



# American River Pump Station Project

**Final Environmental Impact Statement/  
Environmental Impact Report**

## **Appendix D Mitigation Monitoring and Reporting Program/Environmental Commitments Plan**



**Placer County  
Water Agency**



**June 2002**

**SCH# 1999062089  
PCWA-046**

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### **Appendix D**

#### **Mitigation Monitoring and Reporting Program/ Environmental Commitments Plan**

**U.S. Bureau of Reclamation**



**Placer County Water Agency**



**June 2002**

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# American River Pump Station Project Mitigation Monitoring and Reporting Program/ Environmental Commitments Plan

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## 1.0 INTRODUCTION

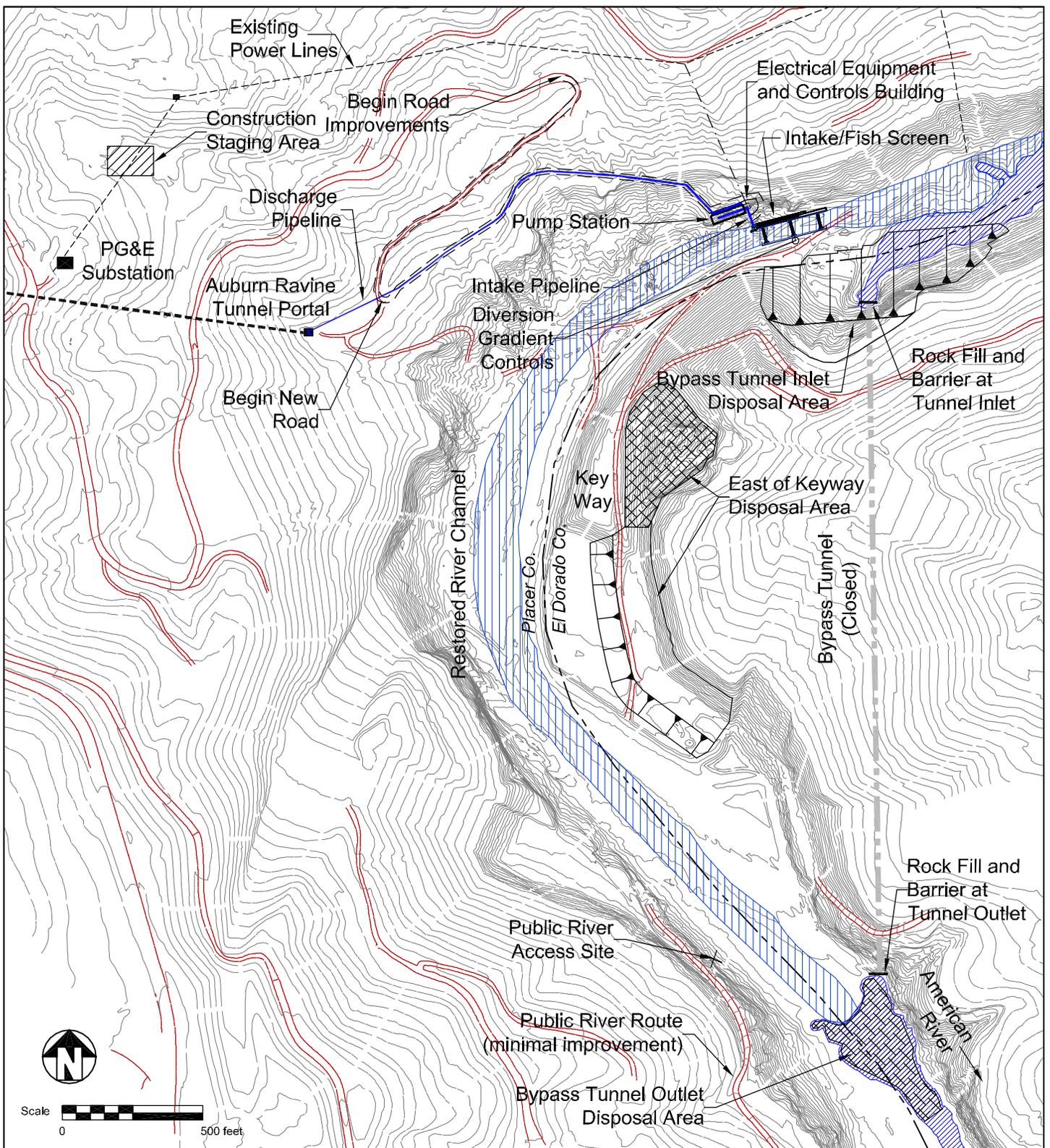
### 1.1 PURPOSE AND GENERAL GOALS (OBJECTIVES) OF THE MITIGATION PLAN

The American River Pump Station Project (Project) involves construction of new water supply facilities, closure of the Auburn Dam construction bypass diversion tunnel, restoration of the North Fork American River channel through the Auburn Dam construction site, and development of limited public river access facilities across the river from the bypass tunnel outlet and downstream, near Oregon Bar. **Figure 1** shows the major features of the water supply facilities and **Figure 2** shows the public river access features. The Project is being undertaken through a cooperative effort of the U.S. Bureau of Reclamation (Reclamation), Placer County Water Agency (PCWA), California Resources Agency, California Department of Parks and Recreation (CDPR), and California Department of Fish and Game (CDFG). Project approvals include environmental protection and mitigation measures to minimize or eliminate adverse effects to the study area environment. These measures have been described in the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR).

The lead agencies, PCWA and Reclamation, have developed this document to guide mitigation compliance prior to, during, and following construction as well as providing for long-term Project and study area management, as required by the California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA). Compliance monitoring and evaluation will be performed by the lead agencies or an independent on-site Project representative, as indicated in the description of each measure. The goals of this Mitigation Monitoring and Reporting Program/Environmental Commitments Plan (Mitigation Plan) are to provide the following:

- Compliance requirements for the environmental protection and mitigation measures on which the Project was approved;
- A reference document containing the environmental protection and mitigation measures involving pre-construction, construction and operation of the Project;
- A list of Project lead agency and responsible agency contacts; and
- The timing of mitigation measure implementation.

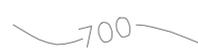
It is noted that additional measures may be required by specific regulatory agency permit terms and conditions or measures may be identified in biological opinions which may be issued as part of the Endangered Species Act (ESA) consultations between Reclamation and National Marine Fisheries Service (NMFS), and Reclamation and U.S. Fish and Wildlife Service (USFWS). Because agency permitting and ESA consultations were not completed at the time this Mitigation Plan was prepared, it was not possible to include such details in the Mitigation Plan. All terms and conditions of regulatory agency permits obtained for the Project will be implemented by the lead agencies and incorporated into construction specifications or long-term operation/management activities, as required and appropriate.



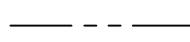
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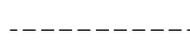
Existing Access Road



Contour of Equal Elevation  
(feet above mean sea level)



County Line



Existing Power Lines



Proposed Power Lines

**Figure 1 Major Features of the Project**



Source: CDPR, MW

Approximate Scale  0 800 feet



**Figure 2 Public River Access Facilities at Auburn Dam Site and Oregon Bar**

## 1.2 PROJECT LOCATION

The regional setting for the Project encompasses the Sacramento River and the American River Basin Central Valley Project (CVP) and State Water Project (SWP) reservoirs and waterways, including the Sacramento-San Joaquin River Delta, that potentially would be affected by Reclamation's changes in operation of the CVP or the Department of Water Resources' (DWR) changes in operation of SWP facilities (**Figure 3**). The local setting of the Project area is located within Placer County on the North Fork of the American River in the vicinity of the Auburn Dam construction site, which lies east of Auburn, California (**Figure 4**). The Project site lies within the American River canyon and includes the section of the North Fork of the American River that extends between Tamaroo Bar and Oregon Bar (**Figure 5**).

## 1.3 PROJECT DESCRIPTION

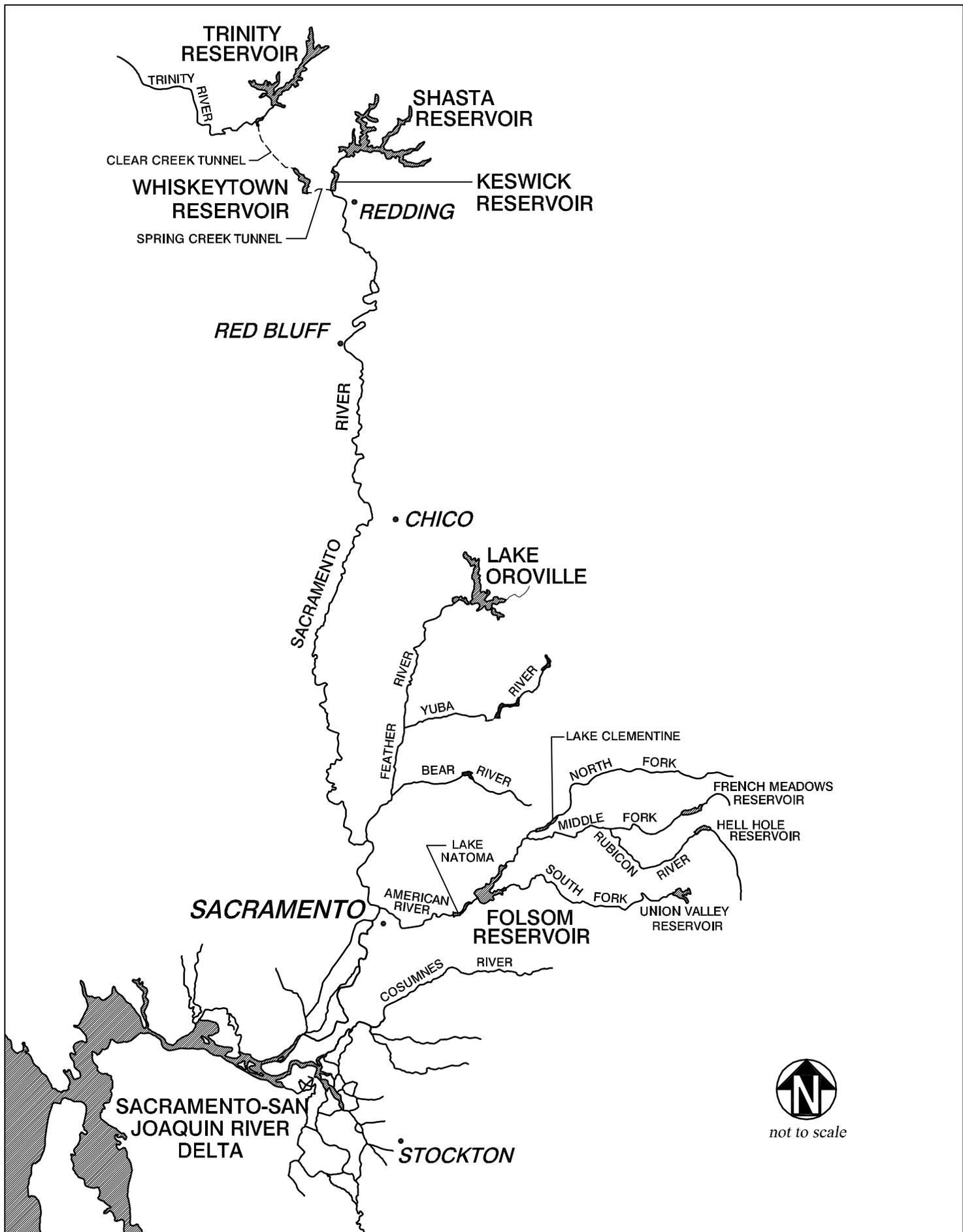
### 1.3.1 Major Features of the Project

The major features and activities associated with construction of the Project include a new pump station, a water diversion/intake structure, installation of fish screens to be designed through consultation with CDFG, closure of the Auburn Dam construction bypass tunnel, excavation of Auburn Dam cofferdam remnant and debris to restore flow to the American River channel, installation of water conveyance pipelines, improvement and development of access roads for Project construction and operation, extension of power supply lines, and creation of public river access and safety features and related improvements at the Auburn Dam site and near Oregon Bar.

