1951.	46.6	46.6	.0	.0
1952.	47.4	47.4	.0	.0
1953.	50.5	50.4	-.2	-.1
1954.	48.2	48.4	.4	.2
1955.	46.9	46.9	.0	.0
1956.	46.7	46.7	.0	.0
1957.	49.9	49.9	.0	.0
1958.	49.5	49.8	.6	.3
1959.	49.8	49.9	.2	.1
1960.	49.5	49.6	.2	.1
1961.	50.4	50.2	-.4	-.2
1962.	47.5	47.4	-.2	-.1
1963.	49.8	49.8	.0	.0
1964.	47.5	47.7	.4	.2
1965.	47.4	47.4	.0	.0
1966.	47.9	47.7	-.4	-.2
1967.	48.4	48.3	-.2	-.1
1968.	49.7	50.2	1.0	.5
1969.	46.4	46.4	.0	.0
1970.	48.4	48.4	.0	.0
1971.	47.4	47.4	.0	.0
1972.	47.8	48.3	1.0	.5
1973.	49.7	49.7	.0	.0
1974.	46.9	46.9	.0	.0
1975.	47.9	47.7	-.4	-.2
1976.	51.0	50.9	-.2	-.1
1977.	51.7	51.7	.0	.0
1978.	50.9	51.0	.2	.1
1979.	48.1	47.9	-.4	-.2
1980.	47.6	47.4	-.4	-.2
1981.	52.0	51.2	-1.5	-.8
1982.	46.7	46.7	.0	.0
1983.	49.1	49.1	.0	.0
1984.	48.1	48.1	.0	.0
1985.	48.8	48.8	.0	.0
1986.	48.1	48.1	.0	.0
1987.	50.4	50.3	-.2	-.1
1988.	54.3	54.1	-.4	-.2
1989.	47.9	47.8	-.2	-.1
1990.	48.6	48.5	-.2	-.1
Mean:	48.6	48.6	.0	.0
Median:	48.2	48.3	.0	.0
Min:	44.7	45.3	-1.5	-.8
Max:	54.3	54.1	2.5	1.3

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	40	39		

No. Years inc (avg):		13	(.4)
No. Years dec (avg):		23	(-.2)
No. Years no change		33	

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

March

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	51.2	51.1	-.2	-.1
1923.	54.4	54.4	.0	.0
1924.	54.0	53.2	-1.5	-.8
1925.	54.4	54.5	.2	.1
1926.	55.1	55.2	.2	.1
1927.	52.0	51.9	-.2	-.1
1928.	52.1	52.4	.6	.3
1929.	53.0	53.4	.8	.4
1930.	54.0	53.9	-.2	-.1
1931.	57.0	56.8	-.4	-.2
1932.	54.6	54.6	.0	.0
1933.	52.9	54.2	2.5	1.3
1934.	58.3	57.5	-1.4	-.8
1935.	50.2	50.2	.0	.0
1936.	53.3	53.3	.0	.0
1937.	52.8	52.5	-.6	-.3
1938.	50.0	50.1	.2	.1
1939.	53.4	53.2	-.4	-.2
1940.	52.1	52.2	.2	.1
1941.	53.6	53.6	.0	.0
1942.	49.8	49.8	.0	.0
1943.	51.4	51.4	.0	.0
1944.	53.7	53.4	-.6	-.3
1945.	50.5	50.5	.0	.0
1946.	52.1	52.0	-.2	-.1
1947.	53.6	53.6	.0	.0
1948.	50.2	50.2	.0	.0
1949.	51.1	50.9	-.4	-.2
1950.	52.0	52.0	.0	.0
1951.	51.2	51.2	.0	.0
1952.	49.8	49.8	.0	.0
1953.	53.0	53.0	.0	.0
1954.	51.0	50.9	-.2	-.1
1955.	52.6	52.6	.0	.0
1956.	52.0	51.9	-.2	-.1
1957.	53.8	54.1	.6	.3
1958.	51.1	51.0	-.2	-.1
1959.	54.6	54.6	.0	.0
1960.	54.2	54.3	.2	.1
1961.	53.7	54.1	.7	.4
1962.	51.0	51.9	1.8	.9
1963.	51.2	51.1	-.2	-.1
1964.	51.0	51.2	.4	.2
1965.	51.8	51.9	.2	.1
1966.	53.3	52.3	-1.9	-1.0
1967.	51.2	51.2	.0	.0
1968.	53.5	55.4	3.6	1.9
1969.	51.8	52.1	.6	.3
1970.	53.4	53.3	-.2	-.1
1971.	51.2	51.2	.0	.0
1972.	56.2	55.6	-1.1	-.6
1973.	50.9	50.9	.0	.0
1974.	51.8	51.8	.0	.0
1975.	50.9	50.9	.0	.0
1976.	54.1	54.1	.0	.0
1977.	53.2	53.2	.0	.0
1978.	54.6	54.8	.4	.2
1979.	52.8	53.6	1.5	.8
1980.	51.8	51.7	-.2	-.1
1981.	53.2	52.8	-.8	-.4
1982.	50.6	50.6	.0	.0
1983.	50.6	50.6	.0	.0
1984.	54.4	54.3	-.2	-.1
1985.	51.1	51.1	.0	.0
1986.	52.6	52.9	.6	.3
1987.	53.9	53.8	-.2	-.1
1988.	58.3	58.2	-.2	-.1
1989.	52.0	52.0	.0	.0
1990.	55.3	55.2	-.2	-.1
Mean:	52.7	52.7	.0	.0
Median:	52.3	52.3	.0	.0
Min:	49.8	49.8	-1.9	-1.0
Max:	58.3	58.2	3.6	1.9
X > 56.0	4	3		
Mean X > 56.0	57.5	57.5	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		18	(	.4)
No. Years dec (avg):		24	(	-.3)
No. Years no change		27		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

April

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.9	54.8	-.2	-.1
1923.	55.9	55.8	-.2	-.1
1924.	62.8	62.4	-.6	-.4
1925.	56.4	56.3	-.2	-.1
1926.	60.9	60.9	.0	.0
1927.	54.4	54.4	.0	.0
1928.	55.3	55.2	-.2	-.1
1929.	57.8	57.1	-1.2	-.7
1930.	58.7	59.5	1.4	.8
1931.	65.2	65.2	.0	.0
1932.	56.9	56.8	-.2	-.1
1933.	59.0	58.3	-1.2	-.7
1934.	61.1	60.7	-.7	-.4
1935.	55.4	55.3	-.2	-.1
1936.	56.0	56.0	.0	.0
1937.	55.0	54.9	-.2	-.1
1938.	54.4	54.4	.0	.0
1939.	63.9	62.7	-1.9	-1.2
1940.	55.7	55.8	.2	.1
1941.	55.5	55.5	.0	.0
1942.	55.3	55.2	-.2	-.1
1943.	55.5	55.4	-.2	-.1
1944.	56.1	56.0	-.2	-.1
1945.	57.4	57.3	-.2	-.1
1946.	56.5	56.4	-.2	-.1
1947.	58.1	58.6	.9	.5
1948.	54.0	54.1	.2	.1
1949.	58.4	59.2	1.4	.8
1950.	56.3	56.3	.0	.0
1951.	57.0	56.9	-.2	-.1
1952.	54.5	54.5	.0	.0
1953.	56.8	56.7	-.2	-.1
1954.	57.2	57.1	-.2	-.1
1955.	54.7	54.6	-.2	-.1
1956.	56.9	57.1	.4	.2
1957.	58.7	58.7	.0	.0
1958.	54.6	54.6	.0	.0
1959.	60.9	63.6	4.4	2.7
1960.	59.0	58.6	-.7	-.4
1961.	61.8	61.7	-.2	-.1
1962.	58.9	58.3	-1.0	-.6
1963.	53.8	53.7	-.2	-.1
1964.	55.9	56.0	.2	.1
1965.	55.7	55.7	.0	.0
1966.	60.4	61.2	1.3	.8
1967.	52.0	52.0	.0	.0
1968.	58.4	59.4	1.7	1.0
1969.	54.9	54.8	-.2	-.1
1970.	57.0	57.1	.2	.1
1971.	55.1	55.1	.0	.0
1972.	57.9	57.8	-.2	-.1
1973.	57.7	57.7	.0	.0
1974.	54.4	54.4	.0	.0
1975.	53.3	53.3	.0	.0
1976.	60.0	60.0	.0	.0
1977.	63.9	64.0	.2	.1
1978.	55.5	55.5	.0	.0
1979.	57.8	57.1	-1.2	-.7
1980.	57.5	57.4	-.2	-.1
1981.	59.3	57.8	-2.5	-1.5
1982.	53.4	53.3	-.2	-.1
1983.	54.0	54.0	.0	.0
1984.	57.7	57.7	.0	.0
1985.	60.1	60.0	-.2	-.1
1986.	57.6	57.6	.0	.0
1987.	64.5	64.5	.0	.0
1988.	63.4	63.4	.0	.0
1989.	58.5	58.3	-.3	-.2
1990.	61.0	60.8	-.3	-.2
Mean:	57.5	57.4	-.1	.0
Median:	56.9	56.8	-.2	-.1
Min:	52.0	52.0	-2.5	-1.5
Max:	65.2	65.2	4.4	2.7
X > 56.0	42	41		
Mean X > 56.0	59.2	59.2	.0	.0
X > 60.0	13	12		
Mean X > 60.0	62.3	62.6	.5	.3
X > 65.0	1	1		
Mean X > 65.0	65.2	65.2	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	14	14		
61.0 <= X <= 73.0	9	9		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		12	(	.6)
No. Years dec (avg):		34	(	-.3)
No. Years no change		23		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

May

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	59.0	58.9	-.2	-.1
1923.	59.2	59.2	.0	.0
1924.	70.2	69.8	-.6	-.4
1925.	60.1	59.9	-.3	-.2
1926.	65.1	65.1	.0	.0
1927.	59.1	59.1	.0	.0
1928.	61.9	61.9	.0	.0
1929.	63.9	63.7	-.3	-.2
1930.	62.0	61.7	-.5	-.3
1931.	70.2	70.8	.9	.6
1932.	61.1	60.9	-.3	-.2
1933.	60.3	60.1	-.3	-.2
1934.	69.5	69.5	.0	.0
1935.	59.4	59.4	.0	.0
1936.	60.7	60.7	.0	.0
1937.	60.1	60.0	-.2	-.1
1938.	59.1	59.0	-.2	-.1
1939.	64.5	64.3	-.3	-.2
1940.	61.5	61.4	-.2	-.1
1941.	59.3	59.2	-.2	-.1
1942.	58.0	57.8	-.3	-.2
1943.	61.0	61.0	.0	.0
1944.	62.3	61.8	-.8	-.5
1945.	59.6	59.5	-.2	-.1
1946.	59.9	59.9	.0	.0
1947.	63.6	63.8	.3	.2
1948.	59.1	58.9	-.3	-.2
1949.	62.7	62.0	-1.1	-.7
1950.	60.4	60.4	.0	.0
1951.	60.8	60.8	.0	.0
1952.	59.0	59.0	.0	.0
1953.	58.9	58.9	.0	.0
1954.	62.1	62.1	.0	.0
1955.	61.2	61.0	-.3	-.2
1956.	60.8	60.7	-.2	-.1
1957.	60.8	60.6	-.3	-.2
1958.	59.4	59.4	.0	.0
1959.	62.4	63.0	1.0	.6
1960.	63.1	62.5	-1.0	-.6
1961.	62.3	62.2	-.2	-.1
1962.	60.8	60.7	-.2	-.1
1963.	57.7	57.6	-.2	-.1
1964.	61.0	60.4	-1.0	-.6
1965.	59.8	59.8	.0	.0
1966.	66.5	65.9	-.9	-.6
1967.	58.2	58.1	-.2	-.1
1968.	61.3	63.5	3.6	2.2
1969.	59.2	59.2	.0	.0
1970.	64.1	64.1	.0	.0
1971.	58.0	58.0	.0	.0
1972.	63.2	63.1	-.2	-.1
1973.	62.1	61.9	-.3	-.2
1974.	59.2	59.2	.0	.0
1975.	60.6	60.5	-.2	-.1
1976.	70.0	69.9	-.1	-.1
1977.	62.9	62.9	.0	.0
1978.	60.5	60.3	-.3	-.2
1979.	62.1	61.4	-1.1	-.7
1980.	59.9	59.8	-.2	-.1
1981.	63.2	62.4	-1.3	-.8
1982.	58.9	58.9	.0	.0
1983.	58.3	58.3	.0	.0
1984.	63.4	63.4	.0	.0
1985.	64.3	64.1	-.3	-.2
1986.	61.4	61.3	-.2	-.1
1987.	69.2	69.8	.9	.6
1988.	66.8	66.7	-.1	-.1
1989.	62.7	62.5	-.3	-.2
1990.	65.3	65.2	-.2	-.1
Mean:	61.8	61.7	-.1	-.1
Median:	60.9	60.8	-.2	-.1
Min:	57.7	57.6	-1.3	-.8
Max:	70.2	70.8	3.6	2.2
X > 56.0	69	69		
Mean X > 56.0	61.8	61.7	-.2	-.1
X > 60.0	47	45		
Mean X > 60.0	63.1	63.2	.2	.1
X > 65.0	9	9		
Mean X > 65.0	68.1	68.1	.0	.0
X > 68.0	5	5		
Mean X > 68.0	69.8	70.0	.3	.2
X > 70.0	2	1		
Mean X > 70.0	70.2	70.8	.9	.6
60.0 <= X <= 70.0	45	45		
61.0 <= X <= 73.0	36	34		
48.0 <= X <= 68.0	64	64		
No. Years inc (avg):		5	(	.8)
No. Years dec (avg):		40	(	-.2)
No. Years no change		24		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

June

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	61.9	62.2	.5	.3
1923.	62.3	62.3	.0	.0
1924.	71.0	70.2	-1.1	-.8
1925.	63.3	63.2	-.2	-.1
1926.	66.4	66.3	-.2	-.1
1927.	63.4	63.4	.0	.0
1928.	63.3	63.5	.3	.2
1929.	67.4	67.6	.3	.2
1930.	65.3	64.8	-.8	-.5
1931.	67.4	67.5	.1	.1
1932.	65.2	65.1	-.2	-.1
1933.	67.0	67.1	.1	.1
1934.	67.7	67.3	-.6	-.4
1935.	63.3	63.3	.0	.0
1936.	64.8	64.6	-.3	-.2
1937.	64.1	64.0	-.2	-.1
1938.	63.0	63.0	.0	.0
1939.	69.9	68.6	-1.9	-1.3
1940.	67.0	67.0	.0	.0
1941.	61.3	61.7	.7	.4
1942.	62.3	62.4	.2	.1
1943.	64.1	64.0	-.2	-.1
1944.	66.3	65.6	-1.1	-.7
1945.	65.2	64.7	-.8	-.5
1946.	63.9	62.1	-2.8	-1.8
1947.	69.3	69.1	-.3	-.2
1948.	63.2	63.2	.0	.0
1949.	66.3	64.8	-2.3	-1.5
1950.	63.2	63.3	.2	.1
1951.	64.4	64.3	-.2	-.1
1952.	62.0	62.0	.0	.0
1953.	63.5	63.4	-.2	-.1
1954.	64.9	64.9	.0	.0
1955.	65.9	65.7	-.3	-.2
1956.	64.4	64.3	-.2	-.1
1957.	66.1	66.3	.3	.2
1958.	63.3	63.3	.0	.0
1959.	67.3	68.1	1.2	.8
1960.	66.7	67.2	.7	.5
1961.	72.3	72.1	-.3	-.2
1962.	65.8	64.8	-1.5	-1.0
1963.	62.0	62.3	.5	.3
1964.	65.0	65.2	.3	.2
1965.	62.8	62.7	-.2	-.1
1966.	67.2	67.2	.0	.0
1967.	62.4	62.5	.2	.1
1968.	68.5	67.3	-1.8	-1.2
1969.	62.7	62.7	.0	.0
1970.	67.3	67.2	-.1	-.1
1971.	61.7	61.8	.2	.1
1972.	66.5	66.2	-.5	-.3
1973.	66.1	64.7	-2.1	-1.4
1974.	63.4	63.8	.6	.4
1975.	62.0	62.0	.0	.0
1976.	67.5	67.6	.1	.1
1977.	72.4	72.4	.0	.0
1978.	64.2	63.8	-.6	-.4
1979.	66.1	65.7	-.6	-.4
1980.	63.2	63.0	-.3	-.2
1981.	70.8	67.3	-4.9	-3.5
1982.	61.4	62.0	1.0	.6
1983.	63.0	63.0	.0	.0
1984.	66.7	66.7	.0	.0
1985.	66.0	66.6	.9	.6
1986.	66.2	66.0	-.3	-.2
1987.	70.0	69.8	-.3	-.2
1988.	67.3	67.3	.0	.0
1989.	66.3	66.2	-.2	-.1
1990.	67.3	67.2	-.1	-.1
Mean:	65.4	65.2	-.3	-.2
Median:	65.1	64.8	-.1	-.1
Min:	61.3	61.7	-4.9	-3.5
Max:	72.4	72.4	1.2	.8
X > 56.0	69	69		
Mean X > 56.0	65.4	65.2	-.3	-.2
X > 60.0	69	69		
Mean X > 60.0	65.4	65.2	-.3	-.2
X > 65.0	36	32		
Mean X > 65.0	67.4	67.4	.0	.0
X > 68.0	8	7		
Mean X > 68.0	70.5	70.0	-.7	-.5
X > 70.0	4	3		
Mean X > 70.0	71.6	71.6	.0	.0
60.0 <= X <= 70.0	65	66		
61.0 <= X <= 73.0	69	69		
48.0 <= X <= 68.0	61	62		
No. Years inc (avg):		19	(.3)	
No. Years dec (avg):		34	(-.5)	
No. Years no change		16		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

July

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	65.4	65.6	.3	.2
1923.	68.9	66.8	-3.0	-2.1
1924.	72.5	71.8	-1.0	-.7
1925.	66.2	66.2	.0	.0
1926.	70.5	72.0	2.1	1.5
1927.	69.2	69.1	-.1	-.1
1928.	66.3	66.2	-.2	-.1
1929.	69.3	69.3	.0	.0
1930.	70.7	70.2	-.7	-.5
1931.	70.4	70.9	.7	.5
1932.	67.2	67.2	.0	.0
1933.	69.2	69.2	.0	.0
1934.	69.3	69.3	.0	.0
1935.	66.2	66.2	.0	.0
1936.	67.4	67.4	.0	.0
1937.	66.2	66.2	.0	.0
1938.	66.2	66.2	.0	.0
1939.	69.2	69.2	.0	.0
1940.	69.4	69.6	.3	.2
1941.	65.2	65.2	.0	.0
1942.	65.7	65.7	.0	.0
1943.	66.6	69.1	3.8	2.5
1944.	69.8	70.3	.7	.5
1945.	69.3	69.7	.6	.4
1946.	67.4	65.3	-3.1	-2.1
1947.	71.5	71.3	-.3	-.2
1948.	66.2	66.1	-.2	-.1
1949.	68.2	67.2	-1.5	-1.0
1950.	66.2	66.1	-.2	-.1
1951.	67.4	67.5	.1	.1
1952.	66.4	66.4	.0	.0
1953.	66.2	66.2	.0	.0
1954.	67.2	67.3	.1	.1
1955.	70.4	70.1	-.4	-.3
1956.	66.8	66.8	.0	.0
1957.	68.1	69.5	2.1	1.4
1958.	67.5	67.5	.0	.0
1959.	73.7	73.1	-.8	-.6
1960.	68.3	69.3	1.5	1.0
1961.	74.8	74.4	-.5	-.4
1962.	67.7	67.1	-.9	-.6
1963.	65.7	66.0	.5	.3
1964.	69.6	69.7	.1	.1
1965.	66.2	66.2	.0	.0
1966.	68.9	70.3	2.0	1.4
1967.	67.4	67.5	.1	.1
1968.	70.6	69.9	-1.0	-.7
1969.	66.2	66.2	.0	.0
1970.	69.3	69.2	-.1	-.1
1971.	65.2	65.4	.3	.2
1972.	68.6	68.3	-.4	-.3
1973.	68.2	67.2	-1.5	-1.0
1974.	66.1	66.4	.5	.3
1975.	65.4	65.3	-.2	-.1
1976.	69.3	69.3	.0	.0
1977.	74.3	74.4	.1	.1
1978.	69.3	66.5	-4.0	-2.8
1979.	68.3	69.2	1.3	.9
1980.	69.0	66.4	-3.8	-2.6
1981.	72.1	71.9	-.3	-.2
1982.	65.2	65.3	.2	.1
1983.	66.7	66.7	.0	.0
1984.	69.3	69.3	.0	.0
1985.	68.0	72.9	7.2	4.9
1986.	69.8	69.7	-.1	-.1
1987.	69.3	69.3	.0	.0
1988.	73.5	73.2	-.4	-.3
1989.	67.8	67.8	.0	.0
1990.	69.9	69.9	.0	.0
Mean:	68.4	68.4	.0	.0
Median:	68.1	67.5	.0	.0
Min:	65.2	65.2	-4.0	-2.8
Max:	74.8	74.4	7.2	4.9
X > 56.0	69	69		
Mean X > 56.0	68.4	68.4	.0	.0
X > 60.0	69	69		
Mean X > 60.0	68.4	68.4	.0	.0
X > 65.0	69	69		
Mean X > 65.0	68.4	68.4	.0	.0
X > 68.0	37	34		
Mean X > 68.0	70.1	70.4	.4	.3
X > 70.0	12	14		
Mean X > 70.0	72.1	71.9	-.3	-.2
60.0 <= X <= 70.0	57	55		
61.0 <= X <= 73.0	65	65		
48.0 <= X <= 68.0	32	35		
No. Years inc (avg):		21		(.8)
No. Years dec (avg):		24		(-.7)
No. Years no change		24		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

August

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	66.0	66.1	.2	.1
1923.	68.6	66.6	-2.9	-2.0
1924.	72.2	71.9	-.4	-.3
1925.	66.3	66.6	.5	.3
1926.	68.1	68.0	-.1	-.1
1927.	68.6	68.6	.0	.0
1928.	69.3	69.2	-.1	-.1
1929.	72.4	71.9	-.7	-.5
1930.	67.8	66.8	-1.5	-1.0
1931.	73.8	73.7	-.1	-.1
1932.	67.8	67.7	-.1	-.1
1933.	72.7	70.3	-3.3	-2.4
1934.	72.7	72.6	-.1	-.1
1935.	66.7	66.7	.0	.0
1936.	67.7	67.7	.0	.0
1937.	66.7	66.7	.0	.0
1938.	66.1	66.4	.5	.3
1939.	71.7	71.4	-.4	-.3
1940.	68.1	67.9	-.3	-.2
1941.	65.7	65.6	-.2	-.1
1942.	66.1	66.1	.0	.0
1943.	67.1	67.5	.6	.4
1944.	68.9	68.5	-.6	-.4
1945.	67.9	68.1	.3	.2
1946.	67.6	65.9	-2.5	-1.7
1947.	68.9	68.8	-.1	-.1
1948.	66.6	66.4	-.3	-.2
1949.	68.8	67.3	-2.2	-1.5
1950.	66.5	66.7	.3	.2
1951.	68.1	67.8	-.4	-.3
1952.	66.3	66.4	.2	.1
1953.	66.6	66.7	.2	.1
1954.	68.1	68.1	.0	.0
1955.	70.7	71.8	1.6	1.1
1956.	66.6	66.6	.0	.0
1957.	69.1	68.5	-.9	-.6
1958.	67.7	67.6	-.1	-.1
1959.	68.8	68.7	-.1	-.1
1960.	68.7	71.1	3.5	2.4
1961.	73.3	72.3	-1.4	-1.0
1962.	67.9	68.0	.1	.1
1963.	65.9	66.2	.5	.3
1964.	67.8	67.8	.0	.0
1965.	66.7	66.7	.0	.0
1966.	68.7	72.0	4.8	3.3
1967.	67.6	67.7	.1	.1
1968.	68.7	70.4	2.5	1.7
1969.	66.6	66.7	.2	.1
1970.	69.6	69.6	.0	.0
1971.	65.6	65.8	.3	.2
1972.	70.9	70.4	-.7	-.5
1973.	68.0	68.9	1.3	.9
1974.	66.6	66.6	.0	.0
1975.	65.8	65.7	-.2	-.1
1976.	69.1	69.0	-.1	-.1
1977.	73.9	74.0	.1	.1
1978.	68.7	66.6	-3.1	-2.1
1979.	69.1	67.6	-2.2	-1.5
1980.	68.6	66.6	-2.9	-2.0
1981.	69.6	69.4	-.3	-.2
1982.	65.6	65.7	.2	.1
1983.	66.6	66.6	.0	.0
1984.	70.1	69.6	-.7	-.5
1985.	67.7	70.3	3.8	2.6
1986.	67.5	67.8	.4	.3
1987.	68.8	68.8	.0	.0
1988.	73.8	73.6	-.3	-.2
1989.	70.6	70.7	.1	.1
1990.	71.2	70.8	-.6	-.4
Mean:	68.5	68.4	-.1	-.1
Median:	68.1	67.8	-.1	.0
Min:	65.6	65.6	-3.3	-2.4
Max:	73.9	74.0	4.8	3.3
X > 56.0	69	69		
Mean X > 56.0	68.5	68.4	-.1	-.1
X > 60.0	69	69		
Mean X > 60.0	68.5	68.4	-.1	-.1
X > 65.0	69	69		
Mean X > 65.0	68.5	68.4	-.1	-.1
X > 68.0	36	31		
Mean X > 68.0	70.1	70.4	.4	.3
X > 70.0	14	17		
Mean X > 70.0	72.1	71.7	-.6	-.4
60.0 <= X <= 70.0	55	52		
61.0 <= X <= 73.0	65	66		
48.0 <= X <= 68.0	33	38		
No. Years inc (avg):		23	(	.7)
No. Years dec (avg):		33	(	-.6)
No. Years no change		13		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

September

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	65.9	66.0	.2	.1
1923.	68.7	66.7	-2.9	-2.0
1924.	69.7	69.8	.1	.1
1925.	66.3	66.6	.5	.3
1926.	67.8	67.7	-.1	-.1
1927.	63.9	64.6	1.1	.7
1928.	66.7	66.7	.0	.0
1929.	68.8	68.8	.0	.0
1930.	67.5	66.7	-1.2	-.8
1931.	68.7	68.7	.0	.0
1932.	67.7	67.6	-.1	-.1
1933.	68.6	68.6	.0	.0
1934.	70.0	70.0	.0	.0
1935.	66.7	66.6	-.1	-.1
1936.	67.6	67.6	.0	.0
1937.	66.6	66.7	.2	.1
1938.	66.1	66.4	.5	.3
1939.	69.2	69.1	-.1	-.1
1940.	68.0	68.0	.0	.0
1941.	65.6	65.6	.0	.0
1942.	66.1	66.1	.0	.0
1943.	69.6	67.5	-3.0	-2.1
1944.	68.7	68.5	-.3	-.2
1945.	69.2	68.6	-.9	-.6
1946.	68.5	65.9	-3.8	-2.6
1947.	68.8	68.8	.0	.0
1948.	66.6	66.3	-.5	-.3
1949.	69.5	69.1	-.6	-.4
1950.	66.5	66.6	.2	.1
1951.	69.6	69.6	.0	.0
1952.	66.3	66.4	.2	.1
1953.	66.6	66.6	.0	.0
1954.	67.7	67.7	.0	.0
1955.	68.7	70.1	2.0	1.4
1956.	66.6	66.6	.0	.0
1957.	69.8	69.1	-1.0	-.7
1958.	67.6	67.6	.0	.0
1959.	68.7	68.7	.0	.0
1960.	68.8	70.7	2.8	1.9
1961.	68.7	68.8	.1	.1
1962.	68.8	68.7	-.1	-.1
1963.	65.9	66.2	.5	.3
1964.	67.7	67.8	.1	.1
1965.	66.7	66.7	.0	.0
1966.	68.8	68.8	.0	.0
1967.	67.6	67.6	.0	.0
1968.	68.8	69.6	1.2	.8
1969.	66.6	66.6	.0	.0
1970.	69.9	69.9	.0	.0
1971.	65.6	65.8	.3	.2
1972.	68.3	68.3	.0	.0
1973.	68.1	68.1	.0	.0
1974.	66.6	66.6	.0	.0
1975.	65.8	65.7	-.2	-.1
1976.	69.6	69.4	-.3	-.2
1977.	68.9	68.9	.0	.0
1978.	68.3	66.7	-2.3	-1.6
1979.	71.3	70.7	-.8	-.6
1980.	67.6	66.7	-1.3	-.9
1981.	68.7	68.9	.3	.2
1982.	65.6	65.7	.2	.1
1983.	66.6	66.6	.0	.0
1984.	72.1	70.4	-2.4	-1.7
1985.	67.8	67.8	.0	.0
1986.	66.1	65.9	-.3	-.2
1987.	68.8	68.8	.0	.0
1988.	70.7	70.7	.0	.0
1989.	68.2	68.3	.1	.1
1990.	71.7	71.8	.1	.1
Mean:	68.0	67.8	-.2	-.1
Median:	67.9	67.6	.0	.0
Min:	63.9	64.6	-3.8	-2.6
Max:	72.1	71.8	2.8	1.9
X > 56.0	69	69		
Mean X > 56.0	68.0	67.8	-.3	-.2
X > 60.0	69	69		
Mean X > 60.0	68.0	67.8	-.3	-.2
X > 65.0	68	68		
Mean X > 65.0	68.0	67.9	-.1	-.1
X > 68.0	35	31		
Mean X > 68.0	69.2	69.3	.1	.1
X > 70.0	4	6		
Mean X > 70.0	71.4	70.7	-1.0	-.7
60.0 <= X <= 70.0	65	63		
61.0 <= X <= 73.0	69	69		
48.0 <= X <= 68.0	34	38		
No. Years inc (avg):		19		(.4)
No. Years dec (avg):		21		(-.7)
No. Years no change		29		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

October"

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	57.5	57.0	-.9	-.5
1923.	57.4	59.8	4.2	2.4
1924.	61.7	61.2	-.8	-.5
1925.	58.1	58.2	.2	.1
1926.	61.3	61.7	.7	.4
1927.	55.8	55.7	-.2	-.1
1928.	58.2	58.8	1.0	.6
1929.	65.0	64.6	-.6	-.4
1930.	59.6	59.8	.3	.2
1931.	63.4	63.4	.0	.0
1932.	59.9	59.8	-.2	-.1
1933.	65.4	65.1	-.5	-.3
1934.	63.9	64.1	.3	.2
1935.	58.8	58.9	.2	.1
1936.	59.7	59.7	.0	.0
1937.	58.9	58.7	-.3	-.2
1938.	58.3	58.2	-.2	-.1
1939.	64.6	65.0	.6	.4
1940.	56.6	56.3	-.5	-.3
1941.	58.0	57.3	-1.2	-.7
1942.	57.3	57.7	.7	.4
1943.	56.1	56.1	.0	.0
1944.	62.2	62.0	-.3	-.2
1945.	56.3	56.8	.9	.5
1946.	55.7	58.0	4.1	2.3
1947.	59.1	58.5	-1.0	-.6
1948.	58.7	58.3	-.7	-.4
1949.	57.7	58.9	2.1	1.2
1950.	57.4	57.7	.5	.3
1951.	55.7	55.6	-.2	-.1
1952.	58.1	57.9	-.3	-.2
1953.	58.3	58.6	.5	.3
1954.	56.4	56.5	.2	.1
1955.	57.7	56.8	-1.6	-.9
1956.	59.5	60.0	.8	.5
1957.	56.4	56.7	.5	.3
1958.	60.6	61.3	1.2	.7
1959.	65.3	63.6	-2.6	-1.7
1960.	61.8	57.8	-6.5	-4.0
1961.	64.7	64.7	.0	.0
1962.	56.1	57.0	1.6	.9
1963.	58.1	57.5	-1.0	-.6
1964.	60.8	61.3	.8	.5
1965.	58.4	58.4	.0	.0
1966.	62.5	60.0	-4.0	-2.5
1967.	61.2	61.0	-.3	-.2
1968.	61.3	56.6	-7.7	-4.7
1969.	58.6	58.6	.0	.0
1970.	56.1	56.1	.0	.0
1971.	57.9	57.5	-.7	-.4
1972.	55.7	55.7	.0	.0
1973.	55.7	55.6	-.2	-.1
1974.	58.3	58.9	1.0	.6
1975.	57.9	57.9	.0	.0
1976.	65.4	65.4	.0	.0
1977.	63.8	63.9	.2	.1
1978.	56.5	58.9	4.2	2.4
1979.	56.8	56.1	-1.2	-.7
1980.	57.0	58.7	3.0	1.7
1981.	63.7	64.1	.6	.4
1982.	57.6	57.5	-.2	-.1
1983.	58.1	58.1	.0	.0
1984.	56.1	57.0	1.6	.9
1985.	60.8	57.0	-6.2	-3.8
1986.	58.5	59.0	.9	.5
1987.	66.6	66.9	.5	.3
1988.	66.3	66.4	.2	.1
1989.	56.9	56.9	.0	.0
1990.	66.6	67.0	.6	.4
Mean:	59.5	59.4	-.1	-.1
Median:	58.3	58.5	.0	.0
Min:	55.7	55.6	-7.7	-4.7
Max:	66.6	67.0	4.2	2.4
X > 56.0	64	65		
Mean X > 56.0	59.8	59.7	-.2	-.1
X > 60.0	23	19		
Mean X > 60.0	63.4	63.8	.6	.4
X > 65.0	6	5		
Mean X > 65.0	65.9	66.2	.5	.3
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	23	21		
61.0 <= X <= 73.0	20	19		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		30		(.7)
No. Years dec (avg):		27		(-.9)
No. Years no change		12		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

November

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	53.9	53.9	.0	.0
1923.	55.9	56.9	1.8	1.0
1924.	54.2	53.8	-.7	-.4
1925.	56.2	56.3	.2	.1
1926.	58.3	58.0	-.5	-.3
1927.	54.0	53.9	-.2	-.1
1928.	56.0	56.0	.0	.0
1929.	58.4	58.5	.2	.1
1930.	56.6	57.2	1.1	.6
1931.	54.2	54.3	.2	.1
1932.	57.2	57.2	.0	.0
1933.	58.5	58.7	.3	.2
1934.	55.7	56.1	.7	.4
1935.	55.7	55.6	-.2	-.1
1936.	57.3	57.4	.2	.1
1937.	56.6	56.5	-.2	-.1
1938.	56.0	56.0	.0	.0
1939.	58.0	58.3	.5	.3
1940.	54.1	54.7	1.1	.6
1941.	56.1	56.4	.5	.3
1942.	56.1	56.2	.2	.1
1943.	55.9	55.9	.0	.0
1944.	55.0	55.3	.5	.3
1945.	54.5	54.5	.0	.0
1946.	52.1	54.4	4.4	2.3
1947.	52.9	52.9	.0	.0
1948.	56.0	56.1	.2	.1
1949.	55.8	55.9	.2	.1
1950.	56.2	56.2	.0	.0
1951.	55.2	55.2	.0	.0
1952.	55.9	56.3	.7	.4
1953.	56.9	56.7	-.4	-.2
1954.	53.9	54.3	.7	.4
1955.	55.0	55.0	.0	.0
1956.	57.5	57.1	-.7	-.4
1957.	56.0	56.1	.2	.1
1958.	57.1	57.0	-.2	-.1
1959.	59.7	59.6	-.2	-.1
1960.	56.6	56.1	-.9	-.5
1961.	56.7	56.8	.2	.1
1962.	56.1	55.9	-.4	-.2
1963.	55.7	56.0	.5	.3
1964.	55.4	55.6	.4	.2
1965.	56.6	56.0	-1.1	-.6
1966.	57.4	55.9	-2.6	-1.5
1967.	57.2	57.5	.5	.3
1968.	55.5	54.4	-2.0	-1.1
1969.	56.2	56.2	.0	.0
1970.	55.3	55.4	.2	.1
1971.	56.4	56.3	-.2	-.1
1972.	52.2	52.3	.2	.1
1973.	53.1	53.7	1.1	.6
1974.	57.1	56.5	-1.1	-.6
1975.	55.6	55.7	.2	.1
1976.	58.2	58.2	.0	.0
1977.	55.1	55.2	.2	.1
1978.	55.3	56.9	2.9	1.6
1979.	55.3	55.0	-.5	-.3
1980.	55.8	56.5	1.3	.7
1981.	56.6	56.8	.4	.2
1982.	55.9	55.9	.0	.0
1983.	56.4	56.7	.5	.3
1984.	54.6	55.2	1.1	.6
1985.	53.9	53.7	-.4	-.2
1986.	55.8	55.8	.0	.0
1987.	57.6	57.7	.2	.1
1988.	56.3	56.3	.0	.0
1989.	55.9	56.0	.2	.1
1990.	56.5	56.9	.7	.4
Mean:	55.9	56.0	.2	.1
Median:	55.9	56.0	.1	.0
Min:	52.1	52.3	-2.6	-1.5
Max:	59.7	59.6	4.4	2.3
X > 56.0	31	35		
Mean X > 56.0	57.1	57.0	-.2	-.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		36	(	.4)
No. Years dec (avg):		18	(	-.4)
No. Years no change		15		

LOWER AMERICAN RIVER TEMPERATURE AT WATT AVE

December

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.6	47.7	.2	.1
1923.	50.3	50.8	1.0	.5
1924.	45.3	44.7	-1.3	-.6
1925.	49.4	49.3	-.2	-.1
1926.	49.7	49.8	.2	.1
1927.	48.4	48.5	.2	.1
1928.	47.3	47.7	.8	.4
1929.	50.4	50.5	.2	.1
1930.	49.1	49.4	.6	.3
1931.	46.9	47.0	.2	.1
1932.	48.7	48.8	.2	.1
1933.	48.3	48.6	.6	.3
1934.	48.4	48.5	.2	.1
1935.	49.8	49.7	-.2	-.1
1936.	49.5	49.5	.0	.0
1937.	51.2	51.3	.2	.1
1938.	50.0	50.1	.2	.1
1939.	51.5	51.7	.4	.2
1940.	50.4	50.5	.2	.1
1941.	50.0	50.1	.2	.1
1942.	49.1	49.1	.0	.0
1943.	50.4	50.7	.6	.3
1944.	49.3	49.5	.4	.2
1945.	48.6	48.7	.2	.1
1946.	47.9	48.3	.8	.4
1947.	47.1	47.1	.0	.0
1948.	47.2	47.5	.6	.3
1949.	48.5	48.9	.8	.4
1950.	48.8	48.8	.0	.0
1951.	48.5	48.8	.6	.3
1952.	50.1	50.2	.2	.1
1953.	51.1	51.2	.2	.1
1954.	46.5	46.7	.4	.2
1955.	48.4	48.3	-.2	-.1
1956.	51.0	51.0	.0	.0
1957.	49.1	49.3	.4	.2
1958.	54.8	54.8	.0	.0
1959.	51.7	51.6	-.2	-.1
1960.	49.2	49.1	-.2	-.1
1961.	47.5	47.6	.2	.1
1962.	50.5	50.5	.0	.0
1963.	46.3	46.7	.9	.4
1964.	47.7	47.7	.0	.0
1965.	47.6	48.0	.8	.4
1966.	48.3	48.3	.0	.0
1967.	50.5	50.6	.2	.1
1968.	47.6	47.5	-.2	-.1
1969.	51.8	51.9	.2	.1
1970.	48.7	48.8	.2	.1
1971.	48.0	48.0	.0	.0
1972.	44.3	44.3	.0	.0
1973.	49.1	49.1	.0	.0
1974.	49.8	49.8	.0	.0
1975.	49.7	49.7	.0	.0
1976.	50.2	50.2	.0	.0
1977.	49.1	49.2	.2	.1
1978.	47.6	48.1	1.1	.5
1979.	50.7	50.8	.2	.1
1980.	51.4	51.9	1.0	.5
1981.	50.2	50.2	.0	.0
1982.	48.9	48.9	.0	.0
1983.	48.6	48.6	.0	.0
1984.	48.8	49.0	.4	.2
1985.	45.4	45.5	.2	.1
1986.	50.8	51.0	.4	.2
1987.	48.8	48.9	.2	.1
1988.	48.8	48.8	.0	.0
1989.	48.9	49.0	.2	.1
1990.	45.6	46.0	.9	.4
Mean:	49.0	49.1	.2	.1
Median:	48.8	49.0	.2	.1
Min:	44.3	44.3	-1.3	-.6
Max:	54.8	54.8	1.1	.5
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	52	55		
No. Years inc (avg):		43	(	.2)
No. Years dec (avg):		7	(	-.2)
No. Years no change		19		

RETURN TO TABLE OF CONTENTS

Section 10

LOWER AMERICAN RIVER SALMON SURVIVAL

Water Year	Cuml. Survival (%)	No Proj-constrained Survival (%)	Rel Change (%)	Abs Diff (%)
1922	92.7	93.2	.5	.5
1923	91.3	84.8	-7.1	-6.5
1924	84.0	84.9	1.1	.9
1925	89.1	88.6	-.6	-.5
1926	77.4	78.2	1.0	.8
1927	95.1	94.9	-.2	-.2
1928	89.4	88.3	-1.2	-1.1
1929	73.5	73.7	.3	.2
1930	85.2	82.9	-2.7	-2.3
1931	82.3	82.2	-.1	-.1
1932	83.9	84.4	.6	.5
1933	73.6	72.8	-1.1	-.8
1934	80.0	79.3	-.9	-.7
1935	88.3	88.2	-.1	-.1
1936	84.0	83.5	-.6	-.5
1937	87.2	87.8	.7	.6
1938	88.9	88.9	.0	.0
1939	74.5	73.2	-1.7	-1.3
1940	93.1	93.0	-.1	-.1
1941	90.0	90.8	.9	.8
1942	91.5	90.6	-1.0	-.9
1943	92.3	93.1	.9	.8
1944	83.9	83.9	.0	.0
1945	93.1	92.9	-.2	-.2
1946	93.8	91.5	-2.5	-2.3
1947	90.3	91.1	.9	.8
1948	88.0	88.7	.8	.7
1949	90.1	87.6	-2.8	-2.5
1950	91.3	90.7	-.7	-.6
1951	92.9	92.9	.0	.0
1952	89.9	89.3	-.7	-.6
1953	86.9	86.7	-.2	-.2
1954	93.2	93.0	-.2	-.2
1955	91.3	92.2	1.0	.9
1956	81.5	81.3	-.2	-.2
1957	91.2	90.7	-.5	-.5
1958	80.1	80.0	-.1	-.1
1959	66.3	67.2	1.4	.9
1960	81.6	89.6	9.8	8.0
1961	77.8	77.5	-.4	-.3
1962	92.2	91.1	-1.2	-1.1
1963	90.7	91.4	.8	.7
1964	85.4	84.3	-1.3	-1.1
1965	88.4	89.5	1.2	1.1
1966	78.3	86.2	10.1	7.9
1967	81.1	80.3	-1.0	-.8
1968	83.9	92.7	10.5	8.8
1969	87.8	87.6	-.2	-.2
1970	92.6	92.6	.0	.0
1971	89.0	90.1	1.2	1.1
1972	93.9	93.8	-.1	-.1
1973	94.0	93.9	-.1	-.1
1974	87.0	87.5	.6	.5
1975	91.5	91.3	-.2	-.2
1976	71.2	71.1	-.1	-.1
1977	80.5	80.3	-.2	-.2
1978	92.7	86.1	-7.1	-6.6
1979	91.9	92.5	.7	.6
1980	91.5	87.1	-4.8	-4.4
1981	79.9	79.4	-.6	-.5
1982	90.4	90.6	.2	.2
1983	90.1	89.4	-.8	-.7
1984	92.4	91.7	-.8	-.7
1985	86.7	92.9	7.2	6.2
1986	89.9	88.6	-1.4	-1.3
1987	74.5	74.0	-.7	-.5
1988	77.3	77.2	-.1	-.1
1989	91.6	91.5	-.1	-.1
1990	76.4	75.7	-.9	-.7
Mean	86.4	86.4	.1	.0
Median	88.4	88.3	-.2	-.2
Min	66.3	67.2	-7.1	-6.6
Max	95.1	94.9	10.5	8.8
Abs Diff < -1.0 &Rel Diff < signif				6
Abs Diff > 1.0 &Rel Diff > signif				8
No measurable Change				55
Check				69

RETURN TO TABLE OF CONTENTS

Section 11

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

October

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2125.9	2142.2	.8	16.3
	1923	2144.0	2160.1	.8	16.1
	1924	2163.0	2169.7	.3	6.7
	1925	843.4	536.5	-36.4	-306.9
	1926	2159.7	2175.8	.7	16.1
	1927	1495.4	1474.2	-1.4	-21.2
	1928	2137.5	2150.3	.6	12.8
	1929	1403.6	1630.8	16.2	227.2
	1930	1227.9	1206.8	-1.7	-21.1
	1931	1453.1	1682.0	15.8	228.9
	1932	993.8	975.9	-1.8	-17.9
	1933	2151.6	2166.1	.7	14.5
	1934	1495.4	1475.9	-1.3	-19.5
	1935	375.0	469.4	25.2	94.4
	1936	2174.8	2181.5	.3	6.7
	1937	2156.5	2169.3	.6	12.8
	1938	2158.9	2162.4	.2	3.5
	1939	2127.7	2135.7	.4	8.0
	1940	1227.5	1454.7	18.5	227.2
	1941	1678.0	1903.6	13.4	225.6
	1942	2153.7	2163.3	.4	9.6
	1943	2131.0	2140.6	.5	9.6
	1944	1874.5	2132.4	13.8	257.9
	1945	1727.9	1951.9	13.0	224.0
	1946	1704.0	1928.0	13.1	224.0
	1947	1411.7	1882.4	33.3	470.7
	1948	1487.6	1460.0	-1.9	-27.6
	1949	2131.0	2142.2	.5	11.2
	1950	1698.6	2163.2	27.4	464.6
	1951	2176.5	2184.5	.4	8.0
	1952	1704.0	1678.0	-1.5	-26.0
	1953	2127.7	2132.4	.2	4.7
	1954	2134.2	2139.0	.2	4.8
	1955	1415.0	1635.7	15.6	220.7
	1956	1477.9	1701.9	15.2	224.0
	1957	2152.1	2155.2	.1	3.1
	1958	1921.6	2181.2	13.5	259.6
	1959	2129.3	2134.1	.2	4.8
	1960	1420.9	1393.3	-1.9	-27.6
	1961	1698.6	1672.6	-1.5	-26.0
	1962	1453.5	1429.1	-1.7	-24.4
	1963	2160.3	2759.4	27.7	599.1
	1964	2145.6	2153.6	.4	8.0
	1965	1742.5	1968.1	12.9	225.6
	1966	2119.6	2127.6	.4	8.0
	1967	1421.5	1397.1	-1.7	-24.4
	1968	2124.5	2127.6	.1	3.1
	1969	1436.1	1411.7	-1.7	-24.4
	1970	2144.0	2150.3	.3	6.3
	1971	1691.0	1661.7	-1.7	-29.3
	1972	2131.0	2135.7	.2	4.7
	1973	1457.3	1429.6	-1.9	-27.7
	1974	1455.6	1676.4	15.2	220.8
	1975	2152.1	2158.5	.3	6.4
	1976	2171.6	2174.7	.1	3.1
	1977	375.0	375.0	.0	.0
	1978	375.0	375.0	.0	.0
	1979	2127.7	2140.6	.6	12.9
	1980	1462.1	1437.7	-1.7	-24.4
	1981	2121.2	2130.8	.5	9.6
	1982	1508.8	1486.0	-1.5	-22.8
	1983	2877.6	3104.9	7.9	227.3
	1984	2157.8	2790.7	29.3	632.9
	1985	1913.5	2169.9	13.4	256.4
	1986	1236.0	1461.6	18.3	225.6
	1987	1882.6	2139.0	13.6	256.4
	1988	1662.2	1613.3	-2.9	-48.9
	1989	728.3	705.5	-3.1	-22.8
	1990	1482.8	1460.0	-1.5	-22.8
	1991	736.0	964.9	31.1	228.9
	Mean	1726.0	1807.3	4.9	81.2
	Median	1735.2	2047.9	.4	8.0
	Min	375.0	375.0	-36.4	-306.9
	Max	2877.6	3104.9	33.3	632.9
X <	1500.0	26	21		
X <	1750.0	36	30		
X <	1765.0	36	30		
X <	2000.0	40	35		
X <	3000.0	70	69		
X >=	2500.0	1	3		
2500.0 > X >=	2000.0	29	32		
2000.0 > X >=	1750.0	4	5		
1750.0 > X >=	800.0	31	25		
800.0 > X		5	5		
X <	3450.0	70	70		
Mean of X >=	3450.0	.0	.0	.0	.0

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

November

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2189.1	2200.9	.5	11.8
	1923	2244.7	2254.6	.4	9.9
	1924	2204.2	2204.8	.0	.6
	1925	812.7	522.3	-35.7	-290.4
	1926	2216.0	2227.6	.5	11.6
	1927	1577.9	1587.9	.6	10.0
	1928	2204.3	2212.6	.4	8.3
	1929	1457.7	1714.3	17.6	256.6
	1930	1225.1	1235.1	.8	10.0
	1931	1475.4	1735.4	17.6	260.0
	1932	1021.5	1033.1	1.1	11.6
	1933	2197.5	2207.5	.5	10.0
	1934	1474.4	1484.4	.7	10.0
	1935	375.0	570.1	52.0	195.1
	1936	2209.9	2212.2	.1	2.3
	1937	2197.5	2204.1	.3	6.6
	1938	2259.3	2259.9	.0	.6
	1939	2167.4	2172.3	.2	4.9
	1940	1208.6	1466.9	21.4	258.3
	1941	1706.0	1964.3	15.1	258.3
	1942	2206.0	2212.6	.3	6.6
	1943	3110.5	3388.7	8.9	278.2
	1944	1932.5	2185.7	13.1	253.2
	1945	1776.5	2031.4	14.3	254.9
	1946	1707.7	1960.9	14.8	253.2
	1947	1462.7	1964.3	34.3	501.6
	1948	1477.8	1481.0	.2	3.2
	1949	2179.1	2182.4	.2	3.3
	1950	1722.7	2216.5	28.7	493.8
	1951	16431.5	16701.6	1.6	270.1
	1952	1721.1	1726.1	.3	5.0
	1953	2211.0	2210.9	.0	-.1
	1954	2206.0	2205.9	.0	-.1
	1955	1474.5	1726.1	17.1	251.6
	1956	1501.3	1756.2	17.0	254.9
	1957	2170.7	2170.6	.0	-.1
	1958	1940.9	2194.1	13.0	253.2
	1959	2175.8	2175.7	.0	-.1
	1960	1423.3	1428.2	.3	4.9
	1961	1778.2	1781.4	.2	3.2
	1962	1503.0	1507.9	.3	4.9
	1963	2707.0	2779.3	2.7	72.3
	1964	2535.5	3657.6	44.3	1122.1
	1965	1776.5	2031.4	14.3	254.9
	1966	2229.5	2231.1	.1	1.6
	1967	1545.1	1550.0	.3	4.9
	1968	2190.9	2190.8	.0	-.1
	1969	1494.7	1499.6	.3	4.9
	1970	2192.6	2195.8	.1	3.2
	1971	1803.5	1805.1	.1	1.6
	1972	2189.2	2190.8	.1	1.6
	1973	1521.5	1523.1	.1	1.6
	1974	3718.8	4169.2	12.1	450.4
	1975	2206.0	2209.3	.1	3.3
	1976	2378.6	2646.8	11.3	268.2
	1977	375.0	375.0	.0	.0
	1978	375.0	375.0	.0	.0
	1979	2232.9	2239.5	.3	6.6
	1980	1462.7	1469.3	.5	6.6
	1981	2167.4	2174.0	.3	6.6
	1982	4143.5	4346.5	4.9	203.0
	1983	6505.4	6626.1	1.9	120.7
	1984	14162.0	14188.6	.2	26.6
	1985	2041.7	2293.3	12.3	251.6
	1986	1331.9	1586.9	19.1	255.0
	1987	1932.5	2184.1	13.0	251.6
	1988	1304.7	1290.0	-1.1	-14.7
	1989	771.1	779.4	1.1	8.3
	1990	1482.8	1491.1	.6	8.3
	1991	746.9	1006.9	34.8	260.0
	Mean	2286.6	2396.9	6.2	110.3
	Median	1932.5	2173.1	.5	9.1
	Min	375.0	375.0	-35.7	-290.4
	Max	16431.5	16701.6	52.0	1122.1
X <	1500.0	21	16		
X <	1750.0	30	25		
X <	2000.0	37	31		
X <	3000.0	64	63		
X <	.0	0	0		
X >=	2500.0	8	9		
2500.0 > X >=	2000.0	25	30		
2000.0 > X >=	1750.0	7	6		
1750.0 > X >=	1200.0	23	18		
1200.0 > X		7	7		
X <	3450.0	65	64		
Mean of X >=	3450.0	8992.2	8281.6	-7.9	-710.6

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

December

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2296.7	2303.2	.3	6.5
	1923	5884.5	6238.1	6.0	353.6
	1924	2232.9	2231.5	-.1	-1.4
	1925	892.2	608.1	-31.8	-284.1
	1926	2254.0	2260.4	.3	6.4
	1927	1508.5	1514.9	.4	6.4
	1928	2220.4	2225.1	.2	4.7
	1929	1480.1	1733.3	17.1	253.2
	1930	1333.7	1340.1	.5	6.4
	1931	1476.0	1732.4	17.4	256.4
	1932	1153.2	1162.9	.8	9.7
	1933	2260.5	2266.9	.3	6.4
	1934	1601.2	1609.3	.5	8.1
	1935	500.0	557.2	11.4	57.2
	1936	2246.3	2245.0	-.1	-1.3
	1937	2280.0	2283.2	.1	3.2
	1938	5579.9	5935.1	6.4	355.2
	1939	2204.1	2205.6	.1	1.5
	1940	1250.3	1505.1	20.4	254.8
	1941	1850.5	2103.6	13.7	253.1
	1942	4307.1	4694.8	9.0	387.7
	1943	4403.9	4506.1	2.3	102.2
	1944	1976.9	2226.8	12.6	249.9
	1945	1770.3	2023.4	14.3	253.1
	1946	6871.6	7350.3	7.0	478.7
	1947	1483.4	1983.3	33.7	499.9
	1948	1491.0	1490.9	.0	-.1
	1949	2256.1	2257.7	.1	1.6
	1950	1757.3	2247.8	27.9	490.5
	1951	16051.5	16119.6	.4	68.1
	1952	3004.8	3709.6	23.5	704.8
	1953	2317.9	2316.2	-.1	-1.7
	1954	2205.7	2202.4	-.1	-3.3
	1955	1527.3	1773.9	16.1	246.6
	1956	14666.3	14571.5	-.6	-94.8
	1957	2199.2	2197.5	-.1	-1.7
	1958	2007.8	2259.3	12.5	251.5
	1959	2212.2	2208.9	-.1	-3.3
	1960	1702.5	1573.3	-7.6	-129.2
	1961	1744.2	1744.2	.0	.0
	1962	1521.9	1523.4	.1	1.5
	1963	3153.0	3159.5	.2	6.5
	1964	2196.0	2822.5	28.5	626.5
	1965	20104.0	20222.3	.6	118.3
	1966	2241.5	2241.4	.0	-.1
	1967	1517.5	1519.1	.1	1.6
	1968	2210.6	2208.9	-.1	-1.7
	1969	1514.3	1515.8	.1	1.5
	1970	4662.9	5024.6	7.8	361.7
	1971	4138.9	4498.7	8.7	359.8
	1972	2272.4	2270.7	-.1	-1.7
	1973	1499.6	1499.5	.0	-.1
	1974	7183.3	7275.8	1.3	92.5
	1975	2261.0	2260.9	.0	-.1
	1976	2207.3	2205.6	-.1	-1.7
	1977	500.0	500.0	.0	.0
	1978	500.0	500.0	.0	.0
	1979	2212.2	2215.4	.1	3.2
	1980	1525.7	1528.8	.2	3.1
	1981	2233.4	2234.9	.1	1.5
	1982	14026.4	14060.0	.2	33.6
	1983	8788.5	8889.1	1.1	100.6
	1984	14944.0	15114.4	1.1	170.4
	1985	1981.7	2231.7	12.6	250.0
	1986	1302.8	1554.3	19.3	251.5
	1987	1970.4	2220.3	12.7	249.9
	1988	1078.4	1080.0	.1	1.6
	1989	806.5	811.3	.6	4.8
	1990	1479.6	1484.4	.3	4.8
	1991	783.3	1038.1	32.5	254.8
	Mean	3304.0	3417.6	4.9	113.6
	Median	2201.6	2217.9	.3	6.4
	Min	500.0	500.0	-31.8	-284.1
	Max	20104.0	20222.3	33.7	704.8
X <	1500.0	17	12		
X <	1750.0	26	24		
X <	2000.0	32	26		
X <	3000.0	54	54		
X <	.0	0	0		
X >=	2500.0	16	17		
2500.0 > X >=	2000.0	22	27		
2000.0 > X >=	1750.0	6	2		
1750.0 > X >=	1200.0	18	16		
1200.0 > X		8	8		
X <	3450.0	56	55		
Mean of X >=	3450.0	9400.9	9214.0	-2.0	-186.9

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

January

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	1744.7	1752.8	.5	8.1
	1923	4172.9	4286.5	2.7	113.6
	1924	1773.5	1773.8	.0	.3
	1925	1582.1	1799.5	13.7	217.4
	1926	1780.0	1788.1	.5	8.1
	1927	2475.9	2897.5	17.0	421.6
	1928	1723.6	1978.4	14.8	254.8
	1929	1110.6	1315.4	18.4	204.8
	1930	1587.0	1593.4	.4	6.4
	1931	1292.6	1397.4	8.1	104.8
	1932	1541.0	1550.7	.6	9.7
	1933	1793.0	1799.4	.4	6.4
	1934	1536.1	1542.6	.4	6.5
	1935	1854.5	1860.9	.3	6.4
	1936	3752.9	3841.7	2.4	88.8
	1937	1796.3	1801.1	.3	4.8
	1938	2527.2	2633.2	4.2	106.0
	1939	1726.9	1978.4	14.6	251.5
	1940	1885.6	1728.1	-8.4	-157.5
	1941	4565.8	4727.8	3.5	162.0
	1942	8967.4	9100.5	1.5	133.1
	1943	10584.0	10683.0	.9	99.0
	1944	1546.4	1747.9	13.0	201.5
	1945	2007.2	2008.8	.1	1.6
	1946	4816.9	4927.3	2.3	110.4
	1947	1705.7	1707.3	.1	1.6
	1948	1497.5	1497.4	.0	-.1
	1949	1725.2	1726.8	.1	1.6
	1950	1415.8	1808.0	27.7	392.2
	1951	9764.8	9859.0	1.0	94.2
	1952	8749.5	8848.4	1.1	98.9
	1953	5988.1	6426.0	7.3	437.9
	1954	2009.4	2006.0	-.2	-3.4
	1955	1765.9	1764.2	-.1	-1.7
	1956	16161.8	16150.1	-.1	-11.7
	1957	1996.4	1994.7	-.1	-1.7
	1958	1796.8	1798.3	.1	1.5
	1959	1800.0	1798.3	-.1	-1.7
	1960	1361.6	1258.2	-7.6	-103.4
	1961	1380.0	1379.9	.0	-.1
	1962	1158.9	1162.0	.3	3.1
	1963	3611.6	3683.2	2.0	71.6
	1964	2267.5	2269.1	.1	1.6
	1965	12976.8	12952.2	-.2	-24.6
	1966	1981.7	2231.7	12.6	250.0
	1967	5893.7	6404.4	8.7	510.7
	1968	2272.4	2270.7	-.1	-1.7
	1969	14076.0	14486.3	2.9	410.3
	1970	20631.6	20735.4	.5	103.8
	1971	4415.0	4463.8	1.1	48.8
	1972	2218.7	2217.0	-.1	-1.7
	1973	8127.2	8507.4	4.7	380.2
	1974	11037.8	11114.0	.7	76.2
	1975	1970.4	1970.3	.0	-.1
	1976	2210.6	2208.9	-.1	-1.7
	1977	367.4	367.7	.1	.3
	1978	2108.9	2529.6	19.9	420.7
	1979	1793.5	1796.7	.2	3.2
	1980	15042.0	15478.2	2.9	436.2
	1981	1785.4	1788.6	.2	3.2
	1982	7990.6	8032.6	.5	42.0
	1983	7298.8	7399.4	1.4	100.6
	1984	6225.6	6288.8	1.0	63.2
	1985	2228.5	2228.4	.0	-.1
	1986	2174.9	1830.2	-15.8	-344.7
	1987	1552.9	1752.8	12.9	199.9
	1988	815.4	816.9	.2	1.5
	1989	1775.6	1780.4	.3	4.8
	1990	1557.7	1562.5	.3	4.8
	1991	575.2	781.6	35.9	206.4
	Mean	3962.9	4052.1	3.3	89.2
	Median	1976.1	1978.4	.5	8.1
	Min	367.4	367.7	-15.8	-344.7
	Max	20631.6	20735.4	35.9	510.7
X <	1500.0	10	9		
X <	1750.0	22	17		
X <	2000.0	37	37		
X <	3000.0	48	48		
X <	.0	0	0		
X >=	2500.0	23	25		
2500.0 > X >=	2000.0	10	8		
2000.0 > X >=	1750.0	15	20		
1750.0 > X >=	1200.0	17	13		
1200.0 > X		5	4		
X <	3450.0	48	48		
Mean of X >=	3450.0	8856.9	9018.0	1.8	161.1

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

February

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2283.6	2907.2	27.3	623.6
	1923	2667.6	2793.3	4.7	125.7
	1924	1392.0	1539.6	10.6	147.6
	1925	3778.9	4348.6	15.1	569.7
	1926	1603.2	1610.4	.4	7.2
	1927	13218.3	13261.7	.3	43.4
	1928	1726.4	1729.9	.2	3.5
	1929	835.6	997.3	19.4	161.7
	1930	1776.2	1781.5	.3	5.3
	1931	1015.5	1050.9	3.5	35.4
	1932	1800.1	2033.5	13.0	233.4
	1933	1488.0	1493.3	.4	5.3
	1934	1561.0	1816.3	16.4	255.3
	1935	1780.3	1787.5	.4	7.2
	1936	13179.4	13272.3	.7	92.9
	1937	1601.4	1628.2	1.7	26.8
	1938	9536.5	9633.1	1.0	96.6
	1939	1706.6	1708.3	.1	1.7
	1940	10362.6	10434.8	.7	72.2
	1941	7673.2	7804.4	1.7	131.2
	1942	9616.2	9745.6	1.3	129.4
	1943	6506.7	6616.3	1.7	109.6
	1944	1274.4	1432.5	12.4	158.1
	1945	5847.9	6005.5	2.7	157.6
	1946	2341.7	2433.4	3.9	91.7
	1947	1735.4	1483.5	-14.5	-251.9
	1948	1504.2	1754.1	16.6	249.9
	1949	1322.8	1722.7	30.2	399.9
	1950	3312.3	2778.2	-16.1	-534.1
	1951	7789.1	7893.3	1.3	104.2
	1952	9147.9	9255.7	1.2	107.8
	1953	1835.7	1954.3	6.5	118.6
	1954	1766.0	1760.5	-.3	-5.5
	1955	1724.6	1722.7	-.1	-1.9
	1956	5919.6	5966.0	.8	46.4
	1957	1778.6	1774.9	-.2	-3.7
	1958	6652.9	7225.9	8.6	573.0
	1959	1789.4	1785.7	-.2	-3.7
	1960	1037.9	953.3	-8.2	-84.6
	1961	1041.4	1039.5	-.2	-1.9
	1962	1007.4	1137.4	12.9	130.0
	1963	11703.0	11746.2	.4	43.2
	1964	1697.6	1697.5	.0	-.1
	1965	5158.5	5208.5	1.0	50.0
	1966	1731.8	1729.9	-.1	-1.9
	1967	4044.9	4124.1	2.0	79.2
	1968	4656.5	5304.4	13.9	647.9
	1969	9000.3	9072.3	.8	72.0
	1970	5954.5	6040.7	1.4	86.2
	1971	3004.0	3077.8	2.5	73.8
	1972	1728.2	1784.4	3.3	56.2
	1973	6893.4	6942.1	.7	48.7
	1974	3788.7	3988.2	5.3	199.5
	1975	1832.6	1830.7	-.1	-1.9
	1976	1715.6	1711.9	-.2	-3.7
	1977	250.0	250.5	.2	.5
	1978	4497.9	4670.9	3.8	173.0
	1979	1516.0	1765.9	16.5	249.9
	1980	13402.7	13812.6	3.1	409.9
	1981	1312.0	1713.7	30.6	401.7
	1982	15095.5	15156.4	.4	60.9
	1983	12090.3	12180.1	.7	89.8
	1984	5286.0	5373.9	1.7	87.9
	1985	1744.4	1744.3	.0	-.1
	1986	33044.3	33042.2	.0	-2.1
	1987	1207.8	1367.7	13.2	159.9
	1988	1504.7	1504.7	.0	.0
	1989	1525.6	1529.2	.2	3.6
	1990	1199.2	1552.7	29.5	353.5
	1991	455.8	619.3	35.9	163.5
	Mean	4471.1	4580.2	4.9	109.1
	Median	1794.8	1823.5	1.3	76.5
	Min	250.0	250.5	-16.1	-534.1
	Max	33044.3	33042.2	35.9	647.9
X < 1500.0		14	11		
X < 1750.0		30	26		
X < 2000.0		38	37		
X < 3000.0		41	42		
X < .0		0	0		
X >= 2500.0		30	31		
2500.0 > X >= 2000.0		2	2		
2000.0 > X >= 1750.0		8	11		
1750.0 > X >= 1200.0		22	19		
1200.0 > X		8	7		
X < 3450.0		43	43		
Mean of X >= 3450.0		9031.3	9189.8	1.8	158.5

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

March

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4230.1	4239.8	.2	9.7
	1923	2478.0	2478.3	.0	.3
	1924	1108.8	1188.1	7.2	79.3
	1925	2926.4	3346.4	14.4	420.0
	1926	1730.8	1740.5	.6	9.7
	1927	4109.7	4284.9	4.3	175.2
	1928	9482.3	10341.4	9.1	859.1
	1929	1286.6	1293.0	.5	6.4
	1930	1779.6	1786.0	.4	6.4
	1931	776.4	808.4	4.1	32.0
	1932	2471.5	2481.1	.4	9.6
	1933	1544.3	1552.3	.5	8.0
	1934	1152.0	1360.0	18.1	208.0
	1935	3022.3	3022.6	.0	.3
	1936	3817.4	3921.3	2.7	103.9
	1937	3632.9	4185.1	15.2	552.2
	1938	10434.5	10553.0	1.1	118.5
	1939	1378.0	1381.2	.2	3.2
	1940	10397.1	10665.2	2.6	268.1
	1941	4428.0	4548.1	2.7	120.1
	1942	4246.4	4251.2	.1	4.8
	1943	12059.6	12155.3	.8	95.7
	1944	1750.7	1753.9	.2	3.2
	1945	2496.4	2499.5	.1	3.1
	1946	2481.7	2493.1	.5	11.4
	1947	1789.8	1791.3	.1	1.5
	1948	2498.0	2499.5	.1	1.5
	1949	2323.9	2319.4	-.2	-4.5
	1950	2728.5	2980.0	9.2	251.5
	1951	3358.4	3476.8	3.5	118.4
	1952	5779.5	5894.7	2.0	115.2
	1953	2730.1	2731.7	.1	1.6
	1954	3429.7	4041.7	17.8	612.0
	1955	1734.5	1734.4	.0	-.1
	1956	3200.8	3204.0	.1	3.2
	1957	3037.1	3720.2	22.5	683.1
	1958	6309.9	6420.3	1.7	110.4
	1959	1463.3	1463.2	.0	-.1
	1960	2005.6	2007.2	.1	1.6
	1961	789.4	792.5	.4	3.1
	1962	2218.7	2223.5	.2	4.8
	1963	3254.5	3256.0	.0	1.5
	1964	1747.5	1750.7	.2	3.2
	1965	2720.4	2725.1	.2	4.7
	1966	1444.3	1697.5	17.5	253.2
	1967	5503.6	5698.4	3.5	194.8
	1968	3667.5	1839.1	-49.9	-1828.4
	1969	4215.5	4215.4	.0	-.1
	1970	1992.2	2225.1	11.7	232.9
	1971	3672.0	3783.9	3.0	111.9
	1972	3238.8	3837.4	18.5	598.6
	1973	2971.2	3081.5	3.7	110.3
	1974	9305.6	9412.7	1.2	107.1
	1975	3360.4	4017.6	19.6	657.2
	1976	1352.4	1352.3	.0	-.1
	1977	250.0	250.0	.0	.0
	1978	5327.4	5613.7	5.4	286.3
	1979	2231.7	2486.5	11.4	254.8
	1980	2964.0	3161.6	6.7	197.6
	1981	1294.7	1399.4	8.1	104.7
	1982	7315.9	7429.4	1.6	113.5
	1983	15966.0	16043.8	.5	77.8
	1984	2248.6	2484.9	10.5	236.3
	1985	1794.7	1797.8	.2	3.1
	1986	10796.2	10950.3	1.4	154.1
	1987	969.0	1098.6	13.4	129.6
	1988	1159.3	1162.5	.3	3.2
	1989	5422.9	6094.1	12.4	671.2
	1990	1271.9	1278.3	.5	6.4
	1991	1646.3	1651.1	.3	4.8
	Mean	3567.5	3677.5	3.5	110.0
	Median	2724.4	2612.3	.7	54.9
	Min	250.0	250.0	-49.9	-1828.4
	Max	15966.0	16043.8	22.5	859.1
X < 1500.0		14	13		
X < 1750.0		19	18		
X < 2000.0		24	24		
X < 3000.0		40	38		
X < .0		0	0		
X >= 4500.0		13	14		
4500.0 > X >= 3000.0		17	18		
3000.0 > X >= 2000.0		16	14		
2000.0 > X >= 1500.0		10	11		
1500.0 > X		14	13		
X < 3450.0		48	44		
Mean of X >= 3450.0		6823.6	6530.6	-4.3	-293.0

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

April

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	4157.3	4170.6	.3	13.3
	1923	3167.2	3395.1	7.2	227.9
	1924	188.0	188.0	.0	.0
	1925	3147.0	3449.1	9.6	302.1
	1926	1774.2	1787.5	.7	13.3
	1927	7498.8	7669.9	2.3	171.1
	1928	4301.5	4553.0	5.8	251.5
	1929	473.4	981.7	107.4	508.3
	1930	1703.6	1713.5	.6	9.9
	1931	209.3	221.0	5.6	11.7
	1932	2435.8	2449.1	.5	13.3
	1933	1457.6	1719.3	18.0	261.7
	1934	2444.0	2863.9	17.2	419.9
	1935	4697.0	4961.8	5.6	264.8
	1936	5382.2	5500.2	2.2	118.0
	1937	3907.8	4062.9	4.0	155.1
	1938	7419.5	7578.8	2.1	159.3
	1939	436.8	693.4	58.7	256.6
	1940	5720.6	5703.9	-.3	-16.7
	1941	3350.8	3515.1	4.9	164.3
	1942	4239.6	4246.2	.2	6.6
	1943	4734.3	4925.4	4.0	191.1
	1944	1719.4	1726.0	.4	6.6
	1945	2402.2	2408.8	.3	6.6
	1946	3319.5	3592.8	8.2	273.3
	1947	1689.1	1694.0	.3	4.9
	1948	2459.4	2462.6	.1	3.2
	1949	2179.0	2176.2	-.1	-2.8
	1950	4641.3	4661.9	.4	20.6
	1951	2572.9	2733.8	6.3	160.9
	1952	8493.2	8642.4	1.8	149.2
	1953	2952.7	3205.9	8.6	253.2
	1954	4095.0	4184.0	2.2	89.0
	1955	1727.8	1729.3	.1	1.5
	1956	3694.3	3700.9	.2	6.6
	1957	2435.9	2437.4	.1	1.5
	1958	9947.0	10113.0	1.7	166.0
	1959	1433.4	1436.6	.2	3.2
	1960	1952.6	1957.5	.3	4.9
	1961	250.0	250.0	.0	.0
	1962	2420.3	3062.6	26.5	642.3
	1963	4043.6	4351.7	7.6	308.1
	1964	1689.1	1695.7	.4	6.6
	1965	3119.3	3415.8	9.5	296.5
	1966	1409.0	1663.9	18.1	254.9
	1967	4216.1	4219.3	.1	3.2
	1968	1653.9	1657.2	.2	3.3
	1969	5233.4	5504.8	5.2	271.4
	1970	1907.3	1913.9	.3	6.6
	1971	2917.4	2922.3	.2	4.9
	1972	2179.1	2182.4	.2	3.3
	1973	2412.3	2415.6	.1	3.3
	1974	5783.5	5885.8	1.8	102.3
	1975	3679.1	3684.1	.1	5.0
	1976	212.6	215.9	1.6	3.3
	1977	188.0	188.0	.0	.0
	1978	3719.3	3820.6	2.7	101.3
	1979	2162.3	2418.9	11.9	256.6
	1980	2420.7	2427.3	.3	6.6
	1981	695.8	1202.4	72.8	506.6
	1982	13908.5	14076.1	1.2	167.6
	1983	6204.3	6395.5	3.1	191.2
	1984	2430.8	2437.4	.3	6.6
	1985	1702.6	1707.5	.3	4.9
	1986	2435.9	2440.8	.2	4.9
	1987	250.0	250.0	.0	.0
	1988	188.0	188.0	.0	.0
	1989	3769.1	4197.2	11.4	428.1
	1990	1783.3	1987.0	11.4	203.7
	1991	1452.9	1461.2	.6	8.3
	Mean	3100.0	3220.7	6.8	120.8
	Median	2435.9	2455.9	1.0	13.3
	Min	188.0	188.0	-.3	-16.7
	Max	13908.5	14076.1	107.4	642.3
X <	1500.0	14	12		
X <	1750.0	21	21		
X <	2000.0	25	25		
X <	3000.0	41	39		
X <	.0	0	0		
X >=	4500.0	13	14		
4500.0 > X >=	3000.0	16	17		
3000.0 > X >=	2000.0	16	14		
2000.0 > X >=	1500.0	11	13		
1500.0 > X		14	12		
X <	3450.0	46	44		
Mean of X >=	3450.0	5561.9	5535.3	-.5	-26.6

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

May

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	7956.2	8482.6	6.6	526.4
	1923	4324.4	4510.2	4.3	185.8
	1924	188.0	188.0	.0	.0
	1925	3732.4	4251.4	13.9	519.0
	1926	2170.6	2157.6	-.6	-13.0
	1927	4112.3	4349.3	5.8	237.0
	1928	2622.7	2604.8	-.7	-17.9
	1929	1438.9	1421.0	-1.2	-17.9
	1930	2167.3	2401.1	10.8	233.8
	1931	466.1	201.5	-56.8	-264.6
	1932	3367.5	3636.8	8.0	269.3
	1933	2201.5	2186.9	-.7	-14.6
	1934	201.5	188.5	-6.5	-13.0
	1935	4238.9	4303.7	1.5	64.8
	1936	3870.7	3883.6	.3	12.9
	1937	3936.5	4119.5	4.6	183.0
	1938	9266.2	9495.0	2.5	228.8
	1939	1440.1	1418.9	-1.5	-21.2
	1940	3080.6	3341.8	8.5	261.2
	1941	4823.0	5035.6	4.4	212.6
	1942	5313.8	5739.7	8.0	425.9
	1943	3341.9	3351.5	.3	9.6
	1944	2182.4	2159.6	-1.0	-22.8
	1945	3353.3	3364.6	.3	11.3
	1946	3356.6	3366.2	.3	9.6
	1947	2169.3	2144.9	-1.1	-24.4
	1948	3376.1	3384.1	.2	8.0
	1949	2422.6	2643.7	9.1	221.1
	1950	3593.6	3601.5	.2	7.9
	1951	3121.2	3168.6	1.5	47.4
	1952	10619.3	10823.8	1.9	204.5
	1953	3861.5	3867.8	.2	6.3
	1954	2639.0	2612.9	-1.0	-26.1
	1955	2179.1	2154.7	-1.1	-24.4
	1956	4118.0	4124.3	.2	6.3
	1957	3137.5	3393.8	8.2	256.3
	1958	9571.9	9787.8	2.3	215.9
	1959	1894.9	2120.5	11.9	225.6
	1960	2425.8	2403.1	-.9	-22.7
	1961	1174.2	1153.1	-1.8	-21.1
	1962	2846.1	2846.7	.0	.6
	1963	6561.6	6816.5	3.9	254.9
	1964	2174.2	2153.1	-1.0	-21.1
	1965	3598.5	3608.1	.3	9.6
	1966	2132.4	2109.7	-1.1	-22.7
	1967	7275.4	7609.4	4.6	334.0
	1968	2137.3	2111.3	-1.2	-26.0
	1969	8607.5	8792.5	2.1	185.0
	1970	2387.3	2364.6	-1.0	-22.7
	1971	3872.8	3880.8	.2	8.0
	1972	2389.0	2364.6	-1.0	-24.4
	1973	3525.2	3875.4	9.9	350.2
	1974	4338.4	4606.3	6.2	267.9
	1975	4103.3	4109.7	.2	6.4
	1976	188.0	188.0	.0	.0
	1977	188.0	188.0	.0	.0
	1978	3591.9	4019.1	11.9	427.2
	1979	3095.2	3306.1	6.8	210.9
	1980	3595.2	3604.8	.3	9.6
	1981	1422.6	1651.5	16.1	228.9
	1982	8742.5	8930.7	2.2	188.2
	1983	9970.4	10124.4	1.5	154.0
	1984	3119.6	3129.2	.3	9.6
	1985	2184.0	2161.2	-1.0	-22.8
	1986	3364.7	3372.7	.2	8.0
	1987	438.5	250.0	-43.0	-188.5
	1988	213.7	194.2	-9.1	-19.5
	1989	2699.5	2746.2	1.7	46.7
	1990	1244.2	1226.3	-1.4	-17.9
	1991	2184.8	1916.9	-12.3	-267.9
	Mean	3452.1	3540.0	.5	87.9
	Median	3120.4	3324.0	.3	9.6
	Min	188.0	188.0	-56.8	-267.9
	Max	10619.3	10823.8	16.1	526.4
X <	1500.0	12	11		
X <	1750.0	12	12		
X <	2000.0	13	13		
X <	3000.0	32	32		
X <	.0	0	0		
X >=	4500.0	11	13		
4500.0 > X >=	3000.0	27	25		
3000.0 > X >=	2000.0	19	19		
2000.0 > X >=	1500.0	1	2		
1500.0 > X		12	11		
X <	3450.0	43	42		
Mean of X >=	3450.0	5597.1	5713.9	2.1	116.8

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

June

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	8226.8	8547.2	3.9	320.4
	1923	3724.9	3371.5	-9.5	-353.4
	1924	188.0	188.0	.0	.0
	1925	5107.3	5527.9	8.2	420.6
	1926	1852.5	2034.1	9.8	181.6
	1927	4665.7	4917.2	5.4	251.5
	1928	3671.3	3759.3	2.4	88.0
	1929	1822.9	1828.4	.3	5.5
	1930	1622.8	1866.1	15.0	243.3
	1931	479.0	446.3	-6.8	-32.7
	1932	4473.9	4583.0	2.4	109.1
	1933	1895.5	1900.1	.2	4.6
	1934	1338.1	1163.3	-13.1	-174.8
	1935	3305.4	3732.3	12.9	426.9
	1936	3545.9	4006.9	13.0	461.0
	1937	3062.8	3073.4	.3	10.6
	1938	7894.1	8154.0	3.3	259.9
	1939	250.0	369.4	47.8	119.4
	1940	2814.7	2803.0	-.4	-11.7
	1941	3048.1	3313.1	8.7	265.0
	1942	6643.7	6984.3	5.1	340.6
	1943	3059.9	3073.1	.4	13.2
	1944	1376.8	1611.7	17.1	234.9
	1945	4329.1	4453.3	2.9	124.2
	1946	4930.3	5031.4	2.1	101.1
	1947	1138.6	1125.1	-1.2	-13.5
	1948	2831.5	2814.7	-.6	-16.8
	1949	2111.7	3290.0	55.8	1178.3
	1950	3293.1	3379.8	2.6	86.7
	1951	2836.6	2821.5	-.5	-15.1
	1952	9803.2	10074.8	2.8	271.6
	1953	3321.6	3331.5	.3	9.9
	1954	3157.3	3321.8	5.2	164.5
	1955	1631.9	1616.7	-.9	-15.2
	1956	4112.7	4855.7	18.1	743.0
	1957	3794.1	3990.1	5.2	196.0
	1958	7065.6	7315.4	3.5	249.8
	1959	855.9	1090.8	27.4	234.9
	1960	1876.8	1863.4	-.7	-13.4
	1961	250.0	250.0	.0	.0
	1962	2654.5	2644.7	-.4	-9.8
	1963	3048.1	3058.0	.3	9.9
	1964	1885.2	1873.5	-.6	-11.7
	1965	3304.8	3318.1	.4	13.3
	1966	1091.6	1078.2	-1.2	-13.4
	1967	9784.7	10041.2	2.6	256.5
	1968	1098.3	1581.5	44.0	483.2
	1969	5946.3	6216.3	4.5	270.0
	1970	2653.2	2663.3	.4	10.1
	1971	3311.6	3452.3	4.2	140.7
	1972	4008.5	4009.3	.0	.8
	1973	6048.5	6058.4	.2	9.9
	1974	3578.4	3845.0	7.5	266.6
	1975	4469.9	5118.9	14.5	649.0
	1976	1708.8	1495.7	-12.5	-213.1
	1977	188.0	188.0	.0	.0
	1978	3299.8	4068.5	23.3	768.7
	1979	6040.1	6056.7	.3	16.6
	1980	3048.1	3059.7	.4	11.6
	1981	378.5	866.7	129.0	488.2
	1982	5561.5	5851.6	5.2	290.1
	1983	13844.9	14131.7	2.1	286.8
	1984	3514.1	3550.1	1.0	36.0
	1985	2166.9	2465.2	13.8	298.3
	1986	2845.2	3088.3	8.5	243.1
	1987	250.0	250.0	.0	.0
	1988	975.9	899.7	-7.8	-76.2
	1989	3386.6	3969.6	17.2	583.0
	1990	1436.8	1410.9	-1.8	-25.9
	1991	2510.1	2525.0	.6	14.9
	Mean	3363.6	3524.5	7.2	161.0
	Median	3054.0	3189.1	2.3	94.6
	Min	188.0	188.0	-13.1	-353.4
	Max	13844.9	14131.7	129.0	1178.3
X <	1500.0	15	14		
X <	1750.0	18	17		
X <	2000.0	23	22		
X <	3000.0	32	30		
X <	.0	0	0		
X >=	4500.0	14	17		
4500.0 > X >=	3000.0	24	23		
3000.0 > X >=	2000.0	9	8		
2000.0 > X >=	500.0	16	16		
500.0 > X		7	6		
X <	3450.0	45	42		
Mean of X >=	3450.0	5791.4	5796.5	.1	5.1

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

July

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2988.9	3121.2	4.4	132.3
	1923	2532.4	2780.4	9.8	248.0
	1924	188.0	188.0	.0	.0
	1925	2210.5	3017.8	36.5	807.3
	1926	2175.4	2300.9	5.8	125.5
	1927	6007.9	6033.7	.4	25.8
	1928	1075.5	1529.9	42.3	454.4
	1929	1119.2	1256.5	12.3	137.3
	1930	2282.5	2321.2	1.7	38.7
	1931	2236.4	2069.9	-7.4	-166.5
	1932	2698.8	2863.3	6.1	164.5
	1933	1663.5	1646.5	-1.0	-17.0
	1934	1126.3	1129.8	.3	3.5
	1935	2549.4	3035.2	19.1	485.8
	1936	3624.5	3768.4	4.0	143.9
	1937	2051.1	1723.1	-16.0	-328.0
	1938	2815.4	3114.0	10.6	298.6
	1939	1377.1	1448.9	5.2	71.8
	1940	5007.6	5493.0	9.7	485.4
	1941	1778.6	1799.5	1.2	20.9
	1942	2789.4	3099.4	11.1	310.0
	1943	5525.0	5965.8	8.0	440.8
	1944	1237.9	1370.7	10.7	132.8
	1945	3853.8	4405.3	14.3	551.5
	1946	3607.4	3896.8	8.0	289.4
	1947	1154.4	1540.6	33.5	386.2
	1948	2049.0	2695.6	31.6	646.6
	1949	2287.4	2437.8	6.6	150.4
	1950	3032.9	3428.6	13.0	395.7
	1951	4767.6	5313.5	11.5	545.9
	1952	3931.1	4237.8	7.8	306.7
	1953	1877.7	2615.2	39.3	737.5
	1954	1625.7	1625.7	.0	.0
	1955	1125.4	1091.3	-3.0	-34.1
	1956	2470.6	2779.0	12.5	308.4
	1957	4207.9	4538.9	7.9	331.0
	1958	2472.2	2761.1	11.7	288.9
	1959	250.0	250.0	.0	.0
	1960	1120.6	1219.0	8.8	98.4
	1961	250.0	250.0	.0	.0
	1962	4052.5	4383.1	8.2	330.6
	1963	5304.0	5429.8	2.4	125.8
	1964	1762.6	1879.0	6.6	116.4
	1965	6020.9	6040.2	.3	19.3
	1966	250.0	554.4	121.8	304.4
	1967	3609.1	3914.2	8.5	305.1
	1968	336.9	1052.8	212.5	715.9
	1969	2251.1	2557.8	13.6	306.7
	1970	1434.8	1674.5	16.7	239.7
	1971	1791.5	2578.9	44.0	787.4
	1972	1088.5	1054.4	-3.1	-34.1
	1973	2311.6	2699.6	16.8	388.0
	1974	2756.9	3058.7	10.9	301.8
	1975	2220.2	2520.4	13.5	300.2
	1976	1082.0	1002.4	-7.4	-79.6
	1977	188.0	188.0	.0	.0
	1978	5190.4	5151.1	-.8	-39.3
	1979	1077.2	2270.6	110.8	1193.4
	1980	3610.8	3747.5	3.8	136.7
	1981	250.0	250.0	.0	.0
	1982	2669.0	2977.4	11.6	308.4
	1983	5594.8	5901.6	5.5	306.8
	1984	4203.8	4455.1	6.0	251.3
	1985	1603.2	1748.8	9.1	145.6
	1986	4712.7	5559.2	18.0	846.5
	1987	853.6	858.5	.6	4.9
	1988	565.3	555.4	-1.8	-9.9
	1989	2636.3	2927.8	11.1	291.5
	1990	856.0	926.2	8.2	70.2
	1991	2096.9	1858.3	-11.4	-238.6
	Mean	2421.8	2656.3	14.5	234.5
	Median	2228.3	2568.4	8.0	202.1
	Min	188.0	188.0	-16.0	-328.0
	Max	6020.9	6040.2	212.5	1193.4
X <	1500.0	22	18		
X <	1750.0	25	25		
X <	2000.0	29	28		
X <	3000.0	51	45		
X <	.0	0	0		
X >=	2500.0	28	37		
2500.0 > X >=	1500.0	20	15		
1500.0 > X >=	500.0	15	13		
500.0 > X >=	.0	7	5		
.0 > X		0	0		
X <	3450.0	52	52		
Mean of X >=	3450.0	4601.8	4901.9	6.5	300.2

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

August

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	2348.3	2773.5	18.1	425.2
	1923	4139.5	3747.4	-9.5	-392.1
	1924	188.0	188.0	.0	.0
	1925	1357.5	2146.9	58.2	789.4
	1926	375.0	355.5	-5.2	-19.5
	1927	3257.6	3385.9	3.9	128.3
	1928	3649.6	3356.4	-8.0	-293.2
	1929	188.0	188.0	.0	.0
	1930	623.4	602.3	-3.4	-21.1
	1931	188.0	188.0	.0	.0
	1932	1351.0	1581.5	17.1	230.5
	1933	188.0	375.1	99.5	187.1
	1934	188.0	188.0	.0	.0
	1935	3586.1	3729.6	4.0	143.5
	1936	1872.2	2245.9	20.0	373.7
	1937	1595.3	2286.9	43.4	691.6
	1938	3473.7	3790.2	9.1	316.5
	1939	250.0	250.0	.0	.0
	1940	2752.8	2887.2	4.9	134.4
	1941	2802.9	3436.6	22.6	633.7
	1942	3559.8	3871.5	8.8	311.7
	1943	2608.0	2538.8	-2.7	-69.2
	1944	628.7	602.7	-4.1	-26.0
	1945	1891.4	2035.4	7.6	144.0
	1946	1875.6	1691.7	-9.8	-183.9
	1947	373.8	596.2	59.5	222.4
	1948	2538.6	2519.4	-.8	-19.2
	1949	2502.6	2127.8	-15.0	-374.8
	1950	2313.2	2397.6	3.6	84.4
	1951	2750.9	2876.5	4.6	125.6
	1952	3984.3	4294.3	7.8	310.0
	1953	3568.3	3895.9	9.2	327.6
	1954	3588.9	3522.3	-1.9	-66.6
	1955	1593.6	2070.6	29.9	477.0
	1956	3535.5	3842.2	8.7	306.7
	1957	2128.8	2006.1	-5.8	-122.7
	1958	3649.3	3954.4	8.4	305.1
	1959	1220.4	1664.6	36.4	444.2
	1960	1841.9	2879.9	56.4	1038.0
	1961	250.0	346.2	38.5	96.2
	1962	2350.8	2378.7	1.2	27.9
	1963	1423.9	1499.8	5.3	75.9
	1964	625.4	599.4	-4.2	-26.0
	1965	2148.0	2333.3	8.6	185.3
	1966	1372.6	2117.1	54.2	744.5
	1967	3597.3	3905.6	8.6	308.3
	1968	1412.8	1864.0	31.9	451.2
	1969	3426.5	3718.6	8.5	292.1
	1970	3346.7	3430.0	2.5	83.3
	1971	3356.6	3679.6	9.6	323.0
	1972	3032.2	3608.6	19.0	576.4
	1973	3331.2	3456.9	3.8	125.7
	1974	3616.8	3905.6	8.0	288.8
	1975	3416.7	3702.3	8.4	285.6
	1976	699.0	707.2	1.2	8.2
	1977	188.0	188.0	.0	.0
	1978	2783.4	2927.0	5.2	143.6
	1979	2589.4	2761.1	6.6	171.7
	1980	3682.7	3811.1	3.5	128.4
	1981	556.8	851.6	52.9	294.8
	1982	3602.1	3912.1	8.6	310.0
	1983	4364.9	4448.1	1.9	83.2
	1984	2579.9	2380.2	-7.7	-199.7
	1985	2194.2	2279.5	3.9	85.3
	1986	3060.4	2935.3	-4.1	-125.1
	1987	1152.0	1064.7	-7.6	-87.3
	1988	188.0	188.0	.0	.0
	1989	3121.9	3534.6	13.2	412.7
	1990	1282.8	1424.7	11.1	141.9
	1991	188.0	188.0	.0	.0
	Mean	2135.3	2303.4	11.0	168.1
	Median	2330.8	2379.4	5.1	131.4
	Min	188.0	188.0	-15.0	-392.1
	Max	4364.9	4448.1	99.5	1038.0
X <	1500.0	25	20		
X <	1750.0	27	23		
X <	2000.0	31	24		
X <	3000.0	46	46		
X <	.0	0	0		
X >=	2500.0	33	33		
2500.0 > X >=	2000.0	6	13		
2000.0 > X >=	1000.0	14	7		
1000.0 > X >=	500.0	5	6		
500.0 > X		12	11		
X <	3450.0	55	50		
Mean of X >=	3450.0	3706.6	3816.5	3.0	110.0

LOWER AMERICAN RIVER FLOW AT THE CONFLUENCE

September

	Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
	1922	3013.0	3351.6	11.2	338.6
	1923	1633.4	2137.6	30.9	504.2
	1924	498.8	281.0	-43.7	-217.8
	1925	2105.1	1630.2	-22.6	-474.9
	1926	919.8	1139.6	23.9	219.8
	1927	1511.6	1814.7	20.1	303.1
	1928	1125.2	1091.6	-3.0	-33.6
	1929	696.4	911.1	30.8	214.7
	1930	1169.8	1137.9	-2.7	-31.9
	1931	445.8	413.8	-7.2	-32.0
	1932	2095.1	3034.1	44.8	939.0
	1933	942.4	910.5	-3.4	-31.9
	1934	281.0	281.0	.0	.0
	1935	2094.5	2832.6	35.2	738.1
	1936	3363.3	3577.6	6.4	214.3
	1937	2985.4	3459.9	15.9	474.5
	1938	3384.1	3642.4	7.6	258.3
	1939	933.3	898.0	-3.8	-35.3
	1940	1250.2	1350.6	8.0	100.4
	1941	3328.7	3585.2	7.7	256.5
	1942	3367.3	3622.2	7.6	254.9
	1943	1380.3	1341.6	-2.8	-38.7
	1944	1173.9	1135.2	-3.3	-38.7
	1945	1915.7	2036.5	6.3	120.8
	1946	2337.5	2465.7	5.5	128.2
	1947	1168.8	1130.2	-3.3	-38.6
	1948	2762.6	2978.3	7.8	215.7
	1949	1229.4	1547.6	25.9	318.2
	1950	2659.4	3391.3	27.5	731.9
	1951	1611.6	1851.3	14.9	239.7
	1952	3574.0	3840.7	7.5	266.7
	1953	3342.1	3590.3	7.4	248.2
	1954	1137.0	1095.0	-3.7	-42.0
	1955	1185.6	1145.3	-3.4	-40.3
	1956	3318.6	3570.1	7.6	251.5
	1957	1418.7	1512.0	6.6	93.3
	1958	3409.3	3674.3	7.8	265.0
	1959	931.6	891.2	-4.3	-40.4
	1960	1168.8	1161.3	-.6	-7.5
	1961	920.5	1133.5	23.1	213.0
	1962	1751.4	1807.1	3.2	55.7
	1963	1825.0	1834.9	.5	9.9
	1964	1170.5	1133.5	-3.2	-37.0
	1965	1594.8	1838.3	15.3	243.5
	1966	882.0	845.0	-4.2	-37.0
	1967	3641.2	3874.3	6.4	233.1
	1968	883.6	1568.7	77.5	685.1
	1969	3363.9	3597.0	6.9	233.1
	1970	1137.0	1098.3	-3.4	-38.7
	1971	3190.9	3422.2	7.2	231.3
	1972	1153.8	1113.5	-3.5	-40.3
	1973	1142.0	1228.3	7.6	86.3
	1974	3476.5	3723.0	7.1	246.5
	1975	3249.7	3509.6	8.0	259.9
	1976	281.0	281.0	.0	.0
	1977	281.0	281.0	.0	.0
	1978	1380.3	1846.7	33.8	466.4
	1979	1559.1	1999.8	28.3	440.7
	1980	1594.8	1829.9	14.7	235.1
	1981	1177.2	1141.9	-3.0	-35.3
	1982	3829.5	4082.7	6.6	253.2
	1983	4430.3	4490.4	1.4	60.1
	1984	1400.4	1361.8	-2.8	-38.6
	1985	944.0	905.4	-4.1	-38.6
	1986	1413.9	1375.2	-2.7	-38.7
	1987	690.0	653.0	-5.4	-37.0
	1988	448.8	411.8	-8.2	-37.0
	1989	955.8	920.5	-3.7	-35.3
	1990	448.1	412.8	-7.9	-35.3
	1991	675.9	642.3	-5.0	-33.6
	Mean	1768.0	1911.8	6.5	143.8
	Median	1390.4	1529.8	6.4	96.9
	Min	281.0	281.0	-43.7	-474.9
	Max	4430.3	4490.4	77.5	939.0
X <	1500.0	38	34		
X <	1750.0	44	38		
X <	2000.0	47	46		
X <	3000.0	54	51		
X <	.0	0	0		
X >=	2500.0	19	21		
2500.0 > X >=	1500.0	13	15		
1500.0 > X >=	500.0	31	27		
500.0 > X >=	.0	7	7		
.0 > X		0	0		
X <	3450.0	65	55		
Mean of X >=	3450.0	3790.3	3722.6	-1.8	-67.7

RETURN TO TABLE OF CONTENTS

Section 12

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

January

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	42.6	42.7	.2	.1
1923.	44.1	44.1	.0	.0
1924.	45.9	46.1	.4	.2
1925.	46.9	46.9	.0	.0
1926.	44.2	44.2	.0	.0
1927.	47.5	47.6	.2	.1
1928.	46.7	46.8	.2	.1
1929.	42.7	42.9	.5	.2
1930.	45.6	45.7	.2	.1
1931.	47.5	47.6	.2	.1
1932.	45.0	45.0	.0	.0
1933.	43.7	43.7	.0	.0
1934.	47.1	47.1	.0	.0
1935.	47.2	47.2	.0	.0
1936.	48.1	48.0	-.2	-.1
1937.	41.7	41.8	.2	.1
1938.	46.5	46.5	.0	.0
1939.	47.1	47.2	.2	.1
1940.	47.9	47.9	.0	.0
1941.	48.7	48.7	.0	.0
1942.	46.3	46.3	.0	.0
1943.	46.4	46.4	.0	.0
1944.	47.2	47.4	.4	.2
1945.	45.7	45.7	.0	.0
1946.	45.5	45.6	.2	.1
1947.	44.3	44.3	.0	.0
1948.	47.9	47.8	-.2	-.1
1949.	41.1	41.3	.5	.2
1950.	43.5	43.7	.5	.2
1951.	45.0	45.0	.0	.0
1952.	45.1	45.1	.0	.0
1953.	48.9	48.9	.0	.0
1954.	47.5	47.6	.2	.1
1955.	43.3	43.3	.0	.0
1956.	46.0	46.0	.0	.0
1957.	46.6	46.7	.2	.1
1958.	46.6	46.7	.2	.1
1959.	50.3	50.4	.2	.1
1960.	47.2	47.2	.0	.0
1961.	44.4	44.4	.0	.0
1962.	43.4	43.5	.2	.1
1963.	45.0	45.1	.2	.1
1964.	44.7	44.7	.0	.0
1965.	44.9	44.8	-.2	-.1
1966.	45.9	46.0	.2	.1
1967.	46.5	46.5	.0	.0
1968.	45.9	46.0	.2	.1
1969.	44.9	44.9	.0	.0
1970.	47.2	47.2	.0	.0
1971.	45.7	45.7	.0	.0
1972.	43.7	43.7	.0	.0
1973.	44.7	44.7	.0	.0
1974.	46.6	46.6	.0	.0
1975.	45.1	45.2	.2	.1
1976.	48.2	48.2	.0	.0
1977.	44.3	44.3	.0	.0
1978.	48.1	48.2	.2	.1
1979.	45.9	45.9	.0	.0
1980.	46.1	47.2	2.4	1.1
1981.	48.2	48.4	.4	.2
1982.	45.0	45.0	.0	.0
1983.	45.2	45.3	.2	.1
1984.	46.3	46.3	.0	.0
1985.	45.0	45.0	.0	.0
1986.	47.9	48.1	.4	.2
1987.	46.6	46.7	.2	.1
1988.	47.6	47.6	.0	.0
1989.	45.9	46.0	.2	.1
1990.	47.4	47.4	.0	.0
Mean:	45.9	46.0	.1	.1
Median:	45.9	46.0	.0	.0
Min:	41.1	41.3	-.2	-.1
Max:	50.3	50.4	2.4	1.1
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	7	8		
No. Years inc (avg):		29	(	.2)
No. Years dec (avg):		3	(	-.1)
No. Years no change		37		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

February

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	46.5	46.4	-.2	-.1
1923.	47.2	47.2	.0	.0
1924.	52.4	53.5	2.1	1.1
1925.	48.8	48.6	-.4	-.2
1926.	50.2	50.2	.0	.0
1927.	48.9	48.9	.0	.0
1928.	50.3	50.1	-.4	-.2
1929.	48.9	48.5	-.8	-.4
1930.	52.9	52.6	-.6	-.3
1931.	51.9	51.9	.0	.0
1932.	47.7	47.6	-.2	-.1
1933.	46.6	46.9	.6	.3
1934.	51.2	50.8	-.8	-.4
1935.	49.0	49.0	.0	.0
1936.	47.9	47.9	.0	.0
1937.	46.9	46.8	-.2	-.1
1938.	48.4	48.4	.0	.0
1939.	48.1	48.1	.0	.0
1940.	49.4	49.4	.0	.0
1941.	50.0	50.0	.0	.0
1942.	46.9	46.9	.0	.0
1943.	49.6	49.6	.0	.0
1944.	48.4	48.7	.6	.3
1945.	48.0	48.0	.0	.0
1946.	46.7	46.7	.0	.0
1947.	49.5	49.7	.4	.2
1948.	47.8	47.8	.0	.0
1949.	45.0	45.5	1.1	.5
1950.	47.7	47.8	.2	.1
1951.	46.7	46.7	.0	.0
1952.	47.5	47.5	.0	.0
1953.	50.6	50.6	.0	.0
1954.	48.4	48.6	.4	.2
1955.	47.1	47.1	.0	.0
1956.	46.7	46.7	.0	.0
1957.	50.3	50.3	.0	.0
1958.	49.7	49.9	.4	.2
1959.	49.9	50.0	.2	.1
1960.	49.9	50.0	.2	.1
1961.	50.8	50.7	-.2	-.1
1962.	47.7	47.6	-.2	-.1
1963.	49.9	49.9	.0	.0
1964.	47.8	48.0	.4	.2
1965.	47.5	47.5	.0	.0
1966.	48.0	47.9	-.2	-.1
1967.	48.4	48.4	.0	.0
1968.	50.0	50.4	.8	.4
1969.	46.5	46.5	.0	.0
1970.	48.6	48.6	.0	.0
1971.	47.6	47.5	-.2	-.1
1972.	48.3	48.8	1.0	.5
1973.	49.8	49.8	.0	.0
1974.	47.1	47.1	.0	.0
1975.	48.2	48.0	-.4	-.2
1976.	51.2	51.1	-.2	-.1
1977.	52.5	52.4	-.2	-.1
1978.	51.0	51.1	.2	.1
1979.	48.3	48.1	-.4	-.2
1980.	47.7	47.5	-.4	-.2
1981.	51.9	51.2	-1.3	-.7
1982.	46.8	46.8	.0	.0
1983.	49.2	49.2	.0	.0
1984.	48.2	48.2	.0	.0
1985.	49.3	49.2	-.2	-.1
1986.	48.1	48.1	.0	.0
1987.	50.7	50.6	-.2	-.1
1988.	54.4	54.1	-.6	-.3
1989.	47.9	47.9	.0	.0
1990.	48.8	48.6	-.4	-.2
Mean:	48.9	48.9	.0	.0
Median:	48.4	48.5	.0	.0
Min:	45.0	45.5	-1.3	-.7
Max:	54.4	54.1	2.1	1.1

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	45	45		

No. Years inc (avg):		14	(.3)
No. Years dec (avg):		22	(-.2)
No. Years no change		33	

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

March

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	51.3	51.3	.0	.0
1923.	54.9	54.8	-.2	-.1
1924.	54.2	53.6	-1.1	-.6
1925.	54.6	54.6	.0	.0
1926.	56.1	56.2	.2	.1
1927.	52.2	52.2	.0	.0
1928.	52.3	52.6	.6	.3
1929.	53.7	53.9	.4	.2
1930.	54.6	54.6	.0	.0
1931.	57.7	57.5	-.3	-.2
1932.	55.1	55.1	.0	.0
1933.	53.5	54.6	2.1	1.1
1934.	59.2	58.5	-1.2	-.7
1935.	50.5	50.5	.0	.0
1936.	53.7	53.7	.0	.0
1937.	53.2	52.8	-.8	-.4
1938.	50.2	50.2	.0	.0
1939.	53.9	53.7	-.4	-.2
1940.	52.3	52.3	.0	.0
1941.	54.0	53.9	-.2	-.1
1942.	50.2	50.2	.0	.0
1943.	51.5	51.5	.0	.0
1944.	54.3	54.0	-.6	-.3
1945.	50.8	50.8	.0	.0
1946.	52.5	52.4	-.2	-.1
1947.	54.2	54.2	.0	.0
1948.	50.5	50.4	-.2	-.1
1949.	51.6	51.4	-.4	-.2
1950.	52.2	52.2	.0	.0
1951.	51.6	51.5	-.2	-.1
1952.	50.0	50.0	.0	.0
1953.	53.2	53.2	.0	.0
1954.	51.2	51.1	-.2	-.1
1955.	53.1	53.1	.0	.0
1956.	52.3	52.3	.0	.0
1957.	54.0	54.3	.6	.3
1958.	51.2	51.1	-.2	-.1
1959.	55.4	55.4	.0	.0
1960.	54.7	54.8	.2	.1
1961.	54.2	54.4	.4	.2
1962.	51.3	52.1	1.6	.8
1963.	51.4	51.3	-.2	-.1
1964.	51.5	51.7	.4	.2
1965.	52.2	52.2	.0	.0
1966.	53.9	53.0	-1.7	-.9
1967.	51.3	51.3	.0	.0
1968.	53.8	55.6	3.3	1.8
1969.	52.0	52.3	.6	.3
1970.	53.9	53.8	-.2	-.1
1971.	51.5	51.4	-.2	-.1
1972.	56.5	56.0	-.9	-.5
1973.	51.2	51.1	-.2	-.1
1974.	52.0	52.0	.0	.0
1975.	51.1	51.1	.0	.0
1976.	54.6	54.5	-.2	-.1
1977.	53.4	53.4	.0	.0
1978.	54.8	55.0	.4	.2
1979.	53.3	53.9	1.1	.6
1980.	52.0	51.9	-.2	-.1
1981.	53.3	53.0	-.6	-.3
1982.	50.7	50.7	.0	.0
1983.	50.7	50.7	.0	.0
1984.	55.1	54.9	-.4	-.2
1985.	51.5	51.4	-.2	-.1
1986.	52.9	53.2	.6	.3
1987.	54.4	54.2	-.4	-.2
1988.	58.6	58.5	-.2	-.1
1989.	52.3	52.3	.0	.0
1990.	55.7	55.6	-.2	-.1
Mean:	53.1	53.1	.0	.0
Median:	52.7	52.7	.0	.0
Min:	50.0	50.0	-1.7	-.9
Max:	59.2	58.5	3.3	1.8
X > 56.0	5	4		
Mean X > 56.0	57.6	57.7	.2	.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		14	(.5)	
No. Years dec (avg):		28	(-.2)	
No. Years no change		27		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

April

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	55.3	55.2	-.2	-.1
1923.	56.4	56.2	-.4	-.2
1924.	63.3	63.2	-.2	-.1
1925.	56.9	56.8	-.2	-.1
1926.	61.7	61.7	.0	.0
1927.	54.7	54.7	.0	.0
1928.	55.7	55.6	-.2	-.1
1929.	58.5	57.6	-1.5	-.9
1930.	59.4	60.0	1.0	.6
1931.	65.7	65.7	.0	.0
1932.	57.4	57.3	-.2	-.1
1933.	59.5	58.8	-1.2	-.7
1934.	61.8	61.4	-.6	-.4
1935.	55.8	55.7	-.2	-.1
1936.	56.5	56.4	-.2	-.1
1937.	55.5	55.4	-.2	-.1
1938.	54.7	54.7	.0	.0
1939.	65.2	64.1	-1.7	-1.1
1940.	56.2	56.2	.0	.0
1941.	56.1	56.0	-.2	-.1
1942.	55.7	55.6	-.2	-.1
1943.	55.9	55.9	.0	.0
1944.	56.7	56.7	.0	.0
1945.	58.2	58.1	-.2	-.1
1946.	57.2	57.0	-.3	-.2
1947.	59.2	59.7	.8	.5
1948.	54.4	54.5	.2	.1
1949.	59.2	59.9	1.2	.7
1950.	56.8	56.8	.0	.0
1951.	57.5	57.4	-.2	-.1
1952.	54.8	54.8	.0	.0
1953.	57.3	57.1	-.3	-.2
1954.	57.7	57.7	.0	.0
1955.	55.2	55.2	.0	.0
1956.	57.3	57.5	.3	.2
1957.	59.3	59.3	.0	.0
1958.	54.9	54.9	.0	.0
1959.	61.9	64.1	3.6	2.2
1960.	59.6	59.2	-.7	-.4
1961.	62.4	62.4	.0	.0
1962.	59.6	58.9	-1.2	-.7
1963.	54.1	54.0	-.2	-.1
1964.	56.9	57.1	.4	.2
1965.	56.2	56.2	.0	.0
1966.	61.4	61.9	.8	.5
1967.	52.2	52.2	.0	.0
1968.	59.2	60.0	1.4	.8
1969.	55.3	55.2	-.2	-.1
1970.	57.5	57.6	.2	.1
1971.	55.7	55.6	-.2	-.1
1972.	58.4	58.3	-.2	-.1
1973.	58.5	58.5	.0	.0
1974.	54.8	54.7	-.2	-.1
1975.	53.6	53.6	.0	.0
1976.	61.1	61.1	.0	.0
1977.	64.6	64.6	.0	.0
1978.	55.9	55.9	.0	.0
1979.	58.2	57.5	-1.2	-.7
1980.	58.2	58.1	-.2	-.1
1981.	60.1	58.6	-2.5	-1.5
1982.	53.5	53.5	.0	.0
1983.	54.2	54.2	.0	.0
1984.	58.2	58.2	.0	.0
1985.	60.8	60.7	-.2	-.1
1986.	58.1	58.1	.0	.0
1987.	65.0	65.0	.0	.0
1988.	63.7	63.7	.0	.0
1989.	59.1	58.8	-.5	-.3
1990.	61.8	61.5	-.5	-.3
Mean:	58.0	58.0	-.1	-.1
Median:	57.3	57.3	.0	.0
Min:	52.2	52.2	-2.5	-1.5
Max:	65.7	65.7	3.6	2.2
X > 56.0	48	47		
Mean X > 56.0	59.4	59.4	.0	.0
X > 60.0	15	14		
Mean X > 60.0	62.7	62.9	.3	.2
X > 65.0	2	1		
Mean X > 65.0	65.4	65.7	.5	.3
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	15	16		
61.0 <= X <= 73.0	13	13		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		10		(.6)
No. Years dec (avg):		32		(-.3)
No. Years no change		27		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

May

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	59.5	59.3	-.3	-.2
1923.	59.8	59.8	.0	.0
1924.	70.3	70.2	-.1	-.1
1925.	60.7	60.5	-.3	-.2
1926.	65.7	65.6	-.2	-.1
1927.	59.8	59.7	-.2	-.1
1928.	62.9	62.9	.0	.0
1929.	64.6	64.4	-.3	-.2
1930.	62.3	62.0	-.5	-.3
1931.	70.7	71.0	.4	.3
1932.	61.7	61.5	-.3	-.2
1933.	60.8	60.6	-.3	-.2
1934.	70.0	70.0	.0	.0
1935.	60.1	60.0	-.2	-.1
1936.	61.5	61.5	.0	.0
1937.	60.9	60.8	-.2	-.1
1938.	59.5	59.4	-.2	-.1
1939.	65.5	65.4	-.2	-.1
1940.	62.4	62.2	-.3	-.2
1941.	59.9	59.9	.0	.0
1942.	58.4	58.3	-.2	-.1
1943.	62.0	61.9	-.2	-.1
1944.	63.1	62.7	-.6	-.4
1945.	60.2	60.1	-.2	-.1
1946.	60.7	60.7	.0	.0
1947.	64.8	65.0	.3	.2
1948.	59.6	59.4	-.3	-.2
1949.	63.3	62.6	-1.1	-.7
1950.	61.1	61.1	.0	.0
1951.	61.6	61.5	-.2	-.1
1952.	59.3	59.3	.0	.0
1953.	59.3	59.3	.0	.0
1954.	62.9	62.9	.0	.0
1955.	62.2	62.0	-.3	-.2
1956.	61.4	61.3	-.2	-.1
1957.	61.5	61.3	-.3	-.2
1958.	59.8	59.8	.0	.0
1959.	63.2	63.7	.8	.5
1960.	63.7	63.3	-.6	-.4
1961.	63.1	63.0	-.2	-.1
1962.	61.5	61.4	-.2	-.1
1963.	58.1	58.0	-.2	-.1
1964.	61.8	61.3	-.8	-.5
1965.	60.5	60.5	.0	.0
1966.	66.9	66.4	-.7	-.5
1967.	58.7	58.6	-.2	-.1
1968.	62.3	64.1	2.9	1.8
1969.	59.6	59.6	.0	.0
1970.	64.9	64.9	.0	.0
1971.	58.7	58.6	-.2	-.1
1972.	64.0	64.0	.0	.0
1973.	63.1	62.8	-.5	-.3
1974.	59.8	59.8	.0	.0
1975.	61.5	61.3	-.3	-.2
1976.	71.2	71.2	.0	.0
1977.	63.3	63.3	.0	.0
1978.	61.3	61.0	-.5	-.3
1979.	62.9	62.3	-1.0	-.6
1980.	60.5	60.4	-.2	-.1
1981.	64.1	63.4	-1.1	-.7
1982.	59.3	59.3	.0	.0
1983.	58.6	58.6	.0	.0
1984.	64.3	64.3	.0	.0
1985.	64.6	64.4	-.3	-.2
1986.	62.1	62.0	-.2	-.1
1987.	70.1	70.5	.6	.4
1988.	67.3	67.3	.0	.0
1989.	63.4	63.2	-.3	-.2
1990.	66.0	65.9	-.2	-.1
Mean:	62.5	62.4	-.1	-.1
Median:	61.7	61.5	-.2	-.1
Min:	58.1	58.0	-1.1	-.7
Max:	71.2	71.2	2.9	1.8
X > 56.0	69	69		
Mean X > 56.0	62.5	62.4	-.2	-.1
X > 60.0	52	51		
Mean X > 60.0	63.5	63.5	.0	.0
X > 65.0	10	10		
Mean X > 65.0	68.4	68.4	.0	.0
X > 68.0	5	5		
Mean X > 68.0	70.5	70.6	.1	.1
X > 70.0	4	4		
Mean X > 70.0	70.6	70.7	.1	.1
60.0 <= X <= 70.0	48	48		
61.0 <= X <= 73.0	44	44		
48.0 <= X <= 68.0	64	64		
No. Years inc (avg):		5	(	.6)
No. Years dec (avg):		42	(	-.2)
No. Years no change		22		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

June

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	62.4	62.7	.5	.3
1923.	62.9	62.9	.0	.0
1924.	71.7	71.6	-.1	-.1
1925.	64.1	64.0	-.2	-.1
1926.	67.9	67.7	-.3	-.2
1927.	64.1	64.0	-.2	-.1
1928.	64.2	64.4	.3	.2
1929.	68.3	68.4	.1	.1
1930.	66.9	66.3	-.9	-.6
1931.	69.3	69.4	.1	.1
1932.	65.9	65.8	-.2	-.1
1933.	67.6	67.7	.1	.1
1934.	68.8	68.7	-.1	-.1
1935.	64.6	64.5	-.2	-.1
1936.	65.7	65.5	-.3	-.2
1937.	65.1	65.1	.0	.0
1938.	63.5	63.5	.0	.0
1939.	72.3	71.4	-1.2	-.9
1940.	68.1	68.1	.0	.0
1941.	62.6	62.8	.3	.2
1942.	63.0	63.0	.0	.0
1943.	64.7	64.7	.0	.0
1944.	67.1	66.4	-1.0	-.7
1945.	66.0	65.5	-.8	-.5
1946.	64.5	62.8	-2.6	-1.7
1947.	70.3	70.1	-.3	-.2
1948.	64.1	64.2	.2	.1
1949.	67.4	65.8	-2.4	-1.6
1950.	64.0	64.1	.2	.1
1951.	65.2	65.2	.0	.0
1952.	62.3	62.3	.0	.0
1953.	64.2	64.1	-.2	-.1
1954.	65.6	65.5	-.2	-.1
1955.	66.9	66.7	-.3	-.2
1956.	65.3	65.0	-.5	-.3
1957.	67.1	67.2	.1	.1
1958.	63.8	63.8	.0	.0
1959.	69.8	70.0	.3	.2
1960.	68.7	69.2	.7	.5
1961.	75.0	75.0	.0	.0
1962.	66.7	65.9	-1.2	-.8
1963.	63.1	63.4	.5	.3
1964.	66.2	66.3	.2	.1
1965.	63.5	63.4	-.2	-.1
1966.	69.0	69.0	.0	.0
1967.	62.8	62.8	.0	.0
1968.	70.2	68.8	-2.0	-1.4
1969.	63.3	63.2	-.2	-.1
1970.	68.0	68.0	.0	.0
1971.	62.8	62.9	.2	.1
1972.	67.2	66.9	-.4	-.3
1973.	66.7	65.4	-1.9	-1.3
1974.	64.3	64.6	.5	.3
1975.	63.1	63.0	-.2	-.1
1976.	68.9	69.1	.3	.2
1977.	72.7	72.7	.0	.0
1978.	65.0	64.5	-.8	-.5
1979.	66.5	66.2	-.5	-.3
1980.	63.9	63.7	-.3	-.2
1981.	73.1	70.0	-4.2	-3.1
1982.	61.9	62.4	.8	.5
1983.	63.3	63.3	.0	.0
1984.	67.4	67.4	.0	.0
1985.	67.6	68.0	.6	.4
1986.	67.0	66.8	-.3	-.2
1987.	72.1	72.1	.0	.0
1988.	69.3	69.4	.1	.1
1989.	67.0	66.9	-.1	-.1
1990.	68.6	68.6	.0	.0
Mean:	66.4	66.2	-.3	-.2
Median:	65.9	65.5	.0	.0
Min:	61.9	62.3	-4.2	-3.1
Max:	75.0	75.0	.8	.5
X > 56.0	69	69		
Mean X > 56.0	66.4	66.2	-.3	-.2
X > 60.0	69	69		
Mean X > 60.0	66.4	66.2	-.3	-.2
X > 65.0	42	41		
Mean X > 65.0	68.2	68.0	-.3	-.2
X > 68.0	18	18		
Mean X > 68.0	70.3	70.1	-.3	-.2
X > 70.0	8	6		
Mean X > 70.0	72.2	72.1	-.1	-.1
60.0 <= X <= 70.0	61	63		
61.0 <= X <= 73.0	67	68		
48.0 <= X <= 68.0	51	51		
No. Years inc (avg):		19	(.2)	
No. Years dec (avg):		32	(-.5)	
No. Years no change		18		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

