CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

AMENDMENTS
TO
THE WATER QUALITY CONTROL PLAN FOR THE SACRAMENTO RIVER AND SAN JOAQUIN RIVER BASINS

FOR

THE CONTROL OF SALT AND BORON DISCHARGES INTO THE LOWER SAN JOAQUIN RIVER

FINAL STAFF REPORT

APPENDIX 5: TECHNICAL EVALUATION OF ALTERNATIVES

10 September 2004

State of California

California Environmental Protection Agency

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D I S C L A I M E R

This publication is a report by staff of the California Regional Water Quality Control Board, Central Valley Region. This report contains the evaluation of alternatives and technical support for the adoption of an amendment to the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Resolution No. R5-2004-0108). Mention of specific products does not represent endorsement of those products by the Regional Board.

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Final Staff Report
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1 INTRODUCTION

This Appendix describes modeling conducted to evaluate four alternatives for implementing a control program for salt and boron discharges into the Lower San Joaquin River (LSJR). The two primary modeling goals were: 1)to determine the effect of implementing each alternative on long-term water quality compliance and; 2)to estimate the drainage volumes and associated salt loads that would need to be retained by dischargers to comply with each implementation alternative. The volume of retained drainage is used to calculate the cost to implement each alternative (Appendix 4). The modeling provides an estimate of expected long-term water quality conditions, stated in terms of exceedances of the San Joaquin River at Airport Way Bridge near Vernalis (Vernalis) salinity water quality objective. Absolute prediction of water quality or water quality exceedance rates resulting from implementation of each alternative is not implied; rather, the model results are most appropriately used to compare the relative changes in expected long-term water quality exceedance rates resulting from implementation of different drainage control scenarios.

The alternatives evaluated are described on pages 69 and 70 of the main staff report and include:

- Alternative 1: No Project/No Action
- Alternative 2: Prohibition of Discharge
- Alternative 3: Fixed Base Load Allocations
- Alternative 4: Real-Time Load Allocations
    a) No Re-Operation of Drainage
    b) Re-Operation of Drainage

A combination of operations (flow), water quality, and spreadsheet models were used to estimate the expected salinity exceedance rates and the volume of drainage needing treatment associated with each alternative. Table 5-1 summarizes the steps and tools used to evaluate the alternatives.

In step one, monthly river flow data for a 73-year period was generated using the Department of Water Resource's DWRSIM operations model. Output from DWRSIM was used, in step two, as input for boundary conditions in the San Joaquin River Input Output Model (SJRIO). SJRIO was used to calculate flow and TDS data for a 60-mile reach of the LSJR from Lander Avenue to the Airport Way Bridge near Vernalis for the same 73-year period. Steps three and four were performed concurrently to calculate agricultural subsurface and surface drainage and wetland discharges in the LSJR Basin. In step three, SJRIO was used to calculate agricultural subsurface and surface drainage that is discharged directly to the main stem LSJR based on calibrated historical runs made for water years (WYs) 1977 through 1985. In step four, Grassland Bypass Project monthly data reports for WYs 1997 through 2002 (SFEI, 2003) were compiled to calculate agricultural subsurface drainage discharges made to Mud and Salt Sloughs. Also in step four, the flow and TDS of wetland discharges and agricultural surface drainage were calculated using historical wetland supply data and simple spreadsheet models. Information from steps two through four was then used in a spreadsheet model

that calculated water quality exceedance rates and the volumes of drainage water that need to be retained to comply with water quality objectives for baseline conditions (no-action) and other alternatives. The following sections describe, in more detail, the models, methods, and assumptions used in this analysis.

Table 5-1: Overview of Modeling Approach

Steps in Modeling Process	Model Used/Data Source
1. Compile input hydrology for SJRIO boundary conditions	DWRSIM output from CALFED Study 771
2. Calculate LSJR flow and TDS for Vernalis	SJRIO Monte Carlo simulation
3. Calculate agricultural subsurface and surface discharges to the LSJR (flow and TDS)	SJRIO historical run 1977 through 1995
4. Calculate disaggregated Grassland Subarea discharges (agricultural subsurface and surface drainage and wetland discharges (flow and TDS))	Grassland Bypass Project monthly data reports October 1996-October 2002 (SFEI, 2003) and Spreadsheet models
5. Impose drainage controls, calculate exceedance rates and volume of drainage that must be retained for compliance with Alternatives 1through 4	Spreadsheet Model

2 DWRSIM

DWRSIM is a generalized planning model that is designed to simulate the river and reservoir systems upstream of the Sacramento and San Joaquin River Delta, Delta export operations, and the SWP and the CVP conveyance systems in the export areas. The DWRSIM model has recently been upgraded and replaced by CALSIM. The CALSIM studies needed for this TMDL analysis and economic analysis were not available at the time these analyses were conducted, necessitating use of DWRSIM. CALSIM did not make major changes to the methods used to generate SJR hydrology so differences in model output between the two models are likely small. Even large changes are unlikely to change conclusions reached using this analysis since conclusions are based solely on calculated differences from base case conditions.

DWRSIM operates on monthly time-step and models flow in the SWP, the CVP, and the Delta over a 73-year period of record for WYs) 1922 through 1994. DWRSIM and its component models (Depletion Analysis, Consumptive Use Model) can be used to calculate historic flow in the LSJR under various levels of development. The Depletion Analysis, Consumptive Use Model, and DWRSIM operate by first calculating unimpaired runoff or the flow that would have occurred under native (pre-water development) conditions for the entire 73-year period of record. Once unimpaired runoff is calculated the model superimposes the desired level of development (structural and operational) on the historic unimpaired flows. The model therefore simulates the historic flows as if the system was operated historically the same way it is operated under current conditions. DWRSIM output includes river flows, diversions, and return flows at various control points (nodes) within the system and model output for a number of DWR studies is available via the internet. A full description of the DWRSIM model can be found in chapter four of the FEIR for implementation of the 1995 Bay/Delta Water Quality Control Plan (SWRCB, 1999).

Though extensive historical flow data is available for the LSJR, use of the historical flow data is inherently flawed because numerous structural and operational changes have affected LSJR hydrology over time, therefore past hydrologic conditions are not necessarily a good indicator of future conditions. The New Exchequer Dam on the Merced River was completed in 1969, Don Pedro Dam on the Tuolumne River was completed in 1971, and New Melones Dam on the Stanislaus River was completed in 1979. These dams significantly altered the annual and seasonal flow patterns of the LSJR. More recently, major operational changes caused by the Central Valley Project Improvement Act (CVPIA) and the Vernalis Adaptive Management Program (VAMP) have also changed LSJR hydrology.

To consider changes that have altered LSJR hydrology, input hydrology for this analysis is based on results of the DWRSIM model. DWRSIM was used to compile a 73-year time series of monthly flows for the following LSJR boundary locations (Figure 5-1):

1. LSJR Upstream of Salt Slough
2. Merced River upstream of the LSJR confluence
3. Tuolumne River upstream of the LSJR confluence
4. Stanislaus River upstream of the LSJR confluence

Specifically, output for DWR Study 771 was used to represent baseline hydrology. Study 771 was used for this analysis because it best represents current conditions by simulating flows with the existing infrastructure and operational policies in place. CALFED Study 771 includes water releases that are currently being made by the USBR, primarily from the New Melones Reservoir, to meet WQOs at Vernalis. These releases were prescribed by the State Water Board's Decision 1641 (SWRCB, 2000) to ensure that the Vernalis EC objectives are achieved. DWRSIM output data used for this analysis is included as Attachment 5-1. Documentation of the DWRSIM modeling procedures and assumptions made for CALFED Study 771 are available from DWR.

3 SAN JOAQUIN RIVER INPUT OUTPUT MODEL

The SJR Input-Output model (SJRIO) is a mass balance water quality model originally developed by SWRCB and University of California, Davis staffs as part of the SWRCB Order No. 85-1 Technical Committee Report (SWRCB 1987). An extensive database for WYs 1977 to 1985 was assembled to run the model. The original model, and the database created to run it, were developed to meet the following objectives:

- To quantify the waste loads of TDS, boron and selenium in the LSJR from each type of discharge (e.g., agricultural subsurface discharges, municipal and industrial discharges, groundwater accretions, etc.).
- To quantify the concentrations and loads of TDS, boron and selenium in the LSJR.
- To project future levels of TDS, boron, and selenium in the LSJR based on the possible implementation of various management alternatives for meeting proposed water quality objectives in the river.

SJRIO was modified to run with historical data, stochastic data, or a combination of both (Grober and Kratzer 1989, Rashmawi et al. 1989). Further refinements added functions to perform multivariate time series analyses of major model components and to generate stochastic data for Monte Carlo simulations (Grober et al. 1992). The current version of the monthly model, SJRIO2, accepts stochastic data and can be used as a probabilistic tool.

The monthly model has been extensively tested and calibrated using historical data (Kratzer et al. 1987). Agricultural drainage management scenarios have been appraised by performing sensitivity analyses with various levels of drainage reduction used as input to the model (Pickett and Kratzer 1988). Multivariate time series analyses and Monte Carlo simulations have been performed to assess the probability of exceeding water quality objectives with various levels of drainage reduction (Grober et al. 1992).

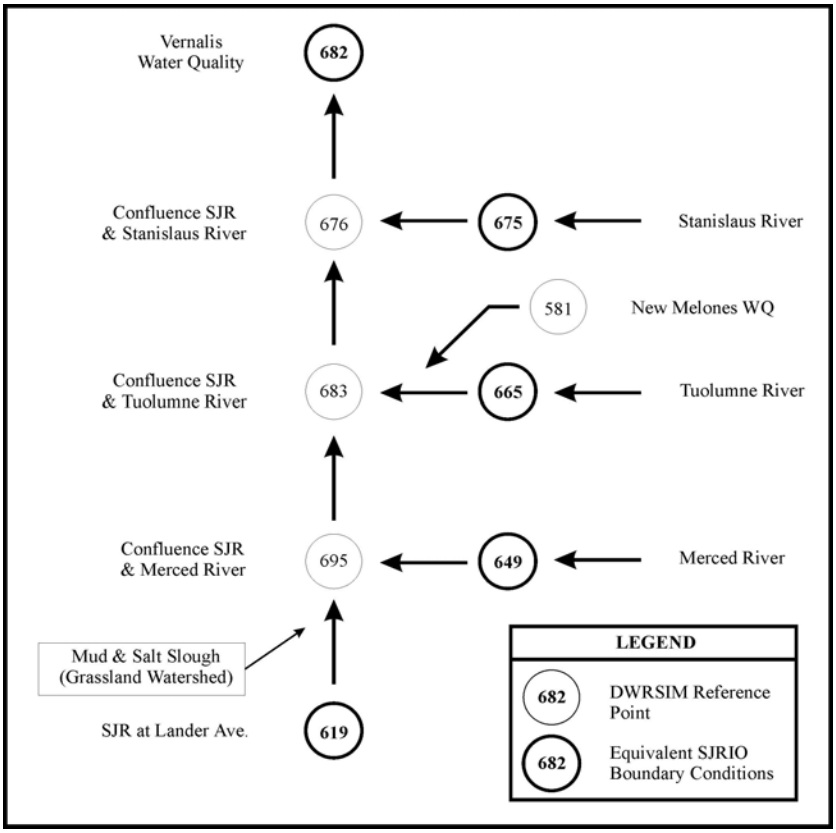

Figure 5-1:Relationship between DWRSIM Control Points and SJRIO Boundary Conditions

3.1 SJRIO Model Description

SJRIO uses hydrologic routing techniques and conservative mass transport to calculate water quality. The model performs a mass balance accounting of discharge, TDS, boron, and selenium for a 60 mile (96 km) reach of the lower SJR, bounded by the gaging stations at Lander Avenue in the south and the Airport Way Bridge near Vernalis in the north. The LSJR at Lander Avenue was chosen as the upstream boundary of the model for three reasons: (1) it is downstream of the effects of the east-side bypass on LSJR flows, (2) it is upstream of wetland discharges and agricultural drainage inputs from Mud

and Salt sloughs, and (3) it has a full set of historical data with which to validate the model. The LSJR at the Airport Way Bridge near Vernalis was chosen as the downstream boundary because it is upstream of Delta tidal effects and it has a full set of historical data to calibrate the model (Kratzer et al. 1987). The following tributary river segments, from a gaging station to the confluence with the LSJR, are also considered within the model boundaries:

- Five miles (8 km) of the Merced River below the gaging station near Stevinson.
- Fifteen miles (24 km) of the Tuolumne River below the gaging station at Modesto.
- Nine miles (14.5 km) of the Stanislaus River below the gaging station at Koetitz Ranch.
- Six miles (9.6 km) of Salt Slough below the gaging station at Lander Avenue.
- Nine miles (14.5 km) of Mud Slough below the gaging station near Gustine.
- Several miles of three west-side tributaries: Del Puerto, Orestimba and Hospital/Ingram Creeks.

In addition, the following sources and sinks are considered as model components:

For selected points along the LSJR and the three east-side tributaries within the model boundaries:

- Appropriative and riparian diversions (41 points)
- Agricultural subsurface (tile drainage) discharges (9 points)
- Surface agricultural discharges (e.g., tail water and operational spill water) (35 points)
- Municipal and industrial discharges (2 points)

For every river mile (1.6 km) along the LSJR and the three east-side tributaries

- Groundwater accretions and/or depletions
- For every five mile (8 km) reach of the LSJR and the three east-side tributaries
- Riparian vegetation water use
- Evaporation and precipitation

Table 5-2 presents the input data files (denoted by DAT filename extensions) required for running SJRIO. Mean monthly data for similar years are used for the model components as described below. Monthly data for all months in a given modeling period are typically not available for most other model components. Instead, mean monthly data from similar years must be used as described below. The model calculates the load contributed from each source based on its flow and concentration using a mass balance accounting method. LSJR flows and water quality are calculated for every tenth of a mile (161 m).

Table 5-2. SJRIO Input Data Files

Data Filename	Data File Description
DBASDAT	Hydraulic conductivity used for calculation of groundwater accretions
DEVP	Acreage of river and riparian vegetation along the LSJR
DNETRCH	Net recharge used for calculation of groundwater accretions
DPMP	Maximum annual diversions of Pre-1914 and Post-1914 appropriative diverters Acreage and cropping patterns irrigated with riparian diversions
DRPUMP	Crop acreage irrigated by riparian diverters
DSA	Historical monthly flow and TDS data for Mud and Salt Sloughs.
DWTELV	Historical water Table elevations used for calculation of groundwater accretions
DWSF	Data on acreage draining into the LSJR
HESF	Historical flow and water quality data for east-side agricultural return flows
HEVP	Historical monthly riparian evaporation, pan evaporation and precipitation data
HGWCONC	Groundwater TDS concentrations
HMI	Historical monthly municipal and industrial flow, TDS, and boron data
HPMP	Historical monthly pumping data for Pre-1914 appropriative diverters
HRPMP	Historical monthly water use by acre of riparian-irrigated crop (pasture, corn and orchards)
HSUB	Historical monthly agricultural subsurface flow and TDS data
HTRB	Historical monthly flow and TDS data for 10 watershed stations (SJRIO boundary conditions)
HWSF	Historical monthly flow and TDS data for west-side agricultural surface return flows

Diversions. Seventy-five diversion pumps on the LSJR and the east-side tributaries were identified from a review of water rights files and field surveys (Kratzer et al. 1987). Only 41 diversion points are considered in the model because pumps occurring within the same river mile (1.6 km) were consolidated into a single pump to simplify model calculations. The method of calculating diversions for post-1914 appropriative diverters is different from the method used to calculate pre-1914 and riparian diverters.

Only the three largest of the eighteen post-1914 appropriative diverters maintain a record of their actual monthly pumping rates. Information for these three diverters — West Stanislaus Irrigation District, Patterson Water District and El Solyo Water District — is submitted to and maintained by the SWRCB Water Rights Division. Monthly diversions of the remaining diverters are estimated using the maximum allowable diversion rate that is specified in the licenses for all post-1914 appropriative diverters. Historical pumping data are stored in the file HPMP.DAT and license data is stored in DPMP.DAT.

Historical data of the big three post-14 appropriators are used as a template for the calculation of the diversions made by the other post-14 appropriators. The ratio of the reported annual diversions to the maximum allowable monthly diversion in the license for the three largest diverters is first calculated. The average ratio for the three largest diverters is then multiplied by the maximum allowable monthly diversions to estimate annual diversions for the other post-1914 appropriative diverters. This annual diversion rate is then proportioned into monthly diversions to match the average distribution pattern of the three largest diverters (Kratzer et al. 1987).

Riparian and pre-1914 appropriative diversions are estimated using three types of data: acreage irrigated by each pump, cropping patterns, and crop water use. Irrigated acreage

and cropping patterns are assumed to remain mostly unchanged; although cropping patterns for individual fields may vary, there tend to be no large scale changes from year to year. The acreage and cropping patterns associated with each diverter are assumed constant and stored in the fixed data file DPMP.DAT. The only variable is monthly crop water use. Estimates of water use by the three major crops under irrigation — pasture, corn and orchards — are available from Crop Depletion Analysis Reports (DWR 1976 to 1985). This variable data are stored in the file HRPMP.DAT.

Agricultural subsurface Discharges. There are sparse data for the nine agricultural subsurface discharge points into the river. Annual flows from tile drains are estimated by multiplying tile drainage factors ranging from 0.65 to 0.85 af/acre (1,980 m^3/hectare) per year by the tile drained acreage. Annual tile drainage is multiplied by the estimated monthly distribution of flow to get an average monthly tile drainage at each site. Average monthly TDS, boron, and selenium concentrations were estimated based on a survey of available data for sumps and drains in the area (Kratzer et al. 1987), which was updated in 1988 (CRWQCB-CVR 1988b). Agricultural subsurface flow and water quality data are stored in the historical data file HSUB.DAT.

Agricultural surface Discharges Gaged agricultural surface return flow data are available for the east side from two major water districts: Modesto Irrigation District and Turlock Irrigation District. Historical data for these two districts were assembled from unpublished reports (Welch 1985; DeLano 1985). Water quality varies by month and location but, because of limited data availability, is constant for all WYs (Kratzer et al. 1987). Flow and water quality data for east-side agricultural return flows are stored in the file HESF.DAT.

West-side agricultural surface return flows are estimated to be thirty percent of the supplied irrigation water (Kratzer et al. 1987). Water is supplied from three sources: diversions from the LSJR, groundwater pumping, and Central Valley Project water. The LSJR component is based on calculations for diversions as described above. The CVP component is based on CVP deliveries to water users that are known to discharge water to the LSJR. These data are available from the USBR (USBR 1976 to 1990). Groundwater pumping is estimated using information from the USGS. Pumped groundwater for WYs 1961 to 1977 are based on water use and power consumption records (USGS 1983). SJRIO2 uses the average of each of four WY types — critically dry, dry, normal, and wet. Historical data for west-side surface return flows are stored in the file HWSF.DAT. Fixed or constant data, such as acreage that drains to the LSJR, are stored in the file DWSF.DAT.

Municipal and Industrial. Three wastewater treatment plants discharge to the LSJR: Newman, Turlock and Modesto. The Modesto Wastewater Treatment Plant stopped releasing discharge to the LSJR after WY 1986. All plants record discharge volumes and salinity (e.g., TDS or EC). Because limited boron data are available, boron values are kept at constant monthly values. Selenium concentrations are assumed to be zero as supported by CRWQCB-CVR studies (1988a) that found selenium discharges from these

sources to be less than 1 part per billion. Flow, TDS, and boron data are stored in the historical data file HMI.DAT.

Groundwater.
Groundwater accretions or depletions are calculated using a steady-state, one-dimensional deterministic model based on Dupuit-Forchheimer assumptions. The governing equation is:

$$Q = \frac{R \cdot L}{2} + \frac{K}{2 \cdot L} \cdot \left(H_1^2 - H_2^2\right)$$

where,

R = recharge rate
L = distance from river
K = hydraulic conductivity
H_1 = groundwater elevation at distance L from river
H_2 = river stage

Values for the constants, R, L, K, and H_1, are based on data collected in the LSJR Basin area for WYs 1975 to 1985. Flow rates in the LSJR and associated rating curves are used to determine river stages. Values for H2 are obtained by linearly interpolating these river stages between gaging stations. Historical water table elevation data is stored in file DWTELV.DAT. Fixed net recharge and hydraulic conductivity data are stored in files DNETRCH.DAT and DBASDAT.DAT, respectively. Data used to translate the flows from each flow tube to LSJR river miles is stored in DGWMIX.DAT. Constant monthly TDS concentrations that vary by river mile were established based on a survey of shallow groundwater and agricultural subsurface discharge water quality. TDS concentration data is stored in HGWCONC.DAT. Boron and selenium concentration data for all river miles and months is stored as a fixed parameter of 2mg/L and 2 μg/L, respectively.

Riparian Vegetation. Monthly evapotranspiration from the banks of the LSJR is based on acreage of riparian vegetation and average monthly potential evaporation for grass. A survey of riparian vegetation (Katibah et al. 1980) was used to estimate the amount of riparian vegetation for each five mile (8 km) segment of the LSJR. Monthly potential evaporation for grass is obtained from DWR Crop Water Use Reports for the southern San Joaquin Valley (DWR 1976 to 1990). The file DEVP.DAT contains constant values for acreage of riparian vegetation along the LSJR. HEVP.DAT contains monthly potential evaporation for grass. These two files are used to estimate monthly evapotranspiration from the banks of the LSJR for each five mile (8 km) river segment.

Evaporation and Precipitation. This component considers evaporation and precipitation on the LSJR surface. Precipitation values were obtained from DWR's Crop Depletion Analysis in the LSJR Basin (DWR 1976 - 1985). Evaporation data from Class 'A' pans in Fresno (DWR 1976 - 1990) were multiplied by a factor of 0.92 to obtain a rate appropriate for evaporation from the LSJR (Kratzer et al. 1987). A volume for net evaporation is then calculated using average LSJR surface areas. Historical monthly precipitation and pan evaporation data are stored in the file HEVP.DAT. Constant LSJR

surface areas are stored in DEVP.DAT. Net evaporation is calculated for each five-mile river (8 km) segment.

3.2 Mud and Salt Slough Flow and TDS Inputs

Lumped flows and TDS loads for Mud and Salt Slough can be input to the model through the HTRB.DAT file. The user also has the option of disaggregating combined Mud and Salt slough flow and TDS into wetland drainage, agricultural subsurface drainage, and agricultural surface drainage components through use of the DSA.DAT file. Desegregation of Mud and Salt slough flows allows the user to model the affect of changing the quantity and/or quality of the different types of drainage originating from Mud and Salt Sloughs. In this analysis, however, the affect of changing the volume of the various drainage components of Mud and Salt Slough was done using a post processing spreadsheet model and therefore all SJRIO output was based on historical Mud and Salt Slough flows and TDS (WYs 1996 through 2002).

3.3 SJRIO Calibration

SJRIO output will not typically match historical observed data when run in historical mode unless the model is calibrated. SJRIO uses historical flow and TDS data from the LSJR at Patterson and Vernalis to calibrate historical model runs. The SJRIO calibration routine generally involves calculating the difference between modeled and historical flows and TDS loads for the LSJR at Patterson and then systematically distributing that difference among various components (e.g. groundwater, agricultural surface discharges, agricultural subsurface discharges tributary inputs etc.) of cumulative model output to the LSJR from Stevinson to Patterson. The model uses uncertainty factors for flow and TDS to distribute calibration error (difference between modeled and historical data) to different model outputs. For example, agricultural subsurface discharges are assigned a 60 percent uncertainty factor for flow while Merced River flows are only assigned a 10 percent uncertainty factor. A larger relative percentage of calibration error is therefore resolved through adjustments to agricultural subsurface discharges. Once the LSJR is calibrated for the Patterson, a similar process is then used to calibrate the LSJR from Patterson to Vernalis. A full description of the SJRIO calibration procedure is contained in the SWRCB Order No. 85-1 Technical Committee Report (SWRCB 1987).

3.4 SJRIO Model run descriptions

SJRIO was used in conjunction with DWRSIM output for steps two and three. In step two, SJRIO was run in Monte Carlo simulation mode, using output from the DWRSIM model (CALFED Study 771) as input data for the east side tributaries and the LSJR at Stevinson, to generate a 73-year (WYs 1922 through 1994) monthly time series of flow and TDS for the LSJR near Vernalis. The flows for DWRSIM control points 649, 665, 675 are assumed to be approximately equal to the east side tributary boundary locations (Figure 5-1) used by SJRIO (Merced, Tuolumne, Stanislaus Rivers, respectively, just upstream of their confluence with the main stem of the LSJR) (Grober, 1997). DWRSIM control point 619 was considered to be approximately equal to the LSJR at Lander Avenue. TDS for these tributaries is calculated using site-specific linear regression of flow versus TDS.

DWRSIM control point 581 is used to store the flows released from New Melones Reservoir, on the Stanislaus River, that the US Bureau of Reclamation releases to meet Vernalis salinity objectives. After the initial simulation, Stanislaus River flows were adjusted by subtracting these New Melones water quality releases (Control Point 675-Control Point 581). The model was rerun and a second time series was generated so that the effects of New Melones water quality releases on LSJR water quality could be evaluated. Results from step two provided baseline flow and water quality data for the SJR at the Airport Way Bridge near Vernalis.

In step three, SJRIO was run in calibrated historical mode for WYs 1977 through 1995 to estimate agricultural subsurface and surface drainage discharges (flow and TDS) for a sixty-mile reach of the LSJR between the Lander Avenue Bridge near Stevinson and the Airport Way Bridge near Vernalis. When run in historical mode, SJRIO provides monthly output for groundwater accretions (every mile), riparian pumping (41 points of diversion), evaporation and perception (every 5 miles), nine agricultural subsurface discharges, and 35 agricultural surface discharges. These outputs are reported at one tenth of mile increments. Agricultural subsurface and surface drainage discharges for the Grassland Sub area are not included in the SJRIO output; however, they were calculated separately (Table 5-8 and Table 5-9). Non-grassland agricultural subsurface and surface drainage was compiled from SJRIO monthly output to estimate mean monthly flow and TDS loading from these sources (Table 5-3)

Table 5-3: Estimated Mean Monthly Agricultural Subsurface and Surface Drainage From Sources outside of the Grassland Subarea (Summary of SJRIO Output for WY's 1977 Through 1995)

Month	SUBSURFACE DISCHARGES			SURFACE DISCHARGES		
	Flow (acre feet)	**TDS** (mg/L)	**Salt Load** (tons)	**Flow** (acre feet)	**TDS** (mg/L)	**Salt Load** (tons)
Oct	899	1,706	2,085	11,724	214	3,410
Nov	498	1,595	1,081	3,970	599	3,235
Dec	354	1,782	857	3,985	644	3,491
Jan	275	1,734	647	3,405	532	2,463
Feb	604	1,947	1,598	4,729	661	4,246
Mar	756	1,885	1,938	10,186	539	7,463
Apr	1,203	1,693	2,770	32,121	419	18,309
May	1,216	1,488	2,459	41,839	352	20,029
Jun	1,224	1,478	2,460	40,634	365	20,157
Jul	1,153	1,450	2,272	44,316	398	24,006
Aug	1,132	1,837	2,828	44,591	393	23,839
Sep	1,051	1,826	2,609	30,294	304	12,532
Total	10,365		23,604	271,794		143,180

4 SPREADSHEET MODEL PREPROCESSING

Additional pre-preprocessing of raw data sources was conducted in step four to calculate Grassland Subarea drainage (agricultural subsurface and surface drainage and wetland discharges). Following are the procedures and data used.