## 1.4 SUMMARY OF PROJECT PURPOSE, NEED, AND OBJECTIVES

The purpose of the Project is threefold: (1) to provide facilities to allow PCWA to convey its Middle Fork Project (MFP) water entitlement to the Auburn Ravine Tunnel to meet demands within its service area; (2) to eliminate the safety issue associated with the Auburn Dam bypass tunnel; and (3) to allow for all pre-construction beneficial uses of water in what is now the dewatered river channel, including recreation, navigation, and other instream beneficial uses. Additionally, implementation of the Project will alleviate Reclamation of its obligations to PCWA under the Land Purchase Agreement for water delivery, management, operation and maintenance activities associated with the seasonal pump station following completion of construction and PCWA's acceptance of title to the pump station facilities. Each of these elements is discussed in greater detail in Chapter 1.0, Section 1.3, Project Needs and Objectives, in the Final EIS/EIR.

Through its water planning studies, PCWA has identified the need for a reliable, year-round pump station to replace the seasonal pumping facilities to enable the agency to continue to provide treated and raw water supplies throughout service area Zones 1 and 5. Development of the pump station would provide a year-round water diversion facility capable of diverting up to 35,500 acre-feet annually (AFA) from PCWA's water entitlements under its MFP on the American River. The



**Figure 3 Regional Setting**

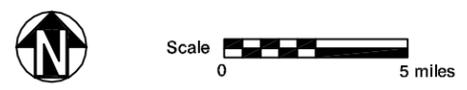
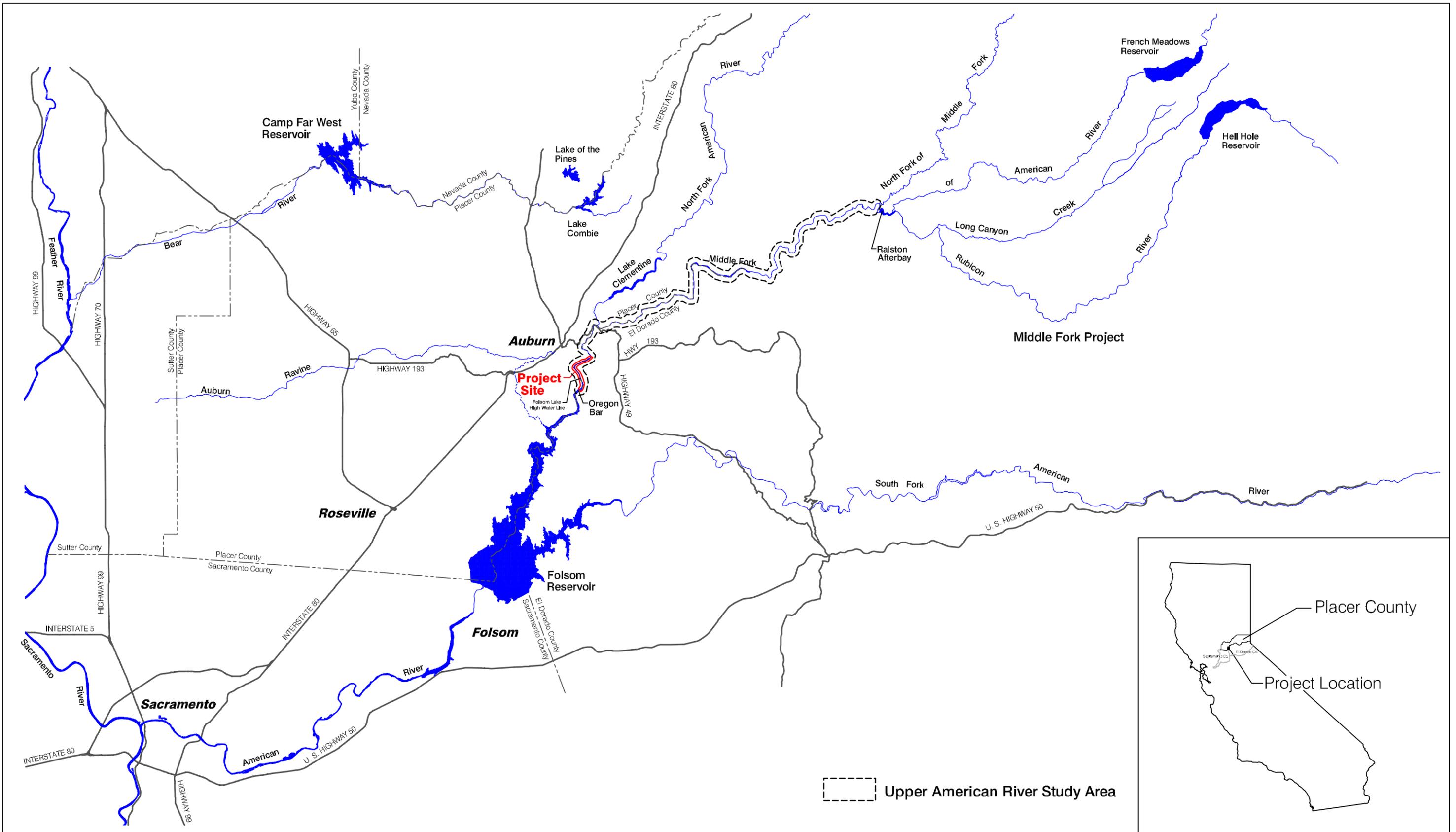
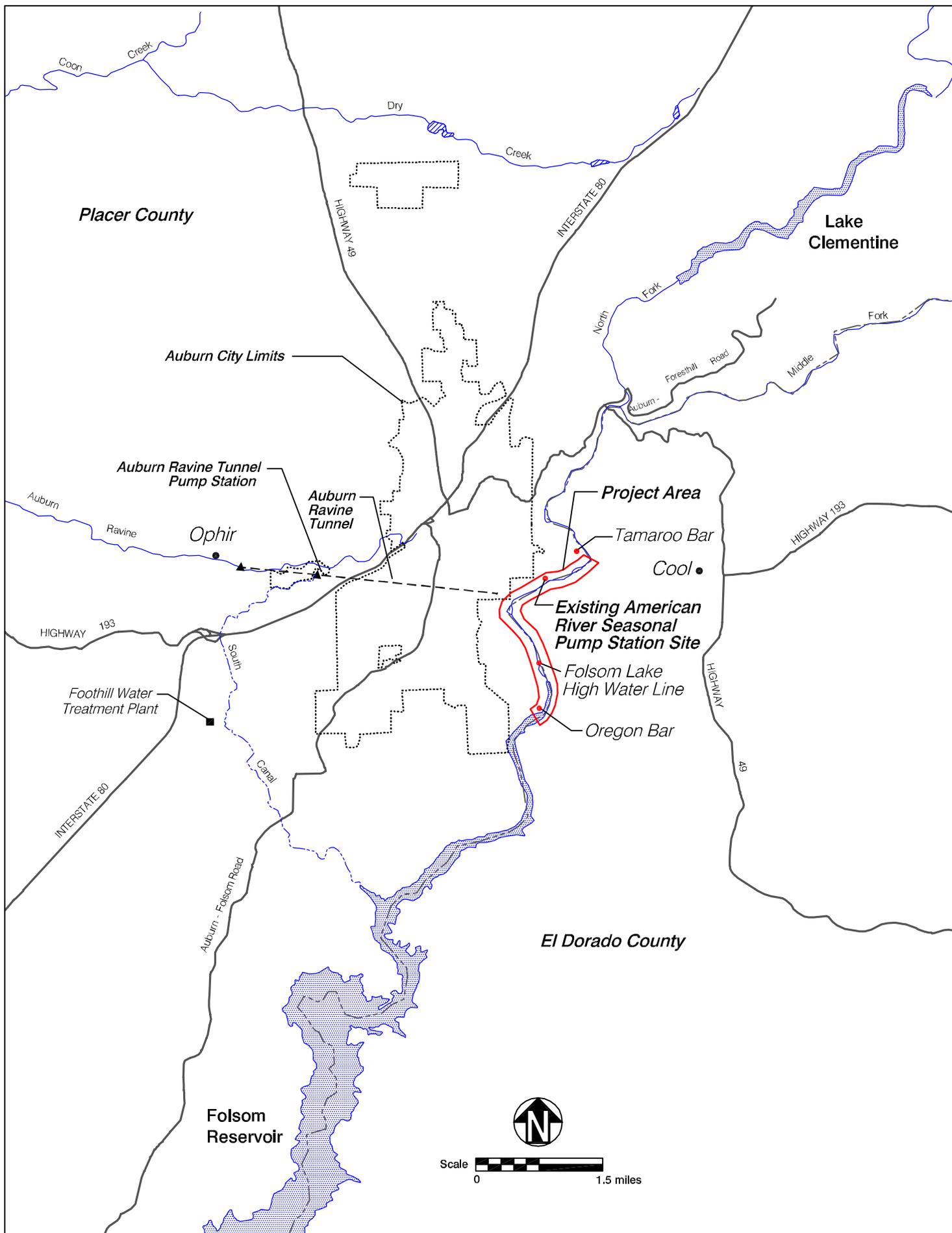


Figure 4 Project Area Setting



**Figure 5 Project Area**

closure of the bypass tunnel and rewatering of the historic river channel is a Project element proposed by and to be undertaken by Reclamation in response to (1) assertions by the State of California that, in the absence of a Congressional commitment to proceed with the long-delayed Auburn Dam, Reclamation lacks authority to continue to divert water from the dewatered stretch of the North Fork American River through the bypass tunnel; and (2) the State of California's insistence that the river be restored to its historic (pre-Auburn Dam) channel.

### **1.4.1 Auburn Dam Bypass Tunnel Safety**

As part of the original Auburn Dam construction work, a cofferdam and bypass tunnel were constructed. The cofferdam was breached by high flows in 1986, depositing millions of cubic yards of debris in the downstream channel. The bypass tunnel remains open and passes the entire flow of the American River at normal flow rates. Due in part to the sediment deposition from the eroded cofferdam, it is common for the downstream end of the tunnel to be submerged while the upper end is open. Although the river portion of the construction site is officially closed to the public, it is known that some people enter the area, and could be seriously injured or killed if they enter the bypass tunnel. Both Reclamation and the State of California believe this safety issue needs to be corrected.

### **1.4.2 River Restoration**

Reclamation and the State of California wish to restore the dewatered reach of the river channel, and to manage the site in a safe and environmentally sound way. Their objectives include restoring the river to a condition that would provide the same biological, hydrologic, and recreation functions, including public use, as it did prior to Auburn Dam construction.

### **1.4.3 Public River Access**

Presently, there is public vehicular access to the North Fork American River at the North/Middle Fork confluence on Highway 49 in the Auburn State Recreation Area (SRA) and at Rattlesnake Bar in the Folsom Lake SRA. When Folsom Reservoir is full, the nine-mile reach between these two points is comprised of four miles of moving water and five miles of still water in Folsom Reservoir. When the reservoir is drawn-down for flood control in the winter, the reach of moving water is increased to six miles, or more depending on Folsom Reservoir elevations.

From the perspective of public health and safety, the State of California believes that the public needs vehicular access to the river near the Folsom Reservoir high-water location to prevent people from being stranded in the canyon and for providing emergency services and resource protection. The Project will provide such access just upstream of the bypass tunnel outlet and downstream near Oregon Bar.

## **1.5 CONSTRUCTION AND OPERATION AND MAINTENANCE SCHEDULE**

### **1.5.1 Construction**

Construction of the Project will involve two phases over approximately 22 months. Phase I activities will begin in late 2002 and extend into spring 2004. Phase II construction will be initiated in spring 2003 and extend through summer 2004. Phase I construction will include access roads, initial site preparation, dry streambed excavation (rough grading) and construction of the pump station. Phase II will involve construction of the intake/diversion structure, fish screen, pump station sediment facilities, river gauging stations, standby power facilities, final channel grading, closure of the bypass tunnel and rerouting of river flows, and public river access improvements.