July

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	66.7	66.8	.1	.1
1923.	69.6	67.8	-2.6	-1.8
1924.	72.8	72.7	-.1	-.1
1925.	67.7	67.3	-.6	-.4
1926.	71.6	72.7	1.5	1.1
1927.	69.5	69.5	.0	.0
1928.	68.2	67.7	-.7	-.5
1929.	70.5	70.4	-.1	-.1
1930.	71.1	70.7	-.6	-.4
1931.	71.8	72.2	.6	.4
1932.	68.1	68.0	-.1	-.1
1933.	70.9	70.9	.0	.0
1934.	70.9	70.9	.0	.0
1935.	67.4	67.2	-.3	-.2
1936.	68.6	68.5	-.1	-.1
1937.	68.0	68.3	.4	.3
1938.	67.4	67.3	-.1	-.1
1939.	70.8	70.7	-.1	-.1
1940.	69.9	70.0	.1	.1
1941.	67.4	67.4	.0	.0
1942.	67.1	67.0	-.1	-.1
1943.	67.3	69.5	3.3	2.2
1944.	70.7	71.0	.4	.3
1945.	70.0	70.3	.4	.3
1946.	68.2	66.3	-2.8	-1.9
1947.	72.1	71.8	-.4	-.3
1948.	67.5	67.1	-.6	-.4
1949.	69.1	68.2	-1.3	-.9
1950.	67.3	67.2	-.1	-.1
1951.	67.9	68.0	.1	.1
1952.	67.2	67.1	-.1	-.1
1953.	68.1	67.6	-.7	-.5
1954.	69.0	69.0	.0	.0
1955.	71.1	71.0	-.1	-.1
1956.	67.9	67.8	-.1	-.1
1957.	68.8	70.0	1.7	1.2
1958.	68.5	68.4	-.1	-.1
1959.	76.1	76.0	-.1	-.1
1960.	71.2	71.7	.7	.5
1961.	77.3	77.2	-.1	-.1
1962.	68.4	67.8	-.9	-.6
1963.	66.4	66.6	.3	.2
1964.	70.8	70.8	.0	.0
1965.	66.8	66.8	.0	.0
1966.	72.1	71.7	-.6	-.4
1967.	68.5	68.6	.1	.1
1968.	73.9	71.7	-3.0	-2.2
1969.	67.8	67.6	-.3	-.2
1970.	71.0	70.7	-.4	-.3
1971.	67.3	66.9	-.6	-.4
1972.	70.7	70.5	-.3	-.2
1973.	69.5	68.5	-1.4	-1.0
1974.	67.2	67.4	.3	.2
1975.	67.3	67.0	-.4	-.3
1976.	71.3	71.4	.1	.1
1977.	74.4	74.4	.0	.0
1978.	69.7	67.2	-3.6	-2.5
1979.	70.4	70.2	-.3	-.2
1980.	69.7	67.3	-3.4	-2.4
1981.	74.2	74.1	-.1	-.1
1982.	66.2	66.2	.0	.0
1983.	67.1	67.1	.0	.0
1984.	70.1	70.1	.0	.0
1985.	69.9	73.6	5.3	3.7
1986.	70.3	70.0	-.4	-.3
1987.	70.4	70.4	.0	.0
1988.	76.2	76.1	-.1	-.1
1989.	69.0	68.8	-.3	-.2
1990.	72.5	72.3	-.3	-.2
Mean:	69.7	69.6	-.2	-.1
Median:	69.3	68.7	-.1	-.1
Min:	66.2	66.2	-3.6	-2.5
Max:	77.3	77.2	5.3	3.7
X > 56.0	69	69		
Mean X > 56.0	69.7	69.6	-.1	-.1
X > 60.0	69	69		
Mean X > 60.0	69.7	69.6	-.1	-.1
X > 65.0	69	69		
Mean X > 65.0	69.7	69.6	-.1	-.1
X > 68.0	48	42		
Mean X > 68.0	70.8	71.1	.4	.3
X > 70.0	28	29		
Mean X > 70.0	72.0	72.0	.0	.0
60.0 <= X <= 70.0	41	40		
61.0 <= X <= 73.0	63	63		
48.0 <= X <= 68.0	21	27		
No. Years inc (avg):		16	(	.7)
No. Years dec (avg):		41	(	-.5)
No. Years no change		12		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

August

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	67.0	66.9	-.1	-.1
1923.	69.0	67.2	-2.6	-1.8
1924.	72.4	72.3	-.1	-.1
1925.	67.5	67.4	-.1	-.1
1926.	70.9	70.9	.0	.0
1927.	69.0	69.0	.0	.0
1928.	69.7	69.6	-.1	-.1
1929.	74.0	73.9	-.1	-.1
1930.	69.9	69.3	-.9	-.6
1931.	74.0	74.0	.0	.0
1932.	69.0	68.8	-.3	-.2
1933.	74.3	72.9	-1.9	-1.4
1934.	74.3	74.3	.0	.0
1935.	67.6	67.6	.0	.0
1936.	69.2	69.0	-.3	-.2
1937.	68.7	68.2	-.7	-.5
1938.	66.9	67.2	.4	.3
1939.	73.6	73.5	-.1	-.1
1940.	68.8	68.6	-.3	-.2
1941.	66.5	66.4	-.2	-.1
1942.	66.9	66.8	-.1	-.1
1943.	67.9	68.3	.6	.4
1944.	71.1	70.9	-.3	-.2
1945.	68.9	69.0	.1	.1
1946.	68.7	67.4	-1.9	-1.3
1947.	71.0	70.5	-.7	-.5
1948.	67.4	67.1	-.4	-.3
1949.	69.2	68.0	-1.7	-1.2
1950.	67.8	67.9	.1	.1
1951.	68.7	68.4	-.4	-.3
1952.	67.0	67.1	.1	.1
1953.	67.1	67.1	.0	.0
1954.	68.4	68.4	.0	.0
1955.	71.4	72.2	1.1	.8
1956.	67.2	67.1	-.1	-.1
1957.	69.7	69.2	-.7	-.5
1958.	68.7	68.6	-.1	-.1
1959.	70.0	69.7	-.4	-.3
1960.	69.8	71.5	2.4	1.7
1961.	75.3	74.6	-.9	-.7
1962.	68.9	69.0	.1	.1
1963.	67.9	68.0	.1	.1
1964.	70.9	70.9	.0	.0
1965.	68.0	67.9	-.1	-.1
1966.	70.4	72.6	3.1	2.2
1967.	68.7	68.7	.0	.0
1968.	69.7	70.9	1.7	1.2
1969.	67.8	67.7	-.1	-.1
1970.	70.1	70.1	.0	.0
1971.	66.8	66.9	.1	.1
1972.	71.4	70.9	-.7	-.5
1973.	68.7	69.4	1.0	.7
1974.	67.3	67.3	.0	.0
1975.	66.9	66.8	-.1	-.1
1976.	70.6	70.6	.0	.0
1977.	73.7	73.7	.0	.0
1978.	69.4	67.6	-2.6	-1.8
1979.	69.6	68.3	-1.9	-1.3
1980.	68.9	67.1	-2.6	-1.8
1981.	71.6	71.0	-.8	-.6
1982.	66.3	66.3	.0	.0
1983.	67.4	67.4	.0	.0
1984.	70.7	70.3	-.6	-.4
1985.	68.5	70.7	3.2	2.2
1986.	68.3	68.6	.4	.3
1987.	70.3	70.3	.0	.0
1988.	74.7	74.7	.0	.0
1989.	71.0	70.9	-.1	-.1
1990.	72.3	71.9	-.6	-.4
Mean:	69.6	69.5	-.2	-.1
Median:	68.9	68.8	-.1	-.1
Min:	66.3	66.3	-2.6	-1.8
Max:	75.3	74.7	3.2	2.2
X > 56.0	69	69		
Mean X > 56.0	69.6	69.5	-.1	-.1
X > 60.0	69	69		
Mean X > 60.0	69.6	69.5	-.1	-.1
X > 65.0	69	69		
Mean X > 65.0	69.6	69.5	-.1	-.1
X > 68.0	49	45		
Mean X > 68.0	70.5	70.6	.1	.1
X > 70.0	23	26		
Mean X > 70.0	72.2	72.0	-.3	-.2
60.0 <= X <= 70.0	46	43		
61.0 <= X <= 73.0	61	62		
48.0 <= X <= 68.0	20	24		
No. Years inc (avg):		15	(.7)	
No. Years dec (avg):		37	(-.5)	
No. Years no change		17		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

September

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	66.7	66.7	.0	.0
1923.	69.2	67.3	-2.7	-1.9
1924.	69.7	69.8	.1	.1
1925.	66.3	66.6	.5	.3
1926.	67.6	67.6	.0	.0
1927.	64.6	65.1	.8	.5
1928.	67.5	67.5	.0	.0
1929.	69.2	69.1	-.1	-.1
1930.	67.1	66.5	-.9	-.6
1931.	68.1	68.1	.0	.0
1932.	68.4	68.2	-.3	-.2
1933.	68.4	68.4	.0	.0
1934.	70.7	70.7	.0	.0
1935.	67.1	67.0	-.1	-.1
1936.	68.1	68.0	-.1	-.1
1937.	67.0	67.0	.0	.0
1938.	66.7	66.9	.3	.2
1939.	69.9	69.9	.0	.0
1940.	68.2	68.1	-.1	-.1
1941.	65.9	66.0	.2	.1
1942.	66.4	66.3	-.2	-.1
1943.	70.0	68.3	-2.4	-1.7
1944.	69.7	69.6	-.1	-.1
1945.	69.6	69.0	-.9	-.6
1946.	68.8	66.4	-3.5	-2.4
1947.	69.7	69.7	.0	.0
1948.	66.9	66.6	-.4	-.3
1949.	69.6	69.3	-.4	-.3
1950.	66.9	66.9	.0	.0
1951.	69.7	69.6	-.1	-.1
1952.	66.8	66.9	.1	.1
1953.	67.1	67.0	-.1	-.1
1954.	67.8	67.8	.0	.0
1955.	69.1	70.1	1.4	1.0
1956.	66.9	66.9	.0	.0
1957.	69.9	69.3	-.9	-.6
1958.	68.0	68.0	.0	.0
1959.	68.8	68.8	.0	.0
1960.	69.3	70.8	2.2	1.5
1961.	69.0	68.9	-.1	-.1
1962.	69.0	68.9	-.1	-.1
1963.	66.9	67.2	.4	.3
1964.	68.1	68.1	.0	.0
1965.	66.8	66.8	.0	.0
1966.	69.4	69.4	.0	.0
1967.	68.1	68.1	.0	.0
1968.	69.4	69.8	.6	.4
1969.	67.2	67.2	.0	.0
1970.	70.2	70.2	.0	.0
1971.	66.1	66.3	.3	.2
1972.	68.4	68.4	.0	.0
1973.	68.5	68.5	.0	.0
1974.	67.0	67.0	.0	.0
1975.	66.8	66.6	-.3	-.2
1976.	70.2	70.1	-.1	-.1
1977.	68.5	68.5	.0	.0
1978.	68.4	67.0	-2.0	-1.4
1979.	71.6	71.0	-.8	-.6
1980.	67.8	67.0	-1.2	-.8
1981.	68.8	68.9	.1	.1
1982.	65.8	65.9	.2	.1
1983.	67.1	67.0	-.1	-.1
1984.	72.4	71.0	-1.9	-1.4
1985.	67.8	67.9	.1	.1
1986.	66.1	65.9	-.3	-.2
1987.	69.4	69.4	.0	.0
1988.	70.9	71.0	.1	.1
1989.	68.4	68.4	.0	.0
1990.	72.1	72.1	.0	.0
Mean:	68.3	68.2	-.2	-.1
Median:	68.1	68.1	.0	.0
Min:	64.6	65.1	-3.5	-2.4
Max:	72.4	72.1	2.2	1.5
X > 56.0	69	69		
Mean X > 56.0	68.3	68.2	-.1	-.1
X > 60.0	69	69		
Mean X > 60.0	68.3	68.2	-.1	-.1
X > 65.0	68	69		
Mean X > 65.0	68.4	68.2	-.3	-.2
X > 68.0	40	36		
Mean X > 68.0	69.4	69.4	.0	.0
X > 70.0	7	9		
Mean X > 70.0	71.2	70.8	-.6	-.4
60.0 <= X <= 70.0	62	60		
61.0 <= X <= 73.0	69	69		
48.0 <= X <= 68.0	29	33		
No. Years inc (avg):		15	(.3)	
No. Years dec (avg):		27	(-.5)	
No. Years no change		27		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

October"

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	57.8	57.4	-.7	-.4
1923.	57.8	60.0	3.8	2.2
1924.	61.0	60.4	-1.0	-.6
1925.	58.4	58.5	.2	.1
1926.	61.5	61.9	.7	.4
1927.	56.7	56.5	-.4	-.2
1928.	58.8	59.2	.7	.4
1929.	64.9	64.6	-.5	-.3
1930.	59.9	60.0	.2	.1
1931.	62.9	62.9	.0	.0
1932.	60.2	60.1	-.2	-.1
1933.	65.5	65.3	-.3	-.2
1934.	63.6	63.8	.3	.2
1935.	59.0	59.2	.3	.2
1936.	60.2	60.2	.0	.0
1937.	59.5	59.3	-.3	-.2
1938.	58.6	58.5	-.2	-.1
1939.	64.3	64.7	.6	.4
1940.	57.5	57.1	-.7	-.4
1941.	58.3	57.7	-1.0	-.6
1942.	58.0	58.4	.7	.4
1943.	56.9	56.8	-.2	-.1
1944.	62.4	62.2	-.3	-.2
1945.	57.3	57.6	.5	.3
1946.	56.3	58.3	3.6	2.0
1947.	59.4	58.9	-.8	-.5
1948.	59.0	58.6	-.7	-.4
1949.	58.0	59.1	1.9	1.1
1950.	57.9	58.1	.3	.2
1951.	56.4	56.3	-.2	-.1
1952.	58.7	58.5	-.3	-.2
1953.	58.6	58.8	.3	.2
1954.	57.1	57.1	.0	.0
1955.	58.4	57.5	-1.5	-.9
1956.	59.6	60.0	.7	.4
1957.	56.8	57.1	.5	.3
1958.	61.1	61.7	1.0	.6
1959.	65.1	63.8	-2.0	-1.3
1960.	62.1	58.7	-5.5	-3.4
1961.	64.4	64.4	.0	.0
1962.	56.7	57.4	1.2	.7
1963.	58.6	58.0	-1.0	-.6
1964.	61.3	61.7	.7	.4
1965.	59.1	59.1	.0	.0
1966.	62.5	60.4	-3.4	-2.1
1967.	61.5	61.3	-.3	-.2
1968.	61.2	57.2	-6.5	-4.0
1969.	58.7	58.7	.0	.0
1970.	56.7	56.7	.0	.0
1971.	58.2	57.8	-.7	-.4
1972.	56.4	56.4	.0	.0
1973.	56.6	56.5	-.2	-.1
1974.	59.0	59.5	.8	.5
1975.	58.5	58.5	.0	.0
1976.	64.9	64.9	.0	.0
1977.	63.3	63.3	.0	.0
1978.	57.3	59.4	3.7	2.1
1979.	57.6	57.1	-.9	-.5
1980.	57.6	59.1	2.6	1.5
1981.	63.5	63.8	.5	.3
1982.	57.8	57.6	-.3	-.2
1983.	58.9	58.7	-.3	-.2
1984.	56.8	57.5	1.2	.7
1985.	61.0	57.7	-5.4	-3.3
1986.	59.0	59.5	.8	.5
1987.	66.4	66.7	.5	.3
1988.	65.8	65.9	.2	.1
1989.	57.5	57.5	.0	.0
1990.	66.1	66.4	.5	.3
Mean:	59.8	59.8	-.1	-.1
Median:	58.8	58.8	.0	.0
Min:	56.3	56.3	-6.5	-4.0
Max:	66.4	66.7	3.8	2.2
X > 56.0	69	69		
Mean X > 56.0	59.8	59.8	.0	.0
X > 60.0	25	22		
Mean X > 60.0	63.1	63.2	.2	.1
X > 65.0	5	4		
Mean X > 65.0	65.8	66.1	.5	.3
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	25	25		
61.0 <= X <= 73.0	23	18		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		28	(	.6)
No. Years dec (avg):		29	(	-.8)
No. Years no change		12		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

November

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	53.5	53.5	.0	.0
1923.	56.0	56.9	1.6	.9
1924.	53.6	53.0	-1.1	-.6
1925.	55.9	56.0	.2	.1
1926.	58.2	57.9	-.5	-.3
1927.	53.9	53.9	.0	.0
1928.	55.6	55.7	.2	.1
1929.	58.0	58.1	.2	.1
1930.	56.2	56.8	1.1	.6
1931.	53.6	53.6	.0	.0
1932.	57.3	57.2	-.2	-.1
1933.	58.1	58.3	.3	.2
1934.	55.1	55.6	.9	.5
1935.	55.2	55.2	.0	.0
1936.	57.0	57.1	.2	.1
1937.	56.4	56.4	.0	.0
1938.	55.6	55.6	.0	.0
1939.	57.6	57.9	.5	.3
1940.	53.9	54.4	.9	.5
1941.	56.0	56.2	.4	.2
1942.	55.9	56.0	.2	.1
1943.	55.7	55.7	.0	.0
1944.	54.6	55.0	.7	.4
1945.	54.2	54.3	.2	.1
1946.	51.9	54.0	4.0	2.1
1947.	52.6	52.6	.0	.0
1948.	55.6	55.7	.2	.1
1949.	55.6	55.8	.4	.2
1950.	56.2	56.2	.0	.0
1951.	54.9	55.0	.2	.1
1952.	55.4	55.8	.7	.4
1953.	56.5	56.4	-.2	-.1
1954.	53.5	53.9	.7	.4
1955.	54.5	54.5	.0	.0
1956.	57.0	56.7	-.5	-.3
1957.	55.5	55.6	.2	.1
1958.	56.7	56.7	.0	.0
1959.	58.9	58.8	-.2	-.1
1960.	56.1	55.7	-.7	-.4
1961.	56.1	56.2	.2	.1
1962.	55.9	55.7	-.4	-.2
1963.	55.4	55.7	.5	.3
1964.	54.8	55.1	.5	.3
1965.	56.4	55.8	-1.1	-.6
1966.	56.9	55.7	-2.1	-1.2
1967.	57.0	57.3	.5	.3
1968.	55.1	54.1	-1.8	-1.0
1969.	55.9	56.0	.2	.1
1970.	55.2	55.3	.2	.1
1971.	56.0	55.9	-.2	-.1
1972.	51.9	52.0	.2	.1
1973.	53.0	53.5	.9	.5
1974.	56.7	56.2	-.9	-.5
1975.	55.4	55.6	.4	.2
1976.	57.2	57.2	.0	.0
1977.	54.6	54.6	.0	.0
1978.	54.8	56.3	2.7	1.5
1979.	54.8	54.5	-.5	-.3
1980.	55.6	56.2	1.1	.6
1981.	56.8	56.9	.2	.1
1982.	55.6	55.7	.2	.1
1983.	56.3	56.6	.5	.3
1984.	54.5	55.0	.9	.5
1985.	53.3	53.2	-.2	-.1
1986.	55.6	55.7	.2	.1
1987.	57.0	57.0	.0	.0
1988.	55.6	55.6	.0	.0
1989.	55.6	55.7	.2	.1
1990.	55.6	56.1	.9	.5
Mean:	55.5	55.7	.2	.1
Median:	55.6	55.7	.2	.1
Min:	51.9	52.0	-2.1	-1.2
Max:	58.9	58.8	4.0	2.1
X > 56.0	23	25		
Mean X > 56.0	57.0	56.9	-.2	-.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	69	69		
No. Years inc (avg):		39		(.3)
No. Years dec (avg):		15		(-.4)
No. Years no change		15		

LOWER AMERICAN RIVER TEMPERATURE AT THE CONFLUENCE

December

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.5	47.6	.2	.1
1923.	49.8	50.2	.8	.4
1924.	44.5	43.7	-1.8	-.8
1925.	49.0	48.9	-.2	-.1
1926.	49.1	49.2	.2	.1
1927.	48.1	48.2	.2	.1
1928.	46.7	47.1	.9	.4
1929.	50.1	50.1	.0	.0
1930.	48.6	48.9	.6	.3
1931.	46.4	46.5	.2	.1
1932.	48.1	48.2	.2	.1
1933.	47.9	48.1	.4	.2
1934.	47.7	47.8	.2	.1
1935.	49.5	49.4	-.2	-.1
1936.	49.0	49.1	.2	.1
1937.	51.0	51.1	.2	.1
1938.	49.7	49.7	.0	.0
1939.	51.0	51.3	.6	.3
1940.	50.3	50.4	.2	.1
1941.	49.9	50.0	.2	.1
1942.	48.9	48.9	.0	.0
1943.	50.0	50.3	.6	.3
1944.	49.0	49.2	.4	.2
1945.	48.5	48.6	.2	.1
1946.	47.5	48.0	1.1	.5
1947.	46.7	46.7	.0	.0
1948.	46.7	47.0	.6	.3
1949.	47.8	48.3	1.0	.5
1950.	48.8	48.8	.0	.0
1951.	48.1	48.5	.8	.4
1952.	49.7	49.8	.2	.1
1953.	50.6	50.7	.2	.1
1954.	46.0	46.3	.7	.3
1955.	48.4	48.3	-.2	-.1
1956.	50.3	50.3	.0	.0
1957.	48.6	48.9	.6	.3
1958.	54.2	54.2	.0	.0
1959.	51.0	50.9	-.2	-.1
1960.	48.7	48.6	-.2	-.1
1961.	47.0	47.1	.2	.1
1962.	50.1	50.1	.0	.0
1963.	45.8	46.2	.9	.4
1964.	47.7	47.7	.0	.0
1965.	47.0	47.3	.6	.3
1966.	47.9	47.9	.0	.0
1967.	49.8	49.9	.2	.1
1968.	47.0	46.8	-.4	-.2
1969.	51.6	51.7	.2	.1
1970.	48.5	48.6	.2	.1
1971.	47.5	47.5	.0	.0
1972.	43.7	43.7	.0	.0
1973.	48.9	49.0	.2	.1
1974.	49.3	49.4	.2	.1
1975.	49.3	49.3	.0	.0
1976.	48.7	48.6	-.2	-.1
1977.	48.7	48.8	.2	.1
1978.	47.0	47.5	1.1	.5
1979.	50.0	50.2	.4	.2
1980.	50.8	51.2	.8	.4
1981.	50.1	50.2	.2	.1
1982.	48.7	48.7	.0	.0
1983.	48.6	48.6	.0	.0
1984.	48.3	48.6	.6	.3
1985.	44.9	45.0	.2	.1
1986.	50.2	50.4	.4	.2
1987.	48.3	48.4	.2	.1
1988.	47.9	48.0	.2	.1
1989.	48.2	48.2	.0	.0
1990.	44.4	45.0	1.4	.6
Mean:	48.5	48.7	.2	.1
Median:	48.6	48.6	.2	.1
Min:	43.7	43.7	-1.8	-.8
Max:	54.2	54.2	1.4	.6

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 68.0	0	0		
Mean X > 68.0	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0
60.0 <= X <= 70.0	0	0		
61.0 <= X <= 73.0	0	0		
48.0 <= X <= 68.0	46	50		

No. Years inc (avg):		45	(.2)
No. Years dec (avg):		8	(-.2)
No. Years no change		16	

RETURN TO TABLE OF CONTENTS

Section 13

SHASTA RESERVOIR STORAGE

SHASTA RESERVOIR STORAGE
October

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2837.8	2837.8	.0	.0
1923	2994.4	2994.4	.0	.0
1924	2384.1	2286.1	-4.1	-98.0
1925	947.7	886.7	-6.4	-61.0
1926	2697.7	2658.5	-1.5	-39.2
1927	2262.5	2279.3	.7	16.8
1928	3092.5	3092.5	.0	.0
1929	2646.2	2643.6	-.1	-2.6
1930	1901.4	1921.9	1.1	20.5
1931	2239.2	2244.7	.2	5.5
1932	793.4	789.1	-.5	-4.3
1933	1091.4	1103.7	1.1	12.3
1934	1070.0	1095.0	2.3	25.0
1935	639.4	681.1	6.5	41.7
1936	1484.4	1507.6	1.6	23.2
1937	2129.7	2138.6	.4	8.9
1938	2268.2	2138.3	-5.7	-129.9
1939	3250.0	3250.0	.0	.0
1940	2007.9	2024.2	.8	16.3
1941	2737.6	2764.3	1.0	26.7
1942	3250.0	3250.0	.0	.0
1943	3250.0	3250.0	.0	.0
1944	3135.5	3135.5	.0	.0
1945	2452.4	2471.5	.8	19.1
1946	2729.4	2728.3	.0	-1.1
1947	2692.3	2707.8	.6	15.5
1948	2398.5	2391.7	-.3	-6.8
1949	3086.3	3093.7	.2	7.4
1950	2712.7	2709.5	-.1	-3.2
1951	2701.9	2702.3	.0	.4
1952	2884.9	2910.4	.9	25.5
1953	3250.0	3250.0	.0	.0
1954	3250.0	3250.0	.0	.0
1955	3150.2	3150.3	.0	.1
1956	2720.0	2733.8	.5	13.8
1957	3250.0	3250.0	.0	.0
1958	3250.0	3250.0	.0	.0
1959	3250.0	3250.0	.0	.0
1960	2487.8	2533.1	1.8	45.3
1961	2788.5	2780.9	-.3	-7.6
1962	2895.3	2897.1	.1	1.8
1963	3250.0	3250.0	.0	.0
1964	3250.0	3250.0	.0	.0
1965	2516.1	2519.2	.1	3.1
1966	3127.5	3127.5	.0	.0
1967	2742.5	2797.6	2.0	55.1
1968	3250.0	3250.0	.0	.0
1969	2834.4	2880.5	1.6	46.1
1970	3250.0	3250.0	.0	.0
1971	2786.2	2799.3	.5	13.1
1972	3250.0	3250.0	.0	.0
1973	2843.7	2883.5	1.4	39.8
1974	3203.9	3215.4	.4	11.5
1975	3250.0	3250.0	.0	.0
1976	3250.0	3250.0	.0	.0
1977	2434.4	2431.9	-.1	-2.5
1978	593.6	582.8	-1.8	-10.8
1979	3144.6	3144.6	.0	.0
1980	2662.5	2701.7	1.5	39.2
1981	3113.6	3113.6	.0	.0
1982	2722.2	2715.9	-.2	-6.3
1983	3250.0	3250.0	.0	.0
1984	3250.0	3250.0	.0	.0
1985	3214.9	3215.1	.0	.2
1986	2524.8	2546.0	.8	21.2
1987	2705.2	2705.2	.0	.0
1988	2082.4	2084.5	.1	2.1
1989	2045.4	2064.7	.9	19.3
1990	2701.7	2676.4	-.9	-25.3
1991	2058.5	2058.4	.0	-.1
Mean:	2633.8	2636.4	.1	2.5
Median:	2737.6	2764.3	.0	.0
Min:	593.6	582.8	-6.4	-129.9
Max:	3250.0	3250.0	6.5	55.1
Littoral Habitat(ac)	655.4	668.8	2.0	13.4

SHASTA RESERVOIR STORAGE
November

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2800.0	2800.0	.0	.0
1923	2933.0	2933.0	.0	.0
1924	2379.1	2291.8	-3.7	-87.3
1925	1095.8	1034.9	-5.6	-60.9
1926	2675.0	2635.8	-1.5	-39.2
1927	2739.5	2756.3	.6	16.8
1928	3224.1	3224.1	.0	.0
1929	2615.6	2613.0	-.1	-2.6
1930	1890.6	1911.1	1.1	20.5
1931	2224.3	2229.8	.2	5.5
1932	778.6	774.3	-.6	-4.3
1933	1053.8	1066.1	1.2	12.3
1934	1050.9	1075.9	2.4	25.0
1935	768.8	810.4	5.4	41.6
1936	1443.3	1467.0	1.6	23.7
1937	2090.2	2099.1	.4	8.9
1938	2823.2	2708.2	-4.1	-115.0
1939	3195.3	3195.3	.0	.0
1940	2018.0	2034.2	.8	16.2
1941	2703.1	2729.7	1.0	26.6
1942	3190.8	3190.8	.0	.0
1943	3242.9	3242.9	.0	.0
1944	3071.9	3071.9	.0	.0
1945	2613.5	2632.6	.7	19.1
1946	2967.5	2966.5	.0	-1.0
1947	2718.6	2734.2	.6	15.6
1948	2443.4	2421.7	-.9	-21.7
1949	3012.7	3020.1	.2	7.4
1950	2632.2	2643.8	.4	11.6
1951	3106.7	3107.1	.0	.4
1952	2983.4	3008.8	.9	25.4
1953	3158.5	3158.5	.0	.0
1954	3252.0	3252.0	.0	.0
1955	3179.7	3179.8	.0	.1
1956	2731.5	2745.3	.5	13.8
1957	3179.5	3179.5	.0	.0
1958	3252.0	3252.0	.0	.0
1959	3181.5	3181.5	.0	.0
1960	2481.9	2516.3	1.4	34.4
1961	2825.9	2818.3	-.3	-7.6
1962	2932.8	2934.6	.1	1.8
1963	3251.3	3251.3	.0	.0
1964	3252.0	3252.0	.0	.0
1965	2611.3	2614.4	.1	3.1
1966	3252.0	3252.0	.0	.0
1967	3025.9	3081.0	1.8	55.1
1968	3178.5	3178.5	.0	.0
1969	2834.8	2866.0	1.1	31.2
1970	3188.5	3188.5	.0	.0
1971	3173.7	3186.9	.4	13.2
1972	3219.3	3219.3	.0	.0
1973	3032.0	3071.9	1.3	39.9
1974	3252.0	3252.0	.0	.0
1975	3223.5	3223.5	.0	.0
1976	3252.0	3252.0	.0	.0
1977	2447.5	2445.0	-.1	-2.5
1978	546.0	528.0	-3.3	-18.0
1979	3066.0	3066.0	.0	.0
1980	2763.7	2802.9	1.4	39.2
1981	3065.1	3065.1	.0	.0
1982	3252.0	3252.0	.0	.0
1983	3252.0	3252.0	.0	.0
1984	3252.0	3252.0	.0	.0
1985	3252.0	3252.0	.0	.0
1986	2540.0	2561.2	.8	21.2
1987	2675.5	2675.5	.0	.0
1988	2134.4	2136.5	.1	2.1
1989	2260.3	2279.6	.9	19.3
1990	2679.9	2669.5	-.4	-10.4
1991	2047.5	2071.5	1.2	24.0
Mean:	2680.6	2683.5	.1	2.9
Median:	2834.8	2866.0	.0	.0
Min:	546.0	528.0	-5.6	-115.0
Max:	3252.0	3252.0	5.4	55.1
Littoral Habitat(ac)	901.4	916.7	1.7	15.3

SHASTA RESERVOIR STORAGE
December

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2842.9	2842.9	.0	.0
1923	2933.7	2933.7	.0	.0
1924	2367.8	2295.9	-3.0	-71.9
1925	1188.6	1127.7	-5.1	-60.9
1926	2630.8	2591.6	-1.5	-39.2
1927	3224.9	3241.8	.5	16.9
1928	3224.8	3224.8	.0	.0
1929	2583.6	2581.0	-.1	-2.6
1930	2412.0	2432.5	.8	20.5
1931	2195.5	2200.9	.2	5.4
1932	978.0	973.7	-.4	-4.3
1933	1035.4	1047.6	1.2	12.2
1934	1174.1	1199.1	2.1	25.0
1935	807.8	849.4	5.1	41.6
1936	1447.4	1471.5	1.7	24.1
1937	2068.0	2065.3	-.1	-2.7
1938	3310.0	3310.0	.0	.0
1939	3215.8	3215.8	.0	.0
1940	2175.5	2191.8	.7	16.3
1941	3293.0	3293.0	.0	.0
1942	3316.0	3316.0	.0	.0
1943	3356.0	3356.0	.0	.0
1944	2985.6	2985.6	.0	.0
1945	2880.6	2899.7	.7	19.1
1946	3265.0	3265.0	.0	.0
1947	2742.5	2758.1	.6	15.6
1948	2470.4	2433.4	-1.5	-37.0
1949	2947.4	2954.8	.3	7.4
1950	2532.8	2559.8	1.1	27.0
1951	3322.0	3322.0	.0	.0
1952	3306.0	3306.0	.0	.0
1953	3345.0	3345.0	.0	.0
1954	3320.5	3320.5	.0	.0
1955	3354.0	3354.0	.0	.0
1956	3252.0	3252.0	.0	.0
1957	3100.2	3100.2	.0	.0
1958	3338.0	3338.0	.0	.0
1959	3130.2	3130.2	.0	.0
1960	2427.8	2474.9	1.9	47.1
1961	3172.1	3164.4	-.2	-7.7
1962	3149.7	3151.4	.1	1.7
1963	3349.0	3349.0	.0	.0
1964	3236.8	3236.8	.0	.0
1965	3252.0	3252.0	.0	.0
1966	3293.4	3293.4	.0	.0
1967	3335.0	3335.0	.0	.0
1968	3166.0	3166.0	.0	.0
1969	3079.1	3094.9	.5	15.8
1970	3317.0	3317.0	.0	.0
1971	3319.0	3319.0	.0	.0
1972	3262.2	3262.2	.0	.0
1973	3246.1	3285.9	1.2	39.8
1974	3267.0	3267.0	.0	.0
1975	3245.7	3245.7	.0	.0
1976	3231.1	3231.1	.0	.0
1977	2383.9	2384.8	.0	.9
1978	931.9	907.2	-2.7	-24.7
1979	2965.7	2965.7	.0	.0
1980	2853.0	2892.1	1.4	39.1
1981	3088.5	3088.5	.0	.0
1982	3276.0	3276.0	.0	.0
1983	3331.0	3331.0	.0	.0
1984	3285.0	3285.0	.0	.0
1985	3362.0	3362.0	.0	.0
1986	2672.7	2694.0	.8	21.3
1987	2633.4	2642.2	.3	8.8
1988	2662.9	2665.0	.1	2.1
1989	2368.8	2388.1	.8	19.3
1990	2610.3	2615.3	.2	5.0
1991	1953.4	2017.6	3.3	64.2
Mean:	2797.2	2800.7	.2	3.5
Median:	3100.2	3100.2	.0	.0
Min:	807.8	849.4	-5.1	-71.9
Max:	3362.0	3362.0	5.1	64.2
Littoral Habitat(ac)	1508.7	1526.8	1.2	18.1

SHASTA RESERVOIR STORAGE
January

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2871.2	2871.2	.0	.0
1923	3041.3	3041.3	.0	.0
1924	2368.5	2296.6	-3.0	-71.9
1925	1309.5	1248.7	-4.6	-60.8
1926	2637.0	2610.1	-1.0	-26.9
1927	3617.2	3634.0	.5	16.8
1928	3363.2	3363.2	.0	.0
1929	2626.0	2623.4	-.1	-2.6
1930	2595.7	2616.2	.8	20.5
1931	2239.0	2244.5	.2	5.5
1932	1120.2	1116.6	-.3	-3.6
1933	1066.5	1078.8	1.2	12.3
1934	1464.8	1489.8	1.7	25.0
1935	1100.8	1142.4	3.8	41.6
1936	2077.9	2102.0	1.2	24.1
1937	2017.6	2014.9	-.1	-2.7
1938	3574.2	3574.2	.0	.0
1939	3204.2	3204.2	.0	.0
1940	3023.0	3039.3	.5	16.3
1941	3317.0	3317.0	.0	.0
1942	3389.0	3389.0	.0	.0
1943	3541.0	3541.0	.0	.0
1944	2983.4	2983.4	.0	.0
1945	3004.9	3014.7	.3	9.8
1946	3622.0	3622.0	.0	.0
1947	2715.2	2730.8	.6	15.6
1948	3010.9	2973.9	-1.2	-37.0
1949	2878.3	2885.6	.3	7.3
1950	2776.9	2816.2	1.4	39.3
1951	3624.0	3624.0	.0	.0
1952	3604.0	3604.0	.0	.0
1953	3366.0	3366.0	.0	.0
1954	3552.0	3552.0	.0	.0
1955	3360.3	3360.3	.0	.0
1956	3252.0	3252.0	.0	.0
1957	3091.0	3091.0	.0	.0
1958	3531.0	3531.0	.0	.0
1959	3648.0	3648.0	.0	.0
1960	2578.7	2618.0	1.5	39.3
1961	3259.8	3252.2	-.2	-7.6
1962	3150.4	3152.2	.1	1.8
1963	3398.3	3398.3	.0	.0
1964	3528.8	3528.8	.0	.0
1965	3369.0	3369.0	.0	.0
1966	3721.9	3721.9	.0	.0
1967	3551.0	3551.0	.0	.0
1968	3284.8	3284.8	.0	.0
1969	3358.0	3358.0	.0	.0
1970	3252.0	3252.0	.0	.0
1971	3515.0	3515.0	.0	.0
1972	3523.4	3523.4	.0	.0
1973	3552.0	3552.0	.0	.0
1974	3252.0	3252.0	.0	.0
1975	3256.0	3256.0	.0	.0
1976	3174.4	3174.4	.0	.0
1977	2289.4	2289.5	.0	.1
1978	2839.0	2808.9	-1.1	-30.1
1979	3033.3	3033.3	.0	.0
1980	3528.0	3528.0	.0	.0
1981	3300.7	3300.7	.0	.0
1982	3616.0	3616.0	.0	.0
1983	3373.0	3373.0	.0	.0
1984	3650.0	3650.0	.0	.0
1985	3345.3	3345.3	.0	.0
1986	3192.6	3213.8	.7	21.2
1987	2726.5	2735.3	.3	8.8
1988	3051.8	3053.9	.1	2.1
1989	2452.4	2471.8	.8	19.4
1990	2821.5	2823.4	.1	1.9
1991	1863.9	1914.9	2.7	51.0
Mean:	2991.3	2993.3	.1	2.0
Median:	3204.2	3213.8	.0	.0
Min:	1066.5	1078.8	-4.6	-71.9
Max:	3721.9	3721.9	3.8	51.0
Littoral Habitat(ac)	2502.4	2512.3	.4	9.9

SHASTA RESERVOIR STORAGE
February

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3176.0	3176.0	.0	.0
1923	3087.2	3087.2	.0	.0
1924	2494.1	2422.3	-2.9	-71.8
1925	2578.8	2518.0	-2.4	-60.8
1926	3325.9	3299.1	-.8	-26.8
1927	3462.0	3462.0	.0	.0
1928	3712.3	3712.3	.0	.0
1929	2794.0	2791.4	-.1	-2.6
1930	2942.2	2962.7	.7	20.5
1931	2297.7	2303.2	.2	5.5
1932	1250.4	1249.0	-.1	-1.4
1933	1103.8	1116.0	1.1	12.2
1934	1792.6	1817.6	1.4	25.0
1935	1431.8	1473.4	2.9	41.6
1936	2959.4	2983.4	.8	24.0
1937	2097.3	2094.6	-.1	-2.7
1938	3560.0	3560.0	.0	.0
1939	3208.3	3208.3	.0	.0
1940	3252.0	3252.0	.0	.0
1941	3423.0	3423.0	.0	.0
1942	3516.0	3516.0	.0	.0
1943	3848.0	3848.0	.0	.0
1944	3228.2	3228.2	.0	.0
1945	3698.8	3708.6	.3	9.8
1946	3679.1	3681.4	.1	2.3
1947	2943.3	2958.8	.5	15.5
1948	3013.9	2999.1	-.5	-14.8
1949	3017.6	3025.0	.2	7.4
1950	3144.7	3170.0	.8	25.3
1951	3794.0	3794.0	.0	.0
1952	3739.0	3739.0	.0	.0
1953	3577.2	3577.2	.0	.0
1954	3661.0	3661.0	.0	.0
1955	3385.4	3385.4	.0	.0
1956	3288.0	3288.0	.0	.0
1957	3675.0	3675.0	.0	.0
1958	3252.0	3252.0	.0	.0
1959	3777.0	3777.0	.0	.0
1960	3271.4	3304.5	1.0	33.1
1961	3863.3	3855.7	-.2	-7.6
1962	3675.0	3675.0	.0	.0
1963	3944.0	3944.0	.0	.0
1964	3591.8	3591.8	.0	.0
1965	3658.1	3658.1	.0	.0
1966	4037.0	4037.0	.0	.0
1967	3920.0	3920.0	.0	.0
1968	3659.0	3659.0	.0	.0
1969	3480.0	3480.0	.0	.0
1970	3431.0	3431.0	.0	.0
1971	3794.0	3794.0	.0	.0
1972	3789.4	3789.4	.0	.0
1973	3636.0	3636.0	.0	.0
1974	3694.0	3694.0	.0	.0
1975	3857.5	3857.5	.0	.0
1976	3270.4	3270.4	.0	.0
1977	2119.0	2121.2	.1	2.2
1978	3650.0	3650.0	.0	.0
1979	3302.2	3302.2	.0	.0
1980	3292.0	3292.0	.0	.0
1981	3584.8	3584.8	.0	.0
1982	3530.0	3530.0	.0	.0
1983	3252.0	3252.0	.0	.0
1984	3944.4	3944.4	.0	.0
1985	3394.4	3394.4	.0	.0
1986	3252.0	3252.0	.0	.0
1987	3018.2	3027.1	.3	8.9
1988	3157.7	3159.8	.1	2.1
1989	2534.0	2553.3	.8	19.3
1990	2863.1	2862.2	.0	-.9
1991	1764.2	1819.6	3.1	55.4
Mean:	3220.2	3222.0	.1	1.7
Median:	3325.9	3304.5	.0	.0
Min:	1103.8	1116.0	-2.9	-71.8
Max:	4037.0	4037.0	3.1	55.4
Littoral Habitat(ac)	3647.4	3655.9	.2	8.5

SHASTA RESERVOIR STORAGE
March

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3467.1	3467.1	.0	.0
1923	3159.9	3159.9	.0	.0
1924	2443.4	2381.2	-2.5	-62.2
1925	2727.9	2688.0	-1.5	-39.9
1926	3403.2	3391.8	-.3	-11.4
1927	3975.8	3975.8	.0	.0
1928	3965.0	3965.0	.0	.0
1929	2942.2	2939.6	-.1	-2.6
1930	3389.1	3409.6	.6	20.5
1931	2383.4	2392.4	.4	9.0
1932	1674.5	1674.5	.0	.0
1933	1689.9	1702.1	.7	12.2
1934	2057.5	2082.4	1.2	24.9
1935	1824.1	1865.6	2.3	41.5
1936	3283.3	3307.3	.7	24.0
1937	2747.7	2745.0	-.1	-2.7
1938	3416.0	3416.0	.0	.0
1939	3504.0	3504.0	.0	.0
1940	3435.0	3435.0	.0	.0
1941	3940.0	3940.0	.0	.0
1942	3731.7	3731.7	.0	.0
1943	4118.0	4118.0	.0	.0
1944	3434.0	3434.0	.0	.0
1945	3871.4	3881.2	.3	9.8
1946	3935.7	3937.9	.1	2.2
1947	3439.2	3454.7	.5	15.5
1948	3276.3	3275.4	.0	-.9
1949	3999.0	4006.4	.2	7.4
1950	3518.2	3528.2	.3	10.0
1951	4122.5	4122.5	.0	.0
1952	4022.0	4022.0	.0	.0
1953	3925.0	3925.0	.0	.0
1954	4106.0	4106.0	.0	.0
1955	3433.1	3433.2	.0	.1
1956	3907.5	3907.5	.0	.0
1957	4129.0	4129.0	.0	.0
1958	3416.0	3416.0	.0	.0
1959	3969.8	3969.4	.0	-.4
1960	3855.1	3872.8	.5	17.7
1961	4263.7	4256.1	-.2	-7.6
1962	3990.6	3992.2	.0	1.6
1963	4226.0	4226.0	.0	.0
1964	3605.0	3605.0	.0	.0
1965	3757.2	3757.2	.0	.0
1966	4229.0	4229.0	.0	.0
1967	4033.0	4033.0	.0	.0
1968	4107.9	4107.9	.0	.0
1969	4030.0	4030.0	.0	.0
1970	3953.8	3953.8	.0	.0
1971	3873.0	3873.0	.0	.0
1972	4249.0	4249.0	.0	.0
1973	4162.0	4162.0	.0	.0
1974	3416.0	3416.0	.0	.0
1975	3800.0	3800.0	.0	.0
1976	3394.6	3394.6	.0	.0
1977	1891.0	1892.1	.1	1.1
1978	3960.0	3960.0	.0	.0
1979	3688.5	3688.5	.0	.0
1980	3909.7	3928.5	.5	18.8
1981	4051.5	4051.5	.0	.0
1982	3953.0	3953.0	.0	.0
1983	3416.0	3416.0	.0	.0
1984	4453.3	4453.3	.0	.0
1985	3484.2	3484.2	.0	.0
1986	3534.0	3534.0	.0	.0
1987	3701.6	3710.4	.2	8.8
1988	3160.1	3164.4	.1	4.3
1989	3841.0	3841.0	.0	.0
1990	3103.7	3099.7	-.1	-4.0
1991	2030.2	2092.8	3.1	62.6
Mean:	3527.2	3529.5	.1	2.3
Median:	3701.6	3710.4	.0	.0
Min:	1674.5	1674.5	-2.5	-62.2
Max:	4453.3	4453.3	3.1	62.6
Littoral Habitat(ac)	5142.9	5153.9	.2	11.0

SHASTA RESERVOIR STORAGE
April

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3948.1	3948.1	.0	.0
1923	3504.1	3504.1	.0	.0
1924	2219.3	2157.5	-2.8	-61.8
1925	3410.7	3370.9	-1.2	-39.8
1926	3676.0	3678.0	.1	2.0
1927	4552.0	4552.0	.0	.0
1928	4414.8	4414.8	.0	.0
1929	2992.7	3008.8	.5	16.1
1930	3546.1	3551.6	.2	5.5
1931	2102.5	2113.2	.5	10.7
1932	1842.8	1842.9	.0	.1
1933	1773.2	1798.7	1.4	25.5
1934	2044.1	2093.8	2.4	49.7
1935	2825.2	2866.6	1.5	41.4
1936	3543.4	3552.5	.3	9.1
1937	3444.5	3441.8	-.1	-2.7
1938	4058.0	4058.0	.0	.0
1939	3465.3	3474.6	.3	9.3
1940	4148.2	4148.2	.0	.0
1941	4456.0	4456.0	.0	.0
1942	4341.9	4341.9	.0	.0
1943	4524.6	4524.6	.0	.0
1944	3563.0	3563.0	.0	.0
1945	4006.3	4016.1	.2	9.8
1946	4152.1	4154.4	.1	2.3
1947	3607.2	3622.7	.4	15.5
1948	4188.6	4187.7	.0	-.9
1949	4287.9	4295.3	.2	7.4
1950	3845.2	3855.2	.3	10.0
1951	4223.9	4223.9	.0	.0
1952	4290.0	4290.0	.0	.0
1953	4226.0	4226.0	.0	.0
1954	4546.0	4546.0	.0	.0
1955	3736.8	3736.9	.0	.1
1956	4336.7	4336.7	.0	.0
1957	4262.2	4258.9	-.1	-3.3
1958	4173.0	4173.0	.0	.0
1959	4105.8	4105.5	.0	-.3
1960	3978.3	3993.7	.4	15.4
1961	4366.2	4357.1	-.2	-9.1
1962	4252.5	4254.2	.0	1.7
1963	4137.0	4137.0	.0	.0
1964	3542.3	3542.3	.0	.0
1965	4477.8	4477.8	.0	.0
1966	4552.0	4552.0	.0	.0
1967	4479.0	4479.0	.0	.0
1968	4176.6	4174.1	-.1	-2.5
1969	4434.0	4434.0	.0	.0
1970	4026.4	4026.4	.0	.0
1971	4394.1	4394.1	.0	.0
1972	4483.0	4491.7	.2	8.7
1973	4395.7	4395.7	.0	.0
1974	4289.0	4289.0	.0	.0
1975	4328.2	4328.2	.0	.0
1976	3526.8	3526.8	.0	.0
1977	1609.9	1610.1	.0	.2
1978	4552.0	4552.0	.0	.0
1979	3846.4	3846.4	.0	.0
1980	4154.7	4173.5	.5	18.8
1981	4160.3	4160.3	.0	.0
1982	4093.0	4093.0	.0	.0
1983	4074.0	4074.0	.0	.0
1984	4552.0	4552.0	.0	.0
1985	3635.8	3635.8	.0	.0
1986	3823.2	3823.2	.0	.0
1987	3583.5	3592.5	.3	9.0
1988	3165.4	3171.8	.2	6.4
1989	4171.2	4171.2	.0	.0
1990	2973.1	2983.0	.3	9.9
1991	2179.8	2242.4	2.9	62.6
Mean:	3811.4	3814.6	.1	3.2
Median:	4093.0	4093.0	.0	.0
Min:	1609.9	1610.1	-2.8	-61.8
Max:	4552.0	4552.0	2.9	62.6
Littoral Habitat(ac)	6490.4	6505.6	.2	15.2

SHASTA RESERVOIR STORAGE
May

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	4244.3	4244.3	.0	.0
1923	3345.0	3323.0	-.7	-22.0
1924	2006.8	1950.1	-2.8	-56.7
1925	3701.0	3661.3	-1.1	-39.7
1926	3590.4	3592.3	.1	1.9
1927	4552.0	4552.0	.0	.0
1928	4275.7	4275.7	.0	.0
1929	2826.7	2841.1	.5	14.4
1930	3528.3	3533.8	.2	5.5
1931	1892.0	1906.2	.8	14.2
1932	1996.9	1997.0	.0	.1
1933	1787.6	1813.0	1.4	25.4
1934	1852.2	1901.7	2.7	49.5
1935	3117.7	3155.5	1.2	37.8
1936	3459.6	3468.7	.3	9.1
1937	3602.2	3565.2	-1.0	-37.0
1938	4552.0	4552.0	.0	.0
1939	3195.1	3203.4	.3	8.3
1940	4190.6	4190.6	.0	.0
1941	4552.0	4552.0	.0	.0
1942	4552.0	4552.0	.0	.0
1943	4552.0	4552.0	.0	.0
1944	3535.8	3535.4	.0	-.4
1945	4097.5	4104.5	.2	7.0
1946	4083.9	4086.1	.1	2.2
1947	3346.3	3361.8	.5	15.5
1948	4552.0	4552.0	.0	.0
1949	4325.8	4335.3	.2	9.5
1950	3672.3	3682.3	.3	10.0
1951	4409.0	4409.0	.0	.0
1952	4552.0	4552.0	.0	.0
1953	4552.0	4552.0	.0	.0
1954	4402.1	4401.7	.0	-.4
1955	3981.3	3981.4	.0	.1
1956	4552.0	4552.0	.0	.0
1957	4552.0	4552.0	.0	.0
1958	4552.0	4552.0	.0	.0
1959	3965.5	3981.3	.4	15.8
1960	4156.6	4164.6	.2	8.0
1961	4193.9	4187.1	-.2	-6.8
1962	4202.6	4204.2	.0	1.6
1963	4552.0	4552.0	.0	.0
1964	3463.6	3463.6	.0	.0
1965	4486.1	4486.1	.0	.0
1966	4231.4	4229.8	.0	-1.6
1967	4552.0	4552.0	.0	.0
1968	4064.9	4059.8	-.1	-5.1
1969	4552.0	4552.0	.0	.0
1970	3988.7	3988.7	.0	.0
1971	4552.0	4552.0	.0	.0
1972	4177.2	4184.1	.2	6.9
1973	4380.1	4380.1	.0	.0
1974	4552.0	4552.0	.0	.0
1975	4552.0	4552.0	.0	.0
1976	3368.4	3373.3	.1	4.9
1977	1582.1	1583.6	.1	1.5
1978	4552.0	4552.0	.0	.0
1979	3978.9	3975.5	-.1	-3.4
1980	4197.7	4216.6	.5	18.9
1981	3940.6	3952.7	.3	12.1
1982	4448.4	4448.4	.0	.0
1983	4552.0	4552.0	.0	.0
1984	4396.3	4397.0	.0	.7
1985	3484.7	3484.2	.0	-.5
1986	3862.0	3862.0	.0	.0
1987	3262.4	3260.9	.0	-1.5
1988	3085.9	3092.6	.2	6.7
1989	4005.6	3996.1	-.2	-9.5
1990	3042.1	3056.5	.5	14.4
1991	2191.4	2253.8	2.8	62.4
Mean:	3844.4	3847.0	.1	2.6
Median:	4097.5	4104.5	.0	.0
Min:	1582.1	1583.6	-2.8	-56.7
Max:	4552.0	4552.0	2.8	62.4
Littoral Habitat(ac)	6645.1	6657.1	.2	12.0

SHASTA RESERVOIR STORAGE
June

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	4023.9	4023.9	.0	.0
1923	3127.7	3085.4	-1.4	-42.3
1924	1708.4	1656.2	-3.1	-52.2
1925	3639.2	3599.6	-1.1	-39.6
1926	3247.2	3259.0	.4	11.8
1927	4252.5	4252.5	.0	.0
1928	3954.3	3954.3	.0	.0
1929	2704.9	2719.3	.5	14.4
1930	3232.7	3238.2	.2	5.5
1931	1660.0	1674.1	.8	14.1
1932	1878.6	1891.1	.7	12.5
1933	1731.7	1747.6	.9	15.9
1934	1554.5	1579.5	1.6	25.0
1935	2744.9	2778.3	1.2	33.4
1936	3333.6	3342.6	.3	9.0
1937	3447.0	3376.8	-2.0	-70.2
1938	4400.0	4400.0	.0	.0
1939	2843.5	2856.4	.5	12.9
1940	3854.1	3859.2	.1	5.1
1941	4400.0	4400.0	.0	.0
1942	4400.0	4400.0	.0	.0
1943	4280.2	4280.2	.0	.0
1944	3269.2	3311.7	1.3	42.5
1945	3865.2	3883.4	.5	18.2
1946	3761.1	3754.0	-.2	-7.1
1947	3265.6	3280.5	.5	14.9
1948	4400.0	4400.0	.0	.0
1949	3779.0	3794.4	.4	15.4
1950	3377.0	3377.4	.0	.4
1951	3993.1	3993.1	.0	.0
1952	4400.0	4400.0	.0	.0
1953	4400.0	4400.0	.0	.0
1954	4195.4	4199.9	.1	4.5
1955	3651.5	3650.0	.0	-1.5
1956	4400.0	4400.0	.0	.0
1957	4334.6	4338.2	.1	3.6
1958	4400.0	4400.0	.0	.0
1959	3539.5	3568.5	.8	29.0
1960	3891.1	3858.4	-.8	-32.7
1961	3949.7	3942.8	-.2	-6.9
1962	3886.4	3888.0	.0	1.6
1963	4315.7	4315.7	.0	.0
1964	3374.2	3374.2	.0	.0
1965	4158.3	4158.3	.0	.0
1966	3785.4	3778.5	-.2	-6.9
1967	4400.0	4400.0	.0	.0
1968	3714.6	3727.3	.3	12.7
1969	4400.0	4400.0	.0	.0
1970	3743.8	3743.8	.0	.0
1971	4400.0	4400.0	.0	.0
1972	3905.0	3908.2	.1	3.2
1973	4133.3	4128.6	-.1	-4.7
1974	4400.0	4400.0	.0	.0
1975	4400.0	4400.0	.0	.0
1976	3137.1	3132.8	-.1	-4.3
1977	1394.5	1393.1	-.1	-1.4
1978	4235.9	4235.9	.0	.0
1979	3548.6	3538.8	-.3	-9.8
1980	3955.4	3974.3	.5	18.9
1981	3564.3	3605.8	1.2	41.5
1982	4340.9	4340.9	.0	.0
1983	4503.2	4503.2	.0	.0
1984	4131.3	4131.7	.0	.4
1985	3186.9	3201.9	.5	15.0
1986	3516.7	3516.7	.0	.0
1987	2850.2	2849.7	.0	-.5
1988	2873.8	2885.2	.4	11.4
1989	3634.7	3636.2	.0	1.5
1990	2978.2	2988.3	.3	10.1
1991	2016.6	2075.0	2.9	58.4
Mean:	3602.5	3605.1	.1	2.6
Median:	3779.0	3778.5	.0	.0
Min:	1394.5	1393.1	-3.1	-70.2
Max:	4503.2	4503.2	2.9	58.4
Littoral Habitat(ac)	5503.1	5515.5	.2	12.4

SHASTA RESERVOIR STORAGE
July

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3591.3	3591.3	.0	.0
1923	2837.5	2745.0	-3.3	-92.5
1924	1400.0	1350.0	-3.6	-50.0
1925	3299.7	3260.2	-1.2	-39.5
1926	2843.8	2860.8	.6	17.0
1927	3823.6	3811.9	-.3	-11.7
1928	3285.4	3308.7	.7	23.3
1929	2390.2	2410.9	.9	20.7
1930	2852.6	2858.2	.2	5.6
1931	1372.9	1361.4	-.8	-11.5
1932	1586.8	1599.2	.8	12.4
1933	1511.0	1526.8	1.0	15.8
1934	1214.3	1256.3	3.5	42.0
1935	2222.1	2250.9	1.3	28.8
1936	2900.6	2909.6	.3	9.0
1937	2986.0	2881.3	-3.5	-104.7
1938	3917.0	3912.3	-.1	-4.7
1939	2499.4	2515.8	.7	16.4
1940	3371.9	3398.8	.8	26.9
1941	3975.6	3975.6	.0	.0
1942	3900.0	3900.0	.0	.0
1943	3865.2	3877.3	.3	12.1
1944	2938.3	2961.3	.8	23.0
1945	3258.2	3260.9	.1	2.7
1946	3271.9	3287.6	.5	15.7
1947	2866.3	2875.0	.3	8.7
1948	3900.0	3900.0	.0	.0
1949	3360.6	3356.5	-.1	-4.1
1950	2940.1	2940.5	.0	.4
1951	3498.9	3524.5	.7	25.6
1952	3941.1	3941.1	.0	.0
1953	3951.6	3951.6	.0	.0
1954	3572.4	3578.2	.2	5.8
1955	3318.7	3315.9	-.1	-2.8
1956	3900.0	3900.0	.0	.0
1957	3858.3	3873.4	.4	15.1
1958	3999.6	3999.6	.0	.0
1959	2902.6	2934.7	1.1	32.1
1960	3433.4	3388.3	-1.3	-45.1
1961	3523.6	3520.0	-.1	-3.6
1962	3436.3	3451.0	.4	14.7
1963	3900.0	3900.0	.0	.0
1964	3031.0	3035.7	.2	4.7
1965	3746.7	3742.3	-.1	-4.4
1966	3292.7	3303.7	.3	11.0
1967	3901.6	3901.6	.0	.0
1968	3161.0	3215.7	1.7	54.7
1969	3900.0	3900.0	.0	.0
1970	3190.1	3205.7	.5	15.6
1971	3900.0	3900.0	.0	.0
1972	3324.4	3326.7	.1	2.3
1973	3578.6	3590.1	.3	11.5
1974	3976.1	3976.1	.0	.0
1975	3947.6	3947.6	.0	.0
1976	2804.0	2806.2	.1	2.2
1977	1035.6	1032.6	-.3	-3.0
1978	3849.3	3849.3	.0	.0
1979	3024.8	3083.4	1.9	58.6
1980	3668.9	3689.9	.6	21.0
1981	3200.9	3243.4	1.3	42.5
1982	3900.0	3900.0	.0	.0
1983	4143.5	4143.5	.0	.0
1984	3684.9	3699.2	.4	14.3
1985	2901.8	2907.2	.2	5.4
1986	3147.0	3147.0	.0	.0
1987	2482.0	2485.2	.1	3.2
1988	2498.9	2510.3	.5	11.4
1989	3210.1	3203.1	-.2	-7.0
1990	2582.2	2594.1	.5	11.9
1991	1797.6	1844.0	2.6	46.4
Mean:	3175.7	3180.1	.2	4.4
Median:	3292.7	3303.7	.1	2.3
Min:	1035.6	1032.6	-3.6	-104.7
Max:	4143.5	4143.5	3.5	58.6
Littoral Habitat(ac)	3426.8	3448.5	.6	21.7

SHASTA RESERVOIR STORAGE
August

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3243.4	3243.4	.0	.0
1923	2536.8	2429.6	-4.2	-107.2
1924	1057.6	998.1	-5.6	-59.5
1925	2912.2	2872.9	-1.3	-39.3
1926	2449.4	2466.3	.7	16.9
1927	3350.0	3350.0	.0	.0
1928	2890.8	2888.2	-.1	-2.6
1929	2095.8	2116.4	1.0	20.6
1930	2430.1	2435.6	.2	5.5
1931	949.3	943.2	-.6	-6.1
1932	1290.2	1302.6	1.0	12.4
1933	1232.9	1258.1	2.0	25.2
1934	821.2	863.1	5.1	41.9
1935	1676.1	1700.9	1.5	24.8
1936	2390.5	2399.5	.4	9.0
1937	2469.2	2330.4	-5.6	-138.8
1938	3350.0	3350.0	.0	.0
1939	2171.4	2187.7	.8	16.3
1940	2963.8	2990.6	.9	26.8
1941	3425.9	3425.9	.0	.0
1942	3350.0	3350.0	.0	.0
1943	3350.0	3350.0	.0	.0
1944	2622.8	2642.0	.7	19.2
1945	2856.4	2855.3	.0	-1.1
1946	2906.9	2922.5	.5	15.6
1947	2464.5	2473.1	.3	8.6
1948	3342.6	3350.0	.2	7.4
1949	2992.0	2973.3	-.6	-18.7
1950	2540.5	2540.9	.0	.4
1951	3121.0	3146.6	.8	25.6
1952	3350.0	3350.0	.0	.0
1953	3362.0	3362.0	.0	.0
1954	3346.6	3346.6	.0	.0
1955	2954.2	2968.0	.5	13.8
1956	3350.0	3350.0	.0	.0
1957	3350.0	3350.0	.0	.0
1958	3460.6	3460.6	.0	.0
1959	2573.1	2634.1	2.4	61.0
1960	3001.9	2994.2	-.3	-7.7
1961	3136.5	3138.3	.1	1.8
1962	3101.7	3116.3	.5	14.6
1963	3350.0	3350.0	.0	.0
1964	2717.2	2720.4	.1	3.2
1965	3350.0	3350.0	.0	.0
1966	2969.7	3025.1	1.9	55.4
1967	3350.0	3350.0	.0	.0
1968	2997.0	3058.5	2.1	61.5
1969	3350.0	3350.0	.0	.0
1970	2934.3	2947.5	.4	13.2
1971	3350.0	3350.0	.0	.0
1972	2954.9	2994.9	1.4	40.0
1973	3336.2	3347.7	.3	11.5
1974	3431.9	3431.9	.0	.0
1975	3377.9	3377.9	.0	.0
1976	2539.5	2537.0	-.1	-2.5
1977	692.7	688.5	-.6	-4.2
1978	3350.0	3350.0	.0	.0
1979	2796.3	2835.6	1.4	39.3
1980	3350.0	3350.0	.0	.0
1981	2928.9	2922.5	-.2	-6.4
1982	3350.0	3350.0	.0	.0
1983	3668.7	3668.7	.0	.0
1984	3350.0	3350.0	.0	.0
1985	2638.7	2660.0	.8	21.3
1986	2816.5	2816.5	.0	.0
1987	2207.1	2209.1	.1	2.0
1988	2183.7	2203.2	.9	19.5
1989	2769.4	2728.6	-1.5	-40.8
1990	2219.2	2219.1	.0	-.1
1991	1621.2	1667.4	2.8	46.2
Mean:	2774.2	2777.7	.2	3.5
Median:	2954.2	2968.0	.0	.0
Min:	692.7	688.5	-5.6	-138.8
Max:	3668.7	3668.7	5.1	61.5
Littoral Habitat(ac)	1389.5	1407.7	1.3	18.2

SHASTA RESERVOIR STORAGE
September

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	3084.5	3084.5	.0	.0
1923	2373.5	2266.5	-4.5	-107.0
1924	933.2	872.1	-6.5	-61.1
1925	2743.1	2703.8	-1.4	-39.3
1926	2261.3	2278.2	.7	16.9
1927	3206.8	3206.8	.0	.0
1928	2725.7	2723.1	-.1	-2.6
1929	1911.6	1932.1	1.1	20.5
1930	2251.1	2256.6	.2	5.5
1931	814.0	809.7	-.5	-4.3
1932	1153.5	1165.8	1.1	12.3
1933	1099.4	1124.5	2.3	25.1
1934	664.3	706.1	6.3	41.8
1935	1511.5	1535.0	1.6	23.5
1936	2196.5	2205.5	.4	9.0
1937	2276.1	2137.6	-6.1	-138.5
1938	3300.0	3300.0	.0	.0
1939	1997.0	2013.3	.8	16.3
1940	2806.6	2833.3	1.0	26.7
1941	3300.0	3300.0	.0	.0
1942	3300.0	3300.0	.0	.0
1943	3228.8	3228.8	.0	.0
1944	2458.3	2477.4	.8	19.1
1945	2699.4	2698.3	.0	-1.1
1946	2753.8	2769.4	.6	15.6
1947	2299.4	2308.0	.4	8.6
1948	3191.5	3198.9	.2	7.4
1949	2811.7	2793.0	-.7	-18.7
1950	2365.3	2365.7	.0	.4
1951	2953.4	2978.9	.9	25.5
1952	3300.0	3300.0	.0	.0
1953	3300.0	3300.0	.0	.0
1954	3229.5	3229.5	.0	.0
1955	2807.0	2820.8	.5	13.8
1956	3300.0	3300.0	.0	.0
1957	3291.1	3293.3	.1	2.2
1958	3300.0	3300.0	.0	.0
1959	2484.8	2545.6	2.4	60.8
1960	2852.5	2844.9	-.3	-7.6
1961	2980.9	2982.7	.1	1.8
1962	2937.1	2951.7	.5	14.6
1963	3296.3	3296.3	.0	.0
1964	2549.5	2552.7	.1	3.2
1965	3219.8	3219.8	.0	.0
1966	2821.4	2876.7	2.0	55.3
1967	3300.0	3300.0	.0	.0
1968	2870.5	2932.0	2.1	61.5
1969	3300.0	3300.0	.0	.0
1970	2806.1	2819.3	.5	13.2
1971	3300.0	3300.0	.0	.0
1972	2838.7	2878.6	1.4	39.9
1973	3203.2	3214.6	.4	11.4
1974	3300.0	3300.0	.0	.0
1975	3300.0	3300.0	.0	.0
1976	2417.2	2414.7	-.1	-2.5
1977	670.9	666.7	-.6	-4.2
1978	3240.9	3240.9	.0	.0
1979	2637.4	2676.6	1.5	39.2
1980	3221.9	3221.9	.0	.0
1981	2758.7	2752.4	-.2	-6.3
1982	3300.0	3300.0	.0	.0
1983	3300.0	3300.0	.0	.0
1984	3249.8	3249.8	.0	.0
1985	2514.2	2535.5	.8	21.3
1986	2716.6	2716.6	.0	.0
1987	2058.6	2060.7	.1	2.1
1988	2027.3	2046.7	1.0	19.4
1989	2630.6	2589.9	-1.5	-40.7
1990	2053.7	2053.6	.0	-.1
1991	1530.4	1576.6	3.0	46.2
Mean:	2641.3	2644.8	.2	3.5
Median:	2806.6	2819.3	.0	.0
Min:	664.3	666.7	-6.5	-138.5
Max:	3300.0	3300.0	6.3	61.5
Littoral Habitat(ac)	694.5	713.0	2.7	18.5

RETURN TO TABLE OF CONTENTS

Section 14

SHASTA RESERVOIR ELEVATION
14.1 Fisheries

SHASTA RESERVOIR ELEVATION

October

	Cuml.		No Proj-constrained			
		Change		Change		
Water Year	Elev (ft msl)	from Prev (ft)	Elev (ft msl)	from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	997.7	.0	997.7	.0	.0	.0
1923	1004.7	-3.9	1004.7	-3.9	.0	.0
1924	976.0	.6	970.9	1.0	-.5	-5.1
1925	879.3	1.4	873.4	1.5	-.7	-5.9
1926	991.2	-2.2	989.4	-2.1	-.2	-1.8
1927	969.7	.1	970.6	.1	.1	.9
1928	1008.9	-4.8	1008.9	-4.8	.0	.0
1929	988.8	-3.8	988.7	-3.7	.0	-.1
1930	949.6	-.6	950.8	-.6	.1	1.2
1931	968.4	-.7	968.7	-.7	.0	.3
1932	863.7	-2.2	863.2	-2.2	-.1	-.5
1933	892.4	-5.2	893.4	-5.2	.1	1.0
1934	890.5	-2.6	892.7	-2.5	.2	2.2
1935	845.8	-3.0	850.9	-2.9	.6	5.1
1936	922.8	-1.9	924.4	-1.9	.2	1.6
1937	962.5	-3.7	963.0	-3.7	.1	.5
1938	970.0	-.4	963.0	.0	-.7	-7.0
1939	1015.5	-2.1	1015.5	-2.1	.0	.0
1940	955.7	.6	956.7	.6	.1	1.0
1941	993.1	-3.2	994.3	-3.2	.1	1.2
1942	1015.5	-2.1	1015.5	-2.1	.0	.0
1943	1015.5	-2.1	1015.5	-2.1	.0	.0
1944	1010.7	-4.0	1010.7	-4.0	.0	.0
1945	979.4	-.3	980.3	-.3	.1	.9
1946	992.7	1.4	992.7	1.4	.0	.0
1947	991.0	-2.9	991.7	-2.9	.1	.7
1948	976.7	5.1	976.3	4.2	.0	-.4
1949	1008.6	-4.5	1009.0	-4.4	.0	.4
1950	991.9	-4.6	991.8	-3.9	.0	-.1
1951	991.4	16.4	991.5	16.5	.0	.1
1952	999.8	-3.1	1001.0	-3.0	.1	1.2
1953	1015.5	-2.1	1015.5	-2.1	.0	.0
1954	1015.5	-2.1	1015.5	-2.1	.0	.0
1955	1011.4	-3.3	1011.4	-3.3	.0	.0
1956	992.3	-4.0	992.9	-4.0	.1	.6
1957	1015.5	-2.1	1015.5	-2.1	.0	.0
1958	1015.5	-1.7	1015.5	-1.8	.0	.0
1959	1015.5	-2.1	1015.5	-2.1	.0	.0
1960	981.2	.2	983.4	-.6	.2	2.2
1961	995.5	-2.9	995.1	-2.9	.0	-.4
1962	1000.3	-3.8	1000.4	-3.7	.0	.1
1963	1015.5	13.4	1015.5	12.7	.0	.0
1964	1015.5	-2.0	1015.5	-2.0	.0	.0
1965	982.5	-1.7	982.7	-1.6	.0	.2
1966	1010.4	-3.9	1010.4	-3.9	.0	.0
1967	993.3	-3.7	995.9	-3.5	.3	2.6
1968	1015.5	-2.1	1015.5	-2.1	.0	.0
1969	997.5	-1.7	999.6	-2.3	.2	2.1
1970	1015.5	-2.1	1015.5	-2.1	.0	.0
1971	995.3	-1.0	995.9	-1.0	.1	.6
1972	1015.5	-2.1	1015.5	-2.1	.0	.0
1973	998.0	.3	999.8	.3	.2	1.8
1974	1013.6	.0	1014.1	.0	.0	.5
1975	1015.5	-2.1	1015.5	-2.1	.0	.0
1976	1015.5	-2.1	1015.5	-2.1	.0	.0
1977	978.5	.9	978.4	.9	.0	-.1
1978	839.8	-9.8	838.4	-10.7	-.2	-1.4
1979	1011.1	-4.1	1011.1	-4.1	.0	.0
1980	989.6	1.2	991.4	1.1	.2	1.8
1981	1009.8	-4.6	1009.8	-4.6	.0	.0
1982	992.4	-1.7	992.1	-1.7	.0	-.3
1983	1015.5	-2.1	1015.5	-2.1	.0	.0
1984	1015.5	-2.1	1015.5	-2.1	.0	.0
1985	1014.1	-1.4	1014.1	-1.4	.0	.0
1986	983.0	.5	984.0	.5	.1	1.0
1987	991.6	-.5	991.6	-.5	.0	.0
1988	959.9	1.3	960.1	1.4	.0	.2
1989	957.9	1.1	959.0	1.1	.1	1.1
1990	991.4	3.3	990.2	4.1	-.1	-1.2
1991	958.6	.3	958.6	.3	.0	.0
Mean:	984.1	-1.3	984.2	-1.3	.0	.1
Median:	993.1	-2.1	994.3	-2.1	.0	.0
Min:	839.8	-9.8	838.4	-10.7	-.7	-7.0
Max:	1015.5	16.4	1015.5	16.5	.6	5.1
X inc > 20.0		0		0		
X dec > 9.0		1		1		
X dec > 10.0		0		1		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

November

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	996.0	.0	996.0	.0	.0	.0
1923	1002.0	-2.7	1002.0	-2.7	.0	.0
1924	975.7	-.3	971.2	.3	-.5	-4.5
1925	892.7	13.4	887.4	14.0	-.6	-5.3
1926	990.2	-1.0	988.3	-1.1	-.2	-1.9
1927	993.2	23.5	994.0	23.4	.1	.8
1928	1014.5	5.6	1014.5	5.6	.0	.0
1929	987.4	-1.4	987.2	-1.5	.0	-.2
1930	948.9	-.7	950.1	-.7	.1	1.2
1931	967.7	-.7	967.9	-.8	.0	.2
1932	862.1	-1.6	861.6	-1.6	-.1	-.5
1933	889.1	-3.3	890.2	-3.2	.1	1.1
1934	888.8	-1.7	891.0	-1.7	.2	2.2
1935	861.0	15.2	865.5	14.6	.5	4.5
1936	919.9	-2.9	921.6	-2.8	.2	1.7
1937	960.4	-2.1	960.9	-2.1	.1	.5
1938	997.0	27.0	991.7	28.7	-.5	-5.3
1939	1013.3	-2.2	1013.3	-2.2	.0	.0
1940	956.3	.6	957.2	.5	.1	.9
1941	991.5	-1.6	992.7	-1.6	.1	1.2
1942	1013.1	-2.4	1013.1	-2.4	.0	.0
1943	1015.2	-.3	1015.2	-.3	.0	.0
1944	1008.0	-2.7	1008.0	-2.7	.0	.0
1945	987.3	7.9	988.2	7.9	.1	.9
1946	1003.5	10.8	1003.4	10.7	.0	-.1
1947	992.2	1.2	992.9	1.2	.1	.7
1948	978.9	2.2	977.9	1.6	-.1	-1.0
1949	1005.5	-3.1	1005.8	-3.2	.0	.3
1950	988.2	-3.7	988.7	-3.1	.1	.5
1951	1009.5	18.1	1009.5	18.0	.0	.0
1952	1004.2	4.4	1005.3	4.3	.1	1.1
1953	1011.7	-3.8	1011.7	-3.8	.0	.0
1954	1015.6	.1	1015.6	.1	.0	.0
1955	1012.6	1.2	1012.6	1.2	.0	.0
1956	992.8	.5	993.5	.6	.1	.7
1957	1012.6	-2.9	1012.6	-2.9	.0	.0
1958	1015.6	.1	1015.6	.1	.0	.0
1959	1012.7	-2.8	1012.7	-2.8	.0	.0
1960	980.9	-.3	982.6	-.8	.2	1.7
1961	997.2	1.7	996.8	1.7	.0	-.4
1962	1002.0	1.7	1002.0	1.6	.0	.0
1963	1015.6	.1	1015.6	.1	.0	.0
1964	1015.6	.1	1015.6	.1	.0	.0
1965	987.2	4.7	987.3	4.6	.0	.1
1966	1015.6	5.2	1015.6	5.2	.0	.0
1967	1006.0	12.7	1008.4	12.5	.2	2.4
1968	1012.6	-2.9	1012.6	-2.9	.0	.0
1969	997.6	.1	999.0	-.6	.1	1.4
1970	1013.0	-2.5	1013.0	-2.5	.0	.0
1971	1012.4	17.1	1012.9	17.0	.0	.5
1972	1014.3	-1.2	1014.3	-1.2	.0	.0
1973	1006.3	8.3	1008.0	8.2	.2	1.7
1974	1015.6	2.0	1015.6	1.5	.0	.0
1975	1014.4	-1.1	1014.4	-1.1	.0	.0
1976	1015.6	.1	1015.6	.1	.0	.0
1977	979.2	.7	979.0	.6	.0	-.2
1978	833.3	-6.5	830.8	-7.6	-.3	-2.5
1979	1007.8	-3.3	1007.8	-3.3	.0	.0
1980	994.3	4.7	996.1	4.7	.2	1.8
1981	1007.7	-2.1	1007.7	-2.1	.0	.0
1982	1015.6	23.2	1015.6	23.5	.0	.0
1983	1015.6	.1	1015.6	.1	.0	.0
1984	1015.6	.1	1015.6	.1	.0	.0
1985	1015.6	1.5	1015.6	1.5	.0	.0
1986	983.7	.7	984.7	.7	.1	1.0
1987	990.2	-1.4	990.2	-1.4	.0	.0
1988	962.8	2.9	962.9	2.8	.0	.1
1989	969.6	11.7	970.6	11.6	.1	1.0
1990	990.4	-1.0	989.9	-.3	-.1	-.5
1991	958.0	-.6	959.3	.7	.1	1.3
Mean:	986.4	2.3	986.5	2.4	.0	.1
Median:	997.6	.1	999.0	.1	.0	.0
Min:	833.3	-6.5	830.8	-7.6	-.6	-5.3
Max:	1015.6	27.0	1015.6	28.7	.5	4.5
X inc > 20.0		3		3		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

December

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	997.9	.0	997.9	.0	.0	.0
1923	1002.0	.0	1002.0	.0	.0	.0
1924	975.1	-.6	971.4	.2	-.4	-3.7
1925	900.5	7.8	895.5	8.1	-.6	-5.0
1926	988.1	-2.1	986.2	-2.1	-.2	-1.9
1927	1014.5	21.3	1015.2	21.2	.1	.7
1928	1014.5	.0	1014.5	.0	.0	.0
1929	985.8	-1.6	985.7	-1.5	.0	-.1
1930	977.4	28.5	978.4	28.3	.1	1.0
1931	966.1	-1.6	966.4	-1.5	.0	.3
1932	882.2	20.1	881.8	20.2	.0	-.4
1933	887.4	-1.7	888.5	-1.7	.1	1.1
1934	899.3	10.5	901.4	10.4	.2	2.1
1935	865.2	4.2	869.6	4.1	.5	4.4
1936	920.2	.3	921.9	.3	.2	1.7
1937	959.1	-1.3	959.0	-1.9	.0	-.1
1938	1018.0	21.0	1018.0	26.3	.0	.0
1939	1014.1	.8	1014.1	.8	.0	.0
1940	965.0	8.7	965.9	8.7	.1	.9
1941	1017.3	25.8	1017.3	24.6	.0	.0
1942	1018.3	5.2	1018.3	5.2	.0	.0
1943	1019.9	4.7	1019.9	4.7	.0	.0
1944	1004.3	-3.7	1004.3	-3.7	.0	.0
1945	999.6	12.3	1000.5	12.3	.1	.9
1946	1016.2	12.7	1016.2	12.8	.0	.0
1947	993.3	1.1	994.1	1.2	.1	.8
1948	980.3	1.4	978.4	.5	-.2	-1.9
1949	1002.6	-2.9	1002.9	-2.9	.0	.3
1950	983.4	-4.8	984.7	-4.0	.1	1.3
1951	1018.5	9.0	1018.5	9.0	.0	.0
1952	1017.9	13.7	1017.9	12.6	.0	.0
1953	1019.4	7.7	1019.4	7.7	.0	.0
1954	1018.4	2.8	1018.4	2.8	.0	.0
1955	1019.8	7.2	1019.8	7.2	.0	.0
1956	1015.6	22.8	1015.6	22.1	.0	.0
1957	1009.2	-3.4	1009.2	-3.4	.0	.0
1958	1019.2	3.6	1019.2	3.6	.0	.0
1959	1010.5	-2.2	1010.5	-2.2	.0	.0
1960	978.2	-2.7	980.5	-2.1	.2	2.3
1961	1012.3	15.1	1012.0	15.2	.0	-.3
1962	1011.3	9.3	1011.4	9.4	.0	.1
1963	1019.6	4.0	1019.6	4.0	.0	.0
1964	1015.0	-.6	1015.0	-.6	.0	.0
1965	1015.6	28.4	1015.6	28.3	.0	.0
1966	1017.3	1.7	1017.3	1.7	.0	.0
1967	1019.0	13.0	1019.0	10.6	.0	.0
1968	1012.0	-.6	1012.0	-.6	.0	.0
1969	1008.3	10.7	1009.0	10.0	.1	.7
1970	1018.3	5.3	1018.3	5.3	.0	.0
1971	1018.4	6.0	1018.4	5.5	.0	.0
1972	1016.0	1.7	1016.0	1.7	.0	.0
1973	1015.4	9.1	1017.0	9.0	.2	1.6
1974	1016.2	.6	1016.2	.6	.0	.0
1975	1015.4	1.0	1015.4	1.0	.0	.0
1976	1014.8	-.8	1014.8	-.8	.0	.0
1977	976.0	-3.2	976.0	-3.0	.0	.0
1978	877.8	44.5	875.4	44.6	-.3	-2.4
1979	1003.4	-4.4	1003.4	-4.4	.0	.0
1980	998.4	4.1	1000.1	4.0	.2	1.7
1981	1008.7	1.0	1008.7	1.0	.0	.0
1982	1016.6	1.0	1016.6	1.0	.0	.0
1983	1018.9	3.3	1018.9	3.3	.0	.0
1984	1017.0	1.4	1017.0	1.4	.0	.0
1985	1020.1	4.5	1020.1	4.5	.0	.0
1986	990.1	6.4	991.1	6.4	.1	1.0
1987	988.2	-2.0	988.6	-1.6	.0	.4
1988	989.6	26.8	989.7	26.8	.0	.1
1989	975.2	5.6	976.2	5.6	.1	1.0
1990	987.1	-3.3	987.3	-2.6	.0	.2
1991	952.6	-5.4	956.3	-3.0	.4	3.7
Mean:	992.3	5.8	992.4	5.9	.0	.2
Median:	1009.2	2.8	1009.2	2.8	.0	.0
Min:	865.2	-5.4	869.6	-4.4	-.6	-5.0
Max:	1020.1	44.5	1020.1	44.6	.5	4.4
X inc > 20.0		9		9		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

January

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	999.2	.0	999.2	.0	.0	.0
1923	1006.7	4.7	1006.7	4.7	.0	.0
1924	975.2	.1	971.5	.1	-.4	-3.7
1925	910.0	9.5	905.3	9.8	-.5	-4.7
1926	988.4	.3	987.1	.9	-.1	-1.3
1927	1030.2	15.7	1030.9	15.7	.1	.7
1928	1020.2	5.7	1020.2	5.7	.0	.0
1929	987.9	2.1	987.7	2.0	.0	-.2
1930	986.4	9.0	987.4	9.0	.1	1.0
1931	968.4	2.3	968.7	2.3	.0	.3
1932	894.8	12.6	894.5	12.7	.0	-.3
1933	890.2	2.8	891.3	2.8	.1	1.1
1934	921.4	22.1	923.2	21.8	.2	1.8
1935	893.2	28.0	896.7	27.1	.4	3.5
1936	959.7	39.5	961.0	39.1	.1	1.3
1937	956.3	-2.8	956.1	-2.9	.0	-.2
1938	1028.6	10.6	1028.6	10.6	.0	.0
1939	1013.6	-.5	1013.6	-.5	.0	.0
1940	1005.9	40.9	1006.6	40.7	.1	.7
1941	1018.3	1.0	1018.3	1.0	.0	.0
1942	1021.2	2.9	1021.2	2.9	.0	.0
1943	1027.3	7.4	1027.3	7.4	.0	.0
1944	1004.2	-.1	1004.2	-.1	.0	.0
1945	1005.1	5.5	1005.5	5.0	.0	.4
1946	1030.4	14.2	1030.4	14.2	.0	.0
1947	992.1	-1.2	992.8	-1.3	.1	.7
1948	1005.4	25.1	1003.8	25.4	-.2	-1.6
1949	999.5	-3.1	999.8	-3.1	.0	.3
1950	994.9	11.5	996.7	12.0	.2	1.8
1951	1030.5	12.0	1030.5	12.0	.0	.0
1952	1029.7	11.8	1029.7	11.8	.0	.0
1953	1020.3	.9	1020.3	.9	.0	.0
1954	1027.7	9.3	1027.7	9.3	.0	.0
1955	1020.1	.3	1020.1	.3	.0	.0
1956	1015.6	.0	1015.6	.0	.0	.0
1957	1008.8	-.4	1008.8	-.4	.0	.0
1958	1026.9	7.7	1026.9	7.7	.0	.0
1959	1031.4	20.9	1031.4	20.9	.0	.0
1960	985.6	7.4	987.5	7.0	.2	1.9
1961	1016.0	3.7	1015.6	3.6	.0	-.4
1962	1011.4	.1	1011.4	.0	.0	.0
1963	1021.6	2.0	1021.6	2.0	.0	.0
1964	1026.8	11.8	1026.8	11.8	.0	.0
1965	1020.4	4.8	1020.4	4.8	.0	.0
1966	1034.3	17.0	1034.3	17.0	.0	.0
1967	1027.7	8.7	1027.7	8.7	.0	.0
1968	1017.0	5.0	1017.0	5.0	.0	.0
1969	1020.0	11.7	1020.0	11.0	.0	.0
1970	1015.6	-2.7	1015.6	-2.7	.0	.0
1971	1026.3	7.9	1026.3	7.9	.0	.0
1972	1026.6	10.6	1026.6	10.6	.0	.0
1973	1027.7	12.3	1027.7	10.7	.0	.0
1974	1015.6	-.6	1015.6	-.6	.0	.0
1975	1015.8	.4	1015.8	.4	.0	.0
1976	1012.4	-2.4	1012.4	-2.4	.0	.0
1977	971.1	-4.9	971.1	-4.9	.0	.0
1978	997.7	119.9	996.4	121.0	-.1	-1.3
1979	1006.4	3.0	1006.4	3.0	.0	.0
1980	1026.8	28.4	1026.8	26.7	.0	.0
1981	1017.6	8.9	1017.6	8.9	.0	.0
1982	1030.2	13.6	1030.2	13.6	.0	.0
1983	1020.6	1.7	1020.6	1.7	.0	.0
1984	1031.5	14.5	1031.5	14.5	.0	.0
1985	1019.5	-.6	1019.5	-.6	.0	.0
1986	1013.1	23.0	1014.0	22.9	.1	.9
1987	992.6	4.4	993.0	4.4	.0	.4
1988	1007.2	17.6	1007.2	17.5	.0	.0
1989	979.4	4.2	980.4	4.2	.1	1.0
1990	997.0	9.9	997.0	9.7	.0	.0
1991	947.3	-5.3	950.4	-5.9	.3	3.1
Mean:	1001.8	9.5	1001.9	9.4	.0	.1
Median:	1013.6	5.5	1014.0	5.0	.0	.0
Min:	890.2	-5.3	891.3	-5.9	-.5	-4.7
Max:	1034.3	119.9	1034.3	121.0	.4	3.5
X inc > 20.0		9		9		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

February

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1012.5	.0	1012.5	.0	.0	.0
1923	1008.7	2.0	1008.7	2.0	.0	.0
1924	981.5	6.3	977.9	6.4	-.4	-3.6
1925	985.6	75.6	982.6	77.3	-.3	-3.0
1926	1018.7	30.3	1017.6	30.5	-.1	-1.1
1927	1024.2	-6.0	1024.2	-6.7	.0	.0
1928	1033.9	13.7	1033.9	13.7	.0	.0
1929	995.7	7.8	995.6	7.9	.0	-.1
1930	1002.4	16.0	1003.3	15.9	.1	.9
1931	971.5	3.1	971.8	3.1	.0	.3
1932	905.5	10.7	905.4	10.9	.0	-.1
1933	893.4	3.2	894.5	3.2	.1	1.1
1934	943.0	21.6	944.5	21.3	.2	1.5
1935	919.1	25.9	922.0	25.3	.3	2.9
1936	1003.1	43.4	1004.2	43.2	.1	1.1
1937	960.8	4.5	960.6	4.5	.0	-.2
1938	1028.0	-.6	1028.0	-.6	.0	.0
1939	1013.8	.2	1013.8	.2	.0	.0
1940	1015.6	9.7	1015.6	9.0	.0	.0
1941	1022.6	4.3	1022.6	4.3	.0	.0
1942	1026.3	5.1	1026.3	5.1	.0	.0
1943	1039.0	11.7	1039.0	11.7	.0	.0
1944	1014.6	10.4	1014.6	10.4	.0	.0
1945	1033.4	28.3	1033.8	28.3	.0	.4
1946	1032.6	2.2	1032.7	2.3	.0	.1
1947	1002.4	10.3	1003.1	10.3	.1	.7
1948	1005.5	.1	1004.9	1.1	-.1	-.6
1949	1005.7	6.2	1006.0	6.2	.0	.3
1950	1011.1	16.2	1012.2	15.5	.1	1.1
1951	1037.0	6.5	1037.0	6.5	.0	.0
1952	1034.9	5.2	1034.9	5.2	.0	.0
1953	1028.7	8.4	1028.7	8.4	.0	.0
1954	1031.9	4.2	1031.9	4.2	.0	.0
1955	1021.1	1.0	1021.1	1.0	.0	.0
1956	1017.1	1.5	1017.1	1.5	.0	.0
1957	1032.5	23.7	1032.5	23.7	.0	.0
1958	1015.6	-11.3	1015.6	-11.3	.0	.0
1959	1036.3	4.9	1036.3	4.9	.0	.0
1960	1016.4	30.8	1017.8	30.3	.1	1.4
1961	1039.6	23.6	1039.3	23.7	.0	-.3
1962	1032.5	21.1	1032.5	21.1	.0	.0
1963	1042.6	21.0	1042.6	21.0	.0	.0
1964	1029.3	2.5	1029.3	2.5	.0	.0
1965	1031.8	11.4	1031.8	11.4	.0	.0
1966	1045.9	11.6	1045.9	11.6	.0	.0
1967	1041.7	14.0	1041.7	14.0	.0	.0
1968	1031.9	14.9	1031.9	14.9	.0	.0
1969	1024.9	4.9	1024.9	4.9	.0	.0
1970	1022.9	7.3	1022.9	7.3	.0	.0
1971	1037.0	10.7	1037.0	10.7	.0	.0
1972	1036.8	10.2	1036.8	10.2	.0	.0
1973	1031.0	3.3	1031.0	3.3	.0	.0
1974	1033.2	17.6	1033.2	17.6	.0	.0
1975	1039.4	23.6	1039.4	23.6	.0	.0
1976	1016.4	4.0	1016.4	4.0	.0	.0
1977	962.0	-9.1	962.1	-9.0	.0	.1
1978	1031.5	33.8	1031.5	35.1	.0	.0
1979	1017.7	11.3	1017.7	11.3	.0	.0
1980	1017.3	-9.5	1017.3	-9.5	.0	.0
1981	1029.0	11.4	1029.0	11.4	.0	.0
1982	1026.8	-3.4	1026.8	-3.4	.0	.0
1983	1015.6	-5.0	1015.6	-5.0	.0	.0
1984	1042.6	11.1	1042.6	11.1	.0	.0
1985	1021.4	1.9	1021.4	1.9	.0	.0
1986	1015.6	2.5	1015.6	1.6	.0	.0
1987	1005.7	13.1	1006.1	13.1	.0	.4
1988	1011.7	4.5	1011.8	4.6	.0	.1
1989	983.4	4.0	984.4	4.0	.1	1.0
1990	998.8	1.8	998.8	1.8	.0	.0
1991	941.2	-6.1	944.7	-5.7	.4	3.5
Mean:	1012.0	10.0	1012.1	10.0	.0	.1
Median:	1018.7	6.5	1017.8	6.5	.0	.0
Min:	893.4	-11.3	894.5	-11.3	-.4	-3.6
Max:	1045.9	75.6	1045.9	77.3	.4	3.5
X inc > 20.0		13		13		
X dec > 9.0		3		2		
X dec > 10.0		1		1		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

March

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1024.4	.0	1024.4	.0	.0	.0
1923	1011.8	3.1	1011.8	3.1	.0	.0
1924	978.9	-2.6	975.8	-2.1	-.3	-3.1
1925	992.7	7.1	990.8	8.2	-.2	-1.9
1926	1021.8	3.1	1021.3	3.7	.0	-.5
1927	1043.7	19.5	1043.7	19.5	.0	.0
1928	1043.3	9.4	1043.3	9.4	.0	.0
1929	1002.4	6.7	1002.3	6.7	.0	-.1
1930	1021.2	18.8	1022.1	18.8	.1	.9
1931	975.9	4.4	976.4	4.6	.1	.5
1932	935.6	30.1	935.6	30.2	.0	.0
1933	936.6	43.2	937.3	42.8	.1	.7
1934	958.5	15.5	959.9	15.4	.1	1.4
1935	944.9	25.8	947.4	25.4	.3	2.5
1936	1016.9	13.8	1017.9	13.7	.1	1.0
1937	993.6	32.8	993.4	32.8	.0	-.2
1938	1022.3	-5.7	1022.3	-5.7	.0	.0
1939	1025.8	12.0	1025.8	12.0	.0	.0
1940	1023.1	7.5	1023.1	7.5	.0	.0
1941	1042.4	19.8	1042.4	19.8	.0	.0
1942	1034.6	8.3	1034.6	8.3	.0	.0
1943	1048.8	9.8	1048.8	9.8	.0	.0
1944	1023.0	8.4	1023.0	8.4	.0	.0
1945	1039.9	6.5	1040.2	6.4	.0	.3
1946	1042.2	9.6	1042.3	9.6	.0	.1
1947	1023.2	20.8	1023.9	20.8	.1	.7
1948	1016.6	11.1	1016.6	11.7	.0	.0
1949	1044.6	38.9	1044.8	38.8	.0	.2
1950	1026.4	15.3	1026.8	14.6	.0	.4
1951	1049.0	12.0	1049.0	12.0	.0	.0
1952	1045.4	10.5	1045.4	10.5	.0	.0
1953	1041.9	13.2	1041.9	13.2	.0	.0
1954	1048.4	16.5	1048.4	16.5	.0	.0
1955	1023.0	1.9	1023.0	1.9	.0	.0
1956	1041.2	24.1	1041.2	24.1	.0	.0
1957	1049.2	16.7	1049.2	16.7	.0	.0
1958	1022.3	6.7	1022.3	6.7	.0	.0
1959	1043.5	7.2	1043.5	7.2	.0	.0
1960	1039.3	22.9	1039.9	22.1	.1	.6
1961	1054.0	14.4	1053.7	14.4	.0	-.3
1962	1044.3	11.8	1044.3	11.8	.0	.0
1963	1052.7	10.1	1052.7	10.1	.0	.0
1964	1029.8	.5	1029.8	.5	.0	.0
1965	1035.6	3.8	1035.6	3.8	.0	.0
1966	1052.8	6.9	1052.8	6.9	.0	.0
1967	1045.8	4.1	1045.8	4.1	.0	.0
1968	1048.5	16.6	1048.5	16.6	.0	.0
1969	1045.7	20.8	1045.7	20.8	.0	.0
1970	1042.9	20.0	1042.9	20.0	.0	.0
1971	1039.9	2.9	1039.9	2.9	.0	.0
1972	1053.5	16.7	1053.5	16.7	.0	.0
1973	1050.4	19.4	1050.4	19.4	.0	.0
1974	1022.3	-10.9	1022.3	-10.9	.0	.0
1975	1037.2	-2.2	1037.2	-2.2	.0	.0
1976	1021.5	5.1	1021.5	5.1	.0	.0
1977	948.9	-13.1	949.0	-13.1	.0	.1
1978	1043.1	11.6	1043.1	11.6	.0	.0
1979	1033.0	15.3	1033.0	15.3	.0	.0
1980	1041.3	24.0	1042.0	24.7	.1	.7
1981	1046.5	17.5	1046.5	17.5	.0	.0
1982	1042.9	16.1	1042.9	16.1	.0	.0
1983	1022.3	6.7	1022.3	6.7	.0	.0
1984	1060.5	17.9	1060.5	17.9	.0	.0
1985	1025.0	3.6	1025.0	3.6	.0	.0
1986	1027.0	11.4	1027.0	11.4	.0	.0
1987	1033.5	27.8	1033.8	27.7	.0	.3
1988	1011.8	.1	1012.0	.2	.0	.2
1989	1038.7	55.3	1038.7	54.3	.0	.0
1990	1009.4	10.6	1009.2	10.4	.0	-.2
1991	957.0	15.8	960.5	15.8	.4	3.5
Mean:	1024.8	12.6	1024.9	12.6	.0	.1
Median:	1033.5	11.4	1033.8	11.6	.0	.0
Min:	935.6	-13.1	935.6	-13.1	-.3	-3.1
Max:	1060.5	55.3	1060.5	54.3	.4	3.5
X inc > 20.0		12		12		
X dec > 9.0		2		2		
X dec > 10.0		2		2		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

April

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1042.7	.0	1042.7	.0	.0	.0
1923	1025.8	14.0	1025.8	14.0	.0	.0
1924	967.4	-11.5	964.1	-11.7	-.3	-3.3
1925	1022.1	29.4	1020.5	29.7	-.2	-1.6
1926	1032.5	10.7	1032.6	11.3	.0	.1
1927	1063.8	20.1	1063.8	20.1	.0	.0
1928	1059.2	15.9	1059.2	15.9	.0	.0
1929	1004.6	2.2	1005.3	3.0	.1	.7
1930	1027.5	6.3	1027.7	5.6	.0	.2
1931	961.1	-14.8	961.6	-14.8	.1	.5
1932	946.1	10.5	946.1	10.5	.0	.0
1933	941.8	5.2	943.4	6.1	.2	1.6
1934	957.8	-.7	960.6	.7	.3	2.8
1935	997.1	52.2	999.0	51.6	.2	1.9
1936	1027.4	10.5	1027.7	9.8	.0	.3
1937	1023.5	29.9	1023.3	29.9	.0	-.2
1938	1046.7	24.4	1046.7	24.4	.0	.0
1939	1024.3	-1.5	1024.7	-1.1	.0	.4
1940	1049.9	26.8	1049.9	26.8	.0	.0
1941	1060.6	18.2	1060.6	18.2	.0	.0
1942	1056.7	22.1	1056.7	22.1	.0	.0
1943	1062.9	14.1	1062.9	14.1	.0	.0
1944	1028.1	5.1	1028.1	5.1	.0	.0
1945	1044.8	4.9	1045.2	5.0	.0	.4
1946	1050.1	7.9	1050.1	7.8	.0	.0
1947	1029.9	6.7	1030.5	6.6	.1	.6
1948	1051.3	34.7	1051.3	34.7	.0	.0
1949	1054.8	10.2	1055.1	10.3	.0	.3
1950	1038.9	12.5	1039.3	12.5	.0	.4
1951	1052.6	3.6	1052.6	3.6	.0	.0
1952	1054.9	9.5	1054.9	9.5	.0	.0
1953	1052.7	10.8	1052.7	10.8	.0	.0
1954	1063.6	15.2	1063.6	15.2	.0	.0
1955	1034.8	11.8	1034.8	11.8	.0	.0
1956	1056.5	15.3	1056.5	15.3	.0	.0
1957	1053.9	4.7	1053.8	4.6	.0	-.1
1958	1050.8	28.5	1050.8	28.5	.0	.0
1959	1048.4	4.9	1048.4	4.9	.0	.0
1960	1043.8	4.5	1044.4	4.5	.1	.6
1961	1057.5	3.5	1057.2	3.5	.0	-.3
1962	1053.6	9.3	1053.6	9.3	.0	.0
1963	1049.5	-3.2	1049.5	-3.2	.0	.0
1964	1027.3	-2.5	1027.3	-2.5	.0	.0
1965	1061.3	25.7	1061.3	25.7	.0	.0
1966	1063.8	11.0	1063.8	11.0	.0	.0
1967	1061.4	15.6	1061.4	15.6	.0	.0
1968	1050.9	2.4	1050.8	2.3	.0	-.1
1969	1059.8	14.1	1059.8	14.1	.0	.0
1970	1045.6	2.7	1045.6	2.7	.0	.0
1971	1058.5	18.6	1058.5	18.6	.0	.0
1972	1061.5	8.0	1061.8	8.3	.0	.3
1973	1058.5	8.1	1058.5	8.1	.0	.0
1974	1054.9	32.6	1054.9	32.6	.0	.0
1975	1056.2	19.0	1056.2	19.0	.0	.0
1976	1026.7	5.2	1026.7	5.2	.0	.0
1977	931.4	-17.5	931.4	-17.6	.0	.0
1978	1063.8	20.7	1063.8	20.7	.0	.0
1979	1038.9	5.9	1038.9	5.9	.0	.0
1980	1050.1	8.8	1050.8	8.8	.1	.7
1981	1050.3	3.8	1050.3	3.8	.0	.0
1982	1047.9	5.0	1047.9	5.0	.0	.0
1983	1047.3	25.0	1047.3	25.0	.0	.0
1984	1063.8	3.3	1063.8	3.3	.0	.0
1985	1031.0	6.0	1031.0	6.0	.0	.0
1986	1038.1	11.1	1038.1	11.1	.0	.0
1987	1028.9	-4.6	1029.3	-4.5	.0	.4
1988	1012.0	.2	1012.3	.3	.0	.3
1989	1050.7	12.0	1050.7	12.0	.0	.0
1990	1003.7	-5.7	1004.2	-5.0	.0	.5
1991	965.3	8.3	968.6	8.1	.3	3.3
Mean:	1035.5	10.4	1035.6	10.4	.0	.2
Median:	1047.9	8.8	1047.9	8.8	.0	.0
Min:	931.4	-17.5	931.4	-17.6	-.3	-3.3
Max:	1063.8	52.2	1063.8	51.6	.3	3.3
X inc > 20.0		13		13		
X dec > 9.0		3		3		
X dec > 10.0		3		3		
X dec > 15.0		1		1		

SHASTA RESERVOIR ELEVATION

May

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1053.3	.0	1053.3	.0	.0	.0
1923	1019.4	-6.4	1018.5	-7.3	-.1	-.9
1924	955.7	-11.7	952.4	-11.7	-.3	-3.3
1925	1033.5	11.4	1031.9	11.4	-.2	-1.6
1926	1029.2	-3.3	1029.3	-3.3	.0	.1
1927	1063.8	.0	1063.8	.0	.0	.0
1928	1054.4	-4.8	1054.4	-4.8	.0	.0
1929	997.2	-7.4	997.8	-7.5	.1	.6
1930	1026.8	-.7	1027.0	-.7	.0	.2
1931	949.0	-12.1	949.8	-11.8	.1	.8
1932	955.1	9.0	955.1	9.0	.0	.0
1933	942.7	.9	944.3	.9	.2	1.6
1934	946.6	-11.2	949.6	-11.0	.3	3.0
1935	1010.0	12.9	1011.6	12.6	.2	1.6
1936	1024.1	-3.3	1024.4	-3.3	.0	.3
1937	1029.7	6.2	1028.2	4.9	-.1	-1.5
1938	1063.8	17.1	1063.8	17.1	.0	.0
1939	1013.3	-11.0	1013.6	-11.1	.0	.3
1940	1051.4	1.5	1051.4	1.5	.0	.0
1941	1063.8	3.2	1063.8	3.2	.0	.0
1942	1063.8	7.1	1063.8	7.1	.0	.0
1943	1063.8	.9	1063.8	.9	.0	.0
1944	1027.1	-1.0	1027.1	-1.0	.0	.0
1945	1048.1	3.3	1048.4	3.2	.0	.3
1946	1047.6	-2.5	1047.7	-2.4	.0	.1
1947	1019.5	-10.4	1020.1	-10.4	.1	.6
1948	1063.8	12.5	1063.8	12.5	.0	.0
1949	1056.1	1.3	1056.5	1.4	.0	.4
1950	1032.4	-6.5	1032.8	-6.5	.0	.4
1951	1059.0	6.4	1059.0	6.4	.0	.0
1952	1063.8	8.9	1063.8	8.9	.0	.0
1953	1063.8	11.1	1063.8	11.1	.0	.0
1954	1058.8	-4.8	1058.7	-4.9	.0	-.1
1955	1043.9	9.1	1043.9	9.1	.0	.0
1956	1063.8	7.3	1063.8	7.3	.0	.0
1957	1063.8	9.9	1063.8	10.0	.0	.0
1958	1063.8	13.0	1063.8	13.0	.0	.0
1959	1043.3	-5.1	1043.9	-4.5	.1	.6
1960	1050.2	6.4	1050.5	6.1	.0	.3
1961	1051.5	-6.0	1051.3	-5.9	.0	-.2
1962	1051.8	-1.8	1051.9	-1.7	.0	.1
1963	1063.8	14.3	1063.8	14.3	.0	.0
1964	1024.2	-3.1	1024.2	-3.1	.0	.0
1965	1061.6	.3	1061.6	.3	.0	.0
1966	1052.9	-10.9	1052.8	-11.0	.0	-.1
1967	1063.8	2.4	1063.8	2.4	.0	.0
1968	1046.9	-4.0	1046.8	-4.0	.0	-.1
1969	1063.8	4.0	1063.8	4.0	.0	.0
1970	1044.2	-1.4	1044.2	-1.4	.0	.0
1971	1063.8	5.3	1063.8	5.3	.0	.0
1972	1050.9	-10.6	1051.2	-10.6	.0	.3
1973	1058.0	-.5	1058.0	-.5	.0	.0
1974	1063.8	8.9	1063.8	8.9	.0	.0
1975	1063.8	7.6	1063.8	7.6	.0	.0
1976	1020.4	-6.3	1020.6	-6.1	.0	.2
1977	929.5	-1.9	929.6	-1.8	.0	.1
1978	1063.8	.0	1063.8	.0	.0	.0
1979	1043.8	4.9	1043.7	4.8	.0	-.1
1980	1051.7	1.6	1052.3	1.5	.1	.6
1981	1042.4	-7.9	1042.9	-7.4	.0	.5
1982	1060.3	12.4	1060.3	12.4	.0	.0
1983	1063.8	16.5	1063.8	16.5	.0	.0
1984	1058.6	-5.2	1058.6	-5.2	.0	.0
1985	1025.1	-5.9	1025.0	-6.0	.0	-.1
1986	1039.5	1.4	1039.5	1.4	.0	.0
1987	1016.1	-12.8	1016.0	-13.3	.0	-.1
1988	1008.6	-3.4	1008.9	-3.4	.0	.3
1989	1044.8	-5.9	1044.5	-6.2	.0	-.3
1990	1006.7	3.0	1007.4	3.2	.1	.7
1991	965.9	.6	969.2	.6	.3	3.3
Mean:	1036.4	.8	1036.5	.7	.0	.1
Median:	1048.1	.0	1048.4	.0	.0	.0
Min:	929.5	-12.8	929.6	-13.3	-.3	-3.3
Max:	1063.8	17.1	1063.8	17.1	.3	3.3
X inc > 20.0		0		0		
X dec > 9.0		8		8		
X dec > 10.0		8		8		
X dec > 15.0		0		0		

SHASTA RESERVOIR ELEVATION

June

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1045.5	.0	1045.5	.0	.0	.0
1923	1010.4	-9.0	1008.6	-9.9	-.2	-1.8
1924	937.7	-18.0	934.4	-18.0	-.4	-3.3
1925	1031.1	-2.4	1029.6	-2.3	-.1	-1.5
1926	1015.4	-13.8	1015.9	-13.4	.0	.5
1927	1053.6	-10.2	1053.6	-10.2	.0	.0
1928	1042.9	-11.5	1042.9	-11.5	.0	.0
1929	991.6	-5.6	992.3	-5.5	.1	.7
1930	1014.8	-12.0	1015.1	-11.9	.0	.3
1931	934.6	-14.4	935.5	-14.3	.1	.9
1932	948.2	-6.9	949.0	-6.1	.1	.8
1933	939.2	-3.5	940.2	-4.1	.1	1.0
1934	927.6	-19.0	929.3	-20.3	.2	1.7
1935	993.4	-16.6	995.0	-16.6	.2	1.6
1936	1019.0	-5.1	1019.3	-5.1	.0	.3
1937	1023.6	-6.1	1020.7	-7.5	-.3	-2.9
1938	1058.7	-5.1	1058.7	-5.1	.0	.0
1939	998.0	-15.3	998.5	-15.1	.1	.5
1940	1039.2	-12.2	1039.4	-12.0	.0	.2
1941	1058.7	-5.1	1058.7	-5.1	.0	.0
1942	1058.7	-5.1	1058.7	-5.1	.0	.0
1943	1054.6	-9.2	1054.6	-9.2	.0	.0
1944	1016.3	-10.8	1018.1	-9.0	.2	1.8
1945	1039.6	-8.5	1040.3	-8.1	.1	.7
1946	1035.7	-11.9	1035.5	-12.2	.0	-.2
1947	1016.2	-3.3	1016.8	-3.3	.1	.6
1948	1058.7	-5.1	1058.7	-5.1	.0	.0
1949	1036.4	-19.7	1037.0	-19.5	.1	.6
1950	1020.7	-11.7	1020.8	-12.0	.0	.1
1951	1044.3	-14.7	1044.3	-14.7	.0	.0
1952	1058.7	-5.1	1058.7	-5.1	.0	.0
1953	1058.7	-5.1	1058.7	-5.1	.0	.0
1954	1051.6	-7.2	1051.7	-7.0	.0	.1
1955	1031.6	-12.3	1031.5	-12.4	.0	-.1
1956	1058.7	-5.1	1058.7	-5.1	.0	.0
1957	1056.4	-7.4	1056.6	-7.2	.0	.2
1958	1058.7	-5.1	1058.7	-5.1	.0	.0
1959	1027.2	-16.1	1028.4	-15.5	.1	1.2
1960	1040.6	-9.6	1039.4	-11.1	-.1	-1.2
1961	1042.8	-8.7	1042.5	-8.8	.0	-.3
1962	1040.4	-11.4	1040.5	-11.4	.0	.1
1963	1055.8	-8.0	1055.8	-8.0	.0	.0
1964	1020.6	-3.6	1020.6	-3.6	.0	.0
1965	1050.3	-11.3	1050.3	-11.3	.0	.0
1966	1036.7	-16.2	1036.4	-16.4	.0	-.3
1967	1058.7	-5.1	1058.7	-5.1	.0	.0
1968	1034.0	-12.9	1034.5	-12.3	.0	.5
1969	1058.7	-5.1	1058.7	-5.1	.0	.0
1970	1035.1	-9.1	1035.1	-9.1	.0	.0
1971	1058.7	-5.1	1058.7	-5.1	.0	.0
1972	1041.1	-9.8	1041.2	-10.0	.0	.1
1973	1049.4	-8.6	1049.2	-8.8	.0	-.2
1974	1058.7	-5.1	1058.7	-5.1	.0	.0
1975	1058.7	-5.1	1058.7	-5.1	.0	.0
1976	1010.8	-9.6	1010.6	-10.0	.0	-.2
1977	916.4	-13.1	916.3	-13.3	.0	-.1
1978	1053.0	-10.8	1053.0	-10.8	.0	.0
1979	1027.6	-16.2	1027.2	-16.5	.0	-.4
1980	1043.0	-8.7	1043.7	-8.6	.1	.7
1981	1028.2	-14.2	1029.8	-13.1	.2	1.6
1982	1056.7	-3.6	1056.7	-3.6	.0	.0
1983	1062.2	-1.6	1062.2	-1.6	.0	.0
1984	1049.3	-9.3	1049.3	-9.3	.0	.0
1985	1012.9	-12.2	1013.5	-11.5	.1	.6
1986	1026.3	-13.2	1026.3	-13.2	.0	.0
1987	998.3	-17.8	998.2	-17.8	.0	-.1
1988	999.3	-9.3	999.8	-9.1	.1	.5
1989	1030.9	-13.9	1031.0	-13.5	.0	.1
1990	1004.0	-2.7	1004.4	-3.0	.0	.4
1991	956.2	-9.7	959.5	-9.7	.3	3.3
Mean:	1026.9	-9.4	1027.0	-9.4	.0	.1
Median:	1036.4	-9.3	1036.4	-9.2	.0	.0
Min:	916.4	-19.7	916.3	-20.3	-.4	-3.3
Max:	1062.2	.0	1062.2	.0	.3	3.3
X inc > 20.0		0		0		
X dec > 9.0		37		37		
X dec > 10.0		29		29		
X dec > 15.0		9		9		

SHASTA RESERVOIR ELEVATION

July

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1029.2	.0	1029.2	.0	.0	.0
1923	997.7	-12.7	993.4	-15.2	-.4	-4.3
1924	916.8	-20.9	913.1	-21.3	-.4	-3.7
1925	1017.6	-13.5	1016.0	-13.6	-.2	-1.6
1926	998.0	-17.4	998.7	-17.2	.1	.7
1927	1038.1	-15.5	1037.7	-15.9	.0	-.4
1928	1017.0	-25.9	1018.0	-24.9	.1	1.0
1929	976.3	-15.3	977.3	-15.0	.1	1.0
1930	998.4	-16.4	998.6	-16.5	.0	.2
1931	914.8	-19.8	914.0	-21.5	-.1	-.8
1932	929.8	-18.4	930.6	-18.4	.1	.8
1933	924.7	-14.5	925.8	-14.4	.1	1.1
1934	902.6	-25.0	905.9	-23.4	.4	3.3
1935	967.5	-25.9	969.1	-25.9	.2	1.6
1936	1000.5	-18.5	1000.9	-18.4	.0	.4
1937	1004.3	-19.3	999.7	-21.0	-.5	-4.6
1938	1041.6	-17.1	1041.4	-17.3	.0	-.2
1939	981.7	-16.3	982.5	-16.0	.1	.8
1940	1020.5	-18.7	1021.6	-17.8	.1	1.1
1941	1043.7	-15.0	1043.7	-15.0	.0	.0
1942	1040.9	-17.8	1040.9	-17.8	.0	.0
1943	1039.6	-15.0	1040.1	-14.5	.0	.5
1944	1002.2	-14.1	1003.2	-14.9	.1	1.0
1945	1015.9	-23.7	1016.0	-24.3	.0	.1
1946	1016.5	-19.2	1017.1	-18.4	.1	.6
1947	999.0	-17.2	999.4	-17.4	.0	.4
1948	1040.9	-17.8	1040.9	-17.8	.0	.0
1949	1020.1	-16.3	1019.9	-17.1	.0	-.2
1950	1002.3	-18.4	1002.3	-18.5	.0	.0
1951	1025.6	-18.7	1026.6	-17.7	.1	1.0
1952	1042.4	-16.3	1042.4	-16.3	.0	.0
1953	1042.8	-15.9	1042.8	-15.9	.0	.0
1954	1028.5	-23.1	1028.7	-23.0	.0	.2
1955	1018.4	-13.2	1018.3	-13.2	.0	-.1
1956	1040.9	-17.8	1040.9	-17.8	.0	.0
1957	1039.4	-17.0	1039.9	-16.7	.0	.5
1958	1044.6	-14.1	1044.6	-14.1	.0	.0
1959	1000.6	-26.6	1002.0	-26.4	.1	1.4
1960	1023.0	-17.6	1021.2	-18.2	-.2	-1.8
1961	1026.6	-16.2	1026.5	-16.0	.0	-.1
1962	1023.1	-17.3	1023.7	-16.8	.1	.6
1963	1040.9	-14.9	1040.9	-14.9	.0	.0
1964	1006.3	-14.3	1006.5	-14.1	.0	.2
1965	1035.2	-15.1	1035.0	-15.3	.0	-.2
1966	1017.3	-19.4	1017.8	-18.6	.0	.5
1967	1041.0	-17.7	1041.0	-17.7	.0	.0
1968	1011.8	-22.2	1014.1	-20.4	.2	2.3
1969	1040.9	-17.8	1040.9	-17.8	.0	.0
1970	1013.0	-22.1	1013.7	-21.4	.1	.7
1971	1040.9	-17.8	1040.9	-17.8	.0	.0
1972	1018.6	-22.5	1018.7	-22.5	.0	.1
1973	1028.7	-20.7	1029.2	-20.0	.0	.5
1974	1043.7	-15.0	1043.7	-15.0	.0	.0
1975	1042.7	-16.0	1042.7	-16.0	.0	.0
1976	996.2	-14.6	996.3	-14.3	.0	.1
1977	887.5	-28.9	887.2	-29.1	.0	-.3
1978	1039.1	-13.9	1039.1	-13.9	.0	.0
1979	1006.0	-21.6	1008.5	-18.7	.2	2.5
1980	1032.2	-10.8	1033.0	-10.7	.1	.8
1981	1013.5	-14.7	1015.3	-14.5	.2	1.8
1982	1040.9	-15.8	1040.9	-15.8	.0	.0
1983	1049.8	-12.4	1049.8	-12.4	.0	.0
1984	1032.9	-16.4	1033.4	-15.9	.0	.5
1985	1000.6	-12.3	1000.8	-12.7	.0	.2
1986	1011.2	-15.1	1011.2	-15.1	.0	.0
1987	980.9	-17.4	981.0	-17.2	.0	.1
1988	981.7	-17.6	982.3	-17.5	.1	.6
1989	1013.9	-17.0	1013.6	-17.4	.0	-.3
1990	985.8	-18.2	986.3	-18.1	.1	.5
1991	943.3	-12.9	946.1	-13.4	.3	2.8
Mean:	1009.3	-17.3	1009.5	-17.3	.0	.2
Median:	1017.3	-17.2	1017.8	-17.2	.0	.1
Min:	887.5	-28.9	887.2	-29.1	-.5	-4.6
Max:	1049.8	.0	1049.8	.0	.4	3.3
X inc > 20.0		0		0		
X dec > 9.0		69		69		
X dec > 10.0		69		69		
X dec > 15.0		51		51		