4.1 Grassland Subarea Agricultural Subsurface Drainage

Agricultural subsurface drainage was calculated in step four using historical data for tile drainage discharges from the Grassland Bypass Project. Tile drainage from the Grassland sub-area was assumed to be equal to the flow and TDS load discharged from the San Luis Drain (SLD). The SLD currently conveys tile drainage to the LSJR via Mud Slough from a 97,000-acre tile drained as part of the Grassland Bypass Project. SLD total monthly flow and monthly TDS load was calculated from daily flow and EC data for WYs 1996 though 2002 available from Grassland Bypass Project Annual Reports (SFEI, 2003). Mud Slough and Salt Slough total monthly flow and monthly TDS load were calculated from daily flow and EC data available from the US Geological Survey for WYs 1996 through 2002 (USGS station # 11262900 for Mud Slough near Gustine and USGS station # 11261100 Salt Slough A Hwy 165 near Stevinson, CA). Site-specific conversion factors used to convert daily EC into TDS are shown in Table 5-5. Daily salt load from each site was calculated by multiplying daily flow by daily TDS and a unit conversion factor of 0.001359. Daily flow and daily TDS Load was summed by month. Mean monthly flow and TDS loads for the San Luis Drain and combined Mud and Salt Slough discharges is shown in Table 5-6 and the underlying daily data used to make these calculations is in Attachment 5-3.

Table 5-5: EC to TDS Conversion Factors for Mud Slough, Salt Slough and the San Luis Drain

Site	Conversion Factor EC to TDS	Source
San Luis Drain	0.75	Linear regression of available Regional Board WQ database data (n=72, R^2=, p< .001)
Mud Slough	0.69	(Kratzer et al. 1987)
Salt Slough	0.68	(Kratzer et al. 1987)

Table 5-6: Mean Monthly Flow and TDS Loads for combined Mud Slough and Salt Slough discharges and the San Luis Drain

Month	Combined Mud and Salt Sloughs		San Luis Drain (agricultural subsurface drainage)		Percent agricultural subsurface Drainage[1]	
	Flow (acre-feet)	Salt Load (tons)	Flow (acre-feet)	Salt Load (tons)	Flow (%)	Salt Load (%)
Oct	19,000	23,248	1,645	7,588	9%	33%
Nov	19,602	27,745	1,509	6,811	8%	25%
Dec	19,518	30,990	1,531	6,914	8%	22%
Jan	29,114	45,709	2,051	9,248	7%	20%
Feb	44,203	68,876	4,153	18,124	9%	26%
Mar	41,134	76,356	4,448	22,904	11%	30%
Apr	21,056	42,784	3,370	18,348	16%	43%
May	17,751	32,039	3,473	17,436	20%	54%
Jun	16,554	28,314	3,492	16,832	21%	59%
Jul	18,322	27,590	3,786	16,488	21%	60%
Aug	16,952	23,716	3,572	14,175	21%	60%
Sep	11,639	16,249	2,027	8,295	17%	51%
Total	274,844	443,616	35,056	163,163	13%	37%

[1] Percent of Mud and Salt Slough that is comprised of San Luis Drain agricultural subsurface drainage (flow and TDS load)

Agricultural subsurface drainage from the Grassland Subarea was averaged by water-year type and water-year type scaling factors were developed by dividing mean San Luis Drain flows by the mean flow for each WY (Table 5-7). The scaling factors were used to impose WY type variability on the estimates of tile drainage volume (Table 5-8).

Table 5-7: Grassland Agricultural subsurface drainage water year type variability and scaling factors

Water-year Type	# of water-years observed (WY 1997-2002)	Mean water-year type (ac-ft)	Scaling factor[1]
Wet	2	41,734	119%
Above Normal	2	31,792	91%
Below Normal	0	30,039[2]	86%
Dry	2	28,286	81%
Critical	0	22,442[2]	64%

[1] equals to mean water year type discharge divided by 35,056 (from Table 5-6)
[2] estimated by linear interpolation

Table 5-8: Estimated Agricultural subsurface Drainage with Water-Year Type Variability Imposed (acre-feet)

Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
FLOW (ACRE FEET)													
Wet	1,958	1,796	1,823	2,441	4,945	5,295	4,012	4,134	4,157	4,508	4,252	2,413	41,734
Above Normal	1,492	1,368	1,389	1,860	3,767	4,034	3,056	3,149	3,167	3,434	3,239	1,838	31,792
Below Normal	1,410	1,293	1,312	1,757	3,559	3,811	2,887	2,976	2,992	3,244	3,061	1,737	30,039
Dry	1,327	1,217	1,235	1,654	3,351	3,589	2,719	2,802	2,818	3,055	2,882	1,636	28,286
Critical	1,053	966	980	1,313	2,659	2,847	2,157	2,223	2,236	2,424	2,287	1,298	22,442
SALT LOAD (TONS)[1]													
Wet	9,067	8,139	8,262	11,051	21,658	27,369	21,925	20,836	20,113	19,702	16,938	9,913	194,973
Above Normal	6,904	6,197	6,291	8,414	16,490	20,839	16,694	15,865	15,315	15,002	12,897	7,548	148,456
Below Normal	6,428	5,770	5,857	7,834	15,354	19,403	15,544	14,771	14,259	13,968	12,008	7,028	138,226
Dry	5,952	5,343	5,424	7,255	14,218	17,967	14,393	13,678	13,204	12,934	11,120	6,507	127,996
Critical	4,633	4,159	4,221	5,646	11,066	13,984	11,203	10,646	10,277	10,067	8,655	5,065	99,623

[1]= Flow (in acre feet) x Flow weighted average TDS (3,400 mg/L) x conversion factor
conversion factor = 0.001359 (converts flow in acre feet x TDS in mg/L to tons)

4.2 Grassland Wetland Drainage

Wetland drainage calculations were based on Delta Mendota Canal (DMC) supply water deliveries to private, state and federal wetlands in the Grassland Ecological Area (GEA) from September 1991 though April 2001 because actual wetland drainage data over a broad area is sparse. A spreadsheet model was used to track monthly water deliveries to wetlands, monthly evaporation, monthly precipitation, and pond seepage. The assumptions used to calculate wetland drainage are presented in Table 5-9. The model treats the wetlands in the GEA as a single "pond". The model begins to fill the pond when monthly wetland inflow (from deliveries and precipitation) exceeds monthly wetland outflow (evaporation and seepage). Groundwater seepage from the ponds is calculated to be 30,169 acre-feet per year (Table 5-9). Initial inflows to the pond are credited toward groundwater seepage until annual ground water seepage has been satisfied, then the ponds begin to store inflows. The pond begins to fill in September of

each year and any water remaining in the wetlands in April is "emptied" and counted as drainage to the LSJR. All wetland drainage was assumed to have a TDS of 1,000 mg/L (Table 5-9). Based on model output approximately 132 thousand-acre feet of drainage was generated each year on average between September 1991 and April 2001 (Attachment 5-4). For reference, approximately 243 thousand acre-feet of water was delivered each year from the DMC during the same time period. The model calculates annual wetland drainage, however, wetland discharges are seasonal, typically peaking between February and April (GWD, 2002) with lesser amounts of drainage continuing to be discharged throughout the year as result of irrigation drainage or other wetland management activities. Seasonality was applied to annual wetland drainage to estimate monthly discharges to the LSJR (Table 5-10). Wetland seasonality was based on professional judgment and a review of the monthly combined discharge data from Mud and Salt Sloughs minus the discharge from the San Luis Drain (monthly wetland drainage cannot exceed these flows).

Table 5-9: Assumptions and intermediate calculations used for wetland modeling

Variable	Value	Units	Variable Type	Assumptions and References
porosity	43%	percent	Input	pore space for silty clay of Central Valley porosity ranges from 35 to 52%, mean of 43% USGS,1991 (GW in the CV of CA, Summary Report p. A14)
depth to groundwater	18	inches	Input	DWR water table maps
groundwater seepage	8	inches	Calc	=porosity X depth to groundwater
annual groundwater losses	30,169	acre-feet	Calc	= groundwater seepage X ponded acreage / 12 inches
pond depth	12	inches	Input	
ponded acreage	46,774	acres	Input	CDFG and Ducks Unlimited California Central Valley wetlands and riparian GIS data-- Regional Board GIS analysis (Appendix B)
wetland discharge TDS cocn.	1,000	mg/L	Input	Based on daily data for Hollow Tree Drain 4/16/03 through 8/13/03
Conversion factor	0.0013595		Constant	Conversion of Acre-Ft x mg/L to tons
monthly deliveries	See attachment 5-3	acre-feet	Input	USBR data/CVO Reports of Operations
monthly evaporation	--	inches	input	based on CIMIS ET0 and precipitation data for Sep 1991 though April 2001
monthly rainfall	--	inches	input	based on CIMIS ET0 and precipitation data for Sep 1991 though April 2001
monthly evap&precip	See attachment 5-3	acre-feet	Calc	= (monthly precip.-evap.) X ponded acreage / 12 inches

Table 5-10: Estimated Monthly Wetland Discharge to the LSJR

Month	Percent of Total	Wetland Discharge (acre-feet)
Oct	6.0%	7,920
Nov	6.5%	8,580
Dec	10.0%	13,200
Jan	10.0%	13,200
Feb	25.0%	33,000
Mar	25.0%	33,000
Apr	7.5%	9,900
May	1.6%	2,112
Jun	1.5%	1,980
Jul	2.5%	3,300
Aug	2.6%	3,432
Sep	1.8%	2,376
Total		132,000

4.3 Grassland Agricultural Surface Drainage

Once agricultural subsurface drainage and wetland drainage were accounted for, the remaining discharge from Mud and Salt Sloughs was attributed to the sum of agricultural surface drainage, groundwater accretions and flood flows (Table 5-11).

Table 5-11: Calculation of Combined Grassland Subarea Agricultural Surface Drainage, Groundwater Accretions, and Flood Flows.

	A		B		C		=A-B-C		D
	Mud and Salt Slough		Subsurface Drainage		Wetland Drainage		Surface Drainage, Groundwater, & Flood		
Month	Q (acre-feet)	TDS Load (tons)	Q (acre-feet)	TDS Load (tons)	Q (acre-feet)	TDS Load (tons)	Q (acre-feet)	TDS Load (tons)	TDS Conc. (mg/L)[1]
Oct	19,000	23,248	1,645	7,588	7,920	10,767	9,434	4,893	381
Nov	19,602	27,745	1,509	6,811	8,580	11,665	9,513	9,269	717
Dec	19,518	30,990	1,531	6,914	13,200	17,945	4,787	6,131	942
Jan	29,114	45,709	2,051	9,248	13,200	17,945	13,864	18,515	982
Feb	44,203	68,876	4,153	18,124	33,000	44,864	7,049	5,888	614
Mar	41,134	76,356	4,448	22,904	33,000	44,864	3,686	8,589	1714
Apr	21,056	42,784	3,370	18,348	9,900	13,459	7,786	10,977	1037
May	17,751	32,039	3,473	17,436	2,112	2,871	12,166	11,732	709
Jun	16,554	28,314	3,492	16,832	1,980	2,692	11,082	8,790	583
Jul	18,322	27,590	3,786	16,488	3,300	4,486	11,235	6,616	433
Aug	16,952	23,716	3,572	14,175	3,432	4,666	9,948	4,876	360
Sep	11,639	16,249	2,027	8,295	2,376	3,230	7,236	4,724	480
Total	274,844	443,616	35,056	163,163	132,000	179,454	107,788	100,999	630

[1] Column D = TDS Load / (Q*.001359)

Previous model estimates indicate that agricultural surface drainage from the Grassland Watershed contributes approximately 60 thousand acre-feet of drainage per year to the LSJR (Appendix 1, Sec.3.4). It was therefore assumed that annual agricultural surface drainage from the Grassland Subarea is equal to 60 thousand acre-feet, with approximately 48 thousand acre feet of unaccounted for Mud and Salt Slough flows attributed to Groundwater accretions and/or floodwater discharges. The monthly discharge pattern of agricultural surface drainage from Non-Grasslands sources was imposed on annual agricultural surface drainage from the Grassland Subarea to estimate monthly agricultural surface drainage discharges (Table 5-12). The TDS for aggregate Grasslands Subarea agricultural surface drainage, groundwater accretions and flood flows (Table 5-11) was used to calculate monthly loading Grasslands Subarea agricultural surface drainage.

Table 5-12: Monthly Agricultural Surface Drainage Discharges to the LSJR

Month	Non-Grassland Surface Drainage[1] (acre feet)	Percent of Annual Discharge [2] (acre feet)	Grassland Surface Drainage[3] (acre feet)	Grassland Surface TDS[4] (mg/L)	Grassland Surface TDS Load (tons)
Oct	11,724	4%	2,588	381	1,342
Nov	3,970	1%	876	717	854
Dec	3,985	1%	880	942	1,126
Jan	3,405	1%	752	982	1,003
Feb	4,729	2%	1,044	614	872
Mar	10,186	4%	2,249	1714	5,238
Apr	32,121	12%	7,091	1037	9,993
May	41,839	15%	9,236	709	8,903
Jun	40,634	15%	8,970	583	7,111
Jul	44,316	16%	9,783	433	5,758
Aug	44,591	16%	9,844	360	4,823
Sep	30,294	11%	6,688	480	4,364
Total	271,794	100%	60,000	630	51,388

[1] From Table 5-3
[2] monthly discharge as a percent of annual discharge
[3] 60,000 acre feet total annual discharge x percent of annual discharge
[4] From Table 5-11 column D

5 ALTERNATIVES ANALYSIS SPREADSHEET MODEL

The combined output from steps one through four were used as input to a spreadsheet model to evaluate the water quality of the baseline (no action/no project) condition and the effects of various drainage reduction alternatives. The spreadsheet model used the 73-year SJRIO monthly time series from step two as an existing (no action/no project) condition. The spreadsheet model also calculates changes in water quality exceedance rates resulting based on changes in the amount of nonpoint source flows and loads generated from the following five drainage sources:

1) Grassland Subarea agricultural subsurface drainage
2) Grassland Subarea surface drainage
3) Wetland drainage
4) Non-grassland agricultural subsurface drainage
5) Non-grassland agricultural surface drainage

Total monthly flow and mean monthly TDS data generated from SJRIO were recalculated in the spreadsheet model by subtracting the drainage flows and loads retained to comply with a given implementation alternative. Table 5-4 summarizes for different WY types the initial exceedences rates of the Vernalis salinity water quality objective observed for the SJRIO output data provided in attachment 5-2 (no action, existing conditions) and the expected exceedance rates for the LSJR near Vernalis without the New Melones water quality releases (i.e. SJRIO is run with New Melones flows subtracted from the Stanislaus River boundary flows). Comparison of the expected exceedance rates for with and without the New Melones dilution flows demonstrates the effect that the current USBR mitigation is already having on Vernalis water quality.

Table 5-4: Expected Exceedance Rate Of The Vernalis Salinity Water Quality Objective For The No Action/ Existing Conditions Compared To Expected Exceedance Rate If No Water Quality Releases Were Made (Based On SJRIO Monte Carlo Simulation Output For WYs 1923-1994)

Year Type	No Action/Existing Conditions		No New Melones Water Quality Releases	
	Irrigation season	Non- irrig. season	Irrigation season	Non- irrig. season
Critical	40%	34%	56%	41%
Dry	18%	14%	42%	24%
Below Normal	13%	15%	28%	21%
Above Normal	9%	7%	13%	9%
Wet	2%	1%	3%	1%

USBR releases from New Melones Reservoir to meet salinity water quality objectives have been included in the modeling analysis of all alternatives described bellow. Supply water credits and compensating supply water allocations, which only apply to Alternatives 3 and 4a/b, were not imposed in the spreadsheet model.

The volume of drainage and salt load associated with the five types of discharges listed above were calculated in steps three and four so that each alternative could be evaluated. Different quantities of each type of drainage need to be retained for each alternative. For example, implementing a prohibition of discharge (Alternative 2) requires retaining all nonpoint source drainage that is generated (from the five drainage sources listed above); while implementing the base load TMDL allocations (Alternative 3) only requires retaining drainage from each source in excess of the TMDL base load allocations.

5.1 Alternative 1: No Project/No Action

The no project alternative is to continue to address salt and boron discharges to the LSJR through the existing State Water Board and Regional Board Basin Plan policies. No change from the current level of regulatory oversight would occur.

The no project alternative assumes that the provisions of the State Water Board's Water Rights Decision 1641 will remain in affect. These provisions, in part, require that the USBR take action to meet the salinity water quality objectives at Vernalis. To date, this responsibility has been met solely through USBR water releases from New Melones Reservoir to dilute salt concentrations at Vernalis. The evaluation of Alternative one assumes that no drainage will be retained since no additional regulations would be established. Exceedence rates of the water quality objectives are expected to be similar to those observed in the recent past. Unmodified model output from the SJRIO Monte Carlo

simulation (Attachment 5-2) was used to represent existing conditions, which is equivalent to the no project alternative. This data set is also used as the base case condition from which Alternatives two through four are evaluated. Exceedences rates of the Vernalis salinity objective observed in the unmodified SJRIO Monte Carlo simulation output are summarized in Table 5-4.

5.2 Alternative 2: Prohibition of Discharge

The salt and boron technical TMDL source analysis (Appendix 1) indicates that the Grassland and Northwest side subareas contribute the largest salt loads to the LSJR on both a total mass emissions and per unit area (of NPS land use area) basis. The Grassland and Northwest side subareas collectively contribute approximately 66 percent of the LSJR's total salt load. A focused prohibition of discharge would initially result in elimination of discharges from tile drains, surface drains, and wetlands from these high priority areas. If elimination of discharges from the Grassland and Northwest side subareas did not result in attainment of water quality objectives then the scope of the prohibition area would be expanded over time to encompass the entire LSJR watershed. Therefore, for long-term planning purposes, the evaluation of Alternative two is based on the premise that a prohibition of discharge would eventually apply to the entire LSJR and that all NPS discharges (agricultural and wetland) to the LSJR would be eliminated.

Drainage from all agricultural subsurface and surface discharges and wetland sources were retained in alternative 2.Monthly flow and TDS concentrations were then recalculated with these drainage components removed. Table 5-13 summarizes the drainage flows retained to evaluate the prohibition of discharge. A summary of the exceedance rates observed in the model output is shown in Table 5-14 and the monthly model output is provided in Attachment 5-5. As expected, the exceedance rates for all water year types are reduced during both the irrigation and non-irrigation seasons.

Table 5-13: Drainage Volumes (TAF) and Salt Loads (Thousand Tons) From the LSJR Watershed

	Drainage Source									
	Grassland Subsurface [1,2]		**Grassland Surface[3]**		**Non-Grassland Subsurface[4]**		**Non-Grassland Surface[4]**		**Wetland Drainage[5]**	
Month	Q	Salt Load	Q	Salt Load	Q	Salt Load	Q	Salt Load	Q	Salt Load
Oct	1.1-2.0	4.6-9.1	2.6	1.3	0.9	2.1	11.7	3.4	7.9	10.8
Nov	1.0-1.8	4.2-8.1	0.9	0.9	0.5	1.1	4.0	3.2	8.6	11.7
Dec	1.0-1.8	4.2-8.3	0.9	1.1	0.4	0.9	4.0	3.5	13.2	17.9
Jan	1.3-2.4	5.6-11.1	0.8	1.0	0.3	0.6	3.4	2.5	13.2	17.9
Feb	2.7-4.9	11.1-21.7	1.0	0.9	0.6	1.6	4.7	4.2	33.0	44.8
Mar	2.8-5.3	14.0-2.4	2.2	5.2	0.8	1.9	10.2	7.5	33.0	44.8
Apr	2.2-4.0	11.2-21.9	7.1	10.0	1.2	2.8	32.1	18.3	9.9	13.5
May	2.2-4.1	10.6-20.8	9.2	8.9	1.2	2.5	41.8	20.0	2.1	2.9
Jun	2.2-4.2	10.3-20.1	9.0	7.1	1.2	2.5	40.6	20.2	2.0	2.7
Jul	2.4-4.5	10.1-19.7	9.8	5.8	1.2	2.3	44.3	24.0	3.3	4.5
Aug	2.3-4.3	8.7-16.9	9.8	4.8	1.1	2.8	44.6	23.8	3.4	4.7
Sep	1.3-2.4	5.1-9.9	6.7	4.4	1.1	2.6	30.3	12.5	2.4	3.2
Total	**22-42**	**100-195**	**60**	**51**	**10**	**24**	**272**	**143**	**132**	**179**

1 A range is given because flows and loads vary by year type
2 From Table 5-8
3 From Table 5-12
4 From Table 5-3
5 From Table 5-11

Table 5-14: Summary of Exceedance Rates of the Vernalis Salinity WQO Observed in Model Ouput for Alternative2-Prohibition of Discharge

Year Type	Irrigation season	Non- irrigation season
Critical	19%	10%
Dry	7%	3%
Below Normal	2%	1%
Above Normal	0%	0%
Wet	0%	0%

5.3 Alternative 3: Fixed Base Load Allocations

Alternative three constitutes full implementation of the TMDL base load allocations. Implementation of Alternative three was modeled by subtracting (retaining) any drainage generated in excess of the fixed monthly base load allocations, then recalculating monthly flow and TDS with these drainage components removed. The exceedence rate of the Vernalis salinity water quality objective was calculated for each water-year type (Table 5-15) and the mean volume of retained drainage from each of the 5 drainage sources was summarized by year type (Table 5-16). The exceedance rates for the irrigation season are the same as for the prohibition alternative but the exceedance rates in the non-irrigation season are lower for alternative three than for alternative two for critically dry and dry years during the non-irrigation season. This occurs because the prohibition of all discharges removes some discharges that would in some situations improve water quality. A stepwise description of the modeling approach used for evaluation of Alternatives three and four is provided in Attachment 5-6.

Table 5-15: Summary of Exceedance Rates of the Vernalis Salinity WQO Observed in Model Output for Alternative 3-TMDL Base Load Allocation

Year Type	Irrigation season	Non- irrigation season
Critical	19%	3%
Dry	7%	1%
Below Normal	2%	1%
Above Normal	0%	2%
Wet	0%	0%

Table 5-16: Estimated Mean Annual Drainage Volumes (TAF) and Salt Loads (Thousand Tons) Retained Under Implementation of Alternative 3

Year Type	Grassland Subsurface		Grassland Surface		Non Grassland Subsurface		Non Grassland Surface		Wetland	
	Q	Salt Load	Q	Salt Load	Q	Salt Load	Q	Salt Load	Q	Salt Load
Critical	21	99	53	47	9	20	204	106	77	104
Dry	23	108	48	43	7	16	147	76	47	64
Below Normal	24	114	40	33	7	16	130	68	43	58
Above Normal	13	60	29	18	4	8	130	68	9	12
Wet	17	77	29	18	4	8	121	63	9	12

5.4 Alternative 4a: Real-time Load Allocations

Alternative four was modeled by subtracting (retaining) any salt loads generated in excess of real time load allocations, then recalculating monthly flow and TDS with these

drainage components removed. The spreadsheet model calculates monthly assimilative capacity using the flow data from the base case and the seasonal water quality objective expressed as TDS (irrigation season objective = 426 mg/L, non-irrigation season objective = 610 mg/L). Real-time load allocations were set equal to 90 percent of the modeled monthly assimilative capacity of the LSJR (a ten percent margin of error was used to account for data and model uncertainty). The modeling approach was similar to that of alternative two except real-time load allocations were substituted for base load allocations (Attachment 5-6). The difference between modeled monthly load at Vernalis and modeled monthly assimilative capacity was set equal to the total drainage load that needed to be retained.

Exceedance rates for alternative four are similar to those for alternative three for most times (Table 5-17). Though there should be no difference between the exceedance rates resulting from implementation of either alternative three or four since sufficient drainage is being withheld in each alternative to comply with water quality objectives, they are in fact different for critically dry non-irrigation season. Model output shows a slightly higher exceedance rate for alternative four than for alternative three during the non-irrigation season for critical WY types. This observed difference is likely a result of model error resulting from use of overly simplified assumptions that are not valid for low flow conditions when retained drainage represents a large percent of river flow. The calculation of real-time load allocations did not consider the reduced assimilative capacity associated with removing flow along with the salt in drainage water. The model therefore overestimated real-time assimilative capacity, which resulted in a slightly higher exceedance rate during critically dry years. This will be corrected in a subsequent model run by increasing the margin of safety for critically dry years. The volume of retained drainage from each of the five drainage sources was categorized by year type and summarized in Table 5-18.

Table 5-17: Summary of Exceedance Rates of the Vernalis Salinity WQO Observed in Model Output for Alternative4-Real-time TMDL

Year Type	Irrigation season	Non- irrigation season
Critical	19%	10%
Dry	5%	1%
Below Normal	2%	1 %
Above Normal	0%	1%
Wet	0%	0%

Table 5-18: Estimated Mean Annual Drainage Volumes (TAF) and Salt Loads (Thousand Tons) Retained Under Implementation of Alternative 4a

Year Type	Grassland Subsurface		Grassland Surface		Non Grassland Subsurface		Non Grassland Surface		Wetland	
	Q	Salt Load	Q	Salt Load	Q	Salt Load	Q	Salt Load	Q	Salt Load
Critical	18	85	30	23	5	12	34	18	32	43
Dry	17	79	13	12	3	6	2	1	17	23
Below Normal	18	84	10	9	3	6	6	3	9	13
Above Normal	8	39	2	1	1	2	0	0	14	19
Wet	9	41	0	0	0	0	0	0	0	0

5.5 Alternative 4b: Real-time Load Allocations with Re-operation of Drainage

Alternative 4b builds on alternative 4a by simulating the storage of retained drainage during months when there is no assimilative capacity, then releasing stored drainage during months when assimilative capacity is available. The exceedance rates are the same for Alternative 4a and 4b because assimilative capacity and retained drainage loads are calculated using the same data and method for both Alternatives. It was assumed that any agricultural subsurface drainage captured from the Grassland Subarea could not be discharged back to the LSJR because of elevated selenium concentrations. Eight to 18 thousand acre-feet of tile drainage would therefore always need to be retained and treated (Table 5-18), even with a comprehensive drainage re-operation system in place. All other drainage could eventually be discharged to the LSJR (and not permanently treated). Drainage re-operation modeling indicates that the maximum volume of re-operated drainage would not exceed approximately 50 thousand acre-feet (Attachment 5).

5.6 Spreadsheet Model Considerations

The spreadsheet model was developed to evaluate the effects and costs of implementing various drainage reduction scenarios using readily available data and technology. In some instances (critically low flow conditions) the model overestimates the total drainage load that should be retained. In these cases modeled LSJR TDS load and flow are negative because more TDS load and flow are retained than is available in the LSJR at Vernalis (for base case conditions). The model procedure will not allow more monthly drainage load to be retained than is generated, however, total drainage load generated is calculated using mean monthly drainage loads for four of the five drainage sources (i.e. no water-year type variability). Exceedences of the Vernalis water quality objective were disregarded any time model output predicted negative flow. This likely resulted in a small and insignificant (for the purposes of this analysis) underestimate of exceedence rates for critical years during the irrigation season. Future modeling efforts should impose year type variability on all drainage sources to improve model results.

6 SUMMARY

This analysis was used to evaluate four alternatives for implementing a control program for salt and boron discharges to the LSJR. The efficacy of each alternative in meeting existing salinity water quality objectives was modeled. A comparison of the modeled exceedance rates of the Vernalis salinity water quality objectives associated with each alternative is provided in Table 5-19. Model results indicate that implementation of Alternatives two, three, and four would result in significant improvements to water quality compared to existing conditions (Alternative 1).

Table 5-19: Comparison of Modeled Salinity Water Quality Exceedance Rates

Year Type	Irrigation season				Non- irrigation season			
	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Critical	40%	19%	19%	19%	34%	10%	3%	10%[1]
Dry	18%	7%	7%	5%	14%	3%	1%	1%
Below Normal	13%	2%	2%	2%	15%	1%	1%	1 %
Above Normal	9%	0%	0%	0%	7%	0%	2%	1%
Wet	2%	0%	0%	0%	1%	0%	0%	0%
1 Actual exceedance rate should be similar to that for Alternative 3 (see discussion in Section 4.4)								

The USBR's responsibility for salt in supply water exceeds the supply water credits provided to west side water users because the USBR is responsible for all salt in supply water that exceeds 52 mg/L while supply water credits are set at 50 percent of the added salt in supply water (50 percent of the salt in supply water above 52 mg/L). USBR's responsibility for salt in supply is partially achieved/mitigated through releases from New Melones, which are accounted for (included) in spreadsheet model calculations. Supply water credits and compensating supply water allocations, however, are not imposed in the spreadsheet model. The full effect of the USBR's prescribed responsibility to mitigate for salt imports is therefore not reflected in the spreadsheet model results for alternative 3 and 4. Imposition of the supply water credits and allocations would not affect the model output for Alternative 1 or 2 because supply water credits don't apply to these alternatives. Full imposition of the USBR's responsibility would result in model output that predicts a lower expected exceedance rate for Alternatives 3 and 4 than is predicted in this analysis. Reduced exceedances caused by imposition of the supply water credits and allocations would, however, be the same for alternatives 3 and 4. The relative difference in exceedance rates between alternative 3 and 4 would therefore be the same.