### **1.5.2 Operation and Maintenance**

Upon completion of construction and testing of the pump station, Reclamation will transfer the ownership of the facilities to PCWA, in accordance with the contract between PCWA and Reclamation to be executed prior to construction. PCWA will thereafter assume full responsibility for all operation, maintenance, and related activities associated with the pump station. Reclamation would retain responsibility for all other operation and maintenance activities associated with the authorized Auburn Dam Project, and would have certain aspects of those responsibilities performed by CDPR under its agreement to manage the Auburn SRA.

Under the Project, PCWA could divert up to 100 cubic feet per second (cfs) for a total volume of 35,500 AFA generally following a typical municipal and industrial water demand pattern. Higher diversions would occur during summer and early fall months, May through September to meet customer demands, with lower diversions occurring during October through April.

Operation of the Project will require occasional, minor changes to Ralston Afterbay releases into the Middle Fork American River to meet proposed diversions and maintain a minimum instream flow requirement of 75 cfs downstream of the diversion facility.

Reoperation of Ralston Afterbay, as well as slight modifications in storage releases from upstream reservoirs (French Meadows and Hell Hole) as needed during low-flow months (June through October), will fulfill flow requirements. These releases will ensure a minimum flow of 175 cfs in the river reach to the pump station. Current releases for power-related operations typically meet or exceed this same flow rate. The net result during low-flow months would be that flows downstream of the diversion would be reduced by less than the diversion amount.

Additionally, as part of its commitment to the Water Forum Agreement, during dry years PCWA has agreed to release water from its MFP reservoirs to replace water to the American River (replacement water). The replacement water would be released for downstream use to meet environmental requirements and/or for use by other water purveyors, in accordance with their specific Water Forum agreements. As stated in PCWA's purveyor-specific agreement, release of the replacement water is contingent upon certain agreements with Pacific Gas and Electric

Company (PG&E) and purchase of the water by a downstream entity. Arrangements related to these agreements are currently underway.

Maintenance activities associated with the Project fall into three categories: basic; annual; and periodic or as needed. Basic maintenance includes daily visual inspection of the pump station and diversion structure to make sure they are operating properly. Annual maintenance includes seasonal inspection of the fish screen and diversion structures and removal of any objects that may interfere with proper operation of the diversion structure. Periodic, or as-needed, maintenance includes major maintenance activities such as inspections/removal of pump(s), clearing the river diversion inlet structure, and removal of any material that may be deposited against the diversion structure as a result of a major flood event.

CDPR, through an agreement with Reclamation, will be responsible for maintaining the public river access features. Maintenance activities include removal of trash and cleaning of restrooms on a regular basis; repair of damaged signs, as needed; and servicing of trails and access routes, as required. Road and trail maintenance may include regrading or placement of additional gravel on traveled surfaces, correction of erosion problems, clearing drainage ditches and culverts, and trimming vegetation that encroaches upon the path.

## 1.6 RESPONSIBLE PARTIES

PCWA and Reclamation, as lead agencies, are responsible for implementation of the mitigation measures identified in this Mitigation Plan. CDPR is a responsible agency for the Project and, under CEQA, CDPR will consider the analysis in the Final EIR, prepare Findings of Fact (CEQA Guidelines 15096(h)), and adopt mitigation measures (CEQA Guidelines 15097(d)). CDPR may adopt this Mitigation Plan, and would implement certain measures to minimize impacts associated with the operation of the public river access features. These activities would be specified in the Auburn SRA management agreement between Reclamation and CDPR.

Representatives of each agency are listed below:

<b><u>U.S. Bureau of Reclamation</u></b>	<b><u>Placer County Water Agency</u></b>	<b><u>California Department of Parks and Recreation</u></b>
Mr. Rod Hall Environmental Specialist 7794 Folsom Dam Road Folsom, CA 95630 (916) 988-1707	Mr. Brent Smith Project Manager 144 Ferguson Road Auburn, CA 95604 (530) 823-4886	Ms. Jill Dampier Supervisor, Department of State Parks 501 El Dorado Street Auburn, CA 95603 (530) 885-4527
Mr. Robert Meador Construction Manager 1140 W. Wood Street Willows, CA 95988 (530) 934-7066		Mr. Jim Micheaels Associate Parks and Recreation Specialist 7806 Folsom-Auburn Road Folsom, CA 95630 (916) 988-0205

## 2.0 SUMMARY OF ENVIRONMENTAL PROTECTION AND MITIGATION MEASURES

**Table 1** provides a summary of the environmental protection and mitigation measures described in this Mitigation Plan.

Table 1 Summary of Environmental Protection and Mitigation Measures		
Mitigation Measure	Implementing Agency	Timing
<b>FISH RESOURCES AND AQUATIC HABITAT</b>		
3.1-1 Prevent Fish Entrainment and Impingement at the Water Supply Intake/Point of Diversion	Reclamation/ Construction Contractor, PCWA	Phase II Construction/ Operations
3.1-2 Avoid Impacts Upon Auburn Ravine Fish, Aquatic and Terrestrial (Riparian) Resources	PCWA	Ongoing Project operations
<b>TERRESTRIAL RESOURCES</b>		
3.2-1 Establish Buffer Zone to Avoid Disturbance of and Prevent the Permanent Loss of Riparian, Wetland and Pond Vegetation and Associated Habitat	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)
3.2-2 Minimize Impacts Upon State and Federal Special-Status Species in the Project Area	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)
3.2-3 Measures for Entrapped, Injured or Dead Special-Status Animal Species	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)
3.2-4 Restoration of Permanent Riparian, Wetland and Pond Vegetation/Habitat Loss	Reclamation	Post-construction
<b>WATER QUALITY</b>		
3.3-1 Removal of Construction Litter and Debris	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004), as needed
3.3-2 Construction-Related Water Quality Protection Measures	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)
3.3-3 Project Operation and Maintenance Water Quality Protection	PCWA	Ongoing Project operation and maintenance
3.3-4 Minimize Water Quality Impacts From Increased Public Access	Reclamation	Ongoing during Operation of public access area
<b>RECREATION</b>		
3.4-1 Maintain Public Recreation Trail Access During Construction	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)
3.4-2 Avoid Recreation Trail Closures That Affect the Western States Endurance Run, Tevis Cup Western States Trail Ride or the American River 50-Mile Endurance Run	Reclamation/ Construction Contractor CDPR Event Coordinator	Once annually per event (as needed)
3.4-3 Auburn-to-Cool Trail	California Resources Agency/ CDPR, PCWA	Ongoing

<b>Table 1 (Continued)</b>		
<b>Summary of Environmental Protection and Mitigation Measures</b>		
<b>Mitigation Measure</b>	<b>Implementing Agency</b>	<b>Timing</b>
<b>RECREATION (CONTINUED)</b>		
3.4-4 Minimize Trail User Conflicts Due to Increased Public Access	Reclamation/CDPR	Ongoing
3.4-5 Minimize Littering at Public River Access Locations	Reclamation/CDPR	Ongoing Project operations
3.4-6 Provide Disabled Access Parking Area	CDPR/Reclamation	Ongoing
<b>VISUAL RESOURCES</b>		
3.5-1 Blend Project Features with Surrounding Landscape	Reclamation/Design Team	Project design
<b>CULTURAL RESOURCES</b>		
3.6-1 Stop Construction Activities if Cultural Resources or Human Remains are Uncovered	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)
3.6-2 Develop and Implement Programmatic Agreement with State Historic Preservation Officer Regarding Potential Impacts at Shasta Reservoir	Reclamation	Project operation
<b>TRAFFIC AND CIRCULATION</b>		
3.7-1 Develop and Implement a Construction Traffic Access Management Plan	Reclamation/ Construction Contractor	Prior to and through all phases of construction (2002 through 2004)
3.7-2 Provide Information Regarding New Public River Access	Reclamation	Prior to and during operation of public river access features
<b>AIR QUALITY</b>		
3.8-1 Minimize Ozone Precursor Emissions During Project Construction	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)
3.8-2 Minimize PM <sub>10</sub> Emissions During Project Construction	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)
3.8-3 Minimize Potential for Disturbance of Asbestos and Exposure of Construction Personnel or General Public During Project Construction	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)
<b>NOISE</b>		
3.9-1 Minimize Noise During Project Construction	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)
3.9-2 Minimize Operational Noise Levels by Enclosing Pumps	Reclamation	One-time design/construction
3.9-3 Minimize Noise Levels Associated With Public Use of River Access Features	CDPR	Ongoing; when public river access facilities are open for use
<b>PUBLIC HEALTH AND WORKER SAFETY</b>		
3.10-1 Minimize the Potential for Increased Erosion and Slope Instability During Project Construction	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)
3.10-2 Minimize Potential for Increased Exposure to Hazardous Materials or Fire Risk During Project Construction	Reclamation/ Construction Contractor	All phases of construction (2002 through 2004)

<b>Table 1 (Continued)</b>		
<b>Summary of Environmental Protection and Mitigation Measures</b>		
<b>Mitigation Measure</b>	<b>Implementing Agency</b>	<b>Timing</b>
<b>PUBLIC HEALTH AND WORKER SAFETY (CONTINUED)</b>		
3.10-3 Remove All Construction-related Materials From Project Site Prior to Opening for Public Use	Reclamation/ Construction Contractor	Upon completion of construction; prior to opening site for public use
3.10-4 Minimize the Risk of Public Exposure to Fire Hazards During Project Operations	Reclamation/CDPR/California Department of Forestry and Fire Protection (CDFFP)	During construction; ongoing once public access is granted
3.10-5 Prevent Vehicular Access in Undesignated Areas	Reclamation	Permanent following installation
3.10-6 Minimize Inappropriate or Illegal Activities at Public River Access Locations	CDPR	Ongoing during use of public river access sites
3.10-7 Limit Public Access to Water Supply Facilities and Structures	PCWA	Post-construction

## 3.0 ENVIRONMENTAL PROTECTION AND MITIGATION MEASURES

This section presents the environmental protection and mitigation measures or standards that have been incorporated into the Project design, construction and management actions. The lead agencies have adopted these measures and incorporated them as part of the Project in compliance with applicable federal, state, and local policies or regulations that apply to the Project activities. These measures will ensure that construction and operation of the Project will minimize or avoid potentially significant environmental impacts, to the extent feasible. These measures include standard engineering, design, construction, and maintenance practices that were developed during the preliminary planning and design phases of the Project, as well as measures incorporated in response to public comments received on the Draft EIS/EIR.

### 3.1 FISH RESOURCES AND AQUATIC HABITAT

#### *Mitigation Measure 3.1-1: Prevent Fish Entrainment and Impingement at the Water Supply Intake/Point of Diversion*

Diversion of water at the intake structure could create conditions resulting in entrainment or impingement of fish. Installation and operation of fish screens will minimize the potential for this impact. CDFG fish screen experts will be involved in the design and inspection of the fish screens.

<b>Commitment:</b>	Design, construct, operate and maintain fish screens on the water supply intake in a manner consistent with CDFG-approved design.
<b>Responsible Parties:</b>	Reclamation/Construction Contractor - design and construct per CDFG-approved plan PCWA - operation and maintenance per CDFG-approved procedures CDFG - design input, review and approval; performance inspection
<b>Location:</b>	Project area/river channel - water supply intake structure
<b>Timing:</b>	Phase II construction/operations

**Monitoring:**

Reclamation will require the Construction Contractor to install the fish screens according to CDFG-approved plans.

PCWA will monitor the operation of the fish screens and provide maintenance, as needed, according to specific fish screen design and operational procedures.

**Reporting Requirements:**

Reclamation will submit final designs to CDFG and will notify CDFG when construction is completed. CDFG may inspect the construction or performance of fish screens at the site.

PCWA will maintain daily records of screen performance on all days pump station is operational. These records will be summarized in quarterly reports to CDFG for the first two years following Project start-up. After that time, PCWA will make records available to CDFG, upon request.

**Description of Activities:***Design and Construction*

The Project design team will work with CDFG fish screen experts to finalize the design in a manner that meets CDFG requirements for the Project site.

Reclamation will ensure that the Construction Contractor installs the approved fish screens as designed.

*Operation and Maintenance*

PCWA will operate and maintain the fish screens according to the final approved procedures.

**Success Criteria:**

Reclamation will document that construction/installation meets CDFG-approved design.