SHASTA RESERVOIR ELEVATION

August

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1015.3	.0	1015.3	.0	.0	.0
1923	983.6	-14.1	978.3	-15.1	-.5	-5.3
1924	889.4	-27.4	884.0	-29.1	-.6	-5.4
1925	1001.0	-16.6	999.3	-16.7	-.2	-1.7
1926	979.2	-18.8	980.1	-18.6	.1	.9
1927	1019.6	-18.5	1019.6	-18.1	.0	.0
1928	1000.1	-16.9	1000.0	-18.0	.0	-.1
1929	960.7	-15.6	961.8	-15.5	.1	1.1
1930	978.3	-20.1	978.6	-20.0	.0	.3
1931	879.5	-35.3	878.9	-35.1	-.1	-.6
1932	908.6	-21.2	909.5	-21.1	.1	.9
1933	904.1	-20.6	906.1	-19.7	.2	2.0
1934	866.6	-36.0	871.0	-34.9	.5	4.4
1935	935.7	-31.8	937.3	-31.8	.2	1.6
1936	976.3	-24.2	976.7	-24.2	.0	.4
1937	980.2	-24.1	973.2	-26.5	-.7	-7.0
1938	1019.6	-22.0	1019.6	-21.8	.0	.0
1939	964.8	-16.9	965.7	-16.8	.1	.9
1940	1003.3	-17.2	1004.5	-17.1	.1	1.2
1941	1022.7	-21.0	1022.7	-21.0	.0	.0
1942	1019.6	-21.3	1019.6	-21.3	.0	.0
1943	1019.6	-20.0	1019.6	-20.5	.0	.0
1944	987.7	-14.5	988.6	-14.6	.1	.9
1945	998.5	-17.4	998.5	-17.5	.0	.0
1946	1000.8	-15.7	1001.5	-15.6	.1	.7
1947	980.0	-19.0	980.4	-19.0	.0	.4
1948	1019.3	-21.6	1019.6	-21.3	.0	.3
1949	1004.6	-15.5	1003.7	-16.2	-.1	-.9
1950	983.7	-18.6	983.8	-18.5	.0	.1
1951	1010.1	-15.5	1011.2	-15.4	.1	1.1
1952	1019.6	-22.8	1019.6	-22.8	.0	.0
1953	1020.1	-22.7	1020.1	-22.7	.0	.0
1954	1019.5	-9.0	1019.5	-9.2	.0	.0
1955	1002.9	-15.5	1003.5	-14.8	.1	.6
1956	1019.6	-21.3	1019.6	-21.3	.0	.0
1957	1019.6	-19.8	1019.6	-20.3	.0	.0
1958	1024.1	-20.5	1024.1	-20.5	.0	.0
1959	985.3	-15.3	988.2	-13.8	.3	2.9
1960	1005.0	-18.0	1004.7	-16.5	.0	-.3
1961	1010.8	-15.8	1010.9	-15.6	.0	.1
1962	1009.3	-13.8	1009.9	-13.8	.1	.6
1963	1019.6	-21.3	1019.6	-21.3	.0	.0
1964	992.2	-14.1	992.3	-14.2	.0	.1
1965	1019.6	-15.6	1019.6	-15.4	.0	.0
1966	1003.6	-13.7	1006.0	-11.8	.2	2.4
1967	1019.6	-21.4	1019.6	-21.4	.0	.0
1968	1004.8	-7.0	1007.4	-6.7	.3	2.6
1969	1019.6	-21.3	1019.6	-21.3	.0	.0
1970	1002.0	-11.0	1002.6	-11.1	.1	.6
1971	1019.6	-21.3	1019.6	-21.3	.0	.0
1972	1002.9	-15.7	1004.7	-14.0	.2	1.8
1973	1019.1	-9.6	1019.6	-9.6	.0	.5
1974	1023.0	-20.7	1023.0	-20.7	.0	.0
1975	1020.8	-21.9	1020.8	-21.9	.0	.0
1976	983.7	-12.5	983.6	-12.7	.0	-.1
1977	852.3	-35.2	851.8	-35.4	-.1	-.5
1978	1019.6	-19.5	1019.6	-19.5	.0	.0
1979	995.8	-10.2	997.6	-10.9	.2	1.8
1980	1019.6	-12.6	1019.6	-13.4	.0	.0
1981	1001.8	-11.7	1001.5	-13.8	.0	-.3
1982	1019.6	-21.3	1019.6	-21.3	.0	.0
1983	1032.2	-17.6	1032.2	-17.6	.0	.0
1984	1019.6	-13.3	1019.6	-13.8	.0	.0
1985	988.5	-12.1	989.5	-11.3	.1	1.0
1986	996.7	-14.5	996.7	-14.5	.0	.0
1987	966.7	-14.2	966.8	-14.2	.0	.1
1988	965.5	-16.2	966.5	-15.8	.1	1.0
1989	994.6	-19.3	992.7	-20.9	-.2	-1.9
1990	967.4	-18.4	967.4	-18.9	.0	.0
1991	932.1	-11.2	935.1	-11.0	.3	3.0
Mean:	991.0	-18.1	991.2	-18.1	.0	.2
Median:	1002.9	-18.0	1003.5	-18.0	.0	.0
Min:	852.3	-36.0	851.8	-35.4	-.7	-7.0
Max:	1032.2	.0	1032.2	.0	.5	4.4
X inc > 20.0		0		0		
X dec > 9.0		67		68		
X dec > 10.0		66		66		
X dec > 15.0		51		49		

SHASTA RESERVOIR ELEVATION

September

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1008.6	.0	1008.6	.0	.0	.0
1923	975.4	-8.2	969.9	-8.4	-.6	-5.5
1924	877.9	-11.5	871.9	-12.1	-.7	-6.0
1925	993.4	-7.6	991.5	-7.8	-.2	-1.9
1926	969.6	-9.6	970.5	-9.6	.1	.9
1927	1013.7	-5.9	1013.7	-5.9	.0	.0
1928	992.6	-7.5	992.4	-7.6	.0	-.2
1929	950.2	-10.5	951.4	-10.4	.1	1.2
1930	969.1	-9.2	969.4	-9.2	.0	.3
1931	865.9	-13.6	865.4	-13.5	-.1	-.5
1932	897.6	-11.0	898.6	-10.9	.1	1.0
1933	893.1	-11.0	895.2	-10.9	.2	2.1
1934	848.8	-17.8	853.8	-17.2	.6	5.0
1935	924.7	-11.0	926.3	-11.0	.2	1.6
1936	966.2	-10.1	966.7	-10.0	.1	.5
1937	970.4	-9.8	963.0	-10.2	-.8	-7.4
1938	1017.6	-2.0	1017.6	-2.0	.0	.0
1939	955.1	-9.7	956.1	-9.6	.1	1.0
1940	996.3	-7.0	997.5	-7.0	.1	1.2
1941	1017.6	-5.1	1017.6	-5.1	.0	.0
1942	1017.6	-2.0	1017.6	-2.0	.0	.0
1943	1014.7	-4.9	1014.7	-4.9	.0	.0
1944	979.7	-8.0	980.6	-8.0	.1	.9
1945	991.3	-7.2	991.3	-7.2	.0	.0
1946	993.9	-6.9	994.6	-6.9	.1	.7
1947	971.6	-8.4	972.1	-8.3	.1	.5
1948	1013.1	-6.2	1013.4	-6.2	.0	.3
1949	996.5	-8.1	995.7	-8.0	-.1	-.8
1950	975.0	-8.7	975.0	-8.8	.0	.0
1951	1002.9	-7.2	1004.0	-7.2	.1	1.1
1952	1017.6	-2.0	1017.6	-2.0	.0	.0
1953	1017.6	-2.5	1017.6	-2.5	.0	.0
1954	1014.7	-4.8	1014.7	-4.8	.0	.0
1955	996.3	-6.6	996.9	-6.6	.1	.6
1956	1017.6	-2.0	1017.6	-2.0	.0	.0
1957	1017.2	-2.4	1017.3	-2.3	.0	.1
1958	1017.6	-6.5	1017.6	-6.5	.0	.0
1959	981.0	-4.3	984.0	-4.2	.3	3.0
1960	998.4	-6.6	998.0	-6.7	.0	-.4
1961	1004.1	-6.7	1004.1	-6.8	.0	.0
1962	1002.1	-7.2	1002.8	-7.1	.1	.7
1963	1017.5	-2.1	1017.5	-2.1	.0	.0
1964	984.2	-8.0	984.3	-8.0	.0	.1
1965	1014.3	-5.3	1014.3	-5.3	.0	.0
1966	997.0	-6.6	999.4	-6.6	.2	2.4
1967	1017.6	-2.0	1017.6	-2.0	.0	.0
1968	999.2	-5.6	1001.9	-5.5	.3	2.7
1969	1017.6	-2.0	1017.6	-2.0	.0	.0
1970	996.3	-5.7	996.9	-5.7	.1	.6
1971	1017.6	-2.0	1017.6	-2.0	.0	.0
1972	997.7	-5.2	999.5	-5.2	.2	1.8
1973	1013.6	-5.5	1014.1	-5.5	.0	.5
1974	1017.6	-5.4	1017.6	-5.4	.0	.0
1975	1017.6	-3.2	1017.6	-3.2	.0	.0
1976	977.6	-6.1	977.5	-6.1	.0	-.1
1977	849.6	-2.7	849.1	-2.7	-.1	-.5
1978	1015.2	-4.4	1015.2	-4.4	.0	.0
1979	988.4	-7.4	990.3	-7.3	.2	1.9
1980	1014.4	-5.2	1014.4	-5.2	.0	.0
1981	994.1	-7.7	993.8	-7.7	.0	-.3
1982	1017.6	-2.0	1017.6	-2.0	.0	.0
1983	1017.6	-14.6	1017.6	-14.6	.0	.0
1984	1015.5	-4.1	1015.5	-4.1	.0	.0
1985	982.5	-6.0	983.5	-6.0	.1	1.0
1986	992.1	-4.6	992.1	-4.6	.0	.0
1987	958.6	-8.1	958.7	-8.1	.0	.1
1988	956.8	-8.7	957.9	-8.6	.1	1.1
1989	988.1	-6.5	986.1	-6.6	-.2	-2.0
1990	958.3	-9.1	958.3	-9.1	.0	.0
1991	926.0	-6.1	929.1	-6.0	.3	3.1
Mean:	984.4	-6.6	984.5	-6.6	.0	.2
Median:	996.3	-6.6	996.9	-6.6	.0	.0
Min:	848.8	-17.8	849.1	-17.2	-.8	-7.4
Max:	1017.6	.0	1017.6	.0	.6	5.0
X inc > 20.0		0		0		
X dec > 9.0		14		14		
X dec > 10.0		9		9		
X dec > 15.0		1		1		

RETURN TO TABLE OF CONTENTS

Section 14

SHASTA RESERVOIR ELEVATION
14.2 Recreation

SHASTA RESERVOIR ELEVATION

October

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	997.7	.0	997.7	.0	.0	.0
1923	1004.7	-3.9	1004.7	-3.9	.0	.0
1924	976.0	.6	970.9	1.0	-.5	-5.1
1925	879.3	1.4	873.4	1.5	-.7	-5.9
1926	991.2	-2.2	989.4	-2.1	-.2	-1.8
1927	969.7	.1	970.6	.1	.1	.9
1928	1008.9	-4.8	1008.9	-4.8	.0	.0
1929	988.8	-3.8	988.7	-3.7	.0	-.1
1930	949.6	-.6	950.8	-.6	.1	1.2
1931	968.4	-.7	968.7	-.7	.0	.3
1932	863.7	-2.2	863.2	-2.2	-.1	-.5
1933	892.4	-5.2	893.4	-5.2	.1	1.0
1934	890.5	-2.6	892.7	-2.5	.2	2.2
1935	845.8	-3.0	850.9	-2.9	.6	5.1
1936	922.8	-1.9	924.4	-1.9	.2	1.6
1937	962.5	-3.7	963.0	-3.7	.1	.5
1938	970.0	-.4	963.0	.0	-.7	-7.0
1939	1015.5	-2.1	1015.5	-2.1	.0	.0
1940	955.7	.6	956.7	.6	.1	1.0
1941	993.1	-3.2	994.3	-3.2	.1	1.2
1942	1015.5	-2.1	1015.5	-2.1	.0	.0
1943	1015.5	-2.1	1015.5	-2.1	.0	.0
1944	1010.7	-4.0	1010.7	-4.0	.0	.0
1945	979.4	-.3	980.3	-.3	.1	.9
1946	992.7	1.4	992.7	1.4	.0	.0
1947	991.0	-2.9	991.7	-2.9	.1	.7
1948	976.7	5.1	976.3	4.2	.0	-.4
1949	1008.6	-4.5	1009.0	-4.4	.0	.4
1950	991.9	-4.6	991.8	-3.9	.0	-.1
1951	991.4	16.4	991.5	16.5	.0	.1
1952	999.8	-3.1	1001.0	-3.0	.1	1.2
1953	1015.5	-2.1	1015.5	-2.1	.0	.0
1954	1015.5	-2.1	1015.5	-2.1	.0	.0
1955	1011.4	-3.3	1011.4	-3.3	.0	.0
1956	992.3	-4.0	992.9	-4.0	.1	.6
1957	1015.5	-2.1	1015.5	-2.1	.0	.0
1958	1015.5	-1.7	1015.5	-1.8	.0	.0
1959	1015.5	-2.1	1015.5	-2.1	.0	.0
1960	981.2	.2	983.4	-.6	.2	2.2
1961	995.5	-2.9	995.1	-2.9	.0	-.4
1962	1000.3	-3.8	1000.4	-3.7	.0	.1
1963	1015.5	13.4	1015.5	12.7	.0	.0
1964	1015.5	-2.0	1015.5	-2.0	.0	.0
1965	982.5	-1.7	982.7	-1.6	.0	.2
1966	1010.4	-3.9	1010.4	-3.9	.0	.0
1967	993.3	-3.7	995.9	-3.5	.3	2.6
1968	1015.5	-2.1	1015.5	-2.1	.0	.0
1969	997.5	-1.7	999.6	-2.3	.2	2.1
1970	1015.5	-2.1	1015.5	-2.1	.0	.0
1971	995.3	-1.0	995.9	-1.0	.1	.6
1972	1015.5	-2.1	1015.5	-2.1	.0	.0
1973	998.0	.3	999.8	.3	.2	1.8
1974	1013.6	.0	1014.1	.0	.0	.5
1975	1015.5	-2.1	1015.5	-2.1	.0	.0
1976	1015.5	-2.1	1015.5	-2.1	.0	.0
1977	978.5	.9	978.4	.9	.0	-.1
1978	839.8	-9.8	838.4	-10.7	-.2	-1.4
1979	1011.1	-4.1	1011.1	-4.1	.0	.0
1980	989.6	1.2	991.4	1.1	.2	1.8
1981	1009.8	-4.6	1009.8	-4.6	.0	.0
1982	992.4	-1.7	992.1	-1.7	.0	-.3
1983	1015.5	-2.1	1015.5	-2.1	.0	.0
1984	1015.5	-2.1	1015.5	-2.1	.0	.0
1985	1014.1	-1.4	1014.1	-1.4	.0	.0
1986	983.0	.5	984.0	.5	.1	1.0
1987	991.6	-.5	991.6	-.5	.0	.0
1988	959.9	1.3	960.1	1.4	.0	.2
1989	957.9	1.1	959.0	1.1	.1	1.1
1990	991.4	3.3	990.2	4.1	-.1	-1.2
1991	958.6	.3	958.6	.3	.0	.0
Mean:	984.1	-1.3	984.2	-1.3	.0	.1
Median:	993.1	-2.1	994.3	-2.1	.0	.0
Min:	839.8	-9.8	838.4	-10.7	-.7	-7.0
Max:	1015.5	16.4	1015.5	16.5	.6	5.1
X > 1020.0	0		0			
X > 1017.0	0		0			
X > 995.0	34		35			
X > 980.0	50		51			
X > 973.0	54		53			
X > 955.0	62		62			
X > 951.0	62		62			
X > 943.0	63		63			
X > 941.0	63		63			

SHASTA RESERVOIR ELEVATION

November

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	996.0	.0	996.0	.0	.0	.0
1923	1002.0	-2.7	1002.0	-2.7	.0	.0
1924	975.7	-.3	971.2	.3	-.5	-4.5
1925	892.7	13.4	887.4	14.0	-.6	-5.3
1926	990.2	-1.0	988.3	-1.1	-.2	-1.9
1927	993.2	23.5	994.0	23.4	.1	.8
1928	1014.5	5.6	1014.5	5.6	.0	.0
1929	987.4	-1.4	987.2	-1.5	.0	-.2
1930	948.9	-.7	950.1	-.7	.1	1.2
1931	967.7	-.7	967.9	-.8	.0	.2
1932	862.1	-1.6	861.6	-1.6	-.1	-.5
1933	889.1	-3.3	890.2	-3.2	.1	1.1
1934	888.8	-1.7	891.0	-1.7	.2	2.2
1935	861.0	15.2	865.5	14.6	.5	4.5
1936	919.9	-2.9	921.6	-2.8	.2	1.7
1937	960.4	-2.1	960.9	-2.1	.1	.5
1938	997.0	27.0	991.7	28.7	-.5	-5.3
1939	1013.3	-2.2	1013.3	-2.2	.0	.0
1940	956.3	.6	957.2	.5	.1	.9
1941	991.5	-1.6	992.7	-1.6	.1	1.2
1942	1013.1	-2.4	1013.1	-2.4	.0	.0
1943	1015.2	-.3	1015.2	-.3	.0	.0
1944	1008.0	-2.7	1008.0	-2.7	.0	.0
1945	987.3	7.9	988.2	7.9	.1	.9
1946	1003.5	10.8	1003.4	10.7	.0	-.1
1947	992.2	1.2	992.9	1.2	.1	.7
1948	978.9	2.2	977.9	1.6	-.1	-1.0
1949	1005.5	-3.1	1005.8	-3.2	.0	.3
1950	988.2	-3.7	988.7	-3.1	.1	.5
1951	1009.5	18.1	1009.5	18.0	.0	.0
1952	1004.2	4.4	1005.3	4.3	.1	1.1
1953	1011.7	-3.8	1011.7	-3.8	.0	.0
1954	1015.6	.1	1015.6	.1	.0	.0
1955	1012.6	1.2	1012.6	1.2	.0	.0
1956	992.8	.5	993.5	.6	.1	.7
1957	1012.6	-2.9	1012.6	-2.9	.0	.0
1958	1015.6	.1	1015.6	.1	.0	.0
1959	1012.7	-2.8	1012.7	-2.8	.0	.0
1960	980.9	-.3	982.6	-.8	.2	1.7
1961	997.2	1.7	996.8	1.7	.0	-.4
1962	1002.0	1.7	1002.0	1.6	.0	.0
1963	1015.6	.1	1015.6	.1	.0	.0
1964	1015.6	.1	1015.6	.1	.0	.0
1965	987.2	4.7	987.3	4.6	.0	.1
1966	1015.6	5.2	1015.6	5.2	.0	.0
1967	1006.0	12.7	1008.4	12.5	.2	2.4
1968	1012.6	-2.9	1012.6	-2.9	.0	.0
1969	997.6	.1	999.0	-.6	.1	1.4
1970	1013.0	-2.5	1013.0	-2.5	.0	.0
1971	1012.4	17.1	1012.9	17.0	.0	.5
1972	1014.3	-1.2	1014.3	-1.2	.0	.0
1973	1006.3	8.3	1008.0	8.2	.2	1.7
1974	1015.6	2.0	1015.6	1.5	.0	.0
1975	1014.4	-1.1	1014.4	-1.1	.0	.0
1976	1015.6	.1	1015.6	.1	.0	.0
1977	979.2	.7	979.0	.6	.0	-.2
1978	833.3	-6.5	830.8	-7.6	-.3	-2.5
1979	1007.8	-3.3	1007.8	-3.3	.0	.0
1980	994.3	4.7	996.1	4.7	.2	1.8
1981	1007.7	-2.1	1007.7	-2.1	.0	.0
1982	1015.6	23.2	1015.6	23.5	.0	.0
1983	1015.6	.1	1015.6	.1	.0	.0
1984	1015.6	.1	1015.6	.1	.0	.0
1985	1015.6	1.5	1015.6	1.5	.0	.0
1986	983.7	.7	984.7	.7	.1	1.0
1987	990.2	-1.4	990.2	-1.4	.0	.0
1988	962.8	2.9	962.9	2.8	.0	.1
1989	969.6	11.7	970.6	11.6	.1	1.0
1990	990.4	-1.0	989.9	-.3	-.1	-.5
1991	958.0	-.6	959.3	.7	.1	1.3
Mean:	986.4	2.3	986.5	2.4	.0	.1
Median:	997.6	.1	999.0	.1	.0	.0
Min:	833.3	-6.5	830.8	-7.6	-.6	-5.3
Max:	1015.6	27.0	1015.6	28.7	.5	4.5

X > 1020.0	0	0
X > 1017.0	0	0
X > 995.0	39	39
X > 980.0	53	53
X > 973.0	56	55
X > 955.0	62	62
X > 951.0	62	62
X > 943.0	63	63
X > 941.0	63	63

SHASTA RESERVOIR ELEVATION

December

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	997.9	.0	997.9	.0	.0	.0
1923	1002.0	.0	1002.0	.0	.0	.0
1924	975.1	-.6	971.4	.2	-.4	-3.7
1925	900.5	7.8	895.5	8.1	-.6	-5.0
1926	988.1	-2.1	986.2	-2.1	-.2	-1.9
1927	1014.5	21.3	1015.2	21.2	.1	.7
1928	1014.5	.0	1014.5	.0	.0	.0
1929	985.8	-1.6	985.7	-1.5	.0	-.1
1930	977.4	28.5	978.4	28.3	.1	1.0
1931	966.1	-1.6	966.4	-1.5	.0	.3
1932	882.2	20.1	881.8	20.2	.0	-.4
1933	887.4	-1.7	888.5	-1.7	.1	1.1
1934	899.3	10.5	901.4	10.4	.2	2.1
1935	865.2	4.2	869.6	4.1	.5	4.4
1936	920.2	.3	921.9	.3	.2	1.7
1937	959.1	-1.3	959.0	-1.9	.0	-.1
1938	1018.0	21.0	1018.0	26.3	.0	.0
1939	1014.1	.8	1014.1	.8	.0	.0
1940	965.0	8.7	965.9	8.7	.1	.9
1941	1017.3	25.8	1017.3	24.6	.0	.0
1942	1018.3	5.2	1018.3	5.2	.0	.0
1943	1019.9	4.7	1019.9	4.7	.0	.0
1944	1004.3	-3.7	1004.3	-3.7	.0	.0
1945	999.6	12.3	1000.5	12.3	.1	.9
1946	1016.2	12.7	1016.2	12.8	.0	.0
1947	993.3	1.1	994.1	1.2	.1	.8
1948	980.3	1.4	978.4	.5	-.2	-1.9
1949	1002.6	-2.9	1002.9	-2.9	.0	.3
1950	983.4	-4.8	984.7	-4.0	.1	1.3
1951	1018.5	9.0	1018.5	9.0	.0	.0
1952	1017.9	13.7	1017.9	12.6	.0	.0
1953	1019.4	7.7	1019.4	7.7	.0	.0
1954	1018.4	2.8	1018.4	2.8	.0	.0
1955	1019.8	7.2	1019.8	7.2	.0	.0
1956	1015.6	22.8	1015.6	22.1	.0	.0
1957	1009.2	-3.4	1009.2	-3.4	.0	.0
1958	1019.2	3.6	1019.2	3.6	.0	.0
1959	1010.5	-2.2	1010.5	-2.2	.0	.0
1960	978.2	-2.7	980.5	-2.1	.2	2.3
1961	1012.3	15.1	1012.0	15.2	.0	-.3
1962	1011.3	9.3	1011.4	9.4	.0	.1
1963	1019.6	4.0	1019.6	4.0	.0	.0
1964	1015.0	-.6	1015.0	-.6	.0	.0
1965	1015.6	28.4	1015.6	28.3	.0	.0
1966	1017.3	1.7	1017.3	1.7	.0	.0
1967	1019.0	13.0	1019.0	10.6	.0	.0
1968	1012.0	-.6	1012.0	-.6	.0	.0
1969	1008.3	10.7	1009.0	10.0	.1	.7
1970	1018.3	5.3	1018.3	5.3	.0	.0
1971	1018.4	6.0	1018.4	5.5	.0	.0
1972	1016.0	1.7	1016.0	1.7	.0	.0
1973	1015.4	9.1	1017.0	9.0	.2	1.6
1974	1016.2	.6	1016.2	.6	.0	.0
1975	1015.4	1.0	1015.4	1.0	.0	.0
1976	1014.8	-.8	1014.8	-.8	.0	.0
1977	976.0	-3.2	976.0	-3.0	.0	.0
1978	877.8	44.5	875.4	44.6	-.3	-2.4
1979	1003.4	-4.4	1003.4	-4.4	.0	.0
1980	998.4	4.1	1000.1	4.0	.2	1.7
1981	1008.7	1.0	1008.7	1.0	.0	.0
1982	1016.6	1.0	1016.6	1.0	.0	.0
1983	1018.9	3.3	1018.9	3.3	.0	.0
1984	1017.0	1.4	1017.0	1.4	.0	.0
1985	1020.1	4.5	1020.1	4.5	.0	.0
1986	990.1	6.4	991.1	6.4	.1	1.0
1987	988.2	-2.0	988.6	-1.6	.0	.4
1988	989.6	26.8	989.7	26.8	.0	.1
1989	975.2	5.6	976.2	5.6	.1	1.0
1990	987.1	-3.3	987.3	-2.6	.0	.2
1991	952.6	-5.4	956.3	-3.0	.4	3.7
Mean:	992.3	5.8	992.4	5.9	.0	.2
Median:	1009.2	2.8	1009.2	2.8	.0	.0
Min:	865.2	-5.4	869.6	-4.4	-.6	-5.0
Max:	1020.1	44.5	1020.1	44.6	.5	4.4
X > 1020.0	1		1			
X > 1017.0	17		17			
X > 995.0	45		45			
X > 980.0	54		54			
X > 973.0	59		58			
X > 955.0	62		63			
X > 951.0	63		63			
X > 943.0	63		63			
X > 941.0	63		63			

SHASTA RESERVOIR ELEVATION

January

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	999.2	.0	999.2	.0	.0	.0
1923	1006.7	4.7	1006.7	4.7	.0	.0
1924	975.2	.1	971.5	.1	-.4	-3.7
1925	910.0	9.5	905.3	9.8	-.5	-4.7
1926	988.4	.3	987.1	.9	-.1	-1.3
1927	1030.2	15.7	1030.9	15.7	.1	.7
1928	1020.2	5.7	1020.2	5.7	.0	.0
1929	987.9	2.1	987.7	2.0	.0	-.2
1930	986.4	9.0	987.4	9.0	.1	1.0
1931	968.4	2.3	968.7	2.3	.0	.3
1932	894.8	12.6	894.5	12.7	.0	-.3
1933	890.2	2.8	891.3	2.8	.1	1.1
1934	921.4	22.1	923.2	21.8	.2	1.8
1935	893.2	28.0	896.7	27.1	.4	3.5
1936	959.7	39.5	961.0	39.1	.1	1.3
1937	956.3	-2.8	956.1	-2.9	.0	-.2
1938	1028.6	10.6	1028.6	10.6	.0	.0
1939	1013.6	-.5	1013.6	-.5	.0	.0
1940	1005.9	40.9	1006.6	40.7	.1	.7
1941	1018.3	1.0	1018.3	1.0	.0	.0
1942	1021.2	2.9	1021.2	2.9	.0	.0
1943	1027.3	7.4	1027.3	7.4	.0	.0
1944	1004.2	-.1	1004.2	-.1	.0	.0
1945	1005.1	5.5	1005.5	5.0	.0	.4
1946	1030.4	14.2	1030.4	14.2	.0	.0
1947	992.1	-1.2	992.8	-1.3	.1	.7
1948	1005.4	25.1	1003.8	25.4	-.2	-1.6
1949	999.5	-3.1	999.8	-3.1	.0	.3
1950	994.9	11.5	996.7	12.0	.2	1.8
1951	1030.5	12.0	1030.5	12.0	.0	.0
1952	1029.7	11.8	1029.7	11.8	.0	.0
1953	1020.3	.9	1020.3	.9	.0	.0
1954	1027.7	9.3	1027.7	9.3	.0	.0
1955	1020.1	.3	1020.1	.3	.0	.0
1956	1015.6	.0	1015.6	.0	.0	.0
1957	1008.8	-.4	1008.8	-.4	.0	.0
1958	1026.9	7.7	1026.9	7.7	.0	.0
1959	1031.4	20.9	1031.4	20.9	.0	.0
1960	985.6	7.4	987.5	7.0	.2	1.9
1961	1016.0	3.7	1015.6	3.6	.0	-.4
1962	1011.4	.1	1011.4	.0	.0	.0
1963	1021.6	2.0	1021.6	2.0	.0	.0
1964	1026.8	11.8	1026.8	11.8	.0	.0
1965	1020.4	4.8	1020.4	4.8	.0	.0
1966	1034.3	17.0	1034.3	17.0	.0	.0
1967	1027.7	8.7	1027.7	8.7	.0	.0
1968	1017.0	5.0	1017.0	5.0	.0	.0
1969	1020.0	11.7	1020.0	11.0	.0	.0
1970	1015.6	-2.7	1015.6	-2.7	.0	.0
1971	1026.3	7.9	1026.3	7.9	.0	.0
1972	1026.6	10.6	1026.6	10.6	.0	.0
1973	1027.7	12.3	1027.7	10.7	.0	.0
1974	1015.6	-.6	1015.6	-.6	.0	.0
1975	1015.8	.4	1015.8	.4	.0	.0
1976	1012.4	-2.4	1012.4	-2.4	.0	.0
1977	971.1	-4.9	971.1	-4.9	.0	.0
1978	997.7	119.9	996.4	121.0	-.1	-1.3
1979	1006.4	3.0	1006.4	3.0	.0	.0
1980	1026.8	28.4	1026.8	26.7	.0	.0
1981	1017.6	8.9	1017.6	8.9	.0	.0
1982	1030.2	13.6	1030.2	13.6	.0	.0
1983	1020.6	1.7	1020.6	1.7	.0	.0
1984	1031.5	14.5	1031.5	14.5	.0	.0
1985	1019.5	-.6	1019.5	-.6	.0	.0
1986	1013.1	23.0	1014.0	22.9	.1	.9
1987	992.6	4.4	993.0	4.4	.0	.4
1988	1007.2	17.6	1007.2	17.5	.0	.0
1989	979.4	4.2	980.4	4.2	.1	1.0
1990	997.0	9.9	997.0	9.7	.0	.0
1991	947.3	-5.3	950.4	-5.9	.3	3.1
Mean:	1001.8	9.5	1001.9	9.4	.0	.1
Median:	1013.6	5.5	1014.0	5.0	.0	.0
Min:	890.2	-5.3	891.3	-5.9	-.5	-4.7
Max:	1034.3	119.9	1034.3	121.0	.4	3.5
X > 1020.0	25		25			
X > 1017.0	29		29			
X > 995.0	51		52			
X > 980.0	58		59			
X > 973.0	60		59			
X > 955.0	64		64			
X > 951.0	64		64			
X > 943.0	65		65			
X > 941.0	65		65			

SHASTA RESERVOIR ELEVATION

February

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1012.5	.0	1012.5	.0	.0	.0
1923	1008.7	2.0	1008.7	2.0	.0	.0
1924	981.5	6.3	977.9	6.4	-.4	-3.6
1925	985.6	75.6	982.6	77.3	-.3	-3.0
1926	1018.7	30.3	1017.6	30.5	-.1	-1.1
1927	1024.2	-6.0	1024.2	-6.7	.0	.0
1928	1033.9	13.7	1033.9	13.7	.0	.0
1929	995.7	7.8	995.6	7.9	.0	-.1
1930	1002.4	16.0	1003.3	15.9	.1	.9
1931	971.5	3.1	971.8	3.1	.0	.3
1932	905.5	10.7	905.4	10.9	.0	-.1
1933	893.4	3.2	894.5	3.2	.1	1.1
1934	943.0	21.6	944.5	21.3	.2	1.5
1935	919.1	25.9	922.0	25.3	.3	2.9
1936	1003.1	43.4	1004.2	43.2	.1	1.1
1937	960.8	4.5	960.6	4.5	.0	-.2
1938	1028.0	-.6	1028.0	-.6	.0	.0
1939	1013.8	.2	1013.8	.2	.0	.0
1940	1015.6	9.7	1015.6	9.0	.0	.0
1941	1022.6	4.3	1022.6	4.3	.0	.0
1942	1026.3	5.1	1026.3	5.1	.0	.0
1943	1039.0	11.7	1039.0	11.7	.0	.0
1944	1014.6	10.4	1014.6	10.4	.0	.0
1945	1033.4	28.3	1033.8	28.3	.0	.4
1946	1032.6	2.2	1032.7	2.3	.0	.1
1947	1002.4	10.3	1003.1	10.3	.1	.7
1948	1005.5	.1	1004.9	1.1	-.1	-.6
1949	1005.7	6.2	1006.0	6.2	.0	.3
1950	1011.1	16.2	1012.2	15.5	.1	1.1
1951	1037.0	6.5	1037.0	6.5	.0	.0
1952	1034.9	5.2	1034.9	5.2	.0	.0
1953	1028.7	8.4	1028.7	8.4	.0	.0
1954	1031.9	4.2	1031.9	4.2	.0	.0
1955	1021.1	1.0	1021.1	1.0	.0	.0
1956	1017.1	1.5	1017.1	1.5	.0	.0
1957	1032.5	23.7	1032.5	23.7	.0	.0
1958	1015.6	-11.3	1015.6	-11.3	.0	.0
1959	1036.3	4.9	1036.3	4.9	.0	.0
1960	1016.4	30.8	1017.8	30.3	.1	1.4
1961	1039.6	23.6	1039.3	23.7	.0	-.3
1962	1032.5	21.1	1032.5	21.1	.0	.0
1963	1042.6	21.0	1042.6	21.0	.0	.0
1964	1029.3	2.5	1029.3	2.5	.0	.0
1965	1031.8	11.4	1031.8	11.4	.0	.0
1966	1045.9	11.6	1045.9	11.6	.0	.0
1967	1041.7	14.0	1041.7	14.0	.0	.0
1968	1031.9	14.9	1031.9	14.9	.0	.0
1969	1024.9	4.9	1024.9	4.9	.0	.0
1970	1022.9	7.3	1022.9	7.3	.0	.0
1971	1037.0	10.7	1037.0	10.7	.0	.0
1972	1036.8	10.2	1036.8	10.2	.0	.0
1973	1031.0	3.3	1031.0	3.3	.0	.0
1974	1033.2	17.6	1033.2	17.6	.0	.0
1975	1039.4	23.6	1039.4	23.6	.0	.0
1976	1016.4	4.0	1016.4	4.0	.0	.0
1977	962.0	-9.1	962.1	-9.0	.0	.1
1978	1031.5	33.8	1031.5	35.1	.0	.0
1979	1017.7	11.3	1017.7	11.3	.0	.0
1980	1017.3	-9.5	1017.3	-9.5	.0	.0
1981	1029.0	11.4	1029.0	11.4	.0	.0
1982	1026.8	-3.4	1026.8	-3.4	.0	.0
1983	1015.6	-5.0	1015.6	-5.0	.0	.0
1984	1042.6	11.1	1042.6	11.1	.0	.0
1985	1021.4	1.9	1021.4	1.9	.0	.0
1986	1015.6	2.5	1015.6	1.6	.0	.0
1987	1005.7	13.1	1006.1	13.1	.0	.4
1988	1011.7	4.5	1011.8	4.6	.0	.1
1989	983.4	4.0	984.4	4.0	.1	1.0
1990	998.8	1.8	998.8	1.8	.0	.0
1991	941.2	-6.1	944.7	-5.7	.4	3.5
Mean:	1012.0	10.0	1012.1	10.0	.0	.1
Median:	1018.7	6.5	1017.8	6.5	.0	.0
Min:	893.4	-11.3	894.5	-11.3	-.4	-3.6
Max:	1045.9	75.6	1045.9	77.3	.4	3.5
X > 1020.0	35		35			
X > 1017.0	39		40			
X > 995.0	59		59			
X > 980.0	62		61			
X > 973.0	62		62			
X > 955.0	65		65			
X > 951.0	65		65			
X > 943.0	65		67			
X > 941.0	67		67			

SHASTA RESERVOIR ELEVATION

March

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1024.4	.0	1024.4	.0	.0	.0
1923	1011.8	3.1	1011.8	3.1	.0	.0
1924	978.9	-2.6	975.8	-2.1	-.3	-3.1
1925	992.7	7.1	990.8	8.2	-.2	-1.9
1926	1021.8	3.1	1021.3	3.7	.0	-.5
1927	1043.7	19.5	1043.7	19.5	.0	.0
1928	1043.3	9.4	1043.3	9.4	.0	.0
1929	1002.4	6.7	1002.3	6.7	.0	-.1
1930	1021.2	18.8	1022.1	18.8	.1	.9
1931	975.9	4.4	976.4	4.6	.1	.5
1932	935.6	30.1	935.6	30.2	.0	.0
1933	936.6	43.2	937.3	42.8	.1	.7
1934	958.5	15.5	959.9	15.4	.1	1.4
1935	944.9	25.8	947.4	25.4	.3	2.5
1936	1016.9	13.8	1017.9	13.7	.1	1.0
1937	993.6	32.8	993.4	32.8	.0	-.2
1938	1022.3	-5.7	1022.3	-5.7	.0	.0
1939	1025.8	12.0	1025.8	12.0	.0	.0
1940	1023.1	7.5	1023.1	7.5	.0	.0
1941	1042.4	19.8	1042.4	19.8	.0	.0
1942	1034.6	8.3	1034.6	8.3	.0	.0
1943	1048.8	9.8	1048.8	9.8	.0	.0
1944	1023.0	8.4	1023.0	8.4	.0	.0
1945	1039.9	6.5	1040.2	6.4	.0	.3
1946	1042.2	9.6	1042.3	9.6	.0	.1
1947	1023.2	20.8	1023.9	20.8	.1	.7
1948	1016.6	11.1	1016.6	11.7	.0	.0
1949	1044.6	38.9	1044.8	38.8	.0	.2
1950	1026.4	15.3	1026.8	14.6	.0	.4
1951	1049.0	12.0	1049.0	12.0	.0	.0
1952	1045.4	10.5	1045.4	10.5	.0	.0
1953	1041.9	13.2	1041.9	13.2	.0	.0
1954	1048.4	16.5	1048.4	16.5	.0	.0
1955	1023.0	1.9	1023.0	1.9	.0	.0
1956	1041.2	24.1	1041.2	24.1	.0	.0
1957	1049.2	16.7	1049.2	16.7	.0	.0
1958	1022.3	6.7	1022.3	6.7	.0	.0
1959	1043.5	7.2	1043.5	7.2	.0	.0
1960	1039.3	22.9	1039.9	22.1	.1	.6
1961	1054.0	14.4	1053.7	14.4	.0	-.3
1962	1044.3	11.8	1044.3	11.8	.0	.0
1963	1052.7	10.1	1052.7	10.1	.0	.0
1964	1029.8	.5	1029.8	.5	.0	.0
1965	1035.6	3.8	1035.6	3.8	.0	.0
1966	1052.8	6.9	1052.8	6.9	.0	.0
1967	1045.8	4.1	1045.8	4.1	.0	.0
1968	1048.5	16.6	1048.5	16.6	.0	.0
1969	1045.7	20.8	1045.7	20.8	.0	.0
1970	1042.9	20.0	1042.9	20.0	.0	.0
1971	1039.9	2.9	1039.9	2.9	.0	.0
1972	1053.5	16.7	1053.5	16.7	.0	.0
1973	1050.4	19.4	1050.4	19.4	.0	.0
1974	1022.3	-10.9	1022.3	-10.9	.0	.0
1975	1037.2	-2.2	1037.2	-2.2	.0	.0
1976	1021.5	5.1	1021.5	5.1	.0	.0
1977	948.9	-13.1	949.0	-13.1	.0	.1
1978	1043.1	11.6	1043.1	11.6	.0	.0
1979	1033.0	15.3	1033.0	15.3	.0	.0
1980	1041.3	24.0	1042.0	24.7	.1	.7
1981	1046.5	17.5	1046.5	17.5	.0	.0
1982	1042.9	16.1	1042.9	16.1	.0	.0
1983	1022.3	6.7	1022.3	6.7	.0	.0
1984	1060.5	17.9	1060.5	17.9	.0	.0
1985	1025.0	3.6	1025.0	3.6	.0	.0
1986	1027.0	11.4	1027.0	11.4	.0	.0
1987	1033.5	27.8	1033.8	27.7	.0	.3
1988	1011.8	.1	1012.0	.2	.0	.2
1989	1038.7	55.3	1038.7	54.3	.0	.0
1990	1009.4	10.6	1009.2	10.4	.0	-.2
1991	957.0	15.8	960.5	15.8	.4	3.5
Mean:	1024.8	12.6	1024.9	12.6	.0	.1
Median:	1033.5	11.4	1033.8	11.6	.0	.0
Min:	935.6	-13.1	935.6	-13.1	-.3	-3.1
Max:	1060.5	55.3	1060.5	54.3	.4	3.5

X > 1020.0	54	54
X > 1017.0	54	55
X > 995.0	60	60
X > 980.0	62	62
X > 973.0	64	64
X > 955.0	66	66
X > 951.0	66	66
X > 943.0	68	68
X > 941.0	68	68

SHASTA RESERVOIR ELEVATION

April

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1042.7	.0	1042.7	.0	.0	.0
1923	1025.8	14.0	1025.8	14.0	.0	.0
1924	967.4	-11.5	964.1	-11.7	-.3	-3.3
1925	1022.1	29.4	1020.5	29.7	-.2	-1.6
1926	1032.5	10.7	1032.6	11.3	.0	.1
1927	1063.8	20.1	1063.8	20.1	.0	.0
1928	1059.2	15.9	1059.2	15.9	.0	.0
1929	1004.6	2.2	1005.3	3.0	.1	.7
1930	1027.5	6.3	1027.7	5.6	.0	.2
1931	961.1	-14.8	961.6	-14.8	.1	.5
1932	946.1	10.5	946.1	10.5	.0	.0
1933	941.8	5.2	943.4	6.1	.2	1.6
1934	957.8	-.7	960.6	.7	.3	2.8
1935	997.1	52.2	999.0	51.6	.2	1.9
1936	1027.4	10.5	1027.7	9.8	.0	.3
1937	1023.5	29.9	1023.3	29.9	.0	-.2
1938	1046.7	24.4	1046.7	24.4	.0	.0
1939	1024.3	-1.5	1024.7	-1.1	.0	.4
1940	1049.9	26.8	1049.9	26.8	.0	.0
1941	1060.6	18.2	1060.6	18.2	.0	.0
1942	1056.7	22.1	1056.7	22.1	.0	.0
1943	1062.9	14.1	1062.9	14.1	.0	.0
1944	1028.1	5.1	1028.1	5.1	.0	.0
1945	1044.8	4.9	1045.2	5.0	.0	.4
1946	1050.1	7.9	1050.1	7.8	.0	.0
1947	1029.9	6.7	1030.5	6.6	.1	.6
1948	1051.3	34.7	1051.3	34.7	.0	.0
1949	1054.8	10.2	1055.1	10.3	.0	.3
1950	1038.9	12.5	1039.3	12.5	.0	.4
1951	1052.6	3.6	1052.6	3.6	.0	.0
1952	1054.9	9.5	1054.9	9.5	.0	.0
1953	1052.7	10.8	1052.7	10.8	.0	.0
1954	1063.6	15.2	1063.6	15.2	.0	.0
1955	1034.8	11.8	1034.8	11.8	.0	.0
1956	1056.5	15.3	1056.5	15.3	.0	.0
1957	1053.9	4.7	1053.8	4.6	.0	-.1
1958	1050.8	28.5	1050.8	28.5	.0	.0
1959	1048.4	4.9	1048.4	4.9	.0	.0
1960	1043.8	4.5	1044.4	4.5	.1	.6
1961	1057.5	3.5	1057.2	3.5	.0	-.3
1962	1053.6	9.3	1053.6	9.3	.0	.0
1963	1049.5	-3.2	1049.5	-3.2	.0	.0
1964	1027.3	-2.5	1027.3	-2.5	.0	.0
1965	1061.3	25.7	1061.3	25.7	.0	.0
1966	1063.8	11.0	1063.8	11.0	.0	.0
1967	1061.4	15.6	1061.4	15.6	.0	.0
1968	1050.9	2.4	1050.8	2.3	.0	-.1
1969	1059.8	14.1	1059.8	14.1	.0	.0
1970	1045.6	2.7	1045.6	2.7	.0	.0
1971	1058.5	18.6	1058.5	18.6	.0	.0
1972	1061.5	8.0	1061.8	8.3	.0	.3
1973	1058.5	8.1	1058.5	8.1	.0	.0
1974	1054.9	32.6	1054.9	32.6	.0	.0
1975	1056.2	19.0	1056.2	19.0	.0	.0
1976	1026.7	5.2	1026.7	5.2	.0	.0
1977	931.4	-17.5	931.4	-17.6	.0	.0
1978	1063.8	20.7	1063.8	20.7	.0	.0
1979	1038.9	5.9	1038.9	5.9	.0	.0
1980	1050.1	8.8	1050.8	8.8	.1	.7
1981	1050.3	3.8	1050.3	3.8	.0	.0
1982	1047.9	5.0	1047.9	5.0	.0	.0
1983	1047.3	25.0	1047.3	25.0	.0	.0
1984	1063.8	3.3	1063.8	3.3	.0	.0
1985	1031.0	6.0	1031.0	6.0	.0	.0
1986	1038.1	11.1	1038.1	11.1	.0	.0
1987	1028.9	-4.6	1029.3	-4.5	.0	.4
1988	1012.0	.2	1012.3	.3	.0	.3
1989	1050.7	12.0	1050.7	12.0	.0	.0
1990	1003.7	-5.7	1004.2	-5.0	.0	.5
1991	965.3	8.3	968.6	8.1	.3	3.3
Mean:	1035.5	10.4	1035.6	10.4	.0	.2
Median:	1047.9	8.8	1047.9	8.8	.0	.0
Min:	931.4	-17.5	931.4	-17.6	-.3	-3.3
Max:	1063.8	52.2	1063.8	51.6	.3	3.3

X > 1020.0	59	59
X > 1017.0	59	59
X > 995.0	63	63
X > 980.0	63	63
X > 973.0	63	63
X > 955.0	67	67
X > 951.0	67	67
X > 943.0	68	69
X > 941.0	69	69

SHASTA RESERVOIR ELEVATION

May

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1053.3	.0	1053.3	.0	.0	.0
1923	1019.4	-6.4	1018.5	-7.3	-.1	-.9
1924	955.7	-11.7	952.4	-11.7	-.3	-3.3
1925	1033.5	11.4	1031.9	11.4	-.2	-1.6
1926	1029.2	-3.3	1029.3	-3.3	.0	.1
1927	1063.8	.0	1063.8	.0	.0	.0
1928	1054.4	-4.8	1054.4	-4.8	.0	.0
1929	997.2	-7.4	997.8	-7.5	.1	.6
1930	1026.8	-.7	1027.0	-.7	.0	.2
1931	949.0	-12.1	949.8	-11.8	.1	.8
1932	955.1	9.0	955.1	9.0	.0	.0
1933	942.7	.9	944.3	.9	.2	1.6
1934	946.6	-11.2	949.6	-11.0	.3	3.0
1935	1010.0	12.9	1011.6	12.6	.2	1.6
1936	1024.1	-3.3	1024.4	-3.3	.0	.3
1937	1029.7	6.2	1028.2	4.9	-.1	-1.5
1938	1063.8	17.1	1063.8	17.1	.0	.0
1939	1013.3	-11.0	1013.6	-11.1	.0	.3
1940	1051.4	1.5	1051.4	1.5	.0	.0
1941	1063.8	3.2	1063.8	3.2	.0	.0
1942	1063.8	7.1	1063.8	7.1	.0	.0
1943	1063.8	.9	1063.8	.9	.0	.0
1944	1027.1	-1.0	1027.1	-1.0	.0	.0
1945	1048.1	3.3	1048.4	3.2	.0	.3
1946	1047.6	-2.5	1047.7	-2.4	.0	.1
1947	1019.5	-10.4	1020.1	-10.4	.1	.6
1948	1063.8	12.5	1063.8	12.5	.0	.0
1949	1056.1	1.3	1056.5	1.4	.0	.4
1950	1032.4	-6.5	1032.8	-6.5	.0	.4
1951	1059.0	6.4	1059.0	6.4	.0	.0
1952	1063.8	8.9	1063.8	8.9	.0	.0
1953	1063.8	11.1	1063.8	11.1	.0	.0
1954	1058.8	-4.8	1058.7	-4.9	.0	-.1
1955	1043.9	9.1	1043.9	9.1	.0	.0
1956	1063.8	7.3	1063.8	7.3	.0	.0
1957	1063.8	9.9	1063.8	10.0	.0	.0
1958	1063.8	13.0	1063.8	13.0	.0	.0
1959	1043.3	-5.1	1043.9	-4.5	.1	.6
1960	1050.2	6.4	1050.5	6.1	.0	.3
1961	1051.5	-6.0	1051.3	-5.9	.0	-.2
1962	1051.8	-1.8	1051.9	-1.7	.0	.1
1963	1063.8	14.3	1063.8	14.3	.0	.0
1964	1024.2	-3.1	1024.2	-3.1	.0	.0
1965	1061.6	.3	1061.6	.3	.0	.0
1966	1052.9	-10.9	1052.8	-11.0	.0	-.1
1967	1063.8	2.4	1063.8	2.4	.0	.0
1968	1046.9	-4.0	1046.8	-4.0	.0	-.1
1969	1063.8	4.0	1063.8	4.0	.0	.0
1970	1044.2	-1.4	1044.2	-1.4	.0	.0
1971	1063.8	5.3	1063.8	5.3	.0	.0
1972	1050.9	-10.6	1051.2	-10.6	.0	.3
1973	1058.0	-.5	1058.0	-.5	.0	.0
1974	1063.8	8.9	1063.8	8.9	.0	.0
1975	1063.8	7.6	1063.8	7.6	.0	.0
1976	1020.4	-6.3	1020.6	-6.1	.0	.2
1977	929.5	-1.9	929.6	-1.8	.0	.1
1978	1063.8	.0	1063.8	.0	.0	.0
1979	1043.8	4.9	1043.7	4.8	.0	-.1
1980	1051.7	1.6	1052.3	1.5	.1	.6
1981	1042.4	-7.9	1042.9	-7.4	.0	.5
1982	1060.3	12.4	1060.3	12.4	.0	.0
1983	1063.8	16.5	1063.8	16.5	.0	.0
1984	1058.6	-5.2	1058.6	-5.2	.0	.0
1985	1025.1	-5.9	1025.0	-6.0	.0	-.1
1986	1039.5	1.4	1039.5	1.4	.0	.0
1987	1016.1	-12.8	1016.0	-13.3	.0	-.1
1988	1008.6	-3.4	1008.9	-3.4	.0	.3
1989	1044.8	-5.9	1044.5	-6.2	.0	-.3
1990	1006.7	3.0	1007.4	3.2	.1	.7
1991	965.9	.6	969.2	.6	.3	3.3
Mean:	1036.4	.8	1036.5	.7	.0	.1
Median:	1048.1	.0	1048.4	.0	.0	.0
Min:	929.5	-12.8	929.6	-13.3	-.3	-3.3
Max:	1063.8	17.1	1063.8	17.1	.3	3.3

X > 1020.0	55	56
X > 1017.0	57	57
X > 995.0	63	63
X > 980.0	63	63
X > 973.0	63	63
X > 955.0	66	65
X > 951.0	66	66
X > 943.0	68	69
X > 941.0	69	69

SHASTA RESERVOIR ELEVATION

June

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1045.5	.0	1045.5	.0	.0	.0
1923	1010.4	-9.0	1008.6	-9.9	-.2	-1.8
1924	937.7	-18.0	934.4	-18.0	-.4	-3.3
1925	1031.1	-2.4	1029.6	-2.3	-.1	-1.5
1926	1015.4	-13.8	1015.9	-13.4	.0	.5
1927	1053.6	-10.2	1053.6	-10.2	.0	.0
1928	1042.9	-11.5	1042.9	-11.5	.0	.0
1929	991.6	-5.6	992.3	-5.5	.1	.7
1930	1014.8	-12.0	1015.1	-11.9	.0	.3
1931	934.6	-14.4	935.5	-14.3	.1	.9
1932	948.2	-6.9	949.0	-6.1	.1	.8
1933	939.2	-3.5	940.2	-4.1	.1	1.0
1934	927.6	-19.0	929.3	-20.3	.2	1.7
1935	993.4	-16.6	995.0	-16.6	.2	1.6
1936	1019.0	-5.1	1019.3	-5.1	.0	.3
1937	1023.6	-6.1	1020.7	-7.5	-.3	-2.9
1938	1058.7	-5.1	1058.7	-5.1	.0	.0
1939	998.0	-15.3	998.5	-15.1	.1	.5
1940	1039.2	-12.2	1039.4	-12.0	.0	.2
1941	1058.7	-5.1	1058.7	-5.1	.0	.0
1942	1058.7	-5.1	1058.7	-5.1	.0	.0
1943	1054.6	-9.2	1054.6	-9.2	.0	.0
1944	1016.3	-10.8	1018.1	-9.0	.2	1.8
1945	1039.6	-8.5	1040.3	-8.1	.1	.7
1946	1035.7	-11.9	1035.5	-12.2	.0	-.2
1947	1016.2	-3.3	1016.8	-3.3	.1	.6
1948	1058.7	-5.1	1058.7	-5.1	.0	.0
1949	1036.4	-19.7	1037.0	-19.5	.1	.6
1950	1020.7	-11.7	1020.8	-12.0	.0	.1
1951	1044.3	-14.7	1044.3	-14.7	.0	.0
1952	1058.7	-5.1	1058.7	-5.1	.0	.0
1953	1058.7	-5.1	1058.7	-5.1	.0	.0
1954	1051.6	-7.2	1051.7	-7.0	.0	.1
1955	1031.6	-12.3	1031.5	-12.4	.0	-.1
1956	1058.7	-5.1	1058.7	-5.1	.0	.0
1957	1056.4	-7.4	1056.6	-7.2	.0	.2
1958	1058.7	-5.1	1058.7	-5.1	.0	.0
1959	1027.2	-16.1	1028.4	-15.5	.1	1.2
1960	1040.6	-9.6	1039.4	-11.1	-.1	-1.2
1961	1042.8	-8.7	1042.5	-8.8	.0	-.3
1962	1040.4	-11.4	1040.5	-11.4	.0	.1
1963	1055.8	-8.0	1055.8	-8.0	.0	.0
1964	1020.6	-3.6	1020.6	-3.6	.0	.0
1965	1050.3	-11.3	1050.3	-11.3	.0	.0
1966	1036.7	-16.2	1036.4	-16.4	.0	-.3
1967	1058.7	-5.1	1058.7	-5.1	.0	.0
1968	1034.0	-12.9	1034.5	-12.3	.0	.5
1969	1058.7	-5.1	1058.7	-5.1	.0	.0
1970	1035.1	-9.1	1035.1	-9.1	.0	.0
1971	1058.7	-5.1	1058.7	-5.1	.0	.0
1972	1041.1	-9.8	1041.2	-10.0	.0	.1
1973	1049.4	-8.6	1049.2	-8.8	.0	-.2
1974	1058.7	-5.1	1058.7	-5.1	.0	.0
1975	1058.7	-5.1	1058.7	-5.1	.0	.0
1976	1010.8	-9.6	1010.6	-10.0	.0	-.2
1977	916.4	-13.1	916.3	-13.3	.0	-.1
1978	1053.0	-10.8	1053.0	-10.8	.0	.0
1979	1027.6	-16.2	1027.2	-16.5	.0	-.4
1980	1043.0	-8.7	1043.7	-8.6	.1	.7
1981	1028.2	-14.2	1029.8	-13.1	.2	1.6
1982	1056.7	-3.6	1056.7	-3.6	.0	.0
1983	1062.2	-1.6	1062.2	-1.6	.0	.0
1984	1049.3	-9.3	1049.3	-9.3	.0	.0
1985	1012.9	-12.2	1013.5	-11.5	.1	.6
1986	1026.3	-13.2	1026.3	-13.2	.0	.0
1987	998.3	-17.8	998.2	-17.8	.0	-.1
1988	999.3	-9.3	999.8	-9.1	.1	.5
1989	1030.9	-13.9	1031.0	-13.5	.0	.1
1990	1004.0	-2.7	1004.4	-3.0	.0	.4
1991	956.2	-9.7	959.5	-9.7	.3	3.3
Mean:	1026.9	-9.4	1027.0	-9.4	.0	.1
Median:	1036.4	-9.3	1036.4	-9.2	.0	.0
Min:	916.4	-19.7	916.3	-20.3	-.4	-3.3
Max:	1062.2	.0	1062.2	.0	.3	3.3
X > 1020.0	49		49			
X > 1017.0	50		51			
X > 995.0	61		61			
X > 980.0	63		63			
X > 973.0	63		63			
X > 955.0	64		64			
X > 951.0	64		64			
X > 943.0	65		65			
X > 941.0	65		65			

SHASTA RESERVOIR ELEVATION

July

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1029.2	.0	1029.2	.0	.0	.0
1923	997.7	-12.7	993.4	-15.2	-.4	-4.3
1924	916.8	-20.9	913.1	-21.3	-.4	-3.7
1925	1017.6	-13.5	1016.0	-13.6	-.2	-1.6
1926	998.0	-17.4	998.7	-17.2	.1	.7
1927	1038.1	-15.5	1037.7	-15.9	.0	-.4
1928	1017.0	-25.9	1018.0	-24.9	.1	1.0
1929	976.3	-15.3	977.3	-15.0	.1	1.0
1930	998.4	-16.4	998.6	-16.5	.0	.2
1931	914.8	-19.8	914.0	-21.5	-.1	-.8
1932	929.8	-18.4	930.6	-18.4	.1	.8
1933	924.7	-14.5	925.8	-14.4	.1	1.1
1934	902.6	-25.0	905.9	-23.4	.4	3.3
1935	967.5	-25.9	969.1	-25.9	.2	1.6
1936	1000.5	-18.5	1000.9	-18.4	.0	.4
1937	1004.3	-19.3	999.7	-21.0	-.5	-4.6
1938	1041.6	-17.1	1041.4	-17.3	.0	-.2
1939	981.7	-16.3	982.5	-16.0	.1	.8
1940	1020.5	-18.7	1021.6	-17.8	.1	1.1
1941	1043.7	-15.0	1043.7	-15.0	.0	.0
1942	1040.9	-17.8	1040.9	-17.8	.0	.0
1943	1039.6	-15.0	1040.1	-14.5	.0	.5
1944	1002.2	-14.1	1003.2	-14.9	.1	1.0
1945	1015.9	-23.7	1016.0	-24.3	.0	.1
1946	1016.5	-19.2	1017.1	-18.4	.1	.6
1947	999.0	-17.2	999.4	-17.4	.0	.4
1948	1040.9	-17.8	1040.9	-17.8	.0	.0
1949	1020.1	-16.3	1019.9	-17.1	.0	-.2
1950	1002.3	-18.4	1002.3	-18.5	.0	.0
1951	1025.6	-18.7	1026.6	-17.7	.1	1.0
1952	1042.4	-16.3	1042.4	-16.3	.0	.0
1953	1042.8	-15.9	1042.8	-15.9	.0	.0
1954	1028.5	-23.1	1028.7	-23.0	.0	.2
1955	1018.4	-13.2	1018.3	-13.2	.0	-.1
1956	1040.9	-17.8	1040.9	-17.8	.0	.0
1957	1039.4	-17.0	1039.9	-16.7	.0	.5
1958	1044.6	-14.1	1044.6	-14.1	.0	.0
1959	1000.6	-26.6	1002.0	-26.4	.1	1.4
1960	1023.0	-17.6	1021.2	-18.2	-.2	-1.8
1961	1026.6	-16.2	1026.5	-16.0	.0	-.1
1962	1023.1	-17.3	1023.7	-16.8	.1	.6
1963	1040.9	-14.9	1040.9	-14.9	.0	.0
1964	1006.3	-14.3	1006.5	-14.1	.0	.2
1965	1035.2	-15.1	1035.0	-15.3	.0	-.2
1966	1017.3	-19.4	1017.8	-18.6	.0	.5
1967	1041.0	-17.7	1041.0	-17.7	.0	.0
1968	1011.8	-22.2	1014.1	-20.4	.2	2.3
1969	1040.9	-17.8	1040.9	-17.8	.0	.0
1970	1013.0	-22.1	1013.7	-21.4	.1	.7
1971	1040.9	-17.8	1040.9	-17.8	.0	.0
1972	1018.6	-22.5	1018.7	-22.5	.0	.1
1973	1028.7	-20.7	1029.2	-20.0	.0	.5
1974	1043.7	-15.0	1043.7	-15.0	.0	.0
1975	1042.7	-16.0	1042.7	-16.0	.0	.0
1976	996.2	-14.6	996.3	-14.3	.0	.1
1977	887.5	-28.9	887.2	-29.1	.0	-.3
1978	1039.1	-13.9	1039.1	-13.9	.0	.0
1979	1006.0	-21.6	1008.5	-18.7	.2	2.5
1980	1032.2	-10.8	1033.0	-10.7	.1	.8
1981	1013.5	-14.7	1015.3	-14.5	.2	1.8
1982	1040.9	-15.8	1040.9	-15.8	.0	.0
1983	1049.8	-12.4	1049.8	-12.4	.0	.0
1984	1032.9	-16.4	1033.4	-15.9	.0	.5
1985	1000.6	-12.3	1000.8	-12.7	.0	.2
1986	1011.2	-15.1	1011.2	-15.1	.0	.0
1987	980.9	-17.4	981.0	-17.2	.0	.1
1988	981.7	-17.6	982.3	-17.5	.1	.6
1989	1013.9	-17.0	1013.6	-17.4	.0	-.3
1990	985.8	-18.2	986.3	-18.1	.1	.5
1991	943.3	-12.9	946.1	-13.4	.3	2.8
Mean:	1009.3	-17.3	1009.5	-17.3	.0	.2
Median:	1017.3	-17.2	1017.8	-17.2	.0	.1
Min:	887.5	-28.9	887.2	-29.1	-.5	-4.6
Max:	1049.8	.0	1049.8	.0	.4	3.3
X > 1020.0	32		31			
X > 1017.0	36		37			
X > 995.0	57		56			
X > 980.0	61		61			
X > 973.0	62		62			
X > 955.0	63		63			
X > 951.0	63		63			
X > 943.0	64		64			
X > 941.0	64		64			

SHASTA RESERVOIR ELEVATION

August

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1015.3	.0	1015.3	.0	.0	.0
1923	983.6	-14.1	978.3	-15.1	-.5	-5.3
1924	889.4	-27.4	884.0	-29.1	-.6	-5.4
1925	1001.0	-16.6	999.3	-16.7	-.2	-1.7
1926	979.2	-18.8	980.1	-18.6	.1	.9
1927	1019.6	-18.5	1019.6	-18.1	.0	.0
1928	1000.1	-16.9	1000.0	-18.0	.0	-.1
1929	960.7	-15.6	961.8	-15.5	.1	1.1
1930	978.3	-20.1	978.6	-20.0	.0	.3
1931	879.5	-35.3	878.9	-35.1	-.1	-.6
1932	908.6	-21.2	909.5	-21.1	.1	.9
1933	904.1	-20.6	906.1	-19.7	.2	2.0
1934	866.6	-36.0	871.0	-34.9	.5	4.4
1935	935.7	-31.8	937.3	-31.8	.2	1.6
1936	976.3	-24.2	976.7	-24.2	.0	.4
1937	980.2	-24.1	973.2	-26.5	-.7	-7.0
1938	1019.6	-22.0	1019.6	-21.8	.0	.0
1939	964.8	-16.9	965.7	-16.8	.1	.9
1940	1003.3	-17.2	1004.5	-17.1	.1	1.2
1941	1022.7	-21.0	1022.7	-21.0	.0	.0
1942	1019.6	-21.3	1019.6	-21.3	.0	.0
1943	1019.6	-20.0	1019.6	-20.5	.0	.0
1944	987.7	-14.5	988.6	-14.6	.1	.9
1945	998.5	-17.4	998.5	-17.5	.0	.0
1946	1000.8	-15.7	1001.5	-15.6	.1	.7
1947	980.0	-19.0	980.4	-19.0	.0	.4
1948	1019.3	-21.6	1019.6	-21.3	.0	.3
1949	1004.6	-15.5	1003.7	-16.2	-.1	-.9
1950	983.7	-18.6	983.8	-18.5	.0	.1
1951	1010.1	-15.5	1011.2	-15.4	.1	1.1
1952	1019.6	-22.8	1019.6	-22.8	.0	.0
1953	1020.1	-22.7	1020.1	-22.7	.0	.0
1954	1019.5	-9.0	1019.5	-9.2	.0	.0
1955	1002.9	-15.5	1003.5	-14.8	.1	.6
1956	1019.6	-21.3	1019.6	-21.3	.0	.0
1957	1019.6	-19.8	1019.6	-20.3	.0	.0
1958	1024.1	-20.5	1024.1	-20.5	.0	.0
1959	985.3	-15.3	988.2	-13.8	.3	2.9
1960	1005.0	-18.0	1004.7	-16.5	.0	-.3
1961	1010.8	-15.8	1010.9	-15.6	.0	.1
1962	1009.3	-13.8	1009.9	-13.8	.1	.6
1963	1019.6	-21.3	1019.6	-21.3	.0	.0
1964	992.2	-14.1	992.3	-14.2	.0	.1
1965	1019.6	-15.6	1019.6	-15.4	.0	.0
1966	1003.6	-13.7	1006.0	-11.8	.2	2.4
1967	1019.6	-21.4	1019.6	-21.4	.0	.0
1968	1004.8	-7.0	1007.4	-6.7	.3	2.6
1969	1019.6	-21.3	1019.6	-21.3	.0	.0
1970	1002.0	-11.0	1002.6	-11.1	.1	.6
1971	1019.6	-21.3	1019.6	-21.3	.0	.0
1972	1002.9	-15.7	1004.7	-14.0	.2	1.8
1973	1019.1	-9.6	1019.6	-9.6	.0	.5
1974	1023.0	-20.7	1023.0	-20.7	.0	.0
1975	1020.8	-21.9	1020.8	-21.9	.0	.0
1976	983.7	-12.5	983.6	-12.7	.0	-.1
1977	852.3	-35.2	851.8	-35.4	-.1	-.5
1978	1019.6	-19.5	1019.6	-19.5	.0	.0
1979	995.8	-10.2	997.6	-10.9	.2	1.8
1980	1019.6	-12.6	1019.6	-13.4	.0	.0
1981	1001.8	-11.7	1001.5	-13.8	.0	-.3
1982	1019.6	-21.3	1019.6	-21.3	.0	.0
1983	1032.2	-17.6	1032.2	-17.6	.0	.0
1984	1019.6	-13.3	1019.6	-13.8	.0	.0
1985	988.5	-12.1	989.5	-11.3	.1	1.0
1986	996.7	-14.5	996.7	-14.5	.0	.0
1987	966.7	-14.2	966.8	-14.2	.0	.1
1988	965.5	-16.2	966.5	-15.8	.1	1.0
1989	994.6	-19.3	992.7	-20.9	-.2	-1.9
1990	967.4	-18.4	967.4	-18.9	.0	.0
1991	932.1	-11.2	935.1	-11.0	.3	3.0
Mean:	991.0	-18.1	991.2	-18.1	.0	.2
Median:	1002.9	-18.0	1003.5	-18.0	.0	.0
Min:	852.3	-36.0	851.8	-35.4	-.7	-7.0
Max:	1032.2	.0	1032.2	.0	.5	4.4
X > 1020.0	6		6			
X > 1017.0	25		25			
X > 995.0	44		44			
X > 980.0	53		53			
X > 973.0	57		57			
X > 955.0	62		62			
X > 951.0	62		62			
X > 943.0	62		62			
X > 941.0	62		62			

SHASTA RESERVOIR ELEVATION

September

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1008.6	.0	1008.6	.0	.0	.0
1923	975.4	-8.2	969.9	-8.4	-.6	-5.5
1924	877.9	-11.5	871.9	-12.1	-.7	-6.0
1925	993.4	-7.6	991.5	-7.8	-.2	-1.9
1926	969.6	-9.6	970.5	-9.6	.1	.9
1927	1013.7	-5.9	1013.7	-5.9	.0	.0
1928	992.6	-7.5	992.4	-7.6	.0	-.2
1929	950.2	-10.5	951.4	-10.4	.1	1.2
1930	969.1	-9.2	969.4	-9.2	.0	.3
1931	865.9	-13.6	865.4	-13.5	-.1	-.5
1932	897.6	-11.0	898.6	-10.9	.1	1.0
1933	893.1	-11.0	895.2	-10.9	.2	2.1
1934	848.8	-17.8	853.8	-17.2	.6	5.0
1935	924.7	-11.0	926.3	-11.0	.2	1.6
1936	966.2	-10.1	966.7	-10.0	.1	.5
1937	970.4	-9.8	963.0	-10.2	-.8	-7.4
1938	1017.6	-2.0	1017.6	-2.0	.0	.0
1939	955.1	-9.7	956.1	-9.6	.1	1.0
1940	996.3	-7.0	997.5	-7.0	.1	1.2
1941	1017.6	-5.1	1017.6	-5.1	.0	.0
1942	1017.6	-2.0	1017.6	-2.0	.0	.0
1943	1014.7	-4.9	1014.7	-4.9	.0	.0
1944	979.7	-8.0	980.6	-8.0	.1	.9
1945	991.3	-7.2	991.3	-7.2	.0	.0
1946	993.9	-6.9	994.6	-6.9	.1	.7
1947	971.6	-8.4	972.1	-8.3	.1	.5
1948	1013.1	-6.2	1013.4	-6.2	.0	.3
1949	996.5	-8.1	995.7	-8.0	-.1	-.8
1950	975.0	-8.7	975.0	-8.8	.0	.0
1951	1002.9	-7.2	1004.0	-7.2	.1	1.1
1952	1017.6	-2.0	1017.6	-2.0	.0	.0
1953	1017.6	-2.5	1017.6	-2.5	.0	.0
1954	1014.7	-4.8	1014.7	-4.8	.0	.0
1955	996.3	-6.6	996.9	-6.6	.1	.6
1956	1017.6	-2.0	1017.6	-2.0	.0	.0
1957	1017.2	-2.4	1017.3	-2.3	.0	.1
1958	1017.6	-6.5	1017.6	-6.5	.0	.0
1959	981.0	-4.3	984.0	-4.2	.3	3.0
1960	998.4	-6.6	998.0	-6.7	.0	-.4
1961	1004.1	-6.7	1004.1	-6.8	.0	.0
1962	1002.1	-7.2	1002.8	-7.1	.1	.7
1963	1017.5	-2.1	1017.5	-2.1	.0	.0
1964	984.2	-8.0	984.3	-8.0	.0	.1
1965	1014.3	-5.3	1014.3	-5.3	.0	.0
1966	997.0	-6.6	999.4	-6.6	.2	2.4
1967	1017.6	-2.0	1017.6	-2.0	.0	.0
1968	999.2	-5.6	1001.9	-5.5	.3	2.7
1969	1017.6	-2.0	1017.6	-2.0	.0	.0
1970	996.3	-5.7	996.9	-5.7	.1	.6
1971	1017.6	-2.0	1017.6	-2.0	.0	.0
1972	997.7	-5.2	999.5	-5.2	.2	1.8
1973	1013.6	-5.5	1014.1	-5.5	.0	.5
1974	1017.6	-5.4	1017.6	-5.4	.0	.0
1975	1017.6	-3.2	1017.6	-3.2	.0	.0
1976	977.6	-6.1	977.5	-6.1	.0	-.1
1977	849.6	-2.7	849.1	-2.7	-.1	-.5
1978	1015.2	-4.4	1015.2	-4.4	.0	.0
1979	988.4	-7.4	990.3	-7.3	.2	1.9
1980	1014.4	-5.2	1014.4	-5.2	.0	.0
1981	994.1	-7.7	993.8	-7.7	.0	-.3
1982	1017.6	-2.0	1017.6	-2.0	.0	.0
1983	1017.6	-14.6	1017.6	-14.6	.0	.0
1984	1015.5	-4.1	1015.5	-4.1	.0	.0
1985	982.5	-6.0	983.5	-6.0	.1	1.0
1986	992.1	-4.6	992.1	-4.6	.0	.0
1987	958.6	-8.1	958.7	-8.1	.0	.1
1988	956.8	-8.7	957.9	-8.6	.1	1.1
1989	988.1	-6.5	986.1	-6.6	-.2	-2.0
1990	958.3	-9.1	958.3	-9.1	.0	.0
1991	926.0	-6.1	929.1	-6.0	.3	3.1
Mean:	984.4	-6.6	984.5	-6.6	.0	.2
Median:	996.3	-6.6	996.9	-6.6	.0	.0
Min:	848.8	-17.8	849.1	-17.2	-.8	-7.4
Max:	1017.6	.0	1017.6	.0	.6	5.0

X > 1020.0	0	0
X > 1017.0	16	16
X > 995.0	37	37
X > 980.0	48	49
X > 973.0	52	51
X > 955.0	61	61
X > 951.0	61	62
X > 943.0	62	62
X > 941.0	62	62

RETURN TO TABLE OF CONTENTS

Section 14

SHASTA RESERVOIR ELEVATION
14.3 Recreation

SHASTA RESERVOIR ELEVATION

October

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	997.7	.0	997.7	.0	.0	.0
1923	1004.7	-3.9	1004.7	-3.9	.0	.0
1924	976.0	.6	970.9	1.0	-.5	-5.1
1925	879.3	1.4	873.4	1.5	-.7	-5.9
1926	991.2	-2.2	989.4	-2.1	-.2	-1.8
1927	969.7	.1	970.6	.1	.1	.9
1928	1008.9	-4.8	1008.9	-4.8	.0	.0
1929	988.8	-3.8	988.7	-3.7	.0	-.1
1930	949.6	-.6	950.8	-.6	.1	1.2
1931	968.4	-.7	968.7	-.7	.0	.3
1932	863.7	-2.2	863.2	-2.2	-.1	-.5
1933	892.4	-5.2	893.4	-5.2	.1	1.0
1934	890.5	-2.6	892.7	-2.5	.2	2.2
1935	845.8	-3.0	850.9	-2.9	.6	5.1
1936	922.8	-1.9	924.4	-1.9	.2	1.6
1937	962.5	-3.7	963.0	-3.7	.1	.5
1938	970.0	-.4	963.0	.0	-.7	-7.0
1939	1015.5	-2.1	1015.5	-2.1	.0	.0
1940	955.7	.6	956.7	.6	.1	1.0
1941	993.1	-3.2	994.3	-3.2	.1	1.2
1942	1015.5	-2.1	1015.5	-2.1	.0	.0
1943	1015.5	-2.1	1015.5	-2.1	.0	.0
1944	1010.7	-4.0	1010.7	-4.0	.0	.0
1945	979.4	-.3	980.3	-.3	.1	.9
1946	992.7	1.4	992.7	1.4	.0	.0
1947	991.0	-2.9	991.7	-2.9	.1	.7
1948	976.7	5.1	976.3	4.2	.0	-.4
1949	1008.6	-4.5	1009.0	-4.4	.0	.4
1950	991.9	-4.6	991.8	-3.9	.0	-.1
1951	991.4	16.4	991.5	16.5	.0	.1
1952	999.8	-3.1	1001.0	-3.0	.1	1.2
1953	1015.5	-2.1	1015.5	-2.1	.0	.0
1954	1015.5	-2.1	1015.5	-2.1	.0	.0
1955	1011.4	-3.3	1011.4	-3.3	.0	.0
1956	992.3	-4.0	992.9	-4.0	.1	.6
1957	1015.5	-2.1	1015.5	-2.1	.0	.0
1958	1015.5	-1.7	1015.5	-1.8	.0	.0
1959	1015.5	-2.1	1015.5	-2.1	.0	.0
1960	981.2	.2	983.4	-.6	.2	2.2
1961	995.5	-2.9	995.1	-2.9	.0	-.4
1962	1000.3	-3.8	1000.4	-3.7	.0	.1
1963	1015.5	13.4	1015.5	12.7	.0	.0
1964	1015.5	-2.0	1015.5	-2.0	.0	.0
1965	982.5	-1.7	982.7	-1.6	.0	.2
1966	1010.4	-3.9	1010.4	-3.9	.0	.0
1967	993.3	-3.7	995.9	-3.5	.3	2.6
1968	1015.5	-2.1	1015.5	-2.1	.0	.0
1969	997.5	-1.7	999.6	-2.3	.2	2.1
1970	1015.5	-2.1	1015.5	-2.1	.0	.0
1971	995.3	-1.0	995.9	-1.0	.1	.6
1972	1015.5	-2.1	1015.5	-2.1	.0	.0
1973	998.0	.3	999.8	.3	.2	1.8
1974	1013.6	.0	1014.1	.0	.0	.5
1975	1015.5	-2.1	1015.5	-2.1	.0	.0
1976	1015.5	-2.1	1015.5	-2.1	.0	.0
1977	978.5	.9	978.4	.9	.0	-.1
1978	839.8	-9.8	838.4	-10.7	-.2	-1.4
1979	1011.1	-4.1	1011.1	-4.1	.0	.0
1980	989.6	1.2	991.4	1.1	.2	1.8
1981	1009.8	-4.6	1009.8	-4.6	.0	.0
1982	992.4	-1.7	992.1	-1.7	.0	-.3
1983	1015.5	-2.1	1015.5	-2.1	.0	.0
1984	1015.5	-2.1	1015.5	-2.1	.0	.0
1985	1014.1	-1.4	1014.1	-1.4	.0	.0
1986	983.0	.5	984.0	.5	.1	1.0
1987	991.6	-.5	991.6	-.5	.0	.0
1988	959.9	1.3	960.1	1.4	.0	.2
1989	957.9	1.1	959.0	1.1	.1	1.1
1990	991.4	3.3	990.2	4.1	-.1	-1.2
1991	958.6	.3	958.6	.3	.0	.0
Mean:	984.1	-1.3	984.2	-1.3	.0	.1
Median:	993.1	-2.1	994.3	-2.1	.0	.0
Min:	839.8	-9.8	838.4	-10.7	-.7	-7.0
Max:	1015.5	16.4	1015.5	16.5	.6	5.1
X > 924.0	63		64			
X > 918.0	64		64			
X > 876.0	67		66			
X > 856.0	68		68			
X > 848.0	68		69			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

November

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	996.0	.0	996.0	.0	.0	.0
1923	1002.0	-2.7	1002.0	-2.7	.0	.0
1924	975.7	-.3	971.2	.3	-.5	-4.5
1925	892.7	13.4	887.4	14.0	-.6	-5.3
1926	990.2	-1.0	988.3	-1.1	-.2	-1.9
1927	993.2	23.5	994.0	23.4	.1	.8
1928	1014.5	5.6	1014.5	5.6	.0	.0
1929	987.4	-1.4	987.2	-1.5	.0	-.2
1930	948.9	-.7	950.1	-.7	.1	1.2
1931	967.7	-.7	967.9	-.8	.0	.2
1932	862.1	-1.6	861.6	-1.6	-.1	-.5
1933	889.1	-3.3	890.2	-3.2	.1	1.1
1934	888.8	-1.7	891.0	-1.7	.2	2.2
1935	861.0	15.2	865.5	14.6	.5	4.5
1936	919.9	-2.9	921.6	-2.8	.2	1.7
1937	960.4	-2.1	960.9	-2.1	.1	.5
1938	997.0	27.0	991.7	28.7	-.5	-5.3
1939	1013.3	-2.2	1013.3	-2.2	.0	.0
1940	956.3	.6	957.2	.5	.1	.9
1941	991.5	-1.6	992.7	-1.6	.1	1.2
1942	1013.1	-2.4	1013.1	-2.4	.0	.0
1943	1015.2	-.3	1015.2	-.3	.0	.0
1944	1008.0	-2.7	1008.0	-2.7	.0	.0
1945	987.3	7.9	988.2	7.9	.1	.9
1946	1003.5	10.8	1003.4	10.7	.0	-.1
1947	992.2	1.2	992.9	1.2	.1	.7
1948	978.9	2.2	977.9	1.6	-.1	-1.0
1949	1005.5	-3.1	1005.8	-3.2	.0	.3
1950	988.2	-3.7	988.7	-3.1	.1	.5
1951	1009.5	18.1	1009.5	18.0	.0	.0
1952	1004.2	4.4	1005.3	4.3	.1	1.1
1953	1011.7	-3.8	1011.7	-3.8	.0	.0
1954	1015.6	.1	1015.6	.1	.0	.0
1955	1012.6	1.2	1012.6	1.2	.0	.0
1956	992.8	.5	993.5	.6	.1	.7
1957	1012.6	-2.9	1012.6	-2.9	.0	.0
1958	1015.6	.1	1015.6	.1	.0	.0
1959	1012.7	-2.8	1012.7	-2.8	.0	.0
1960	980.9	-.3	982.6	-.8	.2	1.7
1961	997.2	1.7	996.8	1.7	.0	-.4
1962	1002.0	1.7	1002.0	1.6	.0	.0
1963	1015.6	.1	1015.6	.1	.0	.0
1964	1015.6	.1	1015.6	.1	.0	.0
1965	987.2	4.7	987.3	4.6	.0	.1
1966	1015.6	5.2	1015.6	5.2	.0	.0
1967	1006.0	12.7	1008.4	12.5	.2	2.4
1968	1012.6	-2.9	1012.6	-2.9	.0	.0
1969	997.6	.1	999.0	-.6	.1	1.4
1970	1013.0	-2.5	1013.0	-2.5	.0	.0
1971	1012.4	17.1	1012.9	17.0	.0	.5
1972	1014.3	-1.2	1014.3	-1.2	.0	.0
1973	1006.3	8.3	1008.0	8.2	.2	1.7
1974	1015.6	2.0	1015.6	1.5	.0	.0
1975	1014.4	-1.1	1014.4	-1.1	.0	.0
1976	1015.6	.1	1015.6	.1	.0	.0
1977	979.2	.7	979.0	.6	.0	-.2
1978	833.3	-6.5	830.8	-7.6	-.3	-2.5
1979	1007.8	-3.3	1007.8	-3.3	.0	.0
1980	994.3	4.7	996.1	4.7	.2	1.8
1981	1007.7	-2.1	1007.7	-2.1	.0	.0
1982	1015.6	23.2	1015.6	23.5	.0	.0
1983	1015.6	.1	1015.6	.1	.0	.0
1984	1015.6	.1	1015.6	.1	.0	.0
1985	1015.6	1.5	1015.6	1.5	.0	.0
1986	983.7	.7	984.7	.7	.1	1.0
1987	990.2	-1.4	990.2	-1.4	.0	.0
1988	962.8	2.9	962.9	2.8	.0	.1
1989	969.6	11.7	970.6	11.6	.1	1.0
1990	990.4	-1.0	989.9	-.3	-.1	-.5
1991	958.0	-.6	959.3	.7	.1	1.3
Mean:	986.4	2.3	986.5	2.4	.0	.1
Median:	997.6	.1	999.0	.1	.0	.0
Min:	833.3	-6.5	830.8	-7.6	-.6	-5.3
Max:	1015.6	27.0	1015.6	28.7	.5	4.5
X > 924.0	63		63			
X > 918.0	64		64			
X > 876.0	67		67			
X > 856.0	69		69			
X > 848.0	69		69			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

December

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	997.9	.0	997.9	.0	.0	.0
1923	1002.0	.0	1002.0	.0	.0	.0
1924	975.1	-.6	971.4	.2	-.4	-3.7
1925	900.5	7.8	895.5	8.1	-.6	-5.0
1926	988.1	-2.1	986.2	-2.1	-.2	-1.9
1927	1014.5	21.3	1015.2	21.2	.1	.7
1928	1014.5	.0	1014.5	.0	.0	.0
1929	985.8	-1.6	985.7	-1.5	.0	-.1
1930	977.4	28.5	978.4	28.3	.1	1.0
1931	966.1	-1.6	966.4	-1.5	.0	.3
1932	882.2	20.1	881.8	20.2	.0	-.4
1933	887.4	-1.7	888.5	-1.7	.1	1.1
1934	899.3	10.5	901.4	10.4	.2	2.1
1935	865.2	4.2	869.6	4.1	.5	4.4
1936	920.2	.3	921.9	.3	.2	1.7
1937	959.1	-1.3	959.0	-1.9	.0	-.1
1938	1018.0	21.0	1018.0	26.3	.0	.0
1939	1014.1	.8	1014.1	.8	.0	.0
1940	965.0	8.7	965.9	8.7	.1	.9
1941	1017.3	25.8	1017.3	24.6	.0	.0
1942	1018.3	5.2	1018.3	5.2	.0	.0
1943	1019.9	4.7	1019.9	4.7	.0	.0
1944	1004.3	-3.7	1004.3	-3.7	.0	.0
1945	999.6	12.3	1000.5	12.3	.1	.9
1946	1016.2	12.7	1016.2	12.8	.0	.0
1947	993.3	1.1	994.1	1.2	.1	.8
1948	980.3	1.4	978.4	.5	-.2	-1.9
1949	1002.6	-2.9	1002.9	-2.9	.0	.3
1950	983.4	-4.8	984.7	-4.0	.1	1.3
1951	1018.5	9.0	1018.5	9.0	.0	.0
1952	1017.9	13.7	1017.9	12.6	.0	.0
1953	1019.4	7.7	1019.4	7.7	.0	.0
1954	1018.4	2.8	1018.4	2.8	.0	.0
1955	1019.8	7.2	1019.8	7.2	.0	.0
1956	1015.6	22.8	1015.6	22.1	.0	.0
1957	1009.2	-3.4	1009.2	-3.4	.0	.0
1958	1019.2	3.6	1019.2	3.6	.0	.0
1959	1010.5	-2.2	1010.5	-2.2	.0	.0
1960	978.2	-2.7	980.5	-2.1	.2	2.3
1961	1012.3	15.1	1012.0	15.2	.0	-.3
1962	1011.3	9.3	1011.4	9.4	.0	.1
1963	1019.6	4.0	1019.6	4.0	.0	.0
1964	1015.0	-.6	1015.0	-.6	.0	.0
1965	1015.6	28.4	1015.6	28.3	.0	.0
1966	1017.3	1.7	1017.3	1.7	.0	.0
1967	1019.0	13.0	1019.0	10.6	.0	.0
1968	1012.0	-.6	1012.0	-.6	.0	.0
1969	1008.3	10.7	1009.0	10.0	.1	.7
1970	1018.3	5.3	1018.3	5.3	.0	.0
1971	1018.4	6.0	1018.4	5.5	.0	.0
1972	1016.0	1.7	1016.0	1.7	.0	.0
1973	1015.4	9.1	1017.0	9.0	.2	1.6
1974	1016.2	.6	1016.2	.6	.0	.0
1975	1015.4	1.0	1015.4	1.0	.0	.0
1976	1014.8	-.8	1014.8	-.8	.0	.0
1977	976.0	-3.2	976.0	-3.0	.0	.0
1978	877.8	44.5	875.4	44.6	-.3	-2.4
1979	1003.4	-4.4	1003.4	-4.4	.0	.0
1980	998.4	4.1	1000.1	4.0	.2	1.7
1981	1008.7	1.0	1008.7	1.0	.0	.0
1982	1016.6	1.0	1016.6	1.0	.0	.0
1983	1018.9	3.3	1018.9	3.3	.0	.0
1984	1017.0	1.4	1017.0	1.4	.0	.0
1985	1020.1	4.5	1020.1	4.5	.0	.0
1986	990.1	6.4	991.1	6.4	.1	1.0
1987	988.2	-2.0	988.6	-1.6	.0	.4
1988	989.6	26.8	989.7	26.8	.0	.1
1989	975.2	5.6	976.2	5.6	.1	1.0
1990	987.1	-3.3	987.3	-2.6	.0	.2
1991	952.6	-5.4	956.3	-3.0	.4	3.7
Mean:	992.3	5.8	992.4	5.9	.0	.2
Median:	1009.2	2.8	1009.2	2.8	.0	.0
Min:	865.2	-5.4	869.6	-4.4	-.6	-5.0
Max:	1020.1	44.5	1020.1	44.6	.5	4.4
X > 924.0	63		63			
X > 918.0	64		64			
X > 876.0	69		68			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

January

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	999.2	.0	999.2	.0	.0	.0
1923	1006.7	4.7	1006.7	4.7	.0	.0
1924	975.2	.1	971.5	.1	-.4	-3.7
1925	910.0	9.5	905.3	9.8	-.5	-4.7
1926	988.4	.3	987.1	.9	-.1	-1.3
1927	1030.2	15.7	1030.9	15.7	.1	.7
1928	1020.2	5.7	1020.2	5.7	.0	.0
1929	987.9	2.1	987.7	2.0	.0	-.2
1930	986.4	9.0	987.4	9.0	.1	1.0
1931	968.4	2.3	968.7	2.3	.0	.3
1932	894.8	12.6	894.5	12.7	.0	-.3
1933	890.2	2.8	891.3	2.8	.1	1.1
1934	921.4	22.1	923.2	21.8	.2	1.8
1935	893.2	28.0	896.7	27.1	.4	3.5
1936	959.7	39.5	961.0	39.1	.1	1.3
1937	956.3	-2.8	956.1	-2.9	.0	-.2
1938	1028.6	10.6	1028.6	10.6	.0	.0
1939	1013.6	-.5	1013.6	-.5	.0	.0
1940	1005.9	40.9	1006.6	40.7	.1	.7
1941	1018.3	1.0	1018.3	1.0	.0	.0
1942	1021.2	2.9	1021.2	2.9	.0	.0
1943	1027.3	7.4	1027.3	7.4	.0	.0
1944	1004.2	-.1	1004.2	-.1	.0	.0
1945	1005.1	5.5	1005.5	5.0	.0	.4
1946	1030.4	14.2	1030.4	14.2	.0	.0
1947	992.1	-1.2	992.8	-1.3	.1	.7
1948	1005.4	25.1	1003.8	25.4	-.2	-1.6
1949	999.5	-3.1	999.8	-3.1	.0	.3
1950	994.9	11.5	996.7	12.0	.2	1.8
1951	1030.5	12.0	1030.5	12.0	.0	.0
1952	1029.7	11.8	1029.7	11.8	.0	.0
1953	1020.3	.9	1020.3	.9	.0	.0
1954	1027.7	9.3	1027.7	9.3	.0	.0
1955	1020.1	.3	1020.1	.3	.0	.0
1956	1015.6	.0	1015.6	.0	.0	.0
1957	1008.8	-.4	1008.8	-.4	.0	.0
1958	1026.9	7.7	1026.9	7.7	.0	.0
1959	1031.4	20.9	1031.4	20.9	.0	.0
1960	985.6	7.4	987.5	7.0	.2	1.9
1961	1016.0	3.7	1015.6	3.6	.0	-.4
1962	1011.4	.1	1011.4	.0	.0	.0
1963	1021.6	2.0	1021.6	2.0	.0	.0
1964	1026.8	11.8	1026.8	11.8	.0	.0
1965	1020.4	4.8	1020.4	4.8	.0	.0
1966	1034.3	17.0	1034.3	17.0	.0	.0
1967	1027.7	8.7	1027.7	8.7	.0	.0
1968	1017.0	5.0	1017.0	5.0	.0	.0
1969	1020.0	11.7	1020.0	11.0	.0	.0
1970	1015.6	-2.7	1015.6	-2.7	.0	.0
1971	1026.3	7.9	1026.3	7.9	.0	.0
1972	1026.6	10.6	1026.6	10.6	.0	.0
1973	1027.7	12.3	1027.7	10.7	.0	.0
1974	1015.6	-.6	1015.6	-.6	.0	.0
1975	1015.8	.4	1015.8	.4	.0	.0
1976	1012.4	-2.4	1012.4	-2.4	.0	.0
1977	971.1	-4.9	971.1	-4.9	.0	.0
1978	997.7	119.9	996.4	121.0	-.1	-1.3
1979	1006.4	3.0	1006.4	3.0	.0	.0
1980	1026.8	28.4	1026.8	26.7	.0	.0
1981	1017.6	8.9	1017.6	8.9	.0	.0
1982	1030.2	13.6	1030.2	13.6	.0	.0
1983	1020.6	1.7	1020.6	1.7	.0	.0
1984	1031.5	14.5	1031.5	14.5	.0	.0
1985	1019.5	-.6	1019.5	-.6	.0	.0
1986	1013.1	23.0	1014.0	22.9	.1	.9
1987	992.6	4.4	993.0	4.4	.0	.4
1988	1007.2	17.6	1007.2	17.5	.0	.0
1989	979.4	4.2	980.4	4.2	.1	1.0
1990	997.0	9.9	997.0	9.7	.0	.0
1991	947.3	-5.3	950.4	-5.9	.3	3.1
Mean:	1001.8	9.5	1001.9	9.4	.0	.1
Median:	1013.6	5.5	1014.0	5.0	.0	.0
Min:	890.2	-5.3	891.3	-5.9	-.5	-4.7
Max:	1034.3	119.9	1034.3	121.0	.4	3.5
X > 924.0	65		65			
X > 918.0	66		66			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

February

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1012.5	.0	1012.5	.0	.0	.0
1923	1008.7	2.0	1008.7	2.0	.0	.0
1924	981.5	6.3	977.9	6.4	-.4	-3.6
1925	985.6	75.6	982.6	77.3	-.3	-3.0
1926	1018.7	30.3	1017.6	30.5	-.1	-1.1
1927	1024.2	-6.0	1024.2	-6.7	.0	.0
1928	1033.9	13.7	1033.9	13.7	.0	.0
1929	995.7	7.8	995.6	7.9	.0	-.1
1930	1002.4	16.0	1003.3	15.9	.1	.9
1931	971.5	3.1	971.8	3.1	.0	.3
1932	905.5	10.7	905.4	10.9	.0	-.1
1933	893.4	3.2	894.5	3.2	.1	1.1
1934	943.0	21.6	944.5	21.3	.2	1.5
1935	919.1	25.9	922.0	25.3	.3	2.9
1936	1003.1	43.4	1004.2	43.2	.1	1.1
1937	960.8	4.5	960.6	4.5	.0	-.2
1938	1028.0	-.6	1028.0	-.6	.0	.0
1939	1013.8	.2	1013.8	.2	.0	.0
1940	1015.6	9.7	1015.6	9.0	.0	.0
1941	1022.6	4.3	1022.6	4.3	.0	.0
1942	1026.3	5.1	1026.3	5.1	.0	.0
1943	1039.0	11.7	1039.0	11.7	.0	.0
1944	1014.6	10.4	1014.6	10.4	.0	.0
1945	1033.4	28.3	1033.8	28.3	.0	.4
1946	1032.6	2.2	1032.7	2.3	.0	.1
1947	1002.4	10.3	1003.1	10.3	.1	.7
1948	1005.5	.1	1004.9	1.1	-.1	-.6
1949	1005.7	6.2	1006.0	6.2	.0	.3
1950	1011.1	16.2	1012.2	15.5	.1	1.1
1951	1037.0	6.5	1037.0	6.5	.0	.0
1952	1034.9	5.2	1034.9	5.2	.0	.0
1953	1028.7	8.4	1028.7	8.4	.0	.0
1954	1031.9	4.2	1031.9	4.2	.0	.0
1955	1021.1	1.0	1021.1	1.0	.0	.0
1956	1017.1	1.5	1017.1	1.5	.0	.0
1957	1032.5	23.7	1032.5	23.7	.0	.0
1958	1015.6	-11.3	1015.6	-11.3	.0	.0
1959	1036.3	4.9	1036.3	4.9	.0	.0
1960	1016.4	30.8	1017.8	30.3	.1	1.4
1961	1039.6	23.6	1039.3	23.7	.0	-.3
1962	1032.5	21.1	1032.5	21.1	.0	.0
1963	1042.6	21.0	1042.6	21.0	.0	.0
1964	1029.3	2.5	1029.3	2.5	.0	.0
1965	1031.8	11.4	1031.8	11.4	.0	.0
1966	1045.9	11.6	1045.9	11.6	.0	.0
1967	1041.7	14.0	1041.7	14.0	.0	.0
1968	1031.9	14.9	1031.9	14.9	.0	.0
1969	1024.9	4.9	1024.9	4.9	.0	.0
1970	1022.9	7.3	1022.9	7.3	.0	.0
1971	1037.0	10.7	1037.0	10.7	.0	.0
1972	1036.8	10.2	1036.8	10.2	.0	.0
1973	1031.0	3.3	1031.0	3.3	.0	.0
1974	1033.2	17.6	1033.2	17.6	.0	.0
1975	1039.4	23.6	1039.4	23.6	.0	.0
1976	1016.4	4.0	1016.4	4.0	.0	.0
1977	962.0	-9.1	962.1	-9.0	.0	.1
1978	1031.5	33.8	1031.5	35.1	.0	.0
1979	1017.7	11.3	1017.7	11.3	.0	.0
1980	1017.3	-9.5	1017.3	-9.5	.0	.0
1981	1029.0	11.4	1029.0	11.4	.0	.0
1982	1026.8	-3.4	1026.8	-3.4	.0	.0
1983	1015.6	-5.0	1015.6	-5.0	.0	.0
1984	1042.6	11.1	1042.6	11.1	.0	.0
1985	1021.4	1.9	1021.4	1.9	.0	.0
1986	1015.6	2.5	1015.6	1.6	.0	.0
1987	1005.7	13.1	1006.1	13.1	.0	.4
1988	1011.7	4.5	1011.8	4.6	.0	.1
1989	983.4	4.0	984.4	4.0	.1	1.0
1990	998.8	1.8	998.8	1.8	.0	.0
1991	941.2	-6.1	944.7	-5.7	.4	3.5
Mean:	1012.0	10.0	1012.1	10.0	.0	.1
Median:	1018.7	6.5	1017.8	6.5	.0	.0
Min:	893.4	-11.3	894.5	-11.3	-.4	-3.6
Max:	1045.9	75.6	1045.9	77.3	.4	3.5
X > 924.0	67		67			
X > 918.0	68		68			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

March

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1024.4	.0	1024.4	.0	.0	.0
1923	1011.8	3.1	1011.8	3.1	.0	.0
1924	978.9	-2.6	975.8	-2.1	-.3	-3.1
1925	992.7	7.1	990.8	8.2	-.2	-1.9
1926	1021.8	3.1	1021.3	3.7	.0	-.5
1927	1043.7	19.5	1043.7	19.5	.0	.0
1928	1043.3	9.4	1043.3	9.4	.0	.0
1929	1002.4	6.7	1002.3	6.7	.0	-.1
1930	1021.2	18.8	1022.1	18.8	.1	.9
1931	975.9	4.4	976.4	4.6	.1	.5
1932	935.6	30.1	935.6	30.2	.0	.0
1933	936.6	43.2	937.3	42.8	.1	.7
1934	958.5	15.5	959.9	15.4	.1	1.4
1935	944.9	25.8	947.4	25.4	.3	2.5
1936	1016.9	13.8	1017.9	13.7	.1	1.0
1937	993.6	32.8	993.4	32.8	.0	-.2
1938	1022.3	-5.7	1022.3	-5.7	.0	.0
1939	1025.8	12.0	1025.8	12.0	.0	.0
1940	1023.1	7.5	1023.1	7.5	.0	.0
1941	1042.4	19.8	1042.4	19.8	.0	.0
1942	1034.6	8.3	1034.6	8.3	.0	.0
1943	1048.8	9.8	1048.8	9.8	.0	.0
1944	1023.0	8.4	1023.0	8.4	.0	.0
1945	1039.9	6.5	1040.2	6.4	.0	.3
1946	1042.2	9.6	1042.3	9.6	.0	.1
1947	1023.2	20.8	1023.9	20.8	.1	.7
1948	1016.6	11.1	1016.6	11.7	.0	.0
1949	1044.6	38.9	1044.8	38.8	.0	.2
1950	1026.4	15.3	1026.8	14.6	.0	.4
1951	1049.0	12.0	1049.0	12.0	.0	.0
1952	1045.4	10.5	1045.4	10.5	.0	.0
1953	1041.9	13.2	1041.9	13.2	.0	.0
1954	1048.4	16.5	1048.4	16.5	.0	.0
1955	1023.0	1.9	1023.0	1.9	.0	.0
1956	1041.2	24.1	1041.2	24.1	.0	.0
1957	1049.2	16.7	1049.2	16.7	.0	.0
1958	1022.3	6.7	1022.3	6.7	.0	.0
1959	1043.5	7.2	1043.5	7.2	.0	.0
1960	1039.3	22.9	1039.9	22.1	.1	.6
1961	1054.0	14.4	1053.7	14.4	.0	-.3
1962	1044.3	11.8	1044.3	11.8	.0	.0
1963	1052.7	10.1	1052.7	10.1	.0	.0
1964	1029.8	.5	1029.8	.5	.0	.0
1965	1035.6	3.8	1035.6	3.8	.0	.0
1966	1052.8	6.9	1052.8	6.9	.0	.0
1967	1045.8	4.1	1045.8	4.1	.0	.0
1968	1048.5	16.6	1048.5	16.6	.0	.0
1969	1045.7	20.8	1045.7	20.8	.0	.0
1970	1042.9	20.0	1042.9	20.0	.0	.0
1971	1039.9	2.9	1039.9	2.9	.0	.0
1972	1053.5	16.7	1053.5	16.7	.0	.0
1973	1050.4	19.4	1050.4	19.4	.0	.0
1974	1022.3	-10.9	1022.3	-10.9	.0	.0
1975	1037.2	-2.2	1037.2	-2.2	.0	.0
1976	1021.5	5.1	1021.5	5.1	.0	.0
1977	948.9	-13.1	949.0	-13.1	.0	.1
1978	1043.1	11.6	1043.1	11.6	.0	.0
1979	1033.0	15.3	1033.0	15.3	.0	.0
1980	1041.3	24.0	1042.0	24.7	.1	.7
1981	1046.5	17.5	1046.5	17.5	.0	.0
1982	1042.9	16.1	1042.9	16.1	.0	.0
1983	1022.3	6.7	1022.3	6.7	.0	.0
1984	1060.5	17.9	1060.5	17.9	.0	.0
1985	1025.0	3.6	1025.0	3.6	.0	.0
1986	1027.0	11.4	1027.0	11.4	.0	.0
1987	1033.5	27.8	1033.8	27.7	.0	.3
1988	1011.8	.1	1012.0	.2	.0	.2
1989	1038.7	55.3	1038.7	54.3	.0	.0
1990	1009.4	10.6	1009.2	10.4	.0	-.2
1991	957.0	15.8	960.5	15.8	.4	3.5
Mean:	1024.8	12.6	1024.9	12.6	.0	.1
Median:	1033.5	11.4	1033.8	11.6	.0	.0
Min:	935.6	-13.1	935.6	-13.1	-.3	-3.1
Max:	1060.5	55.3	1060.5	54.3	.4	3.5
X > 924.0	70		70			
X > 918.0	70		70			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

April

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1042.7	.0	1042.7	.0	.0	.0
1923	1025.8	14.0	1025.8	14.0	.0	.0
1924	967.4	-11.5	964.1	-11.7	-.3	-3.3
1925	1022.1	29.4	1020.5	29.7	-.2	-1.6
1926	1032.5	10.7	1032.6	11.3	.0	.1
1927	1063.8	20.1	1063.8	20.1	.0	.0
1928	1059.2	15.9	1059.2	15.9	.0	.0
1929	1004.6	2.2	1005.3	3.0	.1	.7
1930	1027.5	6.3	1027.7	5.6	.0	.2
1931	961.1	-14.8	961.6	-14.8	.1	.5
1932	946.1	10.5	946.1	10.5	.0	.0
1933	941.8	5.2	943.4	6.1	.2	1.6
1934	957.8	-.7	960.6	.7	.3	2.8
1935	997.1	52.2	999.0	51.6	.2	1.9
1936	1027.4	10.5	1027.7	9.8	.0	.3
1937	1023.5	29.9	1023.3	29.9	.0	-.2
1938	1046.7	24.4	1046.7	24.4	.0	.0
1939	1024.3	-1.5	1024.7	-1.1	.0	.4
1940	1049.9	26.8	1049.9	26.8	.0	.0
1941	1060.6	18.2	1060.6	18.2	.0	.0
1942	1056.7	22.1	1056.7	22.1	.0	.0
1943	1062.9	14.1	1062.9	14.1	.0	.0
1944	1028.1	5.1	1028.1	5.1	.0	.0
1945	1044.8	4.9	1045.2	5.0	.0	.4
1946	1050.1	7.9	1050.1	7.8	.0	.0
1947	1029.9	6.7	1030.5	6.6	.1	.6
1948	1051.3	34.7	1051.3	34.7	.0	.0
1949	1054.8	10.2	1055.1	10.3	.0	.3
1950	1038.9	12.5	1039.3	12.5	.0	.4
1951	1052.6	3.6	1052.6	3.6	.0	.0
1952	1054.9	9.5	1054.9	9.5	.0	.0
1953	1052.7	10.8	1052.7	10.8	.0	.0
1954	1063.6	15.2	1063.6	15.2	.0	.0
1955	1034.8	11.8	1034.8	11.8	.0	.0
1956	1056.5	15.3	1056.5	15.3	.0	.0
1957	1053.9	4.7	1053.8	4.6	.0	-.1
1958	1050.8	28.5	1050.8	28.5	.0	.0
1959	1048.4	4.9	1048.4	4.9	.0	.0
1960	1043.8	4.5	1044.4	4.5	.1	.6
1961	1057.5	3.5	1057.2	3.5	.0	-.3
1962	1053.6	9.3	1053.6	9.3	.0	.0
1963	1049.5	-3.2	1049.5	-3.2	.0	.0
1964	1027.3	-2.5	1027.3	-2.5	.0	.0
1965	1061.3	25.7	1061.3	25.7	.0	.0
1966	1063.8	11.0	1063.8	11.0	.0	.0
1967	1061.4	15.6	1061.4	15.6	.0	.0
1968	1050.9	2.4	1050.8	2.3	.0	-.1
1969	1059.8	14.1	1059.8	14.1	.0	.0
1970	1045.6	2.7	1045.6	2.7	.0	.0
1971	1058.5	18.6	1058.5	18.6	.0	.0
1972	1061.5	8.0	1061.8	8.3	.0	.3
1973	1058.5	8.1	1058.5	8.1	.0	.0
1974	1054.9	32.6	1054.9	32.6	.0	.0
1975	1056.2	19.0	1056.2	19.0	.0	.0
1976	1026.7	5.2	1026.7	5.2	.0	.0
1977	931.4	-17.5	931.4	-17.6	.0	.0
1978	1063.8	20.7	1063.8	20.7	.0	.0
1979	1038.9	5.9	1038.9	5.9	.0	.0
1980	1050.1	8.8	1050.8	8.8	.1	.7
1981	1050.3	3.8	1050.3	3.8	.0	.0
1982	1047.9	5.0	1047.9	5.0	.0	.0
1983	1047.3	25.0	1047.3	25.0	.0	.0
1984	1063.8	3.3	1063.8	3.3	.0	.0
1985	1031.0	6.0	1031.0	6.0	.0	.0
1986	1038.1	11.1	1038.1	11.1	.0	.0
1987	1028.9	-4.6	1029.3	-4.5	.0	.4
1988	1012.0	.2	1012.3	.3	.0	.3
1989	1050.7	12.0	1050.7	12.0	.0	.0
1990	1003.7	-5.7	1004.2	-5.0	.0	.5
1991	965.3	8.3	968.6	8.1	.3	3.3
Mean:	1035.5	10.4	1035.6	10.4	.0	.2
Median:	1047.9	8.8	1047.9	8.8	.0	.0
Min:	931.4	-17.5	931.4	-17.6	-.3	-3.3
Max:	1063.8	52.2	1063.8	51.6	.3	3.3
X > 924.0	70		70			
X > 918.0	70		70			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

May

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	1053.3	.0	1053.3	.0	.0	.0
1923	1019.4	-6.4	1018.5	-7.3	-.1	-.9
1924	955.7	-11.7	952.4	-11.7	-.3	-3.3
1925	1033.5	11.4	1031.9	11.4	-.2	-1.6
1926	1029.2	-3.3	1029.3	-3.3	.0	.1
1927	1063.8	.0	1063.8	.0	.0	.0
1928	1054.4	-4.8	1054.4	-4.8	.0	.0
1929	997.2	-7.4	997.8	-7.5	.1	.6
1930	1026.8	-.7	1027.0	-.7	.0	.2
1931	949.0	-12.1	949.8	-11.8	.1	.8
1932	955.1	9.0	955.1	9.0	.0	.0
1933	942.7	.9	944.3	.9	.2	1.6
1934	946.6	-11.2	949.6	-11.0	.3	3.0
1935	1010.0	12.9	1011.6	12.6	.2	1.6
1936	1024.1	-3.3	1024.4	-3.3	.0	.3
1937	1029.7	6.2	1028.2	4.9	-.1	-1.5
1938	1063.8	17.1	1063.8	17.1	.0	.0
1939	1013.3	-11.0	1013.6	-11.1	.0	.3
1940	1051.4	1.5	1051.4	1.5	.0	.0
1941	1063.8	3.2	1063.8	3.2	.0	.0
1942	1063.8	7.1	1063.8	7.1	.0	.0
1943	1063.8	.9	1063.8	.9	.0	.0
1944	1027.1	-1.0	1027.1	-1.0	.0	.0
1945	1048.1	3.3	1048.4	3.2	.0	.3
1946	1047.6	-2.5	1047.7	-2.4	.0	.1
1947	1019.5	-10.4	1020.1	-10.4	.1	.6
1948	1063.8	12.5	1063.8	12.5	.0	.0
1949	1056.1	1.3	1056.5	1.4	.0	.4
1950	1032.4	-6.5	1032.8	-6.5	.0	.4
1951	1059.0	6.4	1059.0	6.4	.0	.0
1952	1063.8	8.9	1063.8	8.9	.0	.0
1953	1063.8	11.1	1063.8	11.1	.0	.0
1954	1058.8	-4.8	1058.7	-4.9	.0	-.1
1955	1043.9	9.1	1043.9	9.1	.0	.0
1956	1063.8	7.3	1063.8	7.3	.0	.0
1957	1063.8	9.9	1063.8	10.0	.0	.0
1958	1063.8	13.0	1063.8	13.0	.0	.0
1959	1043.3	-5.1	1043.9	-4.5	.1	.6
1960	1050.2	6.4	1050.5	6.1	.0	.3
1961	1051.5	-6.0	1051.3	-5.9	.0	-.2
1962	1051.8	-1.8	1051.9	-1.7	.0	.1
1963	1063.8	14.3	1063.8	14.3	.0	.0
1964	1024.2	-3.1	1024.2	-3.1	.0	.0
1965	1061.6	.3	1061.6	.3	.0	.0
1966	1052.9	-10.9	1052.8	-11.0	.0	-.1
1967	1063.8	2.4	1063.8	2.4	.0	.0
1968	1046.9	-4.0	1046.8	-4.0	.0	-.1
1969	1063.8	4.0	1063.8	4.0	.0	.0
1970	1044.2	-1.4	1044.2	-1.4	.0	.0
1971	1063.8	5.3	1063.8	5.3	.0	.0
1972	1050.9	-10.6	1051.2	-10.6	.0	.3
1973	1058.0	-.5	1058.0	-.5	.0	.0
1974	1063.8	8.9	1063.8	8.9	.0	.0
1975	1063.8	7.6	1063.8	7.6	.0	.0
1976	1020.4	-6.3	1020.6	-6.1	.0	.2
1977	929.5	-1.9	929.6	-1.8	.0	.1
1978	1063.8	.0	1063.8	.0	.0	.0
1979	1043.8	4.9	1043.7	4.8	.0	-.1
1980	1051.7	1.6	1052.3	1.5	.1	.6
1981	1042.4	-7.9	1042.9	-7.4	.0	.5
1982	1060.3	12.4	1060.3	12.4	.0	.0
1983	1063.8	16.5	1063.8	16.5	.0	.0
1984	1058.6	-5.2	1058.6	-5.2	.0	.0
1985	1025.1	-5.9	1025.0	-6.0	.0	-.1
1986	1039.5	1.4	1039.5	1.4	.0	.0
1987	1016.1	-12.8	1016.0	-13.3	.0	-.1
1988	1008.6	-3.4	1008.9	-3.4	.0	.3
1989	1044.8	-5.9	1044.5	-6.2	.0	-.3
1990	1006.7	3.0	1007.4	3.2	.1	.7
1991	965.9	.6	969.2	.6	.3	3.3
Mean:	1036.4	.8	1036.5	.7	.0	.1
Median:	1048.1	.0	1048.4	.0	.0	.0
Min:	929.5	-12.8	929.6	-13.3	-.3	-3.3
Max:	1063.8	17.1	1063.8	17.1	.3	3.3
X > 924.0	70		70			
X > 918.0	70		70			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

June

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1045.5	.0	1045.5	.0	.0	.0
1923	1010.4	-9.0	1008.6	-9.9	-.2	-1.8
1924	937.7	-18.0	934.4	-18.0	-.4	-3.3
1925	1031.1	-2.4	1029.6	-2.3	-.1	-1.5
1926	1015.4	-13.8	1015.9	-13.4	.0	.5
1927	1053.6	-10.2	1053.6	-10.2	.0	.0
1928	1042.9	-11.5	1042.9	-11.5	.0	.0
1929	991.6	-5.6	992.3	-5.5	.1	.7
1930	1014.8	-12.0	1015.1	-11.9	.0	.3
1931	934.6	-14.4	935.5	-14.3	.1	.9
1932	948.2	-6.9	949.0	-6.1	.1	.8
1933	939.2	-3.5	940.2	-4.1	.1	1.0
1934	927.6	-19.0	929.3	-20.3	.2	1.7
1935	993.4	-16.6	995.0	-16.6	.2	1.6
1936	1019.0	-5.1	1019.3	-5.1	.0	.3
1937	1023.6	-6.1	1020.7	-7.5	-.3	-2.9
1938	1058.7	-5.1	1058.7	-5.1	.0	.0
1939	998.0	-15.3	998.5	-15.1	.1	.5
1940	1039.2	-12.2	1039.4	-12.0	.0	.2
1941	1058.7	-5.1	1058.7	-5.1	.0	.0
1942	1058.7	-5.1	1058.7	-5.1	.0	.0
1943	1054.6	-9.2	1054.6	-9.2	.0	.0
1944	1016.3	-10.8	1018.1	-9.0	.2	1.8
1945	1039.6	-8.5	1040.3	-8.1	.1	.7
1946	1035.7	-11.9	1035.5	-12.2	.0	-.2
1947	1016.2	-3.3	1016.8	-3.3	.1	.6
1948	1058.7	-5.1	1058.7	-5.1	.0	.0
1949	1036.4	-19.7	1037.0	-19.5	.1	.6
1950	1020.7	-11.7	1020.8	-12.0	.0	.1
1951	1044.3	-14.7	1044.3	-14.7	.0	.0
1952	1058.7	-5.1	1058.7	-5.1	.0	.0
1953	1058.7	-5.1	1058.7	-5.1	.0	.0
1954	1051.6	-7.2	1051.7	-7.0	.0	.1
1955	1031.6	-12.3	1031.5	-12.4	.0	-.1
1956	1058.7	-5.1	1058.7	-5.1	.0	.0
1957	1056.4	-7.4	1056.6	-7.2	.0	.2
1958	1058.7	-5.1	1058.7	-5.1	.0	.0
1959	1027.2	-16.1	1028.4	-15.5	.1	1.2
1960	1040.6	-9.6	1039.4	-11.1	-.1	-1.2
1961	1042.8	-8.7	1042.5	-8.8	.0	-.3
1962	1040.4	-11.4	1040.5	-11.4	.0	.1
1963	1055.8	-8.0	1055.8	-8.0	.0	.0
1964	1020.6	-3.6	1020.6	-3.6	.0	.0
1965	1050.3	-11.3	1050.3	-11.3	.0	.0
1966	1036.7	-16.2	1036.4	-16.4	.0	-.3
1967	1058.7	-5.1	1058.7	-5.1	.0	.0
1968	1034.0	-12.9	1034.5	-12.3	.0	.5
1969	1058.7	-5.1	1058.7	-5.1	.0	.0
1970	1035.1	-9.1	1035.1	-9.1	.0	.0
1971	1058.7	-5.1	1058.7	-5.1	.0	.0
1972	1041.1	-9.8	1041.2	-10.0	.0	.1
1973	1049.4	-8.6	1049.2	-8.8	.0	-.2
1974	1058.7	-5.1	1058.7	-5.1	.0	.0
1975	1058.7	-5.1	1058.7	-5.1	.0	.0
1976	1010.8	-9.6	1010.6	-10.0	.0	-.2
1977	916.4	-13.1	916.3	-13.3	.0	-.1
1978	1053.0	-10.8	1053.0	-10.8	.0	.0
1979	1027.6	-16.2	1027.2	-16.5	.0	-.4
1980	1043.0	-8.7	1043.7	-8.6	.1	.7
1981	1028.2	-14.2	1029.8	-13.1	.2	1.6
1982	1056.7	-3.6	1056.7	-3.6	.0	.0
1983	1062.2	-1.6	1062.2	-1.6	.0	.0
1984	1049.3	-9.3	1049.3	-9.3	.0	.0
1985	1012.9	-12.2	1013.5	-11.5	.1	.6
1986	1026.3	-13.2	1026.3	-13.2	.0	.0
1987	998.3	-17.8	998.2	-17.8	.0	-.1
1988	999.3	-9.3	999.8	-9.1	.1	.5
1989	1030.9	-13.9	1031.0	-13.5	.0	.1
1990	1004.0	-2.7	1004.4	-3.0	.0	.4
1991	956.2	-9.7	959.5	-9.7	.3	3.3
Mean:	1026.9	-9.4	1027.0	-9.4	.0	.1
Median:	1036.4	-9.3	1036.4	-9.2	.0	.0
Min:	916.4	-19.7	916.3	-20.3	-.4	-3.3
Max:	1062.2	.0	1062.2	.0	.3	3.3
X > 924.0	69		69			
X > 918.0	69		69			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