This analysis also provided an estimate the volume of drainage that would need to be retained or treated under each of the four alternatives. Implementation of each of the alternatives evaluated would involve a different level of regulatory intervention and stringency with respect to discharges to the LSJR. The less stringent an alternative is the more discharge to the LSJR is allowed. Conversely, the more stringent an alternative is the less discharge to the LSJR is allowed and consequently more drainage must be retained and treated. Costs to discharges are proportional to the volume of drainage that must be managed. An estimate of the volume of drainage (and associated salt concentration) needing treatment for each alternative was developed (Table 5-20) in order to estimate the cost associated with each alternative (Appendix 4). Implementation of Alternative four requires the smallest volume of drainage retention/treatment and provides a level of water quality protection similar to that of Alternative three. Alternative 4 is therefore the preferred alternative.

Table 5-12: Estimated Mean Annual Volume of Drainage Needing to be Retained/Treated

ALTERNATIVE 1: NO ACTION										
No Drainage Retained/Treated										
ALTERNATIVE 2: PROHIBITION										
	Wet		Above normal		Below normal		Dry		Critical	
Source type	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)
Grassland subarea subsurface drainage	42	3,400	32	3,400	30	3,400	28	3,400	22	3,400
Grassland subarea surface drainage	60	630	60	630	60	630	60	630	60	630
Wetland drainage	132	1,000	132	1,000	132	1,000	132	1,000	132	1,000
Non-Grassland subsurface drainage	10	1,700	10	1,700	10	1,700	10	1,700	10	1,700
Non-Grassland surface drainage	270	390	270	390	270	390	270	390	270	390
Totals	**514**		**504**		**502**		**500**		**494**	
ALTERNATIVE 3: FIXED BASE LOAD TMDL										
	Wet		Above normal		Below normal		Dry		Critical	
Source type	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)
Grassland subarea subsurface drainage	17	3,300	13	3,400	24	3,400	23	3,400	21	3,400
Grassland subarea surface drainage	29	460	29	460	40	601	48	650	53	640
Wetland drainage	9	1,000	9	1,000	43	1,000	47	1,000	77	1,000
Non-Grassland subsurface drainage	4	1,600	4	1,600	7	1,600	7	1,600	9	1,700
Non-Grassland surface drainage	121	390	130	390	130	390	147	380	204	380
Totals	**180**		**185**		**244**		**272**		**364**	
ALTERNATIVE 4A: REAL-TIME TMDL (no re-operation of drainage)										
	Wet		Above normal		Below normal		Dry		Critical	
Source type	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)	Q (TAF)	TDS (mg/L)
Grassland subarea subsurface drainage	9	3400	8	3,400	18	3500	17	3,500	18	3,400
Grassland subarea surface drainage	0	--	2	430	10	640	13	670	30	570
Wetland drainage	0	--	14	1,000	9	1,000	17	1,000	31	1,000
Non-Grassland subsurface drainage	0	--	1	1,500	3	1,700	3	1,700	5	1,700
Non-Grassland surface drainage	0	--	0	--	6	370	2	400	34	380
Totals	**9**		**25**		**46**		**52**		**118**	

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APPENDIX 5

ATTACHMENT 5-1

Attachment 5-1: DWRSIM Output Data

STUDY: 1995D06E-CALFED-771 DWRSIM: 9.06 Y, 5 Mar 1999
CP # 675, STANISLAUS RIVER MOUTH&RTRN FLW, DOWNSTREAM FLOW (TAF)

Project:/1995D06E-CALFED-771/675/FLOW-DOWNSTREAM//1MON/OUTPUT/

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1921	----	----	----	----	----	----	----	----	----	21	22	22	65
1922	17	28	29	97	101	47	52	54	38	27	27	27	544
1923	24	22	30	102	108	54	54	56	38	28	28	28	572
1924	25	23	16	57	59	53	29	29	24	16	19	19	369
1925	15	22	23	69	72	51	58	59	38	22	23	23	475
1926	18	17	17	48	50	54	52	32	26	16	19	19	368
1927	15	21	24	76	79	47	57	57	38	23	23	23	483
1928	20	18	24	75	78	58	60	60	38	23	23	23	500
1929	20	18	16	54	56	53	35	31	26	16	18	19	362
1930	15	14	16	51	54	53	35	32	26	15	18	19	348
1931	14	13	15	55	57	36	29	30	25	15	18	19	326
1932	14	18	20	55	59	54	57	57	38	20	21	21	434
1933	15	14	16	49	51	55	31	32	26	15	18	19	341
1934	14	13	15	52	57	34	30	31	25	15	18	19	323
1935	14	13	20	54	58	47	50	54	38	20	21	21	410
1936	15	45	21	59	63	47	54	55	38	21	22	22	462
1937	16	25	22	63	67	47	51	52	38	21	22	22	446
1938	17	38	35	115	123	121	51	51	81	33	59	42	766
1939	46	42	25	86	88	56	55	55	26	23	24	24	550
1940	24	22	31	110	116	68	54	53	40	32	29	29	608
1941	26	24	32	115	122	79	51	50	41	34	30	30	634
1942	27	25	35	115	123	121	51	50	62	35	81	63	788
1943	178	132	211	115	123	121	51	53	41	34	33	33	1125
1944	30	28	29	99	104	55	58	57	38	27	27	27	579
1945	24	22	31	108	114	64	52	54	39	31	28	29	596
1946	26	24	31	110	116	68	55	52	40	32	29	29	612
1947	26	24	21	70	73	56	55	45	26	19	20	21	456
1948	19	18	21	63	66	47	57	56	38	21	22	22	450
1949	17	16	21	60	64	58	59	57	38	21	22	22	455
1950	16	15	21	62	66	58	60	57	38	21	22	25	461
1951	18	16	41	112	119	73	58	56	40	32	29	29	623
1952	28	25	51	115	123	210	135	123	105	34	52	55	1056
1953	88	65	32	113	120	74	60	58	40	33	29	29	741
1954	27	25	30	102	107	57	60	57	38	29	27	27	586
1955	25	23	18	58	56	55	55	32	26	17	19	33	417
1956	28	15	33	115	123	96	51	55	41	34	31	31	653
1957	29	26	31	109	115	66	59	58	40	31	29	29	622
1958	26	24	35	115	123	121	51	51	41	34	59	43	723
1959	54	80	25	88	89	57	56	56	27	23	24	25	604
1960	24	22	17	53	58	55	47	32	26	16	19	19	388
1961	16	15	15	53	56	54	29	30	25	15	18	19	345
1962	14	20	20	55	59	59	59	55	38	20	21	21	441
1963	15	14	21	61	65	47	49	55	38	21	22	22	430
1964	16	15	16	52	54	55	41	32	26	16	19	27	369
1965	21	14	29	101	107	52	53	56	38	28	27	27	553
1966	25	23	24	74	77	59	60	58	38	23	23	23	507
1967	19	18	34	115	123	108	51	55	41	34	32	32	662
1968	30	56	26	90	92	57	56	56	27	24	24	25	563
1969	24	28	46	115	157	233	113	123	81	34	71	84	1109

STUDY: 1995D06E-CALFED-771 DWRSIM: 9.06 Y, 5 Mar 1999
CP # 675, STANISLAUS RIVER MOUTH&RTRN FLW, DOWNSTREAM FLOW (TAF)

Project:/1995D06E-CALFED-771/675/FLOW-DOWNSTREAM//1MON/OUTPUT/

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1970	305	148	67	113	120	76	57	56	40	33	29	30	1074
1971	27	25	31	110	116	69	59	58	40	32	29	29	625
1972	26	24	24	79	81	56	54	56	26	23	23	24	496
1973	23	24	29	101	106	51	55	57	38	28	27	27	566
1974	25	23	33	115	123	90	53	55	41	34	31	31	654
1975	28	26	36	115	123	98	51	53	41	33	31	31	666
1976	29	26	24	78	79	55	55	55	25	22	22	23	493
1977	22	21	16	55	56	51	27	28	23	15	18	19	351
1978	18	15	25	77	80	47	49	54	38	24	23	23	473
1979	20	20	29	95	100	51	57	58	38	27	27	27	549
1980	26	42	61	115	123	119	51	58	41	34	33	33	736
1981	33	37	25	88	90	57	56	56	27	23	24	25	541
1982	24	104	189	115	123	121	100	109	112	95	185	188	1465
1983	261	270	337	115	123	277	280	149	130	81	231	297	2551
1984	168	143	84	115	122	78	55	51	41	33	30	30	950
1985	27	25	25	83	84	56	56	56	26	23	24	24	509
1986	23	22	244	115	123	121	54	55	41	33	33	33	897
1987	30	28	23	76	79	56	55	54	25	22	22	23	493
1988	22	20	16	53	55	53	29	29	24	16	18	19	354
1989	15	14	16	50	54	54	33	32	26	15	18	19	346
1990	14	13	15	53	55	43	30	30	25	15	18	19	330
1991	14	13	15	44	52	42	30	31	25	15	18	19	318
1992	14	16	15	47	54	12	8	7	7	13	18	19	230
1993	14	19	20	54	58	47	49	50	38	19	21	21	410
1994	15	14	15	50	51	49	30	31	25	----	----	----	280
AVG:	34	33	39	83	88	71	55	53	38	26	32	33	588
MIN:	14	13	15	44	50	12	8	7	7	13	18	19	230
MAX:	305	270	337	115	157	277	280	149	130	95	231	297	2551

Attachment 5-1: DWRSIM Output Data

STUDY: 1995D06E-CALFED-771 DWRSIM: 9.06 Y, 5 Mar 1999
CP 3 675, Merced RIVER MOUTH&RTRN FLW, DOWNSTREAM FLOW (TAF)

Project: /1995D06E-CALFED-771/675/FLOW-DOWNSTREAM//1MON/OUTPUT

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1921	----	----	----	----	----	----	----	----	----	8	9	14	31
1922	13	23	17	6	33	115	3	2	4	147	21	68	452
1923	75	61	10	35	42	2	4	3	2	32	9	13	288
1924	12	18	9	9	18	7	13	11	8	7	9	9	130
1925	8	15	11	14	24	2	4	3	5	8	9	10	113
1926	10	48	9	32	31	1	3	2	7	8	11	10	172
1927	9	45	13	34	36	2	3	2	12	187	8	37	388
1928	34	35	15	32	42	2	3	2	2	3	10	10	190
1929	9	8	10	30	26	1	2	1	1	7	9	8	112
1930	9	8	12	31	26	1	2	1	1	10	5	8	114
1931	8	7	9	5	5	3	15	11	8	9	8	17	105
1932	14	30	12	22	41	2	4	4	8	76	9	9	231
1933	17	23	11	29	16	1	3	13	8	8	8	9	146
1934	8	22	9	11	21	3	14	11	9	8	9	9	134
1935	16	14	14	46	88	82	4	7	10	96	12	14	403
1936	46	282	19	28	97	2	4	5	9	53	9	25	579
1937	32	248	57	8	135	19	4	8	10	86	9	149	765
1938	78	263	283	38	207	265	8	2	36	179	20	22	1401
1939	22	32	11	43	29	3	13	13	6	8	8	9	197
1940	20	78	69	16	64	2	4	11	10	9	9	97	389
1941	83	165	81	11	126	123	3	2	4	165	20	87	870
1942	96	89	13	9	55	122	3	2	11	165	40	45	650
1943	153	99	166	27	53	2	4	3	6	93	10	16	632
1944	25	53	15	57	17	2	4	8	10	11	10	10	222
1945	9	145	38	7	36	2	4	3	7	117	45	111	524
1946	60	41	12	45	30	2	4	11	10	8	10	37	270
1947	36	46	9	11	21	3	7	13	9	7	8	8	178
1948	7	7	11	20	21	2	4	10	10	8	9	9	118
1949	9	8	15	32	33	2	4	13	10	9	9	9	153
1950	10	12	11	29	27	2	4	14	10	8	20	270	417
1951	100	78	13	57	18	2	4	12	10	8	9	14	325
1952	31	72	86	15	211	130	3	2	15	167	9	38	779
1953	66	31	10	43	32	2	4	12	10	8	9	10	237
1954	9	10	13	10	17	2	4	14	10	9	9	9	116
1955	11	9	9	21	16	1	3	13	9	8	8	114	222
1956	238	86	9	51	14	91	3	2	4	167	13	15	693
1957	18	46	11	44	31	2	4	11	10	8	9	10	204
1958	11	14	53	76	178	119	3	2	2	168	9	9	644
1959	24	60	9	31	32	3	13	13	6	7	9	8	215
1960	8	9	10	28	14	3	13	13	9	8	9	9	133
1961	8	7	9	5	5	3	13	10	8	9	8	8	93
1962	8	27	15	32	43	2	4	6	10	8	9	9	173
1963	11	39	11	39	33	2	4	3	9	35	38	25	249
1964	32	27	9	31	17	1	4	13	7	8	9	57	215
1965	188	66	10	12	40	2	3	2	4	166	72	50	615
1966	51	41	11	57	18	4	7	12	7	8	9	15	240
1967	14	11	62	39	133	251	98	2	43	169	8	18	848
1968	19	51	10	56	16	3	13	10	6	10	8	10	212
1969	161	242	91	75	330	236	11	2	33	180	25	41	1427

Attachment 5-1: DWRSIM Output Data

STUDY: 1995D06E-CALFED-771 DWRSIM: 9.06 Y, 5 Mar 1999
CP 3 675, Merced RIVER MOUTH&RTRN FLW, DOWNSTREAM FLOW (TAF)

Project: /1995D06E-CALFED-771/675/FLOW-DOWNSTREAM//1MON/OUTPUT

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1970	165	73	28	46	29	2	4	9	8	8	9	12	393
1971	10	8	10	47	28	2	4	9	9	10	9	10	156
1972	10	9	9	14	22	1	6	12	1	7	8	9	108
1973	11	57	40	6	88	14	4	3	6	94	62	70	455
1974	106	42	51	11	66	11	4	3	6	100	9	20	429
1975	30	125	52	16	29	96	4	6	2	141	22	19	542
1976	9	21	9	19	17	3	14	10	9	14	9	11	145
1977	8	6	8	16	18	3	13	13	4	7	6	9	111
1978	16	24	22	18	10	235	30	2	75	173	20	18	643
1979	105	118	62	21	54	2	4	4	6	42	13	24	455
1980	276	263	82	11	19	110	4	2	35	168	9	10	989
1981	28	34	11	46	27	3	6	9	7	7	9	9	196
1982	110	208	109	255	182	88	3	2	44	208	100	155	1464
1983	208	240	329	7	161	456	212	2	106	186	117	213	2237
1984	103	84	14	57	18	2	4	11	7	8	10	10	328
1985	9	9	11	31	31	1	3	9	9	10	9	9	141
1986	8	333	211	6	66	57	4	3	7	111	9	9	824
1987	9	14	10	14	23	3	14	10	9	7	9	8	130
1988	8	6	10	10	17	1	13	10	6	10	5	9	105
1989	8	7	10	5	5	3	15	11	8	8	8	8	96
1990	8	7	9	5	5	3	14	11	9	8	8	8	95
1991	7	6	14	5	5	3	14	11	9	8	8	8	98
1992	7	11	10	5	5	3	14	11	9	8	8	9	100
1993	26	12	77	33	107	95	15	12	10	156	9	10	562
1994	10	29	9	31	31	3	14	11	9				147
AVG:	44	63	36	30	50	39	11	7	12	57	16	31	395
MIN:	7	6	8	5	5	1	2	1	1	3	5	8	31
MAX:	276	333	329	255	330	456	212	14	106	208	117	270	2237

Attachment 5-1: DWRSIM Output Data

STUDY: 1995D06E-CALFED-771 DWRSIM: 9.06 Y, 5 Mar 1999
CP # 665, TUOLUMNE R MOUTH&MDSTO ID RTRN, DOWNSTREAM FLOW (TAF)

Project: /1995D06E-CALFED-771/665/FLOW-DOWNSTREAM//1MON/OUTPUT/

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1921	----	----	----	----	----	----	----	----	----	42	34	41	115
1922	39	53	47	85	84	32	31	32	31	35	30	37	547
1923	37	33	32	83	79	29	28	27	26	31	26	27	509
1924	26	25	26	22	27	8	8	8	9	30	18	19	204
1925	18	25	21	62	72	16	16	16	15	30	19	20	298
1926	19	20	26	48	53	13	11	11	11	33	23	23	291
1927	22	35	27	88	102	40	28	27	26	33	31	30	496
1928	30	30	35	42	43	14	14	15	14	28	19	19	343
1929	19	18	19	32	38	8	8	8	9	29	16	16	225
1930	17	17	19	38	41	8	8	9	9	16	16	16	223
1931	16	16	16	33	44	8	9	9	9	18	20	32	195
1932	28	46	25	77	112	43	28	27	26	32	27	27	484
1933	28	26	29	52	66	22	10	11	11	33	18	19	281
1934	19	20	18	26	41	8	8	8	9	31	20	21	190
1935	31	24	30	92	81	29	29	27	26	35	30	31	465
1936	32	66	38	82	100	31	28	27	26	40	34	36	541
1937	36	66	193	133	84	49	32	32	31	40	34	56	867
1938	181	433	495	244	359	245	105	32	52	72	27	28	2275
1939	38	61	51	48	36	11	10	11	11	22	20	21	387
1940	36	65	327	126	79	27	27	27	26	40	34	42	832
1941	42	299	293	183	85	150	33	32	31	63	35	54	1276
1942	234	238	184	158	127	95	56	33	32	59	35	61	1313
1943	228	245	376	140	84	66	32	32	31	33	29	29	1325
1944	28	30	35	53	53	15	15	15	14	24	24	24	380
1945	23	112	205	94	78	28	27	26	26	35	30	157	792
1946	209	159	150	91	78	27	28	27	26	32	28	30	935
1947	27	27	27	35	35	11	10	10	11	22	18	18	247
1948	18	19	21	60	61	18	16	16	15	28	21	21	307
1949	20	20	27	47	48	15	14	14	14	32	21	21	299
1950	23	25	22	64	73	15	15	15	14	32	36	38	357
1951	223	215	189	76	78	27	28	27	26	40	34	41	1023
1952	55	68	293	244	157	267	97	32	49	57	29	31	1328
1953	68	151	123	56	53	15	15	15	14	22	21	21	622
1954	21	22	25	95	53	14	15	15	14	25	19	20	292
1955	21	21	22	39	43	13	11	11	11	35	24	66	301
1956	462	250	186	90	85	254	48	32	37	62	28	29	1572
1957	28	28	98	52	55	16	15	15	14	31	27	27	455
1958	29	57	319	318	169	288	38	33	51	57	27	27	1364
1959	27	41	127	35	35	11	10	10	11	20	16	16	400
1960	16	19	18	26	27	8	8	9	9	25	16	17	212
1961	16	16	16	26	35	8	9	9	9	16	18	18	177
1962	18	41	26	52	93	17	14	14	14	38	22	23	362
1963	26	30	45	88	105	39	29	28	26	32	29	28	497
1964	28	30	34	43	49	16	10	10	11	37	26	37	305
1965	192	222	160	163	84	32	32	32	31	51	75	151	1240
1966	157	165	122	39	41	14	14	14	14	34	27	35	719
1967	32	30	176	255	92	300	278	32	62	58	27	28	1328
1968	27	40	80	40	35	11	10	10	11	26	24	27	388
1969	259	411	310	289	415	444	121	32	53	79	30	47	2440

STUDY: 1995D06E-CALFED-771 DWRSIM: 9.06 Y, 5 Mar 1999
CP # 665, TUOLUMNE R MOUTH&MDSTO ID RTRN, DOWNSTREAM FLOW (TAF)

Project: /1995D06E-CALFED-771/665/FLOW-DOWNSTREAM//1MON/OUTPUT/

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1970	372	208	211	76	78	27	27	26	26	33	29	32	1196
1971	30	36	154	52	53	15	15	15	14	24	19	21	446
1972	20	19	37	32	39	11	9	8	10	30	20	21	218
1973	24	47	236	80	78	27	27	26	26	40	35	37	670
1974	209	163	231	155	83	31	32	32	31	40	34	35	1076
1975	35	43	252	97	85	158	31	31	31	41	27	27	859
1976	26	31	26	25	26	8	8	9	9	24	16	16	235
1977	16	15	16	22	27	8	9	9	9	22	24	26	197
1978	36	47	45	102	88	32	32	32	31	35	30	31	541
1979	38	243	245	92	79	31	27	26	26	40	35	35	941
1980	310	445	254	128	83	204	150	32	59	62	27	28	1764
1981	29	26	76	56	37	11	10	10	11	30	27	28	398
1982	278	401	366	466	202	263	127	32	128	204	165	299	2883
1983	372	427	594	237	91	662	434	32	207	91	284	411	3845
1984	254	221	177	76	77	27	28	27	26	32	28	28	1049
1985	27	27	43	37	36	11	11	11	11	26	25	26	305
1986	25	347	451	107	100	272	31	31	31	31	26	26	1417
1987	26	25	27	25	26	8	8	9	9	14	16	16	211
1988	16	15	16	26	27	8	8	9	9	14	16	17	180
1989	16	16	18	38	38	8	9	9	9	16	16	16	198
1990	16	16	17	31	42	8	8	8	9	14	16	16	178
1991	16	15	24	26	32	9	8	8	9	14	16	16	186
1992	16	21	18	26	38	9	9	8	9	22	24	25	212
1993	48	34	35	83	82	32	31	31	31	32	26	27	512
1994	26	25	25	33	40	9	8	8	9	----	----	----	200
AVG:	74	93	118	94	84	63	35	20	25	34	31	40	717
MIN:	16	15	16	20	20	8	8	8	9	14	16	16	177
MAX:	471	445	594	466	415	662	435	33	208	204	285	412	3845

Attachment 5-1: DWRSIM Output Data

STUDY: 1995D06E-CALFED-771 DWRSIM: 9.06 Y, 5 Mar 1999
CP # 619, SJ&FRESNO R CNFLUNC, BYPASS RTRN, DOWNSTREAM FLOW (TAF)

Project: /1995D06E-CALFED-771/619/FLOW-DOWNSTREAM//1MON/OUTPUT

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1921	----	----	----	----	----	----	----	----	----	0	0	1	2
1922	3	46	0	0	24	208	0	0	0	0	21	17	318
1923	15	1	0	0	0	0	0	0	0	0	0	0	16
1924	0	0	0	0	0	0	0	0	0	6	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	2	0	0	0
1927	0	18	0	0	0	0	0	0	0	0	0	0	18
1928	0	0	0	0	0	0	0	0	0	1	0	0	0
1929	0	0	0	0	0	0	0	0	0	3	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	3	1
1932	7	19	0	0	0	0	0	0	0	0	0	0	26
1933	0	0	0	0	0	0	0	0	0	2	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	48	0	0	0	0	0	0	0	0	0	0	51
1937	47	143	8	19	158	0	0	0	0	0	14	59	460
1938	84	281	577	263	770	142	32	0	0	10	22	0	2205
1939	0	0	0	0	0	0	0	0	0	1	0	0	0
1940	17	31	0	0	0	0	0	0	0	0	0	0	48
1941	14	110	0	0	156	120	0	0	0	8	20	15	453
1942	18	18	0	0	0	0	0	0	0	1	22	1	62
1943	47	7	133	0	70	0	0	0	0	0	0	0	278
1944	0	2	0	0	0	0	0	0	0	0	0	0	0
1945	0	22	0	0	0	0	0	0	0	0	0	0	27
1946	0	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	1	0	125	125
1951	160	3	0	0	0	0	0	0	0	0	0	0	162
1952	23	9	15	79	496	0	0	0	0	8	20	5	663
1953	7	0	0	0	0	0	0	0	0	0	0	0	7
1954	0	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	124	124
1956	304	163	34	0	132	11	0	0	0	0	4	0	671
1957	0	0	0	0	0	0	0	0	0	1	0	0	0
1958	0	0	7	1	178	69	0	0	0	9	20	0	284
1959	0	2	0	0	0	0	0	0	0	1	0	0	2
1960	0	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	39	0	0	0	0	0	0	0	0	0	0	37
1963	0	0	0	0	0	7	0	0	0	0	0	0	7
1964	0	0	0	0	0	0	0	0	0	0	0	2	0
1965	28	0	0	0	0	0	0	0	0	0	0	0	29
1966	0	0	0	0	0	0	0	0	0	1	0	0	0
1967	6	24	0	107	547	106	114	0	0	9	19	0	943
1968	0	0	0	0	0	0	0	0	0	1	0	0	0
1969	158	720	430	617	772	228	75	0	0	1	21	0	3053

STUDY: 1995D06E-CALFED-771 DWRSIM: 9.06 Y, 5 Mar 1999
CP # 619, SJ&FRESNO R CNFLUNC, BYPASS RTRN, DOWNSTREAM FLOW (TAF)

Project: /1995D06E-CALFED-771/619/FLOW-DOWNSTREAM//1MON/OUTPUT

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1970	176	9	0	0	0	0	0	0	0	0	0	0	192
1971	0	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	20	0	0	0	10	0	0	0	0	0	0	29
1974	48	5	0	0	0	0	0	0	0	0	0	0	52
1975	0	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0	0
1978	8	45	343	465	377	0	34	0	0	0	21	0	1314
1979	13	12	0	0	0	0	0	0	0	0	0	0	25
1980	105	293	348	10	199	0	18	0	0	0	20	0	1021
1981	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	27	12	562	341	45	0	0	0	10	71	463	1541
1983	542	881	874	561	761	897	29	0	0	109	208	339	5203
1984	384	3	0	0	0	0	0	0	0	0	0	0	387
1985	0	0	0	0	0	0	0	0	0	1	0	0	0
1986	0	338	462	173	219	95	0	0	0	0	11	0	1340
1987	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	10	0	8
1992	0	0	0	0	0	0	0	0	0	0	0	0	0
1993	42	23	0	0	21	141	0	0	0	0	14	0	238
1994	0	0	0	0	0	0	0	0	0	----	----	----	0
AVG:	31	47	46	40	72	29	4	0	0	2	7	16	298
MIN:	0	0	0	0	0	0	0	0	0	0	0	0	0
MAX:	542	890	887	618	771	901	114	0	0	87	204	463	5203