PCWA will document project operation and maintenance compliance with appropriate procedures.

***Mitigation Measure 3.1-2: Avoid Impacts Upon Auburn Ravine Fish, Aquatic and Terrestrial (Riparian) Resources***

The Project, as described in the Draft EIS/EIR, included an increased release of American River water into Auburn Ravine, in exchange for Yuba/Bear River Drum-Spaulding Project water. Change in water source composition potentially would create conditions that might increase straying of American River salmonids into Auburn Ravine. To avoid any potential for such an impact, PCWA will double-pump the increased diversions of American River water, measured against baseline conditions derived from data reflecting monthly pumping levels in the period from 1998 through 2001, from the Auburn Ravine Tunnel directly to its water supply distribution system, rather than to Auburn Ravine. PCWA will not modify this procedure until further environmental evaluations are conducted to evaluate the potential effects of changing water sources or volume in Auburn Ravine.

<b>Commitment:</b>	Minimize alteration of Auburn Ravine aquatic conditions by double-pumping increased diversions of American River water.
<b>Responsible Party:</b>	PCWA
<b>Location:</b>	Auburn Ravine Tunnel and Pump Station; Auburn Ravine
<b>Timing:</b>	Ongoing project operation
<b>Monitoring:</b>	Record American River water deliveries into Auburn Ravine
<b>Reporting Requirements:</b>	Operation records/reports

**Description of Activities:**

By double-pumping increased American River diversions, PCWA will operate the pump station such that release of American River water into Auburn Ravine, via the Auburn Ravine Tunnel, will be within the limits of recent historical monthly maximum delivery rates.

**Success Criteria:**

Documentation of double-pump operations and deliveries of American River water into Auburn Ravine within the limits of recent historical monthly maximum delivery rates.

Other Related Mitigation Measures

*Water Quality and Public Health and Worker Safety include additional measures that will protect fish and aquatic resources in the Project area, during both construction and operation of the Project.*

**3.2 TERRESTRIAL RESOURCES**

***Mitigation Measure 3.2-1: Establish Buffer Zone to Avoid Disturbance of and Prevent the Permanent Loss of Riparian, Wetland and Pond Vegetation and Associated Habitat***

Riparian, wetland, and pond vegetation exist at and adjacent to (upstream and downstream) the Project site. Avoidance buffer zones will minimize the extent of habitat disturbance or modification due to Project construction. Ultimately, restoration of the river channel will result in improvements to aquatic habitat conditions at the site, relative to the existing condition.

<b>Commitment:</b>	Establish a 10-foot buffer zone around all riparian and wetland or pond areas to be avoided during construction. Clearly mark the buffer area with temporary fencing, flagging or other suitable material.
<b>Responsible Parties:</b>	Reclamation/Construction Contractor
<b>Location:</b>	Project area
<b>Timing:</b>	During all phases of construction (2002 through 2004)
<b>Monitoring:</b>	Monitoring to ensure temporary buffer markers remain in place
<b>Reporting Requirements:</b>	Daily inspector reports

**Description of Activities:**

Reclamation will require the Construction Contractor to identify and create buffer zones around riparian, wetland and pond habitats within and immediately adjacent to the Project area. The Construction Contractor will indicate the buffer zones and avoidance areas with temporary markers and/or fencing.

**Success Criteria:**

Riparian, wetland and pond habitat buffer zones will remain clearly marked throughout construction and encroachment will be avoided by construction personnel.

**Mitigation Measure 3.2-2: Minimize Impacts Upon State and Federal Special-Status Species in the Project Area**

<b>Commitment:</b>	Protect individuals and habitat for state and federal special-status species from Project construction impacts by performing pre-construction site surveys. Inform Construction Contractor personnel of potential presence of special status species in the Project area and provide procedures for avoidance or relocation, if necessary, to USFWS- or CDFG-designated habitat.
<b>Responsible Parties:</b>	Reclamation/Construction Contractor - On-site Monitor
<b>Location:</b>	Project area/river channel
<b>Timing:</b>	Prior to and during all phases of construction (2002 through 2004)
<b>Monitoring:</b>	No specific monitoring requirements
<b>Reporting Requirements:</b>	Conduct survey and document results. Construction personnel will indicate participation in education/ informational session by signing participation statements.

**Description of Activities:**

Reclamation biologists will conduct a site survey to evaluate potential presence of special status species (see **Table 2**) within project construction area. Information regarding the state and federal special-status species that potentially occur within the Project construction area will be included in the Construction Contractor personnel education/information presentations and materials.

**Table 2** lists those species which are classified as “species of concern” (SC) by USFWS or as “California species of concern” (CSC) by CDFG, and which may occur in the project area.

Table 2 Federal and State Species of Concern That May Occur in the Project Area		
Common Name	Species Name	Status Federal <sup>a</sup> /State <sup>b</sup>
<b>Amphibians</b>		
Foothill Yellow-legged Frog	<i>Rana boylei</i>	SC/CSC
<b>Reptiles</b>		
California Horned Lizard	<i>Phrynosoma coronatum frontale</i>	SC/CSC
<b>Mammals</b>		
Spotted Bat	<i>Euderma maculatum</i>	SC/CSC
Greater Western Mastiff-bat	<i>Eumops perotis californicus</i>	SC/--
<sup>a</sup> Federal status: SC = Species of Concern <sup>b</sup> State status: CSC = California Species of Concern -- = No listing		

**Success Criteria:**

Document completion of survey and successful avoidance and/or relocation of these species, as needed, in construction compliance reports.

***Mitigation Measure 3.2-3: Measures for Entrapped, Injured or Dead Special-Status Animal Species***

**Commitment:** All reasonable efforts will be made to allow any entrapped animals to escape. Any dead or injured animals will be turned over to CDFG or USFWS.

**Responsible Parties:** Reclamation/Construction Contractor - On-site Monitor

**Location:** Entire Project area, including staging sites and access routes

**Timing:** During all phases of construction (2002 through 2004), as needed

**Monitoring:** No specific monitoring requirement

**Reporting Requirements:**  
A written report detailing the date, time, location, and general description of the circumstances under which an animal was found must be submitted to CDFG and/or USFWS no later than three business days following the incident.

**Description of Activities:**

Reclamation will require the Construction Contractor to ensure that all injured or killed special-status species are reported to CDFG or USFWS and handled appropriately.

**Success Criteria:**

All incidents are reported to CDFG or USFWS and handled appropriately. Include documentation in construction compliance reports.

***Mitigation Measure 3.2-4: Restoration of Permanent Riparian, Wetland and Pond Vegetation/Habitat Loss***

**Commitment:** Restoration of river channel through Project area will provide enhancement of wetland and riparian habitat such that all construction-related permanent vegetation loss is fully mitigated.

**Responsible Party:** Reclamation

**Location:** Project area/river channel

**Timing:** Post-construction

**Monitoring:** Monitor re-establishment of wetland, pond, and riparian vegetation associated with the restored river channel

**Reporting Requirements:** Provide Summary Reports, including photographs of the Project site, with benchmarks prior to construction, and at years 1, 3, 5, and 10 following river restoration

**Description of Activities:**

Restoration of the North Fork American River channel, including creation of a “naturally functioning” river system will provide overall vegetation and associated habitat enhancement at the Project site. Reclamation will monitor the long-term natural re-establishment of vegetation and habitat areas and report to resources and permitting agencies. In consultation with these agencies, Reclamation may implement an adaptive vegetation restoration strategy, if needed, to supplement natural re-growth at the site.

**Success Criteria:** Document natural re-establishment of vegetation in Project area.

Other Related Mitigation Measures

*Fish Resources and Aquatic Habitat, Mitigation Measure 3.1-2*, avoids changes to the flow and water source composition of Auburn Ravine, thereby avoiding any Project-related change to terrestrial (riparian) resources along the Auburn Ravine corridor.

*Noise, Mitigation Measure 3.9-2*, results in lower operational noise levels in the Project area than under existing conditions, reducing operational noise impacts to wildlife.

*Public Health and Worker Safety Mitigation Measure 3.10-5*, design of the public river access features includes installation of posts and other barriers to prevent off-road travel, thereby minimizing the impacts of increased vehicular access at the Project site upon individual wildlife species and habitat.

### 3.3 WATER QUALITY

*Mitigation Measure 3.3-1: Removal of Construction Litter and Debris*

**Commitment:** Remove litter and construction debris from the Project area and dispose of at an appropriate site.

**Responsible Parties:** Reclamation/Construction Contractor - On-site Monitor

**Location:** Project area

**Timing:** During all phases of construction (2002 through 2004), as needed

**Monitoring:** Inspect construction areas for compliance with litter and debris control measures

**Reporting Requirements:** Construction compliance reports/daily inspector reports

**Description of Activities:**

Reclamation will require Construction Contractor to keep site clear of construction-related litter and debris; specifically, in areas near the river channel.

**Success Criteria:** No litter or construction debris is noted in the Project area, on inspection.

*Mitigation Measure 3.3-2: Construction-Related Water Quality Protection Measures*

**Commitment:** Stormwater runoff control measures that prevent contaminants, soil or sediment from entering the river shall be implemented, monitored for effectiveness, and maintained throughout construction operations. The specific measures to be implemented for this project will be determined as part of the permitting process prior to construction. Construction specifications will include all required

	measures indicated in permits for erosion control, stormwater runoff control, and dewatering specifics.
<b>Responsible Parties:</b>	Reclamation/Construction Contractor - On-site Monitor
<b>Location:</b>	Construction areas
<b>Timing:</b>	During all phases of construction (2002 through 2004)
<b>Monitoring:</b>	Inspect construction areas for compliance with water quality control measures
<b>Reporting Requirements:</b>	Construction compliance reports/daily inspector reports

**Description of Activities:**

Reclamation will require the Construction Contractor to implement terms and conditions of regulatory permits including all applicable construction Best Management Practices (BMPs) for stormwater runoff and erosion control to minimize the potential for direct release of materials to the river during Project construction.

The Construction Contractor will be responsible to meet the terms of the permit(s). Should monitoring or site inspection indicate unacceptable conditions due to construction, the lead agencies, in consultation with the Regional Water Quality Control Board (RWQCB) or other permitting agencies, will develop and implement additional protective measures to prevent water quality impacts.

The Project water quality protection measures to be required by permitting agencies may include one or more of the following:

- ❑ Terms limiting the period or type of construction activities that occur within the ordinary high water line of the American River up- and downstream of the bypass tunnel.
- ❑ Restrictions upon storage and stockpiling of construction materials, including vehicles and supplies, and chemicals or other hazardous materials to designated construction staging areas.
- ❑ Designation of vehicle/equipment fueling and wash-down areas, away from the floodway and designed to contain potential spills.
- ❑ Regular maintenance of construction vehicles and equipment such that leaks of fuels, lubricants and other materials are prevented.
- ❑ Removal of construction litter/debris and proper disposal practices at the end of each construction day and particularly prior to the start of the rain season.
- ❑ Requirement to minimize near and in-river activities to the extent possible.
- ❑ Implementation of post-construction management activities including restoration or improvement of drainage patterns and stabilization of stream banks and hillsides (upland areas) within the construction area; stabilization may include revegetation with a seed mix of plants native to the area, mulch or some other form of protection.

**Success Criteria:** Document permit compliance in construction compliance report or as required by individual permitting agencies.

***Mitigation Measure 3.3-3: Project Operation and Maintenance Water Quality Protection***

**Commitment:** Protect downstream beneficial water uses by incorporating standard BMPs into the operation and maintenance of the Project to avoid water quality impacts.

**Responsible Party:** PCWA

**Location:** Project area/river channel

**Timing:** Project operation and maintenance

**Monitoring:** As required by permitting agencies

**Reporting Requirements:** Comply with regulatory permit reporting requirements

**Description of Activities:**

PCWA will comply with regulatory permit terms and conditions in all short- and long-term maintenance activities for the pump station, intake facilities, and diversion structure.