July

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1029.2	.0	1029.2	.0	.0	.0
1923	997.7	-12.7	993.4	-15.2	-.4	-4.3
1924	916.8	-20.9	913.1	-21.3	-.4	-3.7
1925	1017.6	-13.5	1016.0	-13.6	-.2	-1.6
1926	998.0	-17.4	998.7	-17.2	.1	.7
1927	1038.1	-15.5	1037.7	-15.9	.0	-.4
1928	1017.0	-25.9	1018.0	-24.9	.1	1.0
1929	976.3	-15.3	977.3	-15.0	.1	1.0
1930	998.4	-16.4	998.6	-16.5	.0	.2
1931	914.8	-19.8	914.0	-21.5	-.1	-.8
1932	929.8	-18.4	930.6	-18.4	.1	.8
1933	924.7	-14.5	925.8	-14.4	.1	1.1
1934	902.6	-25.0	905.9	-23.4	.4	3.3
1935	967.5	-25.9	969.1	-25.9	.2	1.6
1936	1000.5	-18.5	1000.9	-18.4	.0	.4
1937	1004.3	-19.3	999.7	-21.0	-.5	-4.6
1938	1041.6	-17.1	1041.4	-17.3	.0	-.2
1939	981.7	-16.3	982.5	-16.0	.1	.8
1940	1020.5	-18.7	1021.6	-17.8	.1	1.1
1941	1043.7	-15.0	1043.7	-15.0	.0	.0
1942	1040.9	-17.8	1040.9	-17.8	.0	.0
1943	1039.6	-15.0	1040.1	-14.5	.0	.5
1944	1002.2	-14.1	1003.2	-14.9	.1	1.0
1945	1015.9	-23.7	1016.0	-24.3	.0	.1
1946	1016.5	-19.2	1017.1	-18.4	.1	.6
1947	999.0	-17.2	999.4	-17.4	.0	.4
1948	1040.9	-17.8	1040.9	-17.8	.0	.0
1949	1020.1	-16.3	1019.9	-17.1	.0	-.2
1950	1002.3	-18.4	1002.3	-18.5	.0	.0
1951	1025.6	-18.7	1026.6	-17.7	.1	1.0
1952	1042.4	-16.3	1042.4	-16.3	.0	.0
1953	1042.8	-15.9	1042.8	-15.9	.0	.0
1954	1028.5	-23.1	1028.7	-23.0	.0	.2
1955	1018.4	-13.2	1018.3	-13.2	.0	-.1
1956	1040.9	-17.8	1040.9	-17.8	.0	.0
1957	1039.4	-17.0	1039.9	-16.7	.0	.5
1958	1044.6	-14.1	1044.6	-14.1	.0	.0
1959	1000.6	-26.6	1002.0	-26.4	.1	1.4
1960	1023.0	-17.6	1021.2	-18.2	-.2	-1.8
1961	1026.6	-16.2	1026.5	-16.0	.0	-.1
1962	1023.1	-17.3	1023.7	-16.8	.1	.6
1963	1040.9	-14.9	1040.9	-14.9	.0	.0
1964	1006.3	-14.3	1006.5	-14.1	.0	.2
1965	1035.2	-15.1	1035.0	-15.3	.0	-.2
1966	1017.3	-19.4	1017.8	-18.6	.0	.5
1967	1041.0	-17.7	1041.0	-17.7	.0	.0
1968	1011.8	-22.2	1014.1	-20.4	.2	2.3
1969	1040.9	-17.8	1040.9	-17.8	.0	.0
1970	1013.0	-22.1	1013.7	-21.4	.1	.7
1971	1040.9	-17.8	1040.9	-17.8	.0	.0
1972	1018.6	-22.5	1018.7	-22.5	.0	.1
1973	1028.7	-20.7	1029.2	-20.0	.0	.5
1974	1043.7	-15.0	1043.7	-15.0	.0	.0
1975	1042.7	-16.0	1042.7	-16.0	.0	.0
1976	996.2	-14.6	996.3	-14.3	.0	.1
1977	887.5	-28.9	887.2	-29.1	.0	-.3
1978	1039.1	-13.9	1039.1	-13.9	.0	.0
1979	1006.0	-21.6	1008.5	-18.7	.2	2.5
1980	1032.2	-10.8	1033.0	-10.7	.1	.8
1981	1013.5	-14.7	1015.3	-14.5	.2	1.8
1982	1040.9	-15.8	1040.9	-15.8	.0	.0
1983	1049.8	-12.4	1049.8	-12.4	.0	.0
1984	1032.9	-16.4	1033.4	-15.9	.0	.5
1985	1000.6	-12.3	1000.8	-12.7	.0	.2
1986	1011.2	-15.1	1011.2	-15.1	.0	.0
1987	980.9	-17.4	981.0	-17.2	.0	.1
1988	981.7	-17.6	982.3	-17.5	.1	.6
1989	1013.9	-17.0	1013.6	-17.4	.0	-.3
1990	985.8	-18.2	986.3	-18.1	.1	.5
1991	943.3	-12.9	946.1	-13.4	.3	2.8
Mean:	1009.3	-17.3	1009.5	-17.3	.0	.2
Median:	1017.3	-17.2	1017.8	-17.2	.0	.1
Min:	887.5	-28.9	887.2	-29.1	-.5	-4.6
Max:	1049.8	.0	1049.8	.0	.4	3.3
X > 924.0	66		66			
X > 918.0	66		66			
X > 876.0	70		70			
X > 856.0	70		70			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

August

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1015.3	.0	1015.3	.0	.0	.0
1923	983.6	-14.1	978.3	-15.1	-.5	-5.3
1924	889.4	-27.4	884.0	-29.1	-.6	-5.4
1925	1001.0	-16.6	999.3	-16.7	-.2	-1.7
1926	979.2	-18.8	980.1	-18.6	.1	.9
1927	1019.6	-18.5	1019.6	-18.1	.0	.0
1928	1000.1	-16.9	1000.0	-18.0	.0	-.1
1929	960.7	-15.6	961.8	-15.5	.1	1.1
1930	978.3	-20.1	978.6	-20.0	.0	.3
1931	879.5	-35.3	878.9	-35.1	-.1	-.6
1932	908.6	-21.2	909.5	-21.1	.1	.9
1933	904.1	-20.6	906.1	-19.7	.2	2.0
1934	866.6	-36.0	871.0	-34.9	.5	4.4
1935	935.7	-31.8	937.3	-31.8	.2	1.6
1936	976.3	-24.2	976.7	-24.2	.0	.4
1937	980.2	-24.1	973.2	-26.5	-.7	-7.0
1938	1019.6	-22.0	1019.6	-21.8	.0	.0
1939	964.8	-16.9	965.7	-16.8	.1	.9
1940	1003.3	-17.2	1004.5	-17.1	.1	1.2
1941	1022.7	-21.0	1022.7	-21.0	.0	.0
1942	1019.6	-21.3	1019.6	-21.3	.0	.0
1943	1019.6	-20.0	1019.6	-20.5	.0	.0
1944	987.7	-14.5	988.6	-14.6	.1	.9
1945	998.5	-17.4	998.5	-17.5	.0	.0
1946	1000.8	-15.7	1001.5	-15.6	.1	.7
1947	980.0	-19.0	980.4	-19.0	.0	.4
1948	1019.3	-21.6	1019.6	-21.3	.0	.3
1949	1004.6	-15.5	1003.7	-16.2	-.1	-.9
1950	983.7	-18.6	983.8	-18.5	.0	.1
1951	1010.1	-15.5	1011.2	-15.4	.1	1.1
1952	1019.6	-22.8	1019.6	-22.8	.0	.0
1953	1020.1	-22.7	1020.1	-22.7	.0	.0
1954	1019.5	-9.0	1019.5	-9.2	.0	.0
1955	1002.9	-15.5	1003.5	-14.8	.1	.6
1956	1019.6	-21.3	1019.6	-21.3	.0	.0
1957	1019.6	-19.8	1019.6	-20.3	.0	.0
1958	1024.1	-20.5	1024.1	-20.5	.0	.0
1959	985.3	-15.3	988.2	-13.8	.3	2.9
1960	1005.0	-18.0	1004.7	-16.5	.0	-.3
1961	1010.8	-15.8	1010.9	-15.6	.0	.1
1962	1009.3	-13.8	1009.9	-13.8	.1	.6
1963	1019.6	-21.3	1019.6	-21.3	.0	.0
1964	992.2	-14.1	992.3	-14.2	.0	.1
1965	1019.6	-15.6	1019.6	-15.4	.0	.0
1966	1003.6	-13.7	1006.0	-11.8	.2	2.4
1967	1019.6	-21.4	1019.6	-21.4	.0	.0
1968	1004.8	-7.0	1007.4	-6.7	.3	2.6
1969	1019.6	-21.3	1019.6	-21.3	.0	.0
1970	1002.0	-11.0	1002.6	-11.1	.1	.6
1971	1019.6	-21.3	1019.6	-21.3	.0	.0
1972	1002.9	-15.7	1004.7	-14.0	.2	1.8
1973	1019.1	-9.6	1019.6	-9.6	.0	.5
1974	1023.0	-20.7	1023.0	-20.7	.0	.0
1975	1020.8	-21.9	1020.8	-21.9	.0	.0
1976	983.7	-12.5	983.6	-12.7	.0	-.1
1977	852.3	-35.2	851.8	-35.4	-.1	-.5
1978	1019.6	-19.5	1019.6	-19.5	.0	.0
1979	995.8	-10.2	997.6	-10.9	.2	1.8
1980	1019.6	-12.6	1019.6	-13.4	.0	.0
1981	1001.8	-11.7	1001.5	-13.8	.0	-.3
1982	1019.6	-21.3	1019.6	-21.3	.0	.0
1983	1032.2	-17.6	1032.2	-17.6	.0	.0
1984	1019.6	-13.3	1019.6	-13.8	.0	.0
1985	988.5	-12.1	989.5	-11.3	.1	1.0
1986	996.7	-14.5	996.7	-14.5	.0	.0
1987	966.7	-14.2	966.8	-14.2	.0	.1
1988	965.5	-16.2	966.5	-15.8	.1	1.0
1989	994.6	-19.3	992.7	-20.9	-.2	-1.9
1990	967.4	-18.4	967.4	-18.9	.0	.0
1991	932.1	-11.2	935.1	-11.0	.3	3.0
Mean:	991.0	-18.1	991.2	-18.1	.0	.2
Median:	1002.9	-18.0	1003.5	-18.0	.0	.0
Min:	852.3	-36.0	851.8	-35.4	-.7	-7.0
Max:	1032.2	.0	1032.2	.0	.5	4.4
X > 924.0	64		64			
X > 918.0	64		64			
X > 876.0	68		68			
X > 856.0	69		69			
X > 848.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

SHASTA RESERVOIR ELEVATION

September

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	1008.6	.0	1008.6	.0	.0	.0
1923	975.4	-8.2	969.9	-8.4	-.6	-5.5
1924	877.9	-11.5	871.9	-12.1	-.7	-6.0
1925	993.4	-7.6	991.5	-7.8	-.2	-1.9
1926	969.6	-9.6	970.5	-9.6	.1	.9
1927	1013.7	-5.9	1013.7	-5.9	.0	.0
1928	992.6	-7.5	992.4	-7.6	.0	-.2
1929	950.2	-10.5	951.4	-10.4	.1	1.2
1930	969.1	-9.2	969.4	-9.2	.0	.3
1931	865.9	-13.6	865.4	-13.5	-.1	-.5
1932	897.6	-11.0	898.6	-10.9	.1	1.0
1933	893.1	-11.0	895.2	-10.9	.2	2.1
1934	848.8	-17.8	853.8	-17.2	.6	5.0
1935	924.7	-11.0	926.3	-11.0	.2	1.6
1936	966.2	-10.1	966.7	-10.0	.1	.5
1937	970.4	-9.8	963.0	-10.2	-.8	-7.4
1938	1017.6	-2.0	1017.6	-2.0	.0	.0
1939	955.1	-9.7	956.1	-9.6	.1	1.0
1940	996.3	-7.0	997.5	-7.0	.1	1.2
1941	1017.6	-5.1	1017.6	-5.1	.0	.0
1942	1017.6	-2.0	1017.6	-2.0	.0	.0
1943	1014.7	-4.9	1014.7	-4.9	.0	.0
1944	979.7	-8.0	980.6	-8.0	.1	.9
1945	991.3	-7.2	991.3	-7.2	.0	.0
1946	993.9	-6.9	994.6	-6.9	.1	.7
1947	971.6	-8.4	972.1	-8.3	.1	.5
1948	1013.1	-6.2	1013.4	-6.2	.0	.3
1949	996.5	-8.1	995.7	-8.0	-.1	-.8
1950	975.0	-8.7	975.0	-8.8	.0	.0
1951	1002.9	-7.2	1004.0	-7.2	.1	1.1
1952	1017.6	-2.0	1017.6	-2.0	.0	.0
1953	1017.6	-2.5	1017.6	-2.5	.0	.0
1954	1014.7	-4.8	1014.7	-4.8	.0	.0
1955	996.3	-6.6	996.9	-6.6	.1	.6
1956	1017.6	-2.0	1017.6	-2.0	.0	.0
1957	1017.2	-2.4	1017.3	-2.3	.0	.1
1958	1017.6	-6.5	1017.6	-6.5	.0	.0
1959	981.0	-4.3	984.0	-4.2	.3	3.0
1960	998.4	-6.6	998.0	-6.7	.0	-.4
1961	1004.1	-6.7	1004.1	-6.8	.0	.0
1962	1002.1	-7.2	1002.8	-7.1	.1	.7
1963	1017.5	-2.1	1017.5	-2.1	.0	.0
1964	984.2	-8.0	984.3	-8.0	.0	.1
1965	1014.3	-5.3	1014.3	-5.3	.0	.0
1966	997.0	-6.6	999.4	-6.6	.2	2.4
1967	1017.6	-2.0	1017.6	-2.0	.0	.0
1968	999.2	-5.6	1001.9	-5.5	.3	2.7
1969	1017.6	-2.0	1017.6	-2.0	.0	.0
1970	996.3	-5.7	996.9	-5.7	.1	.6
1971	1017.6	-2.0	1017.6	-2.0	.0	.0
1972	997.7	-5.2	999.5	-5.2	.2	1.8
1973	1013.6	-5.5	1014.1	-5.5	.0	.5
1974	1017.6	-5.4	1017.6	-5.4	.0	.0
1975	1017.6	-3.2	1017.6	-3.2	.0	.0
1976	977.6	-6.1	977.5	-6.1	.0	-.1
1977	849.6	-2.7	849.1	-2.7	-.1	-.5
1978	1015.2	-4.4	1015.2	-4.4	.0	.0
1979	988.4	-7.4	990.3	-7.3	.2	1.9
1980	1014.4	-5.2	1014.4	-5.2	.0	.0
1981	994.1	-7.7	993.8	-7.7	.0	-.3
1982	1017.6	-2.0	1017.6	-2.0	.0	.0
1983	1017.6	-14.6	1017.6	-14.6	.0	.0
1984	1015.5	-4.1	1015.5	-4.1	.0	.0
1985	982.5	-6.0	983.5	-6.0	.1	1.0
1986	992.1	-4.6	992.1	-4.6	.0	.0
1987	958.6	-8.1	958.7	-8.1	.0	.1
1988	956.8	-8.7	957.9	-8.6	.1	1.1
1989	988.1	-6.5	986.1	-6.6	-.2	-2.0
1990	958.3	-9.1	958.3	-9.1	.0	.0
1991	926.0	-6.1	929.1	-6.0	.3	3.1
Mean:	984.4	-6.6	984.5	-6.6	.0	.2
Median:	996.3	-6.6	996.9	-6.6	.0	.0
Min:	848.8	-17.8	849.1	-17.2	-.8	-7.4
Max:	1017.6	.0	1017.6	.0	.6	5.0

X > 924.0	64	64
X > 918.0	64	64
X > 876.0	67	66
X > 856.0	68	68
X > 848.0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70
X > .0	70	70

RETURN TO TABLE OF CONTENTS

Section 15

CLAIR ENGLE RESERVOIR STORAGE

CLAIR ENGLE RESERVOIR STORAGE
October

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1850.0	1850.0	.0	.0
1923	1579.1	1579.1	.0	.0
1924	1193.4	1164.2	-2.4	-29.2
1925	484.9	471.0	-2.9	-13.9
1926	1062.6	1048.9	-1.3	-13.7
1927	1075.8	1062.3	-1.3	-13.5
1928	1792.1	1785.5	-.4	-6.6
1929	1505.2	1505.3	.0	.1
1930	910.3	922.6	1.4	12.3
1931	947.3	959.4	1.3	12.1
1932	460.7	477.6	3.7	16.9
1933	476.6	476.6	.0	.0
1934	480.7	480.7	.0	.0
1935	467.9	467.9	.0	.0
1936	811.0	811.0	.0	.0
1937	1028.9	1028.9	.0	.0
1938	1141.8	1110.8	-2.7	-31.0
1939	1850.0	1850.0	.0	.0
1940	1202.6	1210.8	.7	8.2
1941	1514.4	1517.4	.2	3.0
1942	1850.0	1850.0	.0	.0
1943	1850.0	1850.0	.0	.0
1944	1825.4	1832.7	.4	7.3
1945	1430.8	1440.4	.7	9.6
1946	1365.0	1351.3	-1.0	-13.7
1947	1476.4	1472.2	-.3	-4.2
1948	1348.2	1374.6	2.0	26.4
1949	1678.4	1688.8	.6	10.4
1950	1613.3	1603.9	-.6	-9.4
1951	1397.2	1397.5	.0	.3
1952	1613.8	1621.6	.5	7.8
1953	1850.0	1850.0	.0	.0
1954	1850.0	1850.0	.0	.0
1955	1735.9	1736.1	.0	.2
1956	1601.3	1608.2	.4	6.9
1957	1850.0	1850.0	.0	.0
1958	1850.0	1850.0	.0	.0
1959	1850.0	1850.0	.0	.0
1960	1403.1	1416.3	.9	13.2
1961	1549.8	1549.8	.0	.0
1962	1684.0	1684.9	.1	.9
1963	1687.2	1688.0	.0	.8
1964	1850.0	1850.0	.0	.0
1965	1495.8	1497.4	.1	1.6
1966	1834.3	1831.7	-.1	-2.6
1967	1665.5	1663.8	-.1	-1.7
1968	1850.0	1850.0	.0	.0
1969	1412.9	1481.0	4.8	68.1
1970	1850.0	1850.0	.0	.0
1971	1390.3	1393.7	.2	3.4
1972	1850.0	1850.0	.0	.0
1973	1472.6	1467.8	-.3	-4.8
1974	1717.8	1714.6	-.2	-3.2
1975	1850.0	1850.0	.0	.0
1976	1850.0	1850.0	.0	.0
1977	1187.7	1186.2	-.1	-1.5
1978	415.2	412.9	-.6	-2.3
1979	1617.6	1615.3	-.1	-2.3
1980	1361.8	1395.8	2.5	34.0
1981	1714.7	1748.2	2.0	33.5
1982	1586.1	1583.0	-.2	-3.1
1983	1850.0	1850.0	.0	.0
1984	1850.0	1850.0	.0	.0
1985	1850.0	1850.0	.0	.0
1986	1444.4	1455.1	.7	10.7
1987	1358.3	1358.3	.0	.0
1988	1205.2	1206.2	.1	1.0
1989	934.4	946.0	1.2	11.6
1990	1185.3	1196.7	1.0	11.4
1991	935.8	938.6	.3	2.8
Mean:	1439.7	1442.0	.2	2.3
Median:	1514.4	1517.4	.0	.0
Min:	415.2	412.9	-2.9	-31.0
Max:	1850.0	1850.0	4.8	68.1
Littoral Habitat(ac)	1166.3	1178.0	1.0	11.7

CLAIR ENGLE RESERVOIR STORAGE
November

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1833.0	1833.0	.0	.0
1923	1561.7	1561.7	.0	.0
1924	1170.6	1141.5	-2.5	-29.1
1925	556.5	542.6	-2.5	-13.9
1926	1043.7	1030.0	-1.3	-13.7
1927	1219.1	1205.6	-1.1	-13.5
1928	1839.7	1833.1	-.4	-6.6
1929	1491.8	1491.9	.0	.1
1930	889.5	901.9	1.4	12.4
1931	929.6	941.7	1.3	12.1
1932	450.2	467.0	3.7	16.8
1933	471.2	471.2	.0	.0
1934	469.1	469.1	.0	.0
1935	528.8	528.8	.0	.0
1936	802.4	802.4	.0	.0
1937	999.2	999.2	.0	.0
1938	1270.8	1239.8	-2.4	-31.0
1939	1850.0	1850.0	.0	.0
1940	1174.0	1182.2	.7	8.2
1941	1506.2	1509.2	.2	3.0
1942	1850.0	1850.0	.0	.0
1943	1850.0	1850.0	.0	.0
1944	1816.7	1823.9	.4	7.2
1945	1444.6	1454.1	.7	9.5
1946	1401.8	1388.0	-1.0	-13.8
1947	1481.1	1476.9	-.3	-4.2
1948	1346.4	1372.8	2.0	26.4
1949	1666.7	1677.1	.6	10.4
1950	1592.2	1582.9	-.6	-9.3
1951	1494.4	1494.6	.0	.2
1952	1630.3	1638.1	.5	7.8
1953	1834.4	1834.4	.0	.0
1954	1850.0	1850.0	.0	.0
1955	1782.2	1782.4	.0	.2
1956	1596.6	1603.5	.4	6.9
1957	1844.7	1844.7	.0	.0
1958	1850.0	1850.0	.0	.0
1959	1839.5	1839.5	.0	.0
1960	1353.6	1375.9	1.6	22.3
1961	1540.8	1540.8	.0	.0
1962	1673.8	1674.7	.1	.9
1963	1735.4	1736.3	.1	.9
1964	1850.0	1850.0	.0	.0
1965	1513.5	1515.1	.1	1.6
1966	1850.0	1850.0	.0	.0
1967	1758.4	1756.7	-.1	-1.7
1968	1846.5	1846.5	.0	.0
1969	1420.1	1488.2	4.8	68.1
1970	1840.6	1840.6	.0	.0
1971	1521.8	1525.1	.2	3.3
1972	1850.0	1850.0	.0	.0
1973	1493.1	1488.4	-.3	-4.7
1974	1850.0	1850.0	.0	.0
1975	1839.0	1839.0	.0	.0
1976	1850.0	1850.0	.0	.0
1977	1164.2	1162.7	-.1	-1.5
1978	441.9	439.6	-.5	-2.3
1979	1588.8	1586.6	-.1	-2.2
1980	1408.6	1442.6	2.4	34.0
1981	1688.2	1721.7	2.0	33.5
1982	1826.3	1823.1	-.2	-3.2
1983	1850.0	1850.0	.0	.0
1984	1850.0	1850.0	.0	.0
1985	1850.0	1850.0	.0	.0
1986	1420.5	1431.1	.7	10.6
1987	1327.4	1327.4	.0	.0
1988	1178.3	1179.3	.1	1.0
1989	957.6	969.2	1.2	11.6
1990	1168.8	1180.3	1.0	11.5
1991	912.8	915.6	.3	2.8
Mean:	1452.1	1454.6	.2	2.5
Median:	1521.8	1525.1	.0	.0
Min:	441.9	439.6	-2.5	-31.0
Max:	1850.0	1850.0	4.8	68.1
Littoral Habitat(ac)	1230.4	1243.1	1.0	12.7

CLAIR ENGLE RESERVOIR STORAGE
December

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1824.2	1824.2	.0	.0
1923	1556.4	1556.4	.0	.0
1924	1146.7	1117.5	-2.5	-29.2
1925	598.3	584.4	-2.3	-13.9
1926	1051.4	1037.8	-1.3	-13.6
1927	1412.0	1398.5	-1.0	-13.5
1928	1845.6	1839.0	-.4	-6.6
1929	1475.1	1475.2	.0	.1
1930	1011.2	1023.6	1.2	12.4
1931	909.6	921.7	1.3	12.1
1932	447.1	459.6	2.8	12.5
1933	460.9	460.9	.0	.0
1934	468.8	468.8	.0	.0
1935	557.8	557.8	.0	.0
1936	791.2	791.2	.0	.0
1937	966.2	966.2	.0	.0
1938	1481.8	1450.8	-2.1	-31.0
1939	1850.0	1850.0	.0	.0
1940	1222.2	1230.4	.7	8.2
1941	1634.6	1637.6	.2	3.0
1942	1850.0	1850.0	.0	.0
1943	1850.0	1850.0	.0	.0
1944	1793.4	1800.6	.4	7.2
1945	1503.7	1513.2	.6	9.5
1946	1584.6	1570.8	-.9	-13.8
1947	1482.5	1478.3	-.3	-4.2
1948	1330.1	1356.5	2.0	26.4
1949	1648.7	1659.1	.6	10.4
1950	1562.8	1553.5	-.6	-9.3
1951	1744.1	1744.3	.0	.2
1952	1766.4	1774.2	.4	7.8
1953	1850.0	1850.0	.0	.0
1954	1850.0	1850.0	.0	.0
1955	1827.9	1828.0	.0	.1
1956	1850.0	1850.0	.0	.0
1957	1831.1	1831.1	.0	.0
1958	1850.0	1850.0	.0	.0
1959	1818.7	1818.7	.0	.0
1960	1300.0	1300.0	.0	.0
1961	1627.9	1627.9	.0	.0
1962	1694.7	1695.6	.1	.9
1963	1850.0	1850.0	.0	.0
1964	1850.0	1850.0	.0	.0
1965	1850.0	1850.0	.0	.0
1966	1850.0	1850.0	.0	.0
1967	1850.0	1850.0	.0	.0
1968	1850.0	1850.0	.0	.0
1969	1480.7	1548.8	4.6	68.1
1970	1850.0	1850.0	.0	.0
1971	1642.1	1645.4	.2	3.3
1972	1850.0	1850.0	.0	.0
1973	1591.7	1586.9	-.3	-4.8
1974	1850.0	1850.0	.0	.0
1975	1848.2	1848.2	.0	.0
1976	1850.0	1850.0	.0	.0
1977	1137.5	1137.7	.0	.2
1978	629.4	627.2	-.3	-2.2
1979	1557.1	1554.8	-.1	-2.3
1980	1455.1	1489.1	2.3	34.0
1981	1717.6	1751.1	2.0	33.5
1982	1850.0	1850.0	.0	.0
1983	1850.0	1850.0	.0	.0
1984	1850.0	1850.0	.0	.0
1985	1850.0	1850.0	.0	.0
1986	1413.2	1423.8	.8	10.6
1987	1302.1	1302.1	.0	.0
1988	1330.0	1331.1	.1	1.1
1989	953.3	964.9	1.2	11.6
1990	1149.0	1160.4	1.0	11.4
1991	879.2	887.4	.9	8.2
Mean:	1490.2	1492.3	.2	2.1
Median:	1627.9	1627.9	.0	.0
Min:	447.1	459.6	-2.5	-31.0
Max:	1850.0	1850.0	4.6	68.1
Littoral Habitat(ac)	1426.1	1437.0	.8	10.9

CLAIR ENGLE RESERVOIR STORAGE
January

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1808.9	1808.9	.0	.0
1923	1573.9	1573.9	.0	.0
1924	1123.9	1094.7	-2.6	-29.2
1925	635.1	621.2	-2.2	-13.9
1926	1031.0	1017.4	-1.3	-13.6
1927	1526.9	1513.5	-.9	-13.4
1928	1884.1	1877.5	-.4	-6.6
1929	1461.7	1461.7	.0	.0
1930	1009.3	1021.6	1.2	12.3
1931	909.4	921.5	1.3	12.1
1932	450.3	462.8	2.8	12.5
1933	449.7	449.7	.0	.0
1934	521.3	521.3	.0	.0
1935	589.9	589.9	.0	.0
1936	889.6	889.6	.0	.0
1937	942.6	942.6	.0	.0
1938	1569.8	1538.8	-2.0	-31.0
1939	1842.7	1842.7	.0	.0
1940	1388.0	1396.2	.6	8.2
1941	1837.1	1840.1	.2	3.0
1942	1900.0	1900.0	.0	.0
1943	1900.0	1900.0	.0	.0
1944	1775.9	1783.1	.4	7.2
1945	1539.1	1557.9	1.2	18.8
1946	1706.3	1692.5	-.8	-13.8
1947	1462.0	1457.8	-.3	-4.2
1948	1504.5	1530.9	1.8	26.4
1949	1622.2	1632.6	.6	10.4
1950	1568.2	1558.9	-.6	-9.3
1951	1825.5	1825.7	.0	.2
1952	1813.7	1821.5	.4	7.8
1953	1900.0	1900.0	.0	.0
1954	1900.0	1900.0	.0	.0
1955	1834.1	1834.2	.0	.1
1956	1900.0	1900.0	.0	.0
1957	1811.8	1811.8	.0	.0
1958	1900.0	1900.0	.0	.0
1959	1900.0	1900.0	.0	.0
1960	1290.0	1290.0	.0	.0
1961	1649.9	1649.9	.0	.0
1962	1695.9	1696.8	.1	.9
1963	1881.8	1881.8	.0	.0
1964	1900.0	1900.0	.0	.0
1965	1900.0	1900.0	.0	.0
1966	1900.0	1900.0	.0	.0
1967	1900.0	1900.0	.0	.0
1968	1900.0	1900.0	.0	.0
1969	1609.4	1677.4	4.2	68.0
1970	1900.0	1900.0	.0	.0
1971	1864.7	1868.1	.2	3.4
1972	1900.0	1900.0	.0	.0
1973	1740.2	1735.5	-.3	-4.7
1974	1900.0	1900.0	.0	.0
1975	1852.8	1852.8	.0	.0
1976	1848.9	1848.9	.0	.0
1977	1080.9	1080.9	.0	.0
1978	1006.0	1003.8	-.2	-2.2
1979	1561.7	1559.5	-.1	-2.2
1980	1674.9	1708.9	2.0	34.0
1981	1812.3	1845.8	1.8	33.5
1982	1900.0	1900.0	.0	.0
1983	1900.0	1900.0	.0	.0
1984	1900.0	1900.0	.0	.0
1985	1864.0	1864.0	.0	.0
1986	1532.5	1543.1	.7	10.6
1987	1293.9	1293.9	.0	.0
1988	1399.5	1400.5	.1	1.0
1989	956.4	968.0	1.2	11.6
1990	1186.8	1198.2	1.0	11.4
1991	825.6	856.1	3.7	30.5
Mean:	1539.1	1541.7	.2	2.6
Median:	1695.9	1696.8	.0	.0
Min:	449.7	449.7	-2.6	-31.0
Max:	1900.0	1900.0	4.2	68.0
Littoral Habitat(ac)	1675.2	1688.2	.8	13.0

CLAIR ENGLE RESERVOIR STORAGE
February

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1820.5	1820.5	.0	.0
1923	1589.3	1589.3	.0	.0
1924	1174.3	1145.2	-2.5	-29.1
1925	897.8	883.9	-1.5	-13.9
1926	1170.0	1156.3	-1.2	-13.7
1927	1751.2	1737.8	-.8	-13.4
1928	1978.2	1971.6	-.3	-6.6
1929	1469.7	1469.7	.0	.0
1930	1100.2	1112.5	1.1	12.3
1931	920.5	932.6	1.3	12.1
1932	464.2	476.7	2.7	12.5
1933	442.1	442.1	.0	.0
1934	597.6	597.6	.0	.0
1935	660.4	660.4	.0	.0
1936	1017.0	1017.0	.0	.0
1937	932.5	932.5	.0	.0
1938	1713.1	1682.2	-1.8	-30.9
1939	1840.5	1840.5	.0	.0
1940	1701.4	1709.5	.5	8.1
1941	2000.0	2000.0	.0	.0
1942	2000.0	2000.0	.0	.0
1943	2000.0	2000.0	.0	.0
1944	1809.0	1816.2	.4	7.2
1945	1691.3	1710.1	1.1	18.8
1946	1753.3	1739.5	-.8	-13.8
1947	1503.4	1499.2	-.3	-4.2
1948	1519.2	1537.3	1.2	18.1
1949	1643.3	1653.7	.6	10.4
1950	1613.9	1604.6	-.6	-9.3
1951	2000.0	2000.0	.0	.0
1952	1988.3	1996.1	.4	7.8
1953	2000.0	2000.0	.0	.0
1954	2000.0	2000.0	.0	.0
1955	1851.9	1852.0	.0	.1
1956	2000.0	2000.0	.0	.0
1957	1951.5	1951.5	.0	.0
1958	2000.0	2000.0	.0	.0
1959	1982.7	1982.7	.0	.0
1960	1425.5	1425.5	.0	.0
1961	1865.1	1865.1	.0	.0
1962	1813.9	1814.8	.0	.9
1963	2000.0	2000.0	.0	.0
1964	1931.4	1931.4	.0	.0
1965	1983.1	1983.1	.0	.0
1966	1952.0	1952.0	.0	.0
1967	2000.0	2000.0	.0	.0
1968	2000.0	2000.0	.0	.0
1969	1720.9	1788.9	4.0	68.0
1970	2000.0	2000.0	.0	.0
1971	1989.6	1993.0	.2	3.4
1972	1995.2	1995.2	.0	.0
1973	1878.5	1873.8	-.3	-4.7
1974	1993.1	1993.1	.0	.0
1975	1934.0	1934.0	.0	.0
1976	1872.8	1872.8	.0	.0
1977	978.6	979.9	.1	1.3
1978	1183.4	1181.1	-.2	-2.3
1979	1598.8	1596.6	-.1	-2.2
1980	1964.9	1998.9	1.7	34.0
1981	1941.3	1974.8	1.7	33.5
1982	2000.0	2000.0	.0	.0
1983	2000.0	2000.0	.0	.0
1984	1982.2	1982.2	.0	.0
1985	1892.7	1892.7	.0	.0
1986	2000.0	2000.0	.0	.0
1987	1363.1	1363.1	.0	.0
1988	1472.6	1473.7	.1	1.1
1989	973.6	985.2	1.2	11.6
1990	1196.2	1207.6	1.0	11.4
1991	765.7	799.0	4.3	33.3
Mean:	1631.7	1634.0	.2	2.3
Median:	1820.5	1820.5	.0	.0
Min:	442.1	442.1	-2.5	-30.9
Max:	2000.0	2000.0	4.3	68.0
Littoral Habitat(ac)	2140.1	2151.6	.5	11.5

CLAIR ENGLE RESERVOIR STORAGE
March

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1858.9	1858.9	.0	.0
1923	1626.7	1626.7	.0	.0
1924	1159.1	1130.0	-2.5	-29.1
1925	1006.5	992.6	-1.4	-13.9
1926	1267.5	1253.9	-1.1	-13.6
1927	1907.2	1893.7	-.7	-13.5
1928	2100.0	2100.0	.0	.0
1929	1506.9	1507.0	.0	.1
1930	1214.4	1226.7	1.0	12.3
1931	967.0	979.1	1.3	12.1
1932	599.1	611.6	2.1	12.5
1933	547.3	547.3	.0	.0
1934	737.4	737.4	.0	.0
1935	702.9	702.9	.0	.0
1936	1117.1	1117.1	.0	.0
1937	1011.1	1011.1	.0	.0
1938	1945.7	1914.7	-1.6	-31.0
1939	1930.9	1930.9	.0	.0
1940	1981.3	1989.4	.4	8.1
1941	2100.0	2100.0	.0	.0
1942	2056.9	2056.9	.0	.0
1943	2100.0	2100.0	.0	.0
1944	1865.8	1873.0	.4	7.2
1945	1733.2	1751.9	1.1	18.7
1946	1859.3	1845.5	-.7	-13.8
1947	1612.0	1607.7	-.3	-4.3
1948	1536.0	1554.0	1.2	18.0
1949	1835.8	1846.1	.6	10.3
1950	1723.7	1714.4	-.5	-9.3
1951	2087.4	2087.4	.0	.0
1952	2100.0	2100.0	.0	.0
1953	2100.0	2100.0	.0	.0
1954	2100.0	2100.0	.0	.0
1955	1867.3	1867.4	.0	.1
1956	2100.0	2100.0	.0	.0
1957	2100.0	2100.0	.0	.0
1958	2100.0	2100.0	.0	.0
1959	2098.9	2098.9	.0	.0
1960	1603.0	1603.0	.0	.0
1961	1969.7	1969.7	.0	.0
1962	1878.4	1879.3	.0	.9
1963	2050.4	2050.4	.0	.0
1964	1955.3	1955.3	.0	.0
1965	2035.0	2035.0	.0	.0
1966	2100.0	2100.0	.0	.0
1967	2100.0	2100.0	.0	.0
1968	2100.0	2100.0	.0	.0
1969	1854.6	1922.6	3.7	68.0
1970	2100.0	2100.0	.0	.0
1971	2100.0	2100.0	.0	.0
1972	2100.0	2100.0	.0	.0
1973	1980.6	1975.9	-.2	-4.7
1974	2100.0	2100.0	.0	.0
1975	2100.0	2100.0	.0	.0
1976	1913.5	1913.5	.0	.0
1977	962.2	963.6	.1	1.4
1978	1442.8	1440.5	-.2	-2.3
1979	1736.8	1734.6	-.1	-2.2
1980	2084.9	2100.0	.7	15.1
1981	2049.7	2083.2	1.6	33.5
1982	2100.0	2100.0	.0	.0
1983	2100.0	2100.0	.0	.0
1984	2100.0	2100.0	.0	.0
1985	1928.3	1928.3	.0	.0
1986	2100.0	2100.0	.0	.0
1987	1564.3	1564.3	.0	.0
1988	1537.4	1538.5	.1	1.1
1989	1300.6	1312.2	.9	11.6
1990	1261.5	1272.9	.9	11.4
1991	825.5	858.7	4.0	33.2
Mean:	1734.3	1736.2	.2	2.0
Median:	1913.5	1914.7	.0	.0
Min:	547.3	547.3	-2.5	-31.0
Max:	2100.0	2100.0	4.0	68.0
Littoral Habitat(ac)	2645.8	2655.4	.4	9.6

CLAIR ENGLE RESERVOIR STORAGE
April

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1954.7	1954.7	.0	.0
1923	1738.9	1738.9	.0	.0
1924	1148.8	1119.7	-2.5	-29.1
1925	1275.5	1261.6	-1.1	-13.9
1926	1475.2	1461.5	-.9	-13.7
1927	2109.5	2096.1	-.6	-13.4
1928	2233.1	2233.1	.0	.0
1929	1502.8	1512.5	.6	9.7
1930	1320.2	1332.5	.9	12.3
1931	1001.1	1013.2	1.2	12.1
1932	685.3	697.8	1.8	12.5
1933	697.7	697.7	.0	.0
1934	841.0	841.0	.0	.0
1935	900.0	900.0	.0	.0
1936	1265.6	1265.6	.0	.0
1937	1211.3	1211.3	.0	.0
1938	2211.8	2180.9	-1.4	-30.9
1939	1896.7	1901.3	.2	4.6
1940	2190.0	2198.2	.4	8.2
1941	2300.0	2300.0	.0	.0
1942	2224.5	2224.5	.0	.0
1943	2265.2	2265.2	.0	.0
1944	1900.8	1908.1	.4	7.3
1945	1855.4	1874.1	1.0	18.7
1946	2054.3	2040.5	-.7	-13.8
1947	1695.7	1691.5	-.2	-4.2
1948	1699.4	1717.4	1.1	18.0
1949	2070.3	2080.7	.5	10.4
1950	1877.4	1868.1	-.5	-9.3
1951	2241.6	2241.6	.0	.0
1952	2300.0	2300.0	.0	.0
1953	2281.6	2281.6	.0	.0
1954	2300.0	2300.0	.0	.0
1955	1889.1	1889.2	.0	.1
1956	2300.0	2300.0	.0	.0
1957	2198.9	2198.9	.0	.0
1958	2300.0	2300.0	.0	.0
1959	2170.7	2170.5	.0	-.2
1960	1707.7	1707.7	.0	.0
1961	2097.0	2097.0	.0	.0
1962	2091.4	2092.3	.0	.9
1963	2276.9	2276.9	.0	.0
1964	1935.1	1935.1	.0	.0
1965	2229.8	2229.8	.0	.0
1966	2300.0	2300.0	.0	.0
1967	2168.8	2168.8	.0	.0
1968	2185.4	2185.4	.0	.0
1969	2149.2	2217.1	3.2	67.9
1970	2123.0	2123.0	.0	.0
1971	2241.9	2241.9	.0	.0
1972	2224.2	2224.2	.0	.0
1973	2150.8	2146.1	-.2	-4.7
1974	2296.9	2296.9	.0	.0
1975	2210.8	2210.8	.0	.0
1976	1908.0	1910.7	.1	2.7
1977	958.4	959.7	.1	1.3
1978	1616.3	1614.1	-.1	-2.2
1979	1849.0	1846.8	-.1	-2.2
1980	2226.3	2241.4	.7	15.1
1981	2147.7	2181.2	1.6	33.5
1982	2292.6	2292.6	.0	.0
1983	2300.0	2300.0	.0	.0
1984	2196.3	2196.3	.0	.0
1985	2067.0	2067.0	.0	.0
1986	2218.8	2218.8	.0	.0
1987	1699.5	1699.5	.0	.0
1988	1606.7	1607.7	.1	1.0
1989	1487.6	1499.2	.8	11.6
1990	1300.0	1302.8	.2	2.8
1991	884.8	918.0	3.8	33.2
Mean:	1867.6	1869.7	.1	2.1
Median:	2070.3	2080.7	.0	.0
Min:	685.3	697.7	-2.5	-30.9
Max:	2300.0	2300.0	3.8	67.9
Littoral Habitat(ac)	3289.7	3299.7	.3	10.0

CLAIR ENGLE RESERVOIR STORAGE
May

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	2034.0	2034.0	.0	.0
1923	1713.3	1701.0	-.7	-12.3
1924	911.3	877.3	-3.7	-34.0
1925	1297.8	1284.0	-1.1	-13.8
1926	1399.8	1386.2	-1.0	-13.6
1927	2142.2	2128.8	-.6	-13.4
1928	2272.6	2272.6	.0	.0
1929	1444.2	1453.8	.7	9.6
1930	1252.4	1264.6	1.0	12.2
1931	842.4	850.9	1.0	8.5
1932	768.9	781.3	1.6	12.4
1933	745.5	745.5	.0	.0
1934	797.5	797.5	.0	.0
1935	963.7	963.7	.0	.0
1936	1269.9	1269.9	.0	.0
1937	1356.2	1356.2	.0	.0
1938	2420.0	2390.4	-1.2	-29.6
1939	1795.3	1799.9	.3	4.6
1940	2149.7	2157.8	.4	8.1
1941	2420.0	2420.0	.0	.0
1942	2326.7	2326.7	.0	.0
1943	2205.8	2205.8	.0	.0
1944	1894.8	1902.0	.4	7.2
1945	1878.4	1897.0	1.0	18.6
1946	2070.9	2057.1	-.7	-13.8
1947	1619.8	1615.6	-.3	-4.2
1948	1744.4	1762.4	1.0	18.0
1949	2067.2	2077.6	.5	10.4
1950	1896.3	1887.0	-.5	-9.3
1951	2195.9	2195.9	.0	.0
1952	2420.0	2420.0	.0	.0
1953	2324.4	2324.4	.0	.0
1954	2348.4	2348.2	.0	-.2
1955	1902.5	1902.6	.0	.1
1956	2420.0	2420.0	.0	.0
1957	2336.4	2336.4	.0	.0
1958	2420.0	2420.0	.0	.0
1959	2096.2	2096.0	.0	-.2
1960	1712.2	1712.2	.0	.0
1961	2115.9	2115.9	.0	.0
1962	2071.4	2072.3	.0	.9
1963	2359.1	2359.1	.0	.0
1964	1846.7	1846.7	.0	.0
1965	2187.6	2187.6	.0	.0
1966	2345.0	2343.7	-.1	-1.3
1967	2334.1	2334.1	.0	.0
1968	2136.8	2136.8	.0	.0
1969	2420.0	2420.0	.0	.0
1970	1992.0	1992.0	.0	.0
1971	2334.4	2334.4	.0	.0
1972	2214.6	2214.6	.0	.0
1973	2301.1	2296.4	-.2	-4.7
1974	2420.0	2420.0	.0	.0
1975	2408.9	2408.9	.0	.0
1976	1804.8	1805.8	.1	1.0
1977	800.0	800.0	.0	.0
1978	1668.0	1665.7	-.1	-2.3
1979	1924.0	1921.7	-.1	-2.3
1980	2161.6	2176.7	.7	15.1
1981	2066.7	2100.1	1.6	33.4
1982	2338.5	2338.5	.0	.0
1983	2420.0	2420.0	.0	.0
1984	2240.7	2240.7	.0	.0
1985	1919.2	1919.2	.0	.0
1986	2024.4	2024.4	.0	.0
1987	1652.3	1652.3	.0	.0
1988	1511.8	1512.8	.1	1.0
1989	1416.0	1427.5	.8	11.5
1990	1270.7	1273.6	.2	2.9
1991	881.5	914.7	3.8	33.2
Mean:	1878.1	1878.8	.1	.8
Median:	2034.0	2034.0	.0	.0
Min:	745.5	745.5	-3.7	-34.0
Max:	2420.0	2420.0	3.8	33.4
Littoral Habitat(ac)	3339.6	3343.3	.1	3.7

CLAIR ENGLE RESERVOIR STORAGE
June

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1984.6	1984.6	.0	.0
1923	1583.8	1558.5	-1.6	-25.3
1924	732.2	700.9	-4.3	-31.3
1925	1226.1	1212.3	-1.1	-13.8
1926	1268.4	1254.8	-1.1	-13.6
1927	2152.6	2139.2	-.6	-13.4
1928	2079.8	2079.8	.0	.0
1929	1314.9	1324.5	.7	9.6
1930	1137.8	1150.1	1.1	12.3
1931	703.2	711.7	1.2	8.5
1932	700.0	700.0	.0	.0
1933	746.2	755.7	1.3	9.5
1934	639.9	654.9	2.3	15.0
1935	928.9	928.9	.0	.0
1936	1205.8	1205.8	.0	.0
1937	1356.0	1356.0	.0	.0
1938	2447.0	2442.3	-.2	-4.7
1939	1585.8	1592.2	.4	6.4
1940	2019.7	2022.7	.1	3.0
1941	2447.0	2447.0	.0	.0
1942	2381.4	2381.4	.0	.0
1943	2172.7	2172.7	.0	.0
1944	1786.2	1763.6	-1.3	-22.6
1945	1813.3	1817.0	.2	3.7
1946	1963.9	1959.6	-.2	-4.3
1947	1515.7	1511.5	-.3	-4.2
1948	1854.7	1872.7	1.0	18.0
1949	1969.3	1979.7	.5	10.4
1950	1733.4	1733.6	.0	.2
1951	2103.1	2103.1	.0	.0
1952	2444.4	2444.4	.0	.0
1953	2447.0	2447.0	.0	.0
1954	2224.5	2227.2	.1	2.7
1955	1828.5	1828.6	.0	.1
1956	2443.1	2443.1	.0	.0
1957	2308.0	2310.1	.1	2.1
1958	2447.0	2447.0	.0	.0
1959	1902.7	1902.6	.0	-.1
1960	1713.7	1713.7	.0	.0
1961	2097.9	2097.9	.0	.0
1962	2021.1	2022.0	.0	.9
1963	2285.8	2285.8	.0	.0
1964	1730.0	1730.0	.0	.0
1965	2106.5	2106.5	.0	.0
1966	2127.1	2125.8	-.1	-1.3
1967	2417.4	2417.4	.0	.0
1968	1936.0	1943.6	.4	7.6
1969	2447.0	2447.0	.0	.0
1970	1901.4	1901.4	.0	.0
1971	2331.5	2331.5	.0	.0
1972	2050.2	2052.1	.1	1.9
1973	2187.2	2184.4	-.1	-2.8
1974	2447.0	2447.0	.0	.0
1975	2447.0	2447.0	.0	.0
1976	1590.1	1591.1	.1	1.0
1977	562.8	562.4	-.1	-.4
1978	1729.9	1727.6	-.1	-2.3
1979	1823.8	1821.6	-.1	-2.2
1980	2076.9	2091.8	.7	14.9
1981	1940.4	1966.9	1.4	26.5
1982	2311.8	2311.8	.0	.0
1983	2447.0	2447.0	.0	.0
1984	2186.0	2186.2	.0	.2
1985	1757.5	1764.9	.4	7.4
1986	1817.2	1817.2	.0	.0
1987	1473.9	1473.9	.0	.0
1988	1386.3	1387.3	.1	1.0
1989	1342.9	1354.4	.9	11.5
1990	1162.1	1165.0	.2	2.9
1991	840.2	873.3	3.9	33.1
Mean:	1804.2	1805.2	.1	1.0
Median:	1902.7	1902.6	.0	.0
Min:	562.8	562.4	-4.3	-31.3
Max:	2447.0	2447.0	3.9	33.1
Littoral Habitat(ac)	2985.4	2990.1	.2	4.7

CLAIR ENGLE RESERVOIR STORAGE
July

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1862.0	1862.0	.0	.0
1923	1409.7	1399.8	-.7	-9.9
1924	529.6	504.1	-4.8	-25.5
1925	1134.1	1120.3	-1.2	-13.8
1926	1159.8	1146.3	-1.2	-13.5
1927	2001.4	1994.3	-.4	-7.1
1928	1862.3	1862.3	.0	.0
1929	1141.3	1153.8	1.1	12.5
1930	1033.8	1046.0	1.2	12.2
1931	500.0	524.1	4.8	24.1
1932	600.0	600.0	.0	.0
1933	613.8	623.3	1.5	9.5
1934	500.0	500.0	.0	.0
1935	888.1	888.1	.0	.0
1936	1115.0	1115.0	.0	.0
1937	1274.0	1274.0	.0	.0
1938	2270.0	2270.0	.0	.0
1939	1413.7	1421.9	.6	8.2
1940	1801.2	1804.3	.2	3.1
1941	2270.0	2270.0	.0	.0
1942	2270.0	2270.0	.0	.0
1943	2026.3	2033.6	.4	7.3
1944	1633.1	1638.9	.4	5.8
1945	1662.1	1649.6	-.8	-12.5
1946	1764.3	1760.0	-.2	-4.3
1947	1386.0	1412.5	1.9	26.5
1948	1784.5	1802.4	1.0	17.9
1949	1804.3	1814.6	.6	10.3
1950	1526.2	1526.4	.0	.2
1951	1886.5	1886.5	.0	.0
1952	2270.0	2270.0	.0	.0
1953	2270.0	2270.0	.0	.0
1954	2020.1	2022.8	.1	2.7
1955	1701.0	1701.1	.0	.1
1956	2270.0	2270.0	.0	.0
1957	2100.2	2102.4	.1	2.2
1958	2270.0	2270.0	.0	.0
1959	1688.9	1688.7	.0	-.2
1960	1633.6	1633.6	.0	.0
1961	1925.8	1924.0	-.1	-1.8
1962	1814.9	1815.8	.0	.9
1963	2155.9	2155.9	.0	.0
1964	1607.2	1607.2	.0	.0
1965	1955.2	1952.6	-.1	-2.6
1966	1924.7	1923.4	-.1	-1.3
1967	2270.0	2270.0	.0	.0
1968	1724.6	1732.2	.4	7.6
1969	2270.0	2270.0	.0	.0
1970	1689.9	1689.9	.0	.0
1971	2233.9	2233.9	.0	.0
1972	1834.6	1836.5	.1	1.9
1973	1981.7	1978.9	-.1	-2.8
1974	2270.0	2270.0	.0	.0
1975	2270.0	2270.0	.0	.0
1976	1389.6	1390.9	.1	1.3
1977	476.0	475.7	-.1	-.3
1978	1675.5	1673.2	-.1	-2.3
1979	1612.9	1610.6	-.1	-2.3
1980	1908.5	1921.2	.7	12.7
1981	1764.4	1785.7	1.2	21.3
1982	2210.1	2210.1	.0	.0
1983	2270.0	2270.0	.0	.0
1984	1984.2	1984.4	.0	.2
1985	1590.9	1617.6	1.7	26.7
1986	1600.0	1600.0	.0	.0
1987	1335.7	1335.7	.0	.0
1988	1206.5	1213.4	.6	6.9
1989	1230.3	1241.8	.9	11.5
1990	1032.9	1035.7	.3	2.8
1991	785.7	813.6	3.6	27.9
Mean:	1647.8	1650.2	.2	2.3
Median:	1724.6	1732.2	.0	.0
Min:	476.0	475.7	-4.8	-25.5
Max:	2270.0	2270.0	4.8	27.9
Littoral Habitat(ac)	2220.4	2232.0	.5	11.6

CLAIR ENGLE RESERVOIR STORAGE
August

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1653.2	1653.2	.0	.0
1923	1229.3	1200.0	-2.4	-29.3
1924	500.0	486.0	-2.8	-14.0
1925	1093.2	1079.5	-1.3	-13.7
1926	1117.1	1103.6	-1.2	-13.5
1927	1908.7	1889.9	-1.0	-18.8
1928	1646.3	1646.3	.0	.0
1929	964.7	977.0	1.3	12.3
1930	992.6	1004.7	1.2	12.1
1931	483.1	500.0	3.5	16.9
1932	500.0	500.0	.0	.0
1933	500.0	500.0	.0	.0
1934	484.1	484.1	.0	.0
1935	861.2	861.2	.0	.0
1936	1075.1	1075.1	.0	.0
1937	1200.0	1200.0	.0	.0
1938	2150.0	2150.0	.0	.0
1939	1249.7	1257.9	.7	8.2
1940	1584.4	1587.4	.2	3.0
1941	2150.0	2150.0	.0	.0
1942	2150.0	2150.0	.0	.0
1943	1951.3	1958.6	.4	7.3
1944	1475.4	1485.0	.7	9.6
1945	1448.6	1436.1	-.9	-12.5
1946	1550.6	1546.3	-.3	-4.3
1947	1347.8	1374.3	2.0	26.5
1948	1712.8	1723.2	.6	10.4
1949	1660.0	1650.7	-.6	-9.3
1950	1314.5	1314.7	.0	.2
1951	1671.5	1671.5	.0	.0
1952	2150.0	2150.0	.0	.0
1953	2150.0	2150.0	.0	.0
1954	1812.1	1814.7	.1	2.6
1955	1641.1	1648.0	.4	6.9
1956	2150.0	2150.0	.0	.0
1957	2029.1	2031.3	.1	2.2
1958	2150.0	2150.0	.0	.0
1959	1475.3	1475.1	.0	-.2
1960	1593.4	1593.4	.0	.0
1961	1732.3	1733.2	.1	.9
1962	1610.4	1611.2	.0	.8
1963	2074.4	2074.4	.0	.0
1964	1522.6	1524.2	.1	1.6
1965	1893.2	1890.6	-.1	-2.6
1966	1718.6	1717.4	-.1	-1.2
1967	2150.0	2150.0	.0	.0
1968	1514.2	1542.3	1.9	28.1
1969	2150.0	2150.0	.0	.0
1970	1469.9	1475.7	.4	5.8
1971	2150.0	2150.0	.0	.0
1972	1621.5	1623.4	.1	1.9
1973	1761.0	1758.2	-.2	-2.8
1974	2150.0	2150.0	.0	.0
1975	2150.0	2150.0	.0	.0
1976	1230.9	1229.4	-.1	-1.5
1977	440.4	439.8	-.1	-.6
1978	1638.8	1636.6	-.1	-2.2
1979	1395.2	1408.6	1.0	13.4
1980	1763.8	1797.4	1.9	33.6
1981	1628.4	1625.3	-.2	-3.1
1982	2137.3	2137.3	.0	.0
1983	2150.0	2150.0	.0	.0
1984	1914.9	1915.1	.0	.2
1985	1483.3	1494.0	.7	10.7
1986	1397.1	1397.1	.0	.0
1987	1267.5	1268.6	.1	1.1
1988	1017.4	1029.1	1.1	11.7
1989	1183.7	1195.2	1.0	11.5
1990	988.4	991.2	.3	2.8
1991	679.9	707.6	4.1	27.7
Mean:	1525.2	1527.2	.2	2.0
Median:	1593.4	1593.4	.0	.0
Min:	440.4	439.8	-2.8	-29.3
Max:	2150.0	2150.0	4.1	33.6
Littoral Habitat(ac)	1604.5	1614.7	.6	10.2

CLAIR ENGLE RESERVOIR STORAGE
September

Water Year	Cuml. Storage (taf)	No Proj-constrained Storage (taf)	Rel Change (%)	Abs Diff (taf)
1922	1594.3	1594.3	.0	.0
1923	1209.3	1180.1	-2.4	-29.2
1924	484.4	470.5	-2.9	-13.9
1925	1081.4	1067.7	-1.3	-13.7
1926	1094.3	1080.9	-1.2	-13.4
1927	1818.0	1811.4	-.4	-6.6
1928	1553.9	1548.4	-.4	-5.5
1929	941.2	953.5	1.3	12.3
1930	971.1	983.3	1.3	12.2
1931	468.7	485.5	3.6	16.8
1932	486.5	486.5	.0	.0
1933	489.6	489.6	.0	.0
1934	470.7	470.7	.0	.0
1935	823.4	823.4	.0	.0
1936	1053.8	1053.8	.0	.0
1937	1157.3	1126.3	-2.7	-31.0
1938	1975.0	1975.0	.0	.0
1939	1226.6	1234.8	.7	8.2
1940	1532.3	1535.3	.2	3.0
1941	1975.0	1975.0	.0	.0
1942	1975.0	1975.0	.0	.0
1943	1843.9	1851.1	.4	7.2
1944	1454.0	1463.6	.7	9.6
1945	1368.3	1354.6	-1.0	-13.7
1946	1517.2	1512.9	-.3	-4.3
1947	1326.7	1353.1	2.0	26.4
1948	1694.5	1704.9	.6	10.4
1949	1636.7	1627.3	-.6	-9.4
1950	1295.5	1295.7	.0	.2
1951	1628.7	1636.5	.5	7.8
1952	1975.0	1975.0	.0	.0
1953	1975.0	1975.0	.0	.0
1954	1754.3	1754.4	.0	.1
1955	1624.5	1631.4	.4	6.9
1956	1975.0	1975.0	.0	.0
1957	1975.0	1975.0	.0	.0
1958	1975.0	1975.0	.0	.0
1959	1457.2	1457.1	.0	-.1
1960	1570.0	1570.0	.0	.0
1961	1708.8	1709.7	.1	.9
1962	1588.9	1589.8	.1	.9
1963	1975.0	1975.0	.0	.0
1964	1509.0	1510.6	.1	1.6
1965	1860.6	1858.0	-.1	-2.6
1966	1704.2	1703.0	-.1	-1.2
1967	1975.0	1975.0	.0	.0
1968	1429.5	1497.7	4.8	68.2
1969	1975.0	1975.0	.0	.0
1970	1410.8	1414.2	.2	3.4
1971	1975.0	1975.0	.0	.0
1972	1483.4	1478.7	-.3	-4.7
1973	1706.7	1703.5	-.2	-3.2
1974	1975.0	1975.0	.0	.0
1975	1975.0	1975.0	.0	.0
1976	1213.0	1211.5	-.1	-1.5
1977	441.6	441.0	-.1	-.6
1978	1644.7	1642.4	-.1	-2.3
1979	1354.4	1388.5	2.5	34.1
1980	1740.5	1774.0	1.9	33.5
1981	1598.7	1595.6	-.2	-3.1
1982	1975.0	1975.0	.0	.0
1983	1975.0	1975.0	.0	.0
1984	1879.3	1879.5	.0	.2
1985	1462.4	1473.1	.7	10.7
1986	1378.2	1378.2	.0	.0
1987	1237.5	1238.5	.1	1.0
1988	987.9	999.5	1.2	11.6
1989	1165.6	1177.0	1.0	11.4
1990	964.8	967.6	.3	2.8
1991	659.0	686.6	4.2	27.6
Mean:	1462.3	1464.7	.2	2.4
Median:	1532.3	1535.3	.0	.0
Min:	441.6	441.0	-2.9	-31.0
Max:	1975.0	1975.0	4.8	68.2
Littoral Habitat(ac)	1282.6	1295.1	1.0	12.4

RETURN TO TABLE OF CONTENTS

Section 16

CLAIR ENGLE RESERVOIR ELEVATION
16.1 Fisheries

CLAIR ENGLE RESERVOIR ELEVATION

October

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2330.8	.0	2330.8	.0	.0	.0
1923	2310.1	-1.2	2310.1	-1.2	.0	.0
1924	2275.4	-1.6	2272.5	-1.6	-.1	-2.9
1925	2181.6	.1	2179.0	.1	-.1	-2.6
1926	2261.8	-2.0	2260.3	-2.1	-.1	-1.5
1927	2263.2	-2.0	2261.8	-2.0	-.1	-1.4
1928	2326.6	-1.9	2326.1	-1.9	.0	-.5
1929	2304.0	-4.0	2304.0	-3.6	.0	.0
1930	2244.4	-3.7	2245.9	-3.6	.1	1.5
1931	2248.8	-2.8	2250.2	-2.8	.1	1.4
1932	2177.0	-1.5	2180.2	-1.5	.1	3.2
1933	2180.0	-1.9	2180.0	-1.9	.0	.0
1934	2180.8	-1.6	2180.8	-1.6	.0	.0
1935	2178.4	-.5	2178.4	-.5	.0	.0
1936	2231.9	-1.6	2231.9	-1.6	.0	.0
1937	2258.1	-2.8	2258.1	-2.8	.0	.0
1938	2270.2	-1.6	2267.0	-1.6	-.1	-3.2
1939	2330.8	-8.8	2330.8	-8.8	.0	.0
1940	2276.3	-2.4	2277.1	-2.4	.0	.8
1941	2304.7	-1.5	2305.0	-1.5	.0	.3
1942	2330.8	-8.8	2330.8	-8.8	.0	.0
1943	2330.8	-8.8	2330.8	-8.8	.0	.0
1944	2329.0	-1.4	2329.5	-1.4	.0	.5
1945	2297.6	-2.0	2298.4	-2.0	.0	.8
1946	2291.7	-.3	2290.5	-.3	-.1	-1.2
1947	2301.5	-3.5	2301.2	-3.4	.0	-.3
1948	2290.2	2.0	2292.6	2.0	.1	2.4
1949	2318.0	-1.2	2318.8	-1.2	.0	.8
1950	2312.8	-1.9	2312.1	-1.8	.0	-.7
1951	2294.6	9.3	2294.6	9.3	.0	.0
1952	2312.9	-1.2	2313.5	-1.2	.0	.6
1953	2330.8	-8.8	2330.8	-8.8	.0	.0
1954	2330.8	-8.8	2330.8	-8.8	.0	.0
1955	2322.4	-1.4	2322.4	-1.4	.0	.0
1956	2311.9	-1.8	2312.4	-1.9	.0	.5
1957	2330.8	-8.8	2330.8	-8.8	.0	.0
1958	2330.8	-8.8	2330.8	-8.8	.0	.0
1959	2330.8	-8.8	2330.8	-8.8	.0	.0
1960	2295.1	-4.8	2296.3	-3.6	.1	1.2
1961	2307.7	-1.6	2307.7	-1.6	.0	.0
1962	2318.4	-1.9	2318.5	-1.9	.0	.1
1963	2318.6	7.7	2318.7	7.8	.0	.1
1964	2330.8	-8.8	2330.8	-8.8	.0	.0
1965	2303.2	-1.1	2303.3	-1.1	.0	.1
1966	2329.7	-1.9	2329.5	-1.9	.0	-.2
1967	2317.0	-3.0	2316.8	-3.1	.0	-.2
1968	2330.8	-8.8	2330.8	-8.8	.0	.0
1969	2296.0	-1.5	2301.9	-1.4	.3	5.9
1970	2330.8	-8.8	2330.8	-8.8	.0	.0
1971	2294.0	-1.8	2294.3	-1.8	.0	.3
1972	2330.8	-8.8	2330.8	-8.8	.0	.0
1973	2301.2	-.9	2300.8	-.9	.0	-.4
1974	2321.0	.9	2320.7	.8	.0	-.3
1975	2330.8	-8.8	2330.8	-8.8	.0	.0
1976	2330.8	-8.8	2330.8	-8.8	.0	.0
1977	2274.8	-2.6	2274.7	-2.5	.0	-.1
1978	2168.0	-5.3	2167.5	-5.7	.0	-.5
1979	2313.2	-2.1	2313.0	-2.1	.0	-.2
1980	2291.4	.6	2294.5	.7	.1	3.1
1981	2320.8	-1.9	2323.3	-1.9	.1	2.5
1982	2310.6	-1.1	2310.4	-1.0	.0	-.2
1983	2330.8	-8.8	2330.8	-8.8	.0	.0
1984	2330.8	-8.8	2330.8	-8.8	.0	.0
1985	2330.8	-2.1	2330.8	-2.1	.0	.0
1986	2298.8	-1.5	2299.7	-1.5	.0	.9
1987	2291.1	-1.8	2291.1	-1.8	.0	.0
1988	2276.6	-3.2	2276.7	-3.2	.0	.1
1989	2247.3	-6.2	2248.7	-6.1	.1	1.4
1990	2274.6	2.0	2275.8	2.0	.1	1.2
1991	2247.4	-3.4	2247.8	-3.4	.0	.4
Mean:	2293.2	-3.1	2293.4	-3.1	.0	.2
Median:	2304.7	-1.9	2305.0	-1.9	.0	.0
Min:	2168.0	-8.8	2167.5	-8.8	-.1	-3.2
Max:	2330.8	9.3	2330.8	9.3	.3	5.9
X inc > 20.0		0		0		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

November

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2329.6	.0	2329.6	.0	.0	.0
1923	2308.7	-1.4	2308.7	-1.4	.0	.0
1924	2273.1	-2.3	2270.2	-2.3	-.1	-2.9
1925	2194.2	12.6	2191.9	12.9	-.1	-2.3
1926	2259.8	-2.0	2258.2	-2.1	-.1	-1.6
1927	2278.0	14.8	2276.6	14.8	-.1	-1.4
1928	2330.0	3.4	2329.6	3.5	.0	-.4
1929	2302.8	-1.2	2302.8	-1.2	.0	.0
1930	2241.9	-2.5	2243.4	-2.5	.1	1.5
1931	2246.7	-2.1	2248.1	-2.1	.1	1.4
1932	2175.0	-2.0	2178.2	-2.0	.1	3.2
1933	2179.0	-1.0	2179.0	-1.0	.0	.0
1934	2178.6	-2.2	2178.6	-2.2	.0	.0
1935	2189.5	11.1	2189.5	11.1	.0	.0
1936	2230.8	-1.1	2230.8	-1.1	.0	.0
1937	2254.8	-3.3	2254.8	-3.3	.0	.0
1938	2283.0	12.8	2280.0	13.0	-.1	-3.0
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2273.5	-2.8	2274.3	-2.8	.0	.8
1941	2304.0	-.7	2304.3	-.7	.0	.3
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2328.4	-.6	2328.9	-.6	.0	.5
1945	2298.8	1.2	2299.6	1.2	.0	.8
1946	2295.0	3.3	2293.8	3.3	-.1	-1.2
1947	2301.9	.4	2301.6	.4	.0	-.3
1948	2290.0	-.2	2292.4	-.2	.1	2.4
1949	2317.1	-.9	2317.9	-.9	.0	.8
1950	2311.1	-1.7	2310.4	-1.7	.0	-.7
1951	2303.0	8.4	2303.1	8.5	.0	.1
1952	2314.2	1.3	2314.8	1.3	.0	.6
1953	2329.7	-1.1	2329.7	-1.1	.0	.0
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2325.8	3.4	2325.8	3.4	.0	.0
1956	2311.5	-.4	2312.0	-.4	.0	.5
1957	2330.4	-.4	2330.4	-.4	.0	.0
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2330.0	-.8	2330.0	-.8	.0	.0
1960	2290.7	-4.4	2292.7	-3.6	.1	2.0
1961	2306.9	-.8	2306.9	-.8	.0	.0
1962	2317.6	-.8	2317.7	-.8	.0	.1
1963	2322.3	3.7	2322.4	3.7	.0	.1
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2304.7	1.5	2304.8	1.5	.0	.1
1966	2330.8	1.1	2330.8	1.3	.0	.0
1967	2324.1	7.1	2323.9	7.1	.0	-.2
1968	2330.5	-.3	2330.5	-.3	.0	.0
1969	2296.6	.6	2302.5	.6	.3	5.9
1970	2330.1	-.7	2330.1	-.7	.0	.0
1971	2305.4	11.4	2305.6	11.3	.0	.2
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2302.9	1.7	2302.5	1.7	.0	-.4
1974	2330.8	9.8	2330.8	10.1	.0	.0
1975	2330.0	-.8	2330.0	-.8	.0	.0
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2272.5	-2.3	2272.3	-2.4	.0	-.2
1978	2173.4	5.4	2172.9	5.4	.0	-.5
1979	2310.9	-2.3	2310.7	-2.3	.0	-.2
1980	2295.6	4.2	2298.6	4.1	.1	3.0
1981	2318.7	-2.1	2321.3	-2.0	.1	2.6
1982	2329.1	18.5	2328.8	18.4	.0	-.3
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.7	-2.1	2297.6	-2.1	.0	.9
1987	2288.3	-2.8	2288.3	-2.8	.0	.0
1988	2273.9	-2.7	2274.0	-2.7	.0	.1
1989	2250.0	2.7	2251.4	2.7	.1	1.4
1990	2272.9	-1.7	2274.1	-1.7	.1	1.2
1991	2244.7	-2.7	2245.0	-2.8	.0	.3
Mean:	2294.4	1.2	2294.6	1.2	.0	.2
Median:	2305.4	-.2	2305.6	-.2	.0	.0
Min:	2173.4	-4.4	2172.9	-3.6	-.1	-3.0
Max:	2330.8	18.5	2330.8	18.4	.3	5.9
X inc > 20.0		0		0		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

December

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2328.9	.0	2328.9	.0	.0	.0
1923	2308.2	-.5	2308.2	-.5	.0	.0
1924	2270.7	-2.4	2267.7	-2.5	-.1	-3.0
1925	2201.1	6.9	2198.9	7.0	-.1	-2.2
1926	2260.6	.8	2259.1	.9	-.1	-1.5
1927	2295.9	17.9	2294.7	18.1	-.1	-1.2
1928	2330.5	.5	2330.0	.4	.0	-.5
1929	2301.4	-1.4	2301.4	-1.4	.0	.0
1930	2256.1	14.2	2257.5	14.1	.1	1.4
1931	2244.3	-2.4	2245.8	-2.3	.1	1.5
1932	2174.4	-.6	2176.8	-1.4	.1	2.4
1933	2177.1	-1.9	2177.1	-1.9	.0	.0
1934	2178.6	.0	2178.6	.0	.0	.0
1935	2194.4	4.9	2194.4	4.9	.0	.0
1936	2229.3	-1.5	2229.3	-1.5	.0	.0
1937	2251.0	-3.8	2251.0	-3.8	.0	.0
1938	2302.0	19.0	2299.3	19.3	-.1	-2.7
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2278.3	4.8	2279.1	4.8	.0	.8
1941	2314.5	10.5	2314.8	10.5	.0	.3
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2326.7	-1.7	2327.2	-1.7	.0	.5
1945	2303.8	5.0	2304.6	5.0	.0	.8
1946	2310.5	15.5	2309.4	15.6	.0	-1.1
1947	2302.0	.1	2301.7	.1	.0	-.3
1948	2288.5	-1.5	2290.9	-1.5	.1	2.4
1949	2315.6	-1.5	2316.5	-1.4	.0	.9
1950	2308.7	-2.4	2308.0	-2.4	.0	-.7
1951	2323.0	20.0	2323.0	19.9	.0	.0
1952	2324.7	10.5	2325.2	10.4	.0	.5
1953	2330.8	1.1	2330.8	1.1	.0	.0
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2329.2	3.4	2329.2	3.4	.0	.0
1956	2330.8	19.3	2330.8	18.8	.0	.0
1957	2329.4	-1.0	2329.4	-1.0	.0	.0
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2328.5	-1.5	2328.5	-1.5	.0	.0
1960	2285.7	-5.0	2285.7	-7.0	.0	.0
1961	2314.0	7.1	2314.0	7.1	.0	.0
1962	2319.2	1.6	2319.3	1.6	.0	.1
1963	2330.8	8.5	2330.8	8.4	.0	.0
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2330.8	26.1	2330.8	26.0	.0	.0
1966	2330.8	.0	2330.8	.0	.0	.0
1967	2330.8	6.7	2330.8	6.9	.0	.0
1968	2330.8	.3	2330.8	.3	.0	.0
1969	2301.9	5.3	2307.6	5.1	.2	5.7
1970	2330.8	.7	2330.8	.7	.0	.0
1971	2315.1	9.7	2315.4	9.8	.0	.3
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2311.1	8.2	2310.7	8.2	.0	-.4
1974	2330.8	.0	2330.8	.0	.0	.0
1975	2330.7	.7	2330.7	.7	.0	.0
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2269.7	-2.8	2269.8	-2.5	.0	.1
1978	2206.0	32.6	2205.7	32.8	.0	-.3
1979	2308.3	-2.6	2308.1	-2.6	.0	-.2
1980	2299.7	4.1	2302.6	4.0	.1	2.9
1981	2321.0	2.3	2323.5	2.2	.1	2.5
1982	2330.8	1.7	2330.8	2.0	.0	.0
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.0	-.7	2297.0	-.6	.0	1.0
1987	2285.9	-2.4	2285.9	-2.4	.0	.0
1988	2288.5	14.6	2288.6	14.6	.0	.1
1989	2249.5	-.5	2250.9	-.5	.1	1.4
1990	2270.9	-2.0	2272.1	-2.0	.1	1.2
1991	2240.6	-4.1	2241.6	-3.4	.0	1.0
Mean:	2297.8	3.4	2298.0	3.4	.0	.2
Median:	2314.0	.0	2314.0	.0	.0	.0
Min:	2174.4	-5.0	2176.8	-7.0	-.1	-3.0
Max:	2330.8	32.6	2330.8	32.8	.2	5.7
X inc > 20.0		2		2		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

January

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2327.8	.0	2327.8	.0	.0	.0
1923	2309.7	1.5	2309.7	1.5	.0	.0
1924	2268.3	-2.4	2265.3	-2.4	-.1	-3.0
1925	2206.9	5.8	2204.8	5.9	-.1	-2.1
1926	2258.4	-2.2	2256.8	-2.3	-.1	-1.6
1927	2305.8	9.9	2304.7	10.0	.0	-1.1
1928	2333.2	2.7	2332.8	2.8	.0	-.4
1929	2300.3	-1.1	2300.3	-1.1	.0	.0
1930	2255.9	-.2	2257.3	-.2	.1	1.4
1931	2244.3	.0	2245.7	-.1	.1	1.4
1932	2175.0	.6	2177.4	.6	.1	2.4
1933	2174.9	-2.2	2174.9	-2.2	.0	.0
1934	2188.2	9.6	2188.2	9.6	.0	.0
1935	2199.8	5.4	2199.8	5.4	.0	.0
1936	2241.9	12.6	2241.9	12.6	.0	.0
1937	2248.3	-2.7	2248.3	-2.7	.0	.0
1938	2309.3	7.3	2306.8	7.5	-.1	-2.5
1939	2330.3	-.5	2330.3	-.5	.0	.0
1940	2293.8	15.5	2294.5	15.4	.0	.7
1941	2329.9	15.4	2330.1	15.3	.0	.2
1942	2334.4	3.6	2334.4	3.6	.0	.0
1943	2334.4	3.6	2334.4	3.6	.0	.0
1944	2325.4	-1.3	2325.9	-1.3	.0	.5
1945	2306.8	3.0	2308.3	3.7	.1	1.5
1946	2320.1	9.6	2319.1	9.7	.0	-1.0
1947	2300.3	-1.7	2299.9	-1.8	.0	-.4
1948	2303.9	15.4	2306.1	15.2	.1	2.2
1949	2313.5	-2.1	2314.4	-2.1	.0	.9
1950	2309.2	.5	2308.4	.4	.0	-.8
1951	2329.0	6.0	2329.0	6.0	.0	.0
1952	2328.2	3.5	2328.7	3.5	.0	.5
1953	2334.4	3.6	2334.4	3.6	.0	.0
1954	2334.4	3.6	2334.4	3.6	.0	.0
1955	2329.6	.4	2329.6	.4	.0	.0
1956	2334.4	3.6	2334.4	3.6	.0	.0
1957	2328.0	-1.4	2328.0	-1.4	.0	.0
1958	2334.4	3.6	2334.4	3.6	.0	.0
1959	2334.4	5.9	2334.4	5.9	.0	.0
1960	2284.8	-.9	2284.8	-.9	.0	.0
1961	2315.7	1.7	2315.7	1.7	.0	.0
1962	2319.3	.1	2319.4	.1	.0	.1
1963	2333.1	2.3	2333.1	2.3	.0	.0
1964	2334.4	3.6	2334.4	3.6	.0	.0
1965	2334.4	3.6	2334.4	3.6	.0	.0
1966	2334.4	3.6	2334.4	3.6	.0	.0
1967	2334.4	3.6	2334.4	3.6	.0	.0
1968	2334.4	3.6	2334.4	3.6	.0	.0
1969	2312.5	10.6	2317.9	10.3	.2	5.4
1970	2334.4	3.6	2334.4	3.6	.0	.0
1971	2331.8	16.7	2332.1	16.7	.0	.3
1972	2334.4	3.6	2334.4	3.6	.0	.0
1973	2322.7	11.6	2322.3	11.6	.0	-.4
1974	2334.4	3.6	2334.4	3.6	.0	.0
1975	2331.0	.3	2331.0	.3	.0	.0
1976	2330.7	-.1	2330.7	-.1	.0	.0
1977	2263.8	-5.9	2263.8	-6.0	.0	.0
1978	2255.6	49.6	2255.3	49.6	.0	-.3
1979	2308.7	.4	2308.5	.4	.0	-.2
1980	2317.7	18.0	2320.3	17.7	.1	2.6
1981	2328.1	7.1	2330.5	7.0	.1	2.4
1982	2334.4	3.6	2334.4	3.6	.0	.0
1983	2334.4	3.6	2334.4	3.6	.0	.0
1984	2334.4	3.6	2334.4	3.6	.0	.0
1985	2331.8	1.0	2331.8	1.0	.0	.0
1986	2306.2	10.2	2307.1	10.1	.0	.9
1987	2285.2	-.7	2285.2	-.7	.0	.0
1988	2294.8	6.3	2294.9	6.3	.0	.1
1989	2249.9	.4	2251.2	.3	.1	1.3
1990	2274.8	3.9	2275.9	3.8	.0	1.1
1991	2233.8	-6.8	2237.7	-3.9	.2	3.9
Mean:	2302.1	4.3	2302.3	4.3	.0	.2
Median:	2319.3	3.6	2319.4	3.6	.0	.0
Min:	2174.9	-6.8	2174.9	-6.0	-.1	-3.0
Max:	2334.4	49.6	2334.4	49.6	.2	5.4
X inc > 20.0		1		1		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

February

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2328.6	.0	2328.6	.0	.0	.0
1923	2310.9	1.2	2310.9	1.2	.0	.0
1924	2273.5	5.2	2270.5	5.2	-.1	-3.0
1925	2242.9	36.0	2241.2	36.4	-.1	-1.7
1926	2273.1	14.7	2271.7	14.9	-.1	-1.4
1927	2323.5	17.7	2322.5	17.8	.0	-1.0
1928	2339.8	6.6	2339.3	6.5	.0	-.5
1929	2300.9	.6	2300.9	.6	.0	.0
1930	2265.8	9.9	2267.1	9.8	.1	1.3
1931	2245.6	1.3	2247.1	1.4	.1	1.5
1932	2177.7	2.7	2180.1	2.7	.1	2.4
1933	2173.4	-1.5	2173.4	-1.5	.0	.0
1934	2201.0	12.8	2201.0	12.8	.0	.0
1935	2210.8	11.0	2210.8	11.0	.0	.0
1936	2256.8	14.9	2256.8	14.9	.0	.0
1937	2247.1	-1.2	2247.1	-1.2	.0	.0
1938	2320.6	11.3	2318.3	11.5	-.1	-2.3
1939	2330.1	-.2	2330.1	-.2	.0	.0
1940	2319.7	25.9	2320.4	25.9	.0	.7
1941	2341.3	11.4	2341.3	11.2	.0	.0
1942	2341.3	6.9	2341.3	6.9	.0	.0
1943	2341.3	6.9	2341.3	6.9	.0	.0
1944	2327.8	2.4	2328.3	2.4	.0	.5
1945	2319.0	12.2	2320.4	12.1	.1	1.4
1946	2323.7	3.6	2322.6	3.5	.0	-1.1
1947	2303.8	3.5	2303.5	3.6	.0	-.3
1948	2305.1	1.2	2306.6	.5	.1	1.5
1949	2315.2	1.7	2316.0	1.6	.0	.8
1950	2312.9	3.7	2312.1	3.7	.0	-.8
1951	2341.3	12.3	2341.3	12.3	.0	.0
1952	2340.5	12.3	2341.0	12.3	.0	.5
1953	2341.3	6.9	2341.3	6.9	.0	.0
1954	2341.3	6.9	2341.3	6.9	.0	.0
1955	2330.9	1.3	2330.9	1.3	.0	.0
1956	2341.3	6.9	2341.3	6.9	.0	.0
1957	2338.0	10.0	2338.0	10.0	.0	.0
1958	2341.3	6.9	2341.3	6.9	.0	.0
1959	2340.1	5.7	2340.1	5.7	.0	.0
1960	2297.1	12.3	2297.1	12.3	.0	.0
1961	2331.9	16.2	2331.9	16.2	.0	.0
1962	2328.2	8.9	2328.2	8.8	.0	.0
1963	2341.3	8.2	2341.3	8.2	.0	.0
1964	2336.6	2.2	2336.6	2.2	.0	.0
1965	2340.1	5.7	2340.1	5.7	.0	.0
1966	2338.0	3.6	2338.0	3.6	.0	.0
1967	2341.3	6.9	2341.3	6.9	.0	.0
1968	2341.3	6.9	2341.3	6.9	.0	.0
1969	2321.2	8.7	2326.3	8.4	.2	5.1
1970	2341.3	6.9	2341.3	6.9	.0	.0
1971	2340.6	8.8	2340.8	8.7	.0	.2
1972	2341.0	6.6	2341.0	6.6	.0	.0
1973	2332.8	10.1	2332.5	10.2	.0	-.3
1974	2340.8	6.4	2340.8	6.4	.0	.0
1975	2336.7	5.7	2336.7	5.7	.0	.0
1976	2332.4	1.7	2332.4	1.7	.0	.0
1977	2252.4	-11.4	2252.6	-11.2	.0	.2
1978	2274.4	18.8	2274.2	18.9	.0	-.2
1979	2311.7	3.0	2311.5	3.0	.0	-.2
1980	2338.9	21.2	2341.2	20.9	.1	2.3
1981	2337.2	9.1	2339.6	9.1	.1	2.4
1982	2341.3	6.9	2341.3	6.9	.0	.0
1983	2341.3	6.9	2341.3	6.9	.0	.0
1984	2340.1	5.7	2340.1	5.7	.0	.0
1985	2333.8	2.0	2333.8	2.0	.0	.0
1986	2341.3	35.1	2341.3	34.2	.0	.0
1987	2291.5	6.3	2291.5	6.3	.0	.0
1988	2301.2	6.4	2301.3	6.4	.0	.1
1989	2251.9	2.0	2253.2	2.0	.1	1.3
1990	2275.7	.9	2276.8	.9	.0	1.1
1991	2225.9	-7.9	2230.3	-7.4	.2	4.4
Mean:	2309.6	7.5	2309.8	7.4	.0	.2
Median:	2328.6	6.9	2328.6	6.9	.0	.0
Min:	2173.4	-11.4	2173.4	-11.2	-.1	-3.0
Max:	2341.3	36.0	2341.3	36.4	.2	5.1
X inc > 20.0		4		4		
X dec > 9.0		1		1		
X dec > 10.0		1		1		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

March

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2331.4	.0	2331.4	.0	.0	.0
1923	2313.9	3.0	2313.9	3.0	.0	.0
1924	2272.0	-1.5	2269.0	-1.5	-.1	-3.0
1925	2255.6	12.7	2254.0	12.8	-.1	-1.6
1926	2282.7	9.6	2281.3	9.6	-.1	-1.4
1927	2334.9	11.4	2333.9	11.4	.0	-1.0
1928	2347.9	8.1	2347.9	8.6	.0	.0
1929	2304.1	3.2	2304.1	3.2	.0	.0
1930	2277.5	11.7	2278.7	11.6	.1	1.2
1931	2251.1	5.5	2252.5	5.4	.1	1.4
1932	2201.2	23.5	2203.2	23.1	.1	2.0
1933	2192.7	19.3	2192.7	19.3	.0	.0
1934	2221.9	20.9	2221.9	20.9	.0	.0
1935	2217.0	6.2	2217.0	6.2	.0	.0
1936	2267.6	10.8	2267.6	10.8	.0	.0
1937	2256.1	9.0	2256.1	9.0	.0	.0
1938	2337.6	17.0	2335.4	17.1	-.1	-2.2
1939	2336.5	6.4	2336.5	6.4	.0	.0
1940	2340.0	20.3	2340.6	20.2	.0	.6
1941	2347.9	6.6	2347.9	6.6	.0	.0
1942	2345.1	3.8	2345.1	3.8	.0	.0
1943	2347.9	6.6	2347.9	6.6	.0	.0
1944	2331.9	4.1	2332.4	4.1	.0	.5
1945	2322.2	3.2	2323.6	3.2	.1	1.4
1946	2331.5	7.8	2330.5	7.9	.0	-1.0
1947	2312.7	8.9	2312.4	8.9	.0	-.3
1948	2306.5	1.4	2308.0	1.4	.1	1.5
1949	2329.8	14.6	2330.5	14.5	.0	.7
1950	2321.4	8.5	2320.7	8.6	.0	-.7
1951	2347.1	5.8	2347.1	5.8	.0	.0
1952	2347.9	7.4	2347.9	6.9	.0	.0
1953	2347.9	6.6	2347.9	6.6	.0	.0
1954	2347.9	6.6	2347.9	6.6	.0	.0
1955	2332.0	1.1	2332.0	1.1	.0	.0
1956	2347.9	6.6	2347.9	6.6	.0	.0
1957	2347.9	9.9	2347.9	9.9	.0	.0
1958	2347.9	6.6	2347.9	6.6	.0	.0
1959	2347.9	7.8	2347.9	7.8	.0	.0
1960	2312.0	14.9	2312.0	14.9	.0	.0
1961	2339.2	7.3	2339.2	7.3	.0	.0
1962	2332.8	4.6	2332.9	4.7	.0	.1
1963	2344.7	3.4	2344.7	3.4	.0	.0
1964	2338.2	1.6	2338.2	1.6	.0	.0
1965	2343.6	3.5	2343.6	3.5	.0	.0
1966	2347.9	9.9	2347.9	9.9	.0	.0
1967	2347.9	6.6	2347.9	6.6	.0	.0
1968	2347.9	6.6	2347.9	6.6	.0	.0
1969	2331.1	9.9	2335.9	9.6	.2	4.8
1970	2347.9	6.6	2347.9	6.6	.0	.0
1971	2347.9	7.3	2347.9	7.1	.0	.0
1972	2347.9	6.9	2347.9	6.9	.0	.0
1973	2340.0	7.2	2339.6	7.1	.0	-.4
1974	2347.9	7.1	2347.9	7.1	.0	.0
1975	2347.9	11.2	2347.9	11.2	.0	.0
1976	2335.3	2.9	2335.3	2.9	.0	.0
1977	2250.6	-1.8	2250.7	-1.9	.0	.1
1978	2298.6	24.2	2298.4	24.2	.0	-.2
1979	2322.4	10.7	2322.3	10.8	.0	-.1
1980	2346.9	8.0	2347.9	6.7	.0	1.0
1981	2344.6	7.4	2346.8	7.2	.1	2.2
1982	2347.9	6.6	2347.9	6.6	.0	.0
1983	2347.9	6.6	2347.9	6.6	.0	.0
1984	2347.9	7.8	2347.9	7.8	.0	.0
1985	2336.3	2.5	2336.3	2.5	.0	.0
1986	2347.9	6.6	2347.9	6.6	.0	.0
1987	2308.9	17.4	2308.9	17.4	.0	.0
1988	2306.7	5.5	2306.7	5.4	.0	.0
1989	2285.8	33.9	2286.9	33.7	.0	1.1
1990	2282.1	6.4	2283.2	6.4	.0	1.1
1991	2233.8	7.9	2238.0	7.7	.2	4.2
Mean:	2318.0	8.4	2318.2	8.4	.0	.2
Median:	2335.3	6.9	2335.4	6.7	.0	.0
Min:	2192.7	-1.8	2192.7	-1.9	-.1	-3.0
Max:	2347.9	33.9	2347.9	33.7	.2	4.8
X inc > 20.0		5		5		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

April

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2338.2	.0	2338.2	.0	.0	.0
1923	2322.6	8.7	2322.6	8.7	.0	.0
1924	2270.9	-1.1	2267.9	-1.1	-.1	-3.0
1925	2283.4	27.8	2282.1	28.1	-.1	-1.3
1926	2301.4	18.7	2300.2	18.9	-.1	-1.2
1927	2348.6	13.7	2347.7	13.8	.0	-.9
1928	2356.4	8.5	2356.4	8.5	.0	.0
1929	2303.8	-.3	2304.6	.5	.0	.8
1930	2287.6	10.1	2288.8	10.1	.1	1.2
1931	2255.0	3.9	2256.4	3.9	.1	1.4
1932	2214.5	13.3	2216.3	13.1	.1	1.8
1933	2216.3	23.6	2216.3	23.6	.0	.0
1934	2235.8	13.9	2235.8	13.9	.0	.0
1935	2243.1	26.1	2243.1	26.1	.0	.0
1936	2282.5	14.9	2282.5	14.9	.0	.0
1937	2277.2	21.1	2277.2	21.1	.0	.0
1938	2355.1	17.5	2353.1	17.7	-.1	-2.0
1939	2334.1	-2.4	2334.4	-2.1	.0	.3
1940	2353.7	13.7	2354.2	13.6	.0	.5
1941	2360.5	12.6	2360.5	12.6	.0	.0
1942	2355.9	10.8	2355.9	10.8	.0	.0
1943	2358.4	10.5	2358.4	10.5	.0	.0
1944	2334.4	2.5	2334.9	2.5	.0	.5
1945	2331.2	9.0	2332.5	8.9	.1	1.3
1946	2344.9	13.4	2344.0	13.5	.0	-.9
1947	2319.3	6.6	2319.0	6.6	.0	-.3
1948	2319.6	13.1	2321.0	13.0	.1	1.4
1949	2346.0	16.2	2346.7	16.2	.0	.7
1950	2332.8	11.4	2332.1	11.4	.0	-.7
1951	2356.9	9.8	2356.9	9.8	.0	.0
1952	2360.5	12.6	2360.5	12.6	.0	.0
1953	2359.4	11.5	2359.4	11.5	.0	.0
1954	2360.5	12.6	2360.5	12.6	.0	.0
1955	2333.6	1.6	2333.6	1.6	.0	.0
1956	2360.5	12.6	2360.5	12.6	.0	.0
1957	2354.3	6.4	2354.3	6.4	.0	.0
1958	2360.5	12.6	2360.5	12.6	.0	.0
1959	2352.5	4.6	2352.5	4.6	.0	.0
1960	2320.2	8.2	2320.2	8.2	.0	.0
1961	2347.7	8.5	2347.7	8.5	.0	.0
1962	2347.4	14.6	2347.4	14.5	.0	.0
1963	2359.1	14.4	2359.1	14.4	.0	.0
1964	2336.8	-1.4	2336.8	-1.4	.0	.0
1965	2356.2	12.6	2356.2	12.6	.0	.0
1966	2360.5	12.6	2360.5	12.6	.0	.0
1967	2352.4	4.5	2352.4	4.5	.0	.0
1968	2353.4	5.5	2353.4	5.5	.0	.0
1969	2351.1	20.0	2355.4	19.5	.2	4.3
1970	2349.4	1.5	2349.4	1.5	.0	.0
1971	2357.0	9.1	2357.0	9.1	.0	.0
1972	2355.9	8.0	2355.9	8.0	.0	.0
1973	2351.2	11.2	2350.9	11.3	.0	-.3
1974	2360.3	12.4	2360.3	12.4	.0	.0
1975	2355.0	7.1	2355.0	7.1	.0	.0
1976	2334.9	-.4	2335.1	-.2	.0	.2
1977	2250.1	-.5	2250.3	-.4	.0	.2
1978	2313.1	14.5	2312.9	14.5	.0	-.2
1979	2330.7	8.3	2330.6	8.3	.0	-.1
1980	2356.0	9.1	2356.9	9.0	.0	.9
1981	2351.0	6.4	2353.1	6.3	.1	2.1
1982	2360.1	12.2	2360.1	12.2	.0	.0
1983	2360.5	12.6	2360.5	12.6	.0	.0
1984	2354.1	6.2	2354.1	6.2	.0	.0
1985	2345.8	9.5	2345.8	9.5	.0	.0
1986	2355.5	7.6	2355.5	7.6	.0	.0
1987	2319.6	10.7	2319.6	10.7	.0	.0
1988	2312.3	5.6	2312.4	5.7	.0	.1
1989	2302.5	16.7	2303.5	16.6	.0	1.0
1990	2285.7	3.6	2286.0	2.8	.0	.3
1991	2241.3	7.5	2245.3	7.3	.2	4.0
Mean:	2328.1	10.0	2328.3	10.0	.0	.2
Median:	2346.0	10.1	2346.7	10.1	.0	.0
Min:	2214.5	-2.4	2216.3	-2.1	-.1	-3.0
Max:	2360.5	27.8	2360.5	28.1	.2	4.3
X inc > 20.0		4		4		
X dec > 9.0		0		0		
X dec > 10.0		0		0		
X dec > 15.0		0		0		

CLAIR ENGLE RESERVOIR ELEVATION

May

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2343.6	.0	2343.6	.0	.0	.0
1923	2320.6	-2.0	2319.7	-2.9	.0	-.9
1924	2244.5	-26.4	2240.3	-27.6	-.2	-4.2
1925	2285.5	2.1	2284.2	2.1	-.1	-1.3
1926	2294.8	-6.6	2293.6	-6.6	-.1	-1.2
1927	2350.7	2.1	2349.8	2.1	.0	-.9
1928	2358.8	2.4	2358.8	2.4	.0	.0
1929	2298.7	-5.1	2299.6	-5.0	.0	.9
1930	2281.2	-6.4	2282.4	-6.4	.1	1.2
1931	2236.0	-19.0	2237.0	-19.4	.0	1.0
1932	2226.3	11.8	2228.0	11.7	.1	1.7
1933	2223.1	6.8	2223.1	6.8	.0	.0
1934	2230.1	-5.7	2230.1	-5.7	.0	.0
1935	2250.7	7.6	2250.7	7.6	.0	.0
1936	2282.9	.4	2282.9	.4	.0	.0
1937	2290.9	13.7	2290.9	13.7	.0	.0
1938	2367.7	12.6	2365.9	12.8	-.1	-1.8
1939	2326.8	-7.3	2327.1	-7.3	.0	.3
1940	2351.1	-2.6	2351.7	-2.5	.0	.6
1941	2367.7	7.2	2367.7	7.2	.0	.0
1942	2362.1	6.2	2362.1	6.2	.0	.0
1943	2354.7	-3.7	2354.7	-3.7	.0	.0
1944	2334.0	-.4	2334.5	-.4	.0	.5
1945	2332.8	1.6	2334.1	1.6	.1	1.3
1946	2346.0	1.1	2345.1	1.1	.0	-.9
1947	2313.4	-5.9	2313.0	-6.0	.0	-.4
1948	2323.0	3.4	2324.4	3.4	.1	1.4
1949	2345.8	-.2	2346.5	-.2	.0	.7
1950	2334.1	1.3	2333.4	1.3	.0	-.7
1951	2354.1	-2.8	2354.1	-2.8	.0	.0
1952	2367.7	7.2	2367.7	7.2	.0	.0
1953	2362.0	2.6	2362.0	2.6	.0	.0
1954	2363.4	2.9	2363.4	2.9	.0	.0
1955	2334.5	.9	2334.5	.9	.0	.0
1956	2367.7	7.2	2367.7	7.2	.0	.0
1957	2362.7	8.4	2362.7	8.4	.0	.0
1958	2367.7	7.2	2367.7	7.2	.0	.0
1959	2347.7	-4.8	2347.7	-4.8	.0	.0
1960	2320.6	.4	2320.6	.4	.0	.0
1961	2349.0	1.3	2349.0	1.3	.0	.0
1962	2346.1	-1.3	2346.1	-1.3	.0	.0
1963	2364.1	5.0	2364.1	5.0	.0	.0
1964	2330.6	-6.2	2330.6	-6.2	.0	.0
1965	2353.6	-2.6	2353.6	-2.6	.0	.0
1966	2363.2	2.7	2363.2	2.7	.0	.0
1967	2362.6	10.2	2362.6	10.2	.0	.0
1968	2350.3	-3.1	2350.3	-3.1	.0	.0
1969	2367.7	16.6	2367.7	12.3	.0	.0
1970	2340.7	-8.7	2340.7	-8.7	.0	.0
1971	2362.6	5.6	2362.6	5.6	.0	.0
1972	2355.3	-.6	2355.3	-.6	.0	.0
1973	2360.6	9.4	2360.3	9.4	.0	-.3
1974	2367.7	7.4	2367.7	7.4	.0	.0
1975	2367.0	12.0	2367.0	12.0	.0	.0
1976	2327.5	-7.4	2327.6	-7.5	.0	.1
1977	2230.5	-19.6	2230.5	-19.8	.0	.0
1978	2317.2	4.1	2317.0	4.1	.0	-.2
1979	2336.0	5.3	2335.9	5.3	.0	-.1
1980	2351.9	-4.1	2352.9	-4.0	.0	1.0
1981	2345.7	-5.3	2347.9	-5.2	.1	2.2
1982	2362.8	2.7	2362.8	2.7	.0	.0
1983	2367.7	7.2	2367.7	7.2	.0	.0
1984	2356.9	2.8	2356.9	2.8	.0	.0
1985	2335.7	-10.1	2335.7	-10.1	.0	.0
1986	2342.9	-12.6	2342.9	-12.6	.0	.0
1987	2315.9	-3.7	2315.9	-3.7	.0	.0
1988	2304.5	-7.8	2304.6	-7.8	.0	.1
1989	2296.3	-6.2	2297.3	-6.2	.0	1.0
1990	2283.0	-2.7	2283.2	-2.8	.0	.2
1991	2240.9	-.4	2244.9	-.4	.2	4.0
Mean:	2328.3	.1	2328.4	.0	.0	.1
Median:	2343.6	.4	2343.6	.4	.0	.0
Min:	2223.1	-26.4	2223.1	-27.6	-.2	-4.2
Max:	2367.7	16.6	2367.7	13.7	.2	4.0
X inc > 20.0		0		0		
X dec > 9.0		5		5		
X dec > 10.0		5		5		
X dec > 15.0		3		3		

CLAIR ENGLE RESERVOIR ELEVATION

June

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2340.2	.0	2340.2	.0	.0	.0
1923	2310.5	-10.1	2308.4	-11.3	-.1	-2.1
1924	2221.2	-23.3	2216.8	-23.5	-.2	-4.4
1925	2278.6	-6.9	2277.3	-6.9	-.1	-1.3
1926	2282.7	-12.1	2281.4	-12.2	-.1	-1.3
1927	2351.3	.6	2350.5	.7	.0	-.8
1928	2346.6	-12.2	2346.6	-12.2	.0	.0
1929	2287.1	-11.6	2288.0	-11.6	.0	.9
1930	2269.8	-11.4	2271.0	-11.4	.1	1.2
1931	2217.1	-18.9	2218.3	-18.7	.1	1.2
1932	2216.6	-9.7	2216.6	-11.4	.0	.0
1933	2223.2	.1	2224.5	1.4	.1	1.3
1934	2207.7	-22.4	2210.0	-20.1	.1	2.3
1935	2246.6	-4.1	2246.6	-4.1	.0	.0
1936	2276.7	-6.2	2276.7	-6.2	.0	.0
1937	2290.9	.0	2290.9	.0	.0	.0
1938	2369.2	1.5	2368.9	3.0	.0	-.3
1939	2310.6	-16.2	2311.1	-16.0	.0	.5
1940	2342.6	-8.5	2342.8	-8.9	.0	.2
1941	2369.2	1.5	2369.2	1.5	.0	.0
1942	2365.4	3.3	2365.4	3.3	.0	.0
1943	2352.6	-2.1	2352.6	-2.1	.0	.0
1944	2326.1	-7.9	2324.4	-10.1	-.1	-1.7
1945	2328.1	-4.7	2328.4	-5.7	.0	.3
1946	2338.8	-7.2	2338.5	-6.6	.0	-.3
1947	2304.8	-8.6	2304.5	-8.5	.0	-.3
1948	2331.1	8.1	2332.4	8.0	.1	1.3
1949	2339.2	-6.6	2339.9	-6.6	.0	.7
1950	2322.2	-11.9	2322.2	-11.2	.0	.0
1951	2348.1	-6.0	2348.1	-6.0	.0	.0
1952	2369.1	1.4	2369.1	1.4	.0	.0
1953	2369.2	7.2	2369.2	7.2	.0	.0
1954	2355.9	-7.5	2356.0	-7.4	.0	.1
1955	2329.2	-5.3	2329.2	-5.3	.0	.0
1956	2369.0	1.3	2369.0	1.3	.0	.0
1957	2361.0	-1.7	2361.1	-1.6	.0	.1
1958	2369.2	1.5	2369.2	1.5	.0	.0
1959	2334.5	-13.2	2334.5	-13.2	.0	.0
1960	2320.7	.1	2320.7	.1	.0	.0
1961	2347.8	-1.2	2347.8	-1.2	.0	.0
1962	2342.7	-3.4	2342.8	-3.3	.0	.1
1963	2359.6	-4.5	2359.6	-4.5	.0	.0
1964	2321.9	-8.7	2321.9	-8.7	.0	.0
1965	2348.4	-5.2	2348.4	-5.2	.0	.0
1966	2349.7	-13.5	2349.6	-13.6	.0	-.1
1967	2367.5	4.9	2367.5	4.9	.0	.0
1968	2336.9	-13.4	2337.4	-12.9	.0	.5
1969	2369.2	1.5	2369.2	1.5	.0	.0
1970	2334.5	-6.2	2334.5	-6.2	.0	.0
1971	2362.4	-.2	2362.4	-.2	.0	.0
1972	2344.6	-10.7	2344.8	-10.5	.0	.2
1973	2353.5	-7.1	2353.4	-6.9	.0	-.1
1974	2369.2	1.5	2369.2	1.5	.0	.0
1975	2369.2	2.2	2369.2	2.2	.0	.0
1976	2311.0	-16.5	2311.0	-16.6	.0	.0
1977	2195.3	-35.2	2195.2	-35.3	.0	-.1
1978	2321.9	4.7	2321.7	4.7	.0	-.2
1979	2328.9	-7.1	2328.7	-7.2	.0	-.2
1980	2346.4	-5.5	2347.4	-5.5	.0	1.0
1981	2337.2	-8.5	2339.0	-8.9	.1	1.8
1982	2361.2	-1.6	2361.2	-1.6	.0	.0
1983	2369.2	1.5	2369.2	1.5	.0	.0
1984	2353.5	-3.4	2353.5	-3.4	.0	.0
1985	2324.0	-11.7	2324.6	-11.1	.0	.6
1986	2328.4	-14.5	2328.4	-14.5	.0	.0
1987	2301.3	-14.6	2301.3	-14.6	.0	.0
1988	2293.6	-10.9	2293.7	-10.9	.0	.1
1989	2289.7	-6.6	2290.8	-6.5	.0	1.1
1990	2272.3	-10.7	2272.6	-10.6	.0	.3
1991	2235.7	-5.2	2239.9	-5.0	.2	4.2
Mean:	2322.0	-6.3	2322.1	-6.3	.0	.1
Median:	2334.5	-6.2	2334.5	-6.2	.0	.0
Min:	2195.3	-35.2	2195.2	-35.3	-.2	-4.4
Max:	2369.2	8.1	2369.2	8.0	.2	4.2
X inc > 20.0		0		0		
X dec > 9.0		22		23		
X dec > 10.0		21		23		
X dec > 15.0		6		6		

CLAIR ENGLE RESERVOIR ELEVATION

July

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2331.7	.0	2331.7	.0	.0	.0
1923	2295.7	-14.8	2294.8	-13.6	.0	-.9
1924	2189.6	-31.6	2185.1	-31.7	-.2	-4.5
1925	2269.4	-9.2	2268.0	-9.3	-.1	-1.4
1926	2272.0	-10.7	2270.6	-10.8	-.1	-1.4
1927	2341.4	-9.9	2340.9	-9.6	.0	-.5
1928	2331.7	-14.9	2331.7	-14.9	.0	.0
1929	2270.1	-17.0	2271.4	-16.6	.1	1.3
1930	2258.7	-11.1	2260.0	-11.0	.1	1.3
1931	2184.3	-32.8	2188.6	-29.7	.2	4.3
1932	2201.4	-15.2	2201.4	-15.2	.0	.0
1933	2203.6	-19.6	2205.1	-19.4	.1	1.5
1934	2184.3	-23.4	2184.3	-25.7	.0	.0
1935	2241.7	-4.9	2241.7	-4.9	.0	.0
1936	2267.4	-9.3	2267.4	-9.3	.0	.0
1937	2283.3	-7.6	2283.3	-7.6	.0	.0
1938	2358.7	-10.5	2358.7	-10.2	.0	.0
1939	2296.1	-14.5	2296.8	-14.3	.0	.7
1940	2327.2	-15.4	2327.5	-15.3	.0	.3
1941	2358.7	-10.5	2358.7	-10.5	.0	.0
1942	2358.7	-6.7	2358.7	-6.7	.0	.0
1943	2343.1	-9.5	2343.5	-9.1	.0	.4
1944	2314.4	-11.7	2314.9	-9.5	.0	.5
1945	2316.7	-11.4	2315.7	-12.7	.0	-1.0
1946	2324.5	-14.3	2324.2	-14.3	.0	-.3
1947	2293.6	-11.2	2296.0	-8.5	.1	2.4
1948	2326.0	-5.1	2327.3	-5.1	.1	1.3
1949	2327.5	-11.7	2328.2	-11.7	.0	.7
1950	2305.7	-16.5	2305.7	-16.5	.0	.0
1951	2333.4	-14.7	2333.4	-14.7	.0	.0
1952	2358.7	-10.4	2358.7	-10.4	.0	.0
1953	2358.7	-10.5	2358.7	-10.5	.0	.0
1954	2342.6	-13.3	2342.8	-13.2	.0	.2
1955	2319.7	-9.5	2319.7	-9.5	.0	.0
1956	2358.7	-10.3	2358.7	-10.3	.0	.0
1957	2347.9	-13.1	2348.1	-13.0	.0	.2
1958	2358.7	-10.5	2358.7	-10.5	.0	.0
1959	2318.8	-15.7	2318.8	-15.7	.0	.0
1960	2314.4	-6.3	2314.4	-6.3	.0	.0
1961	2336.2	-11.6	2336.0	-11.8	.0	-.2
1962	2328.2	-14.5	2328.3	-14.5	.0	.1
1963	2351.5	-8.1	2351.5	-8.1	.0	.0
1964	2312.3	-9.6	2312.3	-9.6	.0	.0
1965	2338.2	-10.2	2338.0	-10.4	.0	-.2
1966	2336.1	-13.6	2336.0	-13.6	.0	-.1
1967	2358.7	-8.8	2358.7	-8.8	.0	.0
1968	2321.5	-15.4	2322.1	-15.3	.0	.6
1969	2358.7	-10.5	2358.7	-10.5	.0	.0
1970	2318.8	-15.7	2318.8	-15.7	.0	.0
1971	2356.5	-5.9	2356.5	-5.9	.0	.0
1972	2329.7	-14.9	2329.8	-15.0	.0	.1
1973	2340.0	-13.5	2339.8	-13.6	.0	-.2
1974	2358.7	-10.5	2358.7	-10.5	.0	.0
1975	2358.7	-10.5	2358.7	-10.5	.0	.0
1976	2293.9	-17.1	2294.1	-16.9	.0	.2
1977	2179.9	-15.4	2179.9	-15.3	.0	.0
1978	2317.7	-4.2	2317.6	-4.1	.0	-.1
1979	2312.8	-16.1	2312.6	-16.1	.0	-.2
1980	2335.0	-11.4	2335.8	-11.6	.0	.8
1981	2324.5	-12.7	2326.1	-12.9	.1	1.6
1982	2355.0	-6.2	2355.0	-6.2	.0	.0
1983	2358.7	-10.5	2358.7	-10.5	.0	.0
1984	2340.2	-13.3	2340.2	-13.3	.0	.0
1985	2311.0	-13.0	2313.2	-11.4	.1	2.2
1986	2311.8	-16.6	2311.8	-16.6	.0	.0
1987	2289.1	-12.2	2289.1	-12.2	.0	.0
1988	2276.7	-16.9	2277.4	-16.3	.0	.7
1989	2279.1	-10.6	2280.2	-10.6	.0	1.1
1990	2258.6	-13.7	2258.9	-13.7	.0	.3
1991	2228.6	-7.1	2232.2	-7.7	.2	3.6
Mean:	2309.5	-12.4	2309.7	-12.2	.0	.2
Median:	2321.5	-11.6	2322.1	-11.6	.0	.0
Min:	2179.9	-32.8	2179.9	-31.7	-.2	-4.5
Max:	2358.7	.0	2358.7	.0	.2	4.3
X inc > 20.0		0		0		
X dec > 9.0		58		57		
X dec > 10.0		52		50		
X dec > 15.0		16		16		

CLAIR ENGLE RESERVOIR ELEVATION

August

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2316.0	.0	2316.0	.0	.0	.0
1923	2279.0	-16.7	2276.1	-18.7	-.1	-2.9
1924	2184.3	-5.3	2181.8	-3.3	-.1	-2.5
1925	2265.1	-4.3	2263.6	-4.4	-.1	-1.5
1926	2267.6	-4.4	2266.2	-4.4	-.1	-1.4
1927	2335.0	-6.4	2333.6	-7.3	-.1	-1.4
1928	2315.5	-16.2	2315.5	-16.2	.0	.0
1929	2250.8	-19.3	2252.3	-19.1	.1	1.5
1930	2254.0	-4.7	2255.4	-4.6	.1	1.4
1931	2181.2	-3.1	2184.3	-4.3	.1	3.1
1932	2184.3	-17.1	2184.3	-17.1	.0	.0
1933	2184.3	-19.3	2184.3	-20.8	.0	.0
1934	2181.4	-2.9	2181.4	-2.9	.0	.0
1935	2238.3	-3.4	2238.3	-3.4	.0	.0
1936	2263.2	-4.2	2263.2	-4.2	.0	.0
1937	2276.1	-7.2	2276.1	-7.2	.0	.0
1938	2351.2	-7.5	2351.2	-7.5	.0	.0
1939	2280.9	-15.2	2281.7	-15.1	.0	.8
1940	2310.5	-16.7	2310.7	-16.8	.0	.2
1941	2351.2	-7.5	2351.2	-7.5	.0	.0
1942	2351.2	-7.5	2351.2	-7.5	.0	.0
1943	2337.9	-5.2	2338.4	-5.1	.0	.5
1944	2301.4	-13.0	2302.3	-12.6	.0	.9
1945	2299.1	-17.6	2298.0	-17.7	.0	-1.1
1946	2307.7	-16.8	2307.4	-16.8	.0	-.3
1947	2290.2	-3.4	2292.6	-3.4	.1	2.4
1948	2320.6	-5.4	2321.4	-5.9	.0	.8
1949	2316.5	-11.0	2315.8	-12.4	.0	-.7
1950	2287.1	-18.6	2287.1	-18.6	.0	.0
1951	2317.4	-16.0	2317.4	-16.0	.0	.0
1952	2351.2	-7.5	2351.2	-7.5	.0	.0
1953	2351.2	-7.5	2351.2	-7.5	.0	.0
1954	2328.0	-14.6	2328.2	-14.6	.0	.2
1955	2315.0	-4.7	2315.6	-4.1	.0	.6
1956	2351.2	-7.5	2351.2	-7.5	.0	.0
1957	2343.2	-4.7	2343.4	-4.7	.0	.2
1958	2351.2	-7.5	2351.2	-7.5	.0	.0
1959	2301.4	-17.4	2301.4	-17.4	.0	.0
1960	2311.2	-3.2	2311.2	-3.2	.0	.0
1961	2322.1	-14.1	2322.2	-13.8	.0	.1
1962	2312.6	-15.6	2312.7	-15.6	.0	.1
1963	2346.3	-5.2	2346.3	-5.2	.0	.0
1964	2305.4	-6.9	2305.6	-6.7	.0	.2
1965	2333.9	-4.3	2333.7	-4.3	.0	-.2
1966	2321.1	-15.0	2321.0	-15.0	.0	-.1
1967	2351.2	-7.5	2351.2	-7.5	.0	.0
1968	2304.7	-16.8	2307.1	-15.0	.1	2.4
1969	2351.2	-7.5	2351.2	-7.5	.0	.0
1970	2301.0	-17.8	2301.5	-17.3	.0	.5
1971	2351.2	-5.3	2351.2	-5.3	.0	.0
1972	2313.5	-16.2	2313.6	-16.2	.0	.1
1973	2324.3	-15.7	2324.0	-15.8	.0	-.3
1974	2351.2	-7.5	2351.2	-7.5	.0	.0
1975	2351.2	-7.5	2351.2	-7.5	.0	.0
1976	2279.1	-14.8	2279.0	-15.1	.0	-.1
1977	2173.1	-6.8	2173.0	-6.9	.0	-.1
1978	2314.9	-2.8	2314.7	-2.9	.0	-.2
1979	2294.4	-18.4	2295.6	-17.0	.1	1.2
1980	2324.5	-10.5	2327.0	-8.8	.1	2.5
1981	2314.0	-10.5	2313.8	-12.3	.0	-.2
1982	2350.3	-4.7	2350.3	-4.7	.0	.0
1983	2351.2	-7.5	2351.2	-7.5	.0	.0
1984	2335.4	-4.8	2335.4	-4.8	.0	.0
1985	2302.1	-8.9	2303.0	-10.2	.0	.9
1986	2294.6	-17.2	2294.6	-17.2	.0	.0
1987	2282.7	-6.4	2282.8	-6.3	.0	.1
1988	2256.8	-19.9	2258.1	-19.3	.1	1.3
1989	2274.5	-4.6	2275.6	-4.6	.0	1.1
1990	2253.6	-5.0	2253.9	-5.0	.0	.3
1991	2213.7	-14.9	2217.7	-14.5	.2	4.0
Mean:	2299.4	-9.9	2299.6	-9.9	.0	.2
Median:	2311.2	-7.5	2311.2	-7.5	.0	.0
Min:	2173.1	-19.9	2173.0	-20.8	-.1	-2.9
Max:	2351.2	.0	2351.2	.0	.2	4.0
X inc > 20.0		0		0		
X dec > 9.0		29		29		
X dec > 10.0		29		29		
X dec > 15.0		20		20		