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APPENDIX 5

ATTACHMENT 5-2

Date	With WQ Releases		W/OUT WQ Releases		Date	With WQ Releases		W/OUT WQ Releases	
	Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)		Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)
Oct-21	96,390	303	96,390	303	Oct-25	81,807	362	81,807	362
Nov-21	101,985	342	101,985	342	Nov-25	81,110	448	81,110	448
Dec-21	107,845	382	107,845	382	Dec-25	83,855	568	83,855	568
Jan-22	111,913	421	111,913	421	Jan-26	96,272	610	96,272	610
Feb-22	227,050	423	227,050	423	Feb-26	151,308	499	151,308	499
Mar-22	162,122	592	162,122	592	Mar-26	108,219	686	108,219	686
Apr-22	209,760	230	209,760	230	Apr-26	148,463	349	148,463	349
May-22	269,066	193	269,066	193	May-26	148,035	188	146,035	190
Jun-22	428,834	232	428,834	232	Jun-26	86,678	551	51,679	878
Jul-22	114,586	303	110,586	312	Jul-26	92,623	380	59,624	550
Aug-22	121,624	265	113,624	279	Aug-26	68,895	478	63,895	510
Sep-22	99,613	319	99,613	319	Sep-26	59,530	448	59,530	448
Oct-22	234,864	146	234,864	146	Oct-26	68,470	372	68,470	372
Nov-22	130,455	319	130,455	319	Nov-26	89,228	417	89,228	417
Dec-22	178,857	294	178,857	294	Dec-26	83,927	558	83,927	558
Jan-23	189,313	319	189,313	319	Jan-27	83,134	667	83,134	667
Feb-23	190,050	420	190,050	420	Feb-27	189,600	494	189,600	494
Mar-23	130,978	641	130,978	641	Mar-27	128,504	572	128,504	572
Apr-23	261,700	222	261,700	222	Apr-27	230,479	249	230,479	249
May-23	287,496	168	287,496	168	May-27	253,313	204	253,313	204
Jun-23	89,156	203	89,156	203	Jun-27	107,362	411	103,362	425
Jul-23	124,644	375	119,644	388	Jul-27	108,039	309	94,039	346
Aug-23	143,569	416	134,569	440	Aug-27	116,998	356	100,998	403
Sep-23	96,998	285	96,998	285	Sep-27	108,210	403	108,210	403
Oct-23	123,421	278	123,421	278	Oct-27	272,563	142	272,563	142
Nov-23	93,407	449	93,407	449	Nov-27	102,395	437	102,395	437
Dec-23	99,932	519	99,932	519	Dec-27	115,656	306	115,656	306
Jan-24	101,030	477	101,030	477	Jan-28	126,172	477	126,172	477
Feb-24	133,411	546	133,411	546	Feb-28	143,124	468	143,124	468
Mar-24	115,023	778	115,023	778	Mar-28	135,743	583	135,743	583
Apr-24	89,742	251	77,742	281	Apr-28	215,723	286	215,723	286
May-24	94,352	253	80,352	287	May-28	220,782	207	220,782	207
Jun-24	82,140	392	45,141	655	Jun-28	96,467	462	80,467	542
Jul-24	70,612	506	57,613	601	Jul-28	111,574	299	93,574	345
Aug-24	54,003	365	54,003	365	Aug-28	110,680	339	91,681	397
Sep-24	71,118	509	71,118	509	Sep-28	72,629	308	72,629	308
Oct-24	74,615	445	74,615	445	Oct-28	76,897	350	76,897	350
Nov-24	79,117	547	79,117	547	Nov-28	78,163	416	78,163	416
Dec-24	78,258	561	78,258	561	Dec-28	87,302	553	87,302	553
Jan-25	83,641	538	83,641	538	Jan-29	92,262	577	92,262	577
Feb-25	130,835	616	130,835	616	Feb-29	109,855	679	109,855	679
Mar-25	122,631	684	122,631	684	Mar-29	119,217	814	119,217	814
Apr-25	159,572	306	159,572	306	Apr-29	146,739	292	137,739	307
May-25	156,993	221	156,993	221	May-29	156,314	281	145,314	298
Jun-25	99,215	391	87,216	436	Jun-29	69,870	413	33,871	774
Jul-25	105,993	388	87,993	455	Jul-29	66,562	641	48,563	848
Aug-25	86,448	246	66,448	302	Aug-29	62,266	371	62,266	371
Sep-25	87,165	390	87,165	390	Sep-29	50,802	375	50,802	375

Date	With WQ Releases		W/OUT WQ Releases		Date	With WQ Releases		W/OUT WQ Releases	
	Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)		Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)
Oct-29	71,069	431	71,069	431	Oct-33	72,245	461	72,245	461
Nov-29	74,732	492	74,732	492	Nov-33	72,118	462	72,118	462
Dec-29	76,065	544	76,065	544	Dec-33	74,065	476	74,065	476
Jan-30	83,081	620	83,081	620	Jan-34	84,284	643	84,284	643
Feb-30	106,704	685	106,704	685	Feb-34	120,228	642	120,228	642
Mar-30	111,740	678	111,740	678	Mar-34	101,622	716	101,622	716
Apr-30	139,846	385	131,847	405	Apr-34	117,988	409	107,988	441
May-30	137,381	254	127,381	270	May-34	128,155	407	113,155	454
Jun-30	84,539	371	48,539	596	Jun-34	66,756	472	48,757	619
Jul-30	76,373	480	59,374	595	Jul-34	64,304	462	64,304	462
Aug-30	52,191	230	52,191	230	Aug-34	85,411	398	85,411	398
Sep-30	61,528	572	61,528	572	Sep-34	63,372	402	63,372	402
Oct-30	73,954	447	73,954	447	Oct-34	70,311	515	70,311	515
Nov-30	67,418	479	67,418	479	Nov-34	83,520	434	83,520	434
Dec-30	74,019	597	74,019	597	Dec-34	82,783	542	82,783	542
Jan-31	83,766	649	83,766	649	Jan-35	97,841	472	97,841	472
Feb-31	97,028	764	97,028	764	Feb-35	122,855	776	122,855	776
Mar-31	105,249	763	105,249	763	Mar-35	128,365	629	128,365	629
Apr-31	94,626	261	80,626	297	Apr-35	241,714	296	241,714	296
May-31	103,328	230	87,328	261	May-35	259,282	190	259,282	190
Jun-31	62,755	494	41,756	704	Jun-35	167,766	207	167,766	207
Jul-31	77,435	622	77,435	622	Jul-35	92,774	334	76,774	390
Aug-31	57,596	483	57,596	483	Aug-35	129,517	340	108,517	394
Sep-31	65,969	426	65,969	426	Sep-35	98,677	277	98,677	277
Oct-31	68,155	366	68,155	366	Oct-35	180,882	223	180,882	223
Nov-31	79,692	458	79,692	458	Nov-35	93,953	368	93,953	368
Dec-31	102,741	508	102,741	508	Dec-35	99,120	518	99,120	518
Jan-32	100,881	555	100,881	555	Jan-36	135,757	414	135,757	414
Feb-32	180,185	454	180,185	454	Feb-36	517,182	212	517,182	212
Mar-32	112,549	535	112,549	535	Mar-36	142,991	646	142,991	646
Apr-32	170,580	272	170,580	272	Apr-36	191,720	235	191,720	235
May-32	244,640	282	244,640	282	May-36	285,665	224	285,665	224
Jun-32	94,102	312	75,103	375	Jun-36	99,874	377	90,875	408
Jul-32	119,978	328	97,979	387	Jul-36	116,012	435	98,012	503
Aug-32	119,998	397	95,998	481	Aug-36	122,659	299	101,659	349
Sep-32	99,464	319	99,464	319	Sep-36	104,350	266	104,350	266
Oct-32	161,418	231	161,418	231	Oct-36	142,763	275	142,763	275
Nov-32	87,267	440	87,267	440	Nov-36	95,454	389	95,454	389
Dec-32	84,889	458	84,889	458	Dec-36	110,177	373	110,177	373
Jan-33	100,616	538	100,616	538	Jan-37	169,417	383	169,417	383
Feb-33	123,354	549	123,354	549	Feb-37	572,991	221	572,991	221
Mar-33	121,520	664	121,520	664	Mar-37	416,022	238	416,022	238
Apr-33	123,795	257	116,795	269	Apr-37	248,674	194	248,674	194
May-33	145,916	330	137,917	346	May-37	491,303	214	491,303	214
Jun-33	81,422	401	44,423	679	Jun-37	141,822	296	141,822	296
Jul-33	77,185	587	70,185	637	Jul-37	123,750	396	110,750	436
Aug-33	79,613	363	79,613	363	Aug-37	136,532	266	120,532	293
Sep-33	64,978	458	64,978	458	Sep-37	104,668	367	104,668	367

Date	With WQ Releases		W/OUT WQ Releases		Date	With WQ Releases		W/OUT WQ Releases	
	Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)		Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)
Oct-37	169,309	188	169,309	188	Oct-41	301,344	149	301,344	149
Nov-37	109,722	380	109,722	380	Nov-41	136,110	341	136,110	341
Dec-37	315,673	210	315,673	210	Dec-41	216,924	257	216,924	257
Jan-38	412,695	214	412,695	214	Jan-42	410,432	154	410,432	154
Feb-38	1,097,178	133	1,097,178	133	Feb-42	447,480	240	447,480	240
Mar-38	1,483,383	131	1,483,383	131	Mar-42	290,628	264	290,628	264
Apr-38	689,819	166	689,819	166	Apr-42	312,290	188	312,290	188
May-38	1,473,291	103	1,473,291	103	May-42	336,079	162	336,079	162
Jun-38	800,540	128	800,540	128	Jun-42	382,823	248	382,823	248
Jul-38	233,167	302	233,167	302	Jul-42	147,817	275	147,817	275
Aug-38	123,724	369	121,724	374	Aug-42	121,275	285	120,275	287
Sep-38	206,500	215	206,500	215	Sep-42	127,760	193	127,760	193
Oct-38	320,261	137	320,677	137	Oct-42	286,096	158	286,096	158
Nov-38	158,079	273	164,186	286	Nov-42	213,488	230	213,488	230
Dec-38	123,222	354	125,704	383	Dec-42	201,620	231	201,620	231
Jan-39	145,382	332	144,316	346	Jan-43	656,099	134	656,099	134
Feb-39	214,656	442	210,507	453	Feb-43	550,309	163	550,309	163
Mar-39	147,518	592	153,150	567	Mar-43	981,482	148	981,482	148
Apr-39	215,332	208	214,676	208	Apr-43	305,956	203	305,956	203
May-39	179,125	190	178,808	191	May-43	350,679	174	350,679	174
Jun-39	97,745	340	67,754	453	Jun-43	196,495	125	196,495	125
Jul-39	80,206	275	47,633	361	Jul-43	139,051	396	139,051	396
Aug-39	115,599	360	82,596	466	Aug-43	117,304	303	114,304	309
Sep-39	66,563	386	62,545	401	Sep-43	105,881	292	105,881	292
Oct-39	80,297	501	80,297	501	Oct-43	191,050	210	191,050	210
Nov-39	83,722	354	83,722	354	Nov-43	112,373	383	112,373	383
Dec-39	79,681	376	79,681	376	Dec-43	109,403	390	109,403	390
Jan-40	134,144	427	134,144	427	Jan-44	123,414	432	123,414	432
Feb-40	239,665	406	239,665	406	Feb-44	171,687	434	171,687	434
Mar-40	464,911	224	464,911	224	Mar-44	155,088	599	155,088	599
Apr-40	261,233	198	261,233	198	Apr-44	264,171	197	264,171	197
May-40	301,766	143	301,766	143	May-44	198,661	255	198,661	255
Jun-40	99,698	192	99,698	192	Jun-44	88,224	357	80,225	387
Jul-40	107,366	296	103,366	305	Jul-44	103,141	472	93,141	516
Aug-40	138,828	292	133,828	301	Aug-44	94,918	330	83,918	365
Sep-40	112,413	355	112,413	355	Sep-44	85,856	284	85,856	284
Oct-40	111,893	310	111,893	310	Oct-44	88,422	316	88,422	316
Nov-40	98,378	310	98,378	310	Nov-44	93,287	483	93,287	483
Dec-40	196,761	249	196,761	249	Dec-44	88,517	406	88,517	406
Jan-41	199,250	267	199,250	267	Jan-45	91,708	473	91,708	473
Feb-41	651,247	183	651,247	183	Feb-45	322,236	272	322,236	272
Mar-41	472,609	209	472,609	209	Mar-45	345,459	301	345,459	301
Apr-41	321,423	139	321,423	139	Apr-45	222,299	174	222,299	174
May-41	510,533	159	510,533	159	May-45	272,192	144	272,192	144
Jun-41	486,208	139	486,208	139	Jun-45	127,635	388	127,635	388
Jul-41	127,349	336	127,349	336	Jul-45	130,621	405	128,621	410
Aug-41	114,300	312	113,300	315	Aug-45	105,829	305	99,829	320
Sep-41	111,222	338	111,222	338	Sep-45	109,513	428	109,513	428

Date	With WQ Releases		W/OUT WQ Releases		Date	With WQ Releases		W/OUT WQ Releases	
	Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)		Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)
Oct-45	212,304	171	212,304	171	Oct-49	83,289	319	83,289	319
Nov-45	133,548	268	133,548	268	Nov-49	78,653	443	78,653	443
Dec-45	302,067	151	302,067	151	Dec-49	85,653	533	85,653	533
Jan-46	336,084	188	336,084	188	Jan-50	90,242	459	90,242	459
Feb-46	294,513	303	294,513	303	Feb-50	119,732	604	119,732	604
Mar-46	262,765	337	262,765	337	Mar-50	122,474	746	122,474	746
Apr-46	292,332	191	292,332	191	Apr-50	180,969	287	180,969	287
May-46	268,166	172	268,166	172	May-50	196,371	280	196,371	280
Jun-46	123,174	392	123,174	392	Jun-50	107,186	414	86,187	500
Jul-46	127,043	339	123,044	348	Jul-50	115,678	411	93,679	493
Aug-46	138,749	399	134,749	410	Aug-50	108,338	393	87,339	473
Sep-46	101,904	291	101,904	291	Sep-50	86,626	324	86,626	324
Oct-46	98,348	296	100,959	295	Oct-50	80,618	510	80,618	510
Nov-46	103,194	316	95,352	346	Nov-50	112,735	386	112,735	386
Dec-46	126,129	374	125,272	365	Dec-50	486,196	144	486,196	144
Jan-47	131,018	486	134,599	462	Jan-51	510,994	168	510,994	168
Feb-47	157,668	457	155,765	450	Feb-51	387,795	240	387,795	240
Mar-47	129,332	645	126,286	659	Mar-51	295,433	262	295,433	262
Apr-47	143,001	281	134,436	284	Apr-51	306,407	193	306,407	193
May-47	153,783	301	140,783	311	May-51	241,523	153	241,523	153
Jun-47	73,499	217	43,121	318	Jun-51	109,820	172	109,820	172
Jul-47	80,140	323	54,159	463	Jul-51	126,655	407	119,655	427
Aug-47	99,061	441	78,210	527	Aug-51	121,483	320	114,483	336
Sep-47	76,922	401	75,423	399	Sep-51	102,444	294	102,444	294
Oct-47	71,161	367	71,161	367	Oct-51	106,550	405	106,550	405
Nov-47	79,816	549	79,816	549	Nov-51	109,025	358	109,025	358
Dec-47	76,564	463	76,564	463	Dec-51	115,668	391	115,668	391
Jan-48	87,134	548	87,134	548	Jan-52	177,343	314	177,343	314
Feb-48	114,162	695	114,162	695	Feb-52	235,623	363	235,623	363
Mar-48	119,508	692	119,508	692	Mar-52	505,444	224	505,444	224
Apr-48	175,082	264	175,082	264	Apr-52	481,644	146	481,644	146
May-48	173,401	301	173,401	301	May-52	1,009,027	120	1,009,027	120
Jun-48	88,853	278	78,853	305	Jun-52	638,853	94	638,853	94
Jul-48	94,774	341	75,774	411	Jul-52	268,907	164	268,907	164
Aug-48	104,223	286	84,223	339	Aug-52	202,497	285	202,497	285
Sep-48	77,041	302	77,041	302	Sep-52	210,760	185	210,760	185
Oct-48	82,359	348	82,359	348	Oct-52	290,859	136	290,859	136
Nov-48	80,048	406	80,048	406	Nov-52	138,896	277	138,896	277
Dec-48	78,811	431	78,811	431	Dec-52	157,748	311	157,748	311
Jan-49	91,528	622	91,528	622	Jan-53	265,415	201	265,415	201
Feb-49	102,784	628	102,784	628	Feb-53	318,621	290	318,621	290
Mar-49	121,360	704	121,360	704	Mar-53	230,419	402	230,419	402
Apr-49	175,186	300	175,186	300	Apr-53	256,947	197	256,947	197
May-49	180,376	286	180,376	286	May-53	258,165	274	258,165	274
Jun-49	84,053	157	62,053	191	Jun-53	115,104	437	115,104	437
Jul-49	90,101	383	68,102	486	Jul-53	115,809	408	106,809	437
Aug-49	107,143	318	85,143	384	Aug-53	122,120	290	113,120	309
Sep-49	81,978	295	81,978	295	Sep-53	94,421	356	94,421	356

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	Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)		Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)
Oct-53	91,360	293	91,360	293	Oct-57	100,284	331	100,284	331
Nov-53	96,500	453	96,500	453	Nov-57	97,870	356	97,870	356
Dec-53	93,834	497	93,834	497	Dec-57	92,178	383	92,178	383
Jan-54	95,397	498	95,397	498	Jan-58	107,296	485	107,296	485
Feb-54	124,394	655	124,394	655	Feb-58	147,153	563	147,153	563
Mar-54	142,721	666	142,721	666	Mar-58	446,391	234	446,391	234
Apr-54	204,193	261	204,193	261	Apr-58	537,498	118	537,498	118
May-54	182,418	182	182,418	182	May-58	649,196	125	649,196	125
Jun-54	104,417	595	100,417	616	Jun-58	619,292	140	619,292	140
Jul-54	119,559	474	108,559	516	Jul-58	107,828	257	107,828	257
Aug-54	96,226	322	86,226	352	Aug-58	136,661	437	134,661	443
Sep-54	85,702	333	85,702	333	Sep-58	119,452	227	119,452	227
Oct-54	92,896	369	92,896	369	Oct-58	295,512	137	295,512	137
Nov-54	84,534	440	84,534	440	Nov-58	144,171	266	144,171	266
Dec-54	84,615	425	84,615	425	Dec-58	102,805	334	102,805	334
Jan-55	100,729	465	100,729	465	Jan-59	140,010	358	140,010	358
Feb-55	119,632	711	119,632	711	Feb-59	250,145	319	250,145	319
Mar-55	114,828	773	114,828	773	Mar-59	221,534	375	221,534	375
Apr-55	147,333	390	141,333	404	Apr-59	183,532	222	183,532	222
May-55	143,718	287	139,718	294	May-59	200,539	280	200,539	280
Jun-55	81,721	281	47,721	433	Jun-59	77,970	319	52,971	440
Jul-55	105,966	572	71,967	810	Jul-59	104,703	559	79,704	715
Aug-55	62,708	371	61,708	376	Aug-59	117,681	337	91,682	415
Sep-55	69,724	398	69,724	398	Sep-59	74,769	343	74,769	343
Oct-55	76,166	390	76,166	390	Oct-59	80,385	404	80,385	404
Nov-55	88,821	435	88,821	435	Nov-59	81,466	529	81,466	529
Dec-55	369,353	211	369,353	211	Dec-59	79,852	511	79,852	511
Jan-56	1,088,384	113	1,088,384	113	Jan-60	86,349	432	86,349	432
Feb-56	594,957	195	594,957	195	Feb-60	116,638	671	116,638	671
Mar-56	362,903	278	362,903	278	Mar-60	103,922	702	103,922	702
Apr-56	310,622	181	310,622	181	Apr-60	126,523	296	121,523	306
May-56	376,331	213	376,331	213	May-60	165,930	318	156,930	333
Jun-56	442,795	130	442,795	130	Jun-60	78,617	413	42,619	703
Jul-56	146,176	290	146,176	290	Jul-60	109,737	596	82,739	767
Aug-56	130,432	308	124,432	321	Aug-60	92,150	446	92,150	446
Sep-56	122,306	276	122,306	276	Sep-60	66,734	514	66,734	514
Oct-56	287,309	122	287,309	122	Oct-60	66,056	379	66,056	379
Nov-56	105,481	400	105,481	400	Nov-60	74,648	541	74,648	541
Dec-56	102,226	320	102,226	320	Dec-60	75,844	499	75,844	499
Jan-57	117,728	462	117,728	462	Jan-61	81,499	656	81,499	656
Feb-57	178,034	455	178,034	455	Feb-61	106,456	745	106,456	745
Mar-57	198,450	403	198,450	403	Mar-61	108,918	737	108,918	737
Apr-57	272,715	273	272,715	273	Apr-61	85,246	297	73,246	336
May-57	228,676	138	228,676	138	May-61	92,621	324	77,622	375
Jun-57	100,973	339	100,973	339	Jun-61	87,542	581	49,544	972
Jul-57	125,749	342	116,750	364	Jul-61	92,368	427	91,368	431
Aug-57	117,549	275	107,549	295	Aug-61	71,457	361	71,457	361
Sep-57	88,419	300	88,419	300	Sep-61	58,056	443	58,056	443

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Oct-61	70,934	453	72,550	444	Oct-65	257,963	202	257,963	202
Nov-61	76,629	411	72,319	442	Nov-65	197,345	203	197,345	203
Dec-61	77,839	574	77,214	561	Dec-65	256,544	171	256,544	171
Jan-62	81,157	751	85,580	693	Jan-66	272,822	238	272,822	238
Feb-62	194,148	455	194,033	450	Feb-66	302,979	280	302,979	280
Mar-62	121,776	625	117,915	645	Mar-66	215,369	403	215,369	403
Apr-62	161,859	262	160,448	259	Apr-66	218,323	198	218,323	198
May-62	204,762	237	203,536	236	May-66	186,000	277	186,000	277
Jun-62	88,644	353	64,511	453	Jun-66	98,585	443	80,585	529
Jul-62	81,085	374	62,438	497	Jul-66	115,935	344	97,935	396
Aug-62	86,580	306	66,294	388	Aug-66	128,698	367	110,698	418
Sep-62	87,557	331	85,085	328	Sep-66	84,757	338	84,757	338
Oct-62	80,123	433	80,123	433	Oct-66	89,647	423	89,647	423
Nov-62	90,339	541	90,339	541	Nov-66	88,298	405	88,298	405
Dec-62	84,154	476	84,154	476	Dec-66	103,243	404	103,243	404
Jan-63	89,381	562	89,381	562	Jan-67	113,643	468	113,643	468
Feb-63	153,919	506	153,919	506	Feb-67	157,104	494	157,104	494
Mar-63	131,329	616	131,329	616	Mar-67	281,390	322	281,390	322
Apr-63	226,938	253	226,938	253	Apr-67	555,049	166	555,049	166
May-63	228,428	185	228,428	185	May-67	905,056	143	905,056	143
Jun-63	94,186	406	94,186	406	Jun-67	803,916	141	803,916	141
Jul-63	109,086	447	98,087	489	Jul-67	575,146	153	575,146	153
Aug-63	104,583	316	85,583	372	Aug-67	117,370	399	111,370	417
Sep-63	91,235	268	91,235	268	Sep-67	179,079	196	179,079	196
Oct-63	122,105	317	122,105	317	Oct-67	302,229	162	302,229	162
Nov-63	119,254	408	119,254	408	Nov-67	118,550	335	118,550	335
Dec-63	108,667	487	108,667	487	Dec-67	107,536	386	107,536	386
Jan-64	115,766	397	115,766	397	Jan-68	115,909	497	115,909	497
Feb-64	131,473	620	131,473	620	Feb-68	210,721	400	210,721	400
Mar-64	120,599	661	120,599	661	Mar-68	189,665	499	189,665	499
Apr-64	150,202	374	144,203	387	Apr-68	221,352	182	221,352	182
May-64	149,508	326	141,508	341	May-68	171,889	190	171,889	190
Jun-64	97,384	464	60,386	706	Jun-68	95,220	324	74,220	399
Jul-64	99,342	443	77,342	548	Jul-68	93,828	342	68,828	443
Aug-64	77,352	448	77,352	448	Aug-68	89,496	419	63,497	564
Sep-64	59,799	355	59,799	355	Sep-68	73,150	541	73,150	541
Oct-64	80,398	493	80,398	493	Oct-68	84,959	471	84,959	471
Nov-64	79,993	346	79,993	346	Nov-68	86,332	382	86,332	382
Dec-64	151,838	302	151,838	302	Dec-68	92,419	460	92,419	460
Jan-65	481,901	149	481,901	149	Jan-69	605,803	155	605,803	155
Feb-65	367,982	228	367,982	228	Feb-69	1,484,150	121	1,484,150	121
Mar-65	259,260	350	259,260	350	Mar-69	972,482	165	972,482	165
Apr-65	317,393	207	317,393	207	Apr-69	1,129,551	126	1,129,551	126
May-65	285,308	188	285,308	188	May-69	1,685,679	95	1,685,679	95
Jun-65	112,700	298	112,700	298	Jun-69	1,153,940	94	1,153,940	94
Jul-65	121,093	268	116,093	277	Jul-69	364,061	245	364,061	245
Aug-65	119,885	370	110,885	395	Aug-69	179,067	200	179,067	200
Sep-65	111,040	342	111,040	342	Sep-69	205,559	198	205,559	198

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Oct-69	320,808	146	320,808	146	Oct-73	192,551	210	192,551	210
Nov-69	174,286	236	174,286	236	Nov-73	150,049	224	150,049	224
Dec-69	200,184	223	200,184	223	Dec-73	159,394	230	159,394	230
Jan-70	1,053,767	98	1,053,767	98	Jan-74	421,318	161	421,318	161
Feb-70	525,783	209	525,783	209	Feb-74	304,775	299	304,775	299
Mar-70	363,701	257	363,701	257	Mar-74	379,625	281	379,625	281
Apr-70	299,608	182	299,608	182	Apr-74	305,514	160	305,514	160
May-70	287,228	177	287,228	177	May-74	306,131	193	306,131	193
Jun-70	125,558	401	125,558	401	Jun-74	181,452	419	181,452	419
Jul-70	112,191	506	105,191	536	Jul-74	120,163	313	118,164	318
Aug-70	128,996	305	121,996	319	Aug-74	111,433	348	105,433	364
Sep-70	100,723	355	100,723	355	Sep-74	102,464	300	102,464	300
Oct-70	100,506	310	100,506	310	Oct-74	202,721	196	202,721	196
Nov-70	100,418	357	100,418	357	Nov-74	107,252	352	107,252	352
Dec-70	101,346	346	101,346	346	Dec-74	113,632	321	113,632	321
Jan-71	101,720	446	101,720	446	Jan-75	131,508	358	131,508	358
Feb-71	130,481	625	130,481	625	Feb-75	261,268	303	261,268	303
Mar-71	217,265	365	217,265	365	Mar-75	404,837	254	404,837	254
Apr-71	248,580	182	248,580	182	Apr-75	261,628	201	261,628	201
May-71	262,805	312	262,805	312	May-75	287,549	175	287,549	175
Jun-71	104,716	430	104,716	430	Jun-75	329,262	123	329,262	123
Jul-71	119,356	464	110,357	497	Jul-75	106,150	304	106,150	304
Aug-71	93,651	278	83,651	304	Aug-75	121,406	325	117,406	334
Sep-71	94,156	406	94,156	406	Sep-75	101,758	290	101,758	290
Oct-71	98,615	409	98,615	409	Oct-75	244,422	165	244,422	165
Nov-71	83,213	383	83,213	383	Nov-75	118,182	415	118,182	415
Dec-71	87,491	436	87,491	436	Dec-75	109,676	440	109,676	440
Jan-72	99,602	600	99,602	600	Jan-76	101,932	460	101,932	460
Feb-72	123,895	601	123,895	601	Feb-76	141,242	494	141,242	494
Mar-72	113,035	612	113,035	612	Mar-76	116,701	568	116,701	568
Apr-72	163,160	297	160,160	301	Apr-76	142,979	264	135,979	275
May-72	134,352	223	129,352	230	May-76	180,673	322	171,673	337
Jun-72	84,941	213	57,941	282	Jun-76	68,792	306	39,793	481
Jul-72	103,599	500	77,600	645	Jul-76	111,392	556	82,394	728
Aug-72	107,094	370	79,094	480	Aug-76	89,406	370	59,407	522
Sep-72	63,514	520	63,514	520	Sep-76	61,133	292	61,133	292
Oct-72	76,422	417	77,066	412	Oct-76	92,809	413	92,809	413
Nov-72	80,191	436	86,147	456	Nov-76	75,450	486	75,450	486
Dec-72	78,131	357	80,983	422	Dec-76	82,015	574	82,015	574
Jan-73	90,872	493	90,656	517	Jan-77	93,225	602	93,225	602
Feb-73	206,407	379	200,499	393	Feb-77	114,754	723	114,754	723
Mar-73	365,922	261	371,941	257	Mar-77	101,639	796	101,639	796
Apr-73	195,993	158	194,245	150	Apr-77	115,812	386	99,813	438
May-73	307,514	216	307,629	218	May-77	102,077	271	86,077	310
Jun-73	131,057	486	126,119	497	Jun-77	79,774	388	41,774	676
Jul-73	127,760	465	117,743	508	Jul-77	91,415	569	91,415	569
Aug-73	131,596	310	114,763	347	Aug-77	66,563	395	66,563	395
Sep-73	98,439	317	93,605	323	Sep-77	57,785	398	57,785	398