**Success Criteria:** Document compliance with regulatory permit terms and conditions.

***Mitigation Measure 3.3-4: Minimize Water Quality Impacts From Increased Public Access***

**Commitment:** Reduce the potential for pollutants to enter the river.

**Responsible Party:** Reclamation

**Location:** Project area (public river access features)

**Timing:** Ongoing during operation of public river access

**Monitoring:** Monitor use of parking areas such that capacity is not exceeded; monitor proper functioning of drainage control structures; and track public sanitation facility maintenance.

**Reporting Requirements:** No specific reporting requirement.

**Description of Activities:**

Reclamation will ensure that design of the public river access features limits the number of cars permitted into the Project area and further restricts the proximity of vehicles to the river. Reclamation will ensure that the design incorporates drainage control structures into all access roads, trails and parking areas to reduce direct contribution of pollutants into the river.

Through its Auburn SRA management agreement, Reclamation will require CDPR to maintain the public river access facilities such that trash containers will be emptied and restrooms will be cleaned regularly to avoid accumulation of litter in the Project area.

**Success Criteria:**

Public river access area is maintained appropriately and water quality/pollution impacts avoided.

### 3.4 RECREATION

#### *Mitigation Measure 3.4-1: Maintain Public Recreation Trail Access During Construction*

<b>Commitment:</b>	Provide public recreation trail access to the Project area during construction, to the extent feasible, without compromising public health and safety and Project construction progress.
<b>Responsible Parties:</b>	Reclamation/Construction Contractor
<b>Location:</b>	Project area
<b>Timing:</b>	During all phases of construction (2002 through 2004); as feasible
<b>Monitoring:</b>	Monitor fencing and temporary markers or other posted signs used to indicate areas open for public trail use in Project vicinity during construction.
<b>Reporting Requirements:</b>	Record trail access restrictions in daily inspector report

#### **Description of Activities:**

Reclamation will require the Construction Contractor to identify, with temporary construction fencing, flagging, and posted signs, all areas of restricted or limited public access. Additionally, Reclamation will provide public notification of such limitations through a Public Outreach and Information Program.

**Success Criteria:** Appropriate, safe trail access is provided, to extent feasible.

#### *Mitigation Measure 3.4-2: Avoid Recreation Trail Closures That Affect the Western States Endurance Run, Tevis Cup Western States Trail Ride, or the American River 50-Mile Endurance Run Events*

<b>Commitment:</b>	Project construction scheduling will avoid impacting the route or timing of the Western States Endurance Run, Tevis Cup Western States Trail Ride, and the American River 50-Mile Endurance Run annual events.
<b>Responsible Parties:</b>	Reclamation/Construction Contractor and CDPR Event Coordinator
<b>Location:</b>	Project area recreation trails
<b>Timing:</b>	Once annually per event (as needed)
<b>Monitoring:</b>	Indicate event in compliance report
<b>Reporting Requirements:</b>	No specific reporting requirements

#### **Description of Activities:**

As part of the event permitting process, CDPR will coordinate with event sponsors and Reclamation's Construction Contractor to ensure safe passage along event routes during set-up, operation and breakdown activities through the suspension and elimination of all potentially hazardous construction associated risks during these events.

**Success Criteria:** Planned annual events and routes are maintained.

***Mitigation Measure 3.4-3: Auburn-to-Cool Trail***

The Auburn-to-Cool Trail crossing of the dewatered channel North Fork American River will be lost once the bypass tunnel is closed and river flows returned to the natural river channel.

**PCWA Commitment:**

In order to mitigate PCWA's share of the recreational impact associated with bifurcation of the Auburn-to-Cool Trail, PCWA shall pay a maximum of \$500,000 to be used for costs associated with the construction of a new bridge across the North Fork American River or another alternate mitigation program (e.g., the construction of new trail segments). Such money, or some lesser amount if the full amount is not required, shall be made available to CDPH only after all of the following have occurred: (1) CDPH and Reclamation have completed the environmental review necessary to implement such a Project, have chosen to proceed with such a Project, and have obtained all regulatory approvals necessary to proceed with the Project; (2) any litigation over such environmental review or regulatory approvals has been resolved in favor of CDPH and/or Reclamation or other approving agency; and (3) the American River Pump Station Project has obtained all necessary regulatory and/or discretionary approvals necessary for construction, and any litigation over any such approvals has been resolved in favor of PCWA.

PCWA will have met its obligations under this mitigation measure once it has provided payment for costs associated with construction of a bridge or alternate trail.

**California Resources**

**Agency Commitment:** The State of California has indicated that \$1.0 million would be available to apply toward the design, planning and construction of crossing or alternate trail access near the Project site.

**Responsible Parties:** California Resources Agency, CDPH/PCWA

**Location:** To be determined by future study

**Timing:** Ongoing

**Description of Activities:**

Various trail replacement alternatives are being considered by state and federal agencies to determine the best approach to provide trail access for multiple user groups. Feasibility studies will be performed.

**Success Criteria:** Lead agencies and CDPH participate in funding and evaluation of providing alternate river crossing or trail access to replace ACT crossing.

***Mitigation Measure 3.4-4: Minimize Trail User Conflicts Due to Increased Public Access***

**Commitment:** Design and improve trails to accommodate designated uses and avoid conflicts between multiple user types.

<b>Responsible Parties:</b>	Reclamation/CDPR
<b>Location:</b>	Project area trails
<b>Timing:</b>	Ongoing Project operations
<b>Monitoring:</b>	Maintain trail features and posted signs that indicate hours of operation and trail use designation; CDPR park staff and/or volunteers to assist in informing and enforcing trail uses.
<b>Reporting Requirements:</b>	No specific reporting requirements

**Description of Activities:**

Reclamation will require the Construction Contractor to construct trail and access road improvements from the Auburn Dam batch plant parking area to Oregon Bar and to the North Fork American River turnaround/handicap-accessible parking area with proper width and informational/directional signage.

Through the management agreement for the Auburn SRA, Reclamation will require CDPR to monitor sign conditions, and repair or replace as needed. Additionally, CDPR staff and/or volunteers will provide enforcement of specific trail use rules and regulations in the Project area.

**Success Criteria:** Trail uses remain clearly demarcated and user conflicts avoided.

***Mitigation Measure 3.4-5: Minimize Littering at Public River Access Locations***

<b>Commitment:</b>	Control litter within the Project area and nearby adjacent areas.
<b>Responsible Parties:</b>	Reclamation/CDPR
<b>Location:</b>	Project area/Maidu Drive
<b>Timing:</b>	Ongoing Project operations
<b>Monitoring:</b>	Monitor adequacy of trash containers provided as part of Project; increase number, if needed
<b>Reporting Requirements:</b>	No specific reporting requirements

**Description of Activities:**

Through the management agreement for Auburn SRA, Reclamation will require CDPR to provide and maintain animal-proof trash containers at several locations in the public river access areas, including the Maidu Drive entrance, Auburn Dam batch plant parking area, Oregon Bar turnaround (at Cardiac Hill trailhead), near Oregon Bar, and at the riverside turnaround/handicap-accessible parking lot.

CDPR's park staff and volunteer patrols will work to enforce litter control rules.

**Success Criteria:** Document placement and maintenance of trash containers.

***Mitigation Measure 3.4-6: Provide Disabled Access Parking Area***

<b>Commitment:</b>	CDPR will coordinate with the lead agencies on design specifics to provide disabled river users with parking and river access.
<b>Responsible Parties:</b>	CDPR/Reclamation
<b>Location:</b>	Project area
<b>Timing:</b>	Ongoing Project operations
<b>Monitoring:</b>	No specific monitoring requirements
<b>Reporting Requirements:</b>	No specific reporting requirements

**Description of Activities:**

Reclamation will require the Construction Contractor to grade and construct three handicap-accessible parking spaces adjacent to the riverside turnaround, including one van accessible space. Design/construction will include placement of base rock and vibra-packing or rolling to provide a firm compact surface.

Reclamation will require the Construction Contractor to install signs indicating “loading zone, no parking” at the turnaround and signs indicating handicap-accessible parking, as appropriate.

Reclamation will require the Construction Contractor to create a short trail meeting American Disabilities Act standards. The trail will consist of compacted gravel will lead from the handicap-accessible parking lot to a location near the river.

**Success Criteria:** Provision of handicap-accessible river access.

**3.5 VISUAL RESOURCES*****Mitigation Measure 3.5-1: Blend Project Features with Surrounding Landscape***

<b>Commitment:</b>	Minimize visual quality impacts by designing Project features to blend with the surrounding landscape, to the extent feasible. Public river access features will be limited and “rustic.”
<b>Responsible Party:</b>	Reclamation
<b>Location:</b>	Project area
<b>Timing:</b>	Project design
<b>Monitoring:</b>	No specific monitoring requirements
<b>Reporting Requirements:</b>	No specific reporting requirements

**Description of Activities:**

Reclamation will ensure that final project design includes measures to blend the Project features into the surrounding landscape/viewshed. Preliminary Project design elements identified to minimize visual impacts include the following:

- Pump station will be composed of light colored split-face block to avoid introducing new source of glare to area.

- Intake will be designed and constructed to look like a natural component of the river channel.
- Bypass tunnel openings will be enclosed in such a way that the closure blends with the surrounding environment.
- Trails and access roads will be constructed to blend in with surrounding landscape. Limited improvements will be made such that these features are "rustic" in nature, consistent with the Auburn Interim Resources Management Plan.
- Removal of vegetation will be minimized to extent necessary to create trails, roads and fire breaks.

**Success Criteria:** Completed structures/features blend with surrounding area.

### 3.6 CULTURAL RESOURCES

#### *Mitigation Measure 3.6-1: Stop Construction Activities if Cultural Resources or Human Remains are Uncovered*

**Commitment:** Protect any undiscovered prehistoric (e.g., arrowheads, mortar, human bones) or historic artifacts (e.g., glass, ceramics, metal, nails) according to CEQA Guidelines and Reclamation's Directives and Standards, LND 07-01. Notify authorities and follow procedures according to Reclamation's Directives and Standards, LND 07-01.

**Responsible Parties:** Reclamation/Construction Contractor

**Location:** Entire Project construction area

**Timing:** During all phases of construction (2002 through 2004)

**Monitoring:** No specific monitoring requirement

**Reporting Requirements:** The discoverer of human remains must contact Reclamation's Regional Director/designee (contract officer's representative) immediately by telephone or in person, followed by written confirmation of the discovery within 48 hours.

#### **Description of Activities:**

If previously unidentified cultural resources are encountered during Project construction, Reclamation will require the Construction Contractor to stop construction work within 20 meters of the material(s) and the contract officer's representative will be sought immediately and will contact Reclamation's Regional Archaeologist/designee. If human remains are uncovered the Construction Contractor will notify Reclamation immediately.

#### **Success Criteria:**

Through communication with construction personnel, provide procedure to respond to uncovering of any discovered prehistoric or historic artifacts.

***Mitigation Measure 3.6-2: Develop and Implement Programmatic Agreement with State Historic Preservation Officer (SHPO) Regarding Potential Indirect Impacts at Shasta Reservoir***

<b>Commitment:</b>	Reclamation will develop a Programmatic Agreement with SHPO that defines what action(s) will be taken, if needed.
<b>Responsible Party:</b>	Reclamation
<b>Location:</b>	Shasta Reservoir
<b>Timing:</b>	Project operation
<b>Monitoring:</b>	To be determined in Programmatic Agreement
<b>Reporting Requirements:</b>	To be determined in Programmatic Agreement
<b>Description of Activities:</b>	To be determined in Programmatic Agreement
<b>Success Criteria:</b>	To be determined in Programmatic Agreement

### 3.7 TRANSPORTATION AND CIRCULATION

***Mitigation Measure 3.7-1: Develop and Implement a Construction Traffic Management Plan (Traffic Plan)***

<b>Commitment:</b>	Prepare and implement a Traffic Plan to promote efficient and safe access to the Project site and reduce Project traffic impacts on local roadways. Ensure coordination with local emergency service providers to avoid impacts on emergency access.
<b>Responsible Parties:</b>	Reclamation/Construction Contractor
<b>Location:</b>	Project area/adjacent roadways
<b>Timing:</b>	Prior to and throughout all phases of construction
<b>Monitoring Type:</b>	On-Site Monitor regularly determine compliance with plan
<b>Reporting Requirements:</b>	No specific reporting requirement

**Description of Activities:**

Reclamation will require the Construction Contractor to prepare a Traffic Plan. The Traffic Plan shall include the following elements:

- ❑ Identify the ability of access routes to accommodate anticipated level of construction vehicle and truck traffic. Factors would include road width, surface conditions, and vertical clearance.
- ❑ Require construction personnel and supply deliveries to limit use of Maidu Drive during the peak school-related travel times, including: morning school drop-off (approximately 7:15 a.m. to 8:15 a.m.) and afternoon school pick-up (2:30 p.m. to 3:30 p.m.) throughout the school year.
- ❑ Identify and secure easements necessary for roads and staging areas, including consideration of improvement and maintenance costs, construction traffic signs, restoration activities, and damage provisions, as applicable.