CLAIR ENGLE RESERVOIR ELEVATION

September

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2311.3	.0	2311.3	.0	.0	.0
1923	2277.0	-2.0	2274.1	-2.0	-.1	-2.9
1924	2181.5	-2.8	2178.9	-2.9	-.1	-2.6
1925	2263.8	-1.3	2262.4	-1.2	-.1	-1.4
1926	2265.2	-2.4	2263.8	-2.4	-.1	-1.4
1927	2328.5	-6.5	2328.0	-5.6	.0	-.5
1928	2308.0	-7.5	2307.6	-7.9	.0	-.4
1929	2248.1	-2.7	2249.5	-2.8	.1	1.4
1930	2251.6	-2.4	2253.0	-2.4	.1	1.4
1931	2178.5	-2.7	2181.7	-2.6	.1	3.2
1932	2181.9	-2.4	2181.9	-2.4	.0	.0
1933	2182.4	-1.9	2182.4	-1.9	.0	.0
1934	2178.9	-2.5	2178.9	-2.5	.0	.0
1935	2233.5	-4.8	2233.5	-4.8	.0	.0
1936	2260.9	-2.3	2260.9	-2.3	.0	.0
1937	2271.8	-4.3	2268.6	-7.5	-.1	-3.2
1938	2339.6	-11.6	2339.6	-11.6	.0	.0
1939	2278.7	-2.2	2279.5	-2.2	.0	.8
1940	2306.2	-4.3	2306.5	-4.2	.0	.3
1941	2339.6	-11.6	2339.6	-11.6	.0	.0
1942	2339.6	-11.6	2339.6	-11.6	.0	.0
1943	2330.4	-7.5	2330.9	-7.5	.0	.5
1944	2299.6	-1.8	2300.4	-1.9	.0	.8
1945	2292.0	-7.1	2290.8	-7.2	-.1	-1.2
1946	2305.0	-2.7	2304.6	-2.8	.0	-.4
1947	2288.2	-2.0	2290.6	-2.0	.1	2.4
1948	2319.2	-1.4	2320.0	-1.4	.0	.8
1949	2314.7	-1.8	2313.9	-1.9	.0	-.8
1950	2285.3	-1.8	2285.3	-1.8	.0	.0
1951	2314.1	-3.3	2314.7	-2.7	.0	.6
1952	2339.6	-11.6	2339.6	-11.6	.0	.0
1953	2339.6	-11.6	2339.6	-11.6	.0	.0
1954	2323.8	-4.2	2323.8	-4.4	.0	.0
1955	2313.7	-1.3	2314.3	-1.3	.0	.6
1956	2339.6	-11.6	2339.6	-11.6	.0	.0
1957	2339.6	-3.6	2339.6	-3.8	.0	.0
1958	2339.6	-11.6	2339.6	-11.6	.0	.0
1959	2299.9	-1.5	2299.9	-1.5	.0	.0
1960	2309.3	-1.9	2309.3	-1.9	.0	.0
1961	2320.3	-1.8	2320.4	-1.8	.0	.1
1962	2310.9	-1.7	2310.9	-1.8	.0	.0
1963	2339.6	-6.7	2339.6	-6.7	.0	.0
1964	2304.3	-1.1	2304.4	-1.2	.0	.1
1965	2331.6	-2.3	2331.4	-2.3	.0	-.2
1966	2320.0	-1.1	2319.9	-1.1	.0	-.1
1967	2339.6	-11.6	2339.6	-11.6	.0	.0
1968	2297.5	-7.2	2303.3	-3.8	.3	5.8
1969	2339.6	-11.6	2339.6	-11.6	.0	.0
1970	2295.8	-5.2	2296.1	-5.4	.0	.3
1971	2339.6	-11.6	2339.6	-11.6	.0	.0
1972	2302.1	-11.4	2301.7	-11.9	.0	-.4
1973	2320.1	-4.2	2319.9	-4.1	.0	-.2
1974	2339.6	-11.6	2339.6	-11.6	.0	.0
1975	2339.6	-11.6	2339.6	-11.6	.0	.0
1976	2277.4	-1.7	2277.2	-1.8	.0	-.2
1977	2173.3	.2	2173.2	.2	.0	-.1
1978	2315.3	.4	2315.1	.4	.0	-.2
1979	2290.8	-3.6	2293.8	-1.8	.1	3.0
1980	2322.7	-1.8	2325.2	-1.8	.1	2.5
1981	2311.7	-2.3	2311.4	-2.4	.0	-.3
1982	2339.6	-10.7	2339.6	-10.7	.0	.0
1983	2339.6	-11.6	2339.6	-11.6	.0	.0
1984	2332.9	-2.5	2332.9	-2.5	.0	.0
1985	2300.3	-1.8	2301.2	-1.8	.0	.9
1986	2292.9	-1.7	2292.9	-1.7	.0	.0
1987	2279.8	-2.9	2279.9	-2.9	.0	.1
1988	2253.5	-3.3	2254.8	-3.3	.1	1.3
1989	2272.6	-1.9	2273.8	-1.8	.1	1.2
1990	2250.8	-2.8	2251.2	-2.7	.0	.4
1991	2210.6	-3.1	2214.7	-3.0	.2	4.1
Mean:	2294.6	-4.7	2294.9	-4.7	.0	.2
Median:	2306.2	-2.8	2306.5	-2.7	.0	.0
Min:	2173.3	-11.6	2173.2	-11.9	-.1	-3.2
Max:	2339.6	.4	2339.6	.4	.3	5.8
X inc > 20.0		0		0		
X dec > 9.0		15		15		
X dec > 10.0		15		15		
X dec > 15.0		0		0		

RETURN TO TABLE OF CONTENTS

Section 16

CLAIR ENGLE RESERVOIR ELEVATION
16.2 Recreation

CLAIR ENGLE RESERVOIR ELEVATION

October

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2330.8	.0	2330.8	.0	.0	.0
1923	2310.1	-1.2	2310.1	-1.2	.0	.0
1924	2275.4	-1.6	2272.5	-1.6	-.1	-2.9
1925	2181.6	.1	2179.0	.1	-.1	-2.6
1926	2261.8	-2.0	2260.3	-2.1	-.1	-1.5
1927	2263.2	-2.0	2261.8	-2.0	-.1	-1.4
1928	2326.6	-1.9	2326.1	-1.9	.0	-.5
1929	2304.0	-4.0	2304.0	-3.6	.0	.0
1930	2244.4	-3.7	2245.9	-3.6	.1	1.5
1931	2248.8	-2.8	2250.2	-2.8	.1	1.4
1932	2177.0	-1.5	2180.2	-1.5	.1	3.2
1933	2180.0	-1.9	2180.0	-1.9	.0	.0
1934	2180.8	-1.6	2180.8	-1.6	.0	.0
1935	2178.4	-.5	2178.4	-.5	.0	.0
1936	2231.9	-1.6	2231.9	-1.6	.0	.0
1937	2258.1	-2.8	2258.1	-2.8	.0	.0
1938	2270.2	-1.6	2267.0	-1.6	-.1	-3.2
1939	2330.8	-8.8	2330.8	-8.8	.0	.0
1940	2276.3	-2.4	2277.1	-2.4	.0	.8
1941	2304.7	-1.5	2305.0	-1.5	.0	.3
1942	2330.8	-8.8	2330.8	-8.8	.0	.0
1943	2330.8	-8.8	2330.8	-8.8	.0	.0
1944	2329.0	-1.4	2329.5	-1.4	.0	.5
1945	2297.6	-2.0	2298.4	-2.0	.0	.8
1946	2291.7	-.3	2290.5	-.3	-.1	-1.2
1947	2301.5	-3.5	2301.2	-3.4	.0	-.3
1948	2290.2	2.0	2292.6	2.0	.1	2.4
1949	2318.0	-1.2	2318.8	-1.2	.0	.8
1950	2312.8	-1.9	2312.1	-1.8	.0	-.7
1951	2294.6	9.3	2294.6	9.3	.0	.0
1952	2312.9	-1.2	2313.5	-1.2	.0	.6
1953	2330.8	-8.8	2330.8	-8.8	.0	.0
1954	2330.8	-8.8	2330.8	-8.8	.0	.0
1955	2322.4	-1.4	2322.4	-1.4	.0	.0
1956	2311.9	-1.8	2312.4	-1.9	.0	.5
1957	2330.8	-8.8	2330.8	-8.8	.0	.0
1958	2330.8	-8.8	2330.8	-8.8	.0	.0
1959	2330.8	-8.8	2330.8	-8.8	.0	.0
1960	2295.1	-4.8	2296.3	-3.6	.1	1.2
1961	2307.7	-1.6	2307.7	-1.6	.0	.0
1962	2318.4	-1.9	2318.5	-1.9	.0	.1
1963	2318.6	7.7	2318.7	7.8	.0	.1
1964	2330.8	-8.8	2330.8	-8.8	.0	.0
1965	2303.2	-1.1	2303.3	-1.1	.0	.1
1966	2329.7	-1.9	2329.5	-1.9	.0	-.2
1967	2317.0	-3.0	2316.8	-3.1	.0	-.2
1968	2330.8	-8.8	2330.8	-8.8	.0	.0
1969	2296.0	-1.5	2301.9	-1.4	.3	5.9
1970	2330.8	-8.8	2330.8	-8.8	.0	.0
1971	2294.0	-1.8	2294.3	-1.8	.0	.3
1972	2330.8	-8.8	2330.8	-8.8	.0	.0
1973	2301.2	-.9	2300.8	-.9	.0	-.4
1974	2321.0	.9	2320.7	.8	.0	-.3
1975	2330.8	-8.8	2330.8	-8.8	.0	.0
1976	2330.8	-8.8	2330.8	-8.8	.0	.0
1977	2274.8	-2.6	2274.7	-2.5	.0	-.1
1978	2168.0	-5.3	2167.5	-5.7	.0	-.5
1979	2313.2	-2.1	2313.0	-2.1	.0	-.2
1980	2291.4	.6	2294.5	.7	.1	3.1
1981	2320.8	-1.9	2323.3	-1.9	.1	2.5
1982	2310.6	-1.1	2310.4	-1.0	.0	-.2
1983	2330.8	-8.8	2330.8	-8.8	.0	.0
1984	2330.8	-8.8	2330.8	-8.8	.0	.0
1985	2330.8	-2.1	2330.8	-2.1	.0	.0
1986	2298.8	-1.5	2299.7	-1.5	.0	.9
1987	2291.1	-1.8	2291.1	-1.8	.0	.0
1988	2276.6	-3.2	2276.7	-3.2	.0	.1
1989	2247.3	-6.2	2248.7	-6.1	.1	1.4
1990	2274.6	2.0	2275.8	2.0	.1	1.2
1991	2247.4	-3.4	2247.8	-3.4	.0	.4
Mean:	2293.2	-3.1	2293.4	-3.1	.0	.2
Median:	2304.7	-1.9	2305.0	-1.9	.0	.0
Min:	2168.0	-8.8	2167.5	-8.8	-.1	-3.2
Max:	2330.8	9.3	2330.8	9.3	.3	5.9
X > 2310.0	34		34			
X > 2295.0	44		44			
X > 2170.0	69		69			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

November

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2329.6	.0	2329.6	.0	.0	.0
1923	2308.7	-1.4	2308.7	-1.4	.0	.0
1924	2273.1	-2.3	2270.2	-2.3	-.1	-2.9
1925	2194.2	12.6	2191.9	12.9	-.1	-2.3
1926	2259.8	-2.0	2258.2	-2.1	-.1	-1.6
1927	2278.0	14.8	2276.6	14.8	-.1	-1.4
1928	2330.0	3.4	2329.6	3.5	.0	-.4
1929	2302.8	-1.2	2302.8	-1.2	.0	.0
1930	2241.9	-2.5	2243.4	-2.5	.1	1.5
1931	2246.7	-2.1	2248.1	-2.1	.1	1.4
1932	2175.0	-2.0	2178.2	-2.0	.1	3.2
1933	2179.0	-1.0	2179.0	-1.0	.0	.0
1934	2178.6	-2.2	2178.6	-2.2	.0	.0
1935	2189.5	11.1	2189.5	11.1	.0	.0
1936	2230.8	-1.1	2230.8	-1.1	.0	.0
1937	2254.8	-3.3	2254.8	-3.3	.0	.0
1938	2283.0	12.8	2280.0	13.0	-.1	-3.0
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2273.5	-2.8	2274.3	-2.8	.0	.8
1941	2304.0	-.7	2304.3	-.7	.0	.3
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2328.4	-.6	2328.9	-.6	.0	.5
1945	2298.8	1.2	2299.6	1.2	.0	.8
1946	2295.0	3.3	2293.8	3.3	-.1	-1.2
1947	2301.9	.4	2301.6	.4	.0	-.3
1948	2290.0	-.2	2292.4	-.2	.1	2.4
1949	2317.1	-.9	2317.9	-.9	.0	.8
1950	2311.1	-1.7	2310.4	-1.7	.0	-.7
1951	2303.0	8.4	2303.1	8.5	.0	.1
1952	2314.2	1.3	2314.8	1.3	.0	.6
1953	2329.7	-1.1	2329.7	-1.1	.0	.0
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2325.8	3.4	2325.8	3.4	.0	.0
1956	2311.5	-.4	2312.0	-.4	.0	.5
1957	2330.4	-.4	2330.4	-.4	.0	.0
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2330.0	-.8	2330.0	-.8	.0	.0
1960	2290.7	-4.4	2292.7	-3.6	.1	2.0
1961	2306.9	-.8	2306.9	-.8	.0	.0
1962	2317.6	-.8	2317.7	-.8	.0	.1
1963	2322.3	3.7	2322.4	3.7	.0	.1
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2304.7	1.5	2304.8	1.5	.0	.1
1966	2330.8	1.1	2330.8	1.3	.0	.0
1967	2324.1	7.1	2323.9	7.1	.0	-.2
1968	2330.5	-.3	2330.5	-.3	.0	.0
1969	2296.6	.6	2302.5	.6	.3	5.9
1970	2330.1	-.7	2330.1	-.7	.0	.0
1971	2305.4	11.4	2305.6	11.3	.0	.2
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2302.9	1.7	2302.5	1.7	.0	-.4
1974	2330.8	9.8	2330.8	10.1	.0	.0
1975	2330.0	-.8	2330.0	-.8	.0	.0
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2272.5	-2.3	2272.3	-2.4	.0	-.2
1978	2173.4	5.4	2172.9	5.4	.0	-.5
1979	2310.9	-2.3	2310.7	-2.3	.0	-.2
1980	2295.6	4.2	2298.6	4.1	.1	3.0
1981	2318.7	-2.1	2321.3	-2.0	.1	2.6
1982	2329.1	18.5	2328.8	18.4	.0	-.3
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.7	-2.1	2297.6	-2.1	.0	.9
1987	2288.3	-2.8	2288.3	-2.8	.0	.0
1988	2273.9	-2.7	2274.0	-2.7	.0	.1
1989	2250.0	2.7	2251.4	2.7	.1	1.4
1990	2272.9	-1.7	2274.1	-1.7	.1	1.2
1991	2244.7	-2.7	2245.0	-2.8	.0	.3
Mean:	2294.4	1.2	2294.6	1.2	.0	.2
Median:	2305.4	-.2	2305.6	-.2	.0	.0
Min:	2173.4	-4.4	2172.9	-3.6	-.1	-3.0
Max:	2330.8	18.5	2330.8	18.4	.3	5.9
X > 2310.0	33		33			
X > 2295.0	46		46			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

December

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2328.9	.0	2328.9	.0	.0	.0
1923	2308.2	-.5	2308.2	-.5	.0	.0
1924	2270.7	-2.4	2267.7	-2.5	-.1	-3.0
1925	2201.1	6.9	2198.9	7.0	-.1	-2.2
1926	2260.6	.8	2259.1	.9	-.1	-1.5
1927	2295.9	17.9	2294.7	18.1	-.1	-1.2
1928	2330.5	.5	2330.0	.4	.0	-.5
1929	2301.4	-1.4	2301.4	-1.4	.0	.0
1930	2256.1	14.2	2257.5	14.1	.1	1.4
1931	2244.3	-2.4	2245.8	-2.3	.1	1.5
1932	2174.4	-.6	2176.8	-1.4	.1	2.4
1933	2177.1	-1.9	2177.1	-1.9	.0	.0
1934	2178.6	.0	2178.6	.0	.0	.0
1935	2194.4	4.9	2194.4	4.9	.0	.0
1936	2229.3	-1.5	2229.3	-1.5	.0	.0
1937	2251.0	-3.8	2251.0	-3.8	.0	.0
1938	2302.0	19.0	2299.3	19.3	-.1	-2.7
1939	2330.8	.0	2330.8	.0	.0	.0
1940	2278.3	4.8	2279.1	4.8	.0	.8
1941	2314.5	10.5	2314.8	10.5	.0	.3
1942	2330.8	.0	2330.8	.0	.0	.0
1943	2330.8	.0	2330.8	.0	.0	.0
1944	2326.7	-1.7	2327.2	-1.7	.0	.5
1945	2303.8	5.0	2304.6	5.0	.0	.8
1946	2310.5	15.5	2309.4	15.6	.0	-1.1
1947	2302.0	.1	2301.7	.1	.0	-.3
1948	2288.5	-1.5	2290.9	-1.5	.1	2.4
1949	2315.6	-1.5	2316.5	-1.4	.0	.9
1950	2308.7	-2.4	2308.0	-2.4	.0	-.7
1951	2323.0	20.0	2323.0	19.9	.0	.0
1952	2324.7	10.5	2325.2	10.4	.0	.5
1953	2330.8	1.1	2330.8	1.1	.0	.0
1954	2330.8	.0	2330.8	.0	.0	.0
1955	2329.2	3.4	2329.2	3.4	.0	.0
1956	2330.8	19.3	2330.8	18.8	.0	.0
1957	2329.4	-1.0	2329.4	-1.0	.0	.0
1958	2330.8	.0	2330.8	.0	.0	.0
1959	2328.5	-1.5	2328.5	-1.5	.0	.0
1960	2285.7	-5.0	2285.7	-7.0	.0	.0
1961	2314.0	7.1	2314.0	7.1	.0	.0
1962	2319.2	1.6	2319.3	1.6	.0	.1
1963	2330.8	8.5	2330.8	8.4	.0	.0
1964	2330.8	.0	2330.8	.0	.0	.0
1965	2330.8	26.1	2330.8	26.0	.0	.0
1966	2330.8	.0	2330.8	.0	.0	.0
1967	2330.8	6.7	2330.8	6.9	.0	.0
1968	2330.8	.3	2330.8	.3	.0	.0
1969	2301.9	5.3	2307.6	5.1	.2	5.7
1970	2330.8	.7	2330.8	.7	.0	.0
1971	2315.1	9.7	2315.4	9.8	.0	.3
1972	2330.8	.0	2330.8	.0	.0	.0
1973	2311.1	8.2	2310.7	8.2	.0	-.4
1974	2330.8	.0	2330.8	.0	.0	.0
1975	2330.7	.7	2330.7	.7	.0	.0
1976	2330.8	.0	2330.8	.0	.0	.0
1977	2269.7	-2.8	2269.8	-2.5	.0	.1
1978	2206.0	32.6	2205.7	32.8	.0	-.3
1979	2308.3	-2.6	2308.1	-2.6	.0	-.2
1980	2299.7	4.1	2302.6	4.0	.1	2.9
1981	2321.0	2.3	2323.5	2.2	.1	2.5
1982	2330.8	1.7	2330.8	2.0	.0	.0
1983	2330.8	.0	2330.8	.0	.0	.0
1984	2330.8	.0	2330.8	.0	.0	.0
1985	2330.8	.0	2330.8	.0	.0	.0
1986	2296.0	-.7	2297.0	-.6	.0	1.0
1987	2285.9	-2.4	2285.9	-2.4	.0	.0
1988	2288.5	14.6	2288.6	14.6	.0	.1
1989	2249.5	-.5	2250.9	-.5	.1	1.4
1990	2270.9	-2.0	2272.1	-2.0	.1	1.2
1991	2240.6	-4.1	2241.6	-3.4	.0	1.0
Mean:	2297.8	3.4	2298.0	3.4	.0	.2
Median:	2314.0	.0	2314.0	.0	.0	.0
Min:	2174.4	-5.0	2176.8	-7.0	-.1	-3.0
Max:	2330.8	32.6	2330.8	32.8	.2	5.7
X > 2310.0	38		37			
X > 2295.0	49		48			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

January

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2327.8	.0	2327.8	.0	.0	.0
1923	2309.7	1.5	2309.7	1.5	.0	.0
1924	2268.3	-2.4	2265.3	-2.4	-.1	-3.0
1925	2206.9	5.8	2204.8	5.9	-.1	-2.1
1926	2258.4	-2.2	2256.8	-2.3	-.1	-1.6
1927	2305.8	9.9	2304.7	10.0	.0	-1.1
1928	2333.2	2.7	2332.8	2.8	.0	-.4
1929	2300.3	-1.1	2300.3	-1.1	.0	.0
1930	2255.9	-.2	2257.3	-.2	.1	1.4
1931	2244.3	.0	2245.7	-.1	.1	1.4
1932	2175.0	.6	2177.4	.6	.1	2.4
1933	2174.9	-2.2	2174.9	-2.2	.0	.0
1934	2188.2	9.6	2188.2	9.6	.0	.0
1935	2199.8	5.4	2199.8	5.4	.0	.0
1936	2241.9	12.6	2241.9	12.6	.0	.0
1937	2248.3	-2.7	2248.3	-2.7	.0	.0
1938	2309.3	7.3	2306.8	7.5	-.1	-2.5
1939	2330.3	-.5	2330.3	-.5	.0	.0
1940	2293.8	15.5	2294.5	15.4	.0	.7
1941	2329.9	15.4	2330.1	15.3	.0	.2
1942	2334.4	3.6	2334.4	3.6	.0	.0
1943	2334.4	3.6	2334.4	3.6	.0	.0
1944	2325.4	-1.3	2325.9	-1.3	.0	.5
1945	2306.8	3.0	2308.3	3.7	.1	1.5
1946	2320.1	9.6	2319.1	9.7	.0	-1.0
1947	2300.3	-1.7	2299.9	-1.8	.0	-.4
1948	2303.9	15.4	2306.1	15.2	.1	2.2
1949	2313.5	-2.1	2314.4	-2.1	.0	.9
1950	2309.2	.5	2308.4	.4	.0	-.8
1951	2329.0	6.0	2329.0	6.0	.0	.0
1952	2328.2	3.5	2328.7	3.5	.0	.5
1953	2334.4	3.6	2334.4	3.6	.0	.0
1954	2334.4	3.6	2334.4	3.6	.0	.0
1955	2329.6	.4	2329.6	.4	.0	.0
1956	2334.4	3.6	2334.4	3.6	.0	.0
1957	2328.0	-1.4	2328.0	-1.4	.0	.0
1958	2334.4	3.6	2334.4	3.6	.0	.0
1959	2334.4	5.9	2334.4	5.9	.0	.0
1960	2284.8	-.9	2284.8	-.9	.0	.0
1961	2315.7	1.7	2315.7	1.7	.0	.0
1962	2319.3	.1	2319.4	.1	.0	.1
1963	2333.1	2.3	2333.1	2.3	.0	.0
1964	2334.4	3.6	2334.4	3.6	.0	.0
1965	2334.4	3.6	2334.4	3.6	.0	.0
1966	2334.4	3.6	2334.4	3.6	.0	.0
1967	2334.4	3.6	2334.4	3.6	.0	.0
1968	2334.4	3.6	2334.4	3.6	.0	.0
1969	2312.5	10.6	2317.9	10.3	.2	5.4
1970	2334.4	3.6	2334.4	3.6	.0	.0
1971	2331.8	16.7	2332.1	16.7	.0	.3
1972	2334.4	3.6	2334.4	3.6	.0	.0
1973	2322.7	11.6	2322.3	11.6	.0	-.4
1974	2334.4	3.6	2334.4	3.6	.0	.0
1975	2331.0	.3	2331.0	.3	.0	.0
1976	2330.7	-.1	2330.7	-.1	.0	.0
1977	2263.8	-5.9	2263.8	-6.0	.0	.0
1978	2255.6	49.6	2255.3	49.6	.0	-.3
1979	2308.7	.4	2308.5	.4	.0	-.2
1980	2317.7	18.0	2320.3	17.7	.1	2.6
1981	2328.1	7.1	2330.5	7.0	.1	2.4
1982	2334.4	3.6	2334.4	3.6	.0	.0
1983	2334.4	3.6	2334.4	3.6	.0	.0
1984	2334.4	3.6	2334.4	3.6	.0	.0
1985	2331.8	1.0	2331.8	1.0	.0	.0
1986	2306.2	10.2	2307.1	10.1	.0	.9
1987	2285.2	-.7	2285.2	-.7	.0	.0
1988	2294.8	6.3	2294.9	6.3	.0	.1
1989	2249.9	.4	2251.2	.3	.1	1.3
1990	2274.8	3.9	2275.9	3.8	.0	1.1
1991	2233.8	-6.8	2237.7	-3.9	.2	3.9
Mean:	2302.1	4.3	2302.3	4.3	.0	.2
Median:	2319.3	3.6	2319.4	3.6	.0	.0
Min:	2174.9	-6.8	2174.9	-6.0	-.1	-3.0
Max:	2334.4	49.6	2334.4	49.6	.2	5.4
X > 2310.0	40		40			
X > 2295.0	50		50			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

February

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2328.6	.0	2328.6	.0	.0	.0
1923	2310.9	1.2	2310.9	1.2	.0	.0
1924	2273.5	5.2	2270.5	5.2	-.1	-3.0
1925	2242.9	36.0	2241.2	36.4	-.1	-1.7
1926	2273.1	14.7	2271.7	14.9	-.1	-1.4
1927	2323.5	17.7	2322.5	17.8	.0	-1.0
1928	2339.8	6.6	2339.3	6.5	.0	-.5
1929	2300.9	.6	2300.9	.6	.0	.0
1930	2265.8	9.9	2267.1	9.8	.1	1.3
1931	2245.6	1.3	2247.1	1.4	.1	1.5
1932	2177.7	2.7	2180.1	2.7	.1	2.4
1933	2173.4	-1.5	2173.4	-1.5	.0	.0
1934	2201.0	12.8	2201.0	12.8	.0	.0
1935	2210.8	11.0	2210.8	11.0	.0	.0
1936	2256.8	14.9	2256.8	14.9	.0	.0
1937	2247.1	-1.2	2247.1	-1.2	.0	.0
1938	2320.6	11.3	2318.3	11.5	-.1	-2.3
1939	2330.1	-.2	2330.1	-.2	.0	.0
1940	2319.7	25.9	2320.4	25.9	.0	.7
1941	2341.3	11.4	2341.3	11.2	.0	.0
1942	2341.3	6.9	2341.3	6.9	.0	.0
1943	2341.3	6.9	2341.3	6.9	.0	.0
1944	2327.8	2.4	2328.3	2.4	.0	.5
1945	2319.0	12.2	2320.4	12.1	.1	1.4
1946	2323.7	3.6	2322.6	3.5	.0	-1.1
1947	2303.8	3.5	2303.5	3.6	.0	-.3
1948	2305.1	1.2	2306.6	.5	.1	1.5
1949	2315.2	1.7	2316.0	1.6	.0	.8
1950	2312.9	3.7	2312.1	3.7	.0	-.8
1951	2341.3	12.3	2341.3	12.3	.0	.0
1952	2340.5	12.3	2341.0	12.3	.0	.5
1953	2341.3	6.9	2341.3	6.9	.0	.0
1954	2341.3	6.9	2341.3	6.9	.0	.0
1955	2330.9	1.3	2330.9	1.3	.0	.0
1956	2341.3	6.9	2341.3	6.9	.0	.0
1957	2338.0	10.0	2338.0	10.0	.0	.0
1958	2341.3	6.9	2341.3	6.9	.0	.0
1959	2340.1	5.7	2340.1	5.7	.0	.0
1960	2297.1	12.3	2297.1	12.3	.0	.0
1961	2331.9	16.2	2331.9	16.2	.0	.0
1962	2328.2	8.9	2328.2	8.8	.0	.0
1963	2341.3	8.2	2341.3	8.2	.0	.0
1964	2336.6	2.2	2336.6	2.2	.0	.0
1965	2340.1	5.7	2340.1	5.7	.0	.0
1966	2338.0	3.6	2338.0	3.6	.0	.0
1967	2341.3	6.9	2341.3	6.9	.0	.0
1968	2341.3	6.9	2341.3	6.9	.0	.0
1969	2321.2	8.7	2326.3	8.4	.2	5.1
1970	2341.3	6.9	2341.3	6.9	.0	.0
1971	2340.6	8.8	2340.8	8.7	.0	.2
1972	2341.0	6.6	2341.0	6.6	.0	.0
1973	2332.8	10.1	2332.5	10.2	.0	-.3
1974	2340.8	6.4	2340.8	6.4	.0	.0
1975	2336.7	5.7	2336.7	5.7	.0	.0
1976	2332.4	1.7	2332.4	1.7	.0	.0
1977	2252.4	-11.4	2252.6	-11.2	.0	.2
1978	2274.4	18.8	2274.2	18.9	.0	-.2
1979	2311.7	3.0	2311.5	3.0	.0	-.2
1980	2338.9	21.2	2341.2	20.9	.1	2.3
1981	2337.2	9.1	2339.6	9.1	.1	2.4
1982	2341.3	6.9	2341.3	6.9	.0	.0
1983	2341.3	6.9	2341.3	6.9	.0	.0
1984	2340.1	5.7	2340.1	5.7	.0	.0
1985	2333.8	2.0	2333.8	2.0	.0	.0
1986	2341.3	35.1	2341.3	34.2	.0	.0
1987	2291.5	6.3	2291.5	6.3	.0	.0
1988	2301.2	6.4	2301.3	6.4	.0	.1
1989	2251.9	2.0	2253.2	2.0	.1	1.3
1990	2275.7	.9	2276.8	.9	.0	1.1
1991	2225.9	-7.9	2230.3	-7.4	.2	4.4
Mean:	2309.6	7.5	2309.8	7.4	.0	.2
Median:	2328.6	6.9	2328.6	6.9	.0	.0
Min:	2173.4	-11.4	2173.4	-11.2	-.1	-3.0
Max:	2341.3	36.0	2341.3	36.4	.2	5.1
X > 2310.0	48		48			
X > 2295.0	53		53			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

March

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2331.4	.0	2331.4	.0	.0	.0
1923	2313.9	3.0	2313.9	3.0	.0	.0
1924	2272.0	-1.5	2269.0	-1.5	-.1	-3.0
1925	2255.6	12.7	2254.0	12.8	-.1	-1.6
1926	2282.7	9.6	2281.3	9.6	-.1	-1.4
1927	2334.9	11.4	2333.9	11.4	.0	-1.0
1928	2347.9	8.1	2347.9	8.6	.0	.0
1929	2304.1	3.2	2304.1	3.2	.0	.0
1930	2277.5	11.7	2278.7	11.6	.1	1.2
1931	2251.1	5.5	2252.5	5.4	.1	1.4
1932	2201.2	23.5	2203.2	23.1	.1	2.0
1933	2192.7	19.3	2192.7	19.3	.0	.0
1934	2221.9	20.9	2221.9	20.9	.0	.0
1935	2217.0	6.2	2217.0	6.2	.0	.0
1936	2267.6	10.8	2267.6	10.8	.0	.0
1937	2256.1	9.0	2256.1	9.0	.0	.0
1938	2337.6	17.0	2335.4	17.1	-.1	-2.2
1939	2336.5	6.4	2336.5	6.4	.0	.0
1940	2340.0	20.3	2340.6	20.2	.0	.6
1941	2347.9	6.6	2347.9	6.6	.0	.0
1942	2345.1	3.8	2345.1	3.8	.0	.0
1943	2347.9	6.6	2347.9	6.6	.0	.0
1944	2331.9	4.1	2332.4	4.1	.0	.5
1945	2322.2	3.2	2323.6	3.2	.1	1.4
1946	2331.5	7.8	2330.5	7.9	.0	-1.0
1947	2312.7	8.9	2312.4	8.9	.0	-.3
1948	2306.5	1.4	2308.0	1.4	.1	1.5
1949	2329.8	14.6	2330.5	14.5	.0	.7
1950	2321.4	8.5	2320.7	8.6	.0	-.7
1951	2347.1	5.8	2347.1	5.8	.0	.0
1952	2347.9	7.4	2347.9	6.9	.0	.0
1953	2347.9	6.6	2347.9	6.6	.0	.0
1954	2347.9	6.6	2347.9	6.6	.0	.0
1955	2332.0	1.1	2332.0	1.1	.0	.0
1956	2347.9	6.6	2347.9	6.6	.0	.0
1957	2347.9	9.9	2347.9	9.9	.0	.0
1958	2347.9	6.6	2347.9	6.6	.0	.0
1959	2347.9	7.8	2347.9	7.8	.0	.0
1960	2312.0	14.9	2312.0	14.9	.0	.0
1961	2339.2	7.3	2339.2	7.3	.0	.0
1962	2332.8	4.6	2332.9	4.7	.0	.1
1963	2344.7	3.4	2344.7	3.4	.0	.0
1964	2338.2	1.6	2338.2	1.6	.0	.0
1965	2343.6	3.5	2343.6	3.5	.0	.0
1966	2347.9	9.9	2347.9	9.9	.0	.0
1967	2347.9	6.6	2347.9	6.6	.0	.0
1968	2347.9	6.6	2347.9	6.6	.0	.0
1969	2331.1	9.9	2335.9	9.6	.2	4.8
1970	2347.9	6.6	2347.9	6.6	.0	.0
1971	2347.9	7.3	2347.9	7.1	.0	.0
1972	2347.9	6.9	2347.9	6.9	.0	.0
1973	2340.0	7.2	2339.6	7.1	.0	-.4
1974	2347.9	7.1	2347.9	7.1	.0	.0
1975	2347.9	11.2	2347.9	11.2	.0	.0
1976	2335.3	2.9	2335.3	2.9	.0	.0
1977	2250.6	-1.8	2250.7	-1.9	.0	.1
1978	2298.6	24.2	2298.4	24.2	.0	-.2
1979	2322.4	10.7	2322.3	10.8	.0	-.1
1980	2346.9	8.0	2347.9	6.7	.0	1.0
1981	2344.6	7.4	2346.8	7.2	.1	2.2
1982	2347.9	6.6	2347.9	6.6	.0	.0
1983	2347.9	6.6	2347.9	6.6	.0	.0
1984	2347.9	7.8	2347.9	7.8	.0	.0
1985	2336.3	2.5	2336.3	2.5	.0	.0
1986	2347.9	6.6	2347.9	6.6	.0	.0
1987	2308.9	17.4	2308.9	17.4	.0	.0
1988	2306.7	5.5	2306.7	5.4	.0	.0
1989	2285.8	33.9	2286.9	33.7	.0	1.1
1990	2282.1	6.4	2283.2	6.4	.0	1.1
1991	2233.8	7.9	2238.0	7.7	.2	4.2
Mean:	2318.0	8.4	2318.2	8.4	.0	.2
Median:	2335.3	6.9	2335.4	6.7	.0	.0
Min:	2192.7	-1.8	2192.7	-1.9	-.1	-3.0
Max:	2347.9	33.9	2347.9	33.7	.2	4.8
X > 2310.0	50		50			
X > 2295.0	55		55			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

April

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2338.2	.0	2338.2	.0	.0	.0
1923	2322.6	8.7	2322.6	8.7	.0	.0
1924	2270.9	-1.1	2267.9	-1.1	-.1	-3.0
1925	2283.4	27.8	2282.1	28.1	-.1	-1.3
1926	2301.4	18.7	2300.2	18.9	-.1	-1.2
1927	2348.6	13.7	2347.7	13.8	.0	-.9
1928	2356.4	8.5	2356.4	8.5	.0	.0
1929	2303.8	-.3	2304.6	.5	.0	.8
1930	2287.6	10.1	2288.8	10.1	.1	1.2
1931	2255.0	3.9	2256.4	3.9	.1	1.4
1932	2214.5	13.3	2216.3	13.1	.1	1.8
1933	2216.3	23.6	2216.3	23.6	.0	.0
1934	2235.8	13.9	2235.8	13.9	.0	.0
1935	2243.1	26.1	2243.1	26.1	.0	.0
1936	2282.5	14.9	2282.5	14.9	.0	.0
1937	2277.2	21.1	2277.2	21.1	.0	.0
1938	2355.1	17.5	2353.1	17.7	-.1	-2.0
1939	2334.1	-2.4	2334.4	-2.1	.0	.3
1940	2353.7	13.7	2354.2	13.6	.0	.5
1941	2360.5	12.6	2360.5	12.6	.0	.0
1942	2355.9	10.8	2355.9	10.8	.0	.0
1943	2358.4	10.5	2358.4	10.5	.0	.0
1944	2334.4	2.5	2334.9	2.5	.0	.5
1945	2331.2	9.0	2332.5	8.9	.1	1.3
1946	2344.9	13.4	2344.0	13.5	.0	-.9
1947	2319.3	6.6	2319.0	6.6	.0	-.3
1948	2319.6	13.1	2321.0	13.0	.1	1.4
1949	2346.0	16.2	2346.7	16.2	.0	.7
1950	2332.8	11.4	2332.1	11.4	.0	-.7
1951	2356.9	9.8	2356.9	9.8	.0	.0
1952	2360.5	12.6	2360.5	12.6	.0	.0
1953	2359.4	11.5	2359.4	11.5	.0	.0
1954	2360.5	12.6	2360.5	12.6	.0	.0
1955	2333.6	1.6	2333.6	1.6	.0	.0
1956	2360.5	12.6	2360.5	12.6	.0	.0
1957	2354.3	6.4	2354.3	6.4	.0	.0
1958	2360.5	12.6	2360.5	12.6	.0	.0
1959	2352.5	4.6	2352.5	4.6	.0	.0
1960	2320.2	8.2	2320.2	8.2	.0	.0
1961	2347.7	8.5	2347.7	8.5	.0	.0
1962	2347.4	14.6	2347.4	14.5	.0	.0
1963	2359.1	14.4	2359.1	14.4	.0	.0
1964	2336.8	-1.4	2336.8	-1.4	.0	.0
1965	2356.2	12.6	2356.2	12.6	.0	.0
1966	2360.5	12.6	2360.5	12.6	.0	.0
1967	2352.4	4.5	2352.4	4.5	.0	.0
1968	2353.4	5.5	2353.4	5.5	.0	.0
1969	2351.1	20.0	2355.4	19.5	.2	4.3
1970	2349.4	1.5	2349.4	1.5	.0	.0
1971	2357.0	9.1	2357.0	9.1	.0	.0
1972	2355.9	8.0	2355.9	8.0	.0	.0
1973	2351.2	11.2	2350.9	11.3	.0	-.3
1974	2360.3	12.4	2360.3	12.4	.0	.0
1975	2355.0	7.1	2355.0	7.1	.0	.0
1976	2334.9	-.4	2335.1	-.2	.0	.2
1977	2250.1	-.5	2250.3	-.4	.0	.2
1978	2313.1	14.5	2312.9	14.5	.0	-.2
1979	2330.7	8.3	2330.6	8.3	.0	-.1
1980	2356.0	9.1	2356.9	9.0	.0	.9
1981	2351.0	6.4	2353.1	6.3	.1	2.1
1982	2360.1	12.2	2360.1	12.2	.0	.0
1983	2360.5	12.6	2360.5	12.6	.0	.0
1984	2354.1	6.2	2354.1	6.2	.0	.0
1985	2345.8	9.5	2345.8	9.5	.0	.0
1986	2355.5	7.6	2355.5	7.6	.0	.0
1987	2319.6	10.7	2319.6	10.7	.0	.0
1988	2312.3	5.6	2312.4	5.7	.0	.1
1989	2302.5	16.7	2303.5	16.6	.0	1.0
1990	2285.7	3.6	2286.0	2.8	.0	.3
1991	2241.3	7.5	2245.3	7.3	.2	4.0
Mean:	2328.1	10.0	2328.3	10.0	.0	.2
Median:	2346.0	10.1	2346.7	10.1	.0	.0
Min:	2214.5	-2.4	2216.3	-2.1	-.1	-3.0
Max:	2360.5	27.8	2360.5	28.1	.2	4.3
X > 2310.0	54		54			
X > 2295.0	57		57			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

May

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2343.6	.0	2343.6	.0	.0	.0
1923	2320.6	-2.0	2319.7	-2.9	.0	-.9
1924	2244.5	-26.4	2240.3	-27.6	-.2	-4.2
1925	2285.5	2.1	2284.2	2.1	-.1	-1.3
1926	2294.8	-6.6	2293.6	-6.6	-.1	-1.2
1927	2350.7	2.1	2349.8	2.1	.0	-.9
1928	2358.8	2.4	2358.8	2.4	.0	.0
1929	2298.7	-5.1	2299.6	-5.0	.0	.9
1930	2281.2	-6.4	2282.4	-6.4	.1	1.2
1931	2236.0	-19.0	2237.0	-19.4	.0	1.0
1932	2226.3	11.8	2228.0	11.7	.1	1.7
1933	2223.1	6.8	2223.1	6.8	.0	.0
1934	2230.1	-5.7	2230.1	-5.7	.0	.0
1935	2250.7	7.6	2250.7	7.6	.0	.0
1936	2282.9	.4	2282.9	.4	.0	.0
1937	2290.9	13.7	2290.9	13.7	.0	.0
1938	2367.7	12.6	2365.9	12.8	-.1	-1.8
1939	2326.8	-7.3	2327.1	-7.3	.0	.3
1940	2351.1	-2.6	2351.7	-2.5	.0	.6
1941	2367.7	7.2	2367.7	7.2	.0	.0
1942	2362.1	6.2	2362.1	6.2	.0	.0
1943	2354.7	-3.7	2354.7	-3.7	.0	.0
1944	2334.0	-.4	2334.5	-.4	.0	.5
1945	2332.8	1.6	2334.1	1.6	.1	1.3
1946	2346.0	1.1	2345.1	1.1	.0	-.9
1947	2313.4	-5.9	2313.0	-6.0	.0	-.4
1948	2323.0	3.4	2324.4	3.4	.1	1.4
1949	2345.8	-.2	2346.5	-.2	.0	.7
1950	2334.1	1.3	2333.4	1.3	.0	-.7
1951	2354.1	-2.8	2354.1	-2.8	.0	.0
1952	2367.7	7.2	2367.7	7.2	.0	.0
1953	2362.0	2.6	2362.0	2.6	.0	.0
1954	2363.4	2.9	2363.4	2.9	.0	.0
1955	2334.5	.9	2334.5	.9	.0	.0
1956	2367.7	7.2	2367.7	7.2	.0	.0
1957	2362.7	8.4	2362.7	8.4	.0	.0
1958	2367.7	7.2	2367.7	7.2	.0	.0
1959	2347.7	-4.8	2347.7	-4.8	.0	.0
1960	2320.6	.4	2320.6	.4	.0	.0
1961	2349.0	1.3	2349.0	1.3	.0	.0
1962	2346.1	-1.3	2346.1	-1.3	.0	.0
1963	2364.1	5.0	2364.1	5.0	.0	.0
1964	2330.6	-6.2	2330.6	-6.2	.0	.0
1965	2353.6	-2.6	2353.6	-2.6	.0	.0
1966	2363.2	2.7	2363.2	2.7	.0	.0
1967	2362.6	10.2	2362.6	10.2	.0	.0
1968	2350.3	-3.1	2350.3	-3.1	.0	.0
1969	2367.7	16.6	2367.7	12.3	.0	.0
1970	2340.7	-8.7	2340.7	-8.7	.0	.0
1971	2362.6	5.6	2362.6	5.6	.0	.0
1972	2355.3	-.6	2355.3	-.6	.0	.0
1973	2360.6	9.4	2360.3	9.4	.0	-.3
1974	2367.7	7.4	2367.7	7.4	.0	.0
1975	2367.0	12.0	2367.0	12.0	.0	.0
1976	2327.5	-7.4	2327.6	-7.5	.0	.1
1977	2230.5	-19.6	2230.5	-19.8	.0	.0
1978	2317.2	4.1	2317.0	4.1	.0	-.2
1979	2336.0	5.3	2335.9	5.3	.0	-.1
1980	2351.9	-4.1	2352.9	-4.0	.0	1.0
1981	2345.7	-5.3	2347.9	-5.2	.1	2.2
1982	2362.8	2.7	2362.8	2.7	.0	.0
1983	2367.7	7.2	2367.7	7.2	.0	.0
1984	2356.9	2.8	2356.9	2.8	.0	.0
1985	2335.7	-10.1	2335.7	-10.1	.0	.0
1986	2342.9	-12.6	2342.9	-12.6	.0	.0
1987	2315.9	-3.7	2315.9	-3.7	.0	.0
1988	2304.5	-7.8	2304.6	-7.8	.0	.1
1989	2296.3	-6.2	2297.3	-6.2	.0	1.0
1990	2283.0	-2.7	2283.2	-2.8	.0	.2
1991	2240.9	-.4	2244.9	-.4	.2	4.0
Mean:	2328.3	.1	2328.4	.0	.0	.1
Median:	2343.6	.4	2343.6	.4	.0	.0
Min:	2223.1	-26.4	2223.1	-27.6	-.2	-4.2
Max:	2367.7	16.6	2367.7	13.7	.2	4.0
X > 2310.0	53		53			
X > 2295.0	56		56			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

June

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2340.2	.0	2340.2	.0	.0	.0
1923	2310.5	-10.1	2308.4	-11.3	-.1	-2.1
1924	2221.2	-23.3	2216.8	-23.5	-.2	-4.4
1925	2278.6	-6.9	2277.3	-6.9	-.1	-1.3
1926	2282.7	-12.1	2281.4	-12.2	-.1	-1.3
1927	2351.3	.6	2350.5	.7	.0	-.8
1928	2346.6	-12.2	2346.6	-12.2	.0	.0
1929	2287.1	-11.6	2288.0	-11.6	.0	.9
1930	2269.8	-11.4	2271.0	-11.4	.1	1.2
1931	2217.1	-18.9	2218.3	-18.7	.1	1.2
1932	2216.6	-9.7	2216.6	-11.4	.0	.0
1933	2223.2	.1	2224.5	1.4	.1	1.3
1934	2207.7	-22.4	2210.0	-20.1	.1	2.3
1935	2246.6	-4.1	2246.6	-4.1	.0	.0
1936	2276.7	-6.2	2276.7	-6.2	.0	.0
1937	2290.9	.0	2290.9	.0	.0	.0
1938	2369.2	1.5	2368.9	3.0	.0	-.3
1939	2310.6	-16.2	2311.1	-16.0	.0	.5
1940	2342.6	-8.5	2342.8	-8.9	.0	.2
1941	2369.2	1.5	2369.2	1.5	.0	.0
1942	2365.4	3.3	2365.4	3.3	.0	.0
1943	2352.6	-2.1	2352.6	-2.1	.0	.0
1944	2326.1	-7.9	2324.4	-10.1	-.1	-1.7
1945	2328.1	-4.7	2328.4	-5.7	.0	.3
1946	2338.8	-7.2	2338.5	-6.6	.0	-.3
1947	2304.8	-8.6	2304.5	-8.5	.0	-.3
1948	2331.1	8.1	2332.4	8.0	.1	1.3
1949	2339.2	-6.6	2339.9	-6.6	.0	.7
1950	2322.2	-11.9	2322.2	-11.2	.0	.0
1951	2348.1	-6.0	2348.1	-6.0	.0	.0
1952	2369.1	1.4	2369.1	1.4	.0	.0
1953	2369.2	7.2	2369.2	7.2	.0	.0
1954	2355.9	-7.5	2356.0	-7.4	.0	.1
1955	2329.2	-5.3	2329.2	-5.3	.0	.0
1956	2369.0	1.3	2369.0	1.3	.0	.0
1957	2361.0	-1.7	2361.1	-1.6	.0	.1
1958	2369.2	1.5	2369.2	1.5	.0	.0
1959	2334.5	-13.2	2334.5	-13.2	.0	.0
1960	2320.7	.1	2320.7	.1	.0	.0
1961	2347.8	-1.2	2347.8	-1.2	.0	.0
1962	2342.7	-3.4	2342.8	-3.3	.0	.1
1963	2359.6	-4.5	2359.6	-4.5	.0	.0
1964	2321.9	-8.7	2321.9	-8.7	.0	.0
1965	2348.4	-5.2	2348.4	-5.2	.0	.0
1966	2349.7	-13.5	2349.6	-13.6	.0	-.1
1967	2367.5	4.9	2367.5	4.9	.0	.0
1968	2336.9	-13.4	2337.4	-12.9	.0	.5
1969	2369.2	1.5	2369.2	1.5	.0	.0
1970	2334.5	-6.2	2334.5	-6.2	.0	.0
1971	2362.4	-.2	2362.4	-.2	.0	.0
1972	2344.6	-10.7	2344.8	-10.5	.0	.2
1973	2353.5	-7.1	2353.4	-6.9	.0	-.1
1974	2369.2	1.5	2369.2	1.5	.0	.0
1975	2369.2	2.2	2369.2	2.2	.0	.0
1976	2311.0	-16.5	2311.0	-16.6	.0	.0
1977	2195.3	-35.2	2195.2	-35.3	.0	-.1
1978	2321.9	4.7	2321.7	4.7	.0	-.2
1979	2328.9	-7.1	2328.7	-7.2	.0	-.2
1980	2346.4	-5.5	2347.4	-5.5	.0	1.0
1981	2337.2	-8.5	2339.0	-8.9	.1	1.8
1982	2361.2	-1.6	2361.2	-1.6	.0	.0
1983	2369.2	1.5	2369.2	1.5	.0	.0
1984	2353.5	-3.4	2353.5	-3.4	.0	.0
1985	2324.0	-11.7	2324.6	-11.1	.0	.6
1986	2328.4	-14.5	2328.4	-14.5	.0	.0
1987	2301.3	-14.6	2301.3	-14.6	.0	.0
1988	2293.6	-10.9	2293.7	-10.9	.0	.1
1989	2289.7	-6.6	2290.8	-6.5	.0	1.1
1990	2272.3	-10.7	2272.6	-10.6	.0	.3
1991	2235.7	-5.2	2239.9	-5.0	.2	4.2
Mean:	2322.0	-6.3	2322.1	-6.3	.0	.1
Median:	2334.5	-6.2	2334.5	-6.2	.0	.0
Min:	2195.3	-35.2	2195.2	-35.3	-.2	-4.4
Max:	2369.2	8.1	2369.2	8.0	.2	4.2
X > 2310.0	51		50			
X > 2295.0	53		53			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

July

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	Rel Diff (%)	Abs Diff (ft)
1922	2331.7	.0	2331.7	.0	.0	.0
1923	2295.7	-14.8	2294.8	-13.6	.0	-.9
1924	2189.6	-31.6	2185.1	-31.7	-.2	-4.5
1925	2269.4	-9.2	2268.0	-9.3	-.1	-1.4
1926	2272.0	-10.7	2270.6	-10.8	-.1	-1.4
1927	2341.4	-9.9	2340.9	-9.6	.0	-.5
1928	2331.7	-14.9	2331.7	-14.9	.0	.0
1929	2270.1	-17.0	2271.4	-16.6	.1	1.3
1930	2258.7	-11.1	2260.0	-11.0	.1	1.3
1931	2184.3	-32.8	2188.6	-29.7	.2	4.3
1932	2201.4	-15.2	2201.4	-15.2	.0	.0
1933	2203.6	-19.6	2205.1	-19.4	.1	1.5
1934	2184.3	-23.4	2184.3	-25.7	.0	.0
1935	2241.7	-4.9	2241.7	-4.9	.0	.0
1936	2267.4	-9.3	2267.4	-9.3	.0	.0
1937	2283.3	-7.6	2283.3	-7.6	.0	.0
1938	2358.7	-10.5	2358.7	-10.2	.0	.0
1939	2296.1	-14.5	2296.8	-14.3	.0	.7
1940	2327.2	-15.4	2327.5	-15.3	.0	.3
1941	2358.7	-10.5	2358.7	-10.5	.0	.0
1942	2358.7	-6.7	2358.7	-6.7	.0	.0
1943	2343.1	-9.5	2343.5	-9.1	.0	.4
1944	2314.4	-11.7	2314.9	-9.5	.0	.5
1945	2316.7	-11.4	2315.7	-12.7	.0	-1.0
1946	2324.5	-14.3	2324.2	-14.3	.0	-.3
1947	2293.6	-11.2	2296.0	-8.5	.1	2.4
1948	2326.0	-5.1	2327.3	-5.1	.1	1.3
1949	2327.5	-11.7	2328.2	-11.7	.0	.7
1950	2305.7	-16.5	2305.7	-16.5	.0	.0
1951	2333.4	-14.7	2333.4	-14.7	.0	.0
1952	2358.7	-10.4	2358.7	-10.4	.0	.0
1953	2358.7	-10.5	2358.7	-10.5	.0	.0
1954	2342.6	-13.3	2342.8	-13.2	.0	.2
1955	2319.7	-9.5	2319.7	-9.5	.0	.0
1956	2358.7	-10.3	2358.7	-10.3	.0	.0
1957	2347.9	-13.1	2348.1	-13.0	.0	.2
1958	2358.7	-10.5	2358.7	-10.5	.0	.0
1959	2318.8	-15.7	2318.8	-15.7	.0	.0
1960	2314.4	-6.3	2314.4	-6.3	.0	.0
1961	2336.2	-11.6	2336.0	-11.8	.0	-.2
1962	2328.2	-14.5	2328.3	-14.5	.0	.1
1963	2351.5	-8.1	2351.5	-8.1	.0	.0
1964	2312.3	-9.6	2312.3	-9.6	.0	.0
1965	2338.2	-10.2	2338.0	-10.4	.0	-.2
1966	2336.1	-13.6	2336.0	-13.6	.0	-.1
1967	2358.7	-8.8	2358.7	-8.8	.0	.0
1968	2321.5	-15.4	2322.1	-15.3	.0	.6
1969	2358.7	-10.5	2358.7	-10.5	.0	.0
1970	2318.8	-15.7	2318.8	-15.7	.0	.0
1971	2356.5	-5.9	2356.5	-5.9	.0	.0
1972	2329.7	-14.9	2329.8	-15.0	.0	.1
1973	2340.0	-13.5	2339.8	-13.6	.0	-.2
1974	2358.7	-10.5	2358.7	-10.5	.0	.0
1975	2358.7	-10.5	2358.7	-10.5	.0	.0
1976	2293.9	-17.1	2294.1	-16.9	.0	.2
1977	2179.9	-15.4	2179.9	-15.3	.0	.0
1978	2317.7	-4.2	2317.6	-4.1	.0	-.1
1979	2312.8	-16.1	2312.6	-16.1	.0	-.2
1980	2335.0	-11.4	2335.8	-11.6	.0	.8
1981	2324.5	-12.7	2326.1	-12.9	.1	1.6
1982	2355.0	-6.2	2355.0	-6.2	.0	.0
1983	2358.7	-10.5	2358.7	-10.5	.0	.0
1984	2340.2	-13.3	2340.2	-13.3	.0	.0
1985	2311.0	-13.0	2313.2	-11.4	.1	2.2
1986	2311.8	-16.6	2311.8	-16.6	.0	.0
1987	2289.1	-12.2	2289.1	-12.2	.0	.0
1988	2276.7	-16.9	2277.4	-16.3	.0	.7
1989	2279.1	-10.6	2280.2	-10.6	.0	1.1
1990	2258.6	-13.7	2258.9	-13.7	.0	.3
1991	2228.6	-7.1	2232.2	-7.7	.2	3.6
Mean:	2309.5	-12.4	2309.7	-12.2	.0	.2
Median:	2321.5	-11.6	2322.1	-11.6	.0	.0
Min:	2179.9	-32.8	2179.9	-31.7	-.2	-4.5
Max:	2358.7	.0	2358.7	.0	.2	4.3
X > 2310.0	47		47			
X > 2295.0	50		50			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

August

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2316.0	.0	2316.0	.0	.0	.0
1923	2279.0	-16.7	2276.1	-18.7	-.1	-2.9
1924	2184.3	-5.3	2181.8	-3.3	-.1	-2.5
1925	2265.1	-4.3	2263.6	-4.4	-.1	-1.5
1926	2267.6	-4.4	2266.2	-4.4	-.1	-1.4
1927	2335.0	-6.4	2333.6	-7.3	-.1	-1.4
1928	2315.5	-16.2	2315.5	-16.2	.0	.0
1929	2250.8	-19.3	2252.3	-19.1	.1	1.5
1930	2254.0	-4.7	2255.4	-4.6	.1	1.4
1931	2181.2	-3.1	2184.3	-4.3	.1	3.1
1932	2184.3	-17.1	2184.3	-17.1	.0	.0
1933	2184.3	-19.3	2184.3	-20.8	.0	.0
1934	2181.4	-2.9	2181.4	-2.9	.0	.0
1935	2238.3	-3.4	2238.3	-3.4	.0	.0
1936	2263.2	-4.2	2263.2	-4.2	.0	.0
1937	2276.1	-7.2	2276.1	-7.2	.0	.0
1938	2351.2	-7.5	2351.2	-7.5	.0	.0
1939	2280.9	-15.2	2281.7	-15.1	.0	.8
1940	2310.5	-16.7	2310.7	-16.8	.0	.2
1941	2351.2	-7.5	2351.2	-7.5	.0	.0
1942	2351.2	-7.5	2351.2	-7.5	.0	.0
1943	2337.9	-5.2	2338.4	-5.1	.0	.5
1944	2301.4	-13.0	2302.3	-12.6	.0	.9
1945	2299.1	-17.6	2298.0	-17.7	.0	-1.1
1946	2307.7	-16.8	2307.4	-16.8	.0	-.3
1947	2290.2	-3.4	2292.6	-3.4	.1	2.4
1948	2320.6	-5.4	2321.4	-5.9	.0	.8
1949	2316.5	-11.0	2315.8	-12.4	.0	-.7
1950	2287.1	-18.6	2287.1	-18.6	.0	.0
1951	2317.4	-16.0	2317.4	-16.0	.0	.0
1952	2351.2	-7.5	2351.2	-7.5	.0	.0
1953	2351.2	-7.5	2351.2	-7.5	.0	.0
1954	2328.0	-14.6	2328.2	-14.6	.0	.2
1955	2315.0	-4.7	2315.6	-4.1	.0	.6
1956	2351.2	-7.5	2351.2	-7.5	.0	.0
1957	2343.2	-4.7	2343.4	-4.7	.0	.2
1958	2351.2	-7.5	2351.2	-7.5	.0	.0
1959	2301.4	-17.4	2301.4	-17.4	.0	.0
1960	2311.2	-3.2	2311.2	-3.2	.0	.0
1961	2322.1	-14.1	2322.2	-13.8	.0	.1
1962	2312.6	-15.6	2312.7	-15.6	.0	.1
1963	2346.3	-5.2	2346.3	-5.2	.0	.0
1964	2305.4	-6.9	2305.6	-6.7	.0	.2
1965	2333.9	-4.3	2333.7	-4.3	.0	-.2
1966	2321.1	-15.0	2321.0	-15.0	.0	-.1
1967	2351.2	-7.5	2351.2	-7.5	.0	.0
1968	2304.7	-16.8	2307.1	-15.0	.1	2.4
1969	2351.2	-7.5	2351.2	-7.5	.0	.0
1970	2301.0	-17.8	2301.5	-17.3	.0	.5
1971	2351.2	-5.3	2351.2	-5.3	.0	.0
1972	2313.5	-16.2	2313.6	-16.2	.0	.1
1973	2324.3	-15.7	2324.0	-15.8	.0	-.3
1974	2351.2	-7.5	2351.2	-7.5	.0	.0
1975	2351.2	-7.5	2351.2	-7.5	.0	.0
1976	2279.1	-14.8	2279.0	-15.1	.0	-.1
1977	2173.1	-6.8	2173.0	-6.9	.0	-.1
1978	2314.9	-2.8	2314.7	-2.9	.0	-.2
1979	2294.4	-18.4	2295.6	-17.0	.1	1.2
1980	2324.5	-10.5	2327.0	-8.8	.1	2.5
1981	2314.0	-10.5	2313.8	-12.3	.0	-.2
1982	2350.3	-4.7	2350.3	-4.7	.0	.0
1983	2351.2	-7.5	2351.2	-7.5	.0	.0
1984	2335.4	-4.8	2335.4	-4.8	.0	.0
1985	2302.1	-8.9	2303.0	-10.2	.0	.9
1986	2294.6	-17.2	2294.6	-17.2	.0	.0
1987	2282.7	-6.4	2282.8	-6.3	.0	.1
1988	2256.8	-19.9	2258.1	-19.3	.1	1.3
1989	2274.5	-4.6	2275.6	-4.6	.0	1.1
1990	2253.6	-5.0	2253.9	-5.0	.0	.3
1991	2213.7	-14.9	2217.7	-14.5	.2	4.0
Mean:	2299.4	-9.9	2299.6	-9.9	.0	.2
Median:	2311.2	-7.5	2311.2	-7.5	.0	.0
Min:	2173.1	-19.9	2173.0	-20.8	-.1	-2.9
Max:	2351.2	.0	2351.2	.0	.2	4.0
X > 2310.0	37		37			
X > 2295.0	45		46			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

CLAIR ENGLE RESERVOIR ELEVATION

September

Water Year	Cuml. Elev (ft msl)	Cuml. Change from Prev (ft)	No Proj-constrained Elev (ft msl)	No Proj-constrained Change from Prev (ft)	No Proj-constrained Rel Diff (%)	No Proj-constrained Abs Diff (ft)
1922	2311.3	.0	2311.3	.0	.0	.0
1923	2277.0	-2.0	2274.1	-2.0	-.1	-2.9
1924	2181.5	-2.8	2178.9	-2.9	-.1	-2.6
1925	2263.8	-1.3	2262.4	-1.2	-.1	-1.4
1926	2265.2	-2.4	2263.8	-2.4	-.1	-1.4
1927	2328.5	-6.5	2328.0	-5.6	.0	-.5
1928	2308.0	-7.5	2307.6	-7.9	.0	-.4
1929	2248.1	-2.7	2249.5	-2.8	.1	1.4
1930	2251.6	-2.4	2253.0	-2.4	.1	1.4
1931	2178.5	-2.7	2181.7	-2.6	.1	3.2
1932	2181.9	-2.4	2181.9	-2.4	.0	.0
1933	2182.4	-1.9	2182.4	-1.9	.0	.0
1934	2178.9	-2.5	2178.9	-2.5	.0	.0
1935	2233.5	-4.8	2233.5	-4.8	.0	.0
1936	2260.9	-2.3	2260.9	-2.3	.0	.0
1937	2271.8	-4.3	2268.6	-7.5	-.1	-3.2
1938	2339.6	-11.6	2339.6	-11.6	.0	.0
1939	2278.7	-2.2	2279.5	-2.2	.0	.8
1940	2306.2	-4.3	2306.5	-4.2	.0	.3
1941	2339.6	-11.6	2339.6	-11.6	.0	.0
1942	2339.6	-11.6	2339.6	-11.6	.0	.0
1943	2330.4	-7.5	2330.9	-7.5	.0	.5
1944	2299.6	-1.8	2300.4	-1.9	.0	.8
1945	2292.0	-7.1	2290.8	-7.2	-.1	-1.2
1946	2305.0	-2.7	2304.6	-2.8	.0	-.4
1947	2288.2	-2.0	2290.6	-2.0	.1	2.4
1948	2319.2	-1.4	2320.0	-1.4	.0	.8
1949	2314.7	-1.8	2313.9	-1.9	.0	-.8
1950	2285.3	-1.8	2285.3	-1.8	.0	.0
1951	2314.1	-3.3	2314.7	-2.7	.0	.6
1952	2339.6	-11.6	2339.6	-11.6	.0	.0
1953	2339.6	-11.6	2339.6	-11.6	.0	.0
1954	2323.8	-4.2	2323.8	-4.4	.0	.0
1955	2313.7	-1.3	2314.3	-1.3	.0	.6
1956	2339.6	-11.6	2339.6	-11.6	.0	.0
1957	2339.6	-3.6	2339.6	-3.8	.0	.0
1958	2339.6	-11.6	2339.6	-11.6	.0	.0
1959	2299.9	-1.5	2299.9	-1.5	.0	.0
1960	2309.3	-1.9	2309.3	-1.9	.0	.0
1961	2320.3	-1.8	2320.4	-1.8	.0	.1
1962	2310.9	-1.7	2310.9	-1.8	.0	.0
1963	2339.6	-6.7	2339.6	-6.7	.0	.0
1964	2304.3	-1.1	2304.4	-1.2	.0	.1
1965	2331.6	-2.3	2331.4	-2.3	.0	-.2
1966	2320.0	-1.1	2319.9	-1.1	.0	-.1
1967	2339.6	-11.6	2339.6	-11.6	.0	.0
1968	2297.5	-7.2	2303.3	-3.8	.3	5.8
1969	2339.6	-11.6	2339.6	-11.6	.0	.0
1970	2295.8	-5.2	2296.1	-5.4	.0	.3
1971	2339.6	-11.6	2339.6	-11.6	.0	.0
1972	2302.1	-11.4	2301.7	-11.9	.0	-.4
1973	2320.1	-4.2	2319.9	-4.1	.0	-.2
1974	2339.6	-11.6	2339.6	-11.6	.0	.0
1975	2339.6	-11.6	2339.6	-11.6	.0	.0
1976	2277.4	-1.7	2277.2	-1.8	.0	-.2
1977	2173.3	.2	2173.2	.2	.0	-.1
1978	2315.3	.4	2315.1	.4	.0	-.2
1979	2290.8	-3.6	2293.8	-1.8	.1	3.0
1980	2322.7	-1.8	2325.2	-1.8	.1	2.5
1981	2311.7	-2.3	2311.4	-2.4	.0	-.3
1982	2339.6	-10.7	2339.6	-10.7	.0	.0
1983	2339.6	-11.6	2339.6	-11.6	.0	.0
1984	2332.9	-2.5	2332.9	-2.5	.0	.0
1985	2300.3	-1.8	2301.2	-1.8	.0	.9
1986	2292.9	-1.7	2292.9	-1.7	.0	.0
1987	2279.8	-2.9	2279.9	-2.9	.0	.1
1988	2253.5	-3.3	2254.8	-3.3	.1	1.3
1989	2272.6	-1.9	2273.8	-1.8	.1	1.2
1990	2250.8	-2.8	2251.2	-2.7	.0	.4
1991	2210.6	-3.1	2214.7	-3.0	.2	4.1
Mean:	2294.6	-4.7	2294.9	-4.7	.0	.2
Median:	2306.2	-2.8	2306.5	-2.7	.0	.0
Min:	2173.3	-11.6	2173.2	-11.9	-.1	-3.2
Max:	2339.6	.4	2339.6	.4	.3	5.8
X > 2310.0	33		33			
X > 2295.0	44		44			
X > 2170.0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			
X > .0	70		70			

RETURN TO TABLE OF CONTENTS

Section 17

SACRAMENTO RIVER FLOW BELOW KESWICK DAM

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

October

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	5500.0	5500.0	.0	.0
1924	3750.0	3606.3	-3.8	-143.7
1925	3250.0	3250.0	.0	.0
1926	4750.0	4750.0	.0	.0
1927	3500.0	3500.0	.0	.0
1928	5500.0	5500.0	.0	.0
1929	5161.4	5071.3	-1.7	-90.1
1930	3515.5	3515.5	.0	.0
1931	3500.0	3500.0	.0	.0
1932	3304.7	3304.7	.0	.0
1933	3772.3	3772.3	.0	.0
1934	3405.9	3405.9	.0	.0
1935	3250.0	3250.0	.0	.0
1936	3585.2	3587.8	.1	2.6
1937	4087.2	4087.2	.0	.0
1938	3500.0	3365.3	-3.8	-134.7
1939	7138.3	7138.3	.0	.0
1940	3250.0	3250.0	.0	.0
1941	5000.0	5000.0	.0	.0
1942	6798.4	6798.4	.0	.0
1943	6730.1	6730.1	.0	.0
1944	5500.0	5500.0	.0	.0
1945	4000.0	4000.0	.0	.0
1946	4500.0	4500.0	.0	.0
1947	5050.1	5050.1	.0	.0
1948	3500.0	3750.0	7.1	250.0
1949	5500.0	5500.0	.0	.0
1950	5000.0	4750.0	-5.0	-250.0
1951	3750.0	3750.0	.0	.0
1952	5250.0	5250.0	.0	.0
1953	6534.9	6534.9	.0	.0
1954	6872.0	6872.0	.0	.0
1955	5500.0	5500.0	.0	.0
1956	5000.0	5000.0	.0	.0
1957	7447.3	7447.3	.0	.0
1958	10643.8	10678.9	.3	35.1
1959	7234.2	7234.2	.0	.0
1960	4518.7	4552.4	.7	33.7
1961	5000.0	5000.0	.0	.0
1962	5250.0	5250.0	.0	.0
1963	6154.6	6390.9	3.8	236.3
1964	6940.8	6940.8	.0	.0
1965	4250.0	4250.0	.0	.0
1966	5500.0	5500.0	.0	.0
1967	5324.0	5331.7	.1	7.7
1968	7268.4	7268.4	.0	.0
1969	5000.0	5250.0	5.0	250.0
1970	7185.4	7185.4	.0	.0
1971	5000.0	5000.0	.0	.0
1972	7309.0	7309.0	.0	.0
1973	5000.0	5000.0	.0	.0
1974	5500.0	5500.0	.0	.0
1975	7146.4	7146.4	.0	.0
1976	8389.4	8389.4	.0	.0
1977	4000.0	4000.0	.0	.0
1978	5647.6	5782.4	2.4	134.8
1979	5500.0	5500.0	.0	.0
1980	4500.0	4500.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	4750.0	4750.0	.0	.0
1983	8057.2	8057.2	.0	.0
1984	7829.5	7829.5	.0	.0
1985	5500.0	5500.0	.0	.0
1986	4250.0	4250.0	.0	.0
1987	4750.0	4750.0	.0	.0
1988	3427.4	3427.4	.0	.0
1989	3669.0	3669.0	.0	.0
1990	4500.0	4250.0	-5.6	-250.0
1991	3527.8	3527.8	.0	.0
Mean:	5206.1	5207.3	.0	1.2
Median:	5000.0	5000.0	.0	.0
Min:	3250.0	3250.0	-5.6	-250.0
Max:	10643.8	10678.9	7.1	250.0
Rel Dif = 0.0			57	
Rel Dif > 0.0			8	
Rel Dif < 0.0			5	
Rel Dif: 0.0 < X <= 5.0			7	
5.0 < X <= 20.0			1	
X > 20.0			1	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			4	
X < -20.0			1	
X <= 3250.0	3	3		
3250.0 < X <= 4250.0	19	20		
4250.0 < X <= 5250.0	19	18		
5250.0 < X	29	29		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

November

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	5500.0	5500.0	.0	.0
1924	3750.0	3572.3	-4.7	-177.7
1925	3250.0	3250.0	.0	.0
1926	4750.0	4750.0	.0	.0
1927	3500.0	3500.0	.0	.0
1928	5500.0	5500.0	.0	.0
1929	4750.0	4750.0	.0	.0
1930	3250.0	3250.0	.0	.0
1931	3500.0	3500.0	.0	.0
1932	3250.0	3250.0	.0	.0
1933	3730.0	3730.0	.0	.0
1934	3250.0	3250.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	3698.0	3691.0	-.2	-7.0
1937	3678.5	3678.5	.0	.0
1938	3500.0	3250.0	-7.1	-250.0
1939	5500.0	5500.0	.0	.0
1940	3250.0	3250.0	.0	.0
1941	5000.0	5000.0	.0	.0
1942	5500.0	5500.0	.0	.0
1943	5500.0	5500.0	.0	.0
1944	5500.0	5500.0	.0	.0
1945	4000.0	4000.0	.0	.0
1946	4500.0	4500.0	.0	.0
1947	4750.0	4750.0	.0	.0
1948	3500.0	3750.0	7.1	250.0
1949	5500.0	5500.0	.0	.0
1950	5000.0	4750.0	-5.0	-250.0
1951	3750.0	3750.0	.0	.0
1952	5250.0	5250.0	.0	.0
1953	5500.0	5500.0	.0	.0
1954	8048.7	8048.7	.0	.0
1955	5500.0	5500.0	.0	.0
1956	5000.0	5000.0	.0	.0
1957	5500.0	5500.0	.0	.0
1958	7780.4	7780.4	.0	.0
1959	5500.0	5500.0	.0	.0
1960	4451.5	4479.8	.6	28.3
1961	5000.0	5000.0	.0	.0
1962	5250.0	5250.0	.0	.0
1963	5250.0	5250.0	.0	.0
1964	10208.8	10208.8	.0	.0
1965	4250.0	4250.0	.0	.0
1966	8240.6	8197.3	-.5	-43.3
1967	5000.0	5000.0	.0	.0
1968	5500.0	5500.0	.0	.0
1969	5000.0	5250.0	5.0	250.0
1970	5500.0	5500.0	.0	.0
1971	5000.0	5000.0	.0	.0
1972	5500.0	5500.0	.0	.0
1973	5000.0	5000.0	.0	.0
1974	29842.8	30035.0	.6	192.2
1975	5500.0	5500.0	.0	.0
1976	5578.3	5578.3	.0	.0
1977	4000.0	4000.0	.0	.0
1978	5082.9	5204.2	2.4	121.3
1979	5500.0	5500.0	.0	.0
1980	4500.0	4500.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	9651.4	9545.3	-1.1	-106.1
1983	6652.7	6652.7	.0	.0
1984	13647.2	13647.2	.0	.0
1985	12048.6	12052.6	.0	4.0
1986	4250.0	4250.0	.0	.0
1987	4750.0	4750.0	.0	.0
1988	3250.0	3250.0	.0	.0
1989	3302.1	3302.1	.0	.0
1990	4500.0	4250.0	-5.6	-250.0
1991	3655.5	3250.0	-11.1	-405.5
Mean:	5522.1	5512.9	-.3	-9.2
Median:	5000.0	5000.0	.0	.0
Min:	3250.0	3250.0	-11.1	-405.5
Max:	29842.8	30035.0	7.1	250.0
Rel Dif = 0.0		57		
Rel Dif > 0.0		5		
Rel Dif < 0.0		8		
Rel Dif: 0.0 < X <= 5.0		4		
5.0 < X <= 20.0		1		
X > 20.0		1		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		5		
X < -20.0		3		
X <= 3250.0	7	9		
3250.0 < X <= 4250.0	15	14		
4250.0 < X <= 5250.0	21	20		
5250.0 < X	27	27		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

December

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	5500.0	5500.0	.0	.0
1924	3750.0	3500.0	-6.7	-250.0
1925	3250.0	3250.0	.0	.0
1926	4750.0	4750.0	.0	.0
1927	3500.0	3500.0	.0	.0
1928	5500.0	5500.0	.0	.0
1929	4750.0	4750.0	.0	.0
1930	3250.0	3250.0	.0	.0
1931	3500.0	3500.0	.0	.0
1932	3250.0	3250.0	.0	.0
1933	3357.0	3357.0	.0	.0
1934	3250.0	3250.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	3328.2	3321.9	-.2	-6.3
1937	3310.6	3500.0	5.7	189.4
1938	10552.5	8683.4	-17.7	-1869.1
1939	5500.0	5500.0	.0	.0
1940	3250.0	3250.0	.0	.0
1941	9118.8	9552.1	4.8	433.3
1942	19062.4	19062.4	.0	.0
1943	6083.6	6083.6	.0	.0
1944	5500.0	5500.0	.0	.0
1945	4000.0	4000.0	.0	.0
1946	17792.9	17825.2	.2	32.3
1947	4750.0	4750.0	.0	.0
1948	3500.0	3750.0	7.1	250.0
1949	5500.0	5500.0	.0	.0
1950	5000.0	4750.0	-5.0	-250.0
1951	12622.6	12629.1	.1	6.5
1952	12796.9	13210.5	3.2	413.6
1953	8109.0	8109.0	.0	.0
1954	5500.0	5500.0	.0	.0
1955	5500.0	5500.0	.0	.0
1956	24495.0	24831.0	1.4	336.0
1957	5500.0	5500.0	.0	.0
1958	10729.4	10729.4	.0	.0
1959	5500.0	5500.0	.0	.0
1960	5332.7	5489.4	2.9	156.7
1961	5000.0	5000.0	.0	.0
1962	5250.0	5250.0	.0	.0
1963	9610.3	9624.5	.1	14.2
1964	5500.0	5500.0	.0	.0
1965	19933.8	19984.5	.3	50.7
1966	5500.0	5500.0	.0	.0
1967	10849.9	11718.4	8.0	868.5
1968	5500.0	5500.0	.0	.0
1969	5000.0	5250.0	5.0	250.0
1970	17006.5	17006.5	.0	.0
1971	14411.5	14625.2	1.5	213.7
1972	5500.0	5500.0	.0	.0
1973	5000.0	5000.0	.0	.0
1974	23144.4	23144.4	.0	.0
1975	5500.0	5500.0	.0	.0
1976	5500.0	5500.0	.0	.0
1977	4817.3	4735.6	-1.7	-81.7
1978	4574.6	4683.7	2.4	109.1
1979	5500.0	5500.0	.0	.0
1980	4500.0	4500.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	25323.7	25323.7	.0	.0
1983	14891.9	14891.9	.0	.0
1984	26982.6	26982.6	.0	.0
1985	6307.7	6307.7	.0	.0
1986	4250.0	4250.0	.0	.0
1987	4996.2	4852.5	-2.9	-143.7
1988	3250.0	3250.0	.0	.0
1989	3250.0	3250.0	.0	.0
1990	4500.0	4250.0	-5.6	-250.0
1991	4632.8	3891.1	-16.0	-741.7
Mean:	7563.2	7559.4	-.2	-3.8
Median:	5500.0	5500.0	.0	.0
Min:	3250.0	3250.0	-17.7	-1869.1
Max:	26982.6	26982.6	8.0	868.5
Rel Dif = 0.0			48	
Rel Dif > 0.0			14	
Rel Dif < 0.0			8	
Rel Dif: 0.0 < X <= 5.0			11	
5.0 < X <= 20.0			3	
X > 20.0			3	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			4	
X < -20.0			4	
X <= 3250.0	8	8		
3250.0 < X <= 4250.0	9	11		
4250.0 < X <= 5250.0	15	13		
5250.0 < X	38	38		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

January

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	4750.0	4750.0	.0	.0
1924	3750.0	3750.0	.0	.0
1925	3250.0	3250.0	.0	.0
1926	4000.0	3800.0	-5.0	-200.0
1927	5500.0	5500.0	.0	.0
1928	5500.0	5500.0	.0	.0
1929	3800.0	3800.0	.0	.0
1930	3750.0	3750.0	.0	.0
1931	3750.0	3750.0	.0	.0
1932	3250.0	3250.0	.0	.0
1933	3250.0	3250.0	.0	.0
1934	3250.0	3250.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	3250.0	3250.0	.0	.0
1937	3750.0	3750.0	.0	.0
1938	5500.0	5500.0	.0	.0
1939	5500.0	5500.0	.0	.0
1940	3750.0	3750.0	.0	.0
1941	24582.7	24582.7	.0	.0
1942	20001.6	20001.6	.0	.0
1943	12611.2	12611.2	.0	.0
1944	4750.0	4750.0	.0	.0
1945	4500.0	4500.0	.0	.0
1946	7276.2	7276.2	.0	.0
1947	4250.0	4250.0	.0	.0
1948	3750.0	3750.0	.0	.0
1949	4750.0	4750.0	.0	.0
1950	4000.0	3800.0	-5.0	-200.0
1951	7470.9	7470.9	.0	.0
1952	7942.7	7942.7	.0	.0
1953	31096.6	31096.6	.0	.0
1954	12977.6	12977.6	.0	.0
1955	5500.0	5500.0	.0	.0
1956	32723.6	32723.6	.0	.0
1957	5250.0	5250.0	.0	.0
1958	13733.9	13733.9	.0	.0
1959	9139.2	9139.2	.0	.0
1960	4266.2	4391.5	2.9	125.3
1961	5250.0	5250.0	.0	.0
1962	5250.0	5250.0	.0	.0
1963	5500.0	5500.0	.0	.0
1964	5500.0	5500.0	.0	.0
1965	23417.8	23417.8	.0	.0
1966	5500.0	5500.0	.0	.0
1967	9847.4	9847.4	.0	.0
1968	5250.0	5250.0	.0	.0
1969	20015.6	20271.9	1.3	256.3
1970	52792.2	52792.2	.0	.0
1971	14334.1	14334.1	.0	.0
1972	5500.0	5500.0	.0	.0
1973	12904.7	13552.0	5.0	647.3
1974	38513.3	38513.3	.0	.0
1975	5500.0	5500.0	.0	.0
1976	5500.0	5500.0	.0	.0
1977	5919.5	5934.7	.3	15.2
1978	3659.7	3747.0	2.4	87.3
1979	4750.0	4750.0	.0	.0
1980	9751.5	10387.6	6.5	636.1
1981	5000.0	5000.0	.0	.0
1982	7594.9	7594.9	.0	.0
1983	21504.2	21504.2	.0	.0
1984	7275.7	7275.7	.0	.0
1985	5500.0	5500.0	.0	.0
1986	4000.0	4000.0	.0	.0
1987	4000.0	4000.0	.0	.0
1988	4000.0	4000.0	.0	.0
1989	3750.0	3750.0	.0	.0
1990	4000.0	4000.0	.0	.0
1991	5309.1	5161.0	-2.8	-148.1
Mean:	8778.0	8795.5	.1	17.4
Median:	5309.1	5250.0	.0	.0
Min:	3250.0	3250.0	-5.0	-200.0
Max:	52792.2	52792.2	6.5	647.3
Rel Dif = 0.0			61	
Rel Dif > 0.0			6	
Rel Dif < 0.0			3	
Rel Dif: 0.0 < X <= 5.0			5	
5.0 < X <= 20.0			1	
X > 20.0			1	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			3	
X < -20.0			0	
X <= 3250.0	6	6		
3250.0 < X <= 4250.0	16	16		
4250.0 < X <= 5250.0	12	13		
5250.0 < X	36	35		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

February

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4250.0	4250.0	.0	.0
1923	4750.0	4750.0	.0	.0
1924	3750.0	3750.0	.0	.0
1925	3250.0	3250.0	.0	.0
1926	3750.0	3750.0	.0	.0
1927	29000.1	29303.4	1.0	303.3
1928	5500.0	5500.0	.0	.0
1929	3750.0	3750.0	.0	.0
1930	3750.0	3750.0	.0	.0
1931	3750.0	3750.0	.0	.0
1932	3250.0	3250.0	.0	.0
1933	3250.0	3250.0	.0	.0
1934	3250.0	3250.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	3500.0	3500.0	.0	.0
1937	3500.0	3500.0	.0	.0
1938	28514.8	28514.8	.0	.0
1939	5250.0	5250.0	.0	.0
1940	29381.0	29673.8	1.0	292.8
1941	24121.3	24175.6	.2	54.3
1942	28909.6	28909.6	.0	.0
1943	7830.4	7830.4	.0	.0
1944	4500.0	4500.0	.0	.0
1945	4750.0	4750.0	.0	.0
1946	6740.2	6698.9	-.6	-41.3
1947	4000.0	4000.0	.0	.0
1948	4750.0	4500.0	-5.3	-250.0
1949	4275.0	4275.0	.0	.0
1950	4000.0	4250.0	6.3	250.0
1951	16170.0	16174.3	.0	4.3
1952	19165.9	19165.9	.0	.0
1953	5500.0	5500.0	.0	.0
1954	19960.1	19960.1	.0	.0
1955	5500.0	5500.0	.0	.0
1956	23030.8	23030.8	.0	.0
1957	5720.0	5720.0	.0	.0
1958	53810.3	53810.3	.0	.0
1959	13781.7	13781.7	.0	.0
1960	3839.5	3952.4	2.9	112.9
1961	5250.0	5250.0	.0	.0
1962	14226.6	14258.5	.2	31.9
1963	10111.5	10111.5	.0	.0
1964	5500.0	5500.0	.0	.0
1965	5500.0	5500.0	.0	.0
1966	5864.0	5864.0	.0	.0
1967	7800.7	7800.7	.0	.0
1968	15863.9	15863.9	.0	.0
1969	21419.0	21419.0	.0	.0
1970	13897.6	13897.6	.0	.0
1971	5500.0	5500.0	.0	.0
1972	5500.0	5500.0	.0	.0
1973	18914.3	18914.3	.0	.0
1974	5430.7	5430.7	.0	.0
1975	5250.0	5250.0	.0	.0
1976	5000.0	5000.0	.0	.0
1977	8665.1	8602.4	-.7	-62.7
1978	5546.9	5005.8	-9.8	-541.1
1979	4750.0	4750.0	.0	.0
1980	31320.6	31320.6	.0	.0
1981	5500.0	5500.0	.0	.0
1982	26063.1	26063.1	.0	.0
1983	36778.2	36778.2	.0	.0
1984	5500.0	5500.0	.0	.0
1985	5500.0	5500.0	.0	.0
1986	45495.9	46069.7	1.3	573.8
1987	4000.0	4000.0	.0	.0
1988	4750.0	4750.0	.0	.0
1989	3750.0	3750.0	.0	.0
1990	4250.0	4250.0	.0	.0
1991	6627.1	6495.8	-2.0	-131.3
Mean:		10836.1	10844.6	-.1	8.5
Median:		5500.0	5500.0	.0	.0
Min:		3250.0	3250.0	-9.8	-541.1
Max:		53810.3	53810.3	6.3	573.8
Rel Dif = 0.0				58	
Rel Dif > 0.0				7	
Rel Dif < 0.0				5	
Rel Dif: 0.0 < X <= 5.0				6	
5.0 < X <= 20.0				1	
X > 20.0				1	
0.0 > X >= -5.0				0	
-5.0 > X >= -20.0				3	
X < -20.0				2	
X <= 3250.0		5		5	
3250.0 < X <= 4250.0		14		14	
4250.0 < X <= 5250.0		11		12	
5250.0 < X		40		39	

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

March

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4750.0	4750.0	.0	.0
1923	4275.0	4275.0	.0	.0
1924	4632.2	4477.1	-3.3	-155.1
1925	6327.3	5987.6	-5.4	-339.7
1926	5250.0	5000.0	-4.8	-250.0
1927	5500.0	5500.0	.0	.0
1928	13335.3	13227.9	-.8	-107.4
1929	3750.0	3750.0	.0	.0
1930	3750.0	3750.0	.0	.0
1931	4578.2	4520.7	-1.3	-57.5
1932	3250.0	3250.0	.0	.0
1933	3250.0	3250.0	.0	.0
1934	3250.0	3250.0	.0	.0
1935	3250.0	3250.0	.0	.0
1936	3750.0	3750.0	.0	.0
1937	3500.0	3500.0	.0	.0
1938	33907.0	33907.0	.0	.0
1939	5000.0	5000.0	.0	.0
1940	20738.0	20738.0	.0	.0
1941	15300.5	15300.5	.0	.0
1942	5500.0	5500.0	.0	.0
1943	12140.7	12140.7	.0	.0
1944	5000.0	5000.0	.0	.0
1945	5500.0	5500.0	.0	.0
1946	5500.0	5500.0	.0	.0
1947	3750.0	3750.0	.0	.0
1948	4275.0	4050.0	-5.3	-225.0
1949	4000.0	4000.0	.0	.0
1950	4500.0	4750.0	5.6	250.0
1951	5500.0	5500.0	.0	.0
1952	11336.9	11463.7	1.1	126.8
1953	5500.0	5500.0	.0	.0
1954	10734.9	10734.9	.0	.0
1955	5250.0	5250.0	.0	.0
1956	5000.0	5000.0	.0	.0
1957	9628.0	9628.0	.0	.0
1958	21551.4	21551.4	.0	.0
1959	6893.2	6900.5	.1	7.3
1960	5000.0	5250.0	5.0	250.0
1961	5500.0	5500.0	.0	.0
1962	6621.8	6595.2	-.4	-26.6
1963	6237.6	6237.6	.0	.0
1964	5500.0	5500.0	.0	.0
1965	5500.0	5500.0	.0	.0
1966	12478.1	12478.1	.0	.0
1967	15576.6	15576.6	.0	.0
1968	5500.0	5500.0	.0	.0
1969	5821.2	5821.2	.0	.0
1970	5500.0	5500.0	.0	.0
1971	17267.0	17321.5	.3	54.5
1972	11462.8	11462.8	.0	.0
1973	7103.8	7103.8	.0	.0
1974	37528.8	37528.8	.0	.0
1975	26653.9	26653.9	.0	.0
1976	5000.0	5000.0	.0	.0
1977	7607.1	7625.1	.2	18.0
1978	16407.5	16407.5	.0	.0
1979	5250.0	5250.0	.0	.0
1980	5000.0	5000.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	13201.1	13201.1	.0	.0
1983	45943.3	45943.3	.0	.0
1984	5500.0	5500.0	.0	.0
1985	5250.0	5250.0	.0	.0
1986	23093.1	23093.1	.0	.0
1987	4000.0	4000.0	.0	.0
1988	5747.7	5710.5	-.6	-37.2
1989	4553.0	4866.7	6.9	313.7
1990	3825.0	3825.0	.0	.0
1991	5964.4	5846.2	-2.0	-118.2
Mean:	8914.2	8910.0	-.1	-4.2
Median:	5500.0	5500.0	.0	.0
Min:	3250.0	3250.0	-5.4	-339.7
Max:	45943.3	45943.3	6.9	313.7
Rel Dif = 0.0			54	
Rel Dif > 0.0			7	
Rel Dif < 0.0			9	
Rel Dif: 0.0 < X <= 5.0			5	
5.0 < X <= 20.0			2	
X > 20.0			2	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			7	
X < -20.0			2	
X <= 3250.0	4	4		
3250.0 < X <= 4250.0	8	9		
4250.0 < X <= 5250.0	17	16		
5250.0 < X	41	41		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

April

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4500.0	4500.0	.0	.0
1923	3847.5	3847.5	.0	.0
1924	7048.4	7043.0	-.1	-5.4
1925	3750.0	3750.0	.0	.0
1926	4725.0	4500.0	-4.8	-225.0
1927	7900.3	7900.3	.0	.0
1928	5500.0	5500.0	.0	.0
1929	6130.1	5654.4	-7.8	-475.7
1930	4250.0	4500.0	5.9	250.0
1931	8726.1	8698.0	-.3	-28.1
1932	4221.4	4221.4	.0	.0
1933	6624.3	6401.1	-3.4	-223.2
1934	5700.9	5284.6	-7.3	-416.3
1935	3250.0	3250.0	.0	.0
1936	4000.0	4250.0	6.3	250.0
1937	3750.0	3750.0	.0	.0
1938	12570.3	12570.3	.0	.0
1939	8242.5	8008.4	-2.8	-234.1
1940	4500.0	4500.0	.0	.0
1941	15147.7	15147.7	.0	.0
1942	5250.0	5250.0	.0	.0
1943	5500.0	5500.0	.0	.0
1944	4500.0	4500.0	.0	.0
1945	5500.0	5500.0	.0	.0
1946	6215.5	6215.5	.0	.0
1947	4500.0	4500.0	.0	.0
1948	4000.0	4000.0	.0	.0
1949	5500.0	5500.0	.0	.0
1950	4750.0	4750.0	.0	.0
1951	6729.5	6729.5	.0	.0
1952	19431.3	19431.3	.0	.0
1953	5500.0	5500.0	.0	.0
1954	12205.2	12205.2	.0	.0
1955	4725.0	4725.0	.0	.0
1956	5500.0	5500.0	.0	.0
1957	8080.3	8135.5	.7	55.2
1958	12632.3	12632.3	.0	.0
1959	7720.4	7720.4	.0	.0
1960	5782.1	5818.9	.6	36.8
1961	6574.4	6599.5	.4	25.1
1962	5500.0	5500.0	.0	.0
1963	30130.4	30130.4	.0	.0
1964	7962.9	7962.9	.0	.0
1965	5250.0	5250.0	.0	.0
1966	7965.8	7965.8	.0	.0
1967	10203.3	10203.3	.0	.0
1968	6204.8	6246.6	.7	41.8
1969	12102.4	12102.4	.0	.0
1970	6464.9	6464.9	.0	.0
1971	5500.0	5500.0	.0	.0
1972	7724.9	7579.7	-1.9	-145.2
1973	5500.0	5500.0	.0	.0
1974	6570.7	6570.7	.0	.0
1975	5500.0	5500.0	.0	.0
1976	5677.0	5632.2	-.8	-44.8
1977	8087.8	8103.2	.2	15.4
1978	5786.7	5786.7	.0	.0
1979	5000.0	5000.0	.0	.0
1980	5500.0	5500.0	.0	.0
1981	5500.0	5500.0	.0	.0
1982	24960.4	24960.4	.0	.0
1983	9671.1	9671.1	.0	.0
1984	7810.3	7810.3	.0	.0
1985	4725.0	4725.0	.0	.0
1986	4750.0	4750.0	.0	.0
1987	8126.0	8123.0	.0	-3.0
1988	5173.0	5139.4	-.6	-33.6
1989	5500.0	5500.0	.0	.0
1990	6249.6	6016.8	-3.7	-232.8
1991	3500.0	3500.0	.0	.0
Mean:	7194.0	7174.1	-.3	-19.9
Median:	5500.0	5500.0	.0	.0
Min:	3250.0	3250.0	-7.8	-475.7
Max:	30130.4	30130.4	6.3	250.0
Rel Dif = 0.0			52	
Rel Dif > 0.0			7	
Rel Dif < 0.0			11	
Rel Dif: 0.0 < X <= 5.0			5	
5.0 < X <= 20.0			2	
X > 20.0			2	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			9	
X < -20.0			2	
X <= 3250.0	1	1		
3250.0 < X <= 4250.0	8	7		
4250.0 < X <= 5250.0	13	14		
5250.0 < X	48	48		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

May

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	6052.7	6052.7	.0	.0
1923	9064.6	9623.1	6.2	558.5
1924	8484.1	8484.1	.0	.0
1925	3250.0	3250.0	.0	.0
1926	6250.2	6250.2	.0	.0
1927	8680.7	8680.7	.0	.0
1928	8693.7	8693.7	.0	.0
1929	9104.4	9131.3	.3	26.9
1930	5914.4	5914.4	.0	.0
1931	8205.3	8205.3	.0	.0
1932	4733.3	4733.3	.0	.0
1933	6423.4	6423.4	.0	.0
1934	7084.4	7084.4	.0	.0
1935	4785.4	4841.3	1.2	55.9
1936	7378.7	7378.7	.0	.0
1937	7225.9	7784.1	7.7	558.2
1938	8016.2	7996.6	-.2	-19.6
1939	9355.8	9373.1	.2	17.3
1940	6823.8	6823.8	.0	.0
1941	13893.0	13893.0	.0	.0
1942	7904.3	7904.3	.0	.0
1943	7173.0	7173.0	.0	.0
1944	6819.9	6826.3	.1	6.4
1945	7368.2	7413.0	.6	44.8
1946	9306.2	9306.2	.0	.0
1947	9350.3	9350.3	.0	.0
1948	7188.7	7174.2	-.2	-14.5
1949	7479.9	7443.7	-.5	-36.2
1950	10123.8	10123.8	.0	.0
1951	6079.7	6079.7	.0	.0
1952	9716.8	9716.8	.0	.0
1953	5453.9	5453.9	.0	.0
1954	10091.2	10100.9	.1	9.7
1955	5127.6	5127.6	.0	.0
1956	8520.0	8520.0	.0	.0
1957	7001.3	6948.0	-.8	-53.3
1958	9826.1	9826.1	.0	.0
1959	9499.0	9237.2	-2.8	-261.8
1960	5301.8	5422.0	2.3	120.2
1961	10312.7	10274.3	-.4	-38.4
1962	8420.0	8420.0	.0	.0
1963	5457.0	5457.0	.0	.0
1964	6877.8	6877.8	.0	.0
1965	7588.3	7588.3	.0	.0
1966	11791.9	11839.7	.4	47.8
1967	14245.0	14245.0	.0	.0
1968	8613.0	8656.8	.5	43.8
1969	11865.0	12968.1	9.3	1103.1
1970	8512.6	8512.6	.0	.0
1971	9142.2	9142.2	.0	.0
1972	11201.4	11228.8	.2	27.4
1973	7963.8	7963.8	.0	.0
1974	6847.9	6847.9	.0	.0
1975	9308.4	9308.4	.0	.0
1976	9792.1	9739.5	-.5	-52.6
1977	5258.6	5258.6	.0	.0
1978	9168.6	9168.6	.0	.0
1979	7092.4	7148.4	.8	56.0
1980	7057.3	7057.3	.0	.0
1981	9557.9	9361.0	-2.1	-196.9
1982	5208.7	5208.7	.0	.0
1983	13019.8	13019.8	.0	.0
1984	10426.2	10415.9	-.1	-10.3
1985	8865.2	8873.2	.1	8.0
1986	8843.7	8843.7	.0	.0
1987	10591.4	10762.3	1.6	170.9
1988	8510.7	8503.3	-.1	-7.4
1989	8220.3	8376.2	1.9	155.9
1990	8000.3	7967.5	-.4	-32.8
1991	5461.5	5461.5	.0	.0
Mean:	8171.0	8203.7	.4	32.7
Median:	8205.3	8205.3	.0	.0
Min:	3250.0	3250.0	-2.8	-261.8
Max:	14245.0	14245.0	9.3	1103.1
Rel Dif = 0.0		42		
Rel Dif > 0.0		17		
Rel Dif < 0.0		11		
Rel Dif: 0.0 < X <= 5.0		14		
5.0 < X <= 20.0		3		
X > 20.0		3		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		11		
X < -20.0		0		
X <= 3250.0	1	1		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	4	4		
5250.0 < X	65	65		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

June

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	10407.0	10407.0	.0	.0
1923	9721.6	10282.8	5.8	561.2
1924	9433.1	9317.1	-1.2	-116.0
1925	6973.2	6973.2	.0	.0
1926	10109.2	9944.2	-1.6	-165.0
1927	10475.2	10475.2	.0	.0
1928	11895.5	11895.5	.0	.0
1929	7594.5	7594.5	.0	.0
1930	9699.4	9699.4	.0	.0
1931	8449.4	8449.4	.0	.0
1932	6780.1	6780.1	.0	.0
1933	7250.9	7250.9	.0	.0
1934	9601.4	9760.5	1.7	159.1
1935	11038.6	11112.6	.7	74.0
1936	8231.0	8231.0	.0	.0
1937	9337.6	9896.5	6.0	558.9
1938	10683.5	10265.5	-3.9	-418.0
1939	11820.5	11710.5	-.9	-110.0
1940	11738.8	11738.8	.0	.0
1941	12404.4	12404.4	.0	.0
1942	10131.0	10131.0	.0	.0
1943	10288.9	10288.9	.0	.0
1944	10988.7	10768.3	-2.0	-220.4
1945	10563.2	10625.3	.6	62.1
1946	11727.4	11727.4	.0	.0
1947	9469.6	9478.7	.1	9.1
1948	10954.5	10954.5	.0	.0
1949	14508.9	14411.5	-.7	-97.4
1950	11538.0	11538.0	.0	.0
1951	12196.5	12196.5	.0	.0
1952	9021.9	9021.9	.0	.0
1953	11839.0	11839.0	.0	.0
1954	10571.1	10440.0	-1.2	-131.1
1955	11282.0	11308.1	.2	26.1
1956	8728.9	8728.9	.0	.0
1957	10099.2	10001.6	-1.0	-97.6
1958	12693.4	12693.4	.0	.0
1959	14641.1	14418.8	-1.5	-222.3
1960	10783.7	11467.5	6.3	683.8
1961	10453.8	10457.7	.0	3.9
1962	11177.7	11177.7	.0	.0
1963	9457.4	9457.4	.0	.0
1964	8449.8	8449.8	.0	.0
1965	10039.0	10039.0	.0	.0
1966	14917.9	15004.4	.6	86.5
1967	11273.8	11273.8	.0	.0
1968	13187.9	12761.3	-3.2	-426.6
1969	9379.4	9379.4	.0	.0
1970	10458.4	10458.4	.0	.0
1971	10853.7	10853.7	.0	.0
1972	11793.7	11825.1	.3	31.4
1973	10492.0	10538.5	.4	46.5
1974	10750.7	10750.7	.0	.0
1975	12601.1	12601.1	.0	.0
1976	10655.3	10809.8	1.4	154.5
1977	9614.4	9668.3	.6	53.9
1978	10428.4	10428.4	.0	.0
1979	12196.5	12304.1	.9	107.6
1980	9919.2	9919.2	.0	.0
1981	11307.5	10926.0	-3.4	-381.5
1982	7910.6	7910.6	.0	.0
1983	15007.4	15007.4	.0	.0
1984	11221.7	11221.7	.0	.0
1985	10969.5	10583.6	-3.5	-385.9
1986	12085.0	12085.0	.0	.0
1987	12502.8	12484.6	-.1	-18.2
1988	10238.5	10160.0	-.8	-78.5
1989	10064.2	9877.2	-1.9	-187.0
1990	8779.9	8850.9	.8	71.0
1991	6662.4	6726.3	1.0	63.9
Mean:	10578.9	10574.6	.0	-4.3
Median:	10492.0	10458.4	.0	.0
Min:	6662.4	6726.3	-3.9	-426.6
Max:	15007.4	15007.4	6.3	683.8
Rel Dif = 0.0			39	
Rel Dif > 0.0			16	
Rel Dif < 0.0			15	
Rel Dif: 0.0 < X <= 5.0			13	
5.0 < X <= 20.0			3	
X > 20.0			3	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			15	
X < -20.0			0	
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	0	0		
5250.0 < X	70	70		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

July

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	12213.0	12213.0	.0	.0
1923	10490.8	11058.2	5.4	567.4
1924	10385.7	10261.8	-1.2	-123.9
1925	9802.4	9802.4	.0	.0
1926	10536.9	10451.0	-.8	-85.9
1927	12636.3	12725.0	.7	88.7
1928	17318.5	16938.9	-2.2	-379.6
1929	10433.4	10284.1	-1.4	-149.3
1930	10320.3	10320.3	.0	.0
1931	10073.6	10234.9	1.6	161.3
1932	8940.3	8940.3	.0	.0
1933	8684.2	8684.2	.0	.0
1934	9960.0	9922.5	-.4	-37.5
1935	12011.4	12083.4	.6	72.0
1936	11435.3	11435.3	.0	.0
1937	12048.0	12613.6	4.7	565.6
1938	14994.9	14994.9	.0	.0
1939	10865.7	10778.9	-.8	-86.8
1940	14351.6	13997.2	-2.5	-354.4
1941	14994.9	14994.9	.0	.0
1942	14356.0	14356.0	.0	.0
1943	12840.3	12525.6	-2.5	-314.7
1944	11195.7	11049.7	-1.3	-146.0
1945	15449.2	15966.9	3.4	517.7
1946	14876.4	14506.3	-2.5	-370.1
1947	11766.0	11366.1	-3.4	-399.9
1948	13069.1	13069.1	.0	.0
1949	12111.4	12427.4	2.6	316.0
1950	13166.4	13166.4	.0	.0
1951	14296.5	13879.8	-2.9	-416.7
1952	14994.9	14994.9	.0	.0
1953	14994.9	14994.9	.0	.0
1954	17211.1	17190.4	-.1	-20.7
1955	10582.6	10604.3	.2	21.7
1956	14849.9	14849.9	.0	.0
1957	14785.2	14599.3	-1.3	-185.9
1958	14994.9	14994.9	.0	.0
1959	17094.4	17042.3	-.3	-52.1
1960	11981.6	12186.9	1.7	205.3
1961	12844.5	12821.1	-.2	-23.4
1962	13600.0	13388.5	-1.6	-211.5
1963	12276.6	12276.6	.0	.0
1964	10393.1	10316.4	-.7	-76.7
1965	12436.8	12549.2	.9	112.4
1966	14606.9	14316.4	-2.0	-290.5
1967	14994.9	14994.9	.0	.0
1968	15747.4	15063.4	-4.3	-684.0
1969	14982.9	14982.9	.0	.0
1970	16057.9	15803.7	-1.6	-254.2
1971	14246.1	14246.1	.0	.0
1972	16308.2	16321.4	.1	13.2
1973	15890.9	15628.0	-1.7	-262.9
1974	14994.9	14994.9	.0	.0
1975	14994.9	14994.9	.0	.0
1976	11777.8	11664.8	-1.0	-113.0
1977	9810.1	9838.2	.3	28.1
1978	11362.8	11362.8	.0	.0
1979	14881.7	13769.1	-7.5	-1112.6
1980	11075.9	11075.9	.0	.0
1981	11122.1	11189.0	.6	66.9
1982	12897.9	12897.9	.0	.0
1983	14994.9	14994.9	.0	.0
1984	14357.4	14132.2	-1.6	-225.2
1985	10316.0	10158.0	-1.5	-158.0
1986	12732.1	12732.1	.0	.0
1987	11280.7	11222.3	-.5	-58.4
1988	11432.9	11338.3	-.8	-94.6
1989	11040.2	11179.0	1.3	138.8
1990	11483.4	11453.6	-.3	-29.8
1991	7091.6	7365.9	3.9	274.3
Mean:	12845.0	12794.0	-.3	-51.0
Median:	12636.3	12613.6	.0	.0
Min:	7091.6	7365.9	-7.5	-1112.6
Max:	17318.5	17190.4	5.4	567.4
Rel Dif = 0.0		26		
Rel Dif > 0.0		15		
Rel Dif < 0.0		29		
Rel Dif: 0.0 < X <= 5.0		14		
5.0 < X <= 20.0		1		
X > 20.0		1		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		28		
X < -20.0		1		
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	0	0		
5250.0 < X	70	70		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

August

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	11802.9	11802.9	.0	.0
1923	10386.4	10946.6	5.4	560.2
1924	8278.7	8278.7	.0	.0
1925	9301.3	9301.3	.0	.0
1926	9274.1	9274.1	.0	.0
1927	11963.3	11963.3	.0	.0
1928	12511.7	12932.7	3.4	421.0
1929	9981.6	9981.6	.0	.0
1930	9860.9	9860.9	.0	.0
1931	9297.1	9297.1	.0	.0
1932	8715.2	8715.2	.0	.0
1933	8708.8	8708.8	.0	.0
1934	8762.8	8762.8	.0	.0
1935	11732.2	11796.6	.5	64.4
1936	11202.3	11202.3	.0	.0
1937	11954.3	12513.3	4.7	559.0
1938	14609.7	14533.6	-.5	-76.1
1939	10368.6	10368.6	.0	.0
1940	12889.3	12889.3	.0	.0
1941	14994.9	14994.9	.0	.0
1942	14466.3	14466.3	.0	.0
1943	12796.6	12992.7	1.5	196.1
1944	10552.7	10552.7	.0	.0
1945	12793.0	12853.6	.5	60.6
1946	12583.2	12583.2	.0	.0
1947	9978.5	9978.5	.0	.0
1948	13067.2	13067.2	.0	.0
1949	10855.8	11412.2	5.1	556.4
1950	12478.7	12478.7	.0	.0
1951	12310.8	12310.8	.0	.0
1952	14860.4	14860.4	.0	.0
1953	14994.9	14994.9	.0	.0
1954	10712.3	10804.9	.9	92.6
1955	9690.9	9309.5	-3.9	-381.4
1956	14385.0	14385.0	.0	.0
1957	12538.5	12782.5	1.9	244.0
1958	14994.9	14994.9	.0	.0
1959	11779.2	11308.9	-4.0	-470.3
1960	10581.9	9973.8	-5.7	-608.1
1961	12271.6	12139.2	-1.1	-132.4
1962	11740.3	11740.3	.0	.0
1963	13507.0	13507.0	.0	.0
1964	9179.0	9179.0	.0	.0
1965	10727.4	10657.4	-.7	-70.0
1966	11589.9	10868.6	-6.2	-721.3
1967	14824.8	14824.8	.0	.0
1968	9612.2	9166.0	-4.6	-446.2
1969	14245.1	14245.1	.0	.0
1970	11102.6	11046.4	-.5	-56.2
1971	13533.8	13533.8	.0	.0
1972	12848.7	12236.0	-4.8	-612.7
1973	10428.5	10428.5	.0	.0
1974	14994.9	14994.9	.0	.0
1975	14994.9	14994.9	.0	.0
1976	10707.6	10832.5	1.2	124.9
1977	9210.1	9233.2	.3	23.1
1978	11956.5	11956.5	.0	.0
1979	9903.1	9959.9	.6	56.8
1980	10311.6	10311.6	.0	.0
1981	8729.9	9918.7	13.6	1188.8
1982	13620.9	13620.9	.0	.0
1983	14994.9	14994.9	.0	.0
1984	10051.2	10282.2	2.3	231.0
1985	8904.1	8904.1	.0	.0
1986	11846.2	11846.2	.0	.0
1987	7828.2	7828.2	.0	.0
1988	10714.5	10504.8	-2.0	-209.7
1989	10349.8	10900.6	5.3	550.8
1990	9328.0	9523.3	2.1	195.3
1991	7047.3	7047.3	.0	.0
Mean:	11487.4	11506.6	.2	19.2
Median:	11202.3	11202.3	.0	.0
Min:	7047.3	7047.3	-6.2	-721.3
Max:	14994.9	14994.9	13.6	1188.8
Rel Dif = 0.0		43		
Rel Dif > 0.0		16		
Rel Dif < 0.0		11		
Rel Dif: 0.0 < X <= 5.0		12		
5.0 < X <= 20.0		4		
X > 20.0		4		
0.0 > X >= -5.0		0		
-5.0 > X >= -20.0		9		
X < -20.0		2		
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	0	0		
5250.0 < X	70	70		

SACRAMENTO RIVER FLOW DOWNSTREAM OF KESWICK RESERVOIR

September

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	6574.4	6574.4	.0	.0
1923	6000.0	6000.0	.0	.0
1924	4775.6	4775.6	.0	.0
1925	6000.0	6000.0	.0	.0
1926	6000.0	6000.0	.0	.0
1927	6897.0	6693.6	-2.9	-203.4
1928	7157.7	7249.7	1.3	92.0
1929	6000.0	6000.0	.0	.0
1930	6000.0	6000.0	.0	.0
1931	4832.9	4832.9	.0	.0
1932	4937.4	4937.4	.0	.0
1933	4885.9	4885.9	.0	.0
1934	5135.7	5135.7	.0	.0
1935	5940.0	5960.8	.4	20.8
1936	6000.0	6000.0	.0	.0
1937	6354.4	6875.4	8.2	521.0
1938	7177.9	7177.9	.0	.0
1939	6000.0	6000.0	.0	.0
1940	6555.5	6555.5	.0	.0
1941	8930.1	8930.1	.0	.0
1942	7413.1	7413.1	.0	.0
1943	7135.6	7135.6	.0	.0
1944	6000.0	6000.0	.0	.0
1945	6959.4	6980.8	.3	21.4
1946	6189.4	6189.4	.0	.0
1947	6000.0	6000.0	.0	.0
1948	6000.0	6000.0	.0	.0
1949	6000.0	6000.0	.0	.0
1950	6000.0	6000.0	.0	.0
1951	6327.6	6196.4	-2.1	-131.2
1952	7280.4	7280.4	.0	.0
1953	7596.4	7596.4	.0	.0
1954	6695.7	6738.9	.6	43.2
1955	6000.0	6000.0	.0	.0
1956	7330.8	7330.8	.0	.0
1957	6000.0	6000.0	.0	.0
1958	9726.0	9726.0	.0	.0
1959	6000.0	6000.0	.0	.0
1960	6000.0	6000.0	.0	.0
1961	6000.0	6000.0	.0	.0
1962	6000.0	6000.0	.0	.0
1963	6000.0	6000.0	.0	.0
1964	6000.0	6000.0	.0	.0
1965	6000.0	6000.0	.0	.0
1966	6000.0	6000.0	.0	.0
1967	7604.7	7604.7	.0	.0
1968	7118.7	6439.8	-9.5	-678.9
1969	7843.4	7843.4	.0	.0
1970	6538.7	6580.2	.6	41.5
1971	7288.8	7288.8	.0	.0
1972	7874.3	7985.4	1.4	111.1
1973	6578.3	6585.5	.1	7.2
1974	9434.5	9434.5	.0	.0
1975	8375.8	8375.8	.0	.0
1976	6000.0	6000.0	.0	.0
1977	4500.0	4500.0	.0	.0
1978	6000.0	6000.0	.0	.0
1979	6347.1	6000.0	-5.5	-347.1
1980	6000.0	6000.0	.0	.0
1981	6000.0	6000.0	.0	.0
1982	7126.8	7126.8	.0	.0
1983	14090.0	14090.0	.0	.0
1984	6000.0	6000.0	.0	.0
1985	6000.0	6000.0	.0	.0
1986	6000.0	6000.0	.0	.0
1987	6000.0	6000.0	.0	.0
1988	6000.0	6000.0	.0	.0
1989	6000.0	6000.0	.0	.0
1990	6000.0	6000.0	.0	.0
1991	4500.0	4500.0	.0	.0
Mean:	6514.7	6507.5	-.1	-7.2
Median:	6000.0	6000.0	.0	.0
Min:	4500.0	4500.0	-9.5	-678.9
Max:	14090.0	14090.0	8.2	521.0
Rel Dif = 0.0			58	
Rel Dif > 0.0			8	
Rel Dif < 0.0			4	
Rel Dif:0.0 < X <= 5.0			7	
5.0 < X <= 20.0			1	
X > 20.0			1	
0.0 > X >= -5.0			0	
-5.0 > X >= -20.0			2	
X < -20.0			2	
X <= 3250.0	0	0		
3250.0 < X <= 4250.0	0	0		
4250.0 < X <= 5250.0	7	7		
5250.0 < X	63	63		

RETURN TO TABLE OF CONTENTS

Section 18

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

January

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	45.0	45.0	.0	.0
1923.	43.7	43.7	.0	.0
1924.	45.9	45.8	-.2	-.1
1925.	43.8	43.2	-1.4	-.6
1926.	45.6	45.6	.0	.0
1927.	46.0	46.1	.2	.1
1928.	45.6	45.6	.0	.0
1929.	43.6	43.6	.0	.0
1930.	45.0	45.0	.0	.0
1931.	47.3	47.3	.0	.0
1932.	42.9	42.9	.0	.0
1933.	41.3	41.3	.0	.0
1934.	47.7	48.0	.6	.3
1935.	44.2	44.2	.0	.0
1936.	47.5	47.5	.0	.0
1937.	40.3	40.3	.0	.0
1938.	48.3	48.3	.0	.0
1939.	48.2	48.2	.0	.0
1940.	46.6	46.6	.0	.0
1941.	47.5	47.5	.0	.0
1942.	46.1	46.1	.0	.0
1943.	45.9	45.9	.0	.0
1944.	46.6	46.6	.0	.0
1945.	46.5	46.5	.0	.0
1946.	45.0	45.0	.0	.0
1947.	45.0	45.0	.0	.0
1948.	46.9	47.0	.2	.1
1949.	41.2	41.2	.0	.0
1950.	40.6	40.6	.0	.0
1951.	44.7	44.6	-.2	-.1
1952.	43.0	43.0	.0	.0
1953.	47.8	47.8	.0	.0
1954.	46.6	46.6	.0	.0
1955.	44.7	44.7	.0	.0
1956.	45.5	45.5	.0	.0
1957.	46.4	46.4	.0	.0
1958.	46.2	46.2	.0	.0
1959.	49.5	49.5	.0	.0
1960.	46.1	46.1	.0	.0
1961.	46.5	46.5	.0	.0
1962.	48.1	48.1	.0	.0
1963.	47.0	47.0	.0	.0
1964.	45.3	45.3	.0	.0
1965.	46.4	46.4	.0	.0
1966.	44.8	44.8	.0	.0
1967.	46.3	46.3	.0	.0
1968.	46.2	46.2	.0	.0
1969.	42.7	42.7	.0	.0
1970.	48.0	48.0	.0	.0
1971.	45.3	45.3	.0	.0
1972.	44.5	44.5	.0	.0
1973.	42.8	42.8	.0	.0
1974.	45.4	45.4	.0	.0
1975.	46.8	46.8	.0	.0
1976.	49.0	49.0	.0	.0
1977.	47.7	47.7	.0	.0
1978.	44.6	44.7	.2	.1
1979.	45.3	45.3	.0	.0
1980.	45.1	45.1	.0	.0
1981.	46.3	46.3	.0	.0
1982.	43.3	43.3	.0	.0
1983.	44.3	44.3	.0	.0
1984.	46.4	46.4	.0	.0
1985.	44.1	44.1	.0	.0
1986.	46.1	46.3	.4	.2
1987.	44.0	44.0	.0	.0
1988.	44.5	44.5	.0	.0
1989.	44.3	44.3	.0	.0
1990.	45.1	45.1	.0	.0
Mean:	45.5	45.5	.0	.0
Median:	45.5	45.5	.0	.0
Min:	40.3	40.3	-1.4	-.6
Max:	49.5	49.5	.6	.3
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

February

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	44.5	44.5	.0	.0
1923.	50.8	50.8	.0	.0
1924.	47.0	47.1	.2	.1
1925.	46.3	46.3	.0	.0
1926.	47.3	47.0	-.6	-.3
1927.	47.3	47.3	.0	.0
1928.	49.7	49.7	.0	.0
1929.	43.7	43.7	.0	.0
1930.	44.6	44.6	.0	.0
1931.	47.7	47.7	.0	.0
1932.	43.8	43.8	.0	.0
1933.	41.4	41.4	.0	.0
1934.	50.4	50.3	-.2	-.1
1935.	46.6	47.1	1.1	.5
1936.	46.4	46.4	.0	.0
1937.	41.2	41.2	.0	.0
1938.	46.6	46.6	.0	.0
1939.	46.0	46.0	.0	.0
1940.	48.2	48.2	.0	.0
1941.	49.0	49.0	.0	.0
1942.	46.9	46.9	.0	.0
1943.	50.4	50.4	.0	.0
1944.	46.1	46.1	.0	.0
1945.	49.4	49.4	.0	.0
1946.	44.6	44.6	.0	.0
1947.	45.6	45.6	.0	.0
1948.	46.3	46.3	.0	.0
1949.	40.6	40.6	.0	.0
1950.	42.6	43.1	1.2	.5
1951.	46.4	46.4	.0	.0
1952.	46.7	46.7	.0	.0
1953.	51.2	51.2	.0	.0
1954.	50.4	50.4	.0	.0
1955.	47.5	47.5	.0	.0
1956.	45.8	45.8	.0	.0
1957.	51.0	51.0	.0	.0
1958.	49.2	49.2	.0	.0
1959.	48.7	48.7	.0	.0
1960.	46.6	46.6	.0	.0
1961.	50.7	50.7	.0	.0
1962.	47.2	47.2	.0	.0
1963.	51.6	51.6	.0	.0
1964.	52.2	52.2	.0	.0
1965.	51.1	51.1	.0	.0
1966.	46.3	46.3	.0	.0
1967.	51.2	51.2	.0	.0
1968.	51.6	51.6	.0	.0
1969.	44.4	44.4	.0	.0
1970.	52.5	52.5	.0	.0
1971.	49.4	49.4	.0	.0
1972.	49.6	49.6	.0	.0
1973.	49.6	49.6	.0	.0
1974.	48.3	48.3	.0	.0
1975.	46.8	46.8	.0	.0
1976.	48.5	48.5	.0	.0
1977.	47.4	47.4	.0	.0
1978.	48.6	48.5	-.2	-.1
1979.	46.9	46.9	.0	.0
1980.	48.8	48.8	.0	.0
1981.	48.8	48.8	.0	.0
1982.	46.9	46.9	.0	.0
1983.	46.8	46.8	.0	.0
1984.	48.2	48.2	.0	.0
1985.	49.4	49.4	.0	.0
1986.	49.7	49.6	-.2	-.1
1987.	43.9	43.9	.0	.0
1988.	52.2	52.2	.0	.0
1989.	44.0	44.0	.0	.0
1990.	44.5	44.5	.0	.0
Mean:	47.6	47.6	.0	.0
Median:	47.3	47.2	.0	.0
Min:	40.6	40.6	-.6	-.3
Max:	52.5	52.5	1.2	.5