Date	With WQ Releases		W/OUT WQ Releases		Date	With WQ Releases		W/OUT WQ Releases	
	Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)		Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)
Oct-77	73,957	409	73,957	409	Oct-81	83,666	376	83,666	376
Nov-77	78,551	473	78,551	473	Nov-81	92,624	339	92,624	339
Dec-77	85,504	441	85,504	441	Dec-81	94,258	497	94,258	497
Jan-78	114,847	426	114,847	426	Jan-82	413,818	166	413,818	166
Feb-78	211,277	523	211,277	523	Feb-82	822,753	131	822,753	131
Mar-78	517,451	260	517,451	260	Mar-82	760,150	160	760,150	160
Apr-78	682,956	167	682,956	167	Apr-82	1,437,734	99	1,437,734	99
May-78	576,161	170	576,161	170	May-82	872,099	124	872,099	124
Jun-78	336,882	182	336,882	182	Jun-82	540,799	131	540,799	131
Jul-78	199,173	385	199,173	385	Jul-82	265,342	182	265,342	182
Aug-78	104,233	259	92,233	285	Aug-82	187,882	257	187,882	257
Sep-78	168,352	184	168,352	184	Sep-82	322,264	134	322,264	134
Oct-78	261,176	167	261,176	167	Oct-82	542,632	101	542,632	101
Nov-78	124,464	357	124,464	357	Nov-82	552,337	141	552,337	141
Dec-78	101,179	408	101,179	408	Dec-82	1,135,783	109	1,135,783	109
Jan-79	220,581	284	220,581	284	Jan-83	1,426,094	103	1,426,094	103
Feb-79	460,568	211	460,568	211	Feb-83	1,901,234	105	1,901,234	105
Mar-79	397,458	219	397,458	219	Mar-83	2,219,894	102	2,219,894	102
Apr-79	217,587	211	217,587	211	Apr-83	947,887	139	947,887	139
May-79	286,788	215	286,788	215	May-83	1,145,933	120	1,145,933	120
Jun-79	106,670	342	101,670	356	Jun-83	2,308,703	76	2,308,703	76
Jul-79	139,432	441	129,432	471	Jul-83	998,718	92	998,718	92
Aug-79	109,467	311	97,467	343	Aug-83	209,683	196	209,683	196
Sep-79	95,587	367	95,587	367	Sep-83	481,495	101	481,495	101
Oct-79	133,297	221	133,297	221	Oct-83	470,571	139	470,571	139
Nov-79	105,597	309	105,597	309	Nov-83	875,398	114	875,398	114
Dec-79	112,725	329	112,725	329	Dec-83	1,289,867	90	1,289,867	90
Jan-80	740,704	119	740,704	119	Jan-84	949,653	131	949,653	131
Feb-80	1,137,209	134	1,137,209	134	Feb-84	522,144	182	522,144	182
Mar-80	845,055	195	845,055	195	Mar-84	367,219	327	367,219	327
Apr-80	289,604	177	289,604	177	Apr-84	312,166	205	312,166	205
May-80	447,872	214	447,872	214	May-84	247,418	121	247,418	121
Jun-80	469,046	158	469,046	158	Jun-84	117,069	269	117,069	269
Jul-80	243,167	181	243,167	181	Jul-84	114,999	363	110,999	374
Aug-80	122,025	341	114,025	361	Aug-84	106,045	277	104,045	281
Sep-80	169,530	204	169,530	204	Sep-84	116,244	307	116,244	307
Oct-80	290,729	134	290,729	134	Oct-84	100,014	310	102,597	307
Nov-80	130,233	380	130,233	380	Nov-84	104,073	321	95,097	357
Dec-80	102,104	391	102,104	391	Dec-84	101,172	451	100,436	438
Jan-81	122,574	392	122,574	392	Jan-85	101,800	517	105,503	486
Feb-81	163,047	432	163,047	432	Feb-85	129,668	619	128,423	612
Mar-81	181,091	461	181,091	461	Mar-85	121,850	560	117,525	570
Apr-81	231,587	189	231,587	189	Apr-85	178,468	271	176,501	268
May-81	182,840	238	182,840	238	May-85	186,924	297	187,317	297
Jun-81	69,627	164	45,627	218	Jun-85	72,697	321	47,069	457
Jul-81	75,484	233	50,484	318	Jul-85	97,092	418	71,168	538
Aug-81	94,778	354	68,779	463	Aug-85	88,562	274	62,559	366
Sep-81	61,784	323	61,784	323	Sep-85	64,410	400	61,384	399

Date	With WQ Releases		W/OUT WQ Releases		Date	With WQ Releases		W/OUT WQ Releases	
	Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)		Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)
Oct-85	81,899	469	81,899	469	Oct-89	67,803	430	67,803	430
Nov-85	95,763	370	95,763	370	Nov-89	74,439	570	74,439	570
Dec-85	85,833	405	85,833	405	Dec-89	71,718	529	71,718	529
Jan-86	103,406	461	103,406	461	Jan-90	78,702	570	78,702	570
Feb-86	1,064,759	134	1,064,759	134	Feb-90	100,856	704	100,856	704
Mar-86	1,456,611	117	1,456,611	117	Mar-90	113,782	904	113,782	904
Apr-86	441,385	215	441,385	215	Apr-90	95,391	323	83,391	360
May-86	524,392	155	524,392	155	May-90	93,959	303	79,959	345
Jun-86	565,710	137	565,710	137	Jun-90	79,247	623	52,248	906
Jul-86	111,341	217	108,341	221	Jul-90	60,586	456	60,586	456
Aug-86	112,091	327	106,091	342	Aug-90	79,284	475	79,284	475
Sep-86	118,977	348	118,977	348	Sep-90	55,908	317	55,908	317
Oct-86	206,987	206	209,983	206	Oct-90	66,277	396	66,277	396
Nov-86	110,772	341	104,996	367	Nov-90	71,985	489	71,985	489
Dec-86	96,423	427	96,013	414	Dec-90	76,222	614	76,222	614
Jan-87	102,052	508	106,105	474	Jan-91	79,834	554	79,834	554
Feb-87	141,358	542	140,145	536	Feb-91	103,928	679	103,928	679
Mar-87	127,948	661	124,055	672	Mar-91	109,645	663	109,645	663
Apr-87	137,702	387	129,021	401	Apr-91	101,562	410	98,562	420
May-87	148,356	263	136,864	277	May-91	96,330	560	86,331	617
Jun-87	109,695	433	78,534	575	Jun-91	71,937	721	45,938	1,084
Jul-87	125,558	452	93,925	568	Jul-91	64,286	452	64,286	452
Aug-87	89,809	332	62,150	459	Aug-91	88,109	628	88,109	628
Sep-87	73,392	581	71,542	588	Sep-91	69,106	412	69,106	412
Oct-87	76,249	414	76,249	414	Oct-91	72,030	519	72,030	519
Nov-87	74,513	462	74,513	462	Nov-91	80,770	488	80,770	488
Dec-87	75,861	460	75,861	460	Dec-91	73,745	534	73,745	534
Jan-88	85,220	544	85,220	544	Jan-92	78,804	544	78,804	544
Feb-88	113,788	755	113,788	755	Feb-92	112,620	632	112,620	632
Mar-88	112,059	759	112,059	759	Mar-92	115,938	709	115,938	709
Apr-88	118,172	292	107,172	316	Apr-92	107,982	438	101,982	460
May-88	127,071	330	114,071	361	May-92	96,699	375	83,699	424
Jun-88	97,041	430	59,044	662	Jun-92	20,269	247	20,269	247
Jul-88	67,596	321	57,596	364	Jul-92	62,278	583	62,278	583
Aug-88	93,701	615	93,701	615	Aug-92	33,587	485	33,587	485
Sep-88	59,935	431	59,935	431	Sep-92	54,425	629	54,425	629
Oct-88	70,524	410	70,524	410	Oct-92	67,225	368	67,225	368
Nov-88	69,526	615	69,526	615	Nov-92	80,742	462	80,742	462
Dec-88	74,220	529	74,220	529	Dec-92	84,901	506	84,901	506
Jan-89	84,278	579	84,278	579	Jan-93	170,926	373	170,926	373
Feb-89	97,331	629	97,331	629	Feb-93	156,961	526	156,961	526
Mar-89	113,266	776	113,266	776	Mar-93	196,606	486	196,606	486
Apr-89	128,528	368	121,528	386	Apr-93	201,259	225	201,259	225
May-89	115,376	267	104,376	289	May-93	303,299	187	303,299	187
Jun-89	79,508	345	42,508	583	Jun-93	345,138	258	345,138	258
Jul-89	98,500	622	82,501	728	Jul-93	148,179	472	136,179	509
Aug-89	67,443	535	67,443	535	Aug-93	126,166	313	109,167	352
Sep-89	60,430	579	60,430	579	Sep-93	104,072	254	104,072	254

Date	With WQ Releases		W/OUT WQ Releases		Date	With WQ Releases		W/OUT WQ Releases	
	Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)		Q (acre-feet)	TDS (mg/L)	Q (acre-feet)	TDS (mg/L)
Oct-93	235,902	165	238,353	165					
Nov-93	104,193	426	99,295	452					
Dec-93	90,318	516	87,980	505					
Jan-94	92,442	590	95,720	553					
Feb-94	130,770	515	130,112	510					
Mar-94	112,007	604	108,013	626					
Apr-94	158,003	287	146,008	295					
May-94	127,651	251	118,268	264					
Jun-94	91,562	344	57,270	493					
Jul-94	63,501	447	66,694	446					
Aug-94	90,570	571	87,776	567					
Sep-94	72,020	466	70,875	467					

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APPENDIX 5

ATTACHMENT 5-3

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
01-Oct-96	105	3,210	2,215	240	1,049	713	43	3,798	2,845
02-Oct-96	95	3,535	2,439	218	1,056	718	40	3,798	2,845
03-Oct-96	87	3,095	2,136	175	1,350	918	36	3,798	2,845
04-Oct-96	93	2,230	1,539	163	1,460	993	36	3,800	2,846
05-Oct-96	115	1,835	1,266	167	1,425	969	34	3,845	2,880
06-Oct-96	111	1,880	1,297	175	1,325	901	35	3,893	2,916
07-Oct-96	115	1,945	1,342	208	1,215	826	39	3,809	2,853
08-Oct-96	133	1,890	1,304	246	1,058	719	38	4,064	3,044
09-Oct-96	147	1,800	1,242	268	1,002	681	39	4,135	3,097
10-Oct-96	157	1,780	1,228	319	937	637	42	4,115	3,082
11-Oct-96	178	1,810	1,249	305	927	630	41	4,403	3,298
12-Oct-96	194	1,950	1,346	280	1,035	703	47	4,599	3,445
13-Oct-96	198	1,935	1,335	262	1,050	714	46	4,233	3,171
14-Oct-96	208	1,790	1,235	232	1,160	789	47	4,115	3,082
15-Oct-96	220	1,735	1,197	234	1,245	847	45	4,384	3,284
16-Oct-96	218	1,790	1,235	204	1,335	908	48	4,037	3,024
17-Oct-96	214	1,760	1,214	202	1,435	976	48	3,676	2,753
18-Oct-96	220	1,575	1,087	202	1,400	952	43	3,222	2,413
19-Oct-96	220	1,445	997	208	1,370	932	43	3,120	2,337
20-Oct-96	228	1,425	983	220	1,300	884	43	3,207	2,402
21-Oct-96	262	1,335	921	264	1,200	816	44	3,262	2,443
22-Oct-96	286	1,300	897	264	1,100	748	39	3,271	2,450
23-Oct-96	258	1,360	938	252	1,185	806	38	3,629	2,718
24-Oct-96	270	1,400	966	248	1,300	884	39	3,958	2,965
25-Oct-96	252	1,490	1,028	224	1,320	898	36	4,060	3,041
26-Oct-96	232	1,585	1,094	190	1,465	996	38	3,985	2,985
27-Oct-96	212	1,655	1,142	230	1,360	925	35	3,666	2,746
28-Oct-96	194	1,675	1,156	232	1,370	932	33	4,118	3,084
29-Oct-96	202	1,820	1,256	264	1,230	836	35	4,170	3,123
30-Oct-96	258	1,780	1,228	387	1,140	775	49	3,979	2,980
31-Oct-96	292	1,715	1,183	510	1,006	684	56	3,916	2,933
01-Nov-96	317	1,720	1,187	549	978	665	65	3,868	2,897
02-Nov-96	307	1,725	1,190	522	1,040	707	60	4,005	3,000
03-Nov-96	282	1,715	1,183	510	1,030	700	50	4,150	3,108
04-Nov-96	290	1,595	1,101	496	1,025	697	44	4,174	3,126
05-Nov-96	290	1,555	1,073	464	1,065	724	44	4,168	3,122
06-Nov-96	295	1,550	1,070	440	1,140	775	42	4,104	3,074
07-Nov-96	305	1,480	1,021	403	1,225	833	43	3,636	2,723
08-Nov-96	303	1,375	949	381	1,270	864	42	3,396	2,544
09-Nov-96	299	1,385	956	367	1,310	891	44	3,377	2,529
10-Nov-96	290	1,365	942	365	1,325	901	43	3,308	2,478
11-Nov-96	290	1,370	945	353	1,395	949	41	3,459	2,591
12-Nov-96	284	1,470	1,014	337	1,470	1,000	42	3,721	2,787
13-Nov-96	293	1,530	1,056	319	1,490	1,013	43	3,998	2,995
14-Nov-96	299	1,545	1,066	321	1,460	993	43	4,204	3,149
15-Nov-96	286	1,670	1,152	325	1,410	959	45	4,183	3,133
16-Nov-96	286	1,720	1,187	345	1,370	932	48	4,240	3,176
17-Nov-96	327	1,665	1,149	367	1,360	925	53	4,415	3,307

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
18-Nov-96	361	1,600	1,104	448	1,275	867	54	4,410	3,303
19-Nov-96	367	1,595	1,101	482	1,195	813	51	4,376	3,278
20-Nov-96	367	1,620	1,118	454	1,180	802	57	4,154	3,111
21-Nov-96	393	1,600	1,104	327	1,240	843	61	4,047	3,031
22-Nov-96	480	1,530	1,056	377	1,250	850	67	3,998	2,995
23-Nov-96	559	1,575	1,087	426	1,190	809	97	3,823	2,863
24-Nov-96	579	1,505	1,038	470	1,190	809	86	3,468	2,598
25-Nov-96	541	1,355	935	474	1,240	843	62	3,209	2,404
26-Nov-96	504	1,395	963	454	1,245	847	59	3,272	2,451
27-Nov-96	432	1,440	994	464	1,170	796	48	3,581	2,682
28-Nov-96	414	1,475	1,018	460	1,210	823	44	3,478	2,605
29-Nov-96	377	1,490	1,028	434	1,255	853	48	3,364	2,520
30-Nov-96	331	1,575	1,087	414	1,340	911	44	3,368	2,523
01-Dec-96	311	1,575	1,087	403	1,375	935	39	3,540	2,651
02-Dec-96	303	1,630	1,125	389	1,355	921	38	3,747	2,807
03-Dec-96	292	1,670	1,152	365	1,380	938	38	3,811	2,854
04-Dec-96	266	1,755	1,211	339	1,390	945	37	3,646	2,731
05-Dec-96	260	1,775	1,225	319	1,410	959	39	3,713	2,781
06-Dec-96	276	1,735	1,197	317	1,335	908	41	3,872	2,900
07-Dec-96	303	1,680	1,159	307	1,305	887	43	3,932	2,945
08-Dec-96	317	1,705	1,176	301	1,330	904	45	3,845	2,880
09-Dec-96	375	1,590	1,097	282	1,355	921	46	3,872	2,900
10-Dec-96	555	1,410	973	307	1,310	891	58	4,033	3,021
11-Dec-96	696	1,410	973	347	1,295	881	71	4,059	3,040
12-Dec-96	730	1,515	1,045	436	1,275	867	75	3,998	2,995
13-Dec-96	714	1,375	949	573	1,340	911	68	3,634	2,722
14-Dec-96	688	1,345	928	597	1,410	959	67	3,815	2,857
15-Dec-96	662	1,410	973	555	1,470	1,000	65	3,992	2,990
16-Dec-96	639	1,355	935	535	1,435	976	58	3,761	2,817
17-Dec-96	619	1,350	932	500	1,445	983	60	3,730	2,794
18-Dec-96	613	1,390	959	450	1,495	1,017	65	3,935	2,947
19-Dec-96	611	1,410	973	389	1,535	1,044	65	4,030	3,018
20-Dec-96	599	1,445	997	317	1,530	1,040	68	4,116	3,083
21-Dec-96	565	1,680	1,159	270	1,545	1,051	74	4,308	3,227
22-Dec-96	563	1,835	1,266	307	1,530	1,040	80	4,337	3,248
23-Dec-96	686	1,625	1,121	470	1,555	1,057	82	4,447	3,331
24-Dec-96	884	1,380	952	623	1,625	1,105	93	4,590	3,438
25-Dec-96	946	1,250	863	615	1,705	1,159	80	4,580	3,430
26-Dec-96	924	1,195	825	516	1,675	1,139	72	4,281	3,206
27-Dec-96	910	1,150	794	460	1,635	1,112	72	3,858	2,890
28-Dec-96	875	1,225	845	476	1,605	1,091	75	4,113	3,081
29-Dec-96	831	1,325	914	480	1,645	1,119	72	4,315	3,232
30-Dec-96	845	1,335	921	482	1,650	1,122	72	4,568	3,421
31-Dec-96	888	1,415	976	412	1,650	1,122	86	4,592	3,439
01-Jan-97	1,011	1,565	1,080	502	1,655	1,125	102	4,688	3,511
02-Jan-97	1,144	1,590	1,097	490	1,690	1,149	95	4,495	3,367
03-Jan-97	1,208	1,465	1,011	525	1,700	1,156	99	4,312	3,230
04-Jan-97	1,227	1,310	904	603	1,600	1,088	129	3,813	2,856

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
05-Jan-97	1,214	1,235	852	635	1,620	1,102	119	4,032	3,020
06-Jan-97	1,243	1,195	825	722	1,675	1,139	96	3,847	2,881
07-Jan-97	1,227	1,105	762	871	1,680	1,142	111	3,018	2,260
08-Jan-97	1,227	1,145	790	948	1,465	996	127	3,484	2,610
09-Jan-97	1,150	1,210	835	950	1,120	762	117	3,864	2,894
10-Jan-97	1,059	1,225	845	918	988	672	102	3,942	2,953
11-Jan-97	980	1,270	876	869	1,040	707	97	4,114	3,081
12-Jan-97	920	1,425	983	873	1,040	707	102	4,387	3,286
13-Jan-97	882	1,695	1,170	888	1,135	772	107	4,529	3,392
14-Jan-97	825	1,890	1,304	831	1,280	870	111	4,577	3,428
15-Jan-97	833	1,935	1,335	805	1,305	887	113	4,580	3,430
16-Jan-97	855	1,830	1,263	775	1,345	915	121	4,683	3,508
17-Jan-97	875	1,735	1,197	750	1,360	925	131	4,622	3,462
18-Jan-97	869	1,635	1,128	724	1,400	952	123	4,563	3,418
19-Jan-97	884	1,525	1,052	728	1,420	966	114	3,996	2,993
20-Jan-97	886	1,505	1,038	704	1,435	976	120	4,191	3,139
21-Jan-97	878	1,560	1,076	646	1,415	962	128	4,351	3,259
22-Jan-97	912	1,565	1,080	676	1,390	945	140	4,464	3,344
23-Jan-97	1,005	1,565	1,080	765	1,510	1,027	142	4,362	3,267
24-Jan-97	1,049	1,565	1,080	823	1,595	1,085	143	4,437	3,323
25-Jan-97	1,128	1,495	1,032	938	1,605	1,091	149	3,970	2,974
26-Jan-97	1,253	1,360	938	1,101	1,590	1,081	154	3,911	2,929
27-Jan-97	1,350	1,255	866	1,231	1,600	1,088	152	4,118	3,084
28-Jan-97	1,406	1,155	797	1,325	1,600	1,088	111	4,157	3,114
29-Jan-97	1,364	1,055	728	1,247	1,880	1,278	99	4,186	3,135
30-Jan-97	1,327	1,060	731	1,172	2,080	1,414	115	3,368	2,523
31-Jan-97	1,309	1,095	756	1,124	2,140	1,455	133	3,455	2,588
01-Feb-97	1,289	1,215	838	1,081	2,110	1,435	159	4,153	3,111
02-Feb-97	1,263	1,250	863	1,033	1,985	1,350	151	4,354	3,261
03-Feb-97	1,239	1,240	856	999	1,940	1,319	131	4,472	3,350
04-Feb-97	1,339	1,190	821	970	1,945	1,323	128	4,451	3,334
05-Feb-97	1,307	1,195	825	948	2,020	1,374	99	4,549	3,407
06-Feb-97	1,222	1,540	1,063	827	2,095	1,425	161	4,748	3,556
07-Feb-97	1,107	1,895	1,308	771	1,885	1,282	173	4,891	3,663
08-Feb-97	1,017	2,070	1,428	714	1,770	1,204	174	5,103	3,822
09-Feb-97	906	2,155	1,487	646	1,660	1,129	178	5,061	3,791
10-Feb-97	833	2,085	1,439	623	1,550	1,054	167	4,898	3,669
11-Feb-97	761	2,105	1,452	609	1,505	1,023	159	4,915	3,681
12-Feb-97	724	2,195	1,515	603	1,550	1,054	152	5,020	3,760
13-Feb-97	690	2,455	1,694	603	1,580	1,074	161	5,173	3,875
14-Feb-97	595	2,650	1,829	555	1,635	1,112	161	5,164	3,868
15-Feb-97	557	2,740	1,891	553	1,625	1,105	165	5,013	3,755
16-Feb-97	525	2,820	1,946	541	1,625	1,105	162	4,958	3,714
17-Feb-97	512	2,955	2,039	551	1,555	1,057	163	4,896	3,667
18-Feb-97	504	2,985	2,060	559	1,565	1,064	166	5,064	3,793
19-Feb-97	438	2,965	2,046	535	1,570	1,068	162	5,140	3,850
20-Feb-97	412	3,085	2,129	527	1,415	962	165	5,125	3,839
21-Feb-97	363	3,350	2,312	522	1,310	891	166	5,104	3,823

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
22-Feb-97	377	3,425	2,363	561	1,230	836	160	5,002	3,746
23-Feb-97	403	3,205	2,211	587	1,145	779	133	4,879	3,654
24-Feb-97	395	3,015	2,080	583	1,125	765	116	4,926	3,690
25-Feb-97	343	3,160	2,180	579	1,095	745	122	4,809	3,602
26-Feb-97	333	3,315	2,287	607	1,100	748	112	4,856	3,637
27-Feb-97	337	3,140	2,167	672	1,065	724	104	4,528	3,391
28-Feb-97	383	2,680	1,849	686	1,055	717	124	4,597	3,443
01-Mar-97	414	2,340	1,615	702	1,012	688	155	4,952	3,709
02-Mar-97	464	2,360	1,628	746	970	659	165	4,984	3,733
03-Mar-97	492	2,255	1,556	799	978	665	157	5,152	3,859
04-Mar-97	450	2,680	1,849	813	981	667	160	5,076	3,802
05-Mar-97	373	3,290	2,270	805	1,022	695	158	5,022	3,761
06-Mar-97	331	3,540	2,443	736	1,120	762	167	4,985	3,734
07-Mar-97	325	3,565	2,460	752	1,135	772	163	4,961	3,716
08-Mar-97	331	3,400	2,346	738	1,155	785	155	4,851	3,633
09-Mar-97	311	3,560	2,456	676	1,215	826	158	4,972	3,724
10-Mar-97	299	3,660	2,525	696	1,120	762	157	4,989	3,737
11-Mar-97	319	3,525	2,432	684	1,090	741	157	4,845	3,629
12-Mar-97	307	3,435	2,370	644	1,085	738	157	4,735	3,547
13-Mar-97	315	3,345	2,308	571	1,195	813	163	4,646	3,480
14-Mar-97	323	3,320	2,291	559	1,280	870	160	4,490	3,363
15-Mar-97	329	3,400	2,346	613	1,112	756	157	4,477	3,353
16-Mar-97	357	3,355	2,315	718	1,130	768	162	4,677	3,503
17-Mar-97	395	3,295	2,274	841	1,170	796	170	4,747	3,556
18-Mar-97	420	3,210	2,215	918	1,145	779	178	4,583	3,433
19-Mar-97	446	3,105	2,142	890	1,180	802	181	4,363	3,268
20-Mar-97	460	2,985	2,060	859	1,200	816	172	4,324	3,239
21-Mar-97	420	2,885	1,991	845	1,210	823	143	4,276	3,203
22-Mar-97	389	2,920	2,015	882	1,295	881	135	4,300	3,221
23-Mar-97	341	2,950	2,036	851	1,375	935	115	4,413	3,305
24-Mar-97	325	3,115	2,149	728	1,405	955	128	4,501	3,371
25-Mar-97	325	3,460	2,387	658	1,430	972	159	4,620	3,460
26-Mar-97	309	3,505	2,418	557	1,595	1,085	153	4,590	3,438
27-Mar-97	266	3,490	2,408	512	1,750	1,190	140	4,439	3,325
28-Mar-97	268	3,435	2,370	508	1,740	1,183	156	4,278	3,204
29-Mar-97	288	3,385	2,336	496	1,710	1,163	164	4,438	3,324
30-Mar-97	280	3,575	2,467	478	1,680	1,142	170	4,429	3,317
31-Mar-97	244	3,805	2,625	440	1,650	1,122	158	4,491	3,364
01-Apr-97	212	4,000	2,760	420	1,725	1,173	150	4,608	3,451
02-Apr-97	202	4,135	2,853	335	1,910	1,299	148	4,918	3,684
03-Apr-97	234	4,160	2,870	349	1,935	1,316	169	5,189	3,887
04-Apr-97	242	4,260	2,939	319	1,920	1,306	176	5,448	4,081
05-Apr-97	246	4,220	2,912	355	1,765	1,200	182	5,338	3,998
06-Apr-97	238	4,180	2,884	311	1,885	1,282	166	5,375	4,026
07-Apr-97	222	4,130	2,850	339	1,775	1,207	152	5,349	4,006
08-Apr-97	216	4,165	2,874	389	1,505	1,023	150	5,425	4,063
09-Apr-97	226	3,955	2,729	345	1,560	1,061	144	5,359	4,014
10-Apr-97	206	4,200	2,898	293	1,730	1,176	146	5,342	4,001