- Encourage Construction Contractor to have construction personnel carpool and/or provide vanpool or bus transport during peak work periods to minimize fuel consumption and reduce total number of vehicle trips.
- Ensure the safety of all people (local residents) potentially affected by construction traffic by making them aware of construction activities. Affected residents would be informed about the expected changes in traffic levels, and reasonable accommodations to help ensure safety (e.g., temporary fencing and slower construction speed limits may be appropriate).
- Coordinate with the City of Auburn to determine the location and timing of other construction activities. The coordination and planning will determine that sufficient public notice and roadway hazard warning systems (signage/detours) are in place for the entire construction period.
- Provide notification to local emergency service providers (police, sheriff, fire, ambulance services) on a regular basis regarding the timing, location, and duration of construction activities.

**Success Criteria:** Traffic Plan implementation minimizes potential congestion or other safety concerns in study area.

### ***Mitigation Measure 3.7-2: Provide Information Regarding New Public River Access***

**Commitment:** Provide local residents and anticipated recreation user groups with information that will inform interested parties of changes in use at the Project area. Promote courteous use of Project area.

**Responsible Parties:** Reclamation/CDPR

**Location:** Project study area/City of Auburn – local neighborhood

**Timing:** Prior to and during operation of public river access features

**Monitoring:** No specific monitoring requirements

**Reporting Requirements:** No specific reporting requirements

#### **Description of Activities:**

Reclamation will require CDPR to implement a Public Information Program prior to opening the river access sites for public use which will include distribution of materials that detail the location, access routes, capacity and hours of operation. Distribute to local residents and recreation organizations.

CDPR will limit the hours of operation of the public river access features. Generally, hours of operation will correspond to upstream river flow releases that provide suitable boating flow through the Project area. Vehicular access outside of these hours will not be permitted and will be prevented by the locked entrance gate. CDPR staff will ensure that the parking area and access roads are clear of vehicles prior to gate closure.

CDPR will not permit overnight parking or camping within the area.

CDPR, if needed, will post signs along Auburn-Folsom Road on either side of the Maidu Drive intersection to indicate whether the river access parking lot is full as a means of minimizing unnecessary traffic travel along Maidu Drive.

PCWA will pay the City of Auburn a traffic impact mitigation fee commensurate with those collected from a residential development generating the same level of traffic. These fees will be applied to traffic control strategies deemed appropriate and necessary by the City of Auburn.

**Success Criteria:** Through the management agreement for Auburn SRA, Reclamation will require CDPR to document completion of all activities. PCWA to record payment of mitigation fees to City of Auburn.

### 3.8 AIR QUALITY

#### *Mitigation Measure 3.8-1: Minimize Ozone Precursor Emissions During Project Construction*

**Commitment:** Implement air emission control measures to reduce amount of ozone precursors, reactive organic gases (ROG) and nitrogen oxides (NO<sub>x</sub>), emissions during construction.

**Responsible Parties:** Reclamation/Construction Contractor

**Location:** Project area

**Timing:** During all phases of construction (2002 through 2004)

**Monitoring:** Inspect Project area construction activities and indicate compliance with Placer County and El Dorado County Air Pollution Control District (APCD) requirements. APCD representatives may inspect Project site to ensure compliance with measures.

**Reporting Requirements:** Construction compliance reports/daily inspector reports

**Description of Activities:**

Reclamation will ensure that the Construction Contractor implements the following emission-reduction measures to minimize ozone precursor concentrations:

- Use low emission mobile construction equipment allowed for use in Placer and El Dorado counties;
- Maintain stationary and mobile construction equipment engines by keeping them tuned and in proper running order;
- Use only diesel fuel allowed for use by California State Fuel Standards;
- Use low emission on-site stationary equipment;
- Use only fuel allowed for use by California State Fuel Standards for stationary construction equipment;

- Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators; and
- Actively coordinate with Placer County and El Dorado County APCDs during construction.

Additionally, where feasible, implement emission control strategies that are considered Best Available Control Technology for diesel-fueled construction equipment.

**Success Criteria:** Document compliance with requirements. Record APCD inspection dates and results.

***Mitigation Measure 3.8-2: Minimize PM<sub>10</sub> Emissions During Project Construction***

**Commitment:** Implement air emission control measures to reduce level of PM<sub>10</sub> emissions during construction.

**Responsible Parties:** Reclamation/Construction Contractor

**Location:** Project area

**Timing:** During all phases of construction (2002 through 2004)

**Monitoring:** Inspect Project area construction activities and indicate compliance with Placer County and El Dorado County APCD requirements.

**Reporting Requirements:** Construction compliance reports/daily inspector reports

**Description of Activities:**

Reclamation will require the Construction Contractor to implement the following measures to reduce PM<sub>10</sub> emissions during construction:

- Water (sprinklers, water truck spray, other method) construction areas, haul roads, and disturbed soils as often as necessary to keep disturbed areas moist and control fugitive dust emissions.
- Cover any trucks hauling earth and debris to prevent dust emissions and spills onto paved roads, beyond the Project site.
- Sweep paved streets adjacent to the construction site to remove dust and dirt, as needed.
- Limit traffic speeds on all unpaved road surfaces to 15 miles per hour or less.
- Minimize the total active construction area (clearing, earth-moving, or excavation) to the extent practicable.
- Stabilize exposed/disturbed areas as soon as possible following completion of construction.

**Success Criteria:** Document compliance with requirements. Record APCD inspection results.

***Mitigation Measure 3.8-3: Minimize Potential for Disturbance of Asbestos and Exposure of Construction Personnel or General Public During Project Construction***

<b>Commitment:</b>	Reclamation will determine the potential for asbestos-containing rock to be encountered at the Project site. Depending upon the likelihood of such, the Construction Contractor will be required to implement air emission control measures to reduce the level of asbestos emissions during construction; as determined appropriate for the Project site and specific earthwork activities.
<b>Responsible Parties:</b>	Reclamation/Construction Contractor
<b>Location:</b>	Project area
<b>Timing:</b>	During all phases of construction (2002 through 2004)
<b>Monitoring:</b>	Inspect Project area and indicate compliance with Placer County APCD, El Dorado County APCD, and California Air Resources Board (CARB) requirements, as applicable.
<b>Reporting Requirements:</b>	Construction compliance reports/daily inspector reports

**Description of Activities:**

Reclamation will determine the presence of and potential for construction to disturb asbestos-containing rock areas in the Project area. Should the likelihood be determined to be low, Reclamation will require the controls listed below as contingency measures in the construction contract, to be implemented in the event asbestos is encountered during earthwork.

As a precautionary measure, the construction specifications will require the contractor to obtain air samples periodically during earth moving and drilling operations to document whether an asbestos hazard exists.

Reclamation will require the Construction Contractor to meet all applicable requirements of the Placer County APCD, El Dorado County APCD (Ordinance 4548), and CARB for any grading, excavation or other construction that potentially could result in the disturbance of asbestos-containing rock. Provisions that may apply include the following:

- Apply chemical soil stabilizers to inactive construction areas.
- Regularly clean construction equipment.
- Suspend all grading operations when instantaneous wind speeds exceed 25 miles per hour.
- Stabilize exposed or disturbed areas as soon as possible after disturbance.
- If required, implement additional measures required by CARB for Asbestos Control

If asbestos-containing rock areas are determined to occur on site, construction personnel exposure to asbestos will be reduced by the implementation of standard California Occupational, Safety, and Health Administration protective measures including monitoring, awareness training and personal

hygiene. The construction management plan will include practices to reduce public exposure to asbestos fibers. Such practices will include:

- ❑ Geotechnical survey of excavation areas to map areas of serpentine rock.
- ❑ Public notification regarding blasting and earthwork prior to and throughout construction.
- ❑ Closure of site to public access with warning signs alerting the public to potential exposure to asbestos.
- ❑ Monitoring of residential and Project site asbestos levels during earthwork and blasting.
- ❑ Watering of active construction areas to minimize air dispersal of asbestos and dust.
- ❑ Worker education briefings regarding risks and ways to minimize health risks including personal hygiene practices. In addition, minimize worker exposure by implementing an asbestos mitigation plan and by requiring proper protective clothing and respiratory devices if deemed necessary after monitoring asbestos concentrations.

### 3.9 NOISE

#### *Mitigation Measure 3.9-1: Minimize Noise During Project Construction*

<b>Commitment:</b>	Comply with local (El Dorado County, Placer County and City of Auburn) general plan noise ordinance requirements to minimize construction-related noise impacts.
<b>Responsible Parties:</b>	Reclamation/Construction Contractor
<b>Location:</b>	Project area/City of Auburn (neighborhoods near site)
<b>Timing:</b>	During all phases of construction (2002 through 2004)
<b>Monitoring:</b>	Monitor noise levels during periods of peak and/or unusually noisy construction activity
<b>Reporting Requirements:</b>	Construction compliance reports/daily inspector reports

#### **Description of Activities:**

Reclamation will enforce Reclamation's Safety and Health Standards regarding noise. Additionally, as specified in local noise ordinances, construction activity will be limited as follows:

- ❑ Noise-generating construction activities will be scheduled Monday through Friday (7:00 a.m. to 6:00 p.m.) and Saturday (9:00 a.m. to 5:00 p.m.). Saturday activities will be restricted, however, to be consistent with the City of Auburn Noise Ordinance.

On-site construction practices will include the following:

- ❑ Construction activities which generate noise levels above 95 decibels (dB) at 50 feet (e.g., impact pile driving, rock drilling, and blasting) will be limited to the hours of 9:00 a.m. to 5:00 p.m., Monday through Friday, and will not be permitted on Saturday or Sunday.

- All diesel construction equipment will be adequately muffled as recommended by the manufacturer.
- Stationary construction equipment will be located as far as possible from resident boundaries.

**Success Criteria:** Construction noise levels remain within an acceptable range according to applicable standards and ordinances.

***Mitigation Measure 3.9-2: Minimize Operational Noise Levels by Enclosing Pumps***

**Commitment:** Reduce the pump station operational noise levels by enclosing pumps in a structure that reduces noise levels to 45 dB at nearest residences.

**Responsible Parties:** Reclamation/Design Team

**Location:** Pump station/adjacent neighborhood

**Timing:** One-time design/construction

**Monitoring:** Following construction, monitor noise levels reached within adjacent neighborhoods to ensure compliance with local noise ordinances (i.e., 45 dB at nearest residence).

**Reporting Requirements:** Indicate noise level reduction achieved

**Description of Activities:**

Reclamation will require the Construction Contractor to enclose the pumps in a building designed to reduce noise impacts to the surrounding area. The building will reduce noise to 45 dB at the nearest residences to comply with the City of Auburn and Placer County noise level performance standards for residential land uses.

**Success Criteria:** Document achievement of noise level reduction and compliance with local noise ordinance standards.

***Mitigation Measure 3.9-3: Minimize Noise Levels Associated With Public Use of River Access Features***

**Commitment:** Enforce California Code of Regulations (CCR) Title 14, CCR 4320, Peace and Quiet, within the Auburn SRA.

**Responsible Parties:** Reclamation/CDPR

**Location:** Public river access areas

**Timing:** Ongoing; when public river access facilities are open for use

**Monitoring:** Review records of neighborhood complaints and adjust enforcement level, as needed

**Reporting Requirements:** No specific reporting requirements

**Description of Activities:**

Reclamation, through its Auburn SRA management agreement with CDPR, will require CDPR to enforce hours of use and restrictions upon use of noisy equipment (e.g., radios) per CCR 4320, Peace and Quiet. Through this agreement, CDPR will be responsible for responding to and handling noise-related complaints associated with public use in the area.