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

March

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	49.4	49.4	.0	.0
1923.	55.6	55.6	.0	.0
1924.	48.1	48.3	.4	.2
1925.	46.6	46.7	.2	.1
1926.	57.4	57.4	.0	.0
1927.	51.4	51.4	.0	.0
1928.	52.4	52.4	.0	.0
1929.	45.6	45.6	.0	.0
1930.	53.7	54.6	1.7	.9
1931.	49.4	49.4	.0	.0
1932.	54.8	54.7	-.2	-.1
1933.	49.4	49.9	1.0	.5
1934.	54.7	54.1	-1.1	-.6
1935.	47.8	47.8	.0	.0
1936.	54.3	55.1	1.5	.8
1937.	45.0	45.0	.0	.0
1938.	47.2	47.2	.0	.0
1939.	53.9	53.9	.0	.0
1940.	53.5	53.5	.0	.0
1941.	52.6	52.6	.0	.0
1942.	51.7	51.7	.0	.0
1943.	52.2	52.2	.0	.0
1944.	54.2	54.2	.0	.0
1945.	48.8	48.8	.0	.0
1946.	51.0	51.0	.0	.0
1947.	53.7	54.0	.6	.3
1948.	47.7	47.7	.0	.0
1949.	47.1	47.0	-.2	-.1
1950.	50.4	50.4	.0	.0
1951.	51.9	51.9	.0	.0
1952.	48.4	48.4	.0	.0
1953.	52.5	52.5	.0	.0
1954.	49.5	49.5	.0	.0
1955.	53.6	53.6	.0	.0
1956.	52.7	52.7	.0	.0
1957.	52.6	52.6	.0	.0
1958.	48.4	48.4	.0	.0
1959.	56.3	56.3	.0	.0
1960.	54.4	54.5	.2	.1
1961.	51.3	51.3	.0	.0
1962.	50.4	50.4	.0	.0
1963.	51.8	51.8	.0	.0
1964.	52.9	52.9	.0	.0
1965.	56.0	56.0	.0	.0
1966.	52.7	52.7	.0	.0
1967.	49.9	49.9	.0	.0
1968.	54.5	54.5	.0	.0
1969.	52.4	52.4	.0	.0
1970.	54.3	54.3	.0	.0
1971.	49.1	49.1	.0	.0
1972.	53.0	53.0	.0	.0
1973.	49.8	49.8	.0	.0
1974.	51.3	51.3	.0	.0
1975.	48.9	48.9	.0	.0
1976.	52.5	52.5	.0	.0
1977.	49.8	49.8	.0	.0
1978.	55.0	55.0	.0	.0
1979.	53.2	53.2	.0	.0
1980.	51.9	51.5	-.8	-.4
1981.	51.1	51.1	.0	.0
1982.	46.4	46.4	.0	.0
1983.	50.0	50.0	.0	.0
1984.	54.8	54.8	.0	.0
1985.	49.0	49.0	.0	.0
1986.	52.9	52.9	.0	.0
1987.	49.9	49.9	.0	.0
1988.	55.3	55.3	.0	.0
1989.	47.9	47.9	.0	.0
1990.	48.5	48.4	-.2	-.1
Mean:	51.4	51.4	.0	.0
Median:	51.6	51.5	.0	.0
Min:	45.0	45.0	-1.1	-.6
Max:	57.4	57.4	1.7	.9
X > 56.0	2	2		
Mean X > 56.0	56.8	56.8	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

April

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	51.7	51.7	.0	.0
1923.	51.9	51.9	.0	.0
1924.	51.0	51.1	.2	.1
1925.	49.7	49.6	-.2	-.1
1926.	51.8	51.8	.0	.0
1927.	50.9	50.9	.0	.0
1928.	51.4	51.4	.0	.0
1929.	46.4	46.5	.2	.1
1930.	52.0	51.9	-.2	-.1
1931.	51.1	51.1	.0	.0
1932.	51.5	51.5	.0	.0
1933.	51.4	51.5	.2	.1
1934.	52.2	52.3	.2	.1
1935.	51.2	51.2	.0	.0
1936.	52.2	52.1	-.2	-.1
1937.	48.6	48.7	.2	.1
1938.	50.3	50.3	.0	.0
1939.	50.7	50.7	.0	.0
1940.	51.3	51.3	.0	.0
1941.	50.2	50.2	.0	.0
1942.	50.7	50.7	.0	.0
1943.	51.6	51.6	.0	.0
1944.	51.3	51.3	.0	.0
1945.	51.7	51.7	.0	.0
1946.	51.6	51.6	.0	.0
1947.	52.5	52.5	.0	.0
1948.	49.7	49.6	-.2	-.1
1949.	51.8	51.8	.0	.0
1950.	52.1	52.1	.0	.0
1951.	51.5	51.5	.0	.0
1952.	50.3	50.2	-.2	-.1
1953.	51.4	51.4	.0	.0
1954.	50.4	50.4	.0	.0
1955.	51.0	51.0	.0	.0
1956.	51.3	51.3	.0	.0
1957.	51.3	51.3	.0	.0
1958.	50.2	50.2	.0	.0
1959.	51.4	51.4	.0	.0
1960.	51.5	51.5	.0	.0
1961.	51.8	51.8	.0	.0
1962.	52.3	52.3	.0	.0
1963.	50.3	50.3	.0	.0
1964.	50.8	50.8	.0	.0
1965.	51.1	51.1	.0	.0
1966.	50.9	50.9	.0	.0
1967.	48.4	48.4	.0	.0
1968.	51.8	51.7	-.2	-.1
1969.	50.5	50.5	.0	.0
1970.	51.1	51.1	.0	.0
1971.	51.1	51.1	.0	.0
1972.	51.2	51.2	.0	.0
1973.	51.8	51.8	.0	.0
1974.	50.4	50.4	.0	.0
1975.	50.6	50.6	.0	.0
1976.	50.7	50.7	.0	.0
1977.	51.7	51.7	.0	.0
1978.	51.0	51.0	.0	.0
1979.	51.4	51.4	.0	.0
1980.	51.2	51.2	.0	.0
1981.	51.7	51.7	.0	.0
1982.	50.2	50.2	.0	.0
1983.	49.8	49.8	.0	.0
1984.	51.1	51.1	.0	.0
1985.	52.0	52.0	.0	.0
1986.	51.6	51.6	.0	.0
1987.	51.4	51.4	.0	.0
1988.	51.6	51.6	.0	.0
1989.	51.9	51.9	.0	.0
1990.	50.0	50.1	.2	.1
Mean:	51.0	51.0	.0	.0
Median:	51.2	51.2	.0	.0
Min:	46.4	46.5	-.2	-.1
Max:	52.5	52.5	.2	.1

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

May

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	48.1	48.1	.0	.0
1923.	47.6	47.5	-.2	-.1
1924.	48.8	48.8	.0	.0
1925.	51.3	51.3	.0	.0
1926.	48.7	48.7	.0	.0
1927.	47.5	47.5	.0	.0
1928.	48.2	48.2	.0	.0
1929.	47.7	47.6	-.2	-.1
1930.	47.9	47.9	.0	.0
1931.	49.2	49.3	.2	.1
1932.	48.8	48.8	.0	.0
1933.	47.6	47.6	.0	.0
1934.	48.2	48.2	.0	.0
1935.	49.1	49.1	.0	.0
1936.	48.1	48.1	.0	.0
1937.	47.9	47.8	-.2	-.1
1938.	48.0	48.0	.0	.0
1939.	47.8	47.8	.0	.0
1940.	48.8	48.8	.0	.0
1941.	47.6	47.6	.0	.0
1942.	47.3	47.3	.0	.0
1943.	48.1	48.1	.0	.0
1944.	48.1	48.1	.0	.0
1945.	47.7	47.7	.0	.0
1946.	47.4	47.4	.0	.0
1947.	47.9	47.9	.0	.0
1948.	47.4	47.4	.0	.0
1949.	47.8	47.8	.0	.0
1950.	47.2	47.2	.0	.0
1951.	48.3	48.3	.0	.0
1952.	47.7	47.7	.0	.0
1953.	47.9	47.9	.0	.0
1954.	47.8	47.8	.0	.0
1955.	49.2	49.2	.0	.0
1956.	47.8	47.8	.0	.0
1957.	48.1	48.1	.0	.0
1958.	48.6	48.6	.0	.0
1959.	48.7	48.8	.2	.1
1960.	48.5	48.5	.0	.0
1961.	47.1	47.1	.0	.0
1962.	47.7	47.7	.0	.0
1963.	48.9	48.9	.0	.0
1964.	48.3	48.3	.0	.0
1965.	48.1	48.1	.0	.0
1966.	47.7	47.7	.0	.0
1967.	47.2	47.2	.0	.0
1968.	48.0	47.9	-.2	-.1
1969.	47.6	47.7	.2	.1
1970.	48.8	48.8	.0	.0
1971.	47.3	47.3	.0	.0
1972.	47.5	47.5	.0	.0
1973.	48.5	48.5	.0	.0
1974.	48.5	48.6	.2	.1
1975.	47.8	47.8	.0	.0
1976.	49.8	49.9	.2	.1
1977.	48.7	48.7	.0	.0
1978.	47.8	47.8	.0	.0
1979.	48.3	48.3	.0	.0
1980.	47.8	47.8	.0	.0
1981.	47.6	47.6	.0	.0
1982.	48.9	48.9	.0	.0
1983.	47.9	47.9	.0	.0
1984.	47.5	47.5	.0	.0
1985.	47.5	47.5	.0	.0
1986.	47.8	47.8	.0	.0
1987.	47.6	47.6	.0	.0
1988.	47.5	47.5	.0	.0
1989.	47.6	47.6	.0	.0
1990.	47.5	47.5	.0	.0
Mean:	48.1	48.1	.0	.0
Median:	47.8	47.8	.0	.0
Min:	47.1	47.1	-.2	-.1
Max:	51.3	51.3	.2	.1

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

June

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.5	47.5	.0	.0
1923.	47.4	47.3	-.2	-.1
1924.	48.8	48.8	.0	.0
1925.	49.3	49.3	.0	.0
1926.	48.4	48.5	.2	.1
1927.	47.1	47.1	.0	.0
1928.	47.6	47.6	.0	.0
1929.	48.3	48.3	.0	.0
1930.	47.6	47.6	.0	.0
1931.	50.0	50.0	.0	.0
1932.	48.3	48.3	.0	.0
1933.	47.7	47.6	-.2	-.1
1934.	47.8	47.7	-.2	-.1
1935.	46.9	46.9	.0	.0
1936.	48.1	48.1	.0	.0
1937.	47.7	47.5	-.4	-.2
1938.	47.8	47.7	-.2	-.1
1939.	48.3	48.3	.0	.0
1940.	48.1	48.2	.2	.1
1941.	47.2	47.2	.0	.0
1942.	46.8	46.8	.0	.0
1943.	46.4	46.4	.0	.0
1944.	47.7	47.9	.4	.2
1945.	47.8	47.9	.2	.1
1946.	46.8	46.8	.0	.0
1947.	48.0	48.0	.0	.0
1948.	47.1	47.1	.0	.0
1949.	46.6	46.7	.2	.1
1950.	47.2	47.2	.0	.0
1951.	47.0	47.0	.0	.0
1952.	46.7	46.7	.0	.0
1953.	46.3	46.3	.0	.0
1954.	47.7	47.7	.0	.0
1955.	47.4	47.4	.0	.0
1956.	47.3	47.3	.0	.0
1957.	47.7	47.7	.0	.0
1958.	47.2	47.2	.0	.0
1959.	49.6	49.7	.2	.1
1960.	47.8	47.7	-.2	-.1
1961.	48.5	48.5	.0	.0
1962.	48.2	48.2	.0	.0
1963.	48.0	48.0	.0	.0
1964.	48.4	48.4	.0	.0
1965.	46.9	46.9	.0	.0
1966.	47.4	47.4	.0	.0
1967.	47.4	47.4	.0	.0
1968.	48.7	48.7	.0	.0
1969.	47.2	47.2	.0	.0
1970.	47.8	47.8	.0	.0
1971.	46.7	46.7	.0	.0
1972.	47.6	47.6	.0	.0
1973.	48.1	48.1	.0	.0
1974.	47.9	47.9	.0	.0
1975.	48.7	48.7	.0	.0
1976.	50.9	50.8	-.2	-.1
1977.	50.8	50.7	-.2	-.1
1978.	46.9	46.9	.0	.0
1979.	47.1	47.1	.0	.0
1980.	47.0	47.0	.0	.0
1981.	48.2	48.4	.4	.2
1982.	47.2	47.2	.0	.0
1983.	47.2	47.2	.0	.0
1984.	46.8	46.8	.0	.0
1985.	47.7	47.8	.2	.1
1986.	47.2	47.2	.0	.0
1987.	47.6	47.6	.0	.0
1988.	47.8	47.8	.0	.0
1989.	46.9	47.0	.2	.1
1990.	48.5	48.5	.0	.0
Mean:	47.7	47.7	.0	.0
Median:	47.6	47.6	.0	.0
Min:	46.3	46.3	-.4	-.2
Max:	50.9	50.8	.4	.2

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

July

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	48.8	48.8	.0	.0
1923.	49.0	48.6	-.8	-.4
1924.	51.1	51.3	.4	.2
1925.	49.2	49.2	.0	.0
1926.	49.3	49.3	.0	.0
1927.	48.4	48.3	-.2	-.1
1928.	48.1	48.2	.2	.1
1929.	49.0	49.0	.0	.0
1930.	48.8	48.8	.0	.0
1931.	53.0	52.8	-.4	-.2
1932.	49.9	49.8	-.2	-.1
1933.	51.7	51.3	-.8	-.4
1934.	52.7	52.7	.0	.0
1935.	48.8	48.7	-.2	-.1
1936.	48.7	48.7	.0	.0
1937.	48.4	48.3	-.2	-.1
1938.	48.9	48.7	-.4	-.2
1939.	49.3	49.3	.0	.0
1940.	48.6	48.6	.0	.0
1941.	48.6	48.6	.0	.0
1942.	47.8	47.8	.0	.0
1943.	48.1	48.1	.0	.0
1944.	48.8	48.5	-.6	-.3
1945.	48.4	48.4	.0	.0
1946.	48.1	48.2	.2	.1
1947.	48.4	48.2	-.4	-.2
1948.	47.8	47.8	.0	.0
1949.	48.5	48.4	-.2	-.1
1950.	48.3	48.3	.0	.0
1951.	48.4	48.5	.2	.1
1952.	48.2	48.2	.0	.0
1953.	48.5	48.5	.0	.0
1954.	48.2	48.2	.0	.0
1955.	49.0	49.0	.0	.0
1956.	48.2	48.2	.0	.0
1957.	48.8	48.9	.2	.1
1958.	48.6	48.6	.0	.0
1959.	50.4	50.4	.0	.0
1960.	48.6	48.5	-.2	-.1
1961.	49.6	49.6	.0	.0
1962.	49.4	49.5	.2	.1
1963.	48.2	48.2	.0	.0
1964.	49.1	49.1	.0	.0
1965.	48.4	48.4	.0	.0
1966.	48.3	48.3	.0	.0
1967.	48.7	48.7	.0	.0
1968.	49.0	49.1	.2	.1
1969.	48.6	48.4	-.4	-.2
1970.	48.9	49.0	.2	.1
1971.	48.1	48.1	.0	.0
1972.	48.5	48.5	.0	.0
1973.	48.7	48.7	.0	.0
1974.	48.7	48.7	.0	.0
1975.	49.4	49.4	.0	.0
1976.	51.4	51.4	.0	.0
1977.	53.0	53.0	.0	.0
1978.	48.3	48.3	.0	.0
1979.	48.4	48.6	.4	.2
1980.	48.8	48.8	.0	.0
1981.	49.4	49.4	.0	.0
1982.	47.6	47.6	.0	.0
1983.	47.9	47.9	.0	.0
1984.	48.9	48.9	.0	.0
1985.	49.1	49.0	-.2	-.1
1986.	48.4	48.4	.0	.0
1987.	48.4	48.4	.0	.0
1988.	49.3	49.3	.0	.0
1989.	48.1	48.1	.0	.0
1990.	48.9	48.9	.0	.0
Mean:	49.0	48.9	.0	.0
Median:	48.7	48.6	.0	.0
Min:	47.6	47.6	-.8	-.4
Max:	53.0	53.0	.4	.2

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

August

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.0	50.0	.0	.0
1923.	50.4	50.2	-.4	-.2
1924.	58.9	59.8	1.5	.9
1925.	49.8	49.8	.0	.0
1926.	50.0	50.0	.0	.0
1927.	49.9	50.0	.2	.1
1928.	50.4	50.3	-.2	-.1
1929.	50.8	50.8	.0	.0
1930.	49.8	49.8	.0	.0
1931.	60.2	60.4	.3	.2
1932.	56.0	55.9	-.2	-.1
1933.	55.9	55.8	-.2	-.1
1934.	62.5	61.9	-1.0	-.6
1935.	54.7	54.6	-.2	-.1
1936.	49.8	49.8	.0	.0
1937.	50.0	49.9	-.2	-.1
1938.	49.9	49.9	.0	.0
1939.	51.1	51.1	.0	.0
1940.	50.4	50.4	.0	.0
1941.	49.6	49.6	.0	.0
1942.	50.0	50.0	.0	.0
1943.	49.5	49.5	.0	.0
1944.	50.7	50.7	.0	.0
1945.	50.1	50.1	.0	.0
1946.	49.9	49.9	.0	.0
1947.	49.5	49.5	.0	.0
1948.	49.4	49.5	.2	.1
1949.	49.7	49.6	-.2	-.1
1950.	49.7	49.7	.0	.0
1951.	50.1	50.1	.0	.0
1952.	49.4	49.4	.0	.0
1953.	49.6	49.6	.0	.0
1954.	50.4	50.4	.0	.0
1955.	50.3	50.4	.2	.1
1956.	49.6	49.6	.0	.0
1957.	49.6	49.5	-.2	-.1
1958.	49.9	49.9	.0	.0
1959.	52.4	52.4	.0	.0
1960.	49.9	50.0	.2	.1
1961.	50.7	50.7	.0	.0
1962.	50.8	50.8	.0	.0
1963.	49.7	49.7	.0	.0
1964.	50.9	50.9	.0	.0
1965.	50.0	50.0	.0	.0
1966.	50.7	50.9	.4	.2
1967.	50.4	50.4	.0	.0
1968.	51.3	51.5	.4	.2
1969.	50.1	50.0	-.2	-.1
1970.	51.4	51.4	.0	.0
1971.	50.3	50.3	.0	.0
1972.	50.6	50.8	.4	.2
1973.	50.6	50.6	.0	.0
1974.	50.0	50.0	.0	.0
1975.	49.8	49.8	.0	.0
1976.	51.3	51.3	.0	.0
1977.	65.0	65.1	.2	.1
1978.	49.7	49.7	.0	.0
1979.	50.3	50.3	.0	.0
1980.	50.1	49.9	-.4	-.2
1981.	51.1	50.9	-.4	-.2
1982.	49.4	49.4	.0	.0
1983.	49.6	49.6	.0	.0
1984.	49.9	49.9	.0	.0
1985.	50.2	50.5	.6	.3
1986.	50.3	50.3	.0	.0
1987.	50.7	50.7	.0	.0
1988.	51.1	51.1	.0	.0
1989.	49.7	49.6	-.2	-.1
1990.	50.0	50.0	.0	.0
Mean:	51.1	51.1	.0	.0
Median:	50.1	50.0	.0	.0
Min:	49.4	49.4	-1.0	-.6
Max:	65.0	65.1	1.5	.9
X > 56.0	4	4		
Mean X > 56.0	61.7	61.8	.2	.1
X > 60.0	3	3		
Mean X > 60.0	62.6	62.5	-.2	-.1
X > 62.5	1	1		
Mean X > 62.5	65.0	65.1	.2	.1
X > 65.0	0	1		
Mean X > 65.0	.0	65.1	.0	65.1
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

September

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.5	47.5	.0	.0
1923.	46.6	46.7	.2	.1
1924.	65.8	66.3	.8	.5
1925.	46.1	46.2	.2	.1
1926.	48.3	48.1	-.4	-.2
1927.	48.9	48.8	-.2	-.1
1928.	48.9	48.9	.0	.0
1929.	48.0	47.8	-.4	-.2
1930.	46.1	46.1	.0	.0
1931.	66.7	66.7	.0	.0
1932.	63.3	63.1	-.3	-.2
1933.	62.1	61.8	-.5	-.3
1934.	67.9	67.7	-.3	-.2
1935.	60.9	60.7	-.3	-.2
1936.	52.8	52.6	-.4	-.2
1937.	45.3	46.2	2.0	.9
1938.	52.7	52.6	-.2	-.1
1939.	52.7	52.5	-.4	-.2
1940.	48.7	48.5	-.4	-.2
1941.	50.3	50.3	.0	.0
1942.	49.5	49.5	.0	.0
1943.	50.0	50.1	.2	.1
1944.	49.5	49.3	-.4	-.2
1945.	50.5	50.4	-.2	-.1
1946.	46.9	46.9	.0	.0
1947.	52.5	52.4	-.2	-.1
1948.	50.2	50.2	.0	.0
1949.	43.4	43.4	.0	.0
1950.	43.2	43.2	.0	.0
1951.	46.8	46.7	-.2	-.1
1952.	47.9	47.9	.0	.0
1953.	49.3	49.3	.0	.0
1954.	49.1	49.1	.0	.0
1955.	47.4	47.4	.0	.0
1956.	48.5	48.5	.0	.0
1957.	49.2	49.3	.2	.1
1958.	52.2	52.2	.0	.0
1959.	54.5	54.1	-.7	-.4
1960.	48.2	48.3	.2	.1
1961.	49.2	49.1	-.2	-.1
1962.	49.4	49.4	.0	.0
1963.	51.6	51.6	.0	.0
1964.	48.1	48.0	-.2	-.1
1965.	47.1	47.1	.0	.0
1966.	47.8	47.6	-.4	-.2
1967.	53.1	53.1	.0	.0
1968.	49.5	48.9	-1.2	-.6
1969.	48.3	48.2	-.2	-.1
1970.	47.3	47.4	.2	.1
1971.	50.0	50.1	.2	.1
1972.	48.7	48.7	.0	.0
1973.	46.4	46.4	.0	.0
1974.	48.4	48.4	.0	.0
1975.	52.2	52.2	.0	.0
1976.	52.5	52.5	.0	.0
1977.	65.7	65.7	.0	.0
1978.	46.4	46.4	.0	.0
1979.	48.4	48.0	-.8	-.4
1980.	46.4	46.5	.2	.1
1981.	48.8	48.7	-.2	-.1
1982.	47.6	47.6	.0	.0
1983.	49.9	49.8	-.2	-.1
1984.	47.7	47.7	.0	.0
1985.	46.2	46.2	.0	.0
1986.	47.8	47.8	.0	.0
1987.	48.0	48.0	.0	.0
1988.	48.6	48.5	-.2	-.1
1989.	47.0	46.9	-.2	-.1
1990.	54.3	54.2	-.2	-.1
Mean:	50.4	50.4	-.1	.0
Median:	48.7	48.6	.0	.0
Min:	43.2	43.2	-1.2	-.6
Max:	67.9	67.7	2.0	.9
X > 56.0	7	7		
Mean X > 56.0	64.6	64.6	.0	.0
X > 60.0	7	7		
Mean X > 60.0	64.6	64.6	.0	.0
X > 62.5	5	5		
Mean X > 62.5	65.9	65.9	.0	.0
X > 65.0	4	4		
Mean X > 65.0	66.5	66.6	.2	.1
X > 67.5	1	1		
Mean X > 67.5	67.9	67.7	-.3	-.2
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

October"

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.2	47.2	.0	.0
1923.	49.8	51.1	2.6	1.3
1924.	58.1	58.1	.0	.0
1925.	51.4	51.8	.8	.4
1926.	54.6	54.4	-.4	-.2
1927.	50.6	50.6	.0	.0
1928.	51.8	51.8	.0	.0
1929.	55.2	54.9	-.5	-.3
1930.	51.8	51.6	-.4	-.2
1931.	60.8	60.8	.0	.0
1932.	63.0	62.9	-.2	-.1
1933.	63.5	63.5	.0	.0
1934.	60.9	61.0	.2	.1
1935.	60.9	60.9	.0	.0
1936.	56.7	56.6	-.2	-.1
1937.	49.9	53.1	6.4	3.2
1938.	52.8	52.8	.0	.0
1939.	56.5	56.3	-.4	-.2
1940.	52.2	51.9	-.6	-.3
1941.	52.8	52.8	.0	.0
1942.	51.0	51.0	.0	.0
1943.	50.4	50.4	.0	.0
1944.	52.6	52.5	-.2	-.1
1945.	53.0	53.0	.0	.0
1946.	49.5	49.4	-.2	-.1
1947.	55.9	56.1	.4	.2
1948.	52.0	51.9	-.2	-.1
1949.	43.3	43.4	.2	.1
1950.	44.4	44.8	.9	.4
1951.	46.0	45.9	-.2	-.1
1952.	46.8	46.8	.0	.0
1953.	49.9	49.9	.0	.0
1954.	51.6	51.6	.0	.0
1955.	49.2	49.1	-.2	-.1
1956.	48.7	48.7	.0	.0
1957.	50.0	50.0	.0	.0
1958.	54.4	54.4	.0	.0
1959.	56.7	56.3	-.7	-.4
1960.	51.0	51.2	.4	.2
1961.	51.7	51.7	.0	.0
1962.	51.8	51.6	-.4	-.2
1963.	50.5	50.5	.0	.0
1964.	51.6	51.6	.0	.0
1965.	49.9	49.9	.0	.0
1966.	52.4	51.8	-1.1	-.6
1967.	53.5	53.5	.0	.0
1968.	51.4	50.8	-1.2	-.6
1969.	46.6	46.6	.0	.0
1970.	49.0	48.9	-.2	-.1
1971.	50.9	50.9	.0	.0
1972.	51.1	50.7	-.8	-.4
1973.	45.6	45.6	.0	.0
1974.	50.5	50.5	.0	.0
1975.	52.5	52.5	.0	.0
1976.	54.5	54.6	.2	.1
1977.	61.1	61.1	.0	.0
1978.	48.3	48.2	-.2	-.1
1979.	51.2	50.7	-1.0	-.5
1980.	46.6	46.7	.2	.1
1981.	50.0	49.9	-.2	-.1
1982.	45.5	45.5	.0	.0
1983.	54.9	55.0	.2	.1
1984.	49.3	49.3	.0	.0
1985.	49.0	48.8	-.4	-.2
1986.	52.2	52.2	.0	.0
1987.	55.6	55.6	.0	.0
1988.	54.9	54.7	-.4	-.2
1989.	51.0	51.3	.6	.3
1990.	57.6	57.6	.0	.0
Mean:	52.1	52.2	.0	.0
Median:	51.4	51.6	.0	.0
Min:	43.3	43.4	-1.2	-.6
Max:	63.5	63.5	6.4	3.2
X > 56.0	11	12		
Mean X > 56.0	59.6	59.3	-.5	-.3
X > 60.0	6	6		
Mean X > 60.0	61.7	61.7	.0	.0
X > 62.5	2	2		
Mean X > 62.5	63.3	63.2	-.2	-.1
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

November

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	49.9	49.9	.0	.0
1923.	52.5	53.8	2.5	1.3
1924.	51.8	51.8	.0	.0
1925.	52.3	52.5	.4	.2
1926.	54.5	54.5	.0	.0
1927.	52.2	52.2	.0	.0
1928.	53.1	53.1	.0	.0
1929.	57.5	57.3	-.3	-.2
1930.	53.4	53.2	-.4	-.2
1931.	52.5	52.5	.0	.0
1932.	56.9	56.9	.0	.0
1933.	57.6	57.7	.2	.1
1934.	52.2	52.3	.2	.1
1935.	54.2	54.3	.2	.1
1936.	57.7	57.7	.0	.0
1937.	52.7	53.3	1.1	.6
1938.	54.1	54.1	.0	.0
1939.	56.3	56.2	-.2	-.1
1940.	53.6	53.4	-.4	-.2
1941.	54.5	54.5	.0	.0
1942.	52.4	52.4	.0	.0
1943.	51.9	51.8	-.2	-.1
1944.	52.2	52.1	-.2	-.1
1945.	52.4	52.4	.0	.0
1946.	51.2	51.2	.0	.0
1947.	53.9	54.1	.4	.2
1948.	52.9	52.9	.0	.0
1949.	45.5	45.3	-.4	-.2
1950.	45.9	45.5	-.9	-.4
1951.	48.2	47.8	-.8	-.4
1952.	45.6	45.6	.0	.0
1953.	51.6	51.6	.0	.0
1954.	52.9	52.9	.0	.0
1955.	51.3	51.2	-.2	-.1
1956.	52.7	52.7	.0	.0
1957.	52.3	52.3	.0	.0
1958.	56.0	56.0	.0	.0
1959.	56.9	56.9	.0	.0
1960.	52.3	52.4	.2	.1
1961.	52.9	52.9	.0	.0
1962.	54.0	54.0	.0	.0
1963.	51.2	51.2	.0	.0
1964.	51.9	51.9	.0	.0
1965.	51.6	51.6	.0	.0
1966.	53.7	53.4	-.6	-.3
1967.	56.0	56.0	.0	.0
1968.	52.8	52.5	-.6	-.3
1969.	49.6	49.6	.0	.0
1970.	52.1	51.9	-.4	-.2
1971.	53.0	53.0	.0	.0
1972.	52.1	51.9	-.4	-.2
1973.	49.2	49.2	.0	.0
1974.	53.0	53.0	.0	.0
1975.	53.1	53.1	.0	.0
1976.	55.7	55.7	.0	.0
1977.	52.8	52.8	.0	.0
1978.	50.5	50.5	.0	.0
1979.	50.9	50.6	-.6	-.3
1980.	48.0	48.1	.2	.1
1981.	51.1	51.1	.0	.0
1982.	44.6	44.6	.0	.0
1983.	53.1	53.1	.0	.0
1984.	50.2	50.2	.0	.0
1985.	49.5	49.3	-.4	-.2
1986.	53.5	53.5	.0	.0
1987.	54.0	54.0	.0	.0
1988.	52.7	52.7	.0	.0
1989.	52.5	52.6	.2	.1
1990.	54.0	53.8	-.4	-.2
Mean:	52.4	52.4	.0	.0
Median:	52.5	52.5	.0	.0
Min:	44.6	44.6	-.9	-.4
Max:	57.7	57.7	2.5	1.3
X > 56.0	6	6		
Mean X > 56.0	57.1	57.1	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE BELOW KESWICK DAM

December

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.0	47.0	.0	.0
1923.	49.7	49.6	-.2	-.1
1924.	44.9	44.8	-.2	-.1
1925.	50.1	50.2	.2	.1
1926.	49.8	49.8	.0	.0
1927.	49.4	49.4	.0	.0
1928.	47.9	47.9	.0	.0
1929.	53.2	53.2	.0	.0
1930.	50.7	50.7	.0	.0
1931.	44.8	44.8	.0	.0
1932.	46.5	46.5	.0	.0
1933.	47.8	47.9	.2	.1
1934.	48.3	48.4	.2	.1
1935.	49.5	49.6	.2	.1
1936.	51.5	51.6	.2	.1
1937.	51.4	51.4	.0	.0
1938.	51.4	51.4	.0	.0
1939.	51.8	51.8	.0	.0
1940.	50.8	50.8	.0	.0
1941.	49.6	49.6	.0	.0
1942.	48.4	48.4	.0	.0
1943.	50.1	50.1	.0	.0
1944.	49.7	49.7	.0	.0
1945.	47.8	47.8	.0	.0
1946.	48.3	48.3	.0	.0
1947.	48.5	48.5	.0	.0
1948.	46.8	46.8	.0	.0
1949.	49.3	49.2	-.2	-.1
1950.	49.8	49.8	.0	.0
1951.	47.7	47.7	.0	.0
1952.	48.5	48.5	.0	.0
1953.	50.2	50.2	.0	.0
1954.	48.0	48.0	.0	.0
1955.	48.8	48.8	.0	.0
1956.	52.5	52.5	.0	.0
1957.	48.8	48.8	.0	.0
1958.	54.7	54.7	.0	.0
1959.	52.3	52.1	-.4	-.2
1960.	49.3	49.3	.0	.0
1961.	48.8	48.8	.0	.0
1962.	52.0	52.0	.0	.0
1963.	48.4	48.4	.0	.0
1964.	48.4	48.4	.0	.0
1965.	48.0	48.0	.0	.0
1966.	49.8	49.8	.0	.0
1967.	51.6	51.6	.0	.0
1968.	46.7	46.8	.2	.1
1969.	51.5	51.6	.2	.1
1970.	48.5	48.5	.0	.0
1971.	47.7	47.7	.0	.0
1972.	45.7	45.7	.0	.0
1973.	47.8	47.8	.0	.0
1974.	49.5	49.5	.0	.0
1975.	50.4	50.4	.0	.0
1976.	53.4	53.4	.0	.0
1977.	48.4	48.3	-.2	-.1
1978.	48.6	48.6	.0	.0
1979.	46.6	46.6	.0	.0
1980.	49.3	49.3	.0	.0
1981.	47.8	47.8	.0	.0
1982.	46.0	46.0	.0	.0
1983.	47.7	47.7	.0	.0
1984.	46.3	46.3	.0	.0
1985.	46.5	46.5	.0	.0
1986.	48.6	48.5	-.2	-.1
1987.	47.5	47.5	.0	.0
1988.	47.4	47.4	.0	.0
1989.	48.7	48.7	.0	.0
1990.	45.1	44.9	-.4	-.2
Mean:	49.0	49.0	.0	.0
Median:	48.5	48.5	.0	.0
Min:	44.8	44.8	-.4	-.2
Max:	54.7	54.7	.2	.1
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 19

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

January

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	44.1	44.1	.0	.0
1923.	43.9	43.9	.0	.0
1924.	45.2	45.2	.0	.0
1925.	44.2	43.9	-.7	-.3
1926.	44.7	44.6	-.2	-.1
1927.	45.4	45.4	.0	.0
1928.	45.1	45.1	.0	.0
1929.	43.3	43.3	.0	.0
1930.	44.3	44.3	.0	.0
1931.	46.0	46.0	.0	.0
1932.	43.7	43.7	.0	.0
1933.	42.4	42.4	.0	.0
1934.	46.4	46.5	.2	.1
1935.	44.5	44.5	.0	.0
1936.	45.6	45.6	.0	.0
1937.	40.0	40.0	.0	.0
1938.	46.8	46.8	.0	.0
1939.	47.1	47.1	.0	.0
1940.	45.4	45.4	.0	.0
1941.	46.6	46.6	.0	.0
1942.	45.8	45.8	.0	.0
1943.	45.5	45.5	.0	.0
1944.	45.6	45.6	.0	.0
1945.	45.7	45.7	.0	.0
1946.	45.0	45.0	.0	.0
1947.	44.4	44.4	.0	.0
1948.	46.4	46.4	.0	.0
1949.	41.0	41.0	.0	.0
1950.	41.9	41.9	.0	.0
1951.	44.6	44.6	.0	.0
1952.	43.9	43.9	.0	.0
1953.	47.0	47.0	.0	.0
1954.	45.9	45.9	.0	.0
1955.	44.5	44.5	.0	.0
1956.	45.3	45.3	.0	.0
1957.	45.3	45.3	.0	.0
1958.	45.8	45.8	.0	.0
1959.	47.8	47.8	.0	.0
1960.	45.0	45.1	.2	.1
1961.	45.7	45.7	.0	.0
1962.	47.0	47.0	.0	.0
1963.	45.8	45.8	.0	.0
1964.	44.9	44.9	.0	.0
1965.	46.0	46.0	.0	.0
1966.	44.8	44.8	.0	.0
1967.	45.7	45.7	.0	.0
1968.	45.3	45.3	.0	.0
1969.	43.6	43.6	.0	.0
1970.	47.1	47.1	.0	.0
1971.	45.2	45.2	.0	.0
1972.	44.4	44.4	.0	.0
1973.	43.7	43.7	.0	.0
1974.	45.2	45.2	.0	.0
1975.	46.0	46.0	.0	.0
1976.	48.0	48.0	.0	.0
1977.	46.6	46.6	.0	.0
1978.	45.3	45.3	.0	.0
1979.	44.9	44.9	.0	.0
1980.	45.1	45.1	.0	.0
1981.	45.6	45.6	.0	.0
1982.	43.9	43.9	.0	.0
1983.	44.6	44.6	.0	.0
1984.	45.9	45.9	.0	.0
1985.	44.0	44.0	.0	.0
1986.	45.6	45.7	.2	.1
1987.	43.8	43.8	.0	.0
1988.	44.7	44.7	.0	.0
1989.	44.2	44.2	.0	.0
1990.	44.7	44.7	.0	.0
Mean:	45.0	45.0	.0	.0
Median:	45.2	45.2	.0	.0
Min:	40.0	40.0	-.7	-.3
Max:	48.0	48.0	.2	.1
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

February

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	46.6	46.6	.0	.0
1923.	50.0	50.0	.0	.0
1924.	48.6	48.7	.2	.1
1925.	48.1	48.1	.0	.0
1926.	48.2	48.1	-.2	-.1
1927.	47.7	47.6	-.2	-.1
1928.	49.0	49.0	.0	.0
1929.	46.2	46.2	.0	.0
1930.	47.4	47.4	.0	.0
1931.	48.5	48.5	.0	.0
1932.	45.9	46.0	.2	.1
1933.	44.1	44.1	.0	.0
1934.	49.4	49.4	.0	.0
1935.	47.8	48.0	.4	.2
1936.	47.8	47.8	.0	.0
1937.	45.5	45.6	.2	.1
1938.	47.2	47.2	.0	.0
1939.	46.3	46.3	.0	.0
1940.	48.3	48.3	.0	.0
1941.	48.8	48.8	.0	.0
1942.	47.3	47.3	.0	.0
1943.	49.6	49.6	.0	.0
1944.	47.0	47.0	.0	.0
1945.	48.8	48.8	.0	.0
1946.	45.3	45.3	.0	.0
1947.	47.7	47.7	.0	.0
1948.	46.6	46.6	.0	.0
1949.	43.3	43.3	.0	.0
1950.	46.2	46.4	.4	.2
1951.	47.0	47.0	.0	.0
1952.	47.2	47.2	.0	.0
1953.	50.2	50.2	.0	.0
1954.	49.9	49.9	.0	.0
1955.	47.6	47.6	.0	.0
1956.	46.5	46.5	.0	.0
1957.	50.1	50.1	.0	.0
1958.	48.8	48.8	.0	.0
1959.	48.6	48.6	.0	.0
1960.	47.9	47.9	.0	.0
1961.	49.5	49.5	.0	.0
1962.	47.6	47.6	.0	.0
1963.	50.6	50.6	.0	.0
1964.	51.3	51.3	.0	.0
1965.	50.0	50.0	.0	.0
1966.	47.1	47.1	.0	.0
1967.	50.2	50.2	.0	.0
1968.	50.6	50.6	.0	.0
1969.	45.9	45.9	.0	.0
1970.	51.1	51.1	.0	.0
1971.	49.0	49.0	.0	.0
1972.	49.1	49.1	.0	.0
1973.	49.2	49.2	.0	.0
1974.	48.3	48.3	.0	.0
1975.	47.7	47.7	.0	.0
1976.	48.3	48.3	.0	.0
1977.	48.3	48.3	.0	.0
1978.	48.6	48.6	.0	.0
1979.	47.6	47.6	.0	.0
1980.	48.7	48.7	.0	.0
1981.	48.7	48.7	.0	.0
1982.	47.2	47.2	.0	.0
1983.	47.3	47.3	.0	.0
1984.	48.2	48.2	.0	.0
1985.	49.2	49.2	.0	.0
1986.	49.4	49.3	-.2	-.1
1987.	46.4	46.4	.0	.0
1988.	51.2	51.2	.0	.0
1989.	45.1	45.1	.0	.0
1990.	45.5	45.5	.0	.0
Mean:	48.0	48.0	.0	.0
Median:	48.0	48.0	.0	.0
Min:	43.3	43.3	-.2	-.1
Max:	51.3	51.3	.4	.2

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

March

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.6	50.6	.0	.0
1923.	55.0	55.0	.0	.0
1924.	49.8	50.0	.4	.2
1925.	49.6	49.8	.4	.2
1926.	57.0	56.9	-.2	-.1
1927.	51.9	51.9	.0	.0
1928.	52.4	52.4	.0	.0
1929.	49.5	49.5	.0	.0
1930.	53.2	53.4	.4	.2
1931.	51.7	51.7	.0	.0
1932.	54.4	54.4	.0	.0
1933.	51.4	51.5	.2	.1
1934.	55.6	55.4	-.4	-.2
1935.	50.3	50.3	.0	.0
1936.	54.0	54.3	.6	.3
1937.	50.3	50.3	.0	.0
1938.	49.0	49.0	.0	.0
1939.	53.8	53.8	.0	.0
1940.	53.3	53.3	.0	.0
1941.	52.5	52.5	.0	.0
1942.	52.0	52.0	.0	.0
1943.	52.3	52.3	.0	.0
1944.	53.8	53.8	.0	.0
1945.	50.2	50.2	.0	.0
1946.	51.5	51.5	.0	.0
1947.	53.4	53.5	.2	.1
1948.	49.8	49.8	.0	.0
1949.	50.9	50.9	.0	.0
1950.	51.2	51.2	.0	.0
1951.	52.2	52.2	.0	.0
1952.	50.0	49.9	-.2	-.1
1953.	52.6	52.6	.0	.0
1954.	50.7	50.7	.0	.0
1955.	53.4	53.4	.0	.0
1956.	52.8	52.8	.0	.0
1957.	52.6	52.6	.0	.0
1958.	49.7	49.7	.0	.0
1959.	55.6	55.6	.0	.0
1960.	53.6	53.7	.2	.1
1961.	51.8	51.8	.0	.0
1962.	51.3	51.3	.0	.0
1963.	52.0	52.0	.0	.0
1964.	52.8	52.8	.0	.0
1965.	55.0	55.0	.0	.0
1966.	52.7	52.7	.0	.0
1967.	50.4	50.4	.0	.0
1968.	53.8	53.8	.0	.0
1969.	52.5	52.5	.0	.0
1970.	53.6	53.6	.0	.0
1971.	50.0	50.0	.0	.0
1972.	53.3	53.3	.0	.0
1973.	51.1	51.1	.0	.0
1974.	51.5	51.5	.0	.0
1975.	50.0	50.0	.0	.0
1976.	52.5	52.5	.0	.0
1977.	50.6	50.5	-.2	-.1
1978.	54.1	54.1	.0	.0
1979.	53.1	53.1	.0	.0
1980.	52.2	52.1	-.2	-.1
1981.	51.8	51.9	.2	.1
1982.	48.5	48.5	.0	.0
1983.	50.6	50.6	.0	.0
1984.	54.1	54.1	.0	.0
1985.	50.0	50.0	.0	.0
1986.	52.8	52.8	.0	.0
1987.	51.3	51.3	.0	.0
1988.	54.9	54.9	.0	.0
1989.	51.0	50.9	-.2	-.1
1990.	51.0	50.9	-.2	-.1
Mean:	52.1	52.1	.0	.0
Median:	52.0	52.0	.0	.0
Min:	48.5	48.5	-.4	-.2
Max:	57.0	56.9	.6	.3
X > 56.0	1	1		
Mean X > 56.0	57.0	56.9	-.2	-.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

April

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	55.4	55.4	.0	.0
1923.	55.3	55.3	.0	.0
1924.	54.2	54.3	.2	.1
1925.	55.4	55.4	.0	.0
1926.	55.9	56.0	.2	.1
1927.	54.4	54.4	.0	.0
1928.	54.9	54.9	.0	.0
1929.	50.1	50.3	.4	.2
1930.	55.5	55.3	-.4	-.2
1931.	53.8	53.8	.0	.0
1932.	54.2	54.2	.0	.0
1933.	54.4	54.5	.2	.1
1934.	55.8	56.1	.5	.3
1935.	56.0	55.9	-.2	-.1
1936.	55.8	55.7	-.2	-.1
1937.	54.0	54.0	.0	.0
1938.	53.2	53.2	.0	.0
1939.	53.9	54.0	.2	.1
1940.	55.8	55.8	.0	.0
1941.	53.6	53.6	.0	.0
1942.	54.6	54.6	.0	.0
1943.	54.8	54.8	.0	.0
1944.	53.5	53.5	.0	.0
1945.	55.0	55.0	.0	.0
1946.	54.8	54.8	.0	.0
1947.	56.3	56.3	.0	.0
1948.	54.5	54.5	.0	.0
1949.	55.9	55.9	.0	.0
1950.	55.6	55.6	.0	.0
1951.	54.5	54.5	.0	.0
1952.	52.3	52.3	.0	.0
1953.	54.6	54.6	.0	.0
1954.	53.7	53.7	.0	.0
1955.	53.8	53.8	.0	.0
1956.	55.1	55.1	.0	.0
1957.	54.1	54.1	.0	.0
1958.	53.9	53.9	.0	.0
1959.	55.0	55.0	.0	.0
1960.	54.2	54.2	.0	.0
1961.	55.0	55.0	.0	.0
1962.	56.3	56.3	.0	.0
1963.	52.1	52.1	.0	.0
1964.	53.4	53.4	.0	.0
1965.	55.5	55.5	.0	.0
1966.	54.6	54.6	.0	.0
1967.	52.0	52.0	.0	.0
1968.	55.0	55.0	.0	.0
1969.	53.4	53.4	.0	.0
1970.	53.6	53.6	.0	.0
1971.	54.6	54.6	.0	.0
1972.	53.6	53.6	.0	.0
1973.	55.8	55.8	.0	.0
1974.	54.8	54.8	.0	.0
1975.	54.1	54.1	.0	.0
1976.	53.3	53.4	.2	.1
1977.	54.6	54.6	.0	.0
1978.	54.9	54.9	.0	.0
1979.	54.4	54.4	.0	.0
1980.	54.4	54.4	.0	.0
1981.	55.1	55.1	.0	.0
1982.	52.2	52.2	.0	.0
1983.	53.6	53.6	.0	.0
1984.	53.3	53.3	.0	.0
1985.	55.8	55.8	.0	.0
1986.	54.8	54.8	.0	.0
1987.	54.2	54.2	.0	.0
1988.	54.5	54.5	.0	.0
1989.	55.5	55.5	.0	.0
1990.	54.0	54.2	.4	.2
Mean:	54.4	54.4	.0	.0
Median:	54.5	54.5	.0	.0
Min:	50.1	50.3	-.4	-.2
Max:	56.3	56.3	.5	.3
X > 56.0	2	3		
Mean X > 56.0	56.3	56.2	-.2	-.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

May

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	56.9	56.9	.0	.0
1923.	53.1	52.8	-.6	-.3
1924.	54.6	54.6	.0	.0
1925.	60.0	60.0	.0	.0
1926.	55.8	55.8	.0	.0
1927.	53.9	53.9	.0	.0
1928.	54.9	54.9	.0	.0
1929.	52.9	52.8	-.2	-.1
1930.	54.4	54.4	.0	.0
1931.	54.8	54.8	.0	.0
1932.	56.5	56.5	.0	.0
1933.	53.2	53.2	.0	.0
1934.	54.2	54.2	.0	.0
1935.	58.5	58.5	.0	.0
1936.	54.6	54.6	.0	.0
1937.	55.4	54.9	-.9	-.5
1938.	56.2	56.3	.2	.1
1939.	52.2	52.2	.0	.0
1940.	56.1	56.1	.0	.0
1941.	52.9	52.9	.0	.0
1942.	54.1	54.1	.0	.0
1943.	55.1	55.1	.0	.0
1944.	53.7	53.7	.0	.0
1945.	53.3	53.2	-.2	-.1
1946.	52.5	52.5	.0	.0
1947.	52.9	52.9	.0	.0
1948.	55.0	55.0	.0	.0
1949.	53.6	53.7	.2	.1
1950.	52.5	52.5	.0	.0
1951.	55.7	55.7	.0	.0
1952.	54.7	54.7	.0	.0
1953.	55.5	55.5	.0	.0
1954.	53.9	53.9	.0	.0
1955.	57.9	57.9	.0	.0
1956.	55.0	55.0	.0	.0
1957.	55.5	55.6	.2	.1
1958.	55.1	55.1	.0	.0
1959.	53.3	53.5	.4	.2
1960.	55.5	55.4	-.2	-.1
1961.	51.7	51.8	.2	.1
1962.	53.1	53.1	.0	.0
1963.	57.9	57.9	.0	.0
1964.	54.0	54.0	.0	.0
1965.	55.4	55.4	.0	.0
1966.	52.6	52.6	.0	.0
1967.	53.1	53.1	.0	.0
1968.	53.6	53.6	.0	.0
1969.	54.1	53.8	-.6	-.3
1970.	55.0	55.0	.0	.0
1971.	53.3	53.3	.0	.0
1972.	52.3	52.3	.0	.0
1973.	56.1	56.1	.0	.0
1974.	56.6	56.6	.0	.0
1975.	55.0	55.0	.0	.0
1976.	54.8	54.8	.0	.0
1977.	54.2	54.2	.0	.0
1978.	54.6	54.6	.0	.0
1979.	55.7	55.6	-.2	-.1
1980.	53.9	53.9	.0	.0
1981.	52.8	52.9	.2	.1
1982.	58.3	58.3	.0	.0
1983.	54.7	54.7	.0	.0
1984.	52.9	53.0	.2	.1
1985.	52.4	52.4	.0	.0
1986.	53.4	53.4	.0	.0
1987.	52.7	52.7	.0	.0
1988.	52.4	52.4	.0	.0
1989.	53.3	53.2	-.2	-.1
1990.	53.2	53.2	.0	.0
Mean:	54.5	54.5	.0	.0
Median:	54.2	54.2	.0	.0
Min:	51.7	51.8	-.9	-.5
Max:	60.0	60.0	.4	.2
X > 56.0	11	11		
Mean X > 56.0	57.4	57.4	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

June

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.7	54.7	.0	.0
1923.	52.7	52.4	-.6	-.3
1924.	54.8	54.8	.0	.0
1925.	58.0	58.0	.0	.0
1926.	55.6	55.8	.4	.2
1927.	53.9	53.9	.0	.0
1928.	53.1	53.1	.0	.0
1929.	55.2	55.2	.0	.0
1930.	54.2	54.2	.0	.0
1931.	55.2	55.2	.0	.0
1932.	57.2	57.2	.0	.0
1933.	55.5	55.4	-.2	-.1
1934.	53.6	53.4	-.4	-.2
1935.	53.7	53.6	-.2	-.1
1936.	55.3	55.3	.0	.0
1937.	54.3	53.9	-.7	-.4
1938.	55.6	55.8	.4	.2
1939.	53.1	53.2	.2	.1
1940.	54.6	54.6	.0	.0
1941.	53.5	53.5	.0	.0
1942.	54.7	54.7	.0	.0
1943.	52.5	52.5	.0	.0
1944.	52.3	52.5	.4	.2
1945.	53.7	53.8	.2	.1
1946.	51.5	51.5	.0	.0
1947.	53.5	53.5	.0	.0
1948.	54.6	54.6	.0	.0
1949.	51.5	51.5	.0	.0
1950.	52.7	52.7	.0	.0
1951.	52.7	52.7	.0	.0
1952.	54.2	54.2	.0	.0
1953.	53.1	53.1	.0	.0
1954.	53.4	53.5	.2	.1
1955.	53.3	53.3	.0	.0
1956.	55.9	55.9	.0	.0
1957.	55.3	55.3	.0	.0
1958.	53.7	53.7	.0	.0
1959.	54.1	54.2	.2	.1
1960.	54.7	54.2	-.9	-.5
1961.	55.5	55.5	.0	.0
1962.	54.1	54.1	.0	.0
1963.	55.4	55.4	.0	.0
1964.	54.8	54.8	.0	.0
1965.	54.0	54.0	.0	.0
1966.	52.1	52.0	-.2	-.1
1967.	54.7	54.7	.0	.0
1968.	53.7	53.9	.4	.2
1969.	54.7	54.7	.0	.0
1970.	54.4	54.4	.0	.0
1971.	53.7	53.7	.0	.0
1972.	53.4	53.3	-.2	-.1
1973.	55.3	55.2	-.2	-.1
1974.	55.5	55.5	.0	.0
1975.	54.8	54.8	.0	.0
1976.	55.5	55.4	-.2	-.1
1977.	57.1	57.0	-.2	-.1
1978.	54.0	54.0	.0	.0
1979.	52.3	52.2	-.2	-.1
1980.	52.6	52.6	.0	.0
1981.	54.3	54.6	.6	.3
1982.	55.2	55.2	.0	.0
1983.	53.6	53.6	.0	.0
1984.	52.8	52.8	.0	.0
1985.	53.9	54.2	.6	.3
1986.	53.1	53.1	.0	.0
1987.	53.2	53.2	.0	.0
1988.	53.8	53.9	.2	.1
1989.	53.2	53.3	.2	.1
1990.	55.7	55.7	.0	.0
Mean:	54.2	54.2	.0	.0
Median:	54.0	54.0	.0	.0
Min:	51.5	51.5	-.9	-.5
Max:	58.0	58.0	.6	.3
X > 56.0	3	3		
Mean X > 56.0	57.4	57.4	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

July

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.9	54.9	.0	.0
1923.	55.2	54.7	-.9	-.5
1924.	56.5	56.7	.4	.2
1925.	56.2	56.2	.0	.0
1926.	56.0	56.0	.0	.0
1927.	54.3	54.2	-.2	-.1
1928.	52.6	52.7	.2	.1
1929.	54.9	55.0	.2	.1
1930.	55.1	55.1	.0	.0
1931.	58.9	58.6	-.5	-.3
1932.	56.1	56.0	-.2	-.1
1933.	58.8	58.6	-.3	-.2
1934.	57.7	57.7	.0	.0
1935.	53.9	53.7	-.4	-.2
1936.	54.6	54.6	.0	.0
1937.	54.4	54.1	-.6	-.3
1938.	54.0	53.9	-.2	-.1
1939.	54.8	54.9	.2	.1
1940.	53.0	53.2	.4	.2
1941.	54.0	54.0	.0	.0
1942.	53.3	53.3	.0	.0
1943.	53.4	53.5	.2	.1
1944.	54.0	53.8	-.4	-.2
1945.	52.9	52.8	-.2	-.1
1946.	52.1	52.3	.4	.2
1947.	52.9	52.9	.0	.0
1948.	53.1	53.1	.0	.0
1949.	53.4	53.3	-.2	-.1
1950.	53.6	53.6	.0	.0
1951.	53.0	53.2	.4	.2
1952.	54.0	54.0	.0	.0
1953.	53.9	53.9	.0	.0
1954.	52.4	52.4	.0	.0
1955.	54.6	54.5	-.2	-.1
1956.	53.6	53.6	.0	.0
1957.	53.4	53.5	.2	.1
1958.	54.2	54.2	.0	.0
1959.	54.6	54.6	.0	.0
1960.	54.5	54.4	-.2	-.1
1961.	55.2	55.2	.0	.0
1962.	54.8	54.9	.2	.1
1963.	53.8	53.8	.0	.0
1964.	55.3	55.4	.2	.1
1965.	54.4	54.4	.0	.0
1966.	52.6	52.7	.2	.1
1967.	54.1	54.1	.0	.0
1968.	53.7	54.0	.6	.3
1969.	53.9	53.8	-.2	-.1
1970.	53.7	53.9	.4	.2
1971.	54.5	54.5	.0	.0
1972.	53.0	53.0	.0	.0
1973.	53.9	54.0	.2	.1
1974.	54.1	54.1	.0	.0
1975.	54.2	54.2	.0	.0
1976.	56.1	56.2	.2	.1
1977.	58.4	58.4	.0	.0
1978.	55.0	55.0	.0	.0
1979.	52.8	53.3	.9	.5
1980.	54.5	54.5	.0	.0
1981.	55.4	55.3	-.2	-.1
1982.	53.1	53.1	.0	.0
1983.	53.3	53.3	.0	.0
1984.	54.2	54.4	.4	.2
1985.	55.2	55.2	.0	.0
1986.	53.4	53.4	.0	.0
1987.	53.8	53.8	.0	.0
1988.	56.4	56.4	.0	.0
1989.	54.1	54.1	.0	.0
1990.	54.6	54.7	.2	.1
Mean:	54.4	54.4	.0	.0
Median:	54.1	54.1	.0	.0
Min:	52.1	52.3	-.9	-.5
Max:	58.9	58.6	.9	.5
X > 56.0	9	8		
Mean X > 56.0	57.2	57.4	.3	.2
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

August

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.4	54.4	.0	.0
1923.	55.5	55.1	-.7	-.4
1924.	62.4	63.1	1.1	.7
1925.	55.5	55.5	.0	.0
1926.	55.5	55.5	.0	.0
1927.	54.4	54.5	.2	.1
1928.	55.1	54.9	-.4	-.2
1929.	56.0	56.0	.0	.0
1930.	54.9	54.9	.0	.0
1931.	63.5	63.7	.3	.2
1932.	60.3	60.2	-.2	-.1
1933.	60.6	60.5	-.2	-.1
1934.	65.4	65.0	-.6	-.4
1935.	58.6	58.4	-.3	-.2
1936.	55.0	55.0	.0	.0
1937.	54.7	54.5	-.4	-.2
1938.	53.8	53.8	.0	.0
1939.	55.9	55.9	.0	.0
1940.	54.7	54.7	.0	.0
1941.	53.2	53.2	.0	.0
1942.	54.0	54.0	.0	.0
1943.	53.3	53.3	.0	.0
1944.	54.9	55.0	.2	.1
1945.	53.9	53.9	.0	.0
1946.	53.8	53.8	.0	.0
1947.	53.8	53.8	.0	.0
1948.	53.4	53.5	.2	.1
1949.	53.8	53.5	-.6	-.3
1950.	54.1	54.1	.0	.0
1951.	54.4	54.4	.0	.0
1952.	53.5	53.5	.0	.0
1953.	53.3	53.3	.0	.0
1954.	54.7	54.6	-.2	-.1
1955.	56.2	56.4	.4	.2
1956.	53.6	53.6	.0	.0
1957.	53.8	53.7	-.2	-.1
1958.	54.8	54.8	.0	.0
1959.	56.6	56.7	.2	.1
1960.	54.9	55.3	.7	.4
1961.	55.4	55.5	.2	.1
1962.	55.2	55.2	.0	.0
1963.	54.2	54.2	.0	.0
1964.	56.4	56.4	.0	.0
1965.	55.1	55.1	.0	.0
1966.	55.8	56.2	.7	.4
1967.	54.8	54.8	.0	.0
1968.	56.4	56.7	.5	.3
1969.	54.6	54.5	-.2	-.1
1970.	56.4	56.4	.0	.0
1971.	55.4	55.4	.0	.0
1972.	55.0	55.3	.5	.3
1973.	56.0	56.0	.0	.0
1974.	54.4	54.4	.0	.0
1975.	53.5	53.5	.0	.0
1976.	54.7	54.7	.0	.0
1977.	67.2	67.3	.1	.1
1978.	54.8	54.8	.0	.0
1979.	54.9	54.8	-.2	-.1
1980.	54.9	54.8	-.2	-.1
1981.	57.1	56.3	-1.4	-.8
1982.	53.5	53.5	.0	.0
1983.	53.8	53.8	.0	.0
1984.	54.9	54.7	-.4	-.2
1985.	55.3	55.4	.2	.1
1986.	54.7	54.7	.0	.0
1987.	57.6	57.6	.0	.0
1988.	55.6	55.7	.2	.1
1989.	54.5	54.2	-.6	-.3
1990.	54.9	54.8	-.2	-.1
Mean:	55.6	55.6	.0	.0
Median:	54.9	54.8	.0	.0
Min:	53.2	53.2	-1.4	-.8
Max:	67.2	67.3	1.1	.7
X > 56.0	14	15		
Mean X > 56.0	59.6	59.4	-.3	-.2
X > 60.0	6	6		
Mean X > 60.0	63.2	63.3	.2	.1
X > 62.5	3	4		
Mean X > 62.5	65.4	64.8	-.9	-.6
X > 65.0	2	1		
Mean X > 65.0	66.3	67.3	1.5	1.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

September

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.2	54.2	.0	.0
1923.	52.9	53.0	.2	.1
1924.	65.9	66.2	.5	.3
1925.	51.8	51.9	.2	.1
1926.	53.5	53.3	-.4	-.2
1927.	53.7	53.7	.0	.0
1928.	54.1	54.1	.0	.0
1929.	54.2	54.0	-.4	-.2
1930.	51.4	51.4	.0	.0
1931.	66.2	66.2	.0	.0
1932.	66.1	65.9	-.3	-.2
1933.	63.2	63.0	-.3	-.2
1934.	68.1	68.0	-.1	-.1
1935.	63.1	62.9	-.3	-.2
1936.	57.8	57.7	-.2	-.1
1937.	52.0	52.2	.4	.2
1938.	56.8	56.8	.0	.0
1939.	56.9	56.7	-.4	-.2
1940.	53.2	53.1	-.2	-.1
1941.	53.8	53.8	.0	.0
1942.	54.2	54.2	.0	.0
1943.	55.4	55.4	.0	.0
1944.	55.5	55.4	-.2	-.1
1945.	55.3	55.2	-.2	-.1
1946.	52.2	52.2	.0	.0
1947.	57.0	56.9	-.2	-.1
1948.	55.4	55.4	.0	.0
1949.	50.6	50.6	.0	.0
1950.	50.6	50.6	.0	.0
1951.	53.8	53.9	.2	.1
1952.	54.1	54.1	.0	.0
1953.	55.0	55.0	.0	.0
1954.	54.2	54.2	.0	.0
1955.	54.2	54.2	.0	.0
1956.	53.9	53.9	.0	.0
1957.	55.1	55.1	.0	.0
1958.	56.4	56.4	.0	.0
1959.	58.2	57.8	-.7	-.4
1960.	54.8	54.9	.2	.1
1961.	54.9	54.9	.0	.0
1962.	55.5	55.5	.0	.0
1963.	57.5	57.5	.0	.0
1964.	53.9	53.9	.0	.0
1965.	53.2	53.2	.0	.0
1966.	54.7	54.6	-.2	-.1
1967.	57.3	57.3	.0	.0
1968.	55.4	55.6	.4	.2
1969.	54.1	54.1	.0	.0
1970.	54.1	54.1	.0	.0
1971.	55.6	55.6	.0	.0
1972.	53.0	52.9	-.2	-.1
1973.	53.1	53.1	.0	.0
1974.	53.7	53.7	.0	.0
1975.	57.2	57.2	.0	.0
1976.	57.3	57.3	.0	.0
1977.	66.0	66.0	.0	.0
1978.	52.7	52.7	.0	.0
1979.	54.6	54.6	.0	.0
1980.	52.7	52.7	.0	.0
1981.	54.4	54.3	-.2	-.1
1982.	53.0	53.0	.0	.0
1983.	52.9	52.9	.0	.0
1984.	54.3	54.3	.0	.0
1985.	51.8	51.8	.0	.0
1986.	52.7	52.7	.0	.0
1987.	53.8	53.8	.0	.0
1988.	54.4	54.3	-.2	-.1
1989.	52.6	52.6	.0	.0
1990.	58.2	58.2	.0	.0
Mean:	55.5	55.5	.0	.0
Median:	54.2	54.2	.0	.0
Min:	50.6	50.6	-.7	-.4
Max:	68.1	68.0	.5	.3
X > 56.0	18	18		
Mean X > 56.0	60.5	60.4	-.2	-.1
X > 60.0	7	7		
Mean X > 60.0	65.5	65.5	.0	.0
X > 62.5	7	7		
Mean X > 62.5	65.5	65.5	.0	.0
X > 65.0	5	5		
Mean X > 65.0	66.5	66.5	.0	.0
X > 67.5	1	1		
Mean X > 67.5	68.1	68.0	-.1	-.1
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

October"

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.6	50.6	.0	.0
1923.	52.9	53.8	1.7	.9
1924.	57.4	57.4	.0	.0
1925.	53.8	54.1	.6	.3
1926.	57.0	56.9	-.2	-.1
1927.	53.4	53.5	.2	.1
1928.	54.0	54.0	.0	.0
1929.	57.7	57.6	-.2	-.1
1930.	54.9	54.7	-.4	-.2
1931.	60.1	60.0	-.2	-.1
1932.	62.0	61.9	-.2	-.1
1933.	63.6	63.6	.0	.0
1934.	60.2	60.3	.2	.1
1935.	59.7	59.7	.0	.0
1936.	58.7	58.6	-.2	-.1
1937.	54.2	56.0	3.3	1.8
1938.	54.1	54.1	.0	.0
1939.	57.9	57.8	-.2	-.1
1940.	54.4	54.2	-.4	-.2
1941.	54.1	54.1	.0	.0
1942.	53.5	53.5	.0	.0
1943.	52.7	52.7	.0	.0
1944.	55.4	55.3	-.2	-.1
1945.	55.7	55.7	.0	.0
1946.	51.4	51.3	-.2	-.1
1947.	57.0	57.1	.2	.1
1948.	54.0	54.0	.0	.0
1949.	48.1	48.3	.4	.2
1950.	51.4	51.6	.4	.2
1951.	49.8	49.7	-.2	-.1
1952.	51.2	51.2	.0	.0
1953.	52.2	52.2	.0	.0
1954.	53.7	53.6	-.2	-.1
1955.	53.0	52.9	-.2	-.1
1956.	51.3	51.3	.0	.0
1957.	52.6	52.5	-.2	-.1
1958.	56.2	56.2	.0	.0
1959.	58.3	58.1	-.3	-.2
1960.	53.7	53.8	.2	.1
1961.	54.3	54.3	.0	.0
1962.	55.5	55.3	-.4	-.2
1963.	53.2	53.2	.0	.0
1964.	55.3	55.3	.0	.0
1965.	54.0	54.0	.0	.0
1966.	55.3	54.9	-.7	-.4
1967.	55.2	55.2	.0	.0
1968.	54.1	53.6	-.9	-.5
1969.	49.8	49.8	.0	.0
1970.	52.6	52.5	-.2	-.1
1971.	53.2	53.2	.0	.0
1972.	54.1	53.8	-.6	-.3
1973.	50.4	50.4	.0	.0
1974.	53.3	53.3	.0	.0
1975.	54.1	54.1	.0	.0
1976.	56.9	56.9	.0	.0
1977.	60.7	60.8	.2	.1
1978.	53.2	53.2	.0	.0
1979.	54.2	54.0	-.4	-.2
1980.	50.4	50.4	.0	.0
1981.	52.7	52.6	-.2	-.1
1982.	48.9	48.9	.0	.0
1983.	56.0	56.1	.2	.1
1984.	51.9	51.9	.0	.0
1985.	52.6	52.4	-.4	-.2
1986.	54.5	54.5	.0	.0
1987.	57.8	57.8	.0	.0
1988.	57.6	57.5	-.2	-.1
1989.	53.8	54.1	.6	.3
1990.	58.4	58.4	.0	.0
Mean:	54.6	54.6	.0	.0
Median:	54.0	54.0	.0	.0
Min:	48.1	48.3	-.9	-.5
Max:	63.6	63.6	3.3	1.8
X > 56.0	18	19		
Mean X > 56.0	58.7	58.6	-.2	-.1
X > 60.0	5	4		
Mean X > 60.0	61.3	61.7	.7	.4
X > 62.5	1	1		
Mean X > 62.5	63.6	63.6	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

November

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	49.8	49.8	.0	.0
1923.	52.7	53.5	1.5	.8
1924.	51.3	51.3	.0	.0
1925.	51.5	51.6	.2	.1
1926.	53.2	53.1	-.2	-.1
1927.	51.9	51.9	.0	.0
1928.	52.0	52.0	.0	.0
1929.	56.6	56.4	-.4	-.2
1930.	53.0	52.9	-.2	-.1
1931.	51.4	51.4	.0	.0
1932.	55.8	55.8	.0	.0
1933.	56.2	56.2	.0	.0
1934.	51.7	51.7	.0	.0
1935.	52.8	52.8	.0	.0
1936.	56.6	56.5	-.2	-.1
1937.	51.9	52.0	.2	.1
1938.	52.9	52.9	.0	.0
1939.	55.0	55.0	.0	.0
1940.	52.6	52.4	-.4	-.2
1941.	53.6	53.6	.0	.0
1942.	51.8	51.8	.0	.0
1943.	51.3	51.2	-.2	-.1
1944.	51.2	51.2	.0	.0
1945.	51.4	51.4	.0	.0
1946.	50.6	50.6	.0	.0
1947.	52.5	52.7	.4	.2
1948.	52.2	52.2	.0	.0
1949.	48.0	47.9	-.2	-.1
1950.	49.1	48.9	-.4	-.2
1951.	49.2	49.0	-.4	-.2
1952.	47.3	47.3	.0	.0
1953.	51.3	51.3	.0	.0
1954.	52.0	52.0	.0	.0
1955.	51.1	51.0	-.2	-.1
1956.	52.6	52.6	.0	.0
1957.	51.9	51.8	-.2	-.1
1958.	54.7	54.7	.0	.0
1959.	55.5	55.6	.2	.1
1960.	51.5	51.5	.0	.0
1961.	52.1	52.1	.0	.0
1962.	53.3	53.3	.0	.0
1963.	51.1	51.1	.0	.0
1964.	51.2	51.2	.0	.0
1965.	51.4	51.5	.2	.1
1966.	52.8	52.6	-.4	-.2
1967.	55.1	55.1	.0	.0
1968.	52.0	51.8	-.4	-.2
1969.	50.5	50.5	.0	.0
1970.	51.7	51.7	.0	.0
1971.	52.2	52.2	.0	.0
1972.	51.4	51.3	-.2	-.1
1973.	49.5	49.5	.0	.0
1974.	52.2	52.2	.0	.0
1975.	52.0	52.0	.0	.0
1976.	54.9	54.9	.0	.0
1977.	52.2	52.2	.0	.0
1978.	50.5	50.5	.0	.0
1979.	50.4	50.3	-.2	-.1
1980.	48.5	48.6	.2	.1
1981.	51.3	51.2	-.2	-.1
1982.	46.7	46.7	.0	.0
1983.	52.4	52.4	.0	.0
1984.	50.4	50.4	.0	.0
1985.	49.0	48.9	-.2	-.1
1986.	52.6	52.6	.0	.0
1987.	52.3	52.3	.0	.0
1988.	51.4	51.4	.0	.0
1989.	51.9	52.0	.2	.1
1990.	52.3	52.1	-.4	-.2
Mean:	51.9	51.9	.0	.0
Median:	51.9	51.8	.0	.0
Min:	46.7	46.7	-.4	-.2
Max:	56.6	56.5	1.5	.8
X > 56.0	3	3		
Mean X > 56.0	56.5	56.4	-.2	-.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT JELLYS FERRY

December

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	45.8	45.8	.0	.0
1923.	47.6	47.5	-.2	-.1
1924.	44.2	44.2	.0	.0
1925.	48.6	48.6	.0	.0
1926.	46.7	46.7	.0	.0
1927.	47.4	47.4	.0	.0
1928.	46.4	46.4	.0	.0
1929.	48.8	48.8	.0	.0
1930.	48.7	48.7	.0	.0
1931.	44.8	44.8	.0	.0
1932.	44.8	44.9	.2	.1
1933.	45.9	45.9	.0	.0
1934.	47.0	47.0	.0	.0
1935.	47.7	47.8	.2	.1
1936.	48.6	48.8	.4	.2
1937.	48.6	48.3	-.6	-.3
1938.	49.6	49.6	.0	.0
1939.	48.8	48.8	.0	.0
1940.	48.0	48.1	.2	.1
1941.	48.2	48.2	.0	.0
1942.	46.9	46.9	.0	.0
1943.	49.0	49.0	.0	.0
1944.	47.6	47.6	.0	.0
1945.	46.8	46.8	.0	.0
1946.	47.0	47.0	.0	.0
1947.	46.8	46.9	.2	.1
1948.	45.5	45.5	.0	.0
1949.	47.5	47.4	-.2	-.1
1950.	48.1	48.1	.0	.0
1951.	46.7	46.7	.0	.0
1952.	46.7	46.7	.0	.0
1953.	48.9	48.9	.0	.0
1954.	46.5	46.5	.0	.0
1955.	47.7	47.7	.0	.0
1956.	50.7	50.7	.0	.0
1957.	47.6	47.6	.0	.0
1958.	52.8	52.8	.0	.0
1959.	50.4	50.3	-.2	-.1
1960.	47.3	47.3	.0	.0
1961.	46.8	46.8	.0	.0
1962.	49.8	49.8	.0	.0
1963.	47.0	47.0	.0	.0
1964.	47.3	47.3	.0	.0
1965.	46.4	46.4	.0	.0
1966.	48.2	48.3	.2	.1
1967.	49.2	49.2	.0	.0
1968.	45.5	45.6	.2	.1
1969.	49.6	49.6	.0	.0
1970.	47.1	47.1	.0	.0
1971.	46.2	46.2	.0	.0
1972.	44.9	44.9	.0	.0
1973.	47.1	47.1	.0	.0
1974.	47.5	47.5	.0	.0
1975.	48.8	48.8	.0	.0
1976.	51.6	51.6	.0	.0
1977.	47.0	46.9	-.2	-.1
1978.	47.3	47.3	.0	.0
1979.	45.8	45.8	.0	.0
1980.	47.8	47.8	.0	.0
1981.	47.1	47.1	.0	.0
1982.	45.7	45.7	.0	.0
1983.	46.9	46.9	.0	.0
1984.	45.6	45.6	.0	.0
1985.	45.7	45.6	-.2	-.1
1986.	47.1	47.1	.0	.0
1987.	45.9	45.9	.0	.0
1988.	46.0	46.0	.0	.0
1989.	47.4	47.3	-.2	-.1
1990.	43.8	43.5	-.7	-.3
Mean:	47.4	47.4	.0	.0
Median:	47.1	47.1	.0	.0
Min:	43.8	43.5	-.7	-.3
Max:	52.8	52.8	.4	.2
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 20

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

January

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	44.0	44.0	.0	.0
1923.	43.8	43.8	.0	.0
1924.	45.1	45.1	.0	.0
1925.	44.2	43.9	-.7	-.3
1926.	44.5	44.5	.0	.0
1927.	45.3	45.4	.2	.1
1928.	45.0	45.0	.0	.0
1929.	43.2	43.2	.0	.0
1930.	44.2	44.2	.0	.0
1931.	46.0	46.0	.0	.0
1932.	43.6	43.6	.0	.0
1933.	42.4	42.4	.0	.0
1934.	46.4	46.5	.2	.1
1935.	44.4	44.5	.2	.1
1936.	45.6	45.6	.0	.0
1937.	39.8	39.8	.0	.0
1938.	46.8	46.8	.0	.0
1939.	47.0	47.0	.0	.0
1940.	45.4	45.4	.0	.0
1941.	46.6	46.6	.0	.0
1942.	45.8	45.8	.0	.0
1943.	45.5	45.5	.0	.0
1944.	45.6	45.6	.0	.0
1945.	45.6	45.6	.0	.0
1946.	44.9	44.9	.0	.0
1947.	44.2	44.2	.0	.0
1948.	46.4	46.4	.0	.0
1949.	40.9	40.9	.0	.0
1950.	41.8	41.8	.0	.0
1951.	44.6	44.6	.0	.0
1952.	43.8	43.8	.0	.0
1953.	47.0	47.0	.0	.0
1954.	45.9	45.9	.0	.0
1955.	44.4	44.4	.0	.0
1956.	45.3	45.3	.0	.0
1957.	45.2	45.2	.0	.0
1958.	45.8	45.8	.0	.0
1959.	47.8	47.8	.0	.0
1960.	45.0	45.0	.0	.0
1961.	45.6	45.6	.0	.0
1962.	47.0	47.0	.0	.0
1963.	45.7	45.7	.0	.0
1964.	44.9	44.9	.0	.0
1965.	46.0	46.0	.0	.0
1966.	44.7	44.7	.0	.0
1967.	45.7	45.7	.0	.0
1968.	45.2	45.2	.0	.0
1969.	43.6	43.6	.0	.0
1970.	47.1	47.1	.0	.0
1971.	45.2	45.2	.0	.0
1972.	44.3	44.3	.0	.0
1973.	43.7	43.7	.0	.0
1974.	45.2	45.2	.0	.0
1975.	45.9	45.9	.0	.0
1976.	47.9	47.9	.0	.0
1977.	46.5	46.5	.0	.0
1978.	45.4	45.4	.0	.0
1979.	44.9	44.9	.0	.0
1980.	45.1	45.1	.0	.0
1981.	45.6	45.6	.0	.0
1982.	43.8	43.8	.0	.0
1983.	44.6	44.6	.0	.0
1984.	45.9	45.9	.0	.0
1985.	44.0	44.0	.0	.0
1986.	45.7	45.7	.0	.0
1987.	43.8	43.8	.0	.0
1988.	44.7	44.7	.0	.0
1989.	44.2	44.2	.0	.0
1990.	44.7	44.7	.0	.0
Mean:	45.0	45.0	.0	.0
Median:	45.1	45.1	.0	.0
Min:	39.8	39.8	-.7	-.3
Max:	47.9	47.9	.2	.1

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

February

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	46.6	46.6	.0	.0
1923.	50.1	50.1	.0	.0
1924.	48.8	48.8	.0	.0
1925.	48.1	48.1	.0	.0
1926.	48.2	48.1	-.2	-.1
1927.	47.7	47.6	-.2	-.1
1928.	49.0	49.0	.0	.0
1929.	46.3	46.3	.0	.0
1930.	47.5	47.5	.0	.0
1931.	48.6	48.6	.0	.0
1932.	46.0	46.0	.0	.0
1933.	44.2	44.2	.0	.0
1934.	49.5	49.5	.0	.0
1935.	47.8	48.0	.4	.2
1936.	47.8	47.8	.0	.0
1937.	45.6	45.6	.0	.0
1938.	47.2	47.2	.0	.0
1939.	46.3	46.3	.0	.0
1940.	48.3	48.3	.0	.0
1941.	48.8	48.8	.0	.0
1942.	47.3	47.3	.0	.0
1943.	49.6	49.6	.0	.0
1944.	47.0	47.0	.0	.0
1945.	48.8	48.8	.0	.0
1946.	45.3	45.3	.0	.0
1947.	47.8	47.8	.0	.0
1948.	46.5	46.5	.0	.0
1949.	43.3	43.3	.0	.0
1950.	46.3	46.4	.2	.1
1951.	47.0	47.0	.0	.0
1952.	47.2	47.2	.0	.0
1953.	50.2	50.2	.0	.0
1954.	49.9	49.9	.0	.0
1955.	47.6	47.6	.0	.0
1956.	46.5	46.5	.0	.0
1957.	50.1	50.1	.0	.0
1958.	48.8	48.8	.0	.0
1959.	48.6	48.6	.0	.0
1960.	47.9	47.9	.0	.0
1961.	49.5	49.5	.0	.0
1962.	47.6	47.6	.0	.0
1963.	50.7	50.7	.0	.0
1964.	51.3	51.3	.0	.0
1965.	50.0	50.0	.0	.0
1966.	47.1	47.1	.0	.0
1967.	50.2	50.2	.0	.0
1968.	50.6	50.6	.0	.0
1969.	45.9	45.9	.0	.0
1970.	51.1	51.1	.0	.0
1971.	49.0	49.0	.0	.0
1972.	49.1	49.1	.0	.0
1973.	49.2	49.2	.0	.0
1974.	48.2	48.2	.0	.0
1975.	47.7	47.7	.0	.0
1976.	48.3	48.3	.0	.0
1977.	48.4	48.4	.0	.0
1978.	48.6	48.6	.0	.0
1979.	47.7	47.7	.0	.0
1980.	48.7	48.7	.0	.0
1981.	48.7	48.7	.0	.0
1982.	47.3	47.3	.0	.0
1983.	47.3	47.3	.0	.0
1984.	48.2	48.2	.0	.0
1985.	49.3	49.3	.0	.0
1986.	49.4	49.4	.0	.0
1987.	46.5	46.5	.0	.0
1988.	51.2	51.2	.0	.0
1989.	45.2	45.2	.0	.0
1990.	45.6	45.5	-.2	-.1
Mean:	48.1	48.1	.0	.0
Median:	48.0	48.0	.0	.0
Min:	43.3	43.3	-.2	-.1
Max:	51.3	51.3	.4	.2

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

March

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.7	50.7	.0	.0
1923.	55.1	55.1	.0	.0
1924.	50.0	50.2	.4	.2
1925.	49.8	49.9	.2	.1
1926.	57.1	57.1	.0	.0
1927.	51.9	51.9	.0	.0
1928.	52.5	52.5	.0	.0
1929.	49.7	49.7	.0	.0
1930.	53.3	53.5	.4	.2
1931.	51.9	51.9	.0	.0
1932.	54.6	54.5	-.2	-.1
1933.	51.5	51.6	.2	.1
1934.	55.9	55.7	-.4	-.2
1935.	50.3	50.3	.0	.0
1936.	54.1	54.4	.6	.3
1937.	50.4	50.4	.0	.0
1938.	49.0	49.0	.0	.0
1939.	53.9	53.9	.0	.0
1940.	53.3	53.3	.0	.0
1941.	52.5	52.5	.0	.0
1942.	52.0	52.0	.0	.0
1943.	52.3	52.3	.0	.0
1944.	53.8	53.8	.0	.0
1945.	50.2	50.2	.0	.0
1946.	51.6	51.6	.0	.0
1947.	53.5	53.6	.2	.1
1948.	49.8	49.8	.0	.0
1949.	50.9	50.9	.0	.0
1950.	51.3	51.2	-.2	-.1
1951.	52.2	52.2	.0	.0
1952.	50.0	50.0	.0	.0
1953.	52.6	52.6	.0	.0
1954.	50.7	50.7	.0	.0
1955.	53.4	53.4	.0	.0
1956.	52.9	52.9	.0	.0
1957.	52.6	52.6	.0	.0
1958.	49.7	49.7	.0	.0
1959.	55.6	55.6	.0	.0
1960.	53.7	53.7	.0	.0
1961.	51.8	51.8	.0	.0
1962.	51.3	51.3	.0	.0
1963.	52.0	52.0	.0	.0
1964.	52.8	52.8	.0	.0
1965.	55.0	55.0	.0	.0
1966.	52.7	52.7	.0	.0
1967.	50.5	50.5	.0	.0
1968.	53.8	53.8	.0	.0
1969.	52.6	52.6	.0	.0
1970.	53.7	53.7	.0	.0
1971.	50.0	50.0	.0	.0
1972.	53.4	53.4	.0	.0
1973.	51.1	51.1	.0	.0
1974.	51.5	51.5	.0	.0
1975.	50.1	50.1	.0	.0
1976.	52.5	52.5	.0	.0
1977.	50.6	50.6	.0	.0
1978.	54.1	54.1	.0	.0
1979.	53.2	53.2	.0	.0
1980.	52.3	52.1	-.4	-.2
1981.	51.9	51.9	.0	.0
1982.	48.5	48.5	.0	.0
1983.	50.6	50.6	.0	.0
1984.	54.1	54.1	.0	.0
1985.	50.1	50.1	.0	.0
1986.	52.9	52.9	.0	.0
1987.	51.4	51.4	.0	.0
1988.	55.0	55.0	.0	.0
1989.	51.0	51.0	.0	.0
1990.	51.2	51.2	.0	.0
Mean:	52.1	52.2	.0	.0
Median:	52.0	52.0	.0	.0
Min:	48.5	48.5	-.4	-.2
Max:	57.1	57.1	.6	.3
X > 56.0	1	1		
Mean X > 56.0	57.1	57.1	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

April

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	55.5	55.5	.0	.0
1923.	55.5	55.5	.0	.0
1924.	54.5	54.6	.2	.1
1925.	55.6	55.5	-.2	-.1
1926.	56.2	56.3	.2	.1
1927.	54.5	54.5	.0	.0
1928.	55.1	55.1	.0	.0
1929.	50.4	50.6	.4	.2
1930.	55.8	55.6	-.4	-.2
1931.	54.1	54.1	.0	.0
1932.	54.4	54.4	.0	.0
1933.	54.7	54.8	.2	.1
1934.	56.2	56.5	.5	.3
1935.	56.0	56.0	.0	.0
1936.	56.0	55.9	-.2	-.1
1937.	54.2	54.2	.0	.0
1938.	53.4	53.4	.0	.0
1939.	54.3	54.4	.2	.1
1940.	55.9	55.9	.0	.0
1941.	53.7	53.7	.0	.0
1942.	54.7	54.7	.0	.0
1943.	55.0	55.0	.0	.0
1944.	53.7	53.7	.0	.0
1945.	55.3	55.3	.0	.0
1946.	55.1	55.1	.0	.0
1947.	56.6	56.6	.0	.0
1948.	54.5	54.5	.0	.0
1949.	56.2	56.2	.0	.0
1950.	55.9	55.9	.0	.0
1951.	54.8	54.8	.0	.0
1952.	52.5	52.5	.0	.0
1953.	54.7	54.7	.0	.0
1954.	53.9	53.9	.0	.0
1955.	53.9	53.9	.0	.0
1956.	55.3	55.3	.0	.0
1957.	54.3	54.3	.0	.0
1958.	54.0	54.0	.0	.0
1959.	55.3	55.3	.0	.0
1960.	54.4	54.4	.0	.0
1961.	55.2	55.2	.0	.0
1962.	56.6	56.6	.0	.0
1963.	52.2	52.2	.0	.0
1964.	53.6	53.6	.0	.0
1965.	55.6	55.6	.0	.0
1966.	54.8	54.8	.0	.0
1967.	52.0	52.0	.0	.0
1968.	55.2	55.2	.0	.0
1969.	53.5	53.5	.0	.0
1970.	53.8	53.8	.0	.0
1971.	54.7	54.7	.0	.0
1972.	53.8	53.8	.0	.0
1973.	56.0	56.0	.0	.0
1974.	54.9	54.9	.0	.0
1975.	54.1	54.1	.0	.0
1976.	53.5	53.5	.0	.0
1977.	55.0	55.0	.0	.0
1978.	55.0	55.0	.0	.0
1979.	54.6	54.6	.0	.0
1980.	54.6	54.6	.0	.0
1981.	55.4	55.4	.0	.0
1982.	52.2	52.2	.0	.0
1983.	53.6	53.6	.0	.0
1984.	53.5	53.5	.0	.0
1985.	56.2	56.2	.0	.0
1986.	55.1	55.1	.0	.0
1987.	54.5	54.5	.0	.0
1988.	54.8	54.8	.0	.0
1989.	55.8	55.8	.0	.0
1990.	54.4	54.6	.4	.2
Mean:	54.6	54.7	.0	.0
Median:	54.7	54.7	.0	.0
Min:	50.4	50.6	-.4	-.2
Max:	56.6	56.6	.5	.3
X > 56.0	6	6		
Mean X > 56.0	56.3	56.4	.2	.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

May

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	57.3	57.3	.0	.0
1923.	53.5	53.2	-.6	-.3
1924.	55.2	55.2	.0	.0
1925.	60.4	60.4	.0	.0
1926.	56.3	56.3	.0	.0
1927.	54.2	54.2	.0	.0
1928.	55.5	55.5	.0	.0
1929.	53.3	53.3	.0	.0
1930.	54.8	54.8	.0	.0
1931.	55.4	55.4	.0	.0
1932.	57.0	57.0	.0	.0
1933.	53.6	53.6	.0	.0
1934.	54.8	54.8	.0	.0
1935.	58.9	58.8	-.2	-.1
1936.	55.1	55.1	.0	.0
1937.	55.8	55.4	-.7	-.4
1938.	56.6	56.6	.0	.0
1939.	52.7	52.7	.0	.0
1940.	56.6	56.6	.0	.0
1941.	53.2	53.2	.0	.0
1942.	54.3	54.3	.0	.0
1943.	55.6	55.6	.0	.0
1944.	54.2	54.2	.0	.0
1945.	53.6	53.6	.0	.0
1946.	53.0	53.0	.0	.0
1947.	53.5	53.5	.0	.0
1948.	55.2	55.2	.0	.0
1949.	54.1	54.2	.2	.1
1950.	53.0	53.0	.0	.0
1951.	56.1	56.1	.0	.0
1952.	55.1	55.1	.0	.0
1953.	55.7	55.7	.0	.0
1954.	54.3	54.3	.0	.0
1955.	58.4	58.4	.0	.0
1956.	55.3	55.3	.0	.0
1957.	55.9	55.9	.0	.0
1958.	55.4	55.4	.0	.0
1959.	53.7	53.9	.4	.2
1960.	55.9	55.8	-.2	-.1
1961.	52.1	52.1	.0	.0
1962.	53.5	53.5	.0	.0
1963.	58.2	58.2	.0	.0
1964.	54.5	54.5	.0	.0
1965.	55.8	55.8	.0	.0
1966.	53.0	53.0	.0	.0
1967.	53.4	53.4	.0	.0
1968.	54.0	54.0	.0	.0
1969.	54.5	54.2	-.6	-.3
1970.	55.5	55.5	.0	.0
1971.	53.6	53.6	.0	.0
1972.	52.7	52.7	.0	.0
1973.	56.5	56.5	.0	.0
1974.	57.0	57.0	.0	.0
1975.	55.3	55.3	.0	.0
1976.	55.2	55.3	.2	.1
1977.	54.5	54.6	.2	.1
1978.	55.0	55.0	.0	.0
1979.	56.2	56.2	.0	.0
1980.	54.4	54.4	.0	.0
1981.	53.2	53.4	.4	.2
1982.	58.8	58.8	.0	.0
1983.	54.9	54.9	.0	.0
1984.	53.4	53.4	.0	.0
1985.	52.9	52.9	.0	.0
1986.	53.8	53.8	.0	.0
1987.	53.2	53.1	-.2	-.1
1988.	52.8	52.8	.0	.0
1989.	53.8	53.6	-.4	-.2
1990.	53.6	53.6	.0	.0
Mean:	54.9	54.9	.0	.0
Median:	54.5	54.5	.0	.0
Min:	52.1	52.1	-.7	-.4
Max:	60.4	60.4	.4	.2
X > 56.0	14	14		
Mean X > 56.0	57.5	57.4	-.2	-.1
X > 60.0	1	1		
Mean X > 60.0	60.4	60.4	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

June

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	55.3	55.3	.0	.0
1923.	53.2	52.9	-.6	-.3
1924.	55.4	55.5	.2	.1
1925.	58.6	58.6	.0	.0
1926.	56.3	56.4	.2	.1
1927.	54.4	54.4	.0	.0
1928.	53.6	53.6	.0	.0
1929.	55.8	55.8	.0	.0
1930.	54.8	54.8	.0	.0
1931.	55.8	55.8	.0	.0
1932.	57.9	58.0	.2	.1
1933.	56.2	56.1	-.2	-.1
1934.	54.2	54.0	-.4	-.2
1935.	54.3	54.2	-.2	-.1
1936.	55.8	55.8	.0	.0
1937.	54.8	54.4	-.7	-.4
1938.	56.2	56.4	.4	.2
1939.	53.7	53.7	.0	.0
1940.	55.2	55.2	.0	.0
1941.	53.9	53.9	.0	.0
1942.	55.2	55.2	.0	.0
1943.	53.0	53.0	.0	.0
1944.	52.8	53.0	.4	.2
1945.	54.3	54.3	.0	.0
1946.	52.1	52.0	-.2	-.1
1947.	54.1	54.1	.0	.0
1948.	55.0	55.0	.0	.0
1949.	52.1	52.1	.0	.0
1950.	53.3	53.3	.0	.0
1951.	53.3	53.3	.0	.0
1952.	54.6	54.6	.0	.0
1953.	53.5	53.5	.0	.0
1954.	53.9	54.0	.2	.1
1955.	53.8	53.8	.0	.0
1956.	56.4	56.4	.0	.0
1957.	55.9	56.0	.2	.1
1958.	54.1	54.1	.0	.0
1959.	54.6	54.7	.2	.1
1960.	55.4	54.9	-.9	-.5
1961.	56.1	56.1	.0	.0
1962.	54.7	54.7	.0	.0
1963.	55.9	55.9	.0	.0
1964.	55.4	55.4	.0	.0
1965.	54.5	54.5	.0	.0
1966.	52.5	52.5	.0	.0
1967.	55.2	55.2	.0	.0
1968.	54.2	54.4	.4	.2
1969.	55.2	55.2	.0	.0
1970.	54.9	54.9	.0	.0
1971.	54.2	54.2	.0	.0
1972.	53.9	53.9	.0	.0
1973.	55.9	55.8	-.2	-.1
1974.	56.0	56.0	.0	.0
1975.	55.2	55.2	.0	.0
1976.	56.0	55.9	-.2	-.1
1977.	57.7	57.7	.0	.0
1978.	54.5	54.5	.0	.0
1979.	52.9	52.8	-.2	-.1
1980.	53.0	53.0	.0	.0
1981.	55.0	55.3	.5	.3
1982.	55.7	55.7	.0	.0
1983.	54.0	54.0	.0	.0
1984.	53.4	53.4	.0	.0
1985.	54.6	54.9	.5	.3
1986.	53.7	53.7	.0	.0
1987.	53.7	53.7	.0	.0
1988.	54.4	54.5	.2	.1
1989.	53.8	53.9	.2	.1
1990.	56.3	56.3	.0	.0
Mean:	54.7	54.7	.0	.0
Median:	54.5	54.5	.0	.0
Min:	52.1	52.0	-.9	-.5
Max:	58.6	58.6	.5	.3
X > 56.0	9	9		
Mean X > 56.0	56.9	56.9	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

July

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	55.5	55.5	.0	.0
1923.	55.8	55.3	-.9	-.5
1924.	57.1	57.3	.4	.2
1925.	56.8	56.8	.0	.0
1926.	56.6	56.7	.2	.1
1927.	54.9	54.8	-.2	-.1
1928.	53.0	53.2	.4	.2
1929.	55.5	55.6	.2	.1
1930.	55.7	55.7	.0	.0
1931.	59.5	59.2	-.5	-.3
1932.	56.7	56.7	.0	.0
1933.	59.6	59.3	-.5	-.3
1934.	58.2	58.2	.0	.0
1935.	54.4	54.3	-.2	-.1
1936.	55.2	55.2	.0	.0
1937.	55.0	54.6	-.7	-.4
1938.	54.5	54.4	-.2	-.1
1939.	55.4	55.5	.2	.1
1940.	53.5	53.6	.2	.1
1941.	54.4	54.4	.0	.0
1942.	53.8	53.8	.0	.0
1943.	54.0	54.1	.2	.1
1944.	54.6	54.4	-.4	-.2
1945.	53.5	53.4	-.2	-.1
1946.	52.7	52.9	.4	.2
1947.	53.5	53.4	-.2	-.1
1948.	53.6	53.6	.0	.0
1949.	54.0	53.8	-.4	-.2
1950.	54.2	54.2	.0	.0
1951.	53.5	53.7	.4	.2
1952.	54.5	54.5	.0	.0
1953.	54.5	54.5	.0	.0
1954.	52.9	52.9	.0	.0
1955.	55.1	55.1	.0	.0
1956.	54.1	54.1	.0	.0
1957.	53.9	54.0	.2	.1
1958.	54.7	54.7	.0	.0
1959.	55.1	55.1	.0	.0
1960.	55.2	55.1	-.2	-.1
1961.	55.8	55.8	.0	.0
1962.	55.3	55.4	.2	.1
1963.	54.3	54.3	.0	.0
1964.	55.9	56.0	.2	.1
1965.	54.9	54.9	.0	.0
1966.	53.0	53.2	.4	.2
1967.	54.6	54.6	.0	.0
1968.	54.1	54.5	.7	.4
1969.	54.4	54.3	-.2	-.1
1970.	54.2	54.4	.4	.2
1971.	55.0	55.0	.0	.0
1972.	53.5	53.5	.0	.0
1973.	54.3	54.5	.4	.2
1974.	54.6	54.6	.0	.0
1975.	54.6	54.6	.0	.0
1976.	56.7	56.8	.2	.1
1977.	58.9	59.0	.2	.1
1978.	55.6	55.6	.0	.0
1979.	53.4	53.9	.9	.5
1980.	55.1	55.1	.0	.0
1981.	55.9	55.9	.0	.0
1982.	53.6	53.6	.0	.0
1983.	53.7	53.7	.0	.0
1984.	54.8	54.9	.2	.1
1985.	55.8	55.9	.2	.1
1986.	53.9	53.9	.0	.0
1987.	54.3	54.3	.0	.0
1988.	57.0	57.1	.2	.1
1989.	54.8	54.7	-.2	-.1
1990.	55.3	55.3	.0	.0
Mean:	55.0	55.0	.0	.0
Median:	54.6	54.6	.0	.0
Min:	52.7	52.9	-.9	-.5
Max:	59.6	59.3	.9	.5
X > 56.0	10	10		
Mean X > 56.0	57.7	57.7	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

August

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.9	54.9	.0	.0
1923.	55.9	55.6	-.5	-.3
1924.	62.8	63.4	1.0	.6
1925.	56.0	56.0	.0	.0
1926.	56.0	56.0	.0	.0
1927.	54.9	55.0	.2	.1
1928.	55.5	55.3	-.4	-.2
1929.	56.5	56.5	.0	.0
1930.	55.4	55.4	.0	.0
1931.	63.9	64.1	.3	.2
1932.	60.8	60.7	-.2	-.1
1933.	61.1	61.0	-.2	-.1
1934.	65.8	65.4	-.6	-.4
1935.	59.0	58.8	-.3	-.2
1936.	55.4	55.4	.0	.0
1937.	55.2	54.9	-.5	-.3
1938.	54.2	54.2	.0	.0
1939.	56.4	56.4	.0	.0
1940.	55.2	55.1	-.2	-.1
1941.	53.6	53.6	.0	.0
1942.	54.4	54.4	.0	.0
1943.	53.8	53.7	-.2	-.1
1944.	55.5	55.5	.0	.0
1945.	54.4	54.4	.0	.0
1946.	54.3	54.3	.0	.0
1947.	54.3	54.3	.0	.0
1948.	53.8	53.9	.2	.1
1949.	54.3	54.0	-.6	-.3
1950.	54.7	54.7	.0	.0
1951.	54.8	54.8	.0	.0
1952.	53.9	53.9	.0	.0
1953.	53.6	53.6	.0	.0
1954.	55.1	55.0	-.2	-.1
1955.	56.7	56.9	.4	.2
1956.	54.0	54.0	.0	.0
1957.	54.2	54.1	-.2	-.1
1958.	55.3	55.3	.0	.0
1959.	57.0	57.1	.2	.1
1960.	55.4	55.8	.7	.4
1961.	55.9	55.9	.0	.0
1962.	55.7	55.7	.0	.0
1963.	54.6	54.6	.0	.0
1964.	56.9	56.9	.0	.0
1965.	55.6	55.6	.0	.0
1966.	56.3	56.7	.7	.4
1967.	55.2	55.3	.2	.1
1968.	56.8	57.1	.5	.3
1969.	55.1	55.0	-.2	-.1
1970.	56.8	56.9	.2	.1
1971.	55.8	55.8	.0	.0
1972.	55.5	55.8	.5	.3
1973.	56.5	56.5	.0	.0
1974.	54.9	54.9	.0	.0
1975.	53.9	53.9	.0	.0
1976.	55.2	55.1	-.2	-.1
1977.	67.5	67.6	.1	.1
1978.	55.3	55.3	.0	.0
1979.	55.4	55.3	-.2	-.1
1980.	55.4	55.3	-.2	-.1
1981.	57.7	56.8	-1.6	-.9
1982.	53.9	53.9	.0	.0
1983.	54.1	54.1	.0	.0
1984.	55.4	55.3	-.2	-.1
1985.	55.8	56.0	.4	.2
1986.	55.2	55.2	.0	.0
1987.	58.1	58.1	.0	.0
1988.	56.2	56.3	.2	.1
1989.	55.0	54.7	-.5	-.3
1990.	55.5	55.3	-.4	-.2
Mean:	56.1	56.1	.0	.0
Median:	55.4	55.3	.0	.0
Min:	53.6	53.6	-1.6	-.9
Max:	67.5	67.6	1.0	.6
X > 56.0	19	19		
Mean X > 56.0	59.1	59.1	.0	.0
X > 60.0	6	6		
Mean X > 60.0	63.7	63.7	.0	.0
X > 62.5	4	4		
Mean X > 62.5	65.0	65.1	.2	.1
X > 65.0	2	2		
Mean X > 65.0	66.7	66.5	-.3	-.2
X > 67.5	0	1		
Mean X > 67.5	.0	67.6	.0	67.6
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

September

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	54.8	54.8	.0	.0
1923.	53.5	53.6	.2	.1
1924.	66.0	66.3	.5	.3
1925.	52.2	52.3	.2	.1
1926.	53.9	53.8	-.2	-.1
1927.	54.0	54.1	.2	.1
1928.	54.6	54.6	.0	.0
1929.	54.7	54.6	-.2	-.1
1930.	51.9	51.9	.0	.0
1931.	66.2	66.2	.0	.0
1932.	66.3	66.2	-.2	-.1
1933.	63.3	63.1	-.3	-.2
1934.	68.2	68.1	-.1	-.1
1935.	63.3	63.1	-.3	-.2
1936.	58.2	58.2	.0	.0
1937.	52.5	52.7	.4	.2
1938.	57.2	57.2	.0	.0
1939.	57.3	57.1	-.3	-.2
1940.	53.6	53.5	-.2	-.1
1941.	54.1	54.1	.0	.0
1942.	54.6	54.6	.0	.0
1943.	55.9	55.9	.0	.0
1944.	56.1	56.0	-.2	-.1
1945.	55.8	55.8	.0	.0
1946.	52.9	52.9	.0	.0
1947.	57.5	57.5	.0	.0
1948.	55.8	55.8	.0	.0
1949.	51.4	51.3	-.2	-.1
1950.	51.3	51.3	.0	.0
1951.	54.5	54.5	.0	.0
1952.	54.7	54.7	.0	.0
1953.	55.5	55.5	.0	.0
1954.	54.6	54.6	.0	.0
1955.	54.7	54.7	.0	.0
1956.	54.4	54.4	.0	.0
1957.	55.5	55.6	.2	.1
1958.	56.7	56.7	.0	.0
1959.	58.5	58.1	-.7	-.4
1960.	55.4	55.5	.2	.1
1961.	55.4	55.3	-.2	-.1
1962.	56.0	56.0	.0	.0
1963.	58.0	58.0	.0	.0
1964.	54.4	54.4	.0	.0
1965.	53.6	53.6	.0	.0
1966.	55.3	55.3	.0	.0
1967.	57.8	57.8	.0	.0
1968.	55.9	56.0	.2	.1
1969.	54.6	54.6	.0	.0
1970.	54.6	54.6	.0	.0
1971.	56.0	56.0	.0	.0
1972.	53.4	53.3	-.2	-.1
1973.	53.5	53.5	.0	.0
1974.	54.1	54.1	.0	.0
1975.	57.6	57.6	.0	.0
1976.	57.8	57.8	.0	.0
1977.	66.1	66.1	.0	.0
1978.	53.2	53.2	.0	.0
1979.	55.2	55.3	.2	.1
1980.	53.3	53.4	.2	.1
1981.	55.0	54.9	-.2	-.1
1982.	53.4	53.4	.0	.0
1983.	53.2	53.2	.0	.0
1984.	54.9	54.9	.0	.0
1985.	52.2	52.2	.0	.0
1986.	53.0	53.0	.0	.0
1987.	54.3	54.3	.0	.0
1988.	55.1	55.0	-.2	-.1
1989.	53.1	53.1	.0	.0
1990.	58.7	58.7	.0	.0
Mean:	55.9	55.9	.0	.0
Median:	54.7	54.7	.0	.0
Min:	51.3	51.3	-.7	-.4
Max:	68.2	68.1	.5	.3
X > 56.0	19	18		
Mean X > 56.0	60.6	60.8	.3	.2
X > 60.0	7	7		
Mean X > 60.0	65.6	65.6	.0	.0
X > 62.5	7	7		
Mean X > 62.5	65.6	65.6	.0	.0
X > 65.0	5	5		
Mean X > 65.0	66.6	66.6	.0	.0
X > 67.5	1	1		
Mean X > 67.5	68.2	68.1	-.1	-.1
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

October

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	50.8	50.8	.0	.0
1923.	53.1	53.9	1.5	.8
1924.	57.3	57.3	.0	.0
1925.	54.0	54.2	.4	.2
1926.	57.2	57.1	-.2	-.1
1927.	53.7	53.7	.0	.0
1928.	54.2	54.2	.0	.0
1929.	57.9	57.8	-.2	-.1
1930.	55.1	55.0	-.2	-.1
1931.	60.0	60.0	.0	.0
1932.	61.9	61.9	.0	.0
1933.	63.6	63.6	.0	.0
1934.	60.2	60.2	.0	.0
1935.	59.6	59.6	.0	.0
1936.	58.8	58.8	.0	.0
1937.	54.5	56.2	3.1	1.7
1938.	54.2	54.2	.0	.0
1939.	58.0	57.9	-.2	-.1
1940.	54.6	54.4	-.4	-.2
1941.	54.2	54.2	.0	.0
1942.	53.7	53.7	.0	.0
1943.	52.9	52.9	.0	.0
1944.	55.7	55.6	-.2	-.1
1945.	56.0	56.0	.0	.0
1946.	51.6	51.5	-.2	-.1
1947.	57.1	57.1	.0	.0
1948.	54.2	54.1	-.2	-.1
1949.	48.5	48.8	.6	.3
1950.	51.7	51.9	.4	.2
1951.	50.1	50.0	-.2	-.1
1952.	51.6	51.6	.0	.0
1953.	52.4	52.4	.0	.0
1954.	53.8	53.8	.0	.0
1955.	53.3	53.2	-.2	-.1
1956.	51.4	51.5	.2	.1
1957.	52.6	52.6	.0	.0
1958.	56.4	56.4	.0	.0
1959.	58.5	58.3	-.3	-.2
1960.	54.0	54.1	.2	.1
1961.	54.5	54.5	.0	.0
1962.	55.6	55.4	-.4	-.2
1963.	53.4	53.4	.0	.0
1964.	55.6	55.5	-.2	-.1
1965.	54.3	54.3	.0	.0
1966.	55.5	55.1	-.7	-.4
1967.	55.4	55.4	.0	.0
1968.	54.3	53.8	-.9	-.5
1969.	50.0	50.0	.0	.0
1970.	52.8	52.7	-.2	-.1
1971.	53.3	53.3	.0	.0
1972.	54.2	53.9	-.6	-.3
1973.	50.6	50.6	.0	.0
1974.	53.5	53.5	.0	.0
1975.	54.2	54.2	.0	.0
1976.	57.2	57.2	.0	.0
1977.	60.7	60.8	.2	.1
1978.	53.6	53.6	.0	.0
1979.	54.5	54.2	-.6	-.3
1980.	50.8	50.8	.0	.0
1981.	52.9	52.8	-.2	-.1
1982.	49.1	49.1	.0	.0
1983.	56.2	56.2	.0	.0
1984.	52.1	52.1	.0	.0
1985.	52.8	52.7	-.2	-.1
1986.	54.7	54.7	.0	.0
1987.	58.1	58.1	.0	.0
1988.	57.9	57.8	-.2	-.1
1989.	54.0	54.2	.4	.2
1990.	58.6	58.6	.0	.0
Mean:	54.8	54.8	.0	.0
Median:	54.2	54.2	.0	.0
Min:	48.5	48.8	-.9	-.5
Max:	63.6	63.6	3.1	1.7
X > 56.0	19	20		
Mean X > 56.0	58.7	58.5	-.3	-.2
X > 60.0	4	4		
Mean X > 60.0	61.6	61.6	.0	.0
X > 62.5	1	1		
Mean X > 62.5	63.6	63.6	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

November

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	49.7	49.7	.0	.0
1923.	52.7	53.5	1.5	.8
1924.	51.2	51.2	.0	.0
1925.	51.3	51.5	.4	.2
1926.	53.2	53.2	.0	.0
1927.	51.8	51.8	.0	.0
1928.	51.9	51.9	.0	.0
1929.	56.4	56.3	-.2	-.1
1930.	52.9	52.8	-.2	-.1
1931.	51.3	51.3	.0	.0
1932.	55.7	55.7	.0	.0
1933.	56.0	56.1	.2	.1
1934.	51.6	51.7	.2	.1
1935.	52.6	52.6	.0	.0
1936.	56.4	56.4	.0	.0
1937.	51.9	52.0	.2	.1
1938.	52.8	52.8	.0	.0
1939.	54.9	54.9	.0	.0
1940.	52.5	52.4	-.2	-.1
1941.	53.6	53.6	.0	.0
1942.	51.7	51.7	.0	.0
1943.	51.3	51.2	-.2	-.1
1944.	51.1	51.1	.0	.0
1945.	51.3	51.3	.0	.0
1946.	50.6	50.5	-.2	-.1
1947.	52.4	52.5	.2	.1
1948.	52.2	52.1	-.2	-.1
1949.	48.2	48.1	-.2	-.1
1950.	49.3	49.1	-.4	-.2
1951.	49.2	49.0	-.4	-.2
1952.	47.4	47.4	.0	.0
1953.	51.3	51.3	.0	.0
1954.	52.0	52.0	.0	.0
1955.	51.0	50.9	-.2	-.1
1956.	52.5	52.5	.0	.0
1957.	51.8	51.8	.0	.0
1958.	54.6	54.6	.0	.0
1959.	55.5	55.5	.0	.0
1960.	51.4	51.5	.2	.1
1961.	52.0	52.0	.0	.0
1962.	53.2	53.2	.0	.0
1963.	51.1	51.1	.0	.0
1964.	51.1	51.1	.0	.0
1965.	51.4	51.4	.0	.0
1966.	52.8	52.6	-.4	-.2
1967.	55.0	55.0	.0	.0
1968.	51.9	51.7	-.4	-.2
1969.	50.5	50.5	.0	.0
1970.	51.7	51.7	.0	.0
1971.	52.1	52.1	.0	.0
1972.	51.3	51.2	-.2	-.1
1973.	49.5	49.5	.0	.0
1974.	52.1	52.1	.0	.0
1975.	51.9	51.9	.0	.0
1976.	54.9	54.9	.0	.0
1977.	52.1	52.2	.2	.1
1978.	50.5	50.5	.0	.0
1979.	50.4	50.3	-.2	-.1
1980.	48.6	48.7	.2	.1
1981.	51.3	51.3	.0	.0
1982.	46.7	46.7	.0	.0
1983.	52.3	52.3	.0	.0
1984.	50.3	50.3	.0	.0
1985.	48.9	48.8	-.2	-.1
1986.	52.5	52.5	.0	.0
1987.	52.2	52.2	.0	.0
1988.	51.4	51.4	.0	.0
1989.	51.9	52.0	.2	.1
1990.	52.2	52.0	-.4	-.2
Mean:	51.9	51.9	.0	.0
Median:	51.8	51.8	.0	.0
Min:	46.7	46.7	-.4	-.2
Max:	56.4	56.4	1.5	.8
X > 56.0	2	3		
Mean X > 56.0	56.4	56.3	-.2	-.1
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT BEND BRIDGE

December

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	45.7	45.7	.0	.0
1923.	47.4	47.3	-.2	-.1
1924.	44.0	44.0	.0	.0
1925.	48.5	48.5	.0	.0
1926.	46.6	46.7	.2	.1
1927.	47.3	47.3	.0	.0
1928.	46.2	46.2	.0	.0
1929.	48.8	48.8	.0	.0
1930.	48.5	48.5	.0	.0
1931.	44.8	44.7	-.2	-.1
1932.	44.6	44.6	.0	.0
1933.	45.8	45.8	.0	.0
1934.	46.9	46.9	.0	.0
1935.	47.6	47.6	.0	.0
1936.	48.4	48.6	.4	.2
1937.	48.6	48.3	-.6	-.3
1938.	49.5	49.5	.0	.0
1939.	48.7	48.7	.0	.0
1940.	48.0	48.0	.0	.0
1941.	48.2	48.2	.0	.0
1942.	46.8	46.8	.0	.0
1943.	48.9	48.9	.0	.0
1944.	47.6	47.6	.0	.0
1945.	46.8	46.8	.0	.0
1946.	46.9	46.9	.0	.0
1947.	46.6	46.7	.2	.1
1948.	45.3	45.3	.0	.0
1949.	47.3	47.2	-.2	-.1
1950.	48.1	48.1	.0	.0
1951.	46.6	46.6	.0	.0
1952.	46.7	46.7	.0	.0
1953.	48.8	48.8	.0	.0
1954.	46.3	46.3	.0	.0
1955.	47.7	47.6	-.2	-.1
1956.	50.5	50.5	.0	.0
1957.	47.5	47.5	.0	.0
1958.	52.7	52.7	.0	.0
1959.	50.2	50.2	.0	.0
1960.	47.2	47.2	.0	.0
1961.	46.8	46.8	.0	.0
1962.	49.8	49.8	.0	.0
1963.	46.8	46.8	.0	.0
1964.	47.3	47.3	.0	.0
1965.	46.2	46.3	.2	.1
1966.	48.2	48.3	.2	.1
1967.	49.1	49.1	.0	.0
1968.	45.4	45.5	.2	.1
1969.	49.5	49.5	.0	.0
1970.	47.1	47.1	.0	.0
1971.	46.1	46.1	.0	.0
1972.	44.7	44.7	.0	.0
1973.	47.1	47.1	.0	.0
1974.	47.4	47.4	.0	.0
1975.	48.7	48.7	.0	.0
1976.	51.4	51.4	.0	.0
1977.	46.9	46.9	.0	.0
1978.	47.2	47.2	.0	.0
1979.	45.8	45.8	.0	.0
1980.	47.8	47.8	.0	.0
1981.	47.1	47.1	.0	.0
1982.	45.7	45.7	.0	.0
1983.	46.9	46.9	.0	.0
1984.	45.5	45.5	.0	.0
1985.	45.6	45.5	-.2	-.1
1986.	47.0	46.9	-.2	-.1
1987.	45.8	45.8	.0	.0
1988.	45.9	45.9	.0	.0
1989.	47.3	47.2	-.2	-.1
1990.	43.6	43.3	-.7	-.3
Mean:	47.3	47.3	.0	.0
Median:	47.1	47.1	.0	.0
Min:	43.6	43.3	-.7	-.3
Max:	52.7	52.7	.4	.2
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 21

SACRAMENTO RIVER SALMON SURVIVAL

SACRAMENTO RIVER - FALL RUN SALMON SURVIVAL

Water Year	Cuml. Survival (%)	No Proj-constrained Survival (%)	Rel Change (%)	Abs Diff (%)
1922	96.0	96.0	.0	.0
1923	95.1	94.0	-1.2	-1.1
1924	70.9	70.8	-.1	-.1
1925	96.0	95.6	-.4	-.4
1926	87.6	88.0	.5	.4
1927	95.3	95.2	-.1	-.1
1928	94.3	94.4	.1	.1
1929	80.0	81.1	1.4	1.1
1930	94.0	94.3	.3	.3
1931	65.5	65.5	.0	.0
1932	60.4	60.4	.0	.0
1933	58.5	58.4	-.2	-.1
1934	64.8	64.7	-.2	-.1
1935	67.4	67.6	.3	.2
1936	74.1	74.5	.5	.4
1937	94.7	92.0	-2.9	-2.7
1938	91.3	91.4	.1	.1
1939	80.4	81.1	.9	.7
1940	94.3	94.6	.3	.3
1941	94.3	94.3	.0	.0
1942	94.8	94.8	.0	.0
1943	94.5	94.5	.0	.0
1944	90.3	90.5	.2	.2
1945	89.9	89.9	.0	.0
1946	96.8	96.8	.0	.0
1947	84.4	84.1	-.4	-.3
1948	93.4	93.4	.0	.0
1949	97.7	97.7	.0	.0
1950	97.0	96.9	-.1	-.1
1951	96.2	96.1	-.1	-.1
1952	95.4	95.4	.0	.0
1953	95.1	95.1	.0	.0
1954	94.5	94.5	.0	.0
1955	94.1	94.1	.0	.0
1956	96.6	96.6	.0	.0
1957	95.5	95.5	.0	.0
1958	85.7	85.7	.0	.0
1959	76.1	77.2	1.4	1.1
1960	93.2	92.9	-.3	-.3
1961	92.9	93.0	.1	.1
1962	89.8	90.1	.3	.3
1963	92.1	92.1	.0	.0
1964	92.1	92.1	.0	.0
1965	94.4	94.4	.0	.0
1966	90.0	90.8	.9	.8
1967	86.2	86.1	-.1	-.1
1968	92.6	92.9	.3	.3
1969	96.4	96.4	.0	.0
1970	94.8	94.9	.1	.1
1971	94.2	94.2	.0	.0
1972	95.6	95.8	.2	.2
1973	96.6	96.6	.0	.0
1974	95.0	95.0	.0	.0
1975	91.6	91.6	.0	.0
1976	82.8	82.7	-.1	-.1
1977	64.0	64.0	.0	.0
1978	94.4	94.4	.0	.0
1979	92.8	92.9	.1	.1
1980	96.1	96.1	.0	.0
1981	93.9	94.2	.3	.3
1982	97.6	97.6	.0	.0
1983	91.3	91.2	-.1	-.1
1984	94.8	94.8	.0	.0
1985	96.5	96.6	.1	.1
1986	94.3	94.3	.0	.0
1987	84.7	84.8	.1	.1
1988	85.3	85.7	.5	.4
1989	95.2	95.1	-.1	-.1
1990	78.6	78.7	.1	.1
Mean	89.2	89.2	.0	.0
Median	93.9	93.4	.0	.0
Min	58.5	58.4	-2.9	-2.7
Max	97.7	97.7	1.4	1.1
Abs Diff < -1.0 &Rel Diff < signif				1
Abs Diff > 1.0 &Rel Diff > signif				2
No measurable Change				66
Check				69