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
11-Apr-97	210	4,080	2,815	315	1,700	1,156	142	5,648	4,230
12-Apr-97	222	4,060	2,801	337	1,655	1,125	151	5,634	4,220
13-Apr-97	210	4,345	2,998	341	1,645	1,119	152	5,525	4,138
14-Apr-97	204	4,230	2,919	412	1,460	993	154	5,236	3,922
15-Apr-97	212	4,235	2,922	353	1,600	1,088	157	5,275	3,951
16-Apr-97	272	3,725	2,570	307	1,705	1,159	154	5,256	3,937
17-Apr-97	284	3,510	2,422	315	1,595	1,085	155	4,974	3,726
18-Apr-97	242	3,610	2,491	295	1,710	1,163	138	4,858	3,639
19-Apr-97	236	3,610	2,491	339	1,610	1,095	144	4,725	3,539
20-Apr-97	248	3,705	2,556	383	1,465	996	151	4,796	3,592
21-Apr-97	248	3,720	2,567	369	1,405	955	149	4,826	3,615
22-Apr-97	244	3,685	2,543	317	1,525	1,037	152	4,681	3,506
23-Apr-97	222	3,755	2,591	286	1,600	1,088	147	4,590	3,438
24-Apr-97	188	4,090	2,822	252	1,665	1,132	140	4,558	3,414
25-Apr-97	180	4,170	2,877	246	1,710	1,163	137	4,610	3,453
26-Apr-97	202	4,050	2,795	198	1,850	1,258	152	4,629	3,467
27-Apr-97	194	4,355	3,005	198	1,760	1,197	145	4,779	3,579
28-Apr-97	186	4,355	3,005	218	1,625	1,105	126	4,504	3,373
29-Apr-97	159	4,315	2,977	250	1,445	983	121	4,413	3,305
30-Apr-97	141	4,060	2,801	260	1,430	972	99	4,377	3,278
01-May-97	186	3,775	2,605	232	1,475	1,003	123	4,950	3,708
02-May-97	178	4,025	2,777	220	1,590	1,081	122	5,170	3,872
03-May-97	186	3,875	2,674	280	1,545	1,051	118	5,370	4,022
04-May-97	137	3,860	2,663	290	1,455	989	88	5,520	4,134
05-May-97	117	3,935	2,715	270	1,525	1,037	85	5,550	4,157
06-May-97	113	3,875	2,674	323	1,390	945	82	5,530	4,142
07-May-97	105	4,310	2,974	276	1,455	989	84	5,510	4,127
08-May-97	135	3,910	2,698	248	1,525	1,037	103	5,490	4,112
09-May-97	155	3,845	2,653	252	1,470	1,000	125	5,300	3,970
10-May-97	153	4,275	2,950	284	1,430	972	133	5,050	3,782
11-May-97	167	4,185	2,888	288	1,405	955	142	4,690	3,513
12-May-97	175	4,180	2,884	335	1,305	887	145	4,760	3,565
13-May-97	176	4,205	2,901	266	1,410	959	145	4,860	3,640
14-May-97	165	3,865	2,667	250	1,535	1,044	123	4,660	3,490
15-May-97	188	3,540	2,443	254	1,505	1,023	136	4,570	3,423
16-May-97	190	3,350	2,312	246	1,490	1,013	134	4,450	3,333
17-May-97	184	3,410	2,353	228	1,535	1,044	134	4,550	3,408
18-May-97	208	3,505	2,418	258	1,475	1,003	150	4,750	3,558
19-May-97	248	3,040	2,098	268	1,405	955	153	4,690	3,513
20-May-97	301	2,570	1,773	258	1,370	932	160	4,440	3,326
21-May-97	303	2,335	1,611	266	1,320	898	143	4,420	3,311
22-May-97	315	2,015	1,390	264	1,325	901	136	4,030	3,018
23-May-97	345	1,920	1,325	254	1,365	928	138	4,230	3,168
24-May-97	325	1,880	1,297	313	1,360	925	141	4,270	3,198
25-May-97	299	2,185	1,508	365	1,190	809	153	4,720	3,535
26-May-97	321	2,100	1,449	377	1,185	806	159	4,580	3,430
27-May-97	337	2,040	1,408	399	1,135	772	166	4,570	3,423
28-May-97	363	1,985	1,370	391	1,120	762	168	4,560	3,415

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
29-May-97	361	2,080	1,435	422	1,145	779	173	4,460	3,341
30-May-97	355	2,240	1,546	403	1,205	819	180	4,400	3,296
31-May-97	292	2,530	1,746	365	1,335	908	173	4,520	3,385
01-Jun-97	258	2,715	1,873	325	1,460	993	167	4,580	3,430
02-Jun-97	230	3,055	2,108	333	1,365	928	159	4,770	3,573
03-Jun-97	198	3,325	2,294	323	1,395	949	119	4,730	3,543
04-Jun-97	155	3,535	2,439	268	1,470	1,000	89	4,820	3,610
05-Jun-97	163	3,530	2,436	258	1,510	1,027	100	4,800	3,595
06-Jun-97	167	3,515	2,425	349	1,320	898	106	4,680	3,505
07-Jun-97	137	3,455	2,384	347	1,285	874	93	4,660	3,490
08-Jun-97	149	3,410	2,353	299	1,335	908	97	4,680	3,505
09-Jun-97	141	3,530	2,436	333	1,380	938	102	4,780	3,580
10-Jun-97	147	3,365	2,322	280	1,440	979	103	4,680	3,505
11-Jun-97	165	3,470	2,394	260	1,495	1,017	115	4,770	3,573
12-Jun-97	155	3,540	2,443	299	1,330	904	112	4,590	3,438
13-Jun-97	176	3,695	2,550	351	1,185	806	119	5,040	3,775
14-Jun-97	176	3,805	2,625	412	1,130	768	128	4,910	3,678
15-Jun-97	173	3,930	2,712	405	1,135	772	124	4,850	3,633
16-Jun-97	159	4,005	2,763	444	1,090	741	119	4,840	3,625
17-Jun-97	169	3,930	2,712	432	1,080	734	139	4,820	3,610
18-Jun-97	169	3,445	2,377	309	1,195	813	131	4,300	3,221
19-Jun-97	151	3,495	2,412	232	1,350	918	122	4,440	3,326
20-Jun-97	159	3,330	2,298	242	1,470	1,000	121	4,540	3,400
21-Jun-97	216	2,790	1,925	266	1,330	904	123	4,380	3,281
22-Jun-97	194	2,900	2,001	232	1,400	952	117	4,580	3,430
23-Jun-97	163	3,385	2,336	224	1,360	925	117	4,410	3,303
24-Jun-97	157	3,470	2,394	220	1,370	932	117	4,450	3,333
25-Jun-97	139	3,120	2,153	246	1,295	881	100	4,260	3,191
26-Jun-97	129	3,245	2,239	262	1,255	853	96	4,680	3,505
27-Jun-97	129	3,050	2,105	256	1,285	874	101	4,650	3,483
28-Jun-97	123	3,190	2,201	274	1,210	823	104	4,570	3,423
29-Jun-97	135	3,315	2,287	288			114	4,530	3,393
30-Jun-97	129	3,045	2,101	355			106	4,470	3,348
01-Jul-97	137	3,195	2,205	434			106	4,480	3,356
02-Jul-97	129	3,285	2,267	381			107	4,540	3,400
03-Jul-97	157	3,000	2,070	276			117	4,400	3,296
04-Jul-97	163	3,005	2,073	228	1,315	894	116	4,430	3,318
05-Jul-97	171	2,960	2,042	250	1,200	816	103	4,670	3,498
06-Jul-97	212	2,850	1,967	256	1,175	799	116	4,510	3,378
07-Jul-97	200	2,970	2,049	292	1,140	775	108	4,350	3,258
08-Jul-97	194	2,815	1,942	288	1,100	748	113	4,090	3,063
09-Jul-97	167	3,115	2,149	252	1,225	833	101	4,410	3,303
10-Jul-97	149	3,230	2,229	246	1,265	860	101	4,060	3,041
11-Jul-97	149	3,455	2,384	270	1,170	796	120	4,330	3,243
12-Jul-97	143	3,285	2,267	262	1,220	830	115	4,120	3,086
13-Jul-97	135	3,195	2,205	288	1,120	762	108	3,950	2,959
14-Jul-97	137	3,280	2,263	327	994	676	107	4,050	3,033
15-Jul-97	151	3,150	2,174	335	954	648	103	4,240	3,176

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
16-Jul-97	133	3,425	2,363	288	1,020	694	92	4,260	3,191
17-Jul-97	131	3,560	2,456	284	1,008	685	103	4,200	3,146
18-Jul-97	163	3,230	2,229	321	966	657	109	4,300	3,221
19-Jul-97	202	2,710	1,870	333	956	650	102	4,190	3,138
20-Jul-97	202	2,585	1,784	317	964	656	88	4,110	3,078
21-Jul-97	208	2,310	1,594	383	922	627	86	4,030	3,018
22-Jul-97	206	2,335	1,611	349	916	623	92	4,150	3,108
23-Jul-97	184	2,500	1,725	270	1,022	695	94	4,090	3,063
24-Jul-97	141	2,955	2,039	224	1,090	741	101	4,190	3,138
25-Jul-97	155	3,145	2,170	288	1,047	712	109	4,220	3,161
26-Jul-97	204	2,805	1,935	331	936	636	118	4,180	3,131
27-Jul-97	232	2,405	1,659	363	959	652	114	3,900	2,921
28-Jul-97	260	2,075	1,432	416	885	601	110	3,950	2,959
29-Jul-97	242	2,195	1,515	462	901	612	116	4,050	3,033
30-Jul-97	210	2,530	1,746	504	928	631	104	4,000	2,996
31-Jul-97	206	2,565	1,770	424	1,002	681	98	3,850	2,884
01-Aug-97	184	2,615	1,804	383	1,025	697	96	3,760	2,816
02-Aug-97	186	2,520	1,739	450	893	607	102	3,620	2,711
03-Aug-97	188	2,395	1,653	520	865	588	102	3,570	2,674
04-Aug-97	167	2,445	1,687	531	914	622	100	3,540	2,651
05-Aug-97	145	2,385	1,646	381	983	668	96	3,460	2,592
06-Aug-97	123	2,720	1,877	248	1,140	775	91	3,810	2,854
07-Aug-97	137	2,695	1,860	258	1,140	775	99	3,610	2,704
08-Aug-97	151	2,985	2,060	321	1,000	680	113	4,250	3,183
09-Aug-97	153	3,100	2,139	365	961	653	122	4,090	3,063
10-Aug-97	153	2,855	1,970	408	923	628	116	3,880	2,906
11-Aug-97	159	2,700	1,863	440	873	594	115	3,830	2,869
12-Aug-97	165	2,815	1,942	436	839	570	121	3,870	2,899
13-Aug-97	151	2,840	1,960	381	936	636	118	3,680	2,756
14-Aug-97	147	3,035	2,094	349	954	648	118	3,730	2,794
15-Aug-97	173	2,795	1,929	403	928	631	118	3,710	2,779
16-Aug-97	204	2,590	1,787	508	831	565	124	3,430	2,569
17-Aug-97	167	2,685	1,853	607	786	534	116	3,240	2,427
18-Aug-97	145	2,840	1,960	652	712	484	101	3,430	2,569
19-Aug-97	123	3,170	2,187	589	753	512	91	3,590	2,689
20-Aug-97	105	3,065	2,115	464	855	581	91	3,330	2,494
21-Aug-97	131	2,715	1,873	347	948	645	119	3,470	2,599
22-Aug-97	125	2,585	1,784	299	1,008	685	109	3,820	2,861
23-Aug-97	119	2,295	1,584	284	1,055	717	105	3,550	2,659
24-Aug-97	125	2,025	1,397	327	977	664	101	3,450	2,584
25-Aug-97	117	1,865	1,287	359	913	621	88	3,270	2,449
26-Aug-97	117	1,935	1,335	339	896	609	85	3,540	2,651
27-Aug-97	101	1,995	1,377	240	1,051	714	81	3,790	2,839
28-Aug-97	83	2,100	1,449	182	1,190	809	74	4,020	3,011
29-Aug-97	87	2,165	1,494	194	1,150	782	78	4,140	3,101
30-Aug-97	99	2,125	1,466	214	1,090	741	85	3,880	2,906
31-Aug-97	107	2,005	1,383	206	1,155	785	87	3,870	2,899
01-Sep-97	111	2,095	1,446	220	1,125	765	89	4,230	3,168

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
02-Sep-97	97	2,120	1,463	224	1,028	699	80	4,180	3,131
03-Sep-97	79	2,060	1,421	228	1,055	717	67	3,920	2,936
04-Sep-97	73	1,930	1,332	206	1,100	748	65	3,440	2,577
05-Sep-97	69	1,765	1,218	236	1,051	715	49	3,290	2,464
06-Sep-97	44	1,685	1,163	266	972	661	35	3,680	2,756
07-Sep-97	73	1,810	1,249	317	902	613	68	3,480	2,607
08-Sep-97	77	1,760	1,214	367	806	548	65	3,760	2,816
09-Sep-97	87	1,655	1,142	323	843	573	67	3,410	2,554
10-Sep-97	101	1,440	994	238	948	645	71	3,100	2,322
11-Sep-97	103	1,350	932	180	1,180	802	74	3,150	2,359
12-Sep-97	99	1,350	932	204	1,180	802	73	2,960	2,217
13-Sep-97	111	1,300	897	236	1,030	700	72	3,260	2,442
14-Sep-97	109	1,320	911	198	1,094	744	62	3,240	2,427
15-Sep-97	95	1,315	907	206	1,090	741	52	2,740	2,052
16-Sep-97	95	1,240	856	194	1,105	751	45	2,630	1,970
17-Sep-97	81	1,135	783	198	1,115	758	37	2,620	1,962
18-Sep-97	61	1,145	790	220	1,060	721	32	2,950	2,210
19-Sep-97	63	1,310	904	198	1,100	748	29	2,980	2,232
20-Sep-97	67	1,765	1,218	222	1,024	696	29	2,940	2,202
21-Sep-97	71	2,225	1,535	260	937	637	30	2,890	2,165
22-Sep-97	67	1,850	1,277	248	904	615	24	3,070	2,299
23-Sep-97	61	1,810	1,249	206	993	675	27	3,320	2,487
24-Sep-97	54	2,120	1,463	143	1,115	758	27	3,440	2,577
25-Sep-97	50	2,150	1,484	135	1,300	884	28	3,520	2,636
26-Sep-97	54	2,075	1,432	151	1,160	789	21	3,590	2,689
27-Sep-97	71	2,005	1,383	178	1,170	796	24	3,700	2,771
28-Sep-97	105	1,790	1,235	206	1,041	708	31	3,530	2,644
29-Sep-97	117	1,735	1,197	234	983	668	39	3,470	2,599
30-Sep-97	127	1,585	1,094	272	915	622	30	3,900	2,921
01-Oct-97	153	1,675	1,156	262	992	674	32	4,510	3,378
02-Oct-97	198	1,930	1,332	266	1,004	682	55	4,670	3,498
03-Oct-97	256	1,910	1,318	284	935	636	72	4,650	3,483
04-Oct-97	280	1,635	1,128	272	985	669	62	4,300	3,221
05-Oct-97	303	1,530	1,056	264	961	653	58	4,620	3,460
06-Oct-97	333	1,585	1,094	272	989	673	59	4,520	3,385
07-Oct-97	303	1,805	1,245	250	1,044	710	67	4,970	3,723
08-Oct-97	268	1,635	1,128	228	1,064	724	67	4,820	3,610
09-Oct-97	232	1,675	1,156	208	1,250	850	57	4,660	3,490
10-Oct-97	250	1,970	1,359	178	1,410	959	68	4,500	3,371
11-Oct-97	242	1,935	1,335	186	1,285	874	61	4,390	3,288
12-Oct-97	236	1,890	1,304	194	1,190	809	57	4,710	3,528
13-Oct-97	260	1,780	1,228	202	1,275	867	57	4,390	3,288
14-Oct-97	262	1,735	1,197	212	1,220	830	53	4,590	3,438
15-Oct-97	270	1,785	1,232	218	1,265	860	53	5,100	3,820
16-Oct-97	295	1,905	1,314	236	1,385	942	60	5,440	4,075
17-Oct-97	299	1,910	1,318	248	1,345	915	56	5,560	4,164
18-Oct-97	290	1,950	1,346	248	1,315	894	54	5,490	4,112
19-Oct-97	282	1,960	1,352	250	1,320	898	55	5,370	4,022

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
20-Oct-97	286	1,910	1,318	250	1,345	915	53	5,170	3,872
21-Oct-97	280	1,880	1,297	290	1,230	836	51	5,270	3,947
22-Oct-97	270	1,960	1,352	256	1,290	877	50	5,300	3,970
23-Oct-97	258	2,000	1,380	254	1,295	881	48	5,280	3,955
24-Oct-97	254	2,005	1,383	268	1,275	867	50	5,150	3,857
25-Oct-97	248	2,125	1,466	274	1,290	877	53	5,080	3,805
26-Oct-97	244	2,265	1,563	268	1,355	921	60	5,260	3,940
27-Oct-97	248	2,355	1,625	274	1,385	942	60	5,330	3,992
28-Oct-97	250	2,315	1,597	254	1,410	959	62	5,200	3,895
29-Oct-97	250	2,300	1,587	276	1,350	918	58	5,160	3,865
30-Oct-97	234	2,275	1,570	280	1,315	894	53	5,070	3,797
31-Oct-97	228	2,205	1,521	264	1,320	898	52	4,500	3,371
01-Nov-97	238	2,065	1,425	246	1,440	979	52	4,380	3,281
02-Nov-97	238	2,030	1,401	254	1,465	996	52	4,430	3,318
03-Nov-97	234	2,050	1,415	280	1,445	983	51	4,500	3,371
04-Nov-97	236	2,185	1,508	295	1,405	955	54	5,060	3,790
05-Nov-97	234	2,225	1,535	303	1,405	955	51	5,130	3,842
06-Nov-97	242	2,165	1,494	301	1,360	925	49	5,060	3,790
07-Nov-97	250	2,115	1,459	307	1,360	925	47	5,210	3,902
08-Nov-97	248	2,155	1,487	276	1,400	952	46	5,120	3,835
09-Nov-97	250	2,140	1,477	274	1,365	928	51	4,750	3,558
10-Nov-97	270	1,985	1,370	292	1,325	901	50	4,550	3,408
11-Nov-97	321	1,830	1,263	345	1,290	877	51	4,660	3,490
12-Nov-97	397	1,935	1,335	385	1,205	819	77	4,730	3,543
13-Nov-97	399	1,915	1,321	401	1,230	836	70	4,700	3,520
14-Nov-97	379	1,845	1,273	407	1,280	870	62	4,630	3,468
15-Nov-97	379	1,790	1,235	430	1,280	870	58	4,530	3,393
16-Nov-97	397	1,770	1,221	444	1,270	864	55	4,290	3,213
17-Nov-97	405	1,735	1,197	389	1,410	959	54	4,320	3,236
18-Nov-97	401	1,735	1,197	367	1,450	986	51	4,430	3,318
19-Nov-97	383	1,780	1,228	351	1,440	979	51	4,520	3,385
20-Nov-97	371	1,725	1,190	303	1,535	1,044	49	4,700	3,520
21-Nov-97	361	1,730	1,194	280	1,640	1,115	49	4,680	3,505
22-Nov-97	361	1,720	1,187	262	1,675	1,139	50	4,770	3,573
23-Nov-97	337	1,770	1,221	244	1,715	1,166	46	4,650	3,483
24-Nov-97	309	1,870	1,290	220	1,805	1,227	47	4,780	3,580
25-Nov-97	293	1,960	1,352	218	1,800	1,224	46	4,900	3,670
26-Nov-97	351	1,885	1,301	232	1,775	1,207	47	4,730	3,543
27-Nov-97	410	1,740	1,201	274	1,685	1,146	48	4,710	3,528
28-Nov-97	420	1,770	1,221	319	1,580	1,074	49	4,830	3,618
29-Nov-97	420	1,740	1,201	311	1,590	1,081	46	4,950	3,708
30-Nov-97	440	1,715	1,183	307	1,615	1,098	47	4,740	3,550
01-Dec-97	486	1,715	1,183	321	1,635	1,112	62	4,270	3,198
02-Dec-97	482	1,785	1,232	313	1,640	1,115	61	4,390	3,288
03-Dec-97	462	1,760	1,214	293	1,700	1,156	52	4,510	3,378
04-Dec-97	438	1,785	1,232	270	1,750	1,190	52	4,450	3,333
05-Dec-97	456	1,885	1,301	286	1,775	1,207	69	4,500	3,371
06-Dec-97	545	1,795	1,239	327	1,775	1,207	93	3,750	2,809

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
07-Dec-97	595	1,835	1,266	335	1,760	1,197	105	4,370	3,273
08-Dec-97	609	1,910	1,318	379	1,735	1,180	92	4,810	3,603
09-Dec-97	615	1,840	1,270	381	1,760	1,197	84	4,540	3,400
10-Dec-97	577	1,745	1,204	361	1,830	1,244	81	4,000	2,996
11-Dec-97	525	1,830	1,263	335	1,895	1,289	72	4,310	3,228
12-Dec-97	478	1,855	1,280	317	1,920	1,306	63	4,360	3,266
13-Dec-97	397	1,720	1,187	305	1,970	1,340	22	4,220	3,161
14-Dec-97	387	1,730	1,194	311	1,980	1,346	37	4,380	3,281
15-Dec-97	407	1,835	1,266	327	1,955	1,329	41	4,400	3,296
16-Dec-97	379	1,840	1,270	317	1,970	1,340	38	4,380	3,281
17-Dec-97	369	1,750	1,208	284	2,035	1,384	29	4,580	3,430
18-Dec-97	357	1,790	1,235	252	2,130	1,448	24	4,710	3,528
19-Dec-97	345	1,830	1,263	232	2,195	1,493	33	4,670	3,498
20-Dec-97	337	1,840	1,270	208	2,230	1,516	30	4,560	3,415
21-Dec-97	325	1,850	1,277	194	2,210	1,503	29	4,590	3,438
22-Dec-97	299	1,935	1,335	188	2,245	1,527	23	4,730	3,543
23-Dec-97	292	1,955	1,349	153	2,275	1,547	26	5,040	3,775
24-Dec-97	268	1,965	1,356	169	2,295	1,561	20	5,200	3,895
25-Dec-97	256	2,085	1,439	169	2,305	1,567	24	5,070	3,797
26-Dec-97	248	2,185	1,508	167	2,330	1,584	30	4,860	3,640
27-Dec-97	238	2,220	1,532	159	2,355	1,601	27	4,910	3,678
28-Dec-97	214	2,290	1,580	131	2,365	1,608	23	4,920	3,685
29-Dec-97	196	2,295	1,584	147	2,395	1,629	21	5,060	3,790
30-Dec-97	188	2,340	1,615	159	2,450	1,666	21	5,260	3,940
31-Dec-97	184	2,365	1,632	151	2,430	1,652	21	5,110	3,827
01-Jan-98	290	2,425	1,673	143	2,495	1,697	27	5,240	3,925
02-Jan-98	276	2,510	1,732	147	2,560	1,741	33	5,160	3,865
03-Jan-98	238	2,470	1,704	147	2,560	1,741	38	5,010	3,752
04-Jan-98	218	2,485	1,715	159	2,505	1,703	43	5,190	3,887
05-Jan-98	222	2,645	1,825	159	2,390	1,625	37	5,380	4,030
06-Jan-98	246	2,310	1,594	143	2,455	1,669	39	5,350	4,007
07-Jan-98	260	2,095	1,446	139	2,335	1,588	31	5,260	3,940
08-Jan-98	240	2,085	1,439	137	2,555	1,737	27	5,080	3,805
09-Jan-98	242			145	2,440	1,659	29	5,080	3,805
10-Jan-98	256	2,075	1,432	147	2,525	1,717	21	5,110	3,827
11-Jan-98	282	2,245	1,549	143	2,525	1,717	38	5,240	3,925
12-Jan-98	414	1,855	1,280	149	2,495	1,697	46	5,150	3,857
13-Jan-98	611	1,605	1,107	200	2,345	1,595	47	4,920	3,685
14-Jan-98	710	1,545	1,066	216	2,180	1,482	62	4,830	3,618
15-Jan-98	811	1,405	969	274	2,245	1,527	57	4,770	3,573
16-Jan-98	876	1,315	907	284	2,195	1,493	60	4,840	3,625
17-Jan-98	1,005	1,035	714	589	2,210	1,503	61	5,070	3,797
18-Jan-98	1,160	770	531	835	2,070	1,408	57	5,180	3,880
19-Jan-98	1,107	810	559	795	2,130	1,448	53	4,830	3,618
20-Jan-98	1,083	760	524	644	2,205	1,499	47	4,320	3,236
21-Jan-98	1,160			563	2,260	1,537	43	4,110	3,078
22-Jan-98	1,154			428	2,265	1,540	46	4,360	3,266
23-Jan-98	1,144			317	2,270	1,544	47	4,760	3,565

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
24-Jan-98	999			254	2,275	1,547	43	4,950	3,708
25-Jan-98	823			224	2,290	1,557	47	5,420	4,060
26-Jan-98	779			218	2,210	1,503	56	5,560	4,164
27-Jan-98	740			192	2,210	1,503	43	5,400	4,045
28-Jan-98	692			169	2,180	1,482	44	5,330	3,992
29-Jan-98	686	1,845	1,273	178	2,180	1,482	49	5,560	4,164
30-Jan-98	696	2,125	1,466	248	1,930	1,312	62	5,680	4,254
31-Jan-98	750	2,155	1,487	309	1,870	1,272	85	5,600	4,194
01-Feb-98	835	1,855	1,280	329	1,950	1,326	64	5,660	4,239
02-Feb-98	1,033	1,845	1,273	375	1,900	1,292	114	5,570	4,172
03-Feb-98	1,400	1,745	1,204	750	1,640	1,115	202	4,420	3,311
04-Feb-98	1,575	1,455	1,004	1,253	1,465	996	237	4,370	3,273
05-Feb-98	1,717	1,240	856	1,283	1,515	1,030	273	3,420	2,562
06-Feb-98	1,838	1,150	794	1,249	1,740	1,183	264	2,430	1,820
07-Feb-98	1,967	1,225	845	1,212	1,905	1,295	262	3,170	2,374
08-Feb-98	2,062	1,255	866	1,271	1,945	1,323	253	3,350	2,509
09-Feb-98	2,102	1,235	852	1,313	1,845	1,255	256	3,320	2,487
10-Feb-98	2,082	1,135	783	1,404	1,795	1,221	266	2,900	2,172
11-Feb-98	2,062	1,150	794	1,412	1,855	1,261	268	3,000	2,247
12-Feb-98	2,042	1,245	859	1,364	1,990	1,353	265	3,280	2,457
13-Feb-98	2,042	1,310	904	1,327	2,045	1,391	288	3,390	2,539
14-Feb-98	2,062	1,325	914	1,339	2,020	1,374	287	3,540	2,651
15-Feb-98	2,062	1,270	876	1,372	1,985	1,350	269	3,540	2,651
16-Feb-98	2,062	1,210	835	1,461	1,805	1,227	277	3,610	2,704
17-Feb-98	2,062	1,140	787	1,515	1,830	1,244	269	3,150	2,359
18-Feb-98	2,023	1,205	831	1,446	1,955	1,329	252	3,660	2,741
19-Feb-98	2,003	1,275	880	1,321	2,040	1,387	253	3,830	2,869
20-Feb-98	2,003	1,310	904	1,265	1,995	1,357	272	3,920	2,936
21-Feb-98	2,003	1,310	904	1,247	1,870	1,272	282	3,800	2,846
22-Feb-98	2,023	1,250	863	1,263	1,880	1,278	270	3,240	2,427
23-Feb-98	2,042	1,275	880	1,271	1,905	1,295	259	3,640	2,726
24-Feb-98	2,082	1,175	811	1,327	1,965	1,336	256	3,700	2,771
25-Feb-98	2,062	1,280	883	1,374	2,020	1,374	268	3,870	2,899
26-Feb-98	2,042	1,265	873	1,438	2,060	1,401	254	3,840	2,876
27-Feb-98	1,983	1,325	914	1,452	2,080	1,414	263	3,500	2,622
28-Feb-98	1,900	1,355	935	1,392	2,120	1,442	246	3,890	2,914
01-Mar-98	1,805	1,430	987	1,295	2,065	1,404	255	4,000	2,996
02-Mar-98	1,723	1,505	1,038	1,231	1,970	1,340	248	4,340	3,251
03-Mar-98	1,628	1,605	1,107	1,176	1,970	1,340	230	4,480	3,356
04-Mar-98	1,565	1,750	1,208	1,126	1,990	1,353	231	4,830	3,618
05-Mar-98	1,513	1,955	1,349	1,051	1,980	1,346	237	5,050	3,782
06-Mar-98	1,519	1,995	1,377	1,009	1,990	1,353	227	5,160	3,865
07-Mar-98	1,517	1,990	1,373	999	1,970	1,340	231	5,160	3,865
08-Mar-98	1,537	1,990	1,373	1,011	1,940	1,319	234	5,150	3,857
09-Mar-98	1,537	1,985	1,370	1,005	1,915	1,302	232	5,210	3,902
10-Mar-98	1,471	2,145	1,480	1,005	1,885	1,282	225	5,260	3,940
11-Mar-98	1,362	2,370	1,635	1,007	1,815	1,234	233	5,110	3,827
12-Mar-98	1,265	2,505	1,728	993	1,765	1,200	229	5,270	3,947