**Success Criteria:** Minimal noise-related concerns or complaints.

### 3.10 PUBLIC HEALTH AND WORKER SAFETY

#### *Mitigation Measure 3.10-1: Minimize the Potential for Increased Erosion and Slope Instability During Project Construction*

**Commitment:** Implement the best available engineering design standards and grading techniques to reduce the possibility of undue risks to members of the public and/or additional environmental degradation that could be caused by erosion, mass wasting or unstable slope conditions.

**Responsible Parties:** Reclamation/Construction Contractor

**Location:** Project area

**Timing:** During all phases of construction (2002 through 2004)

**Monitoring:** Regular on-site inspection of active construction areas

**Reporting Requirements:** Construction compliance reports/daily inspector reports

**Description of Activities:**

Reclamation will require the Construction Contractor to perform all grading and excavation operations such that the potential for creating unstable slopes or landslides would be minimized. Potential measures include terracing, reducing slope angles, and reducing the height of cut and fill slopes.

Reclamation will require the Construction Contractor to fence-off or identify with temporary markers, areas of substantial instability in order to prevent unauthorized access.

**Success Criteria:** Hazardous unstable slope conditions are avoided.

#### *Mitigation Measure 3.10-2: Minimize Potential for Increased Exposure to Hazardous Materials or Fire Risk During Project Construction*

Fuel would be stored on-site in an amount that exceeds the storage limit specified in the Placer County right-to-know reporting program, and as a result, a spill prevention and containment plan will be implemented and compliance with chemical storage and use requirements will be followed.

<b>Commitment:</b>	Use potentially hazardous materials according to manufacturers instructions. Minimize potential for fire hazard due to construction activities.
<b>Responsible Parties:</b>	Reclamation/Construction Contractor
<b>Location:</b>	Project area
<b>Timing:</b>	During all phases of construction (2002 through 2004)
<b>Monitoring:</b>	Inspect and record use of hazardous materials
<b>Reporting Requirements:</b>	Construction compliance reports/daily inspector reports

**Description of Activities:***Hazardous Materials*

Reclamation will require the Construction Contractor to ensure compliance with all applicable hazardous material regulations, including regulations for blasting operations.

Reclamation will require the Construction Contractor to provide evidence of worker training and education on the proper transport, storage, handling, and use of hazardous materials and explosives.

Reclamation will require the Construction Contractor to restrict public access in areas of hazardous material storage or use.

*Fire Protection and Prevention*

Reclamation will ensure that the Construction Contractor prepare and implement an effective fire protection and prevention program covering all phases of construction under the contract. This plan will be submitted to Reclamation's Construction Engineer for approval prior to construction operations. Construction Contractor will provide and maintain a fire-tool cache and a sufficient number of employees familiar with this equipment will be available at all times when work is in progress.

In the event of a fire resulting from Project operations, the local fire-protection agency will be notified and the contractor shall take immediate control action with all available equipment and manpower.

In areas where a significant fire hazard exists as determined by the Contracting Officer, the contractor shall provide a fire patrol for one hour after the shutdown of construction operations each day during the fire season.

Contractor will establish a firebreak on the uphill side of the Project in areas where natural fuels are present and where existing roads or creek beds will not serve the purpose. The firebreak will be within the right-of-way acquired by Reclamation and will consist of a 10-foot wide strip with flammable material either cleared or covered with mineral soil.

Where normal fire protection services are interrupted by construction operations, the contractor will provide equivalent temporary services including water supplies and access for fire equipment through the Project area.

All construction operations will be in compliance with Reclamation Construction Safety Standards and all applicable state and federal codes.

**Success Criteria:** Document compliance with all activities.

***Mitigation Measure 3.10-3: Remove All Construction-related Materials From Project Site Prior to Opening for Public Use***

**Commitment:** Ensure public safety within the Project area.  
**Responsible Parties:** Reclamation/Construction Contractor  
**Location:** Project area  
**Timing:** Upon completion of construction/prior to opening site for public use  
**Monitoring:** On-site Monitor to inspect site following clean-up efforts and demobilization.  
**Reporting Requirements:** Final construction compliance report

**Description of Activities:**

Reclamation will require the Construction Contractor to remove all waste materials, rubbish and unused construction materials from the Project site after construction and before public access into the area is granted.

**Success Criteria:** Document site condition in final construction report.

***Mitigation Measure 3.10-4: Minimize the Risk of Public Exposure to Fire Hazards During Project Operations***

Reclamation, California Department of Forestry and Fire Protection (CDFFP), and CDPR developed a comprehensive fire management plan for the Auburn Dam and Reservoir lands/Auburn SRA. This activity involved coordination and consultation with the City of Auburn, the American River Watershed Group, and other local organizations including Fire Safe Councils within the Auburn area.

**Commitment:** Provide fire protection services including fire prevention and suppression.  
**Responsible Parties:** Reclamation/CDPR/CDFFP  
**Location:** Project area/Auburn SRA  
**Timing:** During construction/ongoing once public river access is granted.  
**Monitoring:** No specific monitoring requirements  
**Reporting Requirements:** No specific reporting requirements

**Description of Activities:**

Reclamation will be responsible for ensuring implementation of the Comprehensive Fire Management Plan. Agencies involved in coordination and implementation of the plan include

Reclamation, CDPR, and CDFFP. Additionally, will CDPR enforce the provisions of CCR Title 14, Section 4311 restricting fires and smoking at the public river access locations.

The Fuels Management Plan element of the Comprehensive Fire Management Plan includes establishment and maintenance of shaded fuel breaks adjacent to all public access roads associated with the Project. This includes the main construction road from Maidu Drive to the batch plant, the road from the batch plant to Oregon Bar, and the road from the batch plant to the riverside turnaround and handicap-accessible parking lot (across the river from the existing tunnel outlet). Shaded fuel breaks also will be constructed around the batch plant parking area and both turnarounds.

Additional measures include:

- ❑ Implementation of standards set forth in Public Resources Code 4290 to ensure safe passage of fire suppression resources and egress of private vehicles should a wild fire occur in the canyon. These standards address road widths, turnouts, and dead-end turnarounds.
- ❑ Placement of distance/mile markers along Project area trails to aid rescuers in emergency situations to locate hikers that may become disabled or lost.

Additionally, a 300-foot wide shaded fuel break is being constructed between the houses adjacent to Auburn SRA and the Maidu Drive/Skyridge neighborhood. Construction of the shaded fuel breaks is being completed separately from the Project in cooperation between CDPR, CDFFP and Reclamation. However, although not part of the Project, this action will serve to benefit the Project area and further reduce potential risk of fire in the study area.

**Success Criteria:** Placement of shaded fuel breaks. Ongoing agency coordinated protection of area.

### ***Mitigation Measure 3.10-5: Prevent Vehicular Access in Undesignated Areas***

**Commitment:** Restrict vehicular public access to permitted routes only.  
**Responsible Parties:** Reclamation/Construction Contractor and CDPR  
**Location:** Project area roads  
**Timing:** Permanent barriers  
**Monitoring:** Monitoring condition of barriers and provide replacement or repair, as needed  
**Reporting Requirements:** No specific reporting requirements

#### **Description of Activities:**

Reclamation will require the Construction Contractor to install large rocks, guard rail posts, or other barriers at all trail or road intersections or termination points where off-road public access is to be restricted.

Reclamation will require CDPR to monitor the condition of these barriers and provide maintenance, repair or replacement, as needed.

**Success Criteria:** Road barriers remain in place and prevent off-road vehicular use in Project area.

***Mitigation Measure 3.10-6: Minimize Inappropriate or Illegal Activities at Public River Access Locations***

**Commitment:** Patrol and enforce state regulations regarding illegal or inappropriate activities.

**Responsible Party:** CDPR, through management agreement with Reclamation

**Location:** Project area - public river access features

**Timing:** Ongoing during use of public river access sites

**Monitoring:** Record incidents and how they were handled

**Reporting Requirements:** According to CDPR requirements

**Description of Activities:**

Reclamation, through the Auburn SRA management agreement, will require CDPR to post the rules and regulations applicable to use of the Project area at the entrance and at each of the parking areas and turnaround locations. The following restrictions are anticipated:

- No alcohol use.
- No open fires or smoking.

A new gate will be installed at the junction of Maidu Drive and the public access road into the canyon. An entrance station is to be constructed near the junction of Maidu Drive and the construction road into the dam site that will be used as the access road; the station will be manned during all hours of operation.

The gated entrance station will limit vehicle access to designated hours.

***Mitigation Measure 3.10-7: Limit Public Access to Water Supply Facilities and Structures***

**Commitment:** Protect PCWA's facilities and minimize public safety issues due to misuse of water supply facilities.

**Responsible Party:** PCWA

**Location:** Project area/river channel

**Timing:** Post-construction

**Monitoring:** Inspect fencing and signs on a regular basis and repair/replace as needed

**Reporting Requirements:** Record condition of facilities in operations and maintenance log book

**Description of Activities:**

Prior to opening the site, PCWA's water supply facilities (on land) would be enclosed, to the extent feasible, in order to minimize public access or injury.

Signs indicating PCWA's ownership of the structures/facilities and warning of potential hazards would be posted in strategic locations to discourage unauthorized access.

CDPR's patrolling of the area will provide further management and reduction of potential unauthorized use.

## **4.0 PUBLIC OUTREACH AND INFORMATION PROGRAM**

Several of the mitigation measures include provision of information to the general public regarding construction activities. This section generally outlines the steps to establish the program to implement these activities and the type of information to be provided to the public.

### **4.1 PROJECT PUBLIC INFORMATION MAILING LIST**

PCWA, Reclamation and CDPR will develop and maintain a mailing list of interested parties, nearby landowners and others to receive periodic mail-outs describing different aspects of Project construction activity.

### **4.2 PROJECT CONSTRUCTION SCHEDULE AND ACTIVITY INFORMATION**

Reclamation, as the construction management agency, will develop periodic newsletters or other specific informational pieces and distribute to appropriate mailing list addresses to inform the public of construction activity.

Suggested informational packages include the following:

1. Pre-Construction Information Package
2. Phase I Construction Information Package
3. Phase II Construction Information Package
4. Project Completion Announcement

Mitigation measures indicate provision of the following information:

#### ***Recreation***

Put up notices/provide mail-out in nearby communities, to recreation groups, the Auburn Recreation District, and sports/recreation shops that indicate the dates of construction and Project area trail restrictions.

Coordination between lead agencies and event sponsors will enable safe passage along event routes during set-up, operation and breakdown activities through the suspension and elimination of all potentially hazardous construction associated risks during these events.

#### ***Noise***

Provide local residents and recreation organizations with specific information regarding the Project construction schedule and activities. Such information would include the following details:

- ❑ Location of the Project
- ❑ Indication of restricted access in Project area
- ❑ Anticipated dates of construction
- ❑ Blasting information
- ❑ Expected noise levels and duration
- ❑ Name and phone number (or web page/email) for obtaining further information

***Fire Prevention***

Inform and involve local residents and businesses of resource agency efforts related to fire prevention planning in Project area.

***Transportation and Circulation***

Inform affected residents about expected construction-related traffic, especially construction mobilization and demobilization and reasonable accommodations to help ensure safety (e.g., temporary fencing and slower construction speed limits may be appropriate). Detail location, access routes, and hours of operation.

Notify local emergency service providers regarding the timing, location, and duration of construction activities. Provide any revisions to these agencies as soon as possible to ensure they have adequate and current details.

All material will include contact names and phone numbers to enable public access to additional information or clarification.

## **5.0 CONSERVATION MEASURES**

PCWA and Reclamation both participate in other activities or programs that serve to protect or enhance the natural environment within their respective project and service areas. These activities include PCWA's involvement in the Placer County habitat conservation and watershed protection programs and Reclamation's oversight/participation in various activities associated with the CVP. These activities are not mitigation for the American River Pump Station Project, but do assist in reducing the impacts related to regional water supplies and land development projects.