SACRAMENTO RIVER - LATE FALL RUN SALMON SURVIVAL

Water Year	Cuml. Survival (%)	No Proj-constrained Survival (%)	Rel Change (%)	Abs Diff (%)
1922	99.2	99.2	.0	.0
1923	99.7	99.5	-.2	-.2
1924	98.8	98.8	.0	.0
1925	97.6	97.6	.0	.0
1926	96.3	96.2	-.1	-.1
1927	99.8	99.8	.0	.0
1928	99.4	99.4	.0	.0
1929	96.4	96.6	.2	.2
1930	99.4	99.5	.1	.1
1931	98.4	98.4	.0	.0
1932	96.2	96.2	.0	.0
1933	96.2	96.1	-.1	-.1
1934	97.8	97.7	-.1	-.1
1935	97.3	97.4	.1	.1
1936	96.4	96.5	.1	.1
1937	99.4	99.4	.0	.0
1938	99.0	99.0	.0	.0
1939	97.7	97.7	.0	.0
1940	99.0	99.1	.1	.1
1941	99.5	99.5	.0	.0
1942	99.8	99.8	.0	.0
1943	99.5	99.5	.0	.0
1944	99.7	99.7	.0	.0
1945	99.7	99.7	.0	.0
1946	99.7	99.7	.0	.0
1947	98.7	98.6	-.1	-.1
1948	99.8	99.8	.0	.0
1949	99.4	99.4	.0	.0
1950	99.6	99.6	.0	.0
1951	99.3	99.3	.0	.0
1952	99.7	99.7	.0	.0
1953	99.8	99.8	.0	.0
1954	99.7	99.7	.0	.0
1955	99.0	99.0	.0	.0
1956	99.5	99.5	.0	.0
1957	99.6	99.6	.0	.0
1958	95.6	95.6	.0	.0
1959	96.9	97.0	.1	.1
1960	99.5	99.6	.1	.1
1961	99.8	99.8	.0	.0
1962	99.1	99.1	.0	.0
1963	99.1	99.1	.0	.0
1964	99.7	99.7	.0	.0
1965	99.4	99.4	.0	.0
1966	99.6	99.7	.1	.1
1967	98.4	98.4	.0	.0
1968	99.6	99.6	.0	.0
1969	99.7	99.8	.1	.1
1970	99.4	99.4	.0	.0
1971	99.9	99.9	.0	.0
1972	99.9	99.9	.0	.0
1973	99.1	99.1	.0	.0
1974	99.3	99.3	.0	.0
1975	99.6	99.6	.0	.0
1976	97.2	97.2	.0	.0
1977	98.6	98.5	-.1	-.1
1978	99.6	99.6	.0	.0
1979	99.3	99.4	.1	.1
1980	99.7	99.7	.0	.0
1981	99.7	99.6	-.1	-.1
1982	98.2	98.2	.0	.0
1983	99.6	99.6	.0	.0
1984	99.7	99.7	.0	.0
1985	99.4	99.4	.0	.0
1986	99.6	99.6	.0	.0
1987	99.2	99.2	.0	.0
1988	99.4	99.4	.0	.0
1989	99.5	99.5	.0	.0
1990	98.8	98.8	.0	.0
Mean	98.9	98.9	.0	.0
Median	99.4	99.4	.0	.0
Min	95.6	95.6	-.2	-.2
Max	99.9	99.9	.2	.2
Abs Diff < -1.0				
&Rel Diff < signif				0
Abs Diff > 1.0				
&Rel Diff > signif				0
No measurable Change				69
Check				69

SACRAMENTO RIVER - WINTER RUN SALMON SURVIVAL

Water Year	Cuml. Survival (%)	No Proj-constrained Survival (%)	Rel Change (%)	Abs Diff (%)
1922	98.0	98.0	.0	.0
1923	95.0	95.2	.2	.2
1924	61.0	51.1	-16.2	-9.9
1925	95.2	95.2	.0	.0
1926	90.7	90.5	-.2	-.2
1927	98.9	98.9	.0	.0
1928	98.7	98.7	.0	.0
1929	98.8	98.8	.0	.0
1930	97.3	96.6	-.7	-.7
1931	52.2	49.2	-5.7	-3.0
1932	76.0	76.8	1.1	.8
1933	84.6	85.9	1.5	1.3
1934	14.9	18.6	24.8	3.7
1935	88.9	89.9	1.1	1.0
1936	96.1	95.3	-.8	-.8
1937	98.7	98.9	.2	.2
1938	98.6	98.5	-.1	-.1
1939	98.4	98.3	-.1	-.1
1940	97.6	97.6	.0	.0
1941	99.4	99.4	.0	.0
1942	98.9	98.9	.0	.0
1943	98.7	98.7	.0	.0
1944	98.2	98.2	.0	.0
1945	99.1	99.1	.0	.0
1946	99.4	99.4	.0	.0
1947	96.9	96.6	-.3	-.3
1948	99.0	99.0	.0	.0
1949	99.0	99.0	.0	.0
1950	98.9	98.9	.0	.0
1951	98.8	98.7	-.1	-.1
1952	99.0	99.0	.0	.0
1953	98.7	98.7	.0	.0
1954	99.3	99.3	.0	.0
1955	97.5	97.5	.0	.0
1956	98.2	98.2	.0	.0
1957	98.4	98.4	.0	.0
1958	98.9	98.9	.0	.0
1959	94.5	94.4	-.1	-.1
1960	97.0	97.0	.0	.0
1961	98.5	98.5	.0	.0
1962	98.2	98.2	.0	.0
1963	98.2	98.2	.0	.0
1964	98.2	98.2	.0	.0
1965	94.6	94.6	.0	.0
1966	99.1	99.0	-.1	-.1
1967	99.2	99.2	.0	.0
1968	96.9	96.8	-.1	-.1
1969	98.9	98.9	.0	.0
1970	97.1	97.1	.0	.0
1971	99.1	99.1	.0	.0
1972	99.1	99.1	.0	.0
1973	97.9	97.9	.0	.0
1974	98.3	98.3	.0	.0
1975	98.8	98.8	.0	.0
1976	98.1	98.1	.0	.0
1977	16.9	16.5	-2.4	-.4
1978	96.5	96.5	.0	.0
1979	98.4	98.4	.0	.0
1980	98.9	99.0	.1	.1
1981	98.1	98.2	.1	.1
1982	98.2	98.2	.0	.0
1983	99.2	99.2	.0	.0
1984	97.4	97.4	.0	.0
1985	98.4	98.3	-.1	-.1
1986	98.6	98.6	.0	.0
1987	98.7	98.7	.0	.0
1988	95.1	95.0	-.1	-.1
1989	98.7	98.7	.0	.0
1990	98.5	98.5	.0	.0
Mean	93.8	93.6	.0	-.1
Median	98.3	98.3	.0	.0
Min	14.9	16.5	-16.2	-9.9
Max	99.4	99.4	24.8	3.7
Abs Diff < -1.0 &Rel Diff < signif				1
Abs Diff > 1.0 &Rel Diff > signif				4
No measurable Change				64
Check				69

SACRAMENTO RIVER - SPRING RUN SALMON SURVIVAL

Water Year	Cuml. Survival (%)	No Proj-constrained Survival (%)	Rel Change (%)	Abs Diff (%)
1922	96.5	96.5	.0	.0
1923	96.6	97.0	.4	.4
1924	3.4	3.3	-2.9	-.1
1925	95.3	95.3	.0	.0
1926	95.3	95.3	.0	.0
1927	97.3	97.3	.0	.0
1928	97.3	97.4	.1	.1
1929	94.6	94.8	.2	.2
1930	97.1	97.1	.0	.0
1931	1.3	1.3	.0	.0
1932	.2	.2	.0	.0
1933	.0	.0	.0	.0
1934	1.2	1.1	-8.3	-.1
1935	2.7	3.2	18.5	.5
1936	88.2	88.6	.5	.4
1937	97.3	97.4	.1	.1
1938	95.8	95.8	.0	.0
1939	92.2	92.7	.5	.5
1940	97.4	97.4	.0	.0
1941	98.2	98.2	.0	.0
1942	97.5	97.5	.0	.0
1943	97.2	97.2	.0	.0
1944	95.8	95.9	.1	.1
1945	96.4	96.5	.1	.1
1946	98.4	98.3	-.1	-.1
1947	93.7	93.7	.0	.0
1948	97.2	97.2	.0	.0
1949	98.2	98.3	.1	.1
1950	98.0	98.0	.0	.0
1951	97.4	97.3	-.1	-.1
1952	97.4	97.4	.0	.0
1953	97.3	97.3	.0	.0
1954	97.5	97.5	.0	.0
1955	95.8	95.7	-.1	-.1
1956	97.4	97.4	.0	.0
1957	97.1	97.1	.0	.0
1958	95.4	95.4	.0	.0
1959	85.5	87.6	2.5	2.1
1960	96.0	95.8	-.2	-.2
1961	95.8	95.8	.0	.0
1962	95.5	95.5	.0	.0
1963	94.3	94.2	-.1	-.1
1964	95.4	95.4	.0	.0
1965	96.9	96.9	.0	.0
1966	95.9	95.7	-.2	-.2
1967	93.6	93.6	.0	.0
1968	95.7	95.3	-.4	-.4
1969	97.0	97.1	.1	.1
1970	96.0	96.0	.0	.0
1971	96.2	96.2	.0	.0
1972	97.7	97.5	-.2	-.2
1973	96.4	96.4	.0	.0
1974	97.0	97.0	.0	.0
1975	95.2	95.2	.0	.0
1976	92.0	91.9	-.1	-.1
1977	1.1	1.0	-9.1	-.1
1978	96.8	96.8	.0	.0
1979	96.4	96.3	-.1	-.1
1980	97.1	97.2	.1	.1
1981	94.8	95.3	.5	.5
1982	97.6	97.6	.0	.0
1983	97.9	97.9	.0	.0
1984	96.3	96.4	.1	.1
1985	96.7	96.6	-.1	-.1
1986	97.5	97.5	.0	.0
1987	94.1	94.1	.0	.0
1988	93.8	93.9	.1	.1
1989	97.4	97.6	.2	.2
1990	86.3	86.3	.0	.0
Mean	86.3	86.3	.0	.1
Median	96.2	96.2	.0	.0
Min	.0	.0	-9.1	-.4
Max	98.4	98.3	18.5	2.1
Abs Diff < -1.0				
&Rel Diff < signif				0
Abs Diff > 1.0				
&Rel Diff > signif				1
No measurable Change				68
Check				69

RETURN TO TABLE OF CONTENTS

Section 22

SACRAMENTO RIVER FLOW AT FREEPORT

SACRAMENTO RIVER FLOW AT FREEPORT

October

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	11122.2	11080.0	-.4	-42.2
1923	12963.8	12919.6	-.3	-44.2
1924	10483.1	10272.0	-2.0	-211.1
1925	8305.4	7993.2	-3.8	-312.2
1926	10525.3	10466.7	-.6	-58.6
1927	9120.2	9110.6	-.1	-9.6
1928	12305.1	12257.7	-.4	-47.4
1929	10176.4	10293.9	1.2	117.5
1930	6760.6	6745.7	-.2	-14.9
1931	9019.6	9228.9	2.3	209.3
1932	6179.8	6182.2	.0	2.4
1933	8843.6	8751.7	-1.0	-91.9
1934	7055.9	7043.4	-.2	-12.5
1935	5552.2	5661.1	2.0	108.9
1936	10798.1	10696.5	-.9	-101.6
1937	9356.9	9347.0	-.1	-9.9
1938	10087.9	9884.3	-2.0	-203.6
1939	15691.3	15637.5	-.3	-53.8
1940	8193.4	8064.0	-1.6	-129.4
1941	10396.3	10597.3	1.9	201.0
1942	12929.2	13423.3	3.8	494.1
1943	13069.0	13016.8	-.4	-52.2
1944	11762.7	11960.4	1.7	197.7
1945	9178.6	9416.8	2.6	238.2
1946	10806.8	11006.2	1.8	199.4
1947	10097.4	10541.9	4.4	444.5
1948	10097.9	10332.9	2.3	235.0
1949	12157.6	12106.9	-.4	-50.7
1950	9527.9	9689.6	1.7	161.7
1951	11299.4	11247.2	-.5	-52.2
1952	11937.9	11885.7	-.4	-52.2
1953	13650.9	13593.7	-.4	-57.2
1954	13324.5	13267.4	-.4	-57.1
1955	11370.1	11618.9	2.2	248.8
1956	9420.9	9659.2	2.5	238.3
1957	15536.0	16330.0	5.1	794.0
1958	21885.7	22120.2	1.1	234.5
1959	13958.6	13899.8	-.4	-58.8
1960	9437.7	9439.8	.0	2.1
1961	10130.9	10111.1	-.2	-19.8
1962	9475.9	9470.4	-.1	-5.5
1963	31744.7	32572.5	2.6	827.8
1964	15395.8	15341.9	-.4	-53.9
1965	9068.7	9275.0	2.3	206.3
1966	10768.9	10716.7	-.5	-52.2
1967	9633.9	9601.4	-.3	-32.5
1968	14336.0	14275.6	-.4	-60.4
1969	10955.3	11112.7	1.4	157.4
1970	15531.5	15476.0	-.4	-55.5
1971	10796.8	10795.7	.0	-1.1
1972	13833.3	13776.1	-.4	-57.2
1973	11833.1	11833.6	.0	.5
1974	13128.3	13322.7	1.5	194.4
1975	14043.6	13988.1	-.4	-55.5
1976	18409.0	18355.2	-.3	-53.8
1977	6586.8	6633.1	.7	46.3
1978	7401.1	7482.5	1.1	81.4
1979	11158.1	11110.7	-.4	-47.4
1980	11576.0	11526.4	-.4	-49.6
1981	11482.1	11431.5	-.4	-50.6
1982	10982.5	10976.3	-.1	-6.2
1983	20138.3	20303.7	.8	165.4
1984	16238.6	16809.5	3.5	570.9
1985	11675.0	11923.8	2.1	248.8
1986	8828.9	9068.3	2.7	239.4
1987	11728.7	11923.2	1.7	194.5
1988	7397.1	7334.6	-.8	-62.5
1989	6944.0	6736.6	-3.0	-207.4
1990	11920.7	12037.1	1.0	116.4
1991	6139.6	6440.4	4.9	300.8
Mean:	11481.0	11550.7	.5	69.8
Median:	10806.8	10976.3	-.1	-9.9
Min:	5552.2	5661.1	-3.8	-312.2
Max:	31744.7	32572.5	5.1	827.8

Alt-Cuml.>= .0	31
Rel Dif >= .0%	32
.0% > Rel Dif >= -1.0%	33
-1.0% > Rel Dif >= -2.0%	3
-2.0% > Rel Dif >= -3.0%	1
-3.0% > Rel Dif >= -5.0%	1
-5.0% > Rel Dif >= -6.0%	0
Rel Dif < -6.0%	0

SACRAMENTO RIVER FLOW AT FREEPORT

November

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	12247.9	12285.1	.3	37.2
1923	15614.4	15563.0	-.3	-51.4
1924	10859.7	10597.2	-2.4	-262.5
1925	7449.0	7151.7	-4.0	-297.3
1926	10511.6	10452.5	-.6	-59.1
1927	22806.1	22787.9	-.1	-18.2
1928	17774.1	17721.0	-.3	-53.1
1929	12532.9	12729.3	1.6	196.4
1930	6255.8	6234.3	-.3	-21.5
1931	9968.5	10176.8	2.1	208.3
1932	6566.3	6559.5	-.1	-6.8
1933	9067.5	9005.5	-.7	-62.0
1934	6544.1	6522.8	-.3	-21.3
1935	10051.7	10220.7	1.7	169.0
1936	12255.3	12165.9	-.7	-89.4
1937	11421.0	11334.2	-.8	-86.8
1938	23823.9	23512.1	-1.3	-311.8
1939	13849.8	13793.4	-.4	-56.4
1940	8670.8	8676.5	.1	5.7
1941	12425.1	12622.1	1.6	197.0
1942	14499.6	15088.7	4.1	589.1
1943	14358.7	15405.8	7.3	1047.1
1944	12031.0	12222.9	1.6	191.9
1945	15321.7	15548.6	1.5	226.9
1946	14488.6	14685.8	1.4	197.2
1947	11917.4	12355.9	3.7	438.5
1948	10765.9	10992.8	2.1	226.9
1949	12419.3	12361.3	-.5	-58.0
1950	10528.8	10585.6	.5	56.8
1951	40969.3	41174.6	.5	205.3
1952	15738.8	15682.4	-.4	-56.4
1953	14460.6	14397.5	-.4	-63.1
1954	16176.7	16113.6	-.4	-63.1
1955	15628.6	15863.0	1.5	234.4
1956	11627.9	11854.8	2.0	226.9
1957	12613.9	12550.8	-.5	-63.1
1958	16239.0	16429.3	1.2	190.3
1959	12866.4	12803.2	-.5	-63.2
1960	10800.2	10797.3	.0	-2.9
1961	13758.5	14168.3	3.0	409.8
1962	10523.9	10505.4	-.2	-18.5
1963	16129.3	16186.0	.4	56.7
1964	25637.5	26696.6	4.1	1059.1
1965	15656.0	15884.5	1.5	228.5
1966	20061.9	19957.1	-.5	-104.8
1967	15276.6	15274.2	.0	-2.4
1968	13523.5	13460.4	-.5	-63.1
1969	13259.7	13363.1	.8	103.4
1970	14774.2	14714.5	-.4	-59.7
1971	18886.9	18871.3	-.1	-15.6
1972	12167.5	12106.1	-.5	-61.4
1973	19684.1	19668.4	-.1	-15.7
1974	49429.7	50051.9	1.3	622.2
1975	13877.2	13817.4	-.4	-59.8
1976	15024.6	15230.9	1.4	206.3
1977	6190.6	6192.9	.0	2.3
1978	6826.5	6891.0	.9	64.5
1979	12868.7	12812.3	-.4	-56.4
1980	14315.0	14267.2	-.3	-47.8
1981	10121.0	10064.6	-.6	-56.4
1982	37699.3	37900.7	.5	201.4
1983	34367.0	34426.3	.2	59.3
1984	56382.7	56346.3	-.1	-36.4
1985	30158.4	30396.7	.8	238.3
1986	10534.4	11186.3	6.2	651.9
1987	9770.4	9958.9	1.9	188.5
1988	6718.3	6664.8	-.8	-53.5
1989	9350.1	9345.5	.0	-4.6
1990	10070.7	9670.9	-4.0	-399.8
1991	6336.4	6186.6	-2.4	-149.8
Mean:	15336.1	15418.5	.4	82.3
Median:	12866.4	12803.2	-.1	-6.8
Min:	6190.6	6186.6	-4.0	-399.8
Max:	56382.7	56346.3	7.3	1059.1

Alt-Cuml.>= .0		32
Rel Dif >= .0%	35	
.0% > Rel Dif >= -1.0%	30	
-1.0% > Rel Dif >= -2.0%	1	
-2.0% > Rel Dif >= -3.0%	2	
-3.0% > Rel Dif >= -5.0%	2	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

SACRAMENTO RIVER FLOW AT FREEPORT

December

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	18565.5	18515.3	-.3	-50.2
1923	27100.9	27396.1	1.1	295.2
1924	14875.4	14630.8	-1.6	-244.6
1925	11915.0	11626.3	-2.4	-288.7
1926	14087.8	14098.6	.1	10.8
1927	17972.3	17953.3	-.1	-19.0
1928	16107.0	16055.1	-.3	-51.9
1929	16814.1	16794.6	-.1	-19.5
1930	15950.3	15930.7	-.1	-19.6
1931	13381.7	13594.8	1.6	213.1
1932	17597.5	17591.8	.0	-5.7
1933	13076.5	12629.2	-3.4	-447.3
1934	13820.1	13801.4	-.1	-18.7
1935	8932.6	8969.6	.4	37.0
1936	15701.7	15652.6	-.3	-49.1
1937	15589.8	15702.3	.7	112.5
1938	47025.1	46288.5	-1.6	-736.6
1939	16447.9	16389.4	-.4	-58.5
1940	11294.1	11166.2	-1.1	-127.9
1941	37001.8	37466.4	1.3	464.6
1942	51891.5	52220.8	.6	329.3
1943	28091.3	28135.1	.2	43.8
1944	16911.0	16893.1	-.1	-17.9
1945	17167.2	17395.8	1.3	228.6
1946	49511.3	49924.1	.8	412.8
1947	16394.1	16834.0	2.7	439.9
1948	10214.2	10506.2	2.9	292.0
1949	17500.2	17506.3	.0	6.1
1950	13888.7	13989.5	.7	100.8
1951	61833.6	62879.6	1.7	1046.0
1952	36862.4	37772.5	2.5	910.1
1953	37932.9	37871.2	-.2	-61.7
1954	15824.4	16065.2	1.5	240.8
1955	22583.3	22811.6	1.0	228.3
1956	61684.7	61997.3	.5	312.6
1957	17195.9	17200.7	.0	4.8
1958	23873.0	24064.5	.8	191.5
1959	14555.4	14492.1	-.4	-63.3
1960	16539.7	16536.8	.0	-2.9
1961	17607.0	17588.7	-.1	-18.3
1962	18067.4	18047.6	-.1	-19.8
1963	27223.4	27225.8	.0	2.4
1964	15359.6	15357.2	.0	-2.4
1965	64250.2	64661.0	.6	410.8
1966	15113.2	15053.1	-.4	-60.1
1967	34322.6	34873.6	1.6	551.0
1968	16528.6	16466.8	-.4	-61.8
1969	23236.3	23477.7	1.0	241.4
1970	49434.2	49735.9	.6	301.7
1971	48094.9	48543.2	.9	448.3
1972	17825.0	17824.1	.0	-.9
1973	22466.5	22448.0	-.1	-18.5
1974	56007.5	56040.0	.1	32.5
1975	17964.9	17904.8	-.3	-60.1
1976	16607.3	16545.5	-.4	-61.8
1977	9096.9	9393.2	3.3	296.3
1978	14363.5	14422.4	.4	58.9
1979	17350.2	17354.8	.0	4.6
1980	19045.3	18996.8	-.3	-48.5
1981	17239.0	17238.3	.0	-.7
1982	67126.0	67131.4	.0	5.4
1983	54608.8	54651.0	.1	42.2
1984	71311.7	71366.2	.1	54.5
1985	22298.8	22530.4	1.0	231.6
1986	16446.9	16672.2	1.4	225.3
1987	17393.2	17392.5	.0	-.7
1988	16399.6	16385.6	-.1	-14.0
1989	9558.5	9555.2	.0	-3.3
1990	14368.3	14056.8	-2.2	-311.5
1991	10212.3	9787.0	-4.2	-425.3
Mean:	24723.4	24801.1	.2	77.7
Median:	17239.0	17354.8	.0	2.4
Min:	8932.6	8969.6	-4.2	-736.6
Max:	71311.7	71366.2	3.3	1046.0
Alt-Cuml.>= .0				36
Rel Dif >= .0%			43	
.0% > Rel Dif >= -1.0%			20	
-1.0% > Rel Dif >= -2.0%			3	
-2.0% > Rel Dif >= -3.0%			2	
-3.0% > Rel Dif >= -5.0%			2	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

SACRAMENTO RIVER FLOW AT FREEPORT

January

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	17908.9	17859.0	-.3	-49.9
1923	27307.1	27362.5	.2	55.4
1924	16320.7	16319.7	.0	-1.0
1925	12074.2	12291.3	1.8	217.1
1926	18826.5	18570.0	-1.4	-256.5
1927	30551.7	30945.6	1.3	393.9
1928	24276.0	24472.6	.8	196.6
1929	17075.0	17074.0	.0	-1.0
1930	21306.0	20984.1	-1.5	-321.9
1931	16194.6	16184.1	-.1	-10.5
1932	20084.1	20080.2	.0	-3.9
1933	15930.1	15868.0	-.4	-62.1
1934	16923.9	16900.8	-.1	-23.1
1935	26778.6	26763.6	-.1	-15.0
1936	36822.2	36835.6	.0	13.4
1937	16603.9	16521.6	-.5	-82.3
1938	27551.2	27598.8	.2	47.6
1939	16217.6	16411.0	1.2	193.4
1940	28501.7	28092.2	-1.4	-409.5
1941	58921.9	59021.8	.2	99.9
1942	56861.7	56935.0	.1	73.3
1943	58291.9	58331.0	.1	39.1
1944	17073.5	17072.6	.0	-.9
1945	14408.2	14383.0	-.2	-25.2
1946	42957.9	43014.1	.1	56.2
1947	15840.9	15837.4	.0	-3.5
1948	15699.0	15672.2	-.2	-26.8
1949	16049.4	16050.5	.0	1.1
1950	19716.8	19844.5	.6	127.7
1951	53789.2	53823.5	.1	34.3
1952	57638.0	57752.2	.2	114.2
1953	62116.7	62443.7	.5	327.0
1954	28882.8	29609.6	2.5	726.8
1955	21652.2	21631.5	-.1	-20.7
1956	71981.8	71957.0	.0	-24.8
1957	17534.9	17534.1	.0	-.8
1958	36186.1	36127.9	-.2	-58.2
1959	33351.4	33289.9	-.2	-61.5
1960	16665.8	16652.2	-.1	-13.6
1961	14420.3	14400.0	-.1	-20.3
1962	13552.3	13533.4	-.1	-18.9
1963	22956.6	23478.2	2.3	521.6
1964	23697.8	23641.2	-.2	-56.6
1965	68875.6	68838.2	-.1	-37.4
1966	26030.5	26222.2	.7	191.7
1967	45457.9	46069.1	1.3	611.2
1968	30539.8	30478.3	-.2	-61.5
1969	69138.1	69429.7	.4	291.6
1970	71761.2	71780.8	.0	19.6
1971	42731.4	42761.1	.1	29.7
1972	19187.4	20203.4	5.3	1016.0
1973	55383.4	56067.3	1.2	683.9
1974	69055.7	69065.2	.0	9.5
1975	18175.8	18115.9	-.3	-59.9
1976	16439.4	16377.7	-.4	-61.7
1977	11738.7	11871.9	1.1	133.2
1978	46758.7	47173.3	.9	414.6
1979	22806.5	22751.4	-.2	-55.1
1980	61660.9	62343.3	1.1	682.4
1981	22242.7	22187.6	-.2	-55.1
1982	55322.9	55344.3	.0	21.4
1983	57641.4	57682.2	.1	40.8
1984	47465.4	47468.8	.0	3.4
1985	16653.7	16652.4	.0	-1.3
1986	21776.2	21404.7	-1.7	-371.5
1987	17579.5	17578.6	.0	-.9
1988	25975.9	25963.5	.0	-12.4
1989	13675.3	13897.1	1.6	221.8
1990	21535.5	21545.7	.0	10.2
1991	10525.4	10685.6	1.5	160.2
Mean:	31194.8	31273.3	.2	78.5
Median:	22806.5	22751.4	.0	-.8
Min:	10525.4	10685.6	-1.7	-409.5
Max:	71981.8	71957.0	5.3	1016.0
Alt-Cuml.>= .0				35
Rel Dif >= .0%			45	
.0% > Rel Dif >= -1.0%			21	
-1.0% > Rel Dif >= -2.0%			4	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

SACRAMENTO RIVER FLOW AT FREEPORT

February

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	28339.0	28900.3	2.0	561.3
1923	17395.3	17460.5	.4	65.2
1924	18052.3	18136.0	.5	83.7
1925	49122.0	49688.8	1.2	566.8
1926	37244.1	37182.5	-.2	-61.6
1927	74768.8	74815.8	.1	47.0
1928	24660.3	24601.4	-.2	-58.9
1929	15907.8	16006.8	.6	99.0
1930	17963.5	17936.4	-.2	-27.1
1931	13722.9	13689.6	-.2	-33.3
1932	13816.5	14032.3	1.6	215.8
1933	14259.8	14193.7	-.5	-66.1
1934	14181.4	14401.3	1.6	219.9
1935	13903.1	13887.4	-.1	-15.7
1936	56809.7	56826.0	.0	16.3
1937	32358.7	32293.8	-.2	-64.9
1938	68788.1	69212.8	.6	424.7
1939	15574.6	15513.9	-.4	-60.7
1940	52625.0	52706.2	.2	81.2
1941	69684.0	69806.7	.2	122.7
1942	73647.0	73694.7	.1	47.7
1943	47696.4	47743.6	.1	47.2
1944	25526.0	25621.7	.4	95.7
1945	41570.9	41697.3	.3	126.4
1946	27830.4	27655.9	-.6	-174.5
1947	19376.5	19060.4	-1.6	-316.1
1948	16417.5	16406.2	-.1	-11.3
1949	13833.8	14596.3	5.5	762.5
1950	32796.2	32444.6	-1.1	-351.6
1951	55839.9	55882.3	.1	42.4
1952	61145.0	61188.5	.1	43.5
1953	27640.6	27695.0	.2	54.4
1954	51912.8	51843.1	-.1	-69.7
1955	16195.2	16168.3	-.2	-26.9
1956	58692.2	58705.6	.0	13.4
1957	26314.2	26105.7	-.8	-208.5
1958	71264.6	71624.7	.5	360.1
1959	46440.0	46372.1	-.1	-67.9
1960	30938.8	30924.6	.0	-14.2
1961	29475.3	29449.4	-.1	-25.9
1962	44917.5	45039.5	.3	122.0
1963	61544.6	61562.8	.0	18.2
1964	17119.9	17057.4	-.4	-62.5
1965	34834.3	34853.2	.1	18.9
1966	25239.0	25172.9	-.3	-66.1
1967	48838.9	48897.0	.1	58.1
1968	51021.1	51604.8	1.1	583.7
1969	69357.3	69399.0	.1	41.7
1970	62786.2	62808.1	.0	21.9
1971	30734.7	30702.2	-.1	-32.5
1972	23928.6	23922.4	.0	-6.2
1973	62351.2	62373.0	.0	21.8
1974	41110.4	41247.5	.3	137.1
1975	49528.5	49464.2	-.1	-64.3
1976	15267.2	15199.0	-.4	-68.2
1977	15423.0	15419.9	.0	-3.1
1978	41945.3	41482.3	-1.1	-463.0
1979	30348.2	30533.9	.6	185.7
1980	74590.8	74827.9	.3	237.1
1981	26793.9	27133.2	1.3	339.3
1982	70761.7	70785.9	.0	24.2
1983	76128.4	76143.8	.0	15.4
1984	36342.7	36366.4	.1	23.7
1985	18565.1	18541.8	-.1	-23.3
1986	84044.4	84025.2	.0	-19.2
1987	20759.7	20430.4	-1.6	-329.3
1988	13761.5	13742.8	-.1	-18.7
1989	12514.3	12361.0	-1.2	-153.3
1990	16711.0	16909.8	1.2	198.8
1991	15323.4	15678.8	2.3	355.4
Mean:	37376.0	37426.6	.2	50.5
Median:	30734.7	30702.2	.0	18.2
Min:	12514.3	12361.0	-1.6	-463.0
Max:	84044.4	84025.2	5.5	762.5
Alt-Cuml.>= .0				39
Rel Dif >= .0%			43	
.0% > Rel Dif >= -1.0%			22	
-1.0% > Rel Dif >= -2.0%			5	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

SACRAMENTO RIVER FLOW AT FREEPORT

March

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	29632.7	29586.1	-.2	-46.6
1923	14284.9	14775.3	3.4	490.4
1924	11898.9	11624.5	-2.3	-274.4
1925	24027.1	24018.4	.0	-8.7
1926	17630.8	17362.0	-1.5	-268.8
1927	41357.6	41476.6	.3	119.0
1928	62154.7	62887.6	1.2	732.9
1929	12709.4	12682.3	-.2	-27.1
1930	29488.8	29465.0	-.1	-23.8
1931	14293.2	14284.5	-.1	-8.7
1932	11159.0	11104.2	-.5	-54.8
1933	14307.0	14277.5	-.2	-29.5
1934	11676.9	11862.7	1.6	185.8
1935	25142.6	25080.3	-.2	-62.3
1936	31288.5	31310.0	.1	21.5
1937	38180.0	38653.8	1.2	473.8
1938	68820.5	68880.4	.1	59.9
1939	15139.6	15115.3	-.2	-24.3
1940	65927.6	66712.3	1.2	784.7
1941	58308.8	58372.6	.1	63.8
1942	27928.9	27877.4	-.2	-51.5
1943	56844.7	56882.4	.1	37.7
1944	22717.3	22692.1	-.1	-25.2
1945	24974.1	25066.8	.4	92.7
1946	18640.5	19429.5	4.2	789.0
1947	20788.7	20761.8	-.1	-26.9
1948	17598.3	17317.0	-1.6	-281.3
1949	37796.7	37723.3	-.2	-73.4
1950	22445.6	22896.0	2.0	450.4
1951	30865.4	30927.6	.2	62.2
1952	49057.6	49180.6	.3	123.0
1953	25447.7	25391.3	-.2	-56.4
1954	43688.6	44280.2	1.4	591.6
1955	16196.1	16185.4	-.1	-10.7
1956	36491.0	36436.3	-.1	-54.7
1957	40738.2	41363.3	1.5	625.1
1958	61246.4	61293.2	.1	46.8
1959	22777.5	22770.3	.0	-7.2
1960	22996.8	23197.0	.9	200.2
1961	19156.1	19141.1	-.1	-15.0
1962	31366.2	31365.2	.0	-1.0
1963	31464.5	31409.7	-.2	-54.8
1964	16666.0	16657.2	-.1	-8.8
1965	23461.6	23410.1	-.2	-51.5
1966	24935.3	25458.4	2.1	523.1
1967	47024.7	47165.0	.3	140.3
1968	38157.3	36308.5	-4.8	-1848.8
1969	43309.6	43255.4	-.1	-54.2
1970	35247.1	35461.3	.6	214.2
1971	40084.2	40328.5	.6	244.3
1972	31224.6	31802.7	1.9	578.1
1973	44842.6	44895.0	.1	52.4
1974	66088.1	66123.9	.1	35.8
1975	56888.2	57487.5	1.1	599.3
1976	16966.4	16974.0	.0	7.6
1977	13329.5	13828.6	3.7	499.1
1978	50522.0	50037.8	-1.0	-484.2
1979	28920.1	29717.9	2.8	797.8
1980	41639.9	41783.4	.3	143.5
1981	25193.1	25443.9	1.0	250.8
1982	56865.9	56926.0	.1	60.1
1983	66102.4	66116.6	.0	14.2
1984	30329.1	30546.6	.7	217.5
1985	17405.1	17378.2	-.2	-26.9
1986	68803.6	68862.3	.1	58.7
1987	24570.7	24684.7	.5	114.0
1988	10869.2	10843.5	-.2	-25.7
1989	41053.2	42575.3	3.7	1522.1
1990	15937.0	16428.3	3.1	491.3
1991	33632.4	33488.0	-.4	-144.4
Mean:	32696.1	32815.8	.4	119.8
Median:	29488.8	29586.1	.1	35.8
Min:	10869.2	10843.5	-4.8	-1848.8
Max:	68820.5	68880.4	4.2	1522.1

Alt-Cuml.>= .0		39
Rel Dif >= .0%	42	
.0% > Rel Dif >= -1.0%	24	
-1.0% > Rel Dif >= -2.0%	2	
-2.0% > Rel Dif >= -3.0%	1	
-3.0% > Rel Dif >= -5.0%	1	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

SACRAMENTO RIVER FLOW AT FREEPORT

April

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	23340.0	23294.7	-.2	-45.3
1923	22818.7	23113.1	1.3	294.4
1924	6009.7	6032.9	.4	23.2
1925	21781.6	22011.5	1.1	229.9
1926	19981.6	19744.8	-1.2	-236.8
1927	42434.0	42544.7	.3	110.7
1928	28321.3	28512.5	.7	191.2
1929	6797.8	6800.0	.0	2.2
1930	12630.6	12863.8	1.8	233.2
1931	7809.4	7790.4	-.2	-19.0
1932	8897.3	8838.5	-.7	-58.8
1933	9974.7	9979.0	.0	4.3
1934	11014.7	10996.5	-.2	-18.2
1935	41180.8	41370.6	.5	189.8
1936	21360.3	21654.4	1.4	294.1
1937	22211.5	22266.2	.2	54.7
1938	52789.4	52886.7	.2	97.3
1939	8804.3	8206.4	-6.8	-597.9
1940	52781.8	52704.8	-.1	-77.0
1941	51204.2	51308.2	.2	104.0
1942	40691.8	40638.1	-.1	-53.7
1943	27886.4	28017.3	.5	130.9
1944	9067.2	9048.8	-.2	-18.4
1945	14164.7	14070.3	-.7	-94.4
1946	12156.7	12369.7	1.8	213.0
1947	14013.0	13991.2	-.2	-21.8
1948	24567.7	24509.0	-.2	-58.7
1949	13882.5	13764.4	-.9	-118.1
1950	18950.9	18909.5	-.2	-41.4
1951	14724.3	14825.0	.7	100.7
1952	53276.0	53363.2	.2	87.2
1953	16909.5	17100.7	1.1	191.2
1954	38726.0	38803.0	.2	77.0
1955	10318.4	10293.3	-.2	-25.1
1956	22987.3	22933.6	-.2	-53.7
1957	17903.8	17817.5	-.5	-86.3
1958	61395.9	61494.4	.2	98.5
1959	10100.3	10096.5	.0	-3.8
1960	12585.1	12544.7	-.3	-40.4
1961	11464.7	11469.4	.0	4.7
1962	11649.7	12058.8	3.5	409.1
1963	59913.4	60159.5	.4	246.1
1964	9101.7	9083.4	-.2	-18.3
1965	37008.5	37243.0	.6	234.5
1966	13154.1	13349.5	1.5	195.4
1967	38234.1	38175.4	-.2	-58.7
1968	11182.9	11384.7	1.8	201.8
1969	40351.8	40561.2	.5	209.4
1970	10555.2	10551.5	.0	-3.7
1971	21041.5	20984.4	-.3	-57.1
1972	11916.2	11762.2	-1.3	-154.0
1973	19438.0	19379.2	-.3	-58.8
1974	53172.3	53212.6	.1	40.3
1975	26226.5	26169.5	-.2	-57.0
1976	8601.9	8571.6	-.4	-30.3
1977	7253.5	7211.9	-.6	-41.6
1978	36395.4	36180.5	-.6	-214.9
1979	17343.6	17506.1	.9	162.5
1980	19883.2	19829.5	-.3	-53.7
1981	17188.0	17644.4	2.7	456.4
1982	70700.0	70765.6	.1	65.6
1983	53516.8	53646.0	.2	129.2
1984	17753.5	17748.0	.0	-5.5
1985	12582.8	12561.1	-.2	-21.7
1986	22181.0	22123.9	-.3	-57.1
1987	10472.8	10459.8	-.1	-13.0
1988	9396.6	9356.6	-.4	-40.0
1989	24931.4	25249.1	1.3	317.7
1990	10900.1	11179.8	2.6	279.7
1991	16408.2	16388.9	-.1	-19.3
Mean:	23376.7	23421.1	.1	44.4
Median:	17753.5	17748.0	.0	-3.8
Min:	6009.7	6032.9	-6.8	-597.9
Max:	70700.0	70765.6	3.5	456.4

Alt-Cuml.>= .0		34
Rel Dif >= .0%	37	
.0% > Rel Dif >= -1.0%	30	
-1.0% > Rel Dif >= -2.0%	2	
-2.0% > Rel Dif >= -3.0%	0	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	1	

SACRAMENTO RIVER FLOW AT FREEPORT

May

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	40705.0	41118.0	1.0	413.0
1923	14819.5	15423.5	4.1	604.0
1924	7254.3	7304.3	.7	50.0
1925	12955.5	13396.4	3.4	440.9
1926	11449.5	12078.6	5.5	629.1
1927	24862.4	25039.8	.7	177.4
1928	14441.2	14389.6	-.4	-51.6
1929	9072.7	9088.8	.2	16.1
1930	12038.5	11997.2	-.3	-41.3
1931	8028.5	7787.1	-3.0	-241.4
1932	11707.8	11897.5	1.6	189.7
1933	8890.7	8880.9	-.1	-9.8
1934	7054.6	7053.5	.0	-1.1
1935	24998.3	24976.1	-.1	-22.2
1936	14941.0	14874.1	-.4	-66.9
1937	14821.8	15428.6	4.1	606.8
1938	49384.6	49541.6	.3	157.0
1939	9617.5	9493.6	-1.3	-123.9
1940	16831.2	17031.2	1.2	200.0
1941	38805.5	38956.9	.4	151.4
1942	29385.5	29748.5	1.2	363.0
1943	17653.6	17600.4	-.3	-53.2
1944	9827.0	9827.0	.0	.0
1945	12437.7	12382.4	-.4	-55.3
1946	13038.9	12985.7	-.4	-53.2
1947	9928.7	9919.1	-.1	-9.6
1948	26974.3	26905.0	-.3	-69.3
1949	12737.1	12730.1	-.1	-7.0
1950	15990.1	15935.2	-.3	-54.9
1951	15399.2	15385.4	-.1	-13.8
1952	51655.5	51797.1	.3	141.6
1953	20217.1	20160.6	-.3	-56.5
1954	19651.2	19600.8	-.3	-50.4
1955	11065.3	11055.7	-.1	-9.6
1956	34045.2	33988.8	-.2	-56.4
1957	15158.1	15296.7	.9	138.6
1958	42486.1	42637.5	.4	151.4
1959	11911.6	11910.4	.0	-1.2
1960	11646.9	11711.4	.6	64.5
1961	13246.7	13208.7	-.3	-38.0
1962	12871.4	12871.9	.0	.5
1963	26876.7	27068.8	.7	192.1
1964	10354.3	10349.5	.0	-4.8
1965	18217.0	18174.3	-.2	-42.7
1966	13620.8	13620.8	.0	.0
1967	40599.4	40868.9	.7	269.5
1968	11969.1	11958.7	-.1	-10.4
1969	42492.5	43294.5	1.9	802.0
1970	13047.6	13059.6	.1	12.0
1971	26520.2	26465.4	-.2	-54.8
1972	13596.0	13632.0	.3	36.0
1973	14549.7	14837.0	2.0	287.3
1974	23596.9	23800.3	.9	203.4
1975	25584.8	25526.7	-.2	-58.1
1976	9734.8	9734.8	.0	.0
1977	6996.7	6941.8	-.8	-54.9
1978	19195.1	19561.1	1.9	366.0
1979	12959.0	13103.1	1.1	144.1
1980	15743.4	15690.2	-.3	-53.2
1981	10959.6	10959.6	.0	.0
1982	36174.5	36299.9	.3	125.4
1983	49856.1	49945.7	.2	89.6
1984	14816.7	14816.7	.0	.0
1985	13340.5	13328.8	-.1	-11.7
1986	14144.6	14088.1	-.4	-56.5
1987	9674.5	9683.5	.1	9.0
1988	9338.4	9344.8	.1	6.4
1989	13189.9	13065.3	-.9	-124.6
1990	9411.1	9421.0	.1	9.9
1991	8827.4	8574.0	-2.9	-253.4
Mean:	18505.6	18580.4	.3	74.8
Median:	13620.8	13632.0	.0	.0
Min:	6996.7	6941.8	-3.0	-253.4
Max:	51655.5	51797.1	5.5	802.0

Alt-Cuml.>= .0		37
Rel Dif >= .0%	40	
.0% > Rel Dif >= -1.0%	27	
-1.0% > Rel Dif >= -2.0%	1	
-2.0% > Rel Dif >= -3.0%	2	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

SACRAMENTO RIVER FLOW AT FREEPORT

June

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	34654.0	34909.1	.7	255.1
1923	16436.6	16234.0	-1.2	-202.6
1924	6712.8	6642.0	-1.1	-70.8
1925	14042.0	14224.7	1.3	182.7
1926	10650.9	10639.0	-.1	-11.9
1927	16854.9	17041.0	1.1	186.1
1928	15707.5	15709.6	.0	2.1
1929	9284.3	9570.5	3.1	286.2
1930	10641.6	11615.9	9.2	974.3
1931	6568.3	6549.9	-.3	-18.4
1932	13534.8	13525.1	-.1	-9.7
1933	8826.0	8806.5	-.2	-19.5
1934	9579.1	9560.7	-.2	-18.4
1935	17029.8	16911.5	-.7	-118.3
1936	15637.8	15626.8	-.1	-11.0
1937	14876.6	15237.8	2.4	361.2
1938	34638.1	34411.2	-.7	-226.9
1939	12077.9	11568.6	-4.2	-509.3
1940	14645.1	14595.5	-.3	-49.6
1941	20235.6	20433.5	1.0	197.9
1942	26038.3	26310.2	1.0	271.9
1943	12745.2	12746.5	.0	1.3
1944	14812.9	14547.0	-1.8	-265.9
1945	18047.2	18072.7	.1	25.5
1946	18315.9	18293.3	-.1	-22.6
1947	12863.2	11622.5	-9.6	-1240.7
1948	22040.3	21983.2	-.3	-57.1
1949	17139.5	18228.0	6.4	1088.5
1950	19150.0	19162.8	.1	12.8
1951	14245.9	14247.1	.0	1.2
1952	37157.0	37359.9	.5	202.9
1953	23966.3	23905.8	-.3	-60.5
1954	15213.9	15215.2	.0	1.3
1955	14405.7	14024.7	-2.6	-381.0
1956	20349.5	21023.9	3.3	674.4
1957	18961.1	18925.4	-.2	-35.7
1958	34131.8	34311.2	.5	179.4
1959	15495.7	15494.3	.0	-1.4
1960	12111.7	12669.1	4.6	557.4
1961	9699.6	9689.8	-.1	-9.8
1962	17092.8	17052.9	-.2	-39.9
1963	15941.0	15882.1	-.4	-58.9
1964	13570.4	13560.0	-.1	-10.4
1965	15050.4	14984.1	-.4	-66.3
1966	14675.2	14675.9	.0	.7
1967	40377.2	40565.0	.5	187.8
1968	15206.2	15207.2	.0	1.0
1969	23643.9	23845.2	.9	201.3
1970	14122.6	14123.8	.0	1.2
1971	21324.2	21396.2	.3	72.0
1972	14928.7	14930.0	.0	1.3
1973	19685.6	19601.7	-.4	-83.9
1974	21058.2	21256.1	.9	197.9
1975	25415.6	25994.2	2.3	578.6
1976	11825.1	11814.7	-.1	-10.4
1977	7726.3	7717.8	-.1	-8.5
1978	15135.3	15837.0	4.6	701.7
1979	20541.0	20463.3	-.4	-77.7
1980	13910.9	13853.8	-.4	-57.1
1981	12302.4	12233.2	-.6	-69.2
1982	21245.1	21466.5	1.0	221.4
1983	51634.2	51852.3	.4	218.1
1984	16456.4	16454.0	.0	-2.4
1985	12069.8	11898.0	-1.4	-171.8
1986	11214.0	11406.8	1.7	192.8
1987	8898.0	8900.5	.0	2.5
1988	9423.0	9294.6	-1.4	-128.4
1989	14473.2	14469.9	.0	-3.3
1990	9902.2	10478.6	5.8	576.4
1991	9008.7	9262.4	2.8	253.7
Mean:	17105.5	17173.2	.4	67.7
Median:	15050.4	15207.2	.0	-1.4
Min:	6568.3	6549.9	-9.6	-1240.7
Max:	51634.2	51852.3	9.2	1088.5
Alt-Cuml.>= .0				35
Rel Dif >= .0%			38	
.0% > Rel Dif >= -1.0%			24	
-1.0% > Rel Dif >= -2.0%			5	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			1	

SACRAMENTO RIVER FLOW AT FREEPORT

July

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	17622.9	17585.0	-.2	-37.9
1923	14495.5	15068.4	4.0	572.9
1924	7067.2	6995.3	-1.0	-71.9
1925	9515.1	10194.2	7.1	679.1
1926	8997.4	8985.1	-.1	-12.3
1927	21448.5	21391.5	-.3	-57.0
1928	16752.7	16751.5	.0	-1.2
1929	7492.6	7499.1	.1	6.5
1930	9516.3	10043.2	5.5	526.9
1931	8135.1	8116.6	-.2	-18.5
1932	8309.0	8299.7	-.1	-9.3
1933	7569.4	7550.9	-.2	-18.5
1934	7793.6	7775.1	-.2	-18.5
1935	13158.7	13525.9	2.8	367.2
1936	13940.0	14182.1	1.7	242.1
1937	11001.7	11051.2	.4	49.5
1938	17277.4	17513.1	1.4	235.7
1939	9460.9	9209.2	-2.7	-251.7
1940	20854.8	20843.3	-.1	-11.5
1941	14910.3	14631.2	-1.9	-279.1
1942	14745.1	14992.2	1.7	247.1
1943	19782.3	19782.8	.0	.5
1944	8890.9	8880.7	-.1	-10.2
1945	18353.0	19325.0	5.3	972.0
1946	19795.7	19051.6	-3.8	-744.1
1947	9467.4	9456.9	-.1	-10.5
1948	18844.9	19413.1	3.0	568.2
1949	10851.5	11129.9	2.6	278.4
1950	19285.2	19584.9	1.6	299.7
1951	19813.0	19816.5	.0	3.5
1952	21814.8	22057.0	1.1	242.2
1953	20210.3	20227.3	.1	17.0
1954	20357.5	20358.9	.0	1.4
1955	8334.5	8324.4	-.1	-10.1
1956	17996.6	17781.1	-1.2	-215.5
1957	19169.4	19242.8	.4	73.4
1958	18907.6	19132.0	1.2	224.4
1959	14787.2	14766.9	-.1	-20.3
1960	10622.3	10886.3	2.5	264.0
1961	9012.8	9002.5	-.1	-10.3
1962	15574.4	15607.2	.2	32.8
1963	19453.9	19457.9	.0	4.0
1964	11264.0	11253.7	-.1	-10.3
1965	20224.4	20247.4	.1	23.0
1966	12731.0	12720.2	-.1	-10.8
1967	19766.2	20006.8	1.2	240.6
1968	16274.8	16280.1	.0	5.3
1969	16417.6	16659.9	1.5	242.3
1970	19003.7	19007.2	.0	3.5
1971	22338.2	22336.4	.0	-1.8
1972	16731.6	16741.2	.1	9.6
1973	17376.4	17377.8	.0	1.4
1974	20830.3	21066.1	1.1	235.8
1975	17693.4	17929.2	1.3	235.8
1976	9607.8	9494.4	-1.2	-113.4
1977	7917.9	7906.1	-.1	-11.8
1978	15894.8	15540.7	-2.2	-354.1
1979	17674.5	17757.8	.5	83.3
1980	15673.4	15775.1	.6	101.7
1981	9740.7	9736.2	.0	-4.5
1982	16390.5	16634.4	1.5	243.9
1983	25117.2	25359.4	1.0	242.2
1984	20890.1	20889.8	.0	-.3
1985	9724.9	9626.6	-1.0	-98.3
1986	18312.7	19906.3	8.7	1593.6
1987	8413.8	8408.5	-.1	-5.3
1988	8395.1	8307.4	-1.0	-87.7
1989	13583.5	13829.0	1.8	245.5
1990	7834.1	7895.6	.8	61.5
1991	7779.0	7766.4	-.2	-12.6
Mean:	14642.7	14742.1	.6	99.4
Median:	15574.4	15540.7	.0	3.5
Min:	7067.2	6995.3	-3.8	-744.1
Max:	25117.2	25359.4	8.7	1593.6

Alt-Cuml.>= .0		39
Rel Dif >= .0%	43	
.0% > Rel Dif >= -1.0%	21	
-1.0% > Rel Dif >= -2.0%	3	
-2.0% > Rel Dif >= -3.0%	2	
-3.0% > Rel Dif >= -5.0%	1	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

SACRAMENTO RIVER FLOW AT FREEPORT

August

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	18880.0	18886.1	.0	6.1
1923	18207.0	18204.8	.0	-2.2
1924	6183.1	6236.2	.9	53.1
1925	10383.7	11221.4	8.1	837.7
1926	7941.5	7914.3	-.3	-27.2
1927	19548.4	19549.4	.0	1.0
1928	20028.3	20029.4	.0	1.1
1929	6994.3	7184.5	2.7	190.2
1930	11202.2	10640.9	-5.0	-561.3
1931	6498.6	6532.4	.5	33.8
1932	9667.5	9768.9	1.0	101.4
1933	6412.4	6593.6	2.8	181.2
1934	6643.1	6652.5	.1	9.4
1935	15940.6	15967.8	.2	27.2
1936	12499.5	12764.0	2.1	264.5
1937	11982.4	13126.8	9.6	1144.4
1938	17778.0	17435.0	-1.9	-343.0
1939	10280.5	9786.8	-4.8	-493.7
1940	19012.0	19021.3	.0	9.3
1941	18644.2	18277.7	-2.0	-366.5
1942	19586.6	19587.6	.0	1.0
1943	19220.4	19221.5	.0	1.1
1944	9632.1	9601.9	-.3	-30.2
1945	14241.3	14276.5	.2	35.2
1946	13770.0	13735.6	-.2	-34.4
1947	8958.0	9173.4	2.4	215.4
1948	18932.3	18727.2	-1.1	-205.1
1949	12083.9	12075.4	-.1	-8.5
1950	15628.9	15436.2	-1.2	-192.7
1951	19386.6	19387.4	.0	.8
1952	18993.2	19238.2	1.3	245.0
1953	19391.9	19391.6	.0	-.3
1954	19152.2	19153.2	.0	1.0
1955	9222.6	9316.6	1.0	94.0
1956	19543.9	19573.1	.1	29.2
1957	19389.2	19384.4	.0	-4.8
1958	18537.6	18777.7	1.3	240.1
1959	13153.8	13155.1	.0	1.3
1960	11592.0	11980.3	3.3	388.3
1961	10936.9	10930.5	-.1	-6.4
1962	13672.2	13672.4	.0	.2
1963	19631.4	19632.2	.0	.8
1964	10565.5	10522.5	-.4	-43.0
1965	19228.0	19227.2	.0	-.8
1966	12785.8	12793.0	.1	7.2
1967	17813.7	18057.1	1.4	243.4
1968	13668.2	13652.6	-.1	-15.6
1969	17258.3	17487.1	1.3	228.8
1970	19506.4	19507.2	.0	.8
1971	19261.5	19262.6	.0	1.1
1972	19037.5	19149.6	.6	112.1
1973	19286.3	19287.4	.0	1.1
1974	19719.6	19943.4	1.1	223.8
1975	19123.4	19239.0	.6	115.6
1976	13289.4	14155.8	6.5	866.4
1977	8746.3	8725.9	-.2	-20.4
1978	19629.0	19630.0	.0	1.0
1979	14831.2	14832.2	.0	1.0
1980	19375.9	19376.9	.0	1.0
1981	11335.5	12955.5	14.3	1620.0
1982	18404.3	17988.5	-2.3	-415.8
1983	22239.9	22258.1	.1	18.2
1984	18986.3	18987.3	.0	1.0
1985	11212.7	11351.0	1.2	138.3
1986	19514.0	19181.8	-1.7	-332.2
1987	7471.4	7430.3	-.6	-41.1
1988	9646.1	8843.8	-8.3	-802.3
1989	18740.8	18044.1	-3.7	-696.7
1990	7825.7	8684.4	11.0	858.7
1991	6175.8	6176.2	.0	.4
Mean:	14772.3	14828.2	.6	55.9
Median:	15628.9	15436.2	.0	1.0
Min:	6175.8	6176.2	-8.3	-802.3
Max:	22239.9	22258.1	14.3	1620.0

Alt-Cuml.>= .0	47
Rel Dif >= .0%	51
.0% > Rel Dif >= -1.0%	9
-1.0% > Rel Dif >= -2.0%	5
-2.0% > Rel Dif >= -3.0%	1
-3.0% > Rel Dif >= -5.0%	3
-5.0% > Rel Dif >= -6.0%	0
Rel Dif < -6.0%	1

SACRAMENTO RIVER FLOW AT FREEPORT

September

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	15855.5	15854.9	.0	-.6
1923	15672.9	15791.7	.8	118.8
1924	6696.1	6482.5	-3.2	-213.6
1925	13098.2	12715.4	-2.9	-382.8
1926	10475.1	10615.5	1.3	140.4
1927	16374.9	16374.3	.0	-.6
1928	14455.9	14455.3	.0	-.6
1929	8214.0	8869.7	8.0	655.7
1930	12225.1	12174.4	-.4	-50.7
1931	6440.2	6450.0	.2	9.8
1932	10796.8	11454.9	6.1	658.1
1933	7219.5	7214.4	-.1	-5.1
1934	6377.1	6413.5	.6	36.4
1935	15535.4	16240.6	4.5	705.2
1936	15452.0	15417.6	-.2	-34.4
1937	14636.4	14550.7	-.6	-85.7
1938	14352.9	15085.9	5.1	733.0
1939	11804.5	11496.5	-2.6	-308.0
1940	16291.4	16294.8	.0	3.4
1941	13891.9	14086.9	1.4	195.0
1942	14233.8	13847.1	-2.7	-386.7
1943	16004.4	16003.8	.0	-.6
1944	11286.8	11234.1	-.5	-52.7
1945	15746.9	15761.9	.1	15.0
1946	15757.6	15742.2	-.1	-15.4
1947	11137.7	11020.2	-1.1	-117.5
1948	15985.8	15899.0	-.5	-86.8
1949	11893.1	12155.7	2.2	262.6
1950	14994.4	14993.8	.0	-.6
1951	15523.8	15514.4	-.1	-9.4
1952	16950.9	17154.4	1.2	203.5
1953	16655.3	16654.8	.0	-.5
1954	16778.4	16777.9	.0	-.5
1955	10884.1	10807.9	-.7	-76.2
1956	15358.4	15357.8	.0	-.6
1957	14970.2	14969.8	.0	-.4
1958	19563.1	19764.9	1.0	201.8
1959	14678.5	14675.8	.0	-2.7
1960	11872.6	11872.8	.0	.2
1961	10881.8	11102.6	2.0	220.8
1962	15234.9	15233.6	.0	-1.3
1963	15760.4	15759.9	.0	-.5
1964	12363.5	12284.2	-.6	-79.3
1965	14843.0	14842.5	.0	-.5
1966	13361.9	13290.5	-.5	-71.4
1967	16980.7	17152.2	1.0	171.5
1968	16322.6	16326.1	.0	3.5
1969	18887.9	19057.7	.9	169.8
1970	16443.9	16443.3	.0	-.6
1971	15805.5	15804.9	.0	-.6
1972	14867.2	14866.7	.0	-.5
1973	14796.1	14795.7	.0	-.4
1974	19914.6	20097.9	.9	183.3
1975	18231.4	18536.4	1.7	305.0
1976	10804.3	11188.1	3.6	383.8
1977	6433.5	6374.7	-.9	-58.8
1978	14926.0	14925.4	.0	-.6
1979	16352.9	16352.4	.0	-.5
1980	12327.7	12327.2	.0	-.5
1981	13927.4	13780.8	-1.1	-146.6
1982	17967.4	18840.6	4.9	873.2
1983	26523.0	26519.9	.0	-3.1
1984	15833.6	15833.1	.0	-.5
1985	12860.5	12724.7	-1.1	-135.8
1986	15099.5	15098.9	.0	-.6
1987	9108.4	9119.1	.1	10.7
1988	9306.4	8338.2	-10.4	-968.2
1989	13821.8	13420.3	-2.9	-401.5
1990	8547.4	8972.6	5.0	425.2
1991	8097.9	8069.4	-.4	-28.5
Mean:	13896.8	13939.0	.3	42.2
Median:	14796.1	14842.5	.0	-.6
Min:	6377.1	6374.7	-10.4	-968.2
Max:	26523.0	26519.9	8.0	873.2

Alt-Cuml.>= .0	25
Rel Dif >= .0%	48
.0% > Rel Dif >= -1.0%	13
-1.0% > Rel Dif >= -2.0%	3
-2.0% > Rel Dif >= -3.0%	4
-3.0% > Rel Dif >= -5.0%	1
-5.0% > Rel Dif >= -6.0%	0
Rel Dif < -6.0%	1

RETURN TO TABLE OF CONTENTS

Section 23

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

January

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	41.8	41.8	.0	.0
1923.	43.4	43.4	.0	.0
1924.	43.9	44.0	.2	.1
1925.	45.5	45.5	.0	.0
1926.	42.6	42.5	-.2	-.1
1927.	45.6	45.6	.0	.0
1928.	45.0	45.1	.2	.1
1929.	41.9	41.9	.0	.0
1930.	43.6	43.7	.2	.1
1931.	46.1	46.1	.0	.0
1932.	44.4	44.4	.0	.0
1933.	42.7	42.7	.0	.0
1934.	46.6	46.6	.0	.0
1935.	45.3	45.3	.0	.0
1936.	46.8	46.8	.0	.0
1937.	39.8	39.8	.0	.0
1938.	45.6	45.7	.2	.1
1939.	46.2	46.3	.2	.1
1940.	46.1	46.1	.0	.0
1941.	46.7	46.7	.0	.0
1942.	45.7	45.8	.2	.1
1943.	46.0	46.0	.0	.0
1944.	45.6	45.6	.0	.0
1945.	44.6	44.6	.0	.0
1946.	44.9	44.9	.0	.0
1947.	43.2	43.2	.0	.0
1948.	46.8	46.8	.0	.0
1949.	40.2	40.2	.0	.0
1950.	42.3	42.4	.2	.1
1951.	44.9	44.9	.0	.0
1952.	43.7	43.7	.0	.0
1953.	47.2	47.2	.0	.0
1954.	45.7	45.8	.2	.1
1955.	43.0	43.0	.0	.0
1956.	46.1	46.1	.0	.0
1957.	43.8	43.8	.0	.0
1958.	45.2	45.2	.0	.0
1959.	47.3	47.3	.0	.0
1960.	45.0	45.0	.0	.0
1961.	43.7	43.7	.0	.0
1962.	44.3	44.3	.0	.0
1963.	43.6	43.7	.2	.1
1964.	44.3	44.3	.0	.0
1965.	45.2	45.2	.0	.0
1966.	44.3	44.3	.0	.0
1967.	45.6	45.7	.2	.1
1968.	44.4	44.4	.0	.0
1969.	44.4	44.4	.0	.0
1970.	48.0	48.0	.0	.0
1971.	45.1	45.1	.0	.0
1972.	42.9	43.0	.2	.1
1973.	44.2	44.2	.0	.0
1974.	46.1	46.1	.0	.0
1975.	44.5	44.5	.0	.0
1976.	46.5	46.5	.0	.0
1977.	44.0	44.0	.0	.0
1978.	46.7	46.7	.0	.0
1979.	44.9	44.9	.0	.0
1980.	46.1	46.4	.7	.3
1981.	45.7	45.8	.2	.1
1982.	43.7	43.7	.0	.0
1983.	44.6	44.6	.0	.0
1984.	46.1	46.1	.0	.0
1985.	43.4	43.4	.0	.0
1986.	47.5	47.5	.0	.0
1987.	44.6	44.7	.2	.1
1988.	45.4	45.4	.0	.0
1989.	44.2	44.2	.0	.0
1990.	45.3	45.3	.0	.0
Mean:	44.8	44.8	.0	.0
Median:	44.9	44.9	.0	.0
Min:	39.8	39.8	-.2	-.1
Max:	48.0	48.0	.7	.3
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

February

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	47.2	47.2	.0	.0
1923.	49.3	49.3	.0	.0
1924.	51.9	52.0	.2	.1
1925.	49.3	49.3	.0	.0
1926.	49.6	49.5	-.2	-.1
1927.	48.8	48.8	.0	.0
1928.	49.8	49.7	-.2	-.1
1929.	48.3	48.2	-.2	-.1
1930.	50.7	50.7	.0	.0
1931.	51.8	51.8	.0	.0
1932.	48.6	48.6	.0	.0
1933.	47.6	47.6	.0	.0
1934.	51.2	51.1	-.2	-.1
1935.	49.4	49.5	.2	.1
1936.	49.0	49.0	.0	.0
1937.	47.9	47.9	.0	.0
1938.	48.3	48.3	.0	.0
1939.	48.2	48.2	.0	.0
1940.	49.5	49.4	-.2	-.1
1941.	49.5	49.5	.0	.0
1942.	48.1	48.1	.0	.0
1943.	50.0	50.0	.0	.0
1944.	48.9	48.9	.0	.0
1945.	49.9	49.9	.0	.0
1946.	47.1	47.1	.0	.0
1947.	49.9	50.0	.2	.1
1948.	48.0	48.1	.2	.1
1949.	46.3	46.3	.0	.0
1950.	48.8	48.8	.0	.0
1951.	48.1	48.1	.0	.0
1952.	47.9	47.9	.0	.0
1953.	50.1	50.1	.0	.0
1954.	49.1	49.1	.0	.0
1955.	48.1	48.1	.0	.0
1956.	47.0	47.0	.0	.0
1957.	49.9	49.9	.0	.0
1958.	49.3	49.3	.0	.0
1959.	49.1	49.1	.0	.0
1960.	49.0	49.0	.0	.0
1961.	50.3	50.2	-.2	-.1
1962.	48.1	48.1	.0	.0
1963.	51.6	51.6	.0	.0
1964.	50.4	50.4	.0	.0
1965.	49.1	49.1	.0	.0
1966.	47.4	47.4	.0	.0
1967.	49.0	49.0	.0	.0
1968.	50.9	51.0	.2	.1
1969.	47.3	47.3	.0	.0
1970.	51.3	51.3	.0	.0
1971.	48.7	48.7	.0	.0
1972.	50.2	50.2	.0	.0
1973.	50.2	50.1	-.2	-.1
1974.	48.7	48.7	.0	.0
1975.	48.7	48.7	.0	.0
1976.	50.5	50.5	.0	.0
1977.	51.4	51.4	.0	.0
1978.	50.0	50.0	.0	.0
1979.	48.9	48.9	.0	.0
1980.	49.6	49.5	-.2	-.1
1981.	51.0	50.9	-.2	-.1
1982.	48.2	48.2	.0	.0
1983.	49.2	49.2	.0	.0
1984.	49.2	49.2	.0	.0
1985.	51.1	51.1	.0	.0
1986.	48.9	48.9	.0	.0
1987.	50.1	50.0	-.2	-.1
1988.	52.7	52.7	.0	.0
1989.	47.9	47.9	.0	.0
1990.	47.9	47.9	.0	.0
Mean:	49.3	49.3	.0	.0
Median:	49.1	49.1	.0	.0
Min:	46.3	46.3	-.2	-.1
Max:	52.7	52.7	.2	.1

X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

March

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	52.0	52.0	.0	.0
1923.	56.3	56.3	.0	.0
1924.	53.9	53.9	.0	.0
1925.	53.9	54.0	.2	.1
1926.	58.4	58.4	.0	.0
1927.	52.8	52.8	.0	.0
1928.	53.6	53.6	.0	.0
1929.	54.6	54.6	.0	.0
1930.	55.6	55.7	.2	.1
1931.	56.6	56.6	.0	.0
1932.	57.0	56.9	-.2	-.1
1933.	54.6	54.7	.2	.1
1934.	60.1	60.0	-.2	-.1
1935.	52.2	52.2	.0	.0
1936.	56.8	56.9	.2	.1
1937.	54.6	54.6	.0	.0
1938.	51.0	50.9	-.2	-.1
1939.	55.3	55.3	.0	.0
1940.	54.0	53.8	-.4	-.2
1941.	54.2	54.2	.0	.0
1942.	53.4	53.4	.0	.0
1943.	52.7	52.7	.0	.0
1944.	55.7	55.7	.0	.0
1945.	51.8	51.8	.0	.0
1946.	53.9	53.9	.0	.0
1947.	55.8	55.8	.0	.0
1948.	51.6	51.6	.0	.0
1949.	52.7	52.7	.0	.0
1950.	53.2	53.2	.0	.0
1951.	53.6	53.6	.0	.0
1952.	51.3	51.3	.0	.0
1953.	53.3	53.3	.0	.0
1954.	51.7	51.7	.0	.0
1955.	54.5	54.5	.0	.0
1956.	54.0	54.0	.0	.0
1957.	54.4	54.4	.0	.0
1958.	51.6	51.6	.0	.0
1959.	56.8	56.8	.0	.0
1960.	55.0	55.0	.0	.0
1961.	53.1	53.1	.0	.0
1962.	52.3	52.4	.2	.1
1963.	52.4	52.3	-.2	-.1
1964.	53.7	53.7	.0	.0
1965.	53.8	53.8	.0	.0
1966.	53.7	53.7	.0	.0
1967.	51.5	51.5	.0	.0
1968.	55.3	55.4	.2	.1
1969.	53.4	53.4	.0	.0
1970.	55.2	55.2	.0	.0
1971.	52.1	52.0	-.2	-.1
1972.	56.3	56.2	-.2	-.1
1973.	52.5	52.5	.0	.0
1974.	52.0	52.0	.0	.0
1975.	51.4	51.4	.0	.0
1976.	54.3	54.3	.0	.0
1977.	53.3	53.2	-.2	-.1
1978.	55.4	55.3	-.2	-.1
1979.	55.1	55.1	.0	.0
1980.	53.8	53.7	-.2	-.1
1981.	53.9	53.9	.0	.0
1982.	51.9	51.9	.0	.0
1983.	51.9	51.9	.0	.0
1984.	56.2	56.2	.0	.0
1985.	52.9	52.9	.0	.0
1986.	55.1	55.2	.2	.1
1987.	54.1	54.1	.0	.0
1988.	57.9	57.9	.0	.0
1989.	53.4	53.4	.0	.0
1990.	56.3	56.2	-.2	-.1
Mean:	54.0	54.0	.0	.0
Median:	53.8	53.8	.0	.0
Min:	51.0	50.9	-.4	-.2
Max:	60.1	60.0	.2	.1
X > 56.0	11	11		
Mean X > 56.0	57.2	57.1	-.2	-.1
X > 60.0	1	0		
Mean X > 60.0	60.1	.0	-100.0	-60.1
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

April

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	58.4	58.3	-.2	-.1
1923.	59.0	58.9	-.2	-.1
1924.	62.7	62.7	.0	.0
1925.	59.1	59.0	-.2	-.1
1926.	62.4	62.4	.0	.0
1927.	57.6	57.5	-.2	-.1
1928.	58.4	58.3	-.2	-.1
1929.	58.3	58.4	.2	.1
1930.	61.0	61.1	.2	.1
1931.	63.9	63.9	.0	.0
1932.	59.5	59.5	.0	.0
1933.	60.9	60.8	-.2	-.1
1934.	64.2	64.0	-.3	-.2
1935.	58.6	58.5	-.2	-.1
1936.	60.1	60.1	.0	.0
1937.	58.8	58.8	.0	.0
1938.	57.1	57.1	.0	.0
1939.	64.9	65.1	.3	.2
1940.	60.6	60.6	.0	.0
1941.	57.1	57.1	.0	.0
1942.	57.2	57.2	.0	.0
1943.	59.1	59.0	-.2	-.1
1944.	59.0	59.0	.0	.0
1945.	61.0	61.0	.0	.0
1946.	60.7	60.6	-.2	-.1
1947.	63.3	63.4	.2	.1
1948.	56.2	56.2	.0	.0
1949.	61.9	62.0	.2	.1
1950.	61.0	61.0	.0	.0
1951.	60.2	60.1	-.2	-.1
1952.	56.3	56.3	.0	.0
1953.	59.0	58.9	-.2	-.1
1954.	59.4	59.4	.0	.0
1955.	57.8	57.8	.0	.0
1956.	59.8	59.8	.0	.0
1957.	60.8	60.8	.0	.0
1958.	58.2	58.2	.0	.0
1959.	64.3	64.6	.5	.3
1960.	60.6	60.5	-.2	-.1
1961.	61.1	61.1	.0	.0
1962.	62.3	62.0	-.5	-.3
1963.	55.2	55.2	.0	.0
1964.	60.5	60.5	.0	.0
1965.	57.8	57.8	.0	.0
1966.	62.0	62.0	.0	.0
1967.	54.5	54.5	.0	.0
1968.	61.7	61.8	.2	.1
1969.	57.4	57.4	.0	.0
1970.	59.3	59.4	.2	.1
1971.	59.4	59.4	.0	.0
1972.	60.1	60.1	.0	.0
1973.	61.0	61.0	.0	.0
1974.	57.7	57.7	.0	.0
1975.	56.8	56.8	.0	.0
1976.	60.4	60.5	.2	.1
1977.	64.2	64.2	.0	.0
1978.	57.8	57.8	.0	.0
1979.	59.7	59.6	-.2	-.1
1980.	60.2	60.2	.0	.0
1981.	61.9	61.8	-.2	-.1
1982.	56.0	56.0	.0	.0
1983.	56.8	56.8	.0	.0
1984.	59.7	59.7	.0	.0
1985.	63.7	63.7	.0	.0
1986.	60.6	60.6	.0	.0
1987.	63.5	63.5	.0	.0
1988.	62.9	62.9	.0	.0
1989.	61.8	61.7	-.2	-.1
1990.	64.7	64.6	-.2	-.1
Mean:	60.0	60.0	.0	.0
Median:	59.8	59.8	.0	.0
Min:	54.5	54.5	-.5	-.3
Max:	64.9	65.1	.5	.3
X > 56.0	66	66		
Mean X > 56.0	60.2	60.2	.0	.0
X > 60.0	35	35		
Mean X > 60.0	61.9	61.9	.0	.0
X > 62.5	11	11		
Mean X > 62.5	63.8	63.9	.2	.1
X > 65.0	0	1		
Mean X > 65.0	.0	65.1	.0	65.1
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

May

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	62.8	62.8	.0	.0
1923.	64.2	64.0	-.3	-.2
1924.	69.9	69.9	.0	.0
1925.	65.1	64.9	-.3	-.2
1926.	67.2	67.1	-.1	-.1
1927.	63.9	63.8	-.2	-.1
1928.	67.0	67.0	.0	.0
1929.	66.6	66.6	.0	.0
1930.	64.0	64.0	.0	.0
1931.	70.9	70.9	.0	.0
1932.	65.6	65.5	-.2	-.1
1933.	63.5	63.4	-.2	-.1
1934.	69.5	69.5	.0	.0
1935.	65.1	65.1	.0	.0
1936.	66.0	66.0	.0	.0
1937.	66.0	65.9	-.2	-.1
1938.	62.7	62.7	.0	.0
1939.	67.8	67.8	.0	.0
1940.	66.2	66.1	-.2	-.1
1941.	62.5	62.5	.0	.0
1942.	61.8	61.7	-.2	-.1
1943.	66.3	66.3	.0	.0
1944.	66.4	66.3	-.2	-.1
1945.	63.9	63.9	.0	.0
1946.	65.0	65.0	.0	.0
1947.	69.1	69.2	.1	.1
1948.	62.7	62.6	-.2	-.1
1949.	66.4	66.3	-.2	-.1
1950.	65.6	65.6	.0	.0
1951.	66.0	66.0	.0	.0
1952.	62.2	62.1	-.2	-.1
1953.	62.6	62.6	.0	.0
1954.	66.2	66.2	.0	.0
1955.	67.0	67.0	.0	.0
1956.	63.6	63.6	.0	.0
1957.	65.2	65.1	-.2	-.1
1958.	63.8	63.7	-.2	-.1
1959.	66.3	66.4	.2	.1
1960.	66.5	66.5	.0	.0
1961.	64.1	64.1	.0	.0
1962.	65.2	65.2	.0	.0
1963.	63.5	63.4	-.2	-.1
1964.	65.6	65.5	-.2	-.1
1965.	64.6	64.6	.0	.0
1966.	66.5	66.5	.0	.0
1967.	62.9	62.8	-.2	-.1
1968.	66.3	66.6	.5	.3
1969.	63.9	63.8	-.2	-.1
1970.	68.3	68.3	.0	.0
1971.	62.5	62.4	-.2	-.1
1972.	66.4	66.4	.0	.0
1973.	67.9	67.7	-.3	-.2
1974.	64.7	64.7	.0	.0
1975.	65.2	65.2	.0	.0
1976.	70.0	70.0	.0	.0
1977.	64.0	64.0	.0	.0
1978.	65.8	65.7	-.2	-.1
1979.	67.2	67.0	-.3	-.2
1980.	64.4	64.3	-.2	-.1
1981.	66.9	66.8	-.1	-.1
1982.	64.6	64.6	.0	.0
1983.	62.6	62.5	-.2	-.1
1984.	68.1	68.1	.0	.0
1985.	65.6	65.6	.0	.0
1986.	66.1	66.0	-.2	-.1
1987.	68.8	68.7	-.1	-.1
1988.	65.8	65.8	.0	.0
1989.	66.6	66.5	-.2	-.1
1990.	65.8	65.8	.0	.0
Mean:	65.6	65.5	-.1	.0
Median:	65.6	65.6	.0	.0
Min:	61.8	61.7	-.3	-.2
Max:	70.9	70.9	.5	.3

X > 56.0	69	69		
Mean X > 56.0	65.6	65.5	-.2	-.1
X > 60.0	69	69		
Mean X > 60.0	65.6	65.5	-.2	-.1
X > 62.5	65	64		
Mean X > 62.5	65.8	65.8	.0	.0
X > 65.0	43	42		
Mean X > 65.0	66.8	66.8	.0	.0
X > 67.5	10	10		
Mean X > 67.5	69.0	69.0	.0	.0
X > 70.0	1	1		
Mean X > 70.0	70.9	70.9	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

June

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	67.7	67.7	.0	.0
1923.	66.1	66.1	.0	.0
1924.	71.9	71.9	.0	.0
1925.	69.1	68.9	-.3	-.2
1926.	72.8	72.7	-.1	-.1
1927.	68.5	68.4	-.1	-.1
1928.	69.4	69.3	-.1	-.1
1929.	71.0	71.0	.0	.0
1930.	71.2	70.9	-.4	-.3
1931.	71.1	71.1	.0	.0
1932.	70.4	70.3	-.1	-.1
1933.	70.3	70.4	.1	.1
1934.	71.1	71.1	.0	.0
1935.	71.5	71.3	-.3	-.2
1936.	70.2	70.0	-.3	-.2
1937.	70.0	69.8	-.3	-.2
1938.	69.1	69.1	.0	.0
1939.	71.4	71.5	.1	.1
1940.	72.6	72.6	.0	.0
1941.	68.2	68.2	.0	.0
1942.	68.5	68.4	-.1	-.1
1943.	67.9	67.9	.0	.0
1944.	68.0	68.1	.1	.1
1945.	70.3	70.1	-.3	-.2
1946.	68.1	67.6	-.7	-.5
1947.	71.3	71.5	.3	.2
1948.	69.1	69.1	.0	.0
1949.	70.7	70.3	-.6	-.4
1950.	68.8	68.8	.0	.0
1951.	69.9	69.9	.0	.0
1952.	65.7	65.7	.0	.0
1953.	67.0	67.0	.0	.0
1954.	69.1	69.1	.0	.0
1955.	70.0	70.0	.0	.0
1956.	70.1	69.9	-.3	-.2
1957.	72.0	72.0	.0	.0
1958.	67.6	67.6	.0	.0
1959.	71.7	71.8	.1	.1
1960.	74.3	74.2	-.1	-.1
1961.	74.8	74.8	.0	.0
1962.	70.5	70.4	-.1	-.1
1963.	69.4	69.5	.1	.1
1964.	69.8	69.9	.1	.1
1965.	67.4	67.4	.0	.0
1966.	69.7	69.7	.0	.0
1967.	67.0	67.0	.0	.0
1968.	71.9	71.9	.0	.0
1969.	68.3	68.2	-.1	-.1
1970.	71.2	71.2	.0	.0
1971.	68.4	68.3	-.1	-.1
1972.	70.8	70.7	-.1	-.1
1973.	71.2	70.9	-.4	-.3
1974.	70.0	70.0	.0	.0
1975.	68.9	68.8	-.1	-.1
1976.	71.8	71.8	.0	.0
1977.	73.4	73.4	.0	.0
1978.	69.5	69.2	-.4	-.3
1979.	69.8	69.7	-.1	-.1
1980.	67.4	67.4	.0	.0
1981.	74.4	74.3	-.1	-.1
1982.	67.4	67.4	.0	.0
1983.	67.0	67.0	.0	.0
1984.	70.1	70.1	.0	.0
1985.	72.9	72.9	.0	.0
1986.	70.5	70.4	-.1	-.1
1987.	71.3	71.3	.0	.0
1988.	71.5	71.6	.1	.1
1989.	70.4	70.3	-.1	-.1
1990.	71.3	71.3	.0	.0
Mean:	70.0	70.0	-.1	-.1
Median:	70.0	69.9	.0	.0
Min:	65.7	65.7	-.7	-.5
Max:	74.8	74.8	.3	.2

X > 56.0	69	69		
Mean X > 56.0	70.0	70.0	.0	.0
X > 60.0	69	69		
Mean X > 60.0	70.0	70.0	.0	.0
X > 62.5	69	69		
Mean X > 62.5	70.0	70.0	.0	.0
X > 65.0	69	69		
Mean X > 65.0	70.0	70.0	.0	.0
X > 67.5	61	61		
Mean X > 67.5	70.4	70.4	.0	.0
X > 70.0	35	33		
Mean X > 70.0	71.5	71.6	.1	.1

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

July

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	72.8	72.8	.0	.0
1923.	72.2	71.8	-.6	-.4
1924.	73.3	73.3	.0	.0
1925.	74.0	73.5	-.7	-.5
1926.	75.4	75.7	.4	.3
1927.	72.1	72.1	.0	.0
1928.	70.6	70.6	.0	.0
1929.	73.7	73.6	-.1	-.1
1930.	73.5	73.4	-.1	-.1
1931.	77.4	77.6	.3	.2
1932.	72.8	72.7	-.1	-.1
1933.	76.6	76.6	.0	.0
1934.	74.6	74.6	.0	.0
1935.	72.6	72.4	-.3	-.2
1936.	74.3	74.2	-.1	-.1
1937.	74.4	74.4	.0	.0
1938.	72.2	72.1	-.1	-.1
1939.	75.0	75.0	.0	.0
1940.	71.4	71.5	.1	.1
1941.	73.1	73.0	-.1	-.1
1942.	72.6	72.5	-.1	-.1
1943.	71.6	72.2	.8	.6
1944.	73.1	73.2	.1	.1
1945.	73.7	73.5	-.3	-.2
1946.	71.8	71.6	-.3	-.2
1947.	73.4	73.4	.0	.0
1948.	71.7	71.5	-.3	-.2
1949.	73.2	72.9	-.4	-.3
1950.	73.0	72.9	-.1	-.1
1951.	71.0	71.1	.1	.1
1952.	72.2	72.1	-.1	-.1
1953.	73.2	73.1	-.1	-.1
1954.	72.1	72.2	.1	.1
1955.	72.9	72.9	.0	.0
1956.	71.9	71.8	-.1	-.1
1957.	72.4	72.7	.4	.3
1958.	71.8	71.7	-.1	-.1
1959.	73.7	73.8	.1	.1
1960.	75.9	75.8	-.1	-.1
1961.	76.3	76.3	.0	.0
1962.	72.6	72.4	-.3	-.2
1963.	71.0	71.0	.0	.0
1964.	74.5	74.5	.0	.0
1965.	71.3	71.3	.0	.0
1966.	70.9	71.1	.3	.2
1967.	73.4	73.3	-.1	-.1
1968.	73.1	73.3	.3	.2
1969.	72.5	72.4	-.1	-.1
1970.	73.2	73.3	.1	.1
1971.	72.8	72.7	-.1	-.1
1972.	72.6	72.6	.0	.0
1973.	72.6	72.4	-.3	-.2
1974.	71.0	71.0	.0	.0
1975.	71.6	71.4	-.3	-.2
1976.	74.8	74.9	.1	.1
1977.	74.3	74.3	.0	.0
1978.	73.2	72.5	-1.0	-.7
1979.	72.7	72.9	.3	.2
1980.	73.2	72.6	-.8	-.6
1981.	74.6	74.6	.0	.0
1982.	71.1	71.0	-.1	-.1
1983.	70.2	70.1	-.1	-.1
1984.	73.7	73.7	.0	.0
1985.	75.3	75.9	.8	.6
1986.	72.0	71.8	-.3	-.2
1987.	71.3	71.4	.1	.1
1988.	77.4	77.5	.1	.1
1989.	73.2	73.1	-.1	-.1
1990.	75.1	75.1	.0	.0
Mean:	73.1	73.1	.0	.0
Median:	72.9	72.8	.0	.0
Min:	70.2	70.1	-1.0	-.7
Max:	77.4	77.6	.8	.6

X > 56.0	69	69		
Mean X > 56.0	73.1	73.1	.0	.0
X > 60.0	69	69		
Mean X > 60.0	73.1	73.1	.0	.0
X > 62.5	69	69		
Mean X > 62.5	73.1	73.1	.0	.0
X > 65.0	69	69		
Mean X > 65.0	73.1	73.1	.0	.0
X > 67.5	69	69		
Mean X > 67.5	73.1	73.1	.0	.0
X > 70.0	69	69		
Mean X > 70.0	73.1	73.1	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

August

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	69.7	69.7	.0	.0
1923.	71.0	70.6	-.6	-.4
1924.	72.9	72.9	.0	.0
1925.	71.0	70.7	-.4	-.3
1926.	72.6	72.6	.0	.0
1927.	69.8	69.8	.0	.0
1928.	70.7	70.6	-.1	-.1
1929.	74.1	74.1	.0	.0
1930.	72.1	72.2	.1	.1
1931.	75.0	75.0	.0	.0
1932.	73.0	72.9	-.1	-.1
1933.	75.2	75.1	-.1	-.1
1934.	75.2	75.2	.0	.0
1935.	73.0	72.9	-.1	-.1
1936.	73.9	73.8	-.1	-.1
1937.	73.6	73.0	-.8	-.6
1938.	70.4	70.4	.0	.0
1939.	74.0	74.1	.1	.1
1940.	71.1	71.0	-.1	-.1
1941.	69.5	69.4	-.1	-.1
1942.	70.3	70.2	-.1	-.1
1943.	69.8	69.8	.0	.0
1944.	73.2	73.2	.0	.0
1945.	71.7	71.6	-.1	-.1
1946.	71.9	71.8	-.1	-.1
1947.	72.5	72.4	-.1	-.1
1948.	69.8	69.8	.0	.0
1949.	71.0	70.7	-.4	-.3
1950.	72.6	72.6	.0	.0
1951.	70.6	70.6	.0	.0
1952.	70.2	70.1	-.1	-.1
1953.	69.0	69.0	.0	.0
1954.	69.2	69.2	.0	.0
1955.	73.6	73.8	.3	.2
1956.	69.7	69.7	.0	.0
1957.	70.3	70.2	-.1	-.1
1958.	72.9	72.9	.0	.0
1959.	72.3	72.4	.1	.1
1960.	73.2	73.6	.5	.4
1961.	74.2	74.3	.1	.1
1962.	72.1	72.1	.0	.0
1963.	71.1	71.1	.0	.0
1964.	74.0	74.0	.0	.0
1965.	71.4	71.3	-.1	-.1
1966.	73.8	74.3	.7	.5
1967.	73.6	73.5	-.1	-.1
1968.	71.8	72.1	.4	.3
1969.	72.6	72.5	-.1	-.1
1970.	71.9	71.9	.0	.0
1971.	72.2	72.1	-.1	-.1
1972.	72.4	72.5	.1	.1
1973.	71.4	71.5	.1	.1
1974.	70.8	70.7	-.1	-.1
1975.	70.0	69.9	-.1	-.1
1976.	70.4	70.3	-.1	-.1
1977.	74.3	74.3	.0	.0
1978.	71.8	71.6	-.3	-.2
1979.	71.7	71.4	-.4	-.3
1980.	70.5	70.1	-.6	-.4
1981.	73.6	73.2	-.5	-.4
1982.	69.9	69.8	-.1	-.1
1983.	71.0	71.0	.0	.0
1984.	72.2	72.1	-.1	-.1
1985.	71.8	72.1	.4	.3
1986.	71.2	71.3	.1	.1
1987.	73.6	73.7	.1	.1
1988.	73.2	73.3	.1	.1
1989.	70.9	71.0	.1	.1
1990.	74.0	73.8	-.3	-.2
Mean:	72.0	71.9	.0	.0
Median:	71.8	71.9	.0	.0
Min:	69.0	69.0	-.8	-.6
Max:	75.2	75.2	.7	.5
X > 56.0	69	69		
Mean X > 56.0	72.0	71.9	-.1	-.1
X > 60.0	69	69		
Mean X > 60.0	72.0	71.9	-.1	-.1
X > 62.5	69	69		
Mean X > 62.5	72.0	71.9	-.1	-.1
X > 65.0	69	69		
Mean X > 65.0	72.0	71.9	-.1	-.1
X > 67.5	69	69		
Mean X > 67.5	72.0	71.9	-.1	-.1
X > 70.0	59	59		
Mean X > 70.0	72.3	72.3	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

September

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	69.8	69.8	.0	.0
1923.	68.2	68.1	-.1	-.1
1924.	69.7	69.8	.1	.1
1925.	64.5	64.5	.0	.0
1926.	66.2	66.3	.2	.1
1927.	65.1	65.2	.2	.1
1928.	67.4	67.4	.0	.0
1929.	68.4	68.4	.0	.0
1930.	65.0	65.0	.0	.0
1931.	68.1	68.1	.0	.0
1932.	71.6	71.4	-.3	-.2
1933.	68.1	68.1	.0	.0
1934.	71.3	71.3	.0	.0
1935.	68.0	68.0	.0	.0
1936.	69.5	69.5	.0	.0
1937.	68.1	68.0	-.1	-.1
1938.	68.8	68.8	.0	.0
1939.	69.7	69.8	.1	.1
1940.	66.3	66.3	.0	.0
1941.	66.5	66.4	-.2	-.1
1942.	67.3	67.3	.0	.0
1943.	68.8	68.6	-.3	-.2
1944.	71.4	71.4	.0	.0
1945.	69.3	69.2	-.1	-.1
1946.	68.3	67.9	-.6	-.4
1947.	71.6	71.6	.0	.0
1948.	67.7	67.7	.0	.0
1949.	69.5	69.4	-.1	-.1
1950.	68.2	68.3	.1	.1
1951.	69.2	69.3	.1	.1
1952.	69.1	69.1	.0	.0
1953.	69.3	69.3	.0	.0
1954.	66.4	66.4	.0	.0
1955.	69.1	69.2	.1	.1
1956.	67.6	67.5	-.1	-.1
1957.	67.8	67.8	.0	.0
1958.	69.1	69.0	-.1	-.1
1959.	67.5	67.5	.0	.0
1960.	69.9	70.0	.1	.1
1961.	68.2	68.2	.0	.0
1962.	68.3	68.3	.0	.0
1963.	69.4	69.4	.0	.0
1964.	67.6	67.6	.0	.0
1965.	65.5	65.6	.2	.1
1966.	69.1	69.1	.0	.0
1967.	70.4	70.4	.0	.0
1968.	68.9	69.2	.4	.3
1969.	69.3	69.2	-.1	-.1
1970.	68.4	68.4	.0	.0
1971.	68.4	68.4	.0	.0
1972.	66.1	66.0	-.2	-.1
1973.	67.6	67.7	.1	.1
1974.	68.6	68.6	.0	.0
1975.	69.7	69.6	-.1	-.1
1976.	69.5	69.4	-.1	-.1
1977.	69.0	69.0	.0	.0
1978.	66.9	66.9	.0	.0
1979.	70.0	70.1	.1	.1
1980.	68.0	67.9	-.1	-.1
1981.	68.5	68.6	.1	.1
1982.	66.2	66.2	.0	.0
1983.	65.9	65.9	.0	.0
1984.	70.4	70.3	-.1	-.1
1985.	65.9	65.9	.0	.0
1986.	63.9	63.9	.0	.0
1987.	69.2	69.2	.0	.0
1988.	69.9	70.1	.3	.2
1989.	66.1	66.2	.2	.1
1990.	70.3	70.3	.0	.0
Mean:	68.3	68.3	.0	.0
Median:	68.4	68.4	.0	.0
Min:	63.9	63.9	-.6	-.4
Max:	71.6	71.6	.4	.3

X > 56.0	69	69		
Mean X > 56.0	68.3	68.3	.0	.0
X > 60.0	69	69		
Mean X > 60.0	68.3	68.3	.0	.0
X > 62.5	69	69		
Mean X > 62.5	68.3	68.3	.0	.0
X > 65.0	66	66		
Mean X > 65.0	68.5	68.5	.0	.0
X > 67.5	51	50		
Mean X > 67.5	69.1	69.1	.0	.0
X > 70.0	7	9		
Mean X > 70.0	71.0	70.8	-.3	-.2

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

October"

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	58.1	58.0	-.2	-.1
1923.	59.6	60.1	.8	.5
1924.	58.5	58.4	-.2	-.1
1925.	59.4	59.4	.0	.0
1926.	61.6	61.7	.2	.1
1927.	59.9	59.8	-.2	-.1
1928.	59.6	59.7	.2	.1
1929.	63.1	63.0	-.2	-.1
1930.	60.3	60.3	.0	.0
1931.	61.2	61.2	.0	.0
1932.	61.9	61.9	.0	.0
1933.	65.2	65.1	-.2	-.1
1934.	62.3	62.3	.0	.0
1935.	60.3	60.3	.0	.0
1936.	62.4	62.4	.0	.0
1937.	61.2	61.3	.2	.1
1938.	58.9	58.9	.0	.0
1939.	62.3	62.5	.3	.2
1940.	60.4	60.3	-.2	-.1
1941.	59.0	58.9	-.2	-.1
1942.	60.4	60.4	.0	.0
1943.	59.3	59.2	-.2	-.1
1944.	62.6	62.5	-.2	-.1
1945.	61.9	61.8	-.2	-.1
1946.	58.9	59.1	.3	.2
1947.	60.4	60.4	.0	.0
1948.	59.8	59.7	-.2	-.1
1949.	59.1	59.4	.5	.3
1950.	60.0	60.0	.0	.0
1951.	58.5	58.5	.0	.0
1952.	61.6	61.6	.0	.0
1953.	59.3	59.4	.2	.1
1954.	59.4	59.4	.0	.0
1955.	60.6	60.4	-.3	-.2
1956.	58.2	58.2	.0	.0
1957.	56.6	56.6	.0	.0
1958.	62.6	62.7	.2	.1
1959.	63.6	63.4	-.3	-.2
1960.	61.4	60.9	-.8	-.5
1961.	61.5	61.5	.0	.0
1962.	60.0	60.0	.0	.0
1963.	59.7	59.6	-.2	-.1
1964.	62.6	62.7	.2	.1
1965.	61.7	61.7	.0	.0
1966.	61.4	61.0	-.7	-.4
1967.	61.3	61.3	.0	.0
1968.	59.9	59.3	-1.0	-.6
1969.	57.7	57.7	.0	.0
1970.	59.1	59.1	.0	.0
1971.	58.4	58.3	-.2	-.1
1972.	59.1	59.1	.0	.0
1973.	59.0	59.0	.0	.0
1974.	61.0	61.1	.2	.1
1975.	58.7	58.7	.0	.0
1976.	63.5	63.4	-.2	-.1
1977.	62.4	62.5	.2	.1
1978.	62.2	62.6	.6	.4
1979.	60.8	60.7	-.2	-.1
1980.	60.3	60.6	.5	.3
1981.	59.6	59.6	.0	.0
1982.	57.8	57.7	-.2	-.1
1983.	61.3	61.2	-.2	-.1
1984.	58.0	58.1	.2	.1
1985.	60.6	60.1	-.8	-.5
1986.	61.1	61.1	.0	.0
1987.	65.2	65.2	.0	.0
1988.	64.3	64.3	.0	.0
1989.	59.5	59.6	.2	.1
1990.	63.9	64.0	.2	.1
Mean:	60.6	60.6	.0	.0
Median:	60.3	60.3	.0	.0
Min:	56.6	56.6	-1.0	-.6
Max:	65.2	65.2	.8	.5

X > 56.0	69	69		
Mean X > 56.0	60.6	60.6	.0	.0
X > 60.0	38	39		
Mean X > 60.0	61.9	61.8	-.2	-.1
X > 62.5	10	10		
Mean X > 62.5	63.7	63.6	-.2	-.1
X > 65.0	2	2		
Mean X > 65.0	65.2	65.1	-.2	-.1
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

November

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	49.9	49.9	.0	.0
1923.	54.8	55.1	.5	.3
1924.	51.3	51.1	-.4	-.2
1925.	51.9	51.9	.0	.0
1926.	54.2	54.2	.0	.0
1927.	52.2	52.2	.0	.0
1928.	51.8	51.9	.2	.1
1929.	55.0	55.0	.0	.0
1930.	53.8	54.0	.4	.2
1931.	51.1	51.1	.0	.0
1932.	56.4	56.4	.0	.0
1933.	55.4	55.4	.0	.0
1934.	53.0	53.0	.0	.0
1935.	51.8	51.7	-.2	-.1
1936.	54.4	54.4	.0	.0
1937.	52.9	52.9	.0	.0
1938.	52.2	52.2	.0	.0
1939.	54.8	55.0	.4	.2
1940.	52.0	52.1	.2	.1
1941.	53.8	53.8	.0	.0
1942.	52.4	52.5	.2	.1
1943.	53.1	53.2	.2	.1
1944.	51.1	51.2	.2	.1
1945.	51.8	51.8	.0	.0
1946.	50.8	51.1	.6	.3
1947.	51.2	51.2	.0	.0
1948.	52.7	52.7	.0	.0
1949.	54.0	54.1	.2	.1
1950.	54.5	54.5	.0	.0
1951.	51.6	51.5	-.2	-.1
1952.	50.8	50.9	.2	.1
1953.	52.6	52.6	.0	.0
1954.	51.5	51.6	.2	.1
1955.	51.4	51.4	.0	.0
1956.	53.2	53.1	-.2	-.1
1957.	51.4	51.4	.0	.0
1958.	54.0	54.0	.0	.0
1959.	54.3	54.3	.0	.0
1960.	52.0	52.0	.0	.0
1961.	52.2	52.2	.0	.0
1962.	53.5	53.5	.0	.0
1963.	51.2	51.4	.4	.2
1964.	50.6	50.7	.2	.1
1965.	52.2	52.2	.0	.0
1966.	53.0	52.8	-.4	-.2
1967.	54.9	54.9	.0	.0
1968.	51.9	51.7	-.4	-.2
1969.	52.8	52.8	.0	.0
1970.	52.7	52.7	.0	.0
1971.	52.5	52.5	.0	.0
1972.	50.3	50.2	-.2	-.1
1973.	50.4	50.5	.2	.1
1974.	52.4	52.3	-.2	-.1
1975.	52.0	52.1	.2	.1
1976.	55.1	55.1	.0	.0
1977.	52.9	52.9	.0	.0
1978.	51.2	51.4	.4	.2
1979.	51.5	51.5	.0	.0
1980.	52.7	52.8	.2	.1
1981.	53.3	53.4	.2	.1
1982.	50.4	50.4	.0	.0
1983.	52.6	52.7	.2	.1
1984.	51.0	51.1	.2	.1
1985.	49.7	49.8	.2	.1
1986.	53.9	54.0	.2	.1
1987.	53.2	53.2	.0	.0
1988.	52.3	52.3	.0	.0
1989.	53.1	53.2	.2	.1
1990.	52.0	52.2	.4	.2
Mean:	52.5	52.6	.1	.0
Median:	52.3	52.3	.0	.0
Min:	49.7	49.8	-.4	-.2
Max:	56.4	56.4	.6	.3

X > 56.0	1	1		
Mean X > 56.0	56.4	56.4	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

SACRAMENTO RIVER TEMPERATURE AT FREEPORT

December

Water Year	Cuml. Temp (deg)	No Proj-constrained Temp (deg)	Rel Change (%)	Abs Diff (deg)
1922.	45.6	45.7	.2	.1
1923.	45.4	45.5	.2	.1
1924.	42.3	42.2	-.2	-.1
1925.	46.4	46.4	.0	.0
1926.	46.0	46.0	.0	.0
1927.	45.8	45.9	.2	.1
1928.	44.3	44.3	.0	.0
1929.	47.8	47.8	.0	.0
1930.	45.8	45.9	.2	.1
1931.	44.5	44.4	-.2	-.1
1932.	43.6	43.5	-.2	-.1
1933.	45.1	45.1	.0	.0
1934.	46.4	46.4	.0	.0
1935.	47.3	47.2	-.2	-.1
1936.	46.2	46.2	.0	.0
1937.	47.9	47.9	.0	.0
1938.	47.9	47.9	.0	.0
1939.	48.5	48.5	.0	.0
1940.	47.7	47.8	.2	.1
1941.	47.9	47.9	.0	.0
1942.	46.5	46.5	.0	.0
1943.	47.4	47.5	.2	.1
1944.	46.9	46.9	.0	.0
1945.	46.4	46.5	.2	.1
1946.	45.4	45.5	.2	.1
1947.	44.8	44.9	.2	.1
1948.	43.7	43.8	.2	.1
1949.	44.6	44.7	.2	.1
1950.	47.8	47.9	.2	.1
1951.	45.8	45.9	.2	.1
1952.	46.3	46.3	.0	.0
1953.	47.8	47.8	.0	.0
1954.	44.3	44.4	.2	.1
1955.	47.4	47.4	.0	.0
1956.	46.4	46.4	.0	.0
1957.	45.9	45.9	.0	.0
1958.	50.5	50.5	.0	.0
1959.	47.4	47.3	-.2	-.1
1960.	45.6	45.6	.0	.0
1961.	44.9	44.9	.0	.0
1962.	47.5	47.5	.0	.0
1963.	43.3	43.5	.5	.2
1964.	47.4	47.4	.0	.0
1965.	43.2	43.2	.0	.0
1966.	46.1	46.2	.2	.1
1967.	46.2	46.2	.0	.0
1968.	44.4	44.4	.0	.0
1969.	48.5	48.6	.2	.1
1970.	45.9	46.0	.2	.1
1971.	44.1	44.1	.0	.0
1972.	42.5	42.5	.0	.0
1973.	47.2	47.2	.0	.0
1974.	45.9	45.9	.0	.0
1975.	46.7	46.7	.0	.0
1976.	47.1	47.1	.0	.0
1977.	47.3	47.3	.0	.0
1978.	44.4	44.4	.0	.0
1979.	46.4	46.4	.0	.0
1980.	47.0	47.0	.0	.0
1981.	48.2	48.2	.0	.0
1982.	46.2	46.2	.0	.0
1983.	47.9	47.9	.0	.0
1984.	45.2	45.3	.2	.1
1985.	43.1	43.2	.2	.1
1986.	46.4	46.5	.2	.1
1987.	45.7	45.7	.0	.0
1988.	45.5	45.5	.0	.0
1989.	45.3	45.3	.0	.0
1990.	41.6	41.7	.2	.1
Mean:	46.0	46.0	.1	.0
Median:	46.0	46.1	.0	.0
Min:	41.6	41.7	-.2	-.1
Max:	50.5	50.5	.5	.2
X > 56.0	0	0		
Mean X > 56.0	.0	.0	.0	.0
X > 60.0	0	0		
Mean X > 60.0	.0	.0	.0	.0
X > 62.5	0	0		
Mean X > 62.5	.0	.0	.0	.0
X > 65.0	0	0		
Mean X > 65.0	.0	.0	.0	.0
X > 67.5	0	0		
Mean X > 67.5	.0	.0	.0	.0
X > 70.0	0	0		
Mean X > 70.0	.0	.0	.0	.0

RETURN TO TABLE OF CONTENTS

Section 24

DELTA OUTFLOW

DELTA OUTFLOW

October

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	4158.7	4143.6	-.4	-15.1
1923	5353.8	5310.3	-.8	-43.5
1924	4000.8	4000.8	.0	.0
1925	4100.0	3876.6	-5.4	-223.4
1926	4000.8	4000.8	.0	.0
1927	4000.8	4000.8	.0	.0
1928	4983.4	4968.2	-.3	-15.2
1929	4000.8	4000.8	.0	.0
1930	3016.2	3000.6	-.5	-15.6
1931	4000.8	4000.8	.0	.0
1932	3630.5	3589.8	-1.1	-40.7
1933	4000.8	4000.8	.0	.0
1934	3093.8	3096.2	.1	2.4
1935	4267.1	4119.9	-3.4	-147.2
1936	4255.3	4223.5	-.7	-31.8
1937	4000.8	4000.8	.0	.0
1938	4021.4	4000.8	-.5	-20.6
1939	11338.8	11285.6	-.5	-53.2
1940	5079.6	4814.9	-5.2	-264.7
1941	4000.8	4081.2	2.0	80.4
1942	5434.2	5929.1	9.1	494.9
1943	5128.9	5077.3	-1.0	-51.6
1944	4402.4	4472.6	1.6	70.2
1945	4000.8	4000.8	.0	.0
1946	4575.5	4640.3	1.4	64.8
1947	4000.8	4000.8	.0	.0
1948	4288.7	4394.1	2.5	105.4
1949	4659.5	4642.2	-.4	-17.3
1950	4000.8	4000.8	.0	.0
1951	4595.6	4578.6	-.4	-17.0
1952	4680.2	4662.7	-.4	-17.5
1953	8899.6	8843.2	-.6	-56.4
1954	4895.1	4878.8	-.3	-16.3
1955	4209.1	4299.1	2.1	90.0
1956	4000.8	4000.8	.0	.0
1957	7934.0	8728.7	10.0	794.7
1958	13171.4	13406.5	1.8	235.1
1959	6069.0	6011.0	-1.0	-58.0
1960	4000.8	4000.8	.0	.0
1961	4000.8	4000.8	.0	.0
1962	4000.8	4000.8	.0	.0
1963	25124.4	25952.9	3.3	828.5
1964	6743.3	6690.1	-.8	-53.2
1965	4000.8	4000.8	.0	.0
1966	4000.8	4000.8	.0	.0
1967	4000.8	4000.8	.0	.0
1968	6442.6	6382.9	-.9	-59.7
1969	4159.6	4215.1	1.3	55.5
1970	11521.2	11466.3	-.5	-54.9
1971	4115.7	4115.6	.0	-.1
1972	5037.9	5021.6	-.3	-16.3
1973	4967.6	4968.0	.0	.4
1974	5179.9	5234.3	1.1	54.4
1975	5385.2	5325.0	-1.1	-60.2
1976	10201.1	10148.3	-.5	-52.8
1977	3210.4	3145.1	-2.0	-65.3
1978	5524.1	5552.9	.5	28.8
1979	4101.1	4084.5	-.4	-16.6
1980	4629.1	4613.0	-.3	-16.1
1981	4232.7	4214.8	-.4	-17.9
1982	4416.0	4417.2	.0	1.2
1983	19700.7	19866.8	.8	166.1
1984	15848.5	16420.1	3.6	571.6
1985	5062.6	5135.6	1.4	73.0
1986	4000.8	4000.8	.0	.0
1987	4321.5	4391.5	1.6	70.0
1988	6421.2	6397.0	-.4	-24.2
1989	3937.3	3902.4	-.9	-34.9
1990	4634.4	4676.6	.9	42.2
1991	4625.7	4354.9	-5.9	-270.8
Mean:	5654.3	5682.6	.1	28.3
Median:	4288.7	4354.9	.0	.0
Min:	3016.2	3000.6	-5.9	-270.8
Max:	25124.4	25952.9	10.0	828.5
Alt-Cuml.>= .0				38
Rel Dif >= .0%			39	
.0% > Rel Dif >= -1.0%			24	
-1.0% > Rel Dif >= -2.0%			3	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			3	
Rel Dif < -6.0%			0	

DELTA OUTFLOW

November

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	5600.7	5610.7	.2	10.0
1923	7745.8	7695.1	-.7	-50.7
1924	4919.5	4837.7	-1.7	-81.8
1925	4532.9	4462.4	-1.6	-70.5
1926	4958.2	4940.7	-.4	-17.5
1927	15024.1	15017.1	.0	-7.0
1928	8862.4	8810.0	-.6	-52.4
1929	5972.9	6021.8	.8	48.9
1930	3909.7	3878.3	-.8	-31.4
1931	4752.2	4829.5	1.6	77.3
1932	4407.5	4408.9	.0	1.4
1933	4775.6	4817.1	.9	41.5
1934	4076.8	4076.1	.0	-.7
1935	6046.7	6097.2	.8	50.5
1936	5404.5	5381.0	-.4	-23.5
1937	4980.4	4956.5	-.5	-23.9
1938	14603.3	14292.2	-2.1	-311.1
1939	6009.6	5953.8	-.9	-55.8
1940	6341.6	6087.7	-4.0	-253.9
1941	5444.1	5501.7	1.1	57.6
1942	6110.8	6700.5	9.7	589.7
1943	8224.2	9272.0	12.7	1047.8
1944	5332.7	5388.3	1.0	55.6
1945	7062.9	7299.3	3.3	236.4
1946	6258.3	6450.8	3.1	192.5
1947	5751.0	5860.6	1.9	109.6
1948	4964.2	5044.7	1.6	80.5
1949	5344.4	5327.1	-.3	-17.3
1950	4905.7	4928.6	.5	22.9
1951	42275.1	42481.2	.5	206.1
1952	6714.5	6704.2	-.2	-10.3
1953	7040.3	7158.1	1.7	117.8
1954	6442.2	6546.2	1.6	104.0
1955	6722.0	6766.0	.7	44.0
1956	5370.5	5435.8	1.2	65.3
1957	5342.0	5322.7	-.4	-19.3
1958	6444.9	6635.7	3.0	190.8
1959	5436.6	5417.4	-.4	-19.2
1960	4784.1	4784.1	.0	.0
1961	6597.7	6707.6	1.7	109.9
1962	5294.5	5291.5	-.1	-3.0
1963	6252.3	6261.7	.2	9.4
1964	17995.9	19055.6	5.9	1059.7
1965	6924.1	6963.9	.6	39.8
1966	14451.1	14346.9	-.7	-104.2
1967	7208.5	7212.3	.1	3.8
1968	6063.0	6048.6	-.2	-14.4
1969	6002.3	6030.3	.5	28.0
1970	7337.5	7278.4	-.8	-59.1
1971	11043.7	11029.1	-.1	-14.6
1972	5382.6	5365.2	-.3	-17.4
1973	11669.6	11655.0	-.1	-14.6
1974	50883.0	51737.1	1.7	854.1
1975	5804.1	5790.5	-.2	-13.6
1976	6267.7	6474.7	3.3	207.0
1977	3810.3	3789.3	-.6	-21.0
1978	4212.4	4231.6	.5	19.2
1979	5877.0	5862.9	-.2	-14.1
1980	6055.3	6044.4	-.2	-10.9
1981	4605.3	4588.5	-.4	-16.8
1982	29901.2	30107.6	.7	206.4
1983	40252.2	40312.2	.1	60.0
1984	77184.4	77148.5	.0	-35.9
1985	23343.4	23582.8	1.0	239.4
1986	5533.6	5744.7	3.8	211.1
1987	4503.1	4560.9	1.3	57.8
1988	5572.9	5584.8	.2	11.9
1989	4798.5	4817.7	.4	19.2
1990	4776.3	4637.1	-2.9	-139.2
1991	4648.8	4385.9	-5.7	-262.9
Mean:	9702.1	9769.2	.6	67.1
Median:	5972.9	5953.8	.1	3.8
Min:	3810.3	3789.3	-5.7	-311.1
Max:	77184.4	77148.5	12.7	1059.7
Alt-Cuml.>= .0				38
Rel Dif >= .0%			41	
.0% > Rel Dif >= -1.0%			23	
-1.0% > Rel Dif >= -2.0%			2	
-2.0% > Rel Dif >= -3.0%			2	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			0	

DELTA OUTFLOW

December

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	11266.4	11216.7	-.4	-49.7
1923	28918.4	29214.4	1.0	296.0
1924	6674.2	6624.7	-.7	-49.5
1925	7041.4	6983.0	-.8	-58.4
1926	6557.2	6566.0	.1	8.8
1927	9676.6	9668.2	-.1	-8.4
1928	7868.7	7817.5	-.7	-51.2
1929	7407.0	7388.3	-.3	-18.7
1930	7347.8	7346.5	.0	-1.3
1931	6138.2	6200.3	1.0	62.1
1932	13559.6	13570.7	.1	11.1
1933	6514.7	6395.3	-1.8	-119.4
1934	7487.5	7487.2	.0	-.3
1935	5711.6	5728.5	.3	16.9
1936	6967.3	6963.0	-.1	-4.3
1937	7246.0	7277.4	.4	31.4
1938	49483.9	48119.5	-2.8	-1364.4
1939	6852.0	6837.9	-.2	-14.1
1940	5849.4	5785.5	-1.1	-63.9
1941	34859.4	35440.6	1.7	581.2
1942	61516.9	61846.9	.5	330.0
1943	21562.0	21606.6	.2	44.6
1944	7208.0	7190.8	-.2	-17.2
1945	8657.6	8895.2	2.7	237.6
1946	58994.1	59410.8	.7	416.7
1947	7345.2	7791.9	6.1	446.7
1948	5150.8	5242.7	1.8	91.9
1949	7556.9	7562.3	.1	5.4
1950	6525.3	6554.4	.4	29.1
1951	82230.9	84770.5	3.1	2539.6
1952	33750.7	34774.0	3.0	1023.3
1953	38751.4	38690.3	-.2	-61.1
1954	6542.3	6581.9	.6	39.6
1955	13875.5	14105.1	1.7	229.6
1956	91763.4	92722.3	1.0	958.9
1957	7018.0	7023.4	.1	5.4
1958	14122.1	14314.3	1.4	192.2
1959	6313.3	6300.9	-.2	-12.4
1960	7126.1	7126.1	.0	.0
1961	7449.1	7434.3	-.2	-14.8
1962	7800.3	7789.6	-.1	-10.7
1963	17803.2	17806.9	.0	3.7
1964	6407.3	6407.0	.0	-.3
1965	81585.7	82570.3	1.2	984.6
1966	9716.6	9657.2	-.6	-59.4
1967	29440.3	30308.7	2.9	868.4
1968	7363.9	7302.8	-.8	-61.1
1969	14799.1	15046.6	1.7	247.5
1970	49731.1	50033.5	.6	302.4
1971	56114.0	56668.9	1.0	554.9
1972	9077.3	9077.1	.0	-.2
1973	13663.4	13646.2	-.1	-17.2
1974	66911.9	66945.1	.0	33.2
1975	8468.5	8407.7	-.7	-60.8
1976	6780.7	6588.4	-2.8	-192.3
1977	5099.0	5176.4	1.5	77.4
1978	7187.9	7199.2	.2	11.3
1979	7085.3	7090.5	.1	5.2
1980	10217.3	10169.6	-.5	-47.7
1981	7307.5	7307.5	.0	.0
1982	87028.9	87054.7	.0	25.8
1983	83878.4	83921.4	.1	43.0
1984	157310.2	157419.7	.1	109.5
1985	13649.2	13882.1	1.7	232.9
1986	8039.9	8274.3	2.9	234.4
1987	7232.6	7232.6	.0	.0
1988	7611.7	7607.5	-.1	-4.2
1989	5340.5	5343.1	.0	2.6
1990	6427.0	6355.6	-1.1	-71.4
1991	5515.2	5393.3	-2.2	-121.9
Mean:	22021.2	22146.6	.3	125.4
Median:	7611.7	7789.6	.0	5.2
Min:	5099.0	5176.4	-2.8	-1364.4
Max:	157310.2	157419.7	6.1	2539.6

Alt-Cuml.>= .0		41
Rel Dif >= .0%	45	
.0% > Rel Dif >= -1.0%	19	
-1.0% > Rel Dif >= -2.0%	3	
-2.0% > Rel Dif >= -3.0%	3	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