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
13-Mar-98	1,188	2,680	1,849	982	1,680	1,142	240	4,900	3,670
14-Mar-98	1,140	2,730	1,884	956	1,640	1,115	237	4,940	3,700
15-Mar-98	1,085	2,745	1,894	942	1,575	1,071	236	4,960	3,715
16-Mar-98	1,021	2,560	1,766	934	1,605	1,091	223	3,800	2,846
17-Mar-98	956	2,870	1,980	882	1,710	1,163	217	4,920	3,685
18-Mar-98	912	3,120	2,153	829	1,800	1,224	225	5,260	3,940
19-Mar-98	859	3,265	2,253	771	1,830	1,244	222	5,220	3,910
20-Mar-98	811	3,380	2,332	746	1,770	1,204	217	5,320	3,985
21-Mar-98	761	3,450	2,381	708	1,775	1,207	212	5,140	3,850
22-Mar-98	692	3,600	2,484	648			207	5,210	3,902
23-Mar-98	635	3,765	2,598	611			193	5,220	3,910
24-Mar-98	619	3,780	2,608	633			199	5,220	3,910
25-Mar-98	654	3,635	2,508	730			228	5,110	3,827
26-Mar-98	740	3,135	2,163	1,013			269	4,990	3,738
27-Mar-98	817	3,025	2,087	1,225			275	3,850	2,884
28-Mar-98	873	3,320	2,291	1,216			253	4,960	3,715
29-Mar-98	853	3,230	2,229	1,029			225	5,440	4,075
30-Mar-98	779	3,175	2,191	837			210	5,620	4,209
31-Mar-98	750	3,110	2,146	805			205	5,680	4,254
01-Apr-98	744	3,120	2,153	801	1,940	1,319	218	5,770	4,322
02-Apr-98	676	3,095	2,136	756	1,945	1,323	206	5,570	4,172
03-Apr-98	641	3,060	2,111	730	1,925	1,309	187	5,730	4,292
04-Apr-98	603	3,250	2,243	734	1,880	1,278	193	5,840	4,374
05-Apr-98	581	3,625	2,501	775	1,750	1,190	222	5,750	4,307
06-Apr-98	581	3,855	2,660	789	1,815	1,234	260	5,310	3,977
07-Apr-98	567	3,625	2,501	765	1,830	1,244	262	4,500	3,371
08-Apr-98	577	3,245	2,239	752	1,970	1,340	232	4,830	3,618
09-Apr-98	575	2,705	1,866	690	2,020	1,374	208	5,400	4,045
10-Apr-98	551	2,645	1,825	680	1,925	1,309	205	5,230	3,917
11-Apr-98	525	3,125	2,156	702	1,915	1,302	195	5,810	4,352
12-Apr-98	488	3,685	2,543	694	1,905	1,295	200	5,840	4,374
13-Apr-98	462	3,815	2,632	668	1,895	1,289	200	5,920	4,434
14-Apr-98	428	4,005	2,763	635	1,820	1,238	188	5,880	4,404
15-Apr-98	393	3,805	2,625	595	1,720	1,170	179	5,910	4,427
16-Apr-98	401	3,260	2,249	591	1,740	1,183	178	5,890	4,412
17-Apr-98	414	2,530	1,746	581	1,790	1,217	173	5,860	4,389
18-Apr-98	377	2,770	1,911	555	1,795	1,221	161	5,890	4,412
19-Apr-98	329	3,445	2,377	533	1,910	1,299	160	5,690	4,262
20-Apr-98	303	4,045	2,791	525	1,925	1,309	160	6,170	4,621
21-Apr-98	292	4,235	2,922	520	1,805	1,227	156	6,090	4,561
22-Apr-98	272	4,380	3,022	518	1,725	1,173	158	6,110	4,576
23-Apr-98	250	4,400	3,036	486	1,765	1,200	163	6,000	4,494
24-Apr-98	234	4,295	2,964	476	1,635	1,112	162	6,300	4,719
25-Apr-98	240	4,650	3,209	480	1,620	1,102	153	5,690	4,262
26-Apr-98	200	4,430	3,057	466	1,595	1,085	152	5,635	4,221
27-Apr-98	184	4,615	3,184	466	1,530	1,040	150	5,580	4,179
28-Apr-98	186	4,430	3,057	474	1,500	1,020	155	5,610	4,202
29-Apr-98	186	4,575	3,157	480	1,545	1,051	150	5,600	4,194

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
30-Apr-98	186	4,515	3,115	500	1,440	979	139	5,540	4,149
01-May-98	180	4,700	3,243	510	1,255	853	125	5,700	4,269
02-May-98	182	4,625	3,191	533	1,110	755	107	5,860	4,389
03-May-98	180	4,935	3,405	551	1,015	690	109	5,990	4,487
04-May-98	184	4,860	3,353	559	1,050	714	117	5,780	4,329
05-May-98	210	4,715	3,253	599	1,040	707	100	5,840	4,374
06-May-98	252	4,135	2,853	668	1,055	717	127	5,650	4,232
07-May-98	284	3,135	2,163	688	1,070	728	135	5,750	4,307
08-May-98	309	2,450	1,691	674	1,115	758	132	5,310	3,977
09-May-98	293	3,030	2,091	631	1,190	809	124	5,100	3,820
10-May-98	274	3,810	2,629	577	1,275	867	114	5,090	3,812
11-May-98	272	4,225	2,915	553	1,285	874	110	5,360	4,015
12-May-98	272	4,605	3,177	561	1,205	819	116	5,680	4,254
13-May-98	307	3,895	2,688	605	1,097	746	154	5,880	4,404
14-May-98	343	3,395	2,343	666	974	662	252	5,670	4,247
15-May-98	375	2,535	1,749	708	1,053	716	278	3,730	2,794
16-May-98	361	2,585	1,784	692	1,390	945	268	3,890	2,914
17-May-98	329	3,255	2,246	609	1,660	1,129	233	4,940	3,700
18-May-98	292	3,925	2,708	533	1,585	1,078	214	5,560	4,164
19-May-98	282	4,335	2,991	442	1,495	1,017	192	5,840	4,374
20-May-98	272	4,345	2,998	381	1,720	1,170	183	5,920	4,434
21-May-98	252	4,570	3,153	389	1,645	1,119	177	5,960	4,464
22-May-98	238	4,260	2,939	393	1,430	972	169	6,080	4,554
23-May-98	222	4,535	3,129	403	1,350	918	164	6,020	4,509
24-May-98	210	4,535	3,129	408	1,250	850	155	6,070	4,546
25-May-98	194	4,730	3,264	422	1,155	785	149	6,150	4,606
26-May-98	165	4,685	3,233	428	1,085	738	141	6,330	4,741
27-May-98	151	4,785	3,302	450	979	666	148	6,080	4,554
28-May-98	153	4,745	3,274	484	881	599	140	6,020	4,509
29-May-98	163	4,575	3,157	531	830	564	145	5,970	4,472
30-May-98	175	4,345	2,998	577	806	548	159	5,810	4,352
31-May-98	176	3,990	2,753	607	790	537	152	5,600	4,194
01-Jun-98	180	3,380	2,332	609	817	555	132	5,330	3,992
02-Jun-98	184	3,195	2,205	545	865	588	115	5,490	4,112
03-Jun-98	180	3,160	2,180	492	855	581	97	5,740	4,299
04-Jun-98	184	2,720	1,877	496	808	549	94	5,100	3,820
05-Jun-98	186	2,970	2,049	504	823	559	93	5,910	4,427
06-Jun-98	173	3,300	2,277	525	700	476	92	5,950	4,457
07-Jun-98	167	3,695	2,550	559	600	408	99	6,110	4,576
08-Jun-98	210	4,090	2,822	641	592	402	162	5,830	4,367
09-Jun-98	250	3,720	2,567	706	706	480	177	5,160	3,865
10-Jun-98	258	3,295	2,274	680	810	550	153	4,830	3,618
11-Jun-98	262	2,885	1,991	639	855	581	123	5,280	3,955
12-Jun-98	262	2,135	1,473	585	879	597	107	5,470	4,097
13-Jun-98	234	2,510	1,732	533	962	654	94	5,480	4,105
14-Jun-98	218	3,515	2,425	490	1,040	707	107	5,570	4,172
15-Jun-98	216	3,475	2,398	480	1,000	680	118	5,350	4,007
16-Jun-98	240	3,695	2,550	510	909	618	127	5,580	4,179

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
17-Jun-98	216	3,605	2,487	494	936	636	142	5,130	3,842
18-Jun-98	192	3,935	2,715	502	873	594	141	4,920	3,685
19-Jun-98	184	4,020	2,774	518	740	503	128	5,220	3,910
20-Jun-98	175	3,935	2,715	541	708	481	120	5,240	3,925
21-Jun-98	165	3,775	2,605	565	695	473	113	4,920	3,685
22-Jun-98	155	3,325	2,294	577	634	431	114	4,820	3,610
23-Jun-98	143	3,680	2,539	583	677	460	118	4,900	3,670
24-Jun-98	145	3,620	2,498	593	717	487	118	4,970	3,723
25-Jun-98	153	3,695	2,550	587	720	490	117	4,930	3,693
26-Jun-98	163	3,885	2,681	579	759	516	120	4,910	3,678
27-Jun-98	169	3,500	2,415	565	791	538	134	4,690	3,513
28-Jun-98	176	3,570	2,463	555	795	540	131	4,650	3,483
29-Jun-98	184	3,230	2,229	551	736	500	122	4,550	3,408
30-Jun-98	188	3,425	2,363	589	677	460	129	4,520	3,385
01-Jul-98	194	3,520	2,429	682	673	458	136	4,710	3,528
02-Jul-98	194	3,380	2,332	654	729	495	141	4,610	3,453
03-Jul-98	196	3,430	2,367	601	796	541	153	4,920	3,685
04-Jul-98	200	3,425	2,363	585	822	559	145	4,650	3,483
05-Jul-98	208	3,115	2,149	585	788	536	145	4,350	3,258
06-Jul-98	222	3,340	2,305	595	798	542	161	4,650	3,483
07-Jul-98	234	3,585	2,474	615	780	530	161	4,560	3,415
08-Jul-98	250	3,415	2,356	637	768	522	158	4,380	3,281
09-Jul-98	266	3,395	2,343	637	851	578	155	4,360	3,266
10-Jul-98	268	3,245	2,239	658	775	527	153	4,410	3,303
11-Jul-98	264	3,235	2,232	662	704	478	167	4,180	3,131
12-Jul-98	244	2,995	2,067	646	672	457	165	4,070	3,048
13-Jul-98	236	3,060	2,111	633	685	465	167	4,110	3,078
14-Jul-98	248	3,160	2,180	672	658	447	177	4,170	3,123
15-Jul-98	260	3,060	2,111	718	626	425	176	4,030	3,018
16-Jul-98	242	3,170	2,187	706	604	411	160	4,190	3,138
17-Jul-98	246	3,150	2,174	688	589	401	160	4,400	3,296
18-Jul-98	248	3,050	2,105	652	650	442	154	4,480	3,356
19-Jul-98	246	3,025	2,087	595	675	459	153	4,440	3,326
20-Jul-98	244	3,050	2,105	571	695	472	154	4,330	3,243
21-Jul-98	224	3,085	2,129	518	776	527	142	4,190	3,138
22-Jul-98	204	3,070	2,118	426	834	567	131	4,300	3,221
23-Jul-98	214	2,945	2,032	373	797	542	127	4,440	3,326
24-Jul-98	204	2,945	2,032	343	780	530	130	4,520	3,385
25-Jul-98	188	3,220	2,222	375	772	525	122	4,720	3,535
26-Jul-98	202	3,100	2,139	444	725	493	127	4,600	3,445
27-Jul-98	222	2,940	2,029	490	666	453	132	4,440	3,326
28-Jul-98	218	2,895	1,998	520	661	449	134	4,410	3,303
29-Jul-98	204	3,100	2,139	533	676	460	130	4,510	3,378
30-Jul-98	192	3,250	2,243	510	690	469	128	4,460	3,341
31-Jul-98	198	3,260	2,249	597	641	436	128	4,560	3,415
01-Aug-98	214	3,350	2,312	642	598	407	130	4,550	3,408
02-Aug-98	210	3,345	2,308	642	602	409	133	4,550	3,408
03-Aug-98	220	3,450	2,381	650	591	402	135	4,440	3,326

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
04-Aug-98	248	3,030	2,091	662	615	418	134	4,390	3,288
05-Aug-98	254	2,880	1,987	599	707	480	128	4,370	3,273
06-Aug-98	200	3,460	2,387	446	823	560	121	4,400	3,296
07-Aug-98	153	4,120	2,843	405	878	597	125	4,350	3,258
08-Aug-98	153	4,290	2,960	432	797	542	130	4,430	3,318
09-Aug-98	165	3,975	2,743	547	745	506	128	4,270	3,198
10-Aug-98	186	3,790	2,615	631	688	468	130	4,390	3,288
11-Aug-98	196	3,545	2,446	692	651	442	130	4,320	3,236
12-Aug-98	194	3,440	2,374	650	697	474	131	4,070	3,048
13-Aug-98	186	3,240	2,236	605	722	491	124	4,180	3,131
14-Aug-98	180	3,570	2,463	555	745	506	127	4,330	3,243
15-Aug-98	145	3,830	2,643	541	747	508	125	4,200	3,146
16-Aug-98	143	3,875	2,674	516	727	494	124	4,100	3,071
17-Aug-98	173	3,735	2,577	559	705	479	134	4,140	3,101
18-Aug-98	171	3,820	2,636	633	636	432	137	4,260	3,191
19-Aug-98	173	3,745	2,584	658	658	447	130	4,150	3,108
20-Aug-98	161	3,610	2,491	619	726	493	129	4,130	3,093
21-Aug-98	178	3,345	2,308	512	780	530	129	3,800	2,846
22-Aug-98	178	3,290	2,270	527	766	521	126	3,900	2,921
23-Aug-98	167	3,340	2,305	569	761	517	118	3,930	2,944
24-Aug-98	173	3,330	2,298	565	740	503	114	4,230	3,168
25-Aug-98	173	3,440	2,374	543	744	506	111	4,520	3,385
26-Aug-98	159	3,620	2,498	387	824	560	109	4,590	3,438
27-Aug-98	143	3,935	2,715	391	837	569	109	4,550	3,408
28-Aug-98	143	3,900	2,691	470	757	515	110	4,770	3,573
29-Aug-98	173	3,610	2,491	529	744	506	116	4,650	3,483
30-Aug-98	184	3,545	2,446	506	767	521	124	4,590	3,438
31-Aug-98	186	3,560	2,456	565	719	489	130	4,440	3,326
01-Sep-98	184	3,500	2,415	615	712	484	122	4,410	3,303
02-Sep-98	169	3,555	2,453	496	758	515	121	4,330	3,243
03-Sep-98	149	3,435	2,370	436	788	536	113	4,410	3,303
04-Sep-98	202	2,960	2,042	450	797	542	114	4,480	3,356
05-Sep-98	218	2,630	1,815	454	835	568	122	4,290	3,213
06-Sep-98	180	2,750	1,898	514	764	520	116	4,080	3,056
07-Sep-98	182	2,735	1,887	527	748	508	113	4,210	3,153
08-Sep-98	169	2,965	2,046	448	821	558	108	4,300	3,221
09-Sep-98	147	3,170	2,187	383	851	579	101	4,290	3,213
10-Sep-98	149	3,455	2,384	347	863	587	112	4,360	3,266
11-Sep-98	149	3,530	2,436	317	905	615	109	4,510	3,378
12-Sep-98	163	3,375	2,329	363	871	592	121	4,220	3,161
13-Sep-98	175	3,295	2,274	343	874	594	127	4,200	3,146
14-Sep-98	188	3,060	2,111	369	880	598	134	3,970	2,974
15-Sep-98	196	2,845	1,963	303	850	578	123	4,010	3,003
16-Sep-98	196	2,825	1,949	244	950	646	124	3,900	2,921
17-Sep-98	192	2,885	1,991	258	972	661	115	3,980	2,981
18-Sep-98	190	3,050	2,105	319	869	591	117	4,140	3,101
19-Sep-98	196	2,550	1,760	290	905	615	102	3,740	2,801
20-Sep-98	188	2,365	1,632	301	871	592	96	3,560	2,666

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
21-Sep-98	206	2,400	1,656	317	849	577	101	3,810	2,854
22-Sep-98	220	2,310	1,594	256	905	615	93	3,819	2,860
23-Sep-98	230	2,050	1,415	230	966	657	93	3,713	2,781
24-Sep-98	272			286	898	611	88	3,620	2,711
25-Sep-98	266			323	757	514	74	3,910	2,929
26-Sep-98	246			284	845	575	75	3,510	2,629
27-Sep-98	272	1,750	1,208	323	812	552	84	3,880	2,906
28-Sep-98	297	1,850	1,277	341	739	502	93	4,180	3,131
29-Sep-98	327	1,615	1,114	319	741	504	93	3,760	2,816
30-Sep-98	341	1,520	1,049	309	790	537	89	3,430	2,569
01-Oct-98	333	1,420	980	337	745	507	83	3,300	2,472
02-Oct-98	339	1,235	852	311	781	531	56	3,430	2,569
03-Oct-98	347	1,120	773	262	875	595	43	3,470	2,599
04-Oct-98	369	1,230	849	297	823	560	59	3,850	2,884
05-Oct-98	371	1,260	869	284	854	581	61	3,820	2,861
06-Oct-98	353	1,255	866	282	911	619	62	3,940	2,951
07-Oct-98	377	1,310	904	319	881	599	68	4,180	3,131
08-Oct-98	408	1,410	973	317	883	600	64	4,190	3,138
09-Oct-98	412	1,480	1,021	313	928	631	71	4,960	3,715
10-Oct-98	403	1,535	1,059	327	932	633	80	5,150	3,857
11-Oct-98	412	1,555	1,073	349	906	616	81	5,390	4,037
12-Oct-98	418	1,485	1,025	357	901	612	70	4,910	3,678
13-Oct-98	422	1,380	952	369	909	618	65	4,880	3,655
14-Oct-98	414	1,325	914	412	889	605	63	5,000	3,745
15-Oct-98	401	1,395	963	410	888	604	71	5,250	3,932
16-Oct-98	379	1,505	1,038	420	896	609	68	5,280	3,955
17-Oct-98	363	1,570	1,083	357	949	645	61	5,670	4,247
18-Oct-98	351	1,585	1,094	315	998	679	58	5,760	4,314
19-Oct-98	329	1,575	1,087	282	1,040	707	57	5,510	4,127
20-Oct-98	313	1,580	1,090	244	1,070	728	56	5,150	3,857
21-Oct-98	299	1,580	1,090	242	1,055	717	57	5,270	3,947
22-Oct-98	293	1,650	1,139	284	966	657	57	5,200	3,895
23-Oct-98	295	1,750	1,208	347	888	604	60	5,340	4,000
24-Oct-98	319	1,800	1,242	375	902	613	62	5,330	3,992
25-Oct-98	349	1,780	1,228	452	898	611	62	5,360	4,015
26-Oct-98	383	1,740	1,201	454	913	621	74	5,620	4,209
27-Oct-98	420	1,705	1,176	428	945	642	75	5,580	4,179
28-Oct-98	460	1,625	1,121	418	962	654	75	5,400	4,045
29-Oct-98	434	1,595	1,101	397	1,000	680	73	5,190	3,887
30-Oct-98	420	1,520	1,049	383	1,030	700	71	4,320	3,236
31-Oct-98	414	1,505	1,038	371	1,045	711	74	4,410	3,303
01-Nov-98	401	1,500	1,035	367	1,075	731	57	4,480	3,356
02-Nov-98	393	1,495	1,032	355	1,095	745	55	4,600	3,445
03-Nov-98	381	1,540	1,063	367	1,046	711	58	4,580	3,430
04-Nov-98	387	1,580	1,090	395	1,010	687	59	4,660	3,490
05-Nov-98	383	1,610	1,111	379	1,055	717	56	4,990	3,738
06-Nov-98	367	1,690	1,166	391	1,070	728	59	5,110	3,827
07-Nov-98	359	1,705	1,176	410	1,020	694	53	5,020	3,760

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
08-Nov-98	361	1,645	1,135	407	1,045	711	53	4,760	3,565
09-Nov-98	363	1,650	1,139	391	1,070	728	52	4,760	3,565
10-Nov-98	371	1,655	1,142	383	1,085	738	57	4,690	3,513
11-Nov-98	375	1,650	1,139	385	1,095	745	53	4,690	3,513
12-Nov-98	363	1,630	1,125	385	1,110	755	50	4,650	3,483
13-Nov-98	349	1,630	1,125	371	1,140	775	49	4,640	3,475
14-Nov-98	335	1,680	1,159	351	1,165	792	49	4,820	3,610
15-Nov-98	329	1,745	1,204	349	1,130	768	50	4,780	3,580
16-Nov-98	327	1,745	1,204	341	1,075	731	50	4,700	3,520
17-Nov-98	327	1,735	1,197	351	1,028	699	47	4,730	3,543
18-Nov-98	327	1,730	1,194	379	924	628	44	4,870	3,648
19-Nov-98	315	1,750	1,208	363	1,058	719	46	4,840	3,625
20-Nov-98	299	1,895	1,308	315	1,200	816	57	5,020	3,760
21-Nov-98	292	1,850	1,277	297	1,260	857	50	5,200	3,895
22-Nov-98	280	1,900	1,311	303	1,235	840	47	5,310	3,977
23-Nov-98	282			299	1,220	830	49	5,320	3,985
24-Nov-98	282	1,900	1,311	301	1,200	816	44	5,670	4,247
25-Nov-98	264	2,035	1,404	292	1,190	809	44	6,100	4,569
26-Nov-98	258	2,105	1,452	288	1,205	819	46	6,140	4,599
27-Nov-98	266	2,025	1,397	297	1,265	860	46	5,760	4,314
28-Nov-98	286	1,855	1,280	323	1,295	881	47	5,420	4,060
29-Nov-98	292	1,800	1,242	351	1,235	840	51	5,770	4,322
30-Nov-98	292	1,830	1,263	379	1,220	830	45	5,250	3,932
01-Dec-98	295	1,835	1,266	383	1,195	813	37	5,320	3,985
02-Dec-98	297	1,835	1,266	375	1,170	796	43	5,230	3,917
03-Dec-98	309	1,840	1,270	379	1,160	789	46	5,240	3,925
04-Dec-98	313	1,865	1,287	379	1,195	813	51	5,300	3,970
05-Dec-98	311	1,820	1,256	363	1,270	864	47	5,060	3,790
06-Dec-98	315	1,755	1,211	353	1,320	898	39	5,120	3,835
07-Dec-98	327	1,700	1,173	343	1,370	932	43	5,040	3,775
08-Dec-98	333	1,655	1,142	319	1,440	979	39	4,980	3,730
09-Dec-98	327	1,680	1,159	305	1,465	996	39	5,020	3,760
10-Dec-98	325	1,650	1,139	309	1,475	1,003	35	4,860	3,640
11-Dec-98	313	1,690	1,166	303	1,470	1,000	39	4,500	3,371
12-Dec-98	321	1,790	1,235	305	1,450	986	53	4,170	3,123
13-Dec-98	313	1,810	1,249	305	1,455	989	49	4,570	3,423
14-Dec-98	301	1,875	1,294	286	1,510	1,027	45	4,720	3,535
15-Dec-98	295	1,925	1,328	276	1,580	1,074	51	4,700	3,520
16-Dec-98	290	1,965	1,356	274	1,575	1,071	51	4,820	3,610
17-Dec-98	286	2,020	1,394	264	1,550	1,054	50	5,320	3,985
18-Dec-98	290	2,085	1,439	242	1,555	1,057	54	5,200	3,895
19-Dec-98	295	2,130	1,470	230	1,620	1,102	61	5,040	3,775
20-Dec-98	299	2,105	1,452	234	1,595	1,085	53	5,210	3,902
21-Dec-98	290	2,095	1,446	244	1,600	1,088	46	5,220	3,910
22-Dec-98	288	2,140	1,477	240	1,595	1,085	46	5,300	3,970
23-Dec-98	286	2,135	1,473	224	1,550	1,054	47	5,150	3,857
24-Dec-98	280	2,170	1,497	226	1,535	1,044	47	5,260	3,940
25-Dec-98	272	2,295	1,584	252	1,565	1,064	52	5,400	4,045

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
26-Dec-98	284	2,205	1,521	256	1,590	1,081	52	5,340	4,000
27-Dec-98	286	2,120	1,463	262	1,610	1,095	48	5,350	4,007
28-Dec-98	270	2,090	1,442	260	1,645	1,119	37	5,300	3,970
29-Dec-98	268	2,110	1,456	240	1,610	1,095	46	5,300	3,970
30-Dec-98	272	2,135	1,473	236	1,580	1,074	48	5,260	3,940
31-Dec-98	274	2,175	1,501	258	1,530	1,040	51	5,570	4,172
01-Jan-99	266	2,235	1,542	284	1,605	1,091	50	5,220	3,910
02-Jan-99	258	2,270	1,566	286	1,590	1,081	54	5,020	3,760
03-Jan-99	254	2,255	1,556	268	1,570	1,068	48	4,940	3,700
04-Jan-99	250	2,255	1,556	276	1,560	1,061	50	5,280	3,955
05-Jan-99	248	2,240	1,546	276	1,515	1,030	48	4,830	3,618
06-Jan-99	248	2,200	1,518	286	1,555	1,057	46	4,450	3,333
07-Jan-99	250	2,235	1,542	341	1,370	932	50	4,620	3,460
08-Jan-99	258	2,305	1,590	357	1,315	894	50	4,880	3,655
09-Jan-99	272	2,350	1,622	351	1,340	911	56	4,650	3,483
10-Jan-99	278	2,350	1,622	357	1,285	874	62	4,660	3,490
11-Jan-99	276	2,260	1,559	369	1,255	853	56	4,630	3,468
12-Jan-99	276	2,190	1,511	375	1,215	826	54	4,590	3,438
13-Jan-99	274	2,150	1,484	387	1,215	826	44	4,620	3,460
14-Jan-99	274	2,160	1,490	405	1,200	816	47	4,570	3,423
15-Jan-99	282	2,085	1,439	407	1,210	823	42	4,640	3,475
16-Jan-99	280	2,145	1,480	440	1,215	826	48	5,060	3,790
17-Jan-99	293	2,120	1,463	525	1,125	765	48	4,650	3,483
18-Jan-99	327	2,025	1,397	563	1,135	772	51	4,570	3,423
19-Jan-99	359	2,010	1,387	593	1,135	772	53	4,660	3,490
20-Jan-99	401	2,010	1,387	648	1,185	806	51	4,650	3,483
21-Jan-99	454	1,925	1,328	706	1,150	782	58	4,720	3,535
22-Jan-99	468	1,865	1,287	736	1,180	802	55	4,690	3,513
23-Jan-99	462	1,820	1,256	732	1,245	847	57	4,630	3,468
24-Jan-99	522	1,750	1,208	704	1,255	853	54	4,790	3,588
25-Jan-99	518	1,765	1,218	700	1,270	864	60	4,530	3,393
26-Jan-99	480	1,895	1,308	716	1,265	860	63	4,730	3,543
27-Jan-99	432	1,995	1,377	724	1,255	853	61	4,690	3,513
28-Jan-99	414	2,065	1,425	682	1,335	908	69	4,360	3,266
29-Jan-99	399	2,155	1,487	648	1,340	911	67	4,590	3,438
30-Jan-99	371	2,285	1,577	660	1,315	894	71	4,510	3,378
31-Jan-99	381	2,405	1,659	686	1,290	877	77	4,640	3,475
01-Feb-99	383	2,450	1,691	680	1,300	884	85	4,790	3,588
02-Feb-99	373	2,480	1,711	617	1,355	921	88	4,620	3,460
03-Feb-99	363	2,330	1,608	583	1,390	945	84	4,160	3,116
04-Feb-99	355	2,310	1,594	565	1,425	969	84	4,170	3,123
05-Feb-99	385	2,275	1,570	545	1,395	949	89	4,350	3,258
06-Feb-99	422	2,075	1,432	545	1,360	925	88	4,480	3,356
07-Feb-99	482	1,900	1,311	529	1,360	925	86	4,610	3,453
08-Feb-99	470	2,050	1,415	516	1,425	969	94	4,370	3,273
09-Feb-99	448	2,320	1,601	654	1,355	921	115	4,570	3,423
10-Feb-99	498	2,360	1,628	829	1,285	874	142	4,430	3,318
11-Feb-99	587	2,090	1,442	982	1,310	891	134	4,410	3,303