### **5.1 PLACER COUNTY WATER AGENCY**

#### **5.1.1 Coordination With U.S. Fish and Wildlife Service**

PCWA has participated in several meetings with Reclamation and USFWS representatives regarding the potential loss of habitat within the PCWA service area due to new development. Although PCWA does not have land use decision-making authority, it is recognized that some of the planned future development within Placer County likely would obtain its water supply from the American River pump station. PCWA has agreed to work with and develop a commitment with USFWS such that PCWA would not approve or provide new water supplies to new developments within a certain area, to be designated by USFWS, until USFWS certifies that the development is consistent with the interim strategy of the county's habitat conservation plan or equivalent documentation.

#### **5.1.2 Proposed Auburn Ravine Flow and Water Temperature Monitoring Program**

##### ***PCWA Commitment to Monitoring in Auburn Ravine***

Both NEPA and CEQA require the monitoring of post-project environmental conditions only in limited circumstances. Federal NEPA regulations state that "[a]gencies may provide for monitoring to assure that their decisions are carried out and should do so in important cases." (40 CFR § 1505.3). Under CEQA, state and local lead and responsible agencies need only conduct monitoring in order to ensure that adopted mitigation measures are actually carried out. (See Cal. Pub. Resources code, § 21081.6, subd. (a)(1); CEQA Guidelines, § 15097.)

Despite the absence of any expected adverse significant impact on the aquatic resources of Auburn Ravine from the Project, it became clear as a result of the comment and response process to the Draft EIS/EIR that additional data concerning Auburn Ravine and its resources would be desirable. Accordingly, PCWA proposes to conduct a data collection program in Auburn Ravine. Specifically, PCWA is now proposing that, if their respective decision-makers approve one of the alternatives outlined in the Final EIS/EIR, its actions will include a commitment to undertake certain monitoring efforts in order to amass a database that can be of use for future decision-making involving the American River and Auburn Ravine. The data at issue will be

made available to members of the public and to all state and federal regulatory agencies that have jurisdiction over activities occurring in these two waterways.

The monitoring program in Auburn Ravine will consist of two monitoring techniques: flow monitoring and water temperature monitoring.

### ***Flow Monitoring***

The objective of flow monitoring is to enhance the ability to determine water quantities associated with Auburn Ravine. A number of flow monitoring stations are proposed to meet this objective (**Figure 6**). Flow monitoring equipment will be placed at the following locations:

- ❑ On the discharge pipeline between the pump station and the Auburn Ravine Tunnel inlet portal;
- ❑ On the North Fork American River immediately downstream of the diversion for the pump station;
- ❑ Within the Auburn Ravine Tunnel near the tunnel outfall;
- ❑ Directly upstream at the Auburn Ravine Tunnel outfall;
- ❑ On Auburn Ravine a short distance upstream of the Lincoln Wastewater Treatment and Reclamation Facility (WWTRF);
- ❑ On Auburn Ravine a short distance downstream of the Lincoln WWTRF; and
- ❑ On Auburn Ravine a short distance upstream of the confluence with the Eastside Canal/Natomas Cross Canal.

Flow rates will be continuously monitored and recorded at 15-minute intervals and transferred to a central computer at least once a month. Monitoring may be terminated by PCWA 10 years after installation of monitoring devices provided a broad spectrum of precipitation year types has been documented.

### ***Water Temperature Monitoring***

The objective of the water temperature monitoring will be to quantitatively determine the effects of the activities in the Auburn Ravine drainage on water temperatures. For this reason, water temperature monitoring equipment will be deployed in areas related to the Project (Figure 6). Exact temperature logger locations will follow recommendations by the manufacturer and industry professionals, but the approximate water temperature monitoring locations will include:

- ❑ Directly upstream of the Auburn Ravine Tunnel outfall;
- ❑ Within the Auburn Ravine Tunnel near the tunnel outfall;



- Downstream of the Auburn Ravine Tunnel outfall after mixing occurs between Auburn Ravine and the Tunnel inflow;
- Directly upstream of the City of Lincoln WWTRF effluent outfall(s);
- Downstream of the City of Lincoln WWTRF effluent outfall(s) after mixing occurs between Auburn Ravine flows and the effluent;
- Directly upstream of the confluence between Auburn Ravine and the East Side Canal;
- Middle Fork American River upstream of the confluence with the North Fork American River; and
- North Fork American River, at the Project site.

Continuously recording loggers will be used to record water temperatures at 15-minute intervals at the monitoring locations. Temperature loggers will be serviced monthly and data will be downloaded to a central computer. More frequent service and data retrieval may be necessary when recorder loss or vandalism is possible. Monitoring may be terminated by PCWA 10 years after installation of monitoring devices provided a broad spectrum of precipitation year types has been documented.

## 5.2 U. S. BUREAU OF RECLAMATION

Reclamation has numerous programs and policies in place which are designed to assure that special-status species are protected and enhanced. These programs and policies are listed below.

### 5.2.1 Central Valley Project Improvement Act Programs

The Central Valley Project Conservation Program and the Central Valley Project Improvement Act (CVPIA) Draft Project Plan (b)(1) "Other" Program, described below, apply to the biological resources of Folsom Reservoir, lower American River, and the PCWA service area that could receive CVP water. These programs apply to special-status species and their habitats in areas affected by the CVP. PCWA does not currently receive any CVP water from Reclamation, however PCWA has a contract with Reclamation that allows annual diversion in the future of at least 35,000 AFA from the American River at Auburn or at other mutually agreed upon locations when PCWA fully uses their MFP water supply. The CVP water could be used in conjunction with Placer County's existing water rights in the PCWA service area.

#### *Central Valley Project Conservation Program*

The primary goal of the Conservation Program, developed and managed by Reclamation and the USFWS, is to implement an aggressive adaptive management program that will protect, restore, and enhance special-status species and their habitats in areas directly or indirectly affected by the CVP, especially in the Central Valley and in other areas where CVP water is delivered. Implementation of the Conservation Program, by addressing the needs of threatened and

endangered species, should reduce existing threats to special-status species whose historic or current range includes areas that have been affected by the CVP.

### ***Central Valley Project Improvement Act Draft Project Plan (b)(1) “Other” Program***

The purpose of the (b)(1) “Other” Program is to protect, restore, and mitigate for past fish and wildlife impacts of the CVP not already addressed by the CVPIA. The geographic boundary and scope of the (b)(1) “Other” Program include the areas and species that were directly or indirectly affected by construction or operation of the CVP, in addition to natural resources which were subject to secondary impacts from the use of CVP water. Direct effects pertain to impacts attributed to CVP facilities such as storage or diversion dams, canals, or pumping plants. Indirect effects are attributed to changes in the ecosystem, which are a result of these structures. Secondary impacts are attributed to alteration in habitat, primarily from development within the area served CVP water.

### ***Regional Wetlands Development Program***

The purpose of Reclamation’s Wetland Development Program (WDP) is to further Reclamation’s mission of managing its water resources in an environmentally sound manner for the benefit of the general public. The WDP was developed to participate, in partnership with others, in wetlands, riparian, and associated upland habitat protection, enhancement, and restoration. In addition, the WDP focuses on educating the public on the values of such habitats, as well as related water and agricultural resources.

### ***Anadromous Fish Restoration Program***

Section 3406(b)(1) of the CVPIA of 1992 requires the Secretary of the Department of the Interior to ...“*develop within three years of enactment and implement a program which makes all reasonable efforts to ensure that, by the year 2002, natural production of anadromous fish in Central Valley rivers and streams will be sustainable, on a long-term basis, at levels not less than twice the average levels attained during the period of 1967 to 1991...*”.

Further, Section 3406(b)(1)(A) requires that the program...“*give first priority to measures which protect and restore natural channel and riparian habitat values through habitat restoration actions, modifications to Central Valley Project operations, and implementation of the supporting measures mandated by this subsection...*”. Moreover, this section requires that the program “...*shall be reviewed and updated every five years; and shall describe how the Secretary intends to operate the Central Valley Project to meet the fish, wildlife, and habitat restoration goals and requirements set forth in this title and other Project purposes.*”

The USFWS and Reclamation are jointly implementing the CVPIA, including Section 3406(b)(1), through development of an Anadromous Fish Restoration Program to address the needs of those species identified for restoration actions in the CVPIA. A total of 172 actions have been identified to meet the intent of the CVPIA, 103 of which are assumed to have a high potential for implementation in the near future. For the American River, eight actions have been identified, with five having a high potential for near-term implementation:

1. Develop and implement a river regulation plan that meets flow objectives by modifying CVP operations, using Section 3406(b)(2) water, and acquiring water from willing sellers as needed.
2. Develop a long-term water allocation plan for the American River watershed.
3. Reduce and control flow fluctuations to avoid and minimize adverse effects on juvenile salmonids.
4. Reconfigure Folsom Dam shutters for improved management of Folsom Reservoir's coldwater pool and better control over the temperature of water released downstream.
5. Replenish spawning gravel and restore existing spawning grounds.
6. Improve the fish screen at the City of Sacramento E.A. Fairbairn Water Treatment Plant.
7. Modify the timing and rate of water diverted from the river annually to reduce entrainment losses of juvenile salmonids.
8. Develop a riparian corridor management plan to improve and protect riparian habitat and instream cover.

### **5.2.2 Lower American River Operations Working Group**

Reclamation participates in the operational working group established for the lower American River. This group, known variously as the Lower American River Operations Group or, American River Operations Group, or Folsom Reservoir Operations Working Group (ROWG) includes representatives from Reclamation, USFWS, CDFG, NMFS, Sacramento Area Flood Control Agency, Water Forum, City of Sacramento, County of Sacramento, Western Area Power Administration, and the Save the American River Association. The group generally convenes monthly, or more frequently, with the purpose of providing input to the management of Folsom Reservoir for fish resources in the lower American River, within the confines of water availability and other operational considerations.

Reclamation provides this group with information, such as flows for the prior several months, reservoir storage, Projected reservoir inflow, water temperature data, and Projected outflows. The ROWG uses this information to plan and develop the annual flow release schedule for Folsom Dam. This takes place on a monthly basis, or more frequently, with the group adapting and refining the Projected flow release schedule for the next month, and making necessary adjustments for the remainder of the year.

The ROWG not only provides input into the flow release schedule for Folsom Dam, but also into the adaptive management of the coldwater pool in Folsom Reservoir. The coldwater pool is influenced by numerous factors, not the least of which are inflow, inflow water temperatures, diversions, storage, and the volume of cooler, hypolimnetic waters in the reservoir. Water temperatures in the lower American River also are influenced by these factors, as well as by decisions about which elevation from which to draw water for release from Folsom Reservoir into the Nimbus Hatchery and down the lower American River. The ROWG provides regular

input regarding how best to manipulate the shutters on the power penstocks at Folsom Dam to most effectively manage the coldwater pool reserves and provide maximum thermal benefit to downstream aquatic resources.

AFA	acre-feet annually
APCD	Air Pollution Control District
BMPs	Best Management Practices
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFFP	California Department of Forestry and Fire Protection
CDFG	California Department of Fish and Game
CDPR	California Department of Parks and Recreation
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CSC	California species of concern
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
dB	decibel
DWR	California Department of Water Resources
EIS/EIR	Environmental Impact Statement/Environmental Impact Report
ESA	Endangered Species Act (federal)
MFP	Middle Fork Project
Mitigation Plan	Mitigation Monitoring and Reporting Program/Environmental Commitments Plan
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NO <sub>x</sub>	nitrogen oxides
PCWA	Placer County Water Agency
PG&E	Pacific Gas and Electric Company
PM <sub>10</sub>	particulate matter (up to 10 microns in size)
Project	American River Pump Station Project
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SC	species of concern (federal)
SHPO	State Historic Preservation Officer
SRA	State Recreation Area
SWP	State Water Project
Traffic Plan	Construction Traffic Management Plan
USFWS	U.S. Fish and Wildlife Service
WDP	Wetland Development Program
WWTRF	wastewater treatment and reclamation facility