DELTA OUTFLOW

January

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	12234.6	12185.3	-.4	-49.3
1923	27531.0	27587.3	.2	56.3
1924	7040.8	7041.7	.0	.9
1925	6588.6	6633.3	.7	44.7
1926	10048.4	9800.8	-2.5	-247.6
1927	25598.0	25986.8	1.5	388.8
1928	16547.3	16744.8	1.2	197.5
1929	8043.9	8043.9	.0	.0
1930	13915.0	13604.2	-2.2	-310.8
1931	7286.3	7286.3	.0	.0
1932	14572.0	14584.8	.1	12.8
1933	7926.6	7873.3	-.7	-53.3
1934	9697.1	9690.3	-.1	-6.8
1935	23356.2	23357.9	.0	1.7
1936	32069.8	32077.4	.0	7.6
1937	9345.1	9271.5	-.8	-73.6
1938	25946.6	25978.8	.1	32.2
1939	8093.3	8124.7	.4	31.4
1940	28076.4	27681.4	-1.4	-395.0
1941	92852.5	92905.0	.1	52.5
1942	80555.7	80763.0	.3	207.3
1943	83924.7	83964.7	.0	40.0
1944	8300.4	8300.4	.0	.0
1945	6638.7	6636.1	.0	-2.6
1946	42128.0	42191.0	.1	63.0
1947	6814.9	6814.6	.0	-.3
1948	6785.5	6783.2	.0	-2.3
1949	6983.0	6983.3	.0	.3
1950	12646.9	12776.4	1.0	129.5
1951	69701.9	69848.2	.2	146.3
1952	86830.9	87086.2	.3	255.3
1953	103609.4	103988.3	.4	378.9
1954	20308.7	21036.3	3.6	727.6
1955	16448.7	16429.3	-.1	-19.4
1956	171345.0	171313.9	.0	-31.1
1957	8300.0	8300.0	.0	.0
1958	31213.2	31155.8	-.2	-57.4
1959	25155.1	25094.4	-.2	-60.7
1960	7492.5	7481.8	-.1	-10.7
1961	6967.8	6966.5	.0	-1.3
1962	6507.0	6505.2	.0	-1.8
1963	16175.2	16698.1	3.2	522.9
1964	17386.4	17330.7	-.3	-55.7
1965	121902.8	121858.7	.0	-44.1
1966	21626.8	21819.4	.9	192.6
1967	56736.7	57444.6	1.2	707.9
1968	24585.6	24525.7	-.2	-59.9
1969	120776.6	121586.0	.7	809.4
1970	207462.2	208001.4	.3	539.2
1971	43412.7	43443.8	.1	31.1
1972	10173.3	11190.2	10.0	1016.9
1973	73264.9	74334.3	1.5	1069.4
1974	128210.3	128227.6	.0	17.3
1975	9184.9	9124.1	-.7	-60.8
1976	7823.5	7811.4	-.2	-12.1
1977	6123.6	6156.3	.5	32.7
1978	58558.7	59030.2	.8	471.5
1979	19254.7	19200.6	-.3	-54.1
1980	90390.4	91672.2	1.4	1281.8
1981	14433.0	14378.9	-.4	-54.1
1982	78885.0	78914.4	.0	29.4
1983	106462.0	106503.7	.0	41.7
1984	75563.4	75567.6	.0	4.2
1985	7969.2	7969.2	.0	.0
1986	14939.5	14577.0	-2.4	-362.5
1987	8285.7	8285.7	.0	.0
1988	19366.8	19365.0	.0	-1.8
1989	6495.6	6538.6	.7	43.0
1990	12286.4	12297.0	.1	10.6
1991	5610.9	5655.9	.8	45.0
Mean:	36839.6	36948.4	.3	108.7
Median:	16448.7	16698.1	.0	1.7
Min:	5610.9	5655.9	-2.5	-395.0
Max:	207462.2	208001.4	10.0	1281.8

Alt-Cuml.>= .0		44
Rel Dif >= .0%		52
.0% > Rel Dif >= -1.0%		14
-1.0% > Rel Dif >= -2.0%		1
-2.0% > Rel Dif >= -3.0%		3
-3.0% > Rel Dif >= -5.0%		0
-5.0% > Rel Dif >= -6.0%		0
Rel Dif < -6.0%		0

DELTA OUTFLOW

February

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	35259.9	35823.7	1.6	563.8
1923	16454.5	16498.6	.3	44.1
1924	11190.2	11242.4	.5	52.2
1925	60555.2	61685.9	1.9	1130.7
1926	35738.6	35688.0	-.1	-50.6
1927	118994.8	119337.8	.3	343.0
1928	18132.4	18076.2	-.3	-56.2
1929	10296.9	10352.9	.5	56.0
1930	13248.8	13239.0	-.1	-9.8
1931	8583.1	8577.4	-.1	-5.7
1932	22189.2	22524.8	1.5	335.6
1933	8868.7	8838.4	-.3	-30.3
1934	15530.7	16117.5	3.8	586.8
1935	11939.2	11941.5	.0	2.3
1936	83625.5	83642.4	.0	16.9
1937	46081.0	46027.0	-.1	-54.0
1938	127364.3	128505.9	.9	1141.6
1939	10608.5	10576.6	-.3	-31.9
1940	63329.9	63448.5	.2	118.6
1941	123271.7	123452.3	.1	180.6
1942	143613.1	143682.8	.0	69.7
1943	56546.1	56596.1	.1	50.0
1944	20941.7	21040.1	.5	98.4
1945	48836.4	49193.2	.7	356.8
1946	22786.2	22729.6	-.2	-56.6
1947	12933.6	12761.3	-1.3	-172.3
1948	11400.1	11400.1	.0	.0
1949	9084.7	9505.5	4.6	420.8
1950	28307.5	27963.8	-1.2	-343.7
1951	66401.2	66531.3	.2	130.1
1952	80985.4	80946.4	.0	-39.0
1953	26173.7	26230.6	.2	56.9
1954	55317.9	55250.9	-.1	-67.0
1955	11528.8	11514.4	-.1	-14.4
1956	91418.7	91871.2	.5	452.5
1957	18942.1	18736.2	-1.1	-205.9
1958	172326.1	173155.7	.5	829.6
1959	49360.1	49625.8	.5	265.7
1960	24567.0	24557.3	.0	-9.7
1961	20648.0	20634.2	-.1	-13.8
1962	51901.1	52048.0	.3	146.9
1963	73811.6	73885.1	.1	73.5
1964	12322.3	12283.4	-.3	-38.9
1965	33198.9	33385.3	.6	186.4
1966	21396.0	21354.8	-.2	-41.2
1967	53344.9	53414.2	.1	69.3
1968	56179.4	56765.8	1.0	586.4
1969	140658.6	140721.2	.0	62.6
1970	90280.0	90304.6	.0	24.6
1971	23814.7	23785.1	-.1	-29.6
1972	16426.4	16424.3	.0	-2.1
1973	93428.1	93452.8	.0	24.7
1974	39179.1	39474.0	.8	294.9
1975	57444.3	57379.5	-.1	-64.8
1976	9271.3	9235.3	-.4	-36.0
1977	8740.5	8741.2	.0	.7
1978	48147.0	47391.0	-1.6	-756.0
1979	35003.3	35191.7	.5	188.4
1980	136549.7	136911.0	.3	361.3
1981	19996.9	20219.2	1.1	222.3
1982	103468.2	103116.8	-.3	-351.4
1983	181257.5	181286.9	.0	29.4
1984	44053.3	44079.7	.1	26.4
1985	12188.7	12177.5	-.1	-11.2
1986	225280.3	225829.8	.2	549.5
1987	13402.1	13222.5	-1.3	-179.6
1988	11400.1	11400.1	.0	.0
1989	8218.1	8218.1	.0	.0
1990	11400.1	11533.5	1.2	133.4
1991	9033.9	9079.5	.5	45.6
Mean:	49345.4	49454.8	.2	109.4
Median:	28307.5	27963.8	.0	26.4
Min:	8218.1	8218.1	-1.6	-756.0
Max:	225280.3	225829.8	4.6	1141.6

Alt-Cuml.>= .0		44
Rel Dif >= .0%	47	
.0% > Rel Dif >= -1.0%	18	
-1.0% > Rel Dif >= -2.0%	5	
-2.0% > Rel Dif >= -3.0%	0	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

DELTA OUTFLOW

March

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	32319.1	32273.3	-.1	-45.8
1923	11390.0	11714.5	2.8	324.5
1924	11400.1	11400.1	.0	.0
1925	27473.5	27473.5	.0	.0
1926	11953.5	11785.4	-1.4	-168.1
1927	40586.1	40705.9	.3	119.8
1928	81479.9	82434.8	1.2	954.9
1929	11400.1	11400.1	.0	.0
1930	26739.5	26087.6	-2.4	-651.9
1931	11400.1	11400.1	.0	.0
1932	10627.4	11543.3	8.6	915.9
1933	10901.5	10892.8	-.1	-8.7
1934	11400.1	11400.1	.0	.0
1935	22817.7	22782.0	-.2	-35.7
1936	29262.7	29292.9	.1	30.2
1937	51300.0	51685.3	.8	385.3
1938	168900.3	170437.4	.9	1537.1
1939	11771.5	11766.3	.0	-5.2
1940	101920.6	105795.2	3.8	3874.6
1941	94185.9	93799.0	-.4	-386.9
1942	29955.3	29904.6	-.2	-50.7
1943	87543.6	87582.2	.0	38.6
1944	18088.0	18077.3	-.1	-10.7
1945	26903.9	26903.9	.0	.0
1946	15223.1	15736.5	3.4	513.4
1947	15462.6	15450.8	-.1	-11.8
1948	13197.2	13014.9	-1.4	-182.3
1949	36399.0	36331.6	-.2	-67.4
1950	16725.8	17019.1	1.8	293.3
1951	30062.4	30125.3	.2	62.9
1952	73503.0	73689.1	.3	186.1
1953	18344.2	18308.1	-.2	-36.1
1954	43921.6	44514.2	1.3	592.6
1955	11400.1	11400.1	.0	.0
1956	40125.4	40071.5	-.1	-53.9
1957	38788.4	39414.4	1.6	626.0
1958	103888.5	103941.7	.1	53.2
1959	17549.6	17525.3	-.1	-24.3
1960	16615.7	16751.5	.8	135.8
1961	13534.1	13531.6	.0	-2.5
1962	26903.9	26903.9	.0	.0
1963	26929.5	26875.6	-.2	-53.9
1964	11400.1	11400.1	.0	.0
1965	19016.1	18983.2	-.2	-32.9
1966	17826.0	18277.7	2.5	451.7
1967	60760.1	60800.3	.1	40.2
1968	36934.1	35086.2	-5.0	-1847.9
1969	69804.9	69759.1	-.1	-45.8
1970	37973.8	38188.9	.6	215.1
1971	36051.0	36419.0	1.0	368.0
1972	21422.7	22001.8	2.7	579.1
1973	57722.9	57776.9	.1	54.0
1974	111125.8	111165.5	.0	39.7
1975	85154.5	86441.9	1.5	1287.4
1976	11400.1	11400.1	.0	.0
1977	9870.5	9870.5	.0	.0
1978	71473.5	70265.6	-1.7	-1207.9
1979	28886.6	29685.2	2.8	798.6
1980	59300.8	59452.8	.3	152.0
1981	19611.4	19780.1	.9	168.7
1982	93736.4	93803.7	.1	67.3
1983	263665.4	263686.1	.0	20.7
1984	27850.0	28068.6	.8	218.6
1985	14016.0	14004.2	-.1	-11.8
1986	156409.6	156809.3	.3	399.7
1987	18382.5	18463.3	.4	80.8
1988	11400.1	11400.1	.0	.0
1989	35423.6	37385.6	5.5	1962.0
1990	11400.1	11400.1	.0	.0
1991	27142.8	27010.1	-.5	-132.7
Mean:	41792.2	41970.4	.5	178.2
Median:	26929.5	26903.9	.0	.0
Min:	9870.5	9870.5	-5.0	-1847.9
Max:	263665.4	263686.1	8.6	3874.6

Alt-Cuml.>= .0		47
Rel Dif >= .0%	49	
.0% > Rel Dif >= -1.0%	16	
-1.0% > Rel Dif >= -2.0%	3	
-2.0% > Rel Dif >= -3.0%	1	
-3.0% > Rel Dif >= -5.0%	1	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

DELTA OUTFLOW

April

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	27507.5	27464.2	-.2	-43.3
1923	24756.5	25011.0	1.0	254.5
1924	5555.0	5553.0	.0	-2.0
1925	22989.0	23190.2	.9	201.2
1926	21389.3	21201.6	-.9	-187.7
1927	46170.9	46283.6	.2	112.7
1928	27959.2	28152.4	.7	193.2
1929	7605.0	7600.6	-.1	-4.4
1930	11619.1	11824.5	1.8	205.4
1931	7237.8	7237.1	.0	-.7
1932	11258.8	11258.8	.0	.0
1933	10718.2	10718.2	.0	.0
1934	10730.5	10730.5	.0	.0
1935	50743.4	50940.4	.4	197.0
1936	23480.9	23735.9	1.1	255.0
1937	27453.1	27389.4	-.2	-63.7
1938	80732.3	80831.6	.1	99.3
1939	10755.1	10755.1	.0	.0
1940	67560.4	67485.4	-.1	-75.0
1941	80436.1	80542.1	.1	106.0
1942	51076.4	51024.7	-.1	-51.7
1943	32655.2	32788.1	.4	132.9
1944	10121.8	10115.3	-.1	-6.5
1945	17005.8	16927.1	-.5	-78.7
1946	13265.3	13445.2	1.4	179.9
1947	11977.8	11968.5	-.1	-9.3
1948	24378.0	24330.5	-.2	-47.5
1949	12837.8	12748.1	-.7	-89.7
1950	18360.4	18327.5	-.2	-32.9
1951	16223.3	16309.2	.5	85.9
1952	72691.4	72780.6	.1	89.2
1953	17330.9	17492.6	.9	161.7
1954	39179.9	39258.9	.2	79.0
1955	10292.2	10280.1	-.1	-12.1
1956	24527.4	24484.1	-.2	-43.3
1957	16897.2	16826.6	-.4	-70.6
1958	105370.9	105477.0	.1	106.1
1959	8849.6	8849.6	.0	.0
1960	11217.4	11188.7	-.3	-28.7
1961	10808.0	10809.1	.0	1.1
1962	11355.6	11708.7	3.1	353.1
1963	90164.1	90412.2	.3	248.1
1964	7793.7	7787.3	-.1	-6.4
1965	41732.3	41968.9	.6	236.6
1966	11978.1	12143.2	1.4	165.1
1967	60475.0	60418.3	-.1	-56.7
1968	10658.1	10828.8	1.6	170.7
1969	63859.6	64071.0	.3	211.4
1970	12151.0	12149.5	.0	-1.5
1971	19820.2	19774.1	-.2	-46.1
1972	10625.1	10497.8	-1.2	-127.3
1973	20827.3	20779.8	-.2	-47.5
1974	69463.8	68706.1	-1.1	-757.7
1975	30714.6	29859.5	-2.8	-855.1
1976	8106.8	8112.2	.1	5.4
1977	6035.8	6033.7	.0	-2.1
1978	50477.2	50264.3	-.4	-212.9
1979	19108.2	19245.8	.7	137.6
1980	23150.8	23107.5	-.2	-43.3
1981	15617.2	16007.9	2.5	390.7
1982	142748.1	142854.1	.1	106.0
1983	99068.8	99200.0	.1	131.2
1984	18396.1	18393.2	.0	-2.9
1985	11632.1	11622.9	-.1	-9.2
1986	28909.6	29654.5	2.6	744.9
1987	11272.5	11271.9	.0	-.6
1988	7861.5	7858.4	.0	-3.1
1989	20394.6	20668.5	1.3	273.9
1990	10583.1	10583.1	.0	.0
1991	13703.4	13698.5	.0	-4.9
Mean:	29291.6	29328.8	.2	37.3
Median:	18360.4	18327.5	.0	.0
Min:	5555.0	5553.0	-2.8	-855.1
Max:	142748.1	142854.1	3.1	744.9

Alt-Cuml.>= .0		36
Rel Dif >= .0%	44	
.0% > Rel Dif >= -1.0%	23	
-1.0% > Rel Dif >= -2.0%	2	
-2.0% > Rel Dif >= -3.0%	1	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

DELTA OUTFLOW

May

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	43697.2	44040.6	.8	343.4
1923	15294.5	15832.1	3.5	537.6
1924	5348.6	5428.0	1.5	79.4
1925	13973.7	14370.6	2.8	396.9
1926	10504.8	10554.8	.5	50.0
1927	25017.1	25175.7	.6	158.6
1928	13072.1	13026.4	-.3	-45.7
1929	7308.8	7332.0	.3	23.2
1930	10583.8	10554.3	-.3	-29.5
1931	5983.1	5835.2	-2.5	-147.9
1932	11056.1	11069.7	.1	13.6
1933	8051.9	8058.7	.1	6.8
1934	5540.2	5533.0	-.1	-7.2
1935	25753.3	25724.7	-.1	-28.6
1936	16317.8	16267.4	-.3	-50.4
1937	18900.2	19439.9	2.9	539.7
1938	75109.9	75257.4	.2	147.5
1939	8194.6	8313.8	1.5	119.2
1940	17987.9	18163.7	1.0	175.8
1941	44752.7	44888.8	.3	136.1
1942	32549.4	32872.7	1.0	323.3
1943	21447.0	21399.6	-.2	-47.4
1944	9757.9	9766.0	.1	8.1
1945	14212.4	14162.6	-.4	-49.8
1946	13651.7	13604.6	-.3	-47.1
1947	7698.7	7685.2	-.2	-13.5
1948	26330.5	26268.2	-.2	-62.3
1949	11400.1	11400.1	.0	.0
1950	14883.2	14834.2	-.3	-49.0
1951	17171.6	17158.8	-.1	-12.8
1952	69850.4	69991.5	.2	141.1
1953	20316.4	20266.2	-.2	-50.2
1954	18068.2	18023.0	-.3	-45.2
1955	10315.3	10315.1	.0	-.2
1956	37569.4	37518.0	-.1	-51.4
1957	16172.7	16293.7	.7	121.0
1958	52517.8	52668.7	.3	150.9
1959	9901.0	9901.3	.0	.3
1960	10161.7	10225.7	.6	64.0
1961	10570.0	10544.6	-.2	-25.4
1962	11400.1	11400.1	.0	.0
1963	29436.2	29608.9	.6	172.7
1964	8618.0	8622.1	.0	4.1
1965	20284.3	20245.5	-.2	-38.8
1966	11894.7	11894.2	.0	-.5
1967	58063.5	58332.5	.5	269.0
1968	10610.7	10601.1	-.1	-9.6
1969	61449.6	62674.4	2.0	1224.8
1970	13798.2	13808.4	.1	10.2
1971	25300.0	25250.9	-.2	-49.1
1972	11149.9	11181.3	.3	31.4
1973	14844.2	15099.9	1.7	255.7
1974	25175.8	24629.9	-2.2	-545.9
1975	26983.2	26205.4	-2.9	-777.8
1976	7199.7	7194.8	-.1	-4.9
1977	6394.0	6365.2	-.5	-28.8
1978	25967.6	26291.6	1.2	324.0
1979	14068.1	14193.9	.9	125.8
1980	21247.8	21199.6	-.2	-48.2
1981	9394.1	9402.4	.1	8.3
1982	49263.5	49376.1	.2	112.6
1983	82610.4	82699.5	.1	89.1
1984	15398.0	15397.5	.0	-.5
1985	11142.1	11142.1	.0	.0
1986	19536.9	20211.6	3.5	674.7
1987	7578.8	7578.8	.0	.0
1988	7074.0	7092.3	.3	18.3
1989	10059.4	9957.2	-1.0	-102.2
1990	8116.7	8134.3	.2	17.6
1991	6769.2	6475.9	-4.3	-293.3
Mean:	20540.3	20600.5	.2	60.2
Median:	14068.1	14193.9	.0	.3
Min:	5348.6	5428.0	-4.3	-777.8
Max:	82610.4	82699.5	3.5	1224.8
Alt-Cuml.>= .0				40
Rel Dif >= .0%			43	
.0% > Rel Dif >= -1.0%			23	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

DELTA OUTFLOW

June

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	30215.5	30469.3	.8	253.8
1923	9534.1	9406.9	-1.3	-127.2
1924	3999.7	3999.7	.0	.0
1925	9687.0	9587.6	-1.0	-99.4
1926	6117.2	6117.2	.0	.0
1927	9809.0	9929.1	1.2	120.1
1928	7579.3	7579.3	.0	.0
1929	7136.9	7129.6	-.1	-7.3
1930	6117.2	6117.2	.0	.0
1931	3999.7	3999.7	.0	.0
1932	11203.5	11203.5	.0	.0
1933	6483.5	6482.4	.0	-1.1
1934	6854.1	6854.1	.0	.0
1935	9703.4	9703.4	.0	.0
1936	9100.8	9099.1	.0	-1.7
1937	9688.9	9600.2	-.9	-88.7
1938	35499.9	35271.9	-.6	-228.0
1939	6117.2	6117.2	.0	.0
1940	7710.1	7676.9	-.4	-33.2
1941	14512.7	14640.5	.9	127.8
1942	18988.8	19259.5	1.4	270.7
1943	7579.3	7579.3	.0	.0
1944	9931.9	9931.9	.0	.0
1945	10308.2	10323.8	.2	15.6
1946	10490.4	10474.8	-.1	-15.6
1947	6117.2	6117.2	.0	.0
1948	12669.2	12631.2	-.3	-38.0
1949	9658.8	9661.6	.0	2.8
1950	10033.3	10040.9	.1	7.6
1951	7579.3	7579.3	.0	.0
1952	32832.7	33034.5	.6	201.8
1953	13934.0	13893.8	-.3	-40.2
1954	7579.3	7579.3	.0	.0
1955	9512.0	9513.2	.0	1.2
1956	14015.8	14453.3	3.1	437.5
1957	9953.9	9929.6	-.2	-24.3
1958	32351.3	32529.5	.6	178.2
1959	7005.4	7005.3	.0	-.1
1960	6117.2	6117.2	.0	.0
1961	6117.2	6117.2	.0	.0
1962	8227.2	8200.0	-.3	-27.2
1963	9298.1	9263.0	-.4	-35.1
1964	6622.7	6622.4	.0	-.3
1965	9190.1	9146.1	-.5	-44.0
1966	6839.9	6839.9	.0	.0
1967	40128.7	40315.3	.5	186.6
1968	6901.8	6901.8	.0	.0
1969	25405.8	25605.8	.8	200.0
1970	7579.3	7579.3	.0	.0
1971	11692.3	11738.3	.4	46.0
1972	6862.2	6862.2	.0	.0
1973	10573.9	10516.6	-.5	-57.3
1974	13260.2	13388.0	1.0	127.8
1975	17706.3	18283.7	3.3	577.4
1976	6526.7	6528.2	.0	1.5
1977	3999.7	3999.7	.0	.0
1978	9192.9	9648.2	5.0	455.3
1979	10990.7	10939.3	-.5	-51.4
1980	10191.7	10153.7	-.4	-38.0
1981	6117.2	6117.2	.0	.0
1982	18754.3	18974.5	1.2	220.2
1983	70277.0	70493.9	.3	216.9
1984	9150.2	9147.9	.0	-2.3
1985	6117.2	6117.2	.0	.0
1986	9033.2	9157.7	1.4	124.5
1987	6117.2	6117.2	.0	.0
1988	6547.9	6542.7	-.1	-5.2
1989	6571.6	6575.3	.1	3.7
1990	6076.6	6071.7	-.1	-4.9
1991	6548.5	6645.0	1.5	96.5
Mean:	11804.9	11846.4	.2	41.5
Median:	9150.2	9147.9	.0	.0
Min:	3999.7	3999.7	-1.3	-228.0
Max:	70277.0	70493.9	5.0	577.4
Alt-Cuml.>= .0				47
Rel Dif >= .0%			52	
.0% > Rel Dif >= -1.0%			17	
-1.0% > Rel Dif >= -2.0%			1	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

DELTA OUTFLOW

July

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	8001.6	8001.6	.0	.0
1923	6502.1	6502.1	.0	.0
1924	4000.8	4000.8	.0	.0
1925	5001.0	5001.0	.0	.0
1926	5001.0	5001.0	.0	.0
1927	8968.3	8950.2	-.2	-18.1
1928	8001.6	8001.6	.0	.0
1929	4000.8	4000.8	.0	.0
1930	5001.0	5001.0	.0	.0
1931	4000.8	4000.8	.0	.0
1932	5001.0	5001.0	.0	.0
1933	4000.8	4000.8	.0	.0
1934	4000.8	4000.8	.0	.0
1935	6502.1	6502.1	.0	.0
1936	6502.1	6502.1	.0	.0
1937	6502.1	6502.1	.0	.0
1938	8001.6	8001.6	.0	.0
1939	5001.0	5001.0	.0	.0
1940	8781.4	8776.6	-.1	-4.8
1941	8001.6	8001.6	.0	.0
1942	8001.6	8001.6	.0	.0
1943	8381.5	8381.1	.0	-.4
1944	5001.0	5001.0	.0	.0
1945	6921.8	7204.5	4.1	282.7
1946	7380.9	7179.6	-2.7	-201.3
1947	5001.0	5001.0	.0	.0
1948	6947.5	7137.6	2.7	190.1
1949	5001.0	5001.0	.0	.0
1950	7121.9	7218.6	1.4	96.7
1951	8396.8	8397.5	.0	.7
1952	9443.4	9684.2	2.5	240.8
1953	8106.7	8112.5	.1	5.8
1954	8552.7	8552.7	.0	.0
1955	5001.0	5001.0	.0	.0
1956	8001.6	8001.6	.0	.0
1957	8001.6	8028.6	.3	27.0
1958	8001.6	8001.6	.0	.0
1959	6502.1	6502.1	.0	.0
1960	5001.0	5001.0	.0	.0
1961	5001.0	5001.0	.0	.0
1962	6502.1	6502.1	.0	.0
1963	8400.4	8401.3	.0	.9
1964	5001.0	5001.0	.0	.0
1965	8644.9	8653.0	.1	8.1
1966	6502.1	6502.1	.0	.0
1967	13350.9	13590.2	1.8	239.3
1968	6502.1	6502.1	.0	.0
1969	8056.1	8145.5	1.1	89.4
1970	8112.0	8112.9	.0	.9
1971	9212.9	9209.8	.0	-3.1
1972	6517.8	6520.8	.0	3.0
1973	8001.6	8001.6	.0	.0
1974	8969.9	9042.6	.8	72.7
1975	8001.6	8001.6	.0	.0
1976	4000.8	4000.8	.0	.0
1977	4000.8	4000.8	.0	.0
1978	8001.6	8001.6	.0	.0
1979	6658.8	6688.1	.4	29.3
1980	8001.6	8001.6	.0	.0
1981	5001.0	5001.0	.0	.0
1982	8001.6	8001.6	.0	.0
1983	24733.6	24974.5	1.0	240.9
1984	8792.5	8791.9	.0	-.6
1985	5001.0	5001.0	.0	.0
1986	8001.6	8475.2	5.9	473.6
1987	5001.0	5001.0	.0	.0
1988	4000.8	4000.8	.0	.0
1989	5001.0	5001.0	.0	.0
1990	4000.8	4000.8	.0	.0
1991	4000.8	4000.8	.0	.0
Mean:	6921.7	6947.0	.3	25.3
Median:	6517.8	6520.8	.0	.0
Min:	4000.8	4000.8	-2.7	-201.3
Max:	24733.6	24974.5	5.9	473.6
Alt-Cuml.>= .0				64
Rel Dif >= .0%			67	
.0% > Rel Dif >= -1.0%			2	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

DELTA OUTFLOW

August

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	7653.6	7658.7	.1	5.1
1923	6923.6	6925.8	.0	2.2
1924	3415.3	3415.3	.0	.0
1925	4009.7	4324.6	7.9	314.9
1926	3805.6	3805.6	.0	.0
1927	7738.4	7738.4	.0	.0
1928	7906.6	7906.6	.0	.0
1929	3415.3	3415.3	.0	.0
1930	4330.2	4062.3	-6.2	-267.9
1931	3415.3	3415.3	.0	.0
1932	3844.9	3869.3	.6	24.4
1933	3415.3	3415.3	.0	.0
1934	3415.3	3415.3	.0	.0
1935	6219.0	6230.4	.2	11.4
1936	4840.7	4941.8	2.1	101.1
1937	4803.7	5252.5	9.3	448.8
1938	7202.4	7091.1	-1.5	-111.3
1939	3948.7	3865.4	-2.1	-83.3
1940	7278.9	7280.9	.0	2.0
1941	7872.0	7770.8	-1.3	-101.2
1942	8061.2	8061.2	.0	.0
1943	7776.6	7776.7	.0	.1
1944	3820.2	3815.6	-.1	-4.6
1945	5356.6	5367.6	.2	11.0
1946	5197.3	5185.9	-.2	-11.4
1947	3805.6	3805.6	.0	.0
1948	6808.3	6595.9	-3.1	-212.4
1949	4609.1	4588.7	-.4	-20.4
1950	5801.2	5745.8	-1.0	-55.4
1951	7596.3	7596.1	.0	-.2
1952	7535.4	7602.2	.9	66.8
1953	7866.7	7865.4	.0	-1.3
1954	7560.5	7560.5	.0	.0
1955	3805.6	3805.6	.0	.0
1956	8066.8	8095.0	.3	28.2
1957	7659.4	7653.6	-.1	-5.8
1958	7513.1	7578.6	.9	65.5
1959	5242.9	5245.5	.0	2.6
1960	4337.6	4493.3	3.6	155.7
1961	4188.5	4190.1	.0	1.6
1962	5232.7	5232.5	.0	-.2
1963	7998.9	7998.6	.0	-.3
1964	3895.9	3881.7	-.4	-14.2
1965	7920.5	7918.8	.0	-1.7
1966	5126.5	5128.7	.0	2.2
1967	7216.6	7291.1	1.0	74.5
1968	5565.2	5558.5	-.1	-6.7
1969	7063.2	7136.3	1.0	73.1
1970	7971.0	7970.9	.0	-.1
1971	7671.8	7671.8	.0	.0
1972	7139.5	7169.8	.4	30.3
1973	7784.2	7784.1	.0	-.1
1974	8122.4	8339.0	2.7	216.6
1975	7957.4	8068.8	1.4	111.4
1976	5364.4	5643.2	5.2	278.8
1977	3431.6	3430.5	.0	-1.1
1978	7805.0	7805.0	.0	.0
1979	5597.8	5597.8	.0	.0
1980	7777.9	7777.9	.0	.0
1981	4296.2	4938.5	15.0	642.3
1982	7683.2	7519.0	-2.1	-164.2
1983	14133.2	14150.4	.1	17.2
1984	7569.0	7569.0	.0	.0
1985	4288.8	4346.5	1.3	57.7
1986	7929.0	7595.8	-4.2	-333.2
1987	3805.6	3805.6	.0	.0
1988	3657.2	3425.6	-6.3	-231.6
1989	6485.7	6369.4	-1.8	-116.3
1990	3415.3	3415.3	.0	.0
1991	3415.3	3415.3	.0	.0
Mean:	6019.8	6034.1	.3	14.3
Median:	5801.2	5745.8	.0	.0
Min:	3415.3	3415.3	-6.3	-333.2
Max:	14133.2	14150.4	15.0	642.3

Alt-Cuml.>= .0		46
Rel Dif >= .0%	54	
.0% > Rel Dif >= -1.0%	7	
-1.0% > Rel Dif >= -2.0%	3	
-2.0% > Rel Dif >= -3.0%	2	
-3.0% > Rel Dif >= -5.0%	2	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	2	

DELTA OUTFLOW

September

Water Year	Cuml. Flow (cfs)	No Proj-constrained Flow (cfs)	Rel Change (%)	Abs Diff (cfs)
1922	5531.9	5531.9	.0	.0
1923	5590.4	5620.3	.5	29.9
1924	3238.5	3274.7	1.1	36.2
1925	5036.8	4842.1	-3.9	-194.7
1926	4099.9	4169.7	1.7	69.8
1927	5644.7	5644.7	.0	.0
1928	5176.2	5176.2	.0	.0
1929	3268.8	3394.7	3.9	125.9
1930	4683.7	4690.8	.2	7.1
1931	3351.2	3302.5	-1.5	-48.7
1932	4056.3	4361.7	7.5	305.4
1933	3310.7	3288.6	-.7	-22.1
1934	3415.9	3340.6	-2.2	-75.3
1935	5451.0	5790.6	6.2	339.6
1936	5787.5	5764.1	-.4	-23.4
1937	5513.3	5424.6	-1.6	-88.7
1938	5613.7	6347.3	13.1	733.6
1939	4518.6	4436.4	-1.8	-82.2
1940	5646.4	5647.2	.0	.8
1941	5005.0	5062.8	1.2	57.8
1942	5119.2	5005.0	-2.2	-114.2
1943	5558.5	5558.5	.0	.0
1944	4276.7	4258.4	-.4	-18.3
1945	5701.1	5703.7	.0	2.6
1946	5745.9	5743.6	.0	-2.3
1947	4241.7	4175.7	-1.6	-66.0
1948	5576.4	5555.4	-.4	-21.0
1949	4374.1	4469.3	2.2	95.2
1950	5399.8	5399.8	.0	.0
1951	5462.0	5459.9	.0	-2.1
1952	8232.9	8436.9	2.5	204.0
1953	5712.3	5712.3	.0	.0
1954	5744.7	5744.7	.0	.0
1955	4297.3	4259.7	-.9	-37.6
1956	5603.4	5603.4	.0	.0
1957	5416.1	5416.2	.0	.1
1958	10338.1	10540.4	2.0	202.3
1959	6070.9	6070.9	.0	.0
1960	4405.5	4409.0	.1	3.5
1961	4139.1	4219.3	1.9	80.2
1962	5647.9	5647.7	.0	-.2
1963	5589.5	5589.5	.0	.0
1964	4755.8	4730.0	-.5	-25.8
1965	5341.6	5341.6	.0	.0
1966	5092.5	5066.8	-.5	-25.7
1967	8939.6	9111.6	1.9	172.0
1968	5891.0	5892.9	.0	1.9
1969	10484.9	10655.2	1.6	170.3
1970	5696.0	5696.0	.0	.0
1971	5546.3	5546.3	.0	.0
1972	5501.9	5501.9	.0	.0
1973	5336.7	5336.8	.0	.1
1974	9745.6	9926.3	1.9	180.7
1975	8248.0	8553.5	3.7	305.5
1976	4157.2	4289.3	3.2	132.1
1977	3484.3	3509.8	.7	25.5
1978	5341.3	5341.3	.0	.0
1979	5829.4	5829.4	.0	.0
1980	4500.1	4500.1	.0	.0
1981	5326.0	5192.3	-2.5	-133.7
1982	11556.3	12430.0	7.6	873.7
1983	22181.5	22179.0	.0	-2.5
1984	5516.1	5516.1	.0	.0
1985	4945.7	4888.6	-1.2	-57.1
1986	5461.2	5461.2	.0	.0
1987	3468.4	3481.5	.4	13.1
1988	3295.2	3008.2	-8.7	-287.0
1989	5482.3	5382.9	-1.8	-99.4
1990	3248.0	3180.8	-2.1	-67.2
1991	3330.7	3327.5	-.1	-3.2
Mean:	5632.8	5671.0	.4	38.2
Median:	5416.1	5399.8	.0	.0
Min:	3238.5	3008.2	-8.7	-287.0
Max:	22181.5	22179.0	13.1	873.7
Alt-Cuml.>= .0				46
Rel Dif >= .0%			50	
.0% > Rel Dif >= -1.0%			8	
-1.0% > Rel Dif >= -2.0%			6	
-2.0% > Rel Dif >= -3.0%			4	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			1	

RETURN TO TABLE OF CONTENTS

Section 25

X2 POSITION

X2 POSITION

October

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	82.5	82.6	.1	.1
1923	83.1	83.2	.1	.1
1924	85.6	85.6	.0	.0
1925	87.6	88.0	.5	.4
1926	86.3	86.4	.1	.1
1927	87.0	86.9	-.1	-.1
1928	83.7	83.7	.0	.0
1929	85.6	85.6	.0	.0
1930	89.8	89.8	.0	.0
1931	86.5	86.6	.1	.1
1932	88.4	88.5	.1	.1
1933	86.9	86.7	-.2	-.2
1934	89.6	89.6	.0	.0
1935	87.1	87.4	.3	.3
1936	85.2	85.1	-.1	-.1
1937	85.8	85.8	.0	.0
1938	85.9	85.9	.0	.0
1939	77.3	77.1	-.3	-.2
1940	84.9	85.4	.6	.5
1941	85.4	85.3	-.1	-.1
1942	83.3	82.6	-.8	-.7
1943	83.6	83.8	.2	.2
1944	84.7	84.6	-.1	-.1
1945	86.8	86.8	.0	.0
1946	84.7	84.6	-.1	-.1
1947	85.7	85.7	.0	.0
1948	86.4	86.2	-.2	-.2
1949	84.4	84.4	.0	.0
1950	86.6	86.5	-.1	-.1
1951	84.7	84.8	.1	.1
1952	84.3	84.3	.0	.0
1953	78.2	78.1	-.1	-.1
1954	83.8	83.8	.0	.0
1955	85.0	84.8	-.2	-.2
1956	86.8	86.8	.0	.0
1957	80.1	79.4	-.9	-.7
1958	76.4	76.3	-.1	-.1
1959	80.6	80.6	.0	.0
1960	85.6	85.6	.0	.0
1961	86.7	86.6	-.1	-.1
1962	86.9	86.8	-.1	-.1
1963	71.8	71.5	-.4	-.3
1964	81.4	81.4	.0	.0
1965	86.6	86.6	.0	.0
1966	85.5	85.5	.0	.0
1967	86.1	86.1	.0	.0
1968	80.4	80.4	.0	.0
1969	85.4	85.3	-.1	-.1
1970	75.7	75.7	.0	.0
1971	85.2	85.2	.0	.0
1972	83.6	83.6	.0	.0
1973	84.0	84.0	.0	.0
1974	83.6	83.5	-.1	-.1
1975	81.6	81.7	.1	.1
1976	77.2	77.1	-.1	-.1
1977	88.4	88.4	.0	.0
1978	85.1	85.1	.0	.0
1979	85.3	85.3	.0	.0
1980	84.5	84.5	.0	.0
1981	85.5	85.5	.0	.0
1982	85.5	85.4	-.1	-.1
1983	71.3	71.1	-.3	-.2
1984	70.4	70.1	-.4	-.3
1985	83.7	83.6	-.1	-.1
1986	86.4	86.4	.0	.0
1987	84.9	84.8	-.1	-.1
1988	83.8	83.8	.0	.0
1989	87.7	88.1	.5	.4
1990	84.7	84.7	.0	.0
1991	86.6	87.1	.6	.5
Mean:	84.0	84.0	.0	.0
Median:	85.1	85.1	.0	.0
Min:	70.4	70.1	-.9	-.7
Max:	89.8	89.8	.6	.5
Alt-Cuml.>= .0				45
Rel Dif >= .0%			45	
.0% > Rel Dif >= -1.0%			25	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

November

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	83.0	83.0	.0	.0
1923	80.8	80.8	.0	.0
1924	85.0	85.2	.2	.2
1925	86.3	86.6	.3	.3
1926	85.2	85.3	.1	.1
1927	77.0	77.0	.0	.0
1928	79.9	80.0	.1	.1
1929	83.6	83.5	-.1	-.1
1930	88.2	88.2	.0	.0
1931	85.6	85.5	-.1	-.1
1932	86.8	86.8	.0	.0
1933	85.7	85.6	-.1	-.1
1934	87.8	87.8	.0	.0
1935	84.0	84.0	.0	.0
1936	84.2	84.2	.0	.0
1937	85.0	85.0	.0	.0
1938	76.8	77.0	.3	.2
1939	80.8	80.8	.0	.0
1940	82.9	83.3	.5	.4
1941	84.2	84.1	-.1	-.1
1942	82.6	81.7	-1.1	-.9
1943	80.5	79.6	-1.1	-.9
1944	84.1	84.0	-.1	-.1
1945	82.7	82.4	-.4	-.3
1946	82.9	82.6	-.4	-.3
1947	83.9	83.7	-.2	-.2
1948	85.2	85.1	-.1	-.1
1949	84.0	84.1	.1	.1
1950	85.4	85.3	-.1	-.1
1951	68.3	68.3	.0	.0
1952	82.3	82.3	.0	.0
1953	79.9	79.7	-.3	-.2
1954	82.4	82.3	-.1	-.1
1955	82.5	82.4	-.1	-.1
1956	84.8	84.7	-.1	-.1
1957	82.6	82.4	-.2	-.2
1958	80.0	79.7	-.4	-.3
1959	82.6	82.7	.1	.1
1960	85.3	85.3	.0	.0
1961	83.2	83.0	-.2	-.2
1962	84.9	84.9	.0	.0
1963	78.7	78.6	-.1	-.1
1964	73.8	73.3	-.7	-.5
1965	82.8	82.7	-.1	-.1
1966	76.8	76.8	.0	.0
1967	82.3	82.3	.0	.0
1968	81.7	81.8	.1	.1
1969	83.5	83.4	-.1	-.1
1970	78.8	78.8	.0	.0
1971	78.7	78.7	.0	.0
1972	83.7	83.7	.0	.0
1973	77.9	77.9	.0	.0
1974	66.5	66.4	-.2	-.1
1975	82.5	82.5	.0	.0
1976	80.4	80.2	-.2	-.2
1977	87.9	88.0	.1	.1
1978	86.1	86.0	-.1	-.1
1979	83.6	83.6	.0	.0
1980	83.1	83.1	.0	.0
1981	85.5	85.6	.1	.1
1982	71.2	71.1	-.1	-.1
1983	64.3	64.2	-.2	-.1
1984	59.0	58.9	-.2	-.1
1985	72.5	72.4	-.1	-.1
1986	84.4	84.1	-.4	-.3
1987	85.5	85.3	-.2	-.2
1988	83.5	83.5	.0	.0
1989	85.9	86.0	.1	.1
1990	85.0	85.2	.2	.2
1991	85.8	86.4	.7	.6
Mean:	81.6	81.6	-.1	-.1
Median:	83.0	83.0	.0	.0
Min:	59.0	58.9	-1.1	-.9
Max:	88.2	88.2	.7	.6

Alt-Cuml.>= .0		38
Rel Dif >= .0%	38	
.0% > Rel Dif >= -1.0%	30	
-1.0% > Rel Dif >= -2.0%	2	
-2.0% > Rel Dif >= -3.0%	0	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

X2 POSITION

December

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	77.9	77.9	.0	.0
1923	69.9	69.9	.0	.0
1924	82.6	82.7	.1	.1
1925	82.6	82.7	.1	.1
1926	82.8	82.8	.0	.0
1927	77.1	77.1	.0	.0
1928	79.6	79.7	.1	.1
1929	81.3	81.3	.0	.0
1930	82.9	82.9	.0	.0
1931	83.4	83.3	-.1	-.1
1932	77.7	77.7	.0	.0
1933	83.0	83.1	.1	.1
1934	82.6	82.6	.0	.0
1935	83.4	83.4	.0	.0
1936	82.0	82.0	.0	.0
1937	81.9	81.9	.0	.0
1938	64.5	64.8	.5	.3
1939	81.0	81.0	.0	.0
1940	82.9	83.1	.2	.2
1941	69.6	69.5	-.1	-.1
1942	64.8	64.4	-.6	-.4
1943	72.1	71.8	-.4	-.3
1944	81.7	81.7	.0	.0
1945	79.8	79.5	-.4	-.3
1946	65.2	65.0	-.3	-.2
1947	81.4	80.9	-.6	-.5
1948	84.6	84.4	-.2	-.2
1949	81.3	81.3	.0	.0
1950	82.8	82.8	.0	.0
1951	57.8	57.6	-.3	-.2
1952	69.2	69.0	-.3	-.2
1953	67.4	67.4	.0	.0
1954	81.8	81.8	.0	.0
1955	76.1	76.0	-.1	-.1
1956	62.4	62.3	-.2	-.1
1957	81.4	81.3	-.1	-.1
1958	75.2	75.0	-.3	-.2
1959	82.2	82.2	.0	.0
1960	82.1	82.1	.0	.0
1961	81.1	81.1	.0	.0
1962	81.3	81.3	.0	.0
1963	73.0	72.9	-.1	-.1
1964	79.2	79.0	-.3	-.2
1965	62.6	62.5	-.2	-.1
1966	77.0	77.0	.0	.0
1967	70.3	70.1	-.3	-.2
1968	80.7	80.8	.1	.1
1969	75.9	75.8	-.1	-.1
1970	65.1	65.1	.0	.0
1971	64.2	64.1	-.2	-.1
1972	79.8	79.8	.0	.0
1973	74.7	74.8	.1	.1
1974	58.8	58.8	.0	.0
1975	79.9	80.0	.1	.1
1976	80.9	81.1	.2	.2
1977	85.6	85.5	-.1	-.1
1978	82.3	82.3	.0	.0
1979	81.6	81.6	.0	.0
1980	78.7	78.7	.0	.0
1981	82.0	82.0	.0	.0
1982	58.4	58.3	-.2	-.1
1983	56.4	56.3	-.2	-.1
1984	49.8	49.8	.0	.0
1985	73.0	72.8	-.3	-.2
1986	80.9	80.6	-.4	-.3
1987	82.1	82.0	-.1	-.1
1988	81.0	81.0	.0	.0
1989	84.6	84.6	.0	.0
1990	82.8	83.0	.2	.2
1991	84.3	84.6	.4	.3
Mean:	76.4	76.3	-.1	.0
Median:	80.7	80.6	.0	.0
Min:	49.8	49.8	-.6	-.5
Max:	85.6	85.5	.5	.3

Alt-Cuml.>= .0		44
Rel Dif >= .0%	44	
.0% > Rel Dif >= -1.0%	26	
-1.0% > Rel Dif >= -2.0%	0	
-2.0% > Rel Dif >= -3.0%	0	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

X2 POSITION

January

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	75.6	75.6	.0	.0
1923	66.8	66.7	-.1	-.1
1924	81.3	81.4	.1	.1
1925	81.8	81.8	.0	.0
1926	78.7	78.9	.3	.2
1927	69.7	69.5	-.3	-.2
1928	73.8	73.8	.0	.0
1929	79.9	79.9	.0	.0
1930	76.2	76.4	.3	.2
1931	81.3	81.3	.0	.0
1932	74.2	74.2	.0	.0
1933	80.6	80.6	.0	.0
1934	78.9	78.9	.0	.0
1935	72.4	72.4	.0	.0
1936	69.5	69.5	.0	.0
1937	79.0	79.0	.0	.0
1938	65.4	65.5	.2	.1
1939	79.7	79.7	.0	.0
1940	70.8	71.0	.3	.2
1941	57.3	57.3	.0	.0
1942	56.8	56.7	-.2	-.1
1943	58.9	58.8	-.2	-.1
1944	79.8	79.8	.0	.0
1945	80.9	80.8	-.1	-.1
1946	61.9	61.9	.0	.0
1947	81.2	81.1	-.1	-.1
1948	82.3	82.2	-.1	-.1
1949	81.0	81.0	.0	.0
1950	76.9	76.9	.0	.0
1951	55.7	55.6	-.2	-.1
1952	57.7	57.6	-.2	-.1
1953	55.8	55.7	-.2	-.1
1954	73.0	72.7	-.4	-.3
1955	72.7	72.7	.0	.0
1956	50.3	50.2	-.2	-.1
1957	79.7	79.7	.0	.0
1958	67.5	67.5	.0	.0
1959	71.5	71.5	.0	.0
1960	80.7	80.7	.0	.0
1961	80.9	80.9	.0	.0
1962	81.5	81.5	.0	.0
1963	71.8	71.6	-.3	-.2
1964	73.3	73.3	.0	.0
1965	53.0	52.9	-.2	-.1
1966	70.9	70.9	.0	.0
1967	61.3	61.2	-.2	-.1
1968	71.2	71.2	.0	.0
1969	57.4	57.3	-.2	-.1
1970	49.7	49.7	.0	.0
1971	61.4	61.4	.0	.0
1972	77.6	76.9	-.9	-.7
1973	60.8	60.7	-.2	-.1
1974	51.3	51.3	.0	.0
1975	78.4	78.5	.1	.1
1976	80.0	80.0	.0	.0
1977	83.4	83.3	-.1	-.1
1978	65.0	65.0	.0	.0
1979	73.3	73.4	.1	.1
1980	60.5	60.4	-.2	-.1
1981	75.7	75.7	.0	.0
1982	54.9	54.9	.0	.0
1983	51.9	51.9	.0	.0
1984	52.4	52.4	.0	.0
1985	77.2	77.2	.0	.0
1986	75.0	75.1	.1	.1
1987	79.9	79.9	.0	.0
1988	73.1	73.1	.0	.0
1989	82.6	82.6	.0	.0
1990	77.2	77.2	.0	.0
1991	83.6	83.7	.1	.1
Mean:	70.9	70.9	.0	.0
Median:	73.3	73.3	.0	.0
Min:	49.7	49.7	-.9	-.7
Max:	83.6	83.7	.3	.2

Alt-Cuml.>= .0		50
Rel Dif >= .0%	50	
.0% > Rel Dif >= -1.0%	20	
-1.0% > Rel Dif >= -2.0%	0	
-2.0% > Rel Dif >= -3.0%	0	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

X2 POSITION

February

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	66.7	66.6	-.1	-.1
1923	69.7	69.6	-.1	-.1
1924	77.4	77.4	.0	.0
1925	64.6	64.5	-.2	-.1
1926	67.6	67.7	.1	.1
1927	55.4	55.4	.0	.0
1928	71.2	71.2	.0	.0
1929	77.6	77.5	-.1	-.1
1930	74.4	74.5	.1	.1
1931	79.4	79.4	.0	.0
1932	69.8	69.7	-.1	-.1
1933	78.9	79.0	.1	.1
1934	74.1	73.8	-.4	-.3
1935	74.0	74.0	.0	.0
1936	58.1	58.1	.0	.0
1937	65.8	65.8	.0	.0
1938	53.5	53.5	.0	.0
1939	77.3	77.3	.0	.0
1940	60.7	60.7	.0	.0
1941	51.1	51.1	.0	.0
1942	49.8	49.8	.0	.0
1943	57.6	57.6	.0	.0
1944	72.1	72.0	-.1	-.1
1945	66.0	65.9	-.2	-.1
1946	65.6	65.6	.0	.0
1947	76.2	76.3	.1	.1
1948	77.6	77.5	-.1	-.1
1949	78.9	78.5	-.5	-.4
1950	68.8	68.9	.1	.1
1951	55.3	55.3	.0	.0
1952	54.5	54.5	.0	.0
1953	62.5	62.5	.0	.0
1954	62.4	62.3	-.2	-.1
1955	74.3	74.3	.0	.0
1956	51.1	51.1	.0	.0
1957	72.8	72.9	.1	.1
1958	51.9	51.9	.0	.0
1959	62.8	62.8	.0	.0
1960	71.2	71.2	.0	.0
1961	72.6	72.6	.0	.0
1962	65.7	65.7	.0	.0
1963	59.8	59.7	-.2	-.1
1964	74.0	74.0	.0	.0
1965	59.8	59.7	-.2	-.1
1966	69.0	69.0	.0	.0
1967	58.9	58.8	-.2	-.1
1968	61.7	61.6	-.2	-.1
1969	50.1	50.1	.0	.0
1970	51.0	51.0	.0	.0
1971	65.1	65.1	.0	.0
1972	73.2	73.0	-.3	-.2
1973	54.4	54.4	.0	.0
1974	58.0	57.9	-.2	-.1
1975	63.9	63.9	.0	.0
1976	78.4	78.4	.0	.0
1977	79.9	79.9	.0	.0
1978	60.9	61.0	.2	.1
1979	66.0	66.0	.0	.0
1980	51.4	51.3	-.2	-.1
1981	71.1	71.0	-.1	-.1
1982	51.7	51.7	.0	.0
1983	46.4	46.4	.0	.0
1984	57.4	57.4	.0	.0
1985	75.4	75.4	.0	.0
1986	52.3	52.3	.0	.0
1987	75.5	75.6	.1	.1
1988	74.5	74.5	.0	.0
1989	80.2	80.2	.0	.0
1990	75.9	75.8	-.1	-.1
1991	79.8	79.8	.0	.0
Mean:	65.9	65.9	.0	.0
Median:	66.0	65.9	.0	.0
Min:	46.4	46.4	-.5	-.4
Max:	80.2	80.2	.2	.1
Alt-Cuml.>= .0				50
Rel Dif >= .0%			50	
.0% > Rel Dif >= -1.0%			20	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

March

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	64.5	64.4	-.2	-.1
1923	73.4	73.2	-.3	-.2
1924	75.9	75.9	.0	.0
1925	65.0	65.0	.0	.0
1926	72.4	72.5	.1	.1
1927	59.0	59.0	.0	.0
1928	58.9	58.8	-.2	-.1
1929	76.0	76.0	.0	.0
1930	68.4	68.7	.4	.3
1931	76.6	76.6	.0	.0
1932	74.0	73.3	-.9	-.7
1933	76.8	76.8	.0	.0
1934	74.9	74.8	-.1	-.1
1935	69.5	69.5	.0	.0
1936	62.4	62.4	.0	.0
1937	60.6	60.6	.0	.0
1938	47.5	47.4	-.2	-.1
1939	75.7	75.7	.0	.0
1940	53.7	53.4	-.6	-.3
1941	51.2	51.2	.0	.0
1942	59.5	59.5	.0	.0
1943	53.9	53.8	-.2	-.1
1944	70.7	70.7	.0	.0
1945	65.6	65.6	.0	.0
1946	69.9	69.6	-.4	-.3
1947	73.2	73.3	.1	.1
1948	74.9	75.0	.1	.1
1949	67.5	67.4	-.1	-.1
1950	70.2	70.1	-.1	-.1
1951	61.3	61.3	.0	.0
1952	54.2	54.1	-.2	-.1
1953	67.4	67.4	.0	.0
1954	60.7	60.6	-.2	-.1
1955	74.9	74.9	.0	.0
1956	57.7	57.7	.0	.0
1957	65.1	65.0	-.2	-.1
1958	50.7	50.6	-.2	-.1
1959	67.9	67.9	.0	.0
1960	71.0	71.0	.0	.0
1961	73.0	73.1	.1	.1
1962	65.5	65.5	.0	.0
1963	63.6	63.6	.0	.0
1964	74.8	74.8	.0	.0
1965	66.2	66.2	.0	.0
1966	69.8	69.6	-.3	-.2
1967	57.1	57.0	-.2	-.1
1968	61.8	62.2	.6	.4
1969	53.1	53.1	.0	.0
1970	58.1	58.0	-.2	-.1
1971	63.1	63.0	-.2	-.1
1972	69.8	69.5	-.4	-.3
1973	56.0	56.0	.0	.0
1974	52.1	52.1	.0	.0
1975	56.1	56.0	-.2	-.1
1976	76.3	76.3	.0	.0
1977	77.9	77.9	.0	.0
1978	56.5	56.6	.2	.1
1979	65.1	64.9	-.3	-.2
1980	54.8	54.8	.0	.0
1981	69.7	69.6	-.1	-.1
1982	51.4	51.4	.0	.0
1983	41.7	41.7	.0	.0
1984	62.6	62.5	-.2	-.1
1985	73.7	73.7	.0	.0
1986	47.7	47.7	.0	.0
1987	71.7	71.7	.0	.0
1988	75.0	75.0	.0	.0
1989	68.2	67.8	-.6	-.4
1990	75.4	75.4	.0	.0
1991	70.1	70.1	.0	.0
Mean:	65.0	65.0	-.1	.0
Median:	65.6	65.6	.0	.0
Min:	41.7	41.7	-.9	-.7
Max:	77.9	77.9	.6	.4
Alt-Cuml.>= .0				45
Rel Dif >= .0%			45	
.0% > Rel Dif >= -1.0%			25	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

April

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	65.0	65.0	.0	.0
1923	68.7	68.6	-.1	-.1
1924	81.0	81.0	.0	.0
1925	66.5	66.4	-.2	-.1
1926	69.5	69.6	.1	.1
1927	59.2	59.2	.0	.0
1928	63.0	62.9	-.2	-.1
1929	78.6	78.6	.0	.0
1930	72.9	72.8	-.1	-.1
1931	79.2	79.2	.0	.0
1932	74.9	74.7	-.3	-.2
1933	76.2	76.2	.0	.0
1934	75.6	75.5	-.1	-.1
1935	61.9	61.9	.0	.0
1936	65.5	65.4	-.2	-.1
1937	63.7	63.7	.0	.0
1938	51.2	51.1	-.2	-.1
1939	75.8	75.8	.0	.0
1940	54.6	54.5	-.2	-.1
1941	52.4	52.4	.0	.0
1942	58.6	58.6	.0	.0
1943	60.2	60.1	-.2	-.1
1944	74.6	74.7	.1	.1
1945	69.0	69.1	.1	.1
1946	72.3	72.1	-.3	-.2
1947	74.2	74.2	.0	.0
1948	69.3	69.4	.1	.1
1949	71.8	71.8	.0	.0
1950	69.9	69.9	.0	.0
1951	68.0	67.9	-.1	-.1
1952	54.1	54.1	.0	.0
1953	69.5	69.4	-.1	-.1
1954	61.0	61.0	.0	.0
1955	75.9	75.9	.0	.0
1956	63.6	63.6	.0	.0
1957	68.9	68.9	.0	.0
1958	50.2	50.1	-.2	-.1
1959	74.8	74.8	.0	.0
1960	74.0	74.0	.0	.0
1961	74.9	74.9	.0	.0
1962	72.1	71.9	-.3	-.2
1963	55.6	55.6	.0	.0
1964	78.0	78.0	.0	.0
1965	62.4	62.3	-.2	-.1
1966	73.1	72.9	-.3	-.2
1967	56.5	56.5	.0	.0
1968	71.3	71.3	.0	.0
1969	54.8	54.8	.0	.0
1970	69.1	69.1	.0	.0
1971	67.0	67.0	.0	.0
1972	74.0	74.0	.0	.0
1973	64.3	64.3	.0	.0
1974	53.8	53.9	.2	.1
1975	61.4	61.6	.3	.2
1976	78.2	78.2	.0	.0
1977	81.0	81.0	.0	.0
1978	57.7	57.8	.2	.1
1979	68.0	67.8	-.3	-.2
1980	63.1	63.1	.0	.0
1981	71.0	70.8	-.3	-.2
1982	48.1	48.1	.0	.0
1983	47.7	47.7	.0	.0
1984	67.4	67.4	.0	.0
1985	74.6	74.6	.0	.0
1986	59.1	58.9	-.3	-.2
1987	74.2	74.2	.0	.0
1988	78.0	78.0	.0	.0
1989	68.5	68.2	-.4	-.3
1990	75.9	75.9	.0	.0
1991	72.1	72.2	.1	.1
Mean:	67.3	67.2	.0	.0
Median:	68.9	68.9	.0	.0
Min:	47.7	47.7	-.4	-.3
Max:	81.0	81.0	.3	.2
Alt-Cuml.>= .0				49
Rel Dif >= .0%			49	
.0% > Rel Dif >= -1.0%			21	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

May

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	61.6	61.5	-.2	-.1
1923	70.8	70.5	-.4	-.3
1924	82.9	82.8	-.1	-.1
1925	70.8	70.6	-.3	-.2
1926	74.0	74.0	.0	.0
1927	64.0	63.9	-.2	-.1
1928	70.2	70.2	.0	.0
1929	79.7	79.7	.0	.0
1930	75.0	75.0	.0	.0
1931	81.4	81.6	.2	.2
1932	75.4	75.3	-.1	-.1
1933	78.2	78.2	.0	.0
1934	80.9	80.9	.0	.0
1935	64.6	64.6	.0	.0
1936	69.3	69.3	.0	.0
1937	67.6	67.4	-.3	-.2
1938	52.9	52.9	.0	.0
1939	77.9	77.8	-.1	-.1
1940	65.0	64.9	-.2	-.1
1941	57.3	57.3	.0	.0
1942	61.8	61.7	-.2	-.1
1943	65.5	65.5	.0	.0
1944	76.2	76.2	.0	.0
1945	71.5	71.6	.1	.1
1946	72.9	72.9	.0	.0
1947	77.9	77.9	.0	.0
1948	66.9	66.9	.0	.0
1949	74.1	74.1	.0	.0
1950	71.5	71.5	.0	.0
1951	69.7	69.7	.0	.0
1952	54.4	54.4	.0	.0
1953	68.9	68.9	.0	.0
1954	67.1	67.1	.0	.0
1955	76.2	76.2	.0	.0
1956	62.3	62.3	.0	.0
1957	70.5	70.4	-.1	-.1
1958	55.3	55.3	.0	.0
1959	76.2	76.2	.0	.0
1960	75.7	75.7	.0	.0
1961	75.7	75.7	.0	.0
1962	74.2	74.1	-.1	-.1
1963	61.5	61.5	.0	.0
1964	78.3	78.3	.0	.0
1965	66.6	66.6	.0	.0
1966	74.2	74.1	-.1	-.1
1967	56.6	56.6	.0	.0
1968	74.5	74.5	.0	.0
1969	55.6	55.5	-.2	-.1
1970	71.8	71.8	.0	.0
1971	66.4	66.5	.2	.1
1972	75.0	75.0	.0	.0
1973	69.6	69.5	-.1	-.1
1974	62.2	62.4	.3	.2
1975	64.1	64.4	.5	.3
1976	79.7	79.7	.0	.0
1977	81.5	81.6	.1	.1
1978	63.2	63.1	-.2	-.1
1979	71.2	71.1	-.1	-.1
1980	66.5	66.5	.0	.0
1981	75.3	75.3	.0	.0
1982	55.1	55.1	.0	.0
1983	51.0	51.0	.0	.0
1984	70.4	70.4	.0	.0
1985	75.2	75.2	.0	.0
1986	65.8	65.5	-.5	-.3
1987	78.0	78.0	.0	.0
1988	79.8	79.8	.0	.0
1989	74.0	74.0	.0	.0
1990	78.0	78.0	.0	.0
1991	78.2	78.5	.4	.3
Mean:	70.0	70.0	.0	.0
Median:	70.8	70.6	.0	.0
Min:	51.0	51.0	-.5	-.3
Max:	82.9	82.8	.5	.3
Alt-Cuml.>= .0				52
Rel Dif >= .0%			52	
.0% > Rel Dif >= -1.0%			18	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

June

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	63.3	63.2	-.2	-.1
1923	75.2	75.2	.0	.0
1924	85.8	85.7	-.1	-.1
1925	75.0	75.0	.0	.0
1926	79.6	79.6	.0	.0
1927	72.7	72.6	-.1	-.1
1928	76.7	76.7	.0	.0
1929	80.3	80.3	.0	.0
1930	79.9	79.9	.0	.0
1931	85.3	85.4	.1	.1
1932	75.4	75.4	.0	.0
1933	80.5	80.5	.0	.0
1934	81.0	81.0	.0	.0
1935	73.0	73.0	.0	.0
1936	75.0	75.0	.0	.0
1937	74.0	74.0	.0	.0
1938	59.2	59.3	.2	.1
1939	80.9	80.9	.0	.0
1940	74.9	74.9	.0	.0
1941	67.5	67.4	-.1	-.1
1942	66.9	66.8	-.1	-.1
1943	75.2	75.2	.0	.0
1944	76.6	76.6	.0	.0
1945	74.8	74.8	.0	.0
1946	75.1	75.1	.0	.0
1947	80.9	80.9	.0	.0
1948	71.7	71.7	.0	.0
1949	76.1	76.1	.0	.0
1950	75.0	75.0	.0	.0
1951	76.6	76.6	.0	.0
1952	60.3	60.3	.0	.0
1953	71.6	71.7	.1	.1
1954	75.7	75.7	.0	.0
1955	77.0	77.0	.0	.0
1956	69.4	69.2	-.3	-.2
1957	74.7	74.7	.0	.0
1958	60.7	60.7	.0	.0
1959	79.3	79.3	.0	.0
1960	80.2	80.1	-.1	-.1
1961	80.2	80.2	.0	.0
1962	77.4	77.4	.0	.0
1963	72.3	72.3	.0	.0
1964	80.4	80.4	.0	.0
1965	74.1	74.1	.0	.0
1966	78.8	78.8	.0	.0
1967	59.5	59.5	.0	.0
1968	78.8	78.9	.1	.1
1969	62.7	62.6	-.2	-.1
1970	77.2	77.2	.0	.0
1971	72.2	72.1	-.1	-.1
1972	79.1	79.0	-.1	-.1
1973	74.0	74.0	.0	.0
1974	69.8	69.8	.0	.0
1975	68.2	68.1	-.1	-.1
1976	81.0	81.0	.0	.0
1977	85.3	85.3	.0	.0
1978	72.9	72.6	-.4	-.3
1979	74.2	74.2	.0	.0
1980	73.2	73.3	.1	.1
1981	80.0	80.0	.0	.0
1982	64.8	64.7	-.2	-.1
1983	53.4	53.4	.0	.0
1984	75.3	75.3	.0	.0
1985	80.0	80.0	.0	.0
1986	73.9	73.7	-.3	-.2
1987	80.9	80.9	.0	.0
1988	81.0	81.0	.0	.0
1989	79.0	79.0	.0	.0
1990	81.0	81.0	.0	.0
1991	80.5	80.5	.0	.0
Mean:	74.8	74.8	.0	.0
Median:	75.2	75.2	.0	.0
Min:	53.4	53.4	-.4	-.3
Max:	85.8	85.7	.2	.1

Alt-Cuml.>= .0		56
Rel Dif >= .0%	56	
.0% > Rel Dif >= -1.0%	14	
-1.0% > Rel Dif >= -2.0%	0	
-2.0% > Rel Dif >= -3.0%	0	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

X2 POSITION

July

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	74.1	74.0	-.1	-.1
1923	79.5	79.5	.0	.0
1924	86.7	86.7	.0	.0
1925	81.5	81.5	.0	.0
1926	83.0	83.0	.0	.0
1927	76.3	76.2	-.1	-.1
1928	78.5	78.5	.0	.0
1929	84.9	84.9	.0	.0
1930	83.1	83.1	.0	.0
1931	86.6	86.6	.0	.0
1932	81.6	81.6	.0	.0
1933	85.0	85.0	.0	.0
1934	85.2	85.2	.0	.0
1935	78.8	78.8	.0	.0
1936	79.5	79.5	.0	.0
1937	79.2	79.2	.0	.0
1938	72.7	72.7	.0	.0
1939	83.4	83.4	.0	.0
1940	77.1	77.1	.0	.0
1941	75.4	75.4	.0	.0
1942	75.2	75.2	.0	.0
1943	77.6	77.6	.0	.0
1944	82.0	82.0	.0	.0
1945	78.9	78.6	-.4	-.3
1946	78.6	78.8	.3	.2
1947	83.4	83.4	.0	.0
1948	77.9	77.7	-.3	-.2
1949	81.9	81.9	.0	.0
1950	78.8	78.7	-.1	-.1
1951	78.0	78.0	.0	.0
1952	71.8	71.6	-.3	-.2
1953	76.7	76.7	.0	.0
1954	77.6	77.6	.0	.0
1955	82.1	82.1	.0	.0
1956	76.1	76.0	-.1	-.1
1957	77.8	77.8	.0	.0
1958	73.2	73.2	.0	.0
1959	80.9	80.9	.0	.0
1960	83.2	83.2	.0	.0
1961	83.2	83.2	.0	.0
1962	80.3	80.3	.0	.0
1963	76.6	76.6	.0	.0
1964	83.3	83.3	.0	.0
1965	77.0	77.0	.0	.0
1966	80.7	80.7	.0	.0
1967	68.9	68.7	-.3	-.2
1968	80.7	80.7	.0	.0
1969	73.8	73.7	-.1	-.1
1970	78.5	78.5	.0	.0
1971	75.9	75.9	.0	.0
1972	80.8	80.8	.0	.0
1973	77.6	77.6	.0	.0
1974	75.3	75.2	-.1	-.1
1975	75.7	75.6	-.1	-.1
1976	85.2	85.2	.0	.0
1977	86.6	86.6	.0	.0
1978	77.2	77.1	-.1	-.1
1979	79.0	79.0	.0	.0
1980	77.3	77.3	.0	.0
1981	83.1	83.1	.0	.0
1982	74.6	74.5	-.1	-.1
1983	62.2	62.1	-.2	-.1
1984	77.3	77.3	.0	.0
1985	83.1	83.1	.0	.0
1986	77.5	77.0	-.6	-.5
1987	83.4	83.4	.0	.0
1988	85.2	85.2	.0	.0
1989	82.8	82.8	.0	.0
1990	85.2	85.2	.0	.0
1991	85.0	85.0	.0	.0
Mean:	79.4	79.4	.0	.0
Median:	78.9	78.8	.0	.0
Min:	62.2	62.1	-.6	-.5
Max:	86.7	86.7	.3	.2
Alt-Cuml.>= .0				55
Rel Dif >= .0%			55	
.0% > Rel Dif >= -1.0%			15	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

X2 POSITION

August

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	77.9	77.9	.0	.0
1923	80.5	80.5	.0	.0
1924	88.3	88.3	.0	.0
1925	85.3	84.7	-.7	-.6
1926	86.2	86.2	.0	.0
1927	78.6	78.6	.0	.0
1928	79.1	79.1	.0	.0
1929	87.7	87.7	.0	.0
1930	85.3	85.8	.6	.5
1931	88.2	88.2	.0	.0
1932	85.7	85.6	-.1	-.1
1933	87.7	87.7	.0	.0
1934	87.8	87.8	.0	.0
1935	81.1	81.1	.0	.0
1936	83.2	83.1	-.1	-.1
1937	83.2	82.5	-.8	-.7
1938	78.0	78.1	.1	.1
1939	86.1	86.2	.1	.1
1940	79.3	79.3	.0	.0
1941	78.2	78.3	.1	.1
1942	77.9	77.9	.0	.0
1943	79.0	79.0	.0	.0
1944	85.9	85.9	.0	.0
1945	82.3	82.1	-.2	-.2
1946	82.4	82.5	.1	.1
1947	86.4	86.4	.0	.0
1948	80.1	80.3	.2	.2
1949	84.4	84.4	.0	.0
1950	81.6	81.6	.0	.0
1951	79.3	79.3	.0	.0
1952	77.3	77.2	-.1	-.1
1953	78.6	78.6	.0	.0
1954	79.2	79.2	.0	.0
1955	85.9	85.9	.0	.0
1956	78.2	78.1	-.1	-.1
1957	79.1	79.1	.0	.0
1958	77.8	77.7	-.1	-.1
1959	83.1	83.1	.0	.0
1960	85.3	85.0	-.4	-.3
1961	85.5	85.5	.0	.0
1962	82.9	82.9	.0	.0
1963	78.4	78.4	.0	.0
1964	86.1	86.1	.0	.0
1965	78.6	78.6	.0	.0
1966	83.2	83.2	.0	.0
1967	76.7	76.6	-.1	-.1
1968	82.6	82.6	.0	.0
1969	78.5	78.3	-.3	-.2
1970	79.1	79.1	.0	.0
1971	78.5	78.5	.0	.0
1972	80.7	80.6	-.1	-.1
1973	78.9	78.9	.0	.0
1974	77.9	77.7	-.3	-.2
1975	78.2	78.0	-.3	-.2
1976	84.3	83.9	-.5	-.4
1977	88.2	88.2	.0	.0
1978	78.8	78.8	.0	.0
1979	82.0	81.9	-.1	-.1
1980	78.9	78.9	.0	.0
1981	85.3	84.3	-1.2	-1.0
1982	78.1	78.2	.1	.1
1983	69.3	69.3	.0	.0
1984	79.1	79.1	.0	.0
1985	85.3	85.2	-.1	-.1
1986	78.8	79.0	.3	.2
1987	86.4	86.4	.0	.0
1988	87.2	87.7	.6	.5
1989	82.1	82.2	.1	.1
1990	87.8	87.8	.0	.0
1991	87.7	87.7	.0	.0
Mean:	81.9	81.9	.0	.0
Median:	81.6	81.6	.0	.0
Min:	69.3	69.3	-1.2	-1.0
Max:	88.3	88.3	.6	.5

Alt-Cuml.>= .0		52
Rel Dif >= .0%	52	
.0% > Rel Dif >= -1.0%	17	
-1.0% > Rel Dif >= -2.0%	1	
-2.0% > Rel Dif >= -3.0%	0	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	0	

X2 POSITION

September

Water Year	Cuml. Location (km)	No Proj-constrained Location (cfs)	Rel Change (%)	Abs Diff (km)
1922	81.6	81.6	.0	.0
1923	82.4	82.4	.0	.0
1924	89.1	89.0	-.1	-.1
1925	84.8	84.9	.1	.1
1926	86.6	86.5	-.1	-.1
1927	81.7	81.7	.0	.0
1928	82.5	82.5	.0	.0
1929	88.8	88.5	-.3	-.3
1930	85.3	85.5	.2	.2
1931	88.8	88.9	.1	.1
1932	86.5	86.0	-.6	-.5
1933	88.7	88.8	.1	.1
1934	88.5	88.7	.2	.2
1935	82.8	82.3	-.6	-.5
1936	83.0	83.0	.0	.0
1937	83.4	83.3	-.1	-.1
1938	81.5	80.6	-1.1	-.9
1939	85.8	86.0	.2	.2
1940	81.9	81.9	.0	.0
1941	82.5	82.4	-.1	-.1
1942	82.2	82.4	.2	.2
1943	81.9	81.9	.0	.0
1944	86.2	86.2	.0	.0
1945	82.8	82.8	.0	.0
1946	82.8	82.8	.0	.0
1947	86.4	86.5	.1	.1
1948	82.3	82.4	.1	.1
1949	85.5	85.4	-.1	-.1
1950	83.0	83.0	.0	.0
1951	82.2	82.2	.0	.0
1952	78.4	78.2	-.3	-.2
1953	81.6	81.6	.0	.0
1954	81.8	81.8	.0	.0
1955	86.2	86.2	.0	.0
1956	81.6	81.6	.0	.0
1957	82.2	82.2	.0	.0
1958	76.8	76.6	-.3	-.2
1959	82.6	82.6	.0	.0
1960	85.8	85.7	-.1	-.1
1961	86.3	86.2	-.1	-.1
1962	83.1	83.1	.0	.0
1963	81.7	81.7	.0	.0
1964	85.5	85.5	.0	.0
1965	82.1	82.1	.0	.0
1966	84.0	84.0	.0	.0
1967	77.6	77.4	-.3	-.2
1968	82.7	82.7	.0	.0
1969	76.9	76.8	-.1	-.1
1970	81.8	81.8	.0	.0
1971	81.8	81.8	.0	.0
1972	82.6	82.6	.0	.0
1973	82.2	82.2	.0	.0
1974	77.3	77.1	-.3	-.2
1975	78.7	78.3	-.5	-.4
1976	85.9	85.5	-.5	-.4
1977	88.5	88.5	.0	.0
1978	82.2	82.2	.0	.0
1979	82.6	82.6	.0	.0
1980	83.5	83.5	.0	.0
1981	84.4	84.2	-.2	-.2
1982	76.1	75.6	-.7	-.5
1983	68.2	68.2	.0	.0
1984	82.0	82.0	.0	.0
1985	84.9	85.0	.1	.1
1986	82.0	82.1	.1	.1
1987	88.0	87.9	-.1	-.1
1988	88.6	89.5	1.0	.9
1989	83.1	83.2	.1	.1
1990	88.9	89.1	.2	.2
1991	88.7	88.7	.0	.0
Mean:	83.3	83.3	-.1	.0
Median:	82.7	82.6	.0	.0
Min:	68.2	68.2	-1.1	-.9
Max:	89.1	89.5	1.0	.9
Alt-Cuml.>= .0				49
Rel Dif >= .0%			49	
.0% > Rel Dif >= -1.0%			20	
-1.0% > Rel Dif >= -2.0%			1	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

RETURN TO TABLE OF CONTENTS

Section 26

BANKS PLUS TRACY EXPORTS

BANKS PLUS TRACY EXPORTS

October

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	484.4	482.7	-.4	-1.7
1923	676.4	676.4	.0	.0
1924	533.4	521.0	-2.3	-12.4
1925	309.5	308.4	-.4	-1.1
1926	511.3	508.3	-.6	-3.0
1927	359.0	359.2	.1	.2
1928	585.1	583.1	-.3	-2.0
1929	432.0	439.2	1.7	7.2
1930	236.2	236.9	.3	.7
1931	318.8	332.4	4.3	13.6
1932	161.9	165.7	2.3	3.8
1933	313.1	308.1	-1.6	-5.0
1934	260.5	260.7	.1	.2
1935	92.8	109.7	18.2	16.9
1936	468.9	465.1	-.8	-3.8
1937	456.6	456.6	.0	.0
1938	506.3	495.4	-2.2	-10.9
1939	677.4	677.4	.0	.0
1940	232.1	241.5	4.0	9.4
1941	540.5	547.9	1.4	7.4
1942	677.4	677.4	.0	.0
1943	676.8	676.8	.0	.0
1944	593.7	601.6	1.3	7.9
1945	376.4	391.6	4.0	15.2
1946	562.9	571.3	1.5	8.4
1947	505.0	532.4	5.4	27.4
1948	421.3	429.9	2.0	8.6
1949	523.0	521.0	-.4	-2.0
1950	377.2	387.8	2.8	10.6
1951	563.3	561.1	-.4	-2.2
1952	609.9	607.8	-.3	-2.1
1953	677.4	677.4	.0	.0
1954	662.0	659.5	-.4	-2.5
1955	473.0	482.8	2.1	9.8
1956	361.6	376.9	4.2	15.3
1957	677.4	677.4	.0	.0
1958	675.8	675.8	.0	.0
1959	677.4	677.4	.0	.0
1960	349.3	349.6	.1	.3
1961	376.4	375.8	-.2	-.6
1962	336.7	337.0	.1	.3
1963	675.8	675.8	.0	.0
1964	676.4	676.4	.0	.0
1965	351.7	365.0	3.8	13.3
1966	579.8	576.6	-.6	-3.2
1967	376.5	374.6	-.5	-1.9
1968	677.4	677.4	.0	.0
1969	459.9	466.2	1.4	6.3
1970	677.4	677.4	.0	.0
1971	555.6	555.5	.0	-.1
1972	647.2	644.8	-.4	-2.4
1973	492.0	492.1	.0	.1
1974	646.4	655.0	1.3	8.6
1975	676.4	676.8	.1	.4
1976	676.2	676.2	.0	.0
1977	302.8	309.9	2.3	7.1
1978	124.6	128.8	3.4	4.2
1979	513.6	511.7	-.4	-1.9
1980	580.1	578.1	-.3	-2.0
1981	626.2	624.2	-.3	-2.0
1982	467.4	467.5	.0	.1
1983	677.4	677.4	.0	.0
1984	677.1	677.1	.0	.0
1985	641.7	652.6	1.7	10.9
1986	341.6	357.0	4.5	15.4
1987	581.1	588.8	1.3	7.7
1988	80.9	79.2	-2.1	-1.7
1989	176.5	167.2	-5.3	-9.3
1990	464.3	469.4	1.1	5.1
1991	87.7	123.5	40.8	35.8
Mean:	483.2	486.1	1.4	2.9
Median:	506.3	508.3	.0	.0
Min:	80.9	79.2	-5.3	-12.4
Max:	677.4	677.4	40.8	35.8
Alt-Cuml.>= .0				48
Rel Dif >= .0%			49	
.0% > Rel Dif >= -1.0%			16	
-1.0% > Rel Dif >= -2.0%			1	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			0	

BANKS PLUS TRACY EXPORTS

November

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	487.6	489.3	.3	1.7
1923	654.5	654.5	.0	.0
1924	438.1	427.9	-2.3	-10.2
1925	249.7	239.9	-3.9	-9.8
1926	397.4	395.5	-.5	-1.9
1927	650.0	650.0	.0	.0
1928	654.8	654.8	.0	.0
1929	477.0	485.8	1.8	8.8
1930	175.6	176.9	.7	1.3
1931	356.8	365.2	2.4	8.4
1932	185.2	185.8	.3	.6
1933	302.9	297.2	-1.9	-5.7
1934	186.0	185.8	-.1	-.2
1935	319.8	327.9	2.5	8.1
1936	470.1	466.6	-.7	-3.5
1937	445.7	442.5	-.7	-3.2
1938	653.0	653.3	.0	.3
1939	655.4	655.4	.0	.0
1940	195.0	211.4	8.4	16.4
1941	504.7	513.1	1.7	8.4
1942	655.4	655.4	.0	.0
1943	654.8	654.8	.0	.0
1944	493.4	501.5	1.6	8.1
1945	650.3	650.3	.0	.0
1946	654.5	654.8	.0	.3
1947	482.4	502.0	4.1	19.6
1948	403.7	413.0	2.3	9.3
1949	472.8	470.4	-.5	-2.4
1950	393.9	396.5	.7	2.6
1951	653.6	653.6	.0	.0
1952	645.1	642.4	-.4	-2.7
1953	602.7	591.9	-1.8	-10.8
1954	654.3	644.3	-1.5	-10.0
1955	612.5	623.9	1.9	11.4
1956	439.3	449.5	2.3	10.2
1957	564.1	561.5	-.5	-2.6
1958	653.9	653.9	.0	.0
1959	584.6	582.0	-.4	-2.6
1960	399.3	399.3	.0	.0
1961	507.8	526.2	3.6	18.4
1962	368.5	368.1	-.1	-.4
1963	640.5	643.4	.5	2.9
1964	654.5	654.5	.0	.0
1965	614.6	626.4	1.9	11.8
1966	655.1	655.1	.0	.0
1967	602.0	601.8	.0	-.2
1968	590.0	587.2	-.5	-2.8
1969	521.9	526.8	.9	4.9
1970	655.4	655.4	.0	.0
1971	654.5	654.5	.0	.0
1972	474.6	472.0	-.5	-2.6
1973	653.9	653.9	.0	.0
1974	654.3	654.3	.0	.0
1975	562.8	560.1	-.5	-2.7
1976	654.3	654.3	.0	.0
1977	227.4	229.0	.7	1.6
1978	218.7	222.2	1.6	3.5
1979	535.1	532.6	-.5	-2.5
1980	574.1	572.0	-.4	-2.1
1981	449.9	447.6	-.5	-2.3
1982	650.9	651.2	.0	.3
1983	655.4	655.4	.0	.0
1984	465.3	465.3	.0	.0
1985	654.8	654.8	.0	.0
1986	414.2	441.0	6.5	26.8
1987	399.1	407.0	2.0	7.9
1988	154.1	150.8	-2.1	-3.3
1989	342.4	342.1	-.1	-.3
1990	363.4	348.4	-4.1	-15.0
1991	131.9	139.3	5.6	7.4
Mean:	497.6	499.0	.4	1.4
Median:	507.8	526.2	.0	.0
Min:	131.9	139.3	-4.1	-15.0
Max:	655.4	655.4	8.4	26.8
Alt-Cuml.>= .0				46
Rel Dif >= .0%			47	
.0% > Rel Dif >= -1.0%			16	
-1.0% > Rel Dif >= -2.0%			3	
-2.0% > Rel Dif >= -3.0%			2	
-3.0% > Rel Dif >= -5.0%			2	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			0	

BANKS PLUS TRACY EXPORTS

December

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	705.5	705.5	.0	.0
1923	729.5	729.5	.0	.0
1924	574.4	562.9	-2.0	-11.5
1925	453.4	442.8	-2.3	-10.6
1926	531.1	531.8	.1	.7
1927	693.1	693.1	.0	.0
1928	699.3	699.3	.0	.0
1929	690.2	690.2	.0	.0
1930	631.9	631.4	-.1	-.5
1931	475.0	484.9	2.1	9.9
1932	704.3	704.3	.0	.0
1933	466.0	446.4	-4.2	-19.6
1934	515.6	515.5	.0	-.1
1935	301.7	303.9	.7	2.2
1936	611.2	608.9	-.4	-2.3
1937	621.3	626.8	.9	5.5
1938	731.7	732.2	.1	.5
1939	689.3	686.6	-.4	-2.7
1940	398.2	395.1	-.8	-3.1
1941	707.5	707.9	.1	.4
1942	733.8	733.8	.0	.0
1943	709.7	709.7	.0	.0
1944	698.3	698.3	.0	.0
1945	692.5	692.5	.0	.0
1946	733.5	733.6	.0	.1
1947	698.7	698.3	-.1	-.4
1948	357.8	370.7	3.6	12.9
1949	692.2	692.3	.0	.1
1950	509.3	514.2	1.0	4.9
1951	732.5	732.5	.0	.0
1952	706.2	706.2	.0	.0
1953	482.5	482.5	.0	.0
1954	638.8	651.3	2.0	12.5
1955	692.9	692.9	.0	.0
1956	729.1	729.1	.0	.0
1957	696.2	696.2	.0	.0
1958	695.0	695.0	.0	.0
1959	613.9	610.8	-.5	-3.1
1960	625.8	625.8	.0	.0
1961	687.4	687.7	.0	.3
1962	687.2	687.2	.0	.0
1963	691.2	691.2	.0	.0
1964	642.9	642.9	.0	.0
1965	716.2	716.2	.0	.0
1966	726.8	726.8	.0	.0
1967	703.8	703.8	.0	.0
1968	697.1	697.1	.0	.0
1969	698.0	698.0	.0	.0
1970	715.8	715.8	.0	.0
1971	702.6	702.6	.0	.0
1972	694.3	694.3	.0	.0
1973	692.6	692.6	.0	.0
1974	706.7	706.7	.0	.0
1975	697.5	697.6	.0	.1
1976	678.2	686.3	1.2	8.1
1977	302.1	315.8	4.5	13.7
1978	561.9	565.6	.7	3.7
1979	695.7	695.7	.0	.0
1980	695.4	695.4	.0	.0
1981	695.8	695.8	.0	.0
1982	693.3	693.6	.0	.3
1983	733.8	733.8	.0	.0
1984	360.0	360.0	.0	.0
1985	697.4	697.4	.0	.0
1986	690.4	690.4	.0	.0
1987	695.1	695.1	.0	.0
1988	663.2	663.3	.0	.1
1989	353.9	354.6	.2	.7
1990	511.7	497.5	-2.8	-14.2
1991	326.6	308.6	-5.5	-18.0
Mean:	631.2	631.1	.0	-.1
Median:	692.6	692.6	.0	.0
Min:	301.7	303.9	-5.5	-19.6
Max:	733.8	733.8	4.5	13.7
Alt-Cuml.>= .0				58
Rel Dif >= .0%			59	
.0% > Rel Dif >= -1.0%			6	
-1.0% > Rel Dif >= -2.0%			1	
-2.0% > Rel Dif >= -3.0%			2	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			0	

BANKS PLUS TRACY EXPORTS

January

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	736.7	736.7	.0	.0
1923	789.9	789.9	.0	.0
1924	709.1	709.6	.1	.5
1925	497.8	512.0	2.9	14.2
1926	701.2	701.2	.0	.0
1927	605.2	606.2	.2	1.0
1928	722.0	722.0	.0	.0
1929	705.6	705.6	.0	.0
1930	698.5	698.5	.0	.0
1931	696.1	696.1	.0	.0
1932	744.4	744.4	.0	.0
1933	706.8	706.8	.0	.0
1934	674.7	674.7	.0	.0
1935	734.5	734.5	.0	.0
1936	715.2	715.8	.1	.6
1937	729.2	729.2	.0	.0
1938	751.2	752.5	.2	1.3
1939	682.1	692.1	1.5	10.0
1940	759.9	759.9	.0	.0
1941	789.2	789.5	.0	.3
1942	786.6	778.4	-1.0	-8.2
1943	790.0	790.0	.0	.0
1944	719.4	719.4	.0	.0
1945	663.6	662.8	-.1	-.8
1946	774.3	774.4	.0	.1
1947	719.3	719.1	.0	-.2
1948	648.4	647.4	-.2	-1.0
1949	704.6	704.7	.0	.1
1950	710.1	710.5	.1	.4
1951	789.6	789.6	.0	.0
1952	789.7	789.7	.0	.0
1953	471.3	471.3	.0	.0
1954	712.6	712.6	.0	.0
1955	715.1	715.1	.0	.0
1956	785.8	785.8	.0	.0
1957	714.1	714.1	.0	.0
1958	718.4	718.4	.0	.0
1959	715.0	715.0	.0	.0
1960	705.9	705.9	.0	.0
1961	638.8	638.2	-.1	-.6
1962	526.5	526.0	-.1	-.5
1963	715.6	715.6	.0	.0
1964	711.9	711.9	.0	.0
1965	784.3	784.3	.0	.0
1966	773.1	773.1	.0	.0
1967	739.3	739.3	.0	.0
1968	677.8	677.7	.0	-.1
1969	789.8	789.8	.0	.0
1970	554.6	524.1	-5.5	-30.5
1971	738.2	738.2	.0	.0
1972	712.2	712.2	.0	.0
1973	720.7	720.7	.0	.0
1974	789.8	789.8	.0	.0
1975	717.9	718.0	.0	.1
1976	650.5	647.5	-.5	-3.0
1977	436.6	443.1	1.5	6.5
1978	741.3	741.3	.0	.0
1979	775.2	775.2	.0	.0
1980	789.5	789.5	.0	.0
1981	720.9	720.9	.0	.0
1982	785.8	786.2	.1	.4
1983	790.2	790.2	.0	.0
1984	292.8	292.8	.0	.0
1985	714.6	714.6	.0	.0
1986	707.6	707.6	.0	.0
1987	712.9	712.9	.0	.0
1988	697.7	697.7	.0	.0
1989	548.1	560.1	2.2	12.0
1990	699.3	699.8	.1	.5
1991	372.3	380.1	2.1	7.8
Mean:	697.3	697.4	.1	.2
Median:	715.0	715.0	.0	.0
Min:	292.8	292.8	-5.5	-30.5
Max:	790.2	790.2	2.9	14.2
Alt-Cuml.>= .0				61
Rel Dif >= .0%			63	
.0% > Rel Dif >= -1.0%			6	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			0	

BANKS PLUS TRACY EXPORTS

February

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	715.8	715.8	.0	.0
1923	506.0	507.3	.3	1.3
1924	523.4	525.8	.5	2.4
1925	452.9	425.1	-6.1	-27.8
1926	648.3	648.3	.0	.0
1927	466.1	464.0	-.5	-2.1
1928	660.7	660.7	.0	.0
1929	480.0	482.5	.5	2.5
1930	466.6	466.4	.0	-.2
1931	395.9	395.1	-.2	-.8
1932	347.6	342.0	-1.6	-5.6
1933	421.6	420.2	-.3	-1.4
1934	221.5	202.2	-8.7	-19.3
1935	363.6	363.7	.0	.1
1936	714.1	714.3	.0	.2
1937	713.9	713.9	.0	.0
1938	557.9	576.9	3.4	19.0
1939	494.7	493.2	-.3	-1.5
1940	710.2	710.2	.0	.0
1941	705.8	714.5	1.2	8.7
1942	464.5	464.5	.0	.0
1943	702.3	702.3	.0	.0
1944	671.6	671.6	.0	.0
1945	626.6	614.5	-1.9	-12.1
1946	631.0	624.6	-1.0	-6.4
1947	586.9	579.1	-1.3	-7.8
1948	359.2	359.2	.0	.0
1949	414.9	434.0	4.6	19.1
1950	664.0	664.1	.0	.1
1951	672.3	668.2	-.6	-4.1
1952	654.0	658.8	.7	4.8
1953	466.8	466.8	.0	.0
1954	656.6	656.6	.0	.0
1955	433.5	433.0	-.1	-.5
1956	566.5	542.7	-4.2	-23.8
1957	671.1	671.1	.0	.0
1958	639.2	639.2	.0	.0
1959	633.6	615.2	-2.9	-18.4
1960	654.8	654.8	.0	.0
1961	638.2	638.7	.1	.5
1962	713.4	713.4	.0	.0
1963	657.2	654.3	-.4	-2.9
1964	387.3	386.1	-.3	-1.2
1965	710.2	701.5	-1.2	-8.7
1966	637.1	635.8	-.2	-1.3
1967	709.8	709.8	.0	.0
1968	589.4	589.4	.0	.0
1969	715.1	715.1	.0	.0
1970	433.6	433.6	.0	.0
1971	688.9	688.9	.0	.0
1972	623.0	622.9	.0	-.1
1973	714.9	714.9	.0	.0
1974	619.1	610.4	-1.4	-8.7
1975	715.2	715.2	.0	.0
1976	449.5	447.8	-.4	-1.7
1977	430.1	430.2	.0	.1
1978	580.5	579.7	-.1	-.8
1979	715.8	715.8	.0	.0
1980	714.5	714.5	.0	.0
1981	609.8	616.4	1.1	6.6
1982	655.8	678.2	3.4	22.4
1983	596.6	596.5	.0	-.1
1984	406.0	406.0	.0	.0
1985	564.9	564.4	-.1	-.5
1986	710.2	710.2	.0	.0
1987	601.2	593.0	-1.4	-8.2
1988	216.6	216.3	-.1	-.3
1989	349.5	342.1	-2.1	-7.4
1990	419.5	423.7	1.0	4.2
1991	419.1	437.0	4.3	17.9
Mean:	567.5	566.6	-.2	-.9
Median:	609.8	610.4	.0	.0
Min:	216.6	202.2	-8.7	-27.8
Max:	715.8	715.8	4.6	22.4
Alt-Cuml.>= .0				42
Rel Dif >= .0%			45	
.0% > Rel Dif >= -1.0%			14	
-1.0% > Rel Dif >= -2.0%			6	
-2.0% > Rel Dif >= -3.0%			2	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			2	

BANKS PLUS TRACY EXPORTS

March

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	735.5	735.5	.0	.0
1923	418.6	429.4	2.6	10.8
1924	108.5	95.2	-12.3	-13.3
1925	17.0	17.0	.0	.0
1926	439.8	434.2	-1.3	-5.6
1927	626.0	626.0	.0	.0
1928	720.3	720.3	.0	.0
1929	208.3	207.3	-.5	-1.0
1930	488.6	527.8	8.0	39.2
1931	226.1	226.5	.2	.4
1932	369.5	310.4	-16.0	-59.1
1933	373.6	373.3	-.1	-.3
1934	95.2	107.6	13.0	12.4
1935	719.5	718.3	-.2	-1.2
1936	734.1	734.1	.0	.0
1937	640.1	645.6	.9	5.5
1938	583.5	583.5	.0	.0
1939	405.8	405.5	-.1	-.3
1940	734.5	734.7	.0	.2
1941	685.5	711.4	3.8	25.9
1942	635.3	635.3	.0	.0
1943	657.7	657.7	.0	.0
1944	633.9	633.6	.0	-.3
1945	567.1	572.9	1.0	5.8
1946	529.2	546.2	3.2	17.0
1947	525.1	524.7	-.1	-.4
1948	450.6	444.6	-1.3	-6.0
1949	705.6	705.8	.0	.2
1950	575.0	584.7	1.7	9.7
1951	543.8	543.8	.0	.0
1952	533.8	533.8	.0	.0
1953	624.6	623.4	-.2	-1.2
1954	707.5	707.5	.0	.0
1955	410.4	410.3	.0	-.1
1956	581.9	581.9	.0	.0
1957	710.5	710.5	.0	.0
1958	642.2	642.2	.0	.0
1959	471.4	472.6	.3	1.2
1960	578.4	582.9	.8	4.5
1961	459.9	459.8	.0	-.1
1962	725.8	725.8	.0	.0
1963	690.3	690.3	.0	.0
1964	414.8	414.8	.0	.0
1965	642.4	641.1	-.2	-1.3
1966	615.5	619.9	.7	4.4
1967	709.1	715.7	.9	6.6
1968	456.9	456.9	.0	.0
1969	736.0	736.0	.0	.0
1970	576.5	576.5	.0	.0
1971	702.3	702.3	.0	.0
1972	694.9	694.9	.0	.0
1973	651.5	651.5	.0	.0
1974	653.8	654.4	.1	.6
1975	697.7	655.5	-6.0	-42.2
1976	399.1	399.9	.2	.8
1977	244.0	275.5	12.9	31.5
1978	619.3	619.3	.0	.0
1979	734.7	734.7	.0	.0
1980	657.3	657.3	.0	.0
1981	646.1	651.7	.9	5.6
1982	669.2	669.3	.0	.1
1983	410.0	410.0	.0	.0
1984	587.6	587.6	.0	.0
1985	458.2	457.8	-.1	-.4
1986	652.2	633.5	-2.9	-18.7
1987	610.0	612.7	.4	2.7
1988	11.6	11.1	-4.3	-.5
1989	694.0	694.2	.0	.2
1990	346.4	377.3	8.9	30.9
1991	697.1	697.1	.0	.0
Mean:	546.8	547.7	.2	.9
Median:	610.0	612.7	.0	.0
Min:	11.6	11.1	-16.0	-59.1
Max:	736.0	736.0	13.0	39.2
Alt-Cuml.>= .0				52
Rel Dif >= .0%			55	
.0% > Rel Dif >= -1.0%			8	
-1.0% > Rel Dif >= -2.0%			2	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			2	

BANKS PLUS TRACY EXPORTS

April

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	408.4	408.4	.0	.0
1923	393.0	395.9	.7	2.9
1924	40.1	45.4	13.2	5.3
1925	345.1	347.4	.7	2.3
1926	305.7	303.5	-.7	-2.2
1927	360.8	360.8	.0	.0
1928	408.4	408.4	.0	.0
1929	59.3	60.4	1.9	1.1
1930	196.9	199.3	1.2	2.4
1931	9.3	9.3	.0	.0
1932	98.7	95.8	-2.9	-2.9
1933	34.9	36.3	4.0	1.4
1934	11.9	11.9	.0	.0
1935	360.8	360.8	.0	.0
1936	395.6	398.6	.8	3.0
1937	341.3	348.7	2.2	7.4
1938	360.8	360.8	.0	.0
1939	61.1	26.5	-56.6	-34.6
1940	408.4	408.4	.0	.0
1941	360.8	360.8	.0	.0
1942	408.4	408.4	.0	.0
1943	360.8	360.8	.0	.0
1944	217.8	217.7	.0	-.1
1945	267.2	266.3	-.3	-.9
1946	275.9	277.9	.7	2.0
1947	210.4	210.3	.0	-.1
1948	366.5	365.9	-.2	-.6
1949	222.7	221.6	-.5	-1.1
1950	305.1	304.7	-.1	-.4
1951	246.6	247.6	.4	1.0
1952	360.8	360.8	.0	.0
1953	259.5	261.4	.7	1.9
1954	384.6	384.6	.0	.0
1955	177.2	177.0	-.1	-.2
1956	350.6	350.1	-.1	-.5
1957	310.4	309.6	-.3	-.8
1958	408.4	408.4	.0	.0
1959	194.2	194.2	.0	.0
1960	196.9	196.8	-.1	-.1
1961	77.4	78.2	1.0	.8
1962	234.8	238.3	1.5	3.5
1963	408.4	408.4	.0	.0
1964	160.7	160.6	-.1	-.1
1965	360.8	360.8	.0	.0
1966	226.8	228.8	.9	2.0
1967	360.8	360.8	.0	.0
1968	211.8	213.7	.9	1.9
1969	408.4	408.4	.0	.0
1970	207.7	207.7	.0	.0
1971	344.1	343.5	-.2	-.6
1972	189.1	187.6	-.8	-1.5
1973	364.1	363.5	-.2	-.6
1974	360.8	408.4	13.2	47.6
1975	360.8	408.4	13.2	47.6
1976	103.1	101.3	-1.7	-1.8
1977	63.7	62.3	-2.2	-1.4
1978	408.4	408.4	.0	.0
1979	340.7	342.3	.5	1.6
1980	340.8	340.3	-.1	-.5
1981	294.1	298.6	1.5	4.5
1982	360.8	360.8	.0	.0
1983	360.8	360.8	.0	.0
1984	275.0	275.0	.0	.0
1985	221.1	221.0	.0	-.1
1986	408.4	360.8	-11.7	-47.6
1987	11.3	11.3	.0	.0
1988	153.6	152.6	-.7	-1.0
1989	314.3	317.5	1.0	3.2
1990	42.6	59.9	40.6	17.3
1991	232.9	232.8	.0	-.1
Mean:	267.0	267.9	.3	.9
Median:	305.1	303.5	.0	.0
Min:	9.3	9.3	-56.6	-47.6
Max:	408.4	408.4	40.6	47.6
Alt-Cuml.>= .0				46
Rel Dif >= .0%			50	
.0% > Rel Dif >= -1.0%			15	
-1.0% > Rel Dif >= -2.0%			1	
-2.0% > Rel Dif >= -3.0%			2	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			2	

BANKS PLUS TRACY EXPORTS

May

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	410.4	412.8	.6	2.4
1923	236.4	241.1	2.0	4.7
1924	50.2	52.4	4.4	2.2
1925	189.8	193.1	1.7	3.3
1926	91.6	128.0	39.7	36.4
1927	228.4	229.6	.5	1.2
1928	218.6	218.2	-.2	-.4
1929	123.6	123.8	.2	.2
1930	140.6	140.5	-.1	-.1
1931	64.7	60.1	-7.1	-4.6
1932	170.1	181.5	6.7	11.4
1933	124.0	124.1	.1	.1
1934	46.4	47.8	3.0	1.4
1935	258.9	259.6	.3	.7
1936	245.3	244.9	-.2	-.4
1937	215.0	219.5	2.1	4.5
1938	402.6	402.6	.0	.0
1939	169.8	155.9	-8.2	-13.9
1940	257.7	259.1	.5	1.4
1941	355.0	355.9	.3	.9
1942	349.4	351.8	.7	2.4
1943	241.0	240.6	-.2	-.4
1944	193.2	193.3	.1	.1
1945	158.8	158.5	-.2	-.3
1946	224.5	224.1	-.2	-.4
1947	130.3	131.1	.6	.8
1948	274.4	274.0	-.1	-.4
1949	154.3	154.5	.1	.2
1950	201.2	200.9	-.1	-.3
1951	179.6	179.5	-.1	-.1
1952	402.6	402.6	.0	.0
1953	223.7	223.3	-.2	-.4
1954	226.8	226.4	-.2	-.4
1955	140.4	140.4	.0	.0
1956	308.5	308.2	-.1	-.3
1957	240.1	241.1	.4	1.0
1958	447.2	447.2	.0	.0
1959	170.9	170.9	.0	.0
1960	140.4	140.9	.4	.5
1961	147.9	147.7	-.1	-.2
1962	186.5	186.5	.0	.0
1963	294.3	295.4	.4	1.1
1964	135.0	135.1	.1	.1
1965	198.5	198.2	-.2	-.3
1966	180.6	180.6	.0	.0
1967	402.6	402.6	.0	.0
1968	175.1	175.0	-.1	-.1
1969	447.2	447.2	.0	.0
1970	161.7	161.8	.1	.1
1971	300.8	300.4	-.1	-.4
1972	152.1	152.4	.2	.3
1973	217.2	219.1	.9	1.9
1974	259.8	305.8	17.7	46.0
1975	275.9	320.1	16.0	44.2
1976	103.8	104.3	.5	.5
1977	67.1	66.4	-1.0	-.7
1978	310.4	312.9	.8	2.5
1979	230.8	231.9	.5	1.1
1980	208.5	208.2	-.1	-.3
1981	179.7	179.8	.1	.1
1982	387.4	388.2	.2	.8
1983	402.6	402.6	.0	.0
1984	172.7	172.7	.0	.0
1985	177.4	177.3	-.1	-.1
1986	247.7	202.7	-18.2	-45.0
1987	106.6	107.9	1.2	1.3
1988	120.1	120.5	.3	.4
1989	148.6	147.8	-.5	-.8
1990	128.9	129.1	.2	.2
1991	118.5	121.7	2.7	3.2
Mean:	215.0	216.6	1.0	1.6
Median:	193.2	193.3	.1	.1
Min:	46.4	47.8	-18.2	-45.0
Max:	447.2	447.2	39.7	46.0

Alt-Cuml.>= .0		47
Rel Dif >= .0%	47	
.0% > Rel Dif >= -1.0%	20	
-1.0% > Rel Dif >= -2.0%	0	
-2.0% > Rel Dif >= -3.0%	0	
-3.0% > Rel Dif >= -5.0%	0	
-5.0% > Rel Dif >= -6.0%	0	
Rel Dif < -6.0%	3	

BANKS PLUS TRACY EXPORTS

June

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	662.0	662.0	.0	.0
1923	421.2	417.3	-.9	-3.9
1924	13.8	13.8	.0	.0
1925	201.5	218.9	8.6	17.4
1926	110.5	110.5	.0	.0
1927	442.7	446.6	.9	3.9
1928	384.0	384.1	.0	.1
1929	45.5	63.6	39.8	18.1
1930	135.8	194.5	43.2	58.7
1931	14.8	14.8	.0	.0
1932	30.3	30.3	.0	.0
1933	14.8	14.8	.0	.0
1934	18.0	18.0	.0	.0
1935	418.7	412.1	-1.6	-6.6
1936	418.5	418.6	.0	.1
1937	387.0	414.1	7.0	27.1
1938	663.1	663.1	.0	.0
1939	226.1	196.8	-13.0	-29.3
1940	400.1	399.1	-.2	-1.0
1941	599.9	604.0	.7	4.1
1942	662.3	662.3	.0	.0
1943	378.3	378.3	.0	.0
1944	237.7	222.5	-6.4	-15.2
1945	479.3	479.8	.1	.5
1946	475.4	474.9	-.1	-.5
1947	276.5	203.3	-26.5	-73.2
1948	526.1	524.9	-.2	-1.2
1949	342.2	407.4	19.1	65.2
1950	458.4	458.6	.0	.2
1951	380.8	380.8	.0	.0
1952	663.1	663.1	.0	.0
1953	567.3	566.1	-.2	-1.2
1954	376.1	376.1	.0	.0
1955	193.4	171.2	-11.5	-22.2
1956	591.0	605.0	2.4	14.0
1957	457.9	457.2	-.2	-.7
1958	663.1	663.1	.0	.0
1959	372.4	372.4	.0	.0
1960	199.5	233.2	16.9	33.7
1961	32.1	32.1	.0	.0
1962	409.5	408.7	-.2	-.8
1963	431.0	429.5	-.3	-1.5
1964	328.2	328.2	.0	.0
1965	422.4	420.9	-.4	-1.5
1966	356.7	356.6	.0	-.1
1967	663.1	663.1	.0	.0
1968	368.9	368.9	.0	.0
1969	663.1	663.1	.0	.0
1970	380.1	380.1	.0	.0
1971	508.4	509.9	.3	1.5
1972	364.0	364.0	.0	.0
1973	490.2	488.5	-.3	-1.7
1974	563.5	567.6	.7	4.1
1975	661.7	661.7	.0	.0
1976	175.3	174.8	-.3	-.5
1977	46.4	46.8	.9	.4
1978	436.4	451.0	3.3	14.6
1979	500.6	499.0	-.3	-1.6
1980	455.0	453.8	-.3	-1.2
1981	227.2	223.7	-1.5	-3.5
1982	663.1	663.1	.0	.0
1983	663.1	663.1	.0	.0
1984	433.6	433.5	.0	-.1
1985	226.4	216.7	-4.3	-9.7
1986	429.7	433.7	.9	4.0
1987	42.9	43.7	1.9	.8
1988	39.1	32.9	-15.9	-6.2
1989	347.2	347.4	.1	.2
1990	54.7	89.9	64.4	35.2
1991	40.8	50.9	24.8	10.1
Mean:	361.9	363.8	2.2	1.9
Median:	384.0	399.1	.0	.0
Min:	13.8	13.8	-26.5	-73.2
Max:	663.1	663.1	64.4	65.2
Alt-Cuml.>= .0				47
Rel Dif >= .0%			49	
.0% > Rel Dif >= -1.0%			13	
-1.0% > Rel Dif >= -2.0%			2	
-2.0% > Rel Dif >= -3.0%			0	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			0	
Rel Dif < -6.0%			5	

BANKS PLUS TRACY EXPORTS

July

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	487.1	484.7	-.5	-2.4
1923	393.1	428.9	9.1	35.8
1924	11.9	11.9	.0	.0
1925	159.9	202.3	26.5	42.4
1926	34.2	34.2	.0	.0
1927	629.6	627.1	-.4	-2.5
1928	394.3	394.1	-.1	-.2
1929	20.1	21.2	5.5	1.1
1930	87.7	120.8	37.7	33.1
1931	13.5	13.5	.0	.0
1932	42.6	42.6	.0	.0
1933	14.0	14.0	.0	.0
1934	18.1	18.1	.0	.0
1935	270.3	293.4	8.5	23.1
1936	311.0	326.5	5.0	15.5
1937	145.0	148.4	2.3	3.4
1938	522.9	537.3	2.8	14.4
1939	125.3	111.0	-11.4	-14.3
1940	622.6	622.1	-.1	-.5
1941	317.3	300.1	-5.4	-17.2
1942	317.3	332.4	4.8	15.1
1943	599.8	599.7	.0	-.1
1944	134.0	134.0	.0	.0
1945	577.0	619.2	7.3	42.2
1946	654.0	620.6	-5.1	-33.4
1947	75.8	75.8	.0	.0
1948	593.2	616.4	3.9	23.2
1949	217.0	234.8	8.2	17.8
1950	592.8	605.2	2.1	12.4
1951	567.7	567.7	.0	.0
1952	686.2	686.2	.0	.0
1953	596.6	597.2	.1	.6
1954	584.2	584.2	.0	.0
1955	30.1	30.1	.0	.0
1956	503.3	490.0	-2.6	-13.3
1957	552.1	554.9	.5	2.8
1958	594.9	608.6	2.3	13.7
1959	350.6	349.4	-.3	-1.2
1960	133.8	150.7	12.6	16.9
1961	31.5	31.5	.0	.0
1962	403.7	405.6	.5	1.9
1963	574.4	574.5	.0	.1
1964	187.2	187.2	.0	.0
1965	600.1	601.0	.1	.9
1966	273.6	272.6	-.4	-1.0
1967	686.2	686.2	.0	.0
1968	466.4	466.3	.0	-.1
1969	539.0	548.3	1.7	9.3
1970	552.1	552.2	.0	.1
1971	683.7	683.7	.0	.0
1972	451.1	451.4	.1	.3
1973	467.0	467.0	.0	.0
1974	661.7	671.7	1.5	10.0
1975	532.8	547.2	2.7	14.4
1976	150.0	143.2	-4.5	-6.8
1977	28.2	28.4	.7	.2
1978	384.5	362.6	-5.7	-21.9
1979	558.9	562.1	.6	3.2
1980	411.6	417.8	1.5	6.2
1981	144.4	144.8	.3	.4
1982	461.4	476.3	3.2	14.9
1983	686.2	686.2	.0	.0
1984	642.3	642.2	.0	-.1
1985	138.1	132.7	-3.9	-5.4
1986	535.5	604.3	12.8	68.8
1987	32.6	33.0	1.2	.4
1988	33.4	29.2	-12.6	-4.2
1989	308.0	323.7	5.1	15.7
1990	20.1	24.6	22.4	4.5
1991	19.9	19.9	.0	.0
Mean:	352.1	357.0	2.0	4.9
Median:	393.1	394.1	.0	.0
Min:	11.9	11.9	-12.6	-33.4
Max:	686.2	686.2	37.7	68.8
Alt-Cuml.>= .0				53
Rel Dif >= .0%			56	
.0% > Rel Dif >= -1.0%			6	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			1	
-3.0% > Rel Dif >= -5.0%			2	
-5.0% > Rel Dif >= -6.0%			3	
Rel Dif < -6.0%			2	

BANKS PLUS TRACY EXPORTS

August

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	684.1	684.1	.0	.0
1923	681.2	681.6	.1	.4
1924	74.0	81.7	10.4	7.7
1925	369.6	402.4	8.9	32.8
1926	149.7	148.9	-.5	-.8
1927	684.5	684.5	.0	.0
1928	680.5	680.5	.0	.0
1929	106.4	118.8	11.7	12.4
1930	324.4	307.2	-5.3	-17.2
1931	63.3	66.6	5.2	3.3
1932	280.6	285.9	1.9	5.3
1933	70.5	82.9	17.6	12.4
1934	73.3	75.0	2.3	1.7
1935	531.9	533.4	.3	1.5
1936	409.3	420.0	2.6	10.7
1937	384.4	427.5	11.2	43.1
1938	617.4	603.1	-2.3	-14.3
1939	311.6	287.5	-7.7	-24.1
1940	682.1	682.4	.0	.3
1941	659.8	643.4	-2.5	-16.4
1942	684.5	684.5	.0	.0
1943	684.8	684.8	.0	.0
1944	302.7	301.8	-.3	-.9
1945	520.2	521.7	.3	1.5
1946	493.6	492.1	-.3	-1.5
1947	214.3	228.2	6.5	13.9
1948	684.1	684.5	.1	.4
1949	395.6	397.0	.4	1.4
1950	519.9	511.4	-1.6	-8.5
1951	683.4	683.4	.0	.0
1952	661.5	672.4	1.6	10.9
1953	683.8	683.8	.0	.0
1954	683.4	683.4	.0	.0
1955	223.6	230.0	2.9	6.4
1956	685.2	685.2	.0	.0
1957	683.4	683.4	.0	.0
1958	661.9	672.5	1.6	10.6
1959	431.9	431.9	.0	.0
1960	322.6	337.5	4.6	14.9
1961	306.1	306.3	.1	.2
1962	443.8	443.8	.0	.0
1963	684.1	684.1	.0	.0
1964	305.0	303.9	-.4	-1.1
1965	684.8	684.8	.0	.0
1966	419.4	419.4	.0	.0
1967	658.1	668.4	1.6	10.3
1968	513.8	512.9	-.2	-.9
1969	602.4	611.9	1.6	9.5
1970	684.1	684.1	.0	.0
1971	682.9	682.9	.0	.0
1972	661.4	666.4	.8	5.0
1973	683.8	683.8	.0	.0
1974	684.1	684.5	.1	.4
1975	683.6	683.8	.0	.2
1976	444.4	480.8	8.2	36.4
1977	209.6	209.4	-.1	-.2
1978	685.2	685.2	.0	.0
1979	532.3	532.3	.0	.0
1980	685.2	685.2	.0	.0
1981	372.3	433.0	16.3	60.7
1982	655.8	640.3	-2.4	-15.5
1983	685.2	685.2	.0	.0
1984	684.5	684.5	.0	.0
1985	334.3	339.9	1.7	5.6
1986	685.2	685.2	.0	.0
1987	121.0	119.2	-1.5	-1.8
1988	245.9	212.0	-13.8	-33.9
1989	641.1	606.0	-5.5	-35.1
1990	149.5	203.1	35.9	53.6
1991	53.7	54.6	1.7	.9
Mean:	484.9	487.8	1.6	2.9
Median:	531.9	532.3	.0	.0
Min:	53.7	54.6	-13.8	-35.1
Max:	685.2	685.2	35.9	60.7
Alt-Cuml.>= .0				55
Rel Dif >= .0%			55	
.0% > Rel Dif >= -1.0%			6	
-1.0% > Rel Dif >= -2.0%			2	
-2.0% > Rel Dif >= -3.0%			3	
-3.0% > Rel Dif >= -5.0%			0	
-5.0% > Rel Dif >= -6.0%			2	
Rel Dif < -6.0%			2	

BANKS PLUS TRACY EXPORTS

September

Water Year	Cuml. Export (taf)	No Proj-constrained Export (taf)	Rel Change (%)	Abs Diff (taf)
1922	658.0	658.0	.0	.0
1923	650.8	656.8	.9	6.0
1924	179.8	169.1	-6.0	-10.7
1925	509.9	499.4	-2.1	-10.5
1926	356.6	361.6	1.4	5.0
1927	658.2	658.2	.0	.0
1928	537.8	537.8	.0	.0
1929	264.6	296.9	12.2	32.3
1930	432.1	429.4	-.6	-2.7
1931	152.8	157.4	3.0	4.6
1932	389.5	411.2	5.6	21.7
1933	208.0	210.2	1.1	2.2
1934	140.2	148.0	5.6	7.8
1935	599.2	621.5	3.7	22.3
1936	599.8	599.8	.0	.0
1937	564.7	565.3	.1	.6
1938	658.6	658.6	.0	.0
1939	408.1	395.7	-3.0	-12.4
1940	657.0	657.2	.0	.2
1941	594.0	602.2	1.4	8.2
1942	611.1	594.9	-2.7	-16.2
1943	658.4	658.4	.0	.0
1944	404.2	402.8	-.3	-1.4
1945	626.2	626.9	.1	.7
1946	608.3	607.6	-.1	-.7
1947	371.1	368.7	-.6	-2.4
1948	617.0	613.1	-.6	-3.9
1949	443.8	454.5	2.4	10.7
1950	584.7	584.7	.0	.0
1951	602.9	602.5	-.1	-.4
1952	658.6	658.6	.0	.0
1953	657.9	657.9	.0	.0
1954	657.7	657.7	.0	.0
1955	379.7	378.1	-.4	-1.6
1956	658.6	658.6	.0	.0
1957	582.2	582.2	.0	.0
1958	658.6	658.6	.0	.0
1959	565.9	565.9	.0	.0
1960	417.5	417.9	.1	.4
1961	387.4	396.5	2.3	9.1
1962	572.0	572.0	.0	.0
1963	658.0	658.0	.0	.0
1964	435.5	433.0	-.6	-2.5
1965	658.4	658.4	.0	.0
1966	500.4	497.6	-.6	-2.8
1967	658.6	658.6	.0	.0
1968	604.2	604.2	.0	.0
1969	658.6	658.6	.0	.0
1970	658.0	658.0	.0	.0
1971	657.4	657.4	.0	.0
1972	567.8	567.8	.0	.0
1973	598.7	598.7	.0	.0
1974	658.0	658.2	.0	.2
1975	657.9	657.9	.0	.0
1976	385.6	400.9	4.0	15.3
1977	152.7	148.7	-2.6	-4.0
1978	633.6	633.6	.0	.0
1979	638.1	638.1	.0	.0
1980	606.6	606.6	.0	.0
1981	494.7	494.6	.0	-.1
1982	658.6	658.6	.0	.0
1983	658.6	658.6	.0	.0
1984	658.2	658.2	.0	.0
1985	464.9	460.9	-.9	-4.0
1986	633.1	633.1	.0	.0
1987	301.4	302.1	.2	.7
1988	316.1	276.8	-12.4	-39.3
1989	530.1	512.8	-3.3	-17.3
1990	273.6	303.6	11.0	30.0
1991	230.6	229.9	-.3	-.7
Mean:	522.2	522.8	.3	.6
Median:	594.0	594.9	.0	.0
Min:	140.2	148.0	-12.4	-39.3
Max:	658.6	658.6	12.2	32.3
Alt-Cuml.>= .0				51
Rel Dif >= .0%			52	
.0% > Rel Dif >= -1.0%			11	
-1.0% > Rel Dif >= -2.0%			0	
-2.0% > Rel Dif >= -3.0%			4	
-3.0% > Rel Dif >= -5.0%			1	
-5.0% > Rel Dif >= -6.0%			1	
Rel Dif < -6.0%			1	

RETURN TO TABLE OF CONTENTS