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
12-Feb-99	631	1,870	1,290	851	1,420	966	115	4,220	3,161
13-Feb-99	676	1,905	1,314	710	1,390	945	134	4,140	3,101
14-Feb-99	682	1,830	1,263	660	1,390	945	125	4,330	3,243
15-Feb-99	676	1,900	1,311	666	1,335	908	122	4,350	3,258
16-Feb-99	650	1,965	1,356	639	1,375	935	122	4,680	3,505
17-Feb-99	629	2,145	1,480	567	1,465	996	130	4,740	3,550
18-Feb-99	551	2,320	1,601	573	1,390	945	129	4,690	3,513
19-Feb-99	506	2,525	1,742	611	1,370	932	134	4,350	3,258
20-Feb-99	480	2,590	1,787	678	1,330	904	135	4,650	3,483
21-Feb-99	480	2,680	1,849	775	1,265	860	131	4,640	3,475
22-Feb-99	476	2,770	1,911	869	1,190	809	138	4,910	3,678
23-Feb-99	456	2,850	1,967	972	1,130	768	137	5,020	3,760
24-Feb-99	450	2,820	1,946	1,045	1,125	765	133	4,910	3,678
25-Feb-99	454	2,775	1,915	1,059	1,160	789	136	4,710	3,528
26-Feb-99	432	2,920	2,015	997	1,200	816	138	4,800	3,595
27-Feb-99	424	3,030	2,091	926	1,270	864	137	4,990	3,738
28-Feb-99	424	2,855	1,970	839	1,350	918	120	4,760	3,565
01-Mar-99	579	2,435	1,680	801	1,325	901	122	5,050	3,782
02-Mar-99	662			823	1,265	860	121	5,190	3,887
03-Mar-99	611	2,455	1,694	853	1,260	857	116	5,140	3,850
04-Mar-99	533	2,725	1,880	823	1,320	898	126	5,260	3,940
05-Mar-99	482	2,795	1,929	771	1,390	945	121	5,490	4,112
06-Mar-99	464	2,805	1,935	740	1,390	945	122	5,280	3,955
07-Mar-99	462	2,770	1,911	694	1,470	1,000	117	5,490	4,112
08-Mar-99	454	2,815	1,942	650	1,520	1,034	123	5,410	4,052
09-Mar-99	454	2,770	1,911	646	1,510	1,027	122	5,420	4,060
10-Mar-99	440	2,790	1,925	609	1,545	1,051	120	5,290	3,962
11-Mar-99	434	2,855	1,970	541	1,630	1,108	119	5,520	4,134
12-Mar-99	412	2,930	2,022	531	1,615	1,098	115	5,600	4,194
13-Mar-99	422	2,830	1,953	525	1,570	1,068	108	5,460	4,090
14-Mar-99	418	2,815	1,942	577	1,560	1,061	112	5,440	4,075
15-Mar-99	414	2,880	1,987	668	1,515	1,030	120	5,550	4,157
16-Mar-99	405	2,960	2,042	718	1,500	1,020	122	5,520	4,134
17-Mar-99	367	3,035	2,094	761	1,555	1,057	111	5,490	4,112
18-Mar-99	351	2,990	2,063	781	1,590	1,081	114	5,190	3,887
19-Mar-99	351	2,935	2,025	756	1,620	1,102	108	5,350	4,007
20-Mar-99	375	2,960	2,042	752	1,635	1,112	109	5,330	3,992
21-Mar-99	385	2,925	2,018	736	1,630	1,108	113	5,150	3,857
22-Mar-99	369	3,000	2,070	752	1,620	1,102	111	5,430	4,067
23-Mar-99	377	2,910	2,008	724	1,680	1,142	104	5,410	4,052
24-Mar-99	385	2,905	2,004	752	1,715	1,166	102	5,310	3,977
25-Mar-99	420	2,700	1,863	793	1,725	1,173	106	5,470	4,097
26-Mar-99	418	2,720	1,877	787	1,745	1,187	107	5,480	4,105
27-Mar-99	399	2,640	1,822	742	1,775	1,207	102	5,500	4,120
28-Mar-99	377	2,535	1,749	686	1,780	1,210	90	5,590	4,187
29-Mar-99	355	2,440	1,684	633	1,870	1,272	90	5,580	4,179
30-Mar-99	331	2,505	1,728	527	1,940	1,319	86	5,300	3,970
31-Mar-99	323	2,530	1,746	464	2,030	1,380	79	5,370	4,022

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
01-Apr-99	301	2,525	1,742	403	2,150	1,462	74	5,180	3,880
02-Apr-99	295	2,520	1,739	379	2,080	1,414	79	5,060	3,790
03-Apr-99	293	2,530	1,746	351	2,095	1,425	81	5,310	3,977
04-Apr-99	288	2,550	1,760	329	2,100	1,428	87	5,330	3,992
05-Apr-99	284	2,570	1,773	335	2,140	1,455	86	5,410	4,052
06-Apr-99	276	2,590	1,787	349	2,055	1,397	78	5,610	4,202
07-Apr-99	264	2,620	1,808	367	1,935	1,316	76	5,620	4,209
08-Apr-99	264	2,640	1,822	416	1,795	1,221	75	5,510	4,127
09-Apr-99	278	2,655	1,832	416	1,605	1,091	72	5,360	4,015
10-Apr-99	272	2,650	1,829	359	1,675	1,139	70	5,290	3,962
11-Apr-99	266	2,640	1,822	343	1,680	1,142	72	5,310	3,977
12-Apr-99	272	2,625	1,811	365	1,720	1,170	77	5,230	3,917
13-Apr-99	276	2,580	1,780	401	1,705	1,159	76	5,240	3,925
14-Apr-99	274	2,570	1,773	373	1,720	1,170	74	5,440	4,075
15-Apr-99	244	2,555	1,763	412	1,670	1,136	53	5,570	4,172
16-Apr-99	240	2,550	1,760	434	1,540	1,047	41	5,410	4,052
17-Apr-99	248	2,520	1,739	446	1,425	969	63	5,320	3,985
18-Apr-99	240	2,485	1,715	418	1,410	959	59	5,590	4,187
19-Apr-99	232	2,460	1,697	373	1,415	962	58	5,600	4,194
20-Apr-99	226	2,465	1,701	341	1,460	993	60	5,680	4,254
21-Apr-99	216	2,480	1,711	345	1,445	983	61	5,690	4,262
22-Apr-99	194	2,485	1,715	309	1,590	1,081	56	5,620	4,209
23-Apr-99	206	2,505	1,728	337	1,440	979	58	5,860	4,389
24-Apr-99	218	2,530	1,746	375	1,240	843	65	5,710	4,277
25-Apr-99	194	2,555	1,763	351	1,245	847	66	5,320	3,985
26-Apr-99	186	2,585	1,784	262	1,495	1,017	71	5,460	4,090
27-Apr-99	180	2,635	1,818	238	1,615	1,098	73	5,800	4,344
28-Apr-99	175	2,685	1,853	228	1,660	1,129	72	5,850	4,382
29-Apr-99	178	2,730	1,884	288	1,495	1,017	69	5,940	4,449
30-Apr-99	163	2,780	1,918	385	1,114	757	76	5,510	4,127
01-May-99	163	2,835	1,956	488	913	621	82	5,330	3,992
02-May-99	155	2,900	2,001	512	903	614	85	5,330	3,992
03-May-99	159	2,955	2,039	553	894	608	82	5,300	3,970
04-May-99	175	3,005	2,073	559	914	622	77	5,270	3,947
05-May-99	186	2,895	1,998	522	1,028	699	79	4,900	3,670
06-May-99	184	2,665	1,839	452	1,155	785	83	4,340	3,251
07-May-99	173	2,960	2,042	377	1,240	843	87	4,420	3,311
08-May-99	165	3,085	2,129	335	1,290	877	89	4,690	3,513
09-May-99	165	3,005	2,073	278	1,390	945	91	4,500	3,371
10-May-99	165	3,235	2,232	284	1,395	949	101	4,660	3,490
11-May-99	178	3,015	2,080	315	1,225	833	91	4,650	3,483
12-May-99	176	2,825	1,949	327	1,220	830	84	4,680	3,505
13-May-99	169	3,285	2,267	264	1,340	911	82	4,610	3,453
14-May-99	176	3,700	2,553	200	1,650	1,122	97	4,420	3,311
15-May-99	196	3,690	2,546	190	1,755	1,193	101	4,930	3,693
16-May-99	178	4,075	2,812	198	1,720	1,170	106	4,860	3,640
17-May-99	176	3,740	2,581	204	1,605	1,091	114	4,720	3,535
18-May-99	192	3,360	2,318	222	1,500	1,020	104	4,540	3,400

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
19-May-99	188	2,995	2,067	232	1,480	1,006	105	4,350	3,258
20-May-99	188	2,690	1,856	254	1,365	928	96	4,380	3,281
21-May-99	188	2,850	1,967	258	1,390	945	99	4,720	3,535
22-May-99	200	2,695	1,860	295	1,400	952	97	4,740	3,550
23-May-99	210	2,610	1,801	355	1,230	836	102	4,820	3,610
24-May-99	210	2,690	1,856	381	1,140	775	108	4,760	3,565
25-May-99	206	2,930	2,022	371	1,115	758	115	4,900	3,670
26-May-99	204	2,940	2,029	266	1,325	901	110	4,860	3,640
27-May-99	234	2,460	1,697	242	1,340	911	101	4,710	3,528
28-May-99	270	2,140	1,477	232	1,210	823	86	4,570	3,423
29-May-99	264	2,020	1,394	220	1,205	819	90	4,710	3,528
30-May-99	256	2,220	1,532	206	1,300	884	103	4,820	3,610
31-May-99	242	2,580	1,780	292	1,195	813	108	5,130	3,842
01-Jun-99	228	2,815	1,942	280	1,185	806	115	5,020	3,760
02-Jun-99	212	2,760	1,904	226	1,330	904	101	4,920	3,685
03-Jun-99	210	2,715	1,873	292	1,245	847	91	4,480	3,356
04-Jun-99	224	2,545	1,756	345	1,110	755	97	4,780	3,580
05-Jun-99	220	2,830	1,953	422	1,018	692	103	4,920	3,685
06-Jun-99	212	3,255	2,246	466	970	660	111	5,160	3,865
07-Jun-99	214	3,470	2,394	446	960	653	119	5,200	3,895
08-Jun-99	210	3,660	2,525	408	1,013	689	127	5,190	3,887
09-Jun-99	216	3,465	2,391	383	1,080	734	131	5,080	3,805
10-Jun-99	216	3,375	2,329	349	1,135	772	131	5,020	3,760
11-Jun-99	202	3,710	2,560	317	1,215	826	143	4,790	3,588
12-Jun-99	190	3,740	2,581	299	1,255	853	135	4,740	3,550
13-Jun-99	178	3,750	2,588	355	1,165	792	129	4,470	3,348
14-Jun-99	169	3,940	2,719	414	1,025	697	129	4,380	3,281
15-Jun-99	176	3,890	2,684	377	1,063	723	127	4,780	3,580
16-Jun-99	180	3,915	2,701	282	1,265	860	125	4,750	3,558
17-Jun-99	169	4,120	2,843	232	1,335	908	125	5,040	3,775
18-Jun-99	173	4,130	2,850	258	1,215	826	133	5,030	3,767
19-Jun-99	188	3,915	2,701	260	1,115	758	135	5,250	3,932
20-Jun-99	198	3,690	2,546	272	1,100	748	135	5,220	3,910
21-Jun-99	192	3,875	2,674	315	1,050	714	135	5,220	3,910
22-Jun-99	180	3,955	2,729	337	1,017	692	131	4,920	3,685
23-Jun-99	157	4,030	2,781	345	1,004	682	117	4,850	3,633
24-Jun-99	137	4,035	2,784	351	1,025	697	89	4,950	3,708
25-Jun-99	141	3,960	2,732	349	1,065	724	105	4,840	3,625
26-Jun-99	153	4,140	2,857	375	1,080	734	121	4,930	3,693
27-Jun-99	157	3,955	2,729	436	1,075	731	113	4,870	3,648
28-Jun-99	161	4,015	2,770	436	1,055	717	129	4,860	3,640
29-Jun-99	155	4,230	2,919	349	1,105	751	117	4,820	3,610
30-Jun-99	145	4,380	3,022	295	1,175	799	113	4,600	3,445
01-Jul-99	161	3,610	2,491	286	1,175	799	107	4,540	3,400
02-Jul-99	180	3,315	2,287	278	1,100	748	109	4,830	3,618
03-Jul-99	147	3,455	2,384	335	992	674	113	4,740	3,550
04-Jul-99	153	3,465	2,391	363	974	662	115	4,850	3,633
05-Jul-99	175	3,390	2,339	430	921	626	129	4,860	3,640

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
06-Jul-99	184	3,260	2,249	472	847	576	137	4,870	3,648
07-Jul-99	180	3,415	2,356	389	870	591	131	4,770	3,573
08-Jul-99	175	3,365	2,322	319	908	617	139	4,510	3,378
09-Jul-99	178	3,595	2,481	292	943	641	145	4,690	3,513
10-Jul-99	178	3,200	2,208	282	975	663	131	4,480	3,356
11-Jul-99	169	3,065	2,115	309	898	611	123	4,250	3,183
12-Jul-99	169	3,250	2,243	293	899	611	129	4,410	3,303
13-Jul-99	176	3,845	2,653	333	876	595	127	4,640	3,475
14-Jul-99	163	3,695	2,550	349	880	598	117	4,270	3,198
15-Jul-99	157	3,735	2,577	412	823	559	113	4,440	3,326
16-Jul-99	163	3,660	2,525	397	876	595	119	4,480	3,356
17-Jul-99	151	3,880	2,677	371	937	637	123	4,630	3,468
18-Jul-99	153	3,695	2,550	343	988	672	127	4,470	3,348
19-Jul-99	157	3,445	2,377	405	923	628	133	4,230	3,168
20-Jul-99	159	3,310	2,284	442	838	570	123	4,080	3,056
21-Jul-99	157	3,620	2,498	399	945	643	129	4,170	3,123
22-Jul-99	145	3,725	2,570	317	1,042	709	119	4,160	3,116
23-Jul-99	147	3,690	2,546	292	1,090	741	125	4,140	3,101
24-Jul-99	153	3,645	2,515	288	1,031	701	131	4,050	3,033
25-Jul-99	157	3,860	2,663	369	880	598	135	4,280	3,206
26-Jul-99	149	3,845	2,653	492	756	514	135	4,190	3,138
27-Jul-99	151	4,025	2,777	522	804	547	135	4,370	3,273
28-Jul-99	135	3,950	2,726	410	922	627	115	4,200	3,146
29-Jul-99	133	3,985	2,750	456	873	593	115	4,400	3,296
30-Jul-99	137	3,970	2,739	508	805	547	117	4,350	3,258
31-Jul-99	141	4,130	2,850	525	809	550	127	4,320	3,236
01-Aug-99	141	4,335	2,991	508	834	567	127	4,600	3,445
02-Aug-99	147	4,740	3,271	512	788	536	135	4,720	3,535
03-Aug-99	151	4,815	3,322	486	804	546	139	4,850	3,633
04-Aug-99	139			357	887	603	125	4,550	3,408
05-Aug-99	133			319	952	647	117	4,240	3,176
06-Aug-99	133			345	891	606	117	4,010	3,003
07-Aug-99	139			371	868	590	121	4,180	3,131
08-Aug-99	159			458	767	521	131	4,020	3,011
09-Aug-99	157			518	769	523	133	3,960	2,966
10-Aug-99	149			506	803	546	133	3,860	2,891
11-Aug-99	135			446	873	594	119	3,700	2,771
12-Aug-99	125			301	1,020	694	111	3,850	2,884
13-Aug-99	149			307	956	650	111	4,160	3,116
14-Aug-99	145			339	884	601	113	4,190	3,138
15-Aug-99	151			373	858	583	119	4,000	2,996
16-Aug-99	135			440	820	557	111	3,960	2,966
17-Aug-99	129			468	831	565	107	4,250	3,183
18-Aug-99	117			375	870	592	111	4,100	3,071
19-Aug-99	125			383	838	570	105	3,960	2,966
20-Aug-99	147			424	776	528	109	4,130	3,093
21-Aug-99	149			430	734	499	115	4,120	3,086
22-Aug-99	147			478	709	482	115	4,010	3,003

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
23-Aug-99	173			452	686	466	119	3,640	2,726
24-Aug-99	182			375	752	511	133	3,540	2,651
25-Aug-99	145	2,920	2,015	284	902	613	135	3,380	2,532
26-Aug-99	157	3,290	2,270	361	840	571	151	3,780	2,831
27-Aug-99	188	2,845	1,963	387	776	528	161	3,800	2,846
28-Aug-99	208			379	745	507	161	3,480	2,607
29-Aug-99	220			397	743	505	163	3,580	2,681
30-Aug-99	232	2,310	1,594	361	780	530	145	3,670	2,749
31-Aug-99	184	2,565	1,770	381	736	500	123	3,690	2,764
01-Sep-99	165	2,735	1,887	272	902	613	127	3,680	2,756
02-Sep-99	143	2,995	2,067	216	1,130	768	111	3,820	2,861
03-Sep-99	137	2,865	1,977	230	1,055	717	103	3,840	2,876
04-Sep-99	141	3,020	2,084	295	973	662	109	4,020	3,011
05-Sep-99	137	3,200	2,208	309	902	613	109	4,230	3,168
06-Sep-99	133	3,055	2,108	323	905	615	107	3,690	2,764
07-Sep-99	131	2,975	2,053	303	903	614	103	3,740	2,801
08-Sep-99	129	3,055	2,108	307	892	606	95	4,090	3,063
09-Sep-99	115	2,840	1,960	274	962	654	79	3,740	2,801
10-Sep-99	107	2,795	1,929	309	966	657	67	3,940	2,951
11-Sep-99	111	2,710	1,870	280	960	653	71	4,160	3,116
12-Sep-99	141	2,520	1,739	295	957	651	77	4,130	3,093
13-Sep-99	141	2,130	1,470	305	931	633	63	4,250	3,183
14-Sep-99	145	2,235	1,542	315	929	631	71	4,310	3,228
15-Sep-99	157	2,540	1,753	303	944	642	91	4,500	3,371
16-Sep-99	159	2,710	1,870	293	951	646	91	4,540	3,400
17-Sep-99	147	2,460	1,697	307	901	612	77	4,180	3,131
18-Sep-99	145	2,195	1,515	359	851	579	69	3,810	2,854
19-Sep-99	149	2,085	1,439	347	883	600	65	3,560	2,666
20-Sep-99	153	2,165	1,494	325	947	644	61	4,070	3,048
21-Sep-99	163	2,340	1,615	315	944	642	67	4,520	3,385
22-Sep-99	163	2,610	1,801	246	1,044	710	71	4,620	3,460
23-Sep-99	157	2,775	1,915	234	1,070	728	69	4,740	3,550
24-Sep-99	167	2,695	1,860	236	1,019	693	73	4,640	3,475
25-Sep-99	180	2,535	1,749	274	939	638	75	4,730	3,543
26-Sep-99	186	2,600	1,794	307	932	634	71	4,820	3,610
27-Sep-99	180	2,415	1,666	295	977	664	61	4,430	3,318
28-Sep-99	167	2,380	1,642	295	1,027	698	54	3,960	2,966
29-Sep-99	176	2,115	1,459	329	1,016	691	56	3,890	2,914
30-Sep-99	180	2,040	1,408	359	1,021	694	50	4,430	3,318
01-Oct-99	192	2,095	1,446	391	964	655	52	4,500	3,371
02-Oct-99	236	1,955	1,349	309	1,022	695	61	4,490	3,363
03-Oct-99	250	2,035	1,404	276	1,075	731	69	4,840	3,625
04-Oct-99	262	2,085	1,439	282	1,075	731	75	5,050	3,782
05-Oct-99	282	1,980	1,366	305	977	664	75	4,880	3,655
06-Oct-99	313	1,700	1,173	323	939	638	75	4,370	3,273
07-Oct-99	351	1,470	1,014	339	1,000	680	73	4,340	3,251
08-Oct-99	407	1,335	921	371	986	670	73	4,170	3,123
09-Oct-99	349	1,550	1,070	399	956	650	67	4,640	3,475

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
10-Oct-99	329	1,580	1,090	317	1,061	721	63	4,680	3,505
11-Oct-99	339	1,635	1,128	260	1,047	712	65	4,940	3,700
12-Oct-99	343	1,615	1,114	258	962	654	65	4,720	3,535
13-Oct-99	361	1,525	1,052	254	1,018	692	67	4,630	3,468
14-Oct-99	381	1,445	997	293	1,031	701	63	4,700	3,520
15-Oct-99	393	1,370	945	319	1,027	698	58	4,500	3,371
16-Oct-99	408	1,315	907	315	1,070	728	56	4,550	3,408
17-Oct-99	414	1,355	935	311	1,070	728	59	4,630	3,468
18-Oct-99	428	1,315	907	305	1,120	762	58	4,400	3,296
19-Oct-99	472	1,230	849	319	986	670	56	4,380	3,281
20-Oct-99	484	1,235	852	339	864	587	56	4,430	3,318
21-Oct-99	438	1,285	887	363	805	547	52	4,510	3,378
22-Oct-99	385	1,345	928	393	747	508	54	4,430	3,318
23-Oct-99	367	1,380	952	363	954	649	52	4,390	3,288
24-Oct-99	379	1,390	959	335	1,180	802	54	4,300	3,221
25-Oct-99	391	1,390	959	327	1,180	802	58	4,420	3,311
26-Oct-99	389	1,405	969	329	1,155	785	56	4,820	3,610
27-Oct-99	373	1,415	976	319	1,255	853	52	4,730	3,543
28-Oct-99	345	1,490	1,028	321	1,280	870	56	4,610	3,453
29-Oct-99	345	1,565	1,080	325	1,285	874	58	4,730	3,543
30-Oct-99	361	1,570	1,083	327	1,270	864	58	4,940	3,700
31-Oct-99	361	1,575	1,087	317	1,300	884	56	4,770	3,573
01-Nov-99	353	1,610	1,111	317	1,290	877	59	4,750	3,558
02-Nov-99	353			315	1,275	867	61	4,730	3,543
03-Nov-99	355			290	1,290	877	65	4,760	3,565
04-Nov-99	333	1,575	1,087	315	1,260	857	44	4,680	3,505
05-Nov-99	347	1,660	1,145	325	1,255	853	61	4,690	3,513
06-Nov-99	341	1,685	1,163	331	1,270	864	59	4,700	3,520
07-Nov-99	339	1,715	1,183	375	1,205	819	58	4,710	3,528
08-Nov-99	361	1,685	1,163	393	1,235	840	67	4,440	3,326
09-Nov-99	361	1,590	1,097	448	1,165	792	63	4,510	3,378
10-Nov-99	335	1,585	1,094	486	1,170	796	61	4,390	3,288
11-Nov-99	333	1,530	1,056	492	1,210	823	59	4,070	3,048
12-Nov-99	389	1,425	983	444	1,330	904	61	4,090	3,063
13-Nov-99	381	1,460	1,007	345	1,465	996	58	4,030	3,018
14-Nov-99	365	1,475	1,018	315	1,455	989	58	4,010	3,003
15-Nov-99	365	1,475	1,018	292	1,430	972	56	4,000	2,996
16-Nov-99	357	1,605	1,107	278	1,390	945	56	4,260	3,191
17-Nov-99	347	1,610	1,111	282	1,360	925	54	4,070	3,048
18-Nov-99	327	1,620	1,118	290	1,330	904	58	4,160	3,116
19-Nov-99	313	1,730	1,194	266	1,335	908	59	4,230	3,168
20-Nov-99	303	1,710	1,180	250	1,390	945	59	4,290	3,213
21-Nov-99	301	1,780	1,228	256	1,435	976	56	4,200	3,146
22-Nov-99	293	1,795	1,239	254	1,440	979	52	4,280	3,206
23-Nov-99	288	1,860	1,283	262	1,385	942	50	4,480	3,356
24-Nov-99	276	1,825	1,259	256	1,400	952	48	4,200	3,146
25-Nov-99	262	1,825	1,259	238	1,470	1,000	46	3,960	2,966
26-Nov-99	254	1,955	1,349	248	1,490	1,013	54	4,360	3,266

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
27-Nov-99	252			264	1,420	966	58	4,220	3,161
28-Nov-99	246			246	1,550	1,054	59	4,280	3,206
29-Nov-99	248			258	1,595	1,085	58	4,320	3,236
30-Nov-99	250			282	1,710	1,163	58	4,460	3,341
01-Dec-99	260			280	1,655	1,125	52	4,320	3,236
02-Dec-99	264	1,940	1,339	270	1,660	1,129	54	3,990	2,989
03-Dec-99	252	2,005	1,383	270	1,590	1,081	54	4,160	3,116
04-Dec-99	254	2,075	1,432	248	1,645	1,119	59	4,270	3,198
05-Dec-99	244	2,040	1,408	232	1,715	1,166	52	4,240	3,176
06-Dec-99	240	2,000	1,380	218	1,715	1,166	48	4,070	3,048
07-Dec-99	240	2,005	1,383	238	1,725	1,173	48	4,150	3,108
08-Dec-99	234	2,050	1,415	248	1,670	1,136	46	4,470	3,348
09-Dec-99	232	2,110	1,456	240	1,680	1,142	44	4,540	3,400
10-Dec-99	234	2,075	1,432	220	1,745	1,187	46	4,100	3,071
11-Dec-99	232	2,020	1,394	212	1,790	1,217	48	3,850	2,884
12-Dec-99	236	2,030	1,401	210	1,790	1,217	46	4,150	3,108
13-Dec-99	234	2,060	1,421	208	1,785	1,214	44	4,340	3,251
14-Dec-99	232	2,115	1,459	204	1,810	1,231	44	4,520	3,385
15-Dec-99	222	2,170	1,497	204	1,815	1,234	44	4,320	3,236
16-Dec-99	218	2,150	1,484	200	1,840	1,251	42	4,350	3,258
17-Dec-99	226	2,160	1,490	204	1,830	1,244	44	4,660	3,490
18-Dec-99	230	2,160	1,490	198	1,905	1,295	44	4,620	3,460
19-Dec-99	230	2,170	1,497	202	1,875	1,275	44	4,790	3,588
20-Dec-99	232	2,180	1,504	204	1,810	1,231	44	4,800	3,595
21-Dec-99	232	2,140	1,477	184	1,870	1,272	42	4,490	3,363
22-Dec-99	238	2,095	1,446	184	1,980	1,346	42	4,620	3,460
23-Dec-99	238	2,140	1,477	176	2,020	1,374	42	4,880	3,655
24-Dec-99	228	2,185	1,508	171	2,130	1,448	42	4,990	3,738
25-Dec-99	224	2,190	1,511	171	2,170	1,476	38	4,910	3,678
26-Dec-99	224	2,195	1,515	159	2,200	1,496	38	4,860	3,640
27-Dec-99	226	2,185	1,508	153	2,260	1,537	40	4,990	3,738
28-Dec-99	234	2,155	1,487	149	2,275	1,547	44	4,850	3,633
29-Dec-99	242	2,205	1,521	157	2,280	1,550	48	4,870	3,648
30-Dec-99	248	2,170	1,497	176	2,210	1,503	44	4,890	3,663
31-Dec-99	282	2,020	1,394	220	2,050	1,394	44	4,930	3,693
01-Jan-00	331	1,930	1,332	204	2,060	1,401	46	4,930	3,693
02-Jan-00	341	1,875	1,294	188	2,150	1,462	42	4,770	3,573
03-Jan-00	351	1,845	1,273	176	2,145	1,459	42	4,800	3,595
04-Jan-00	359	1,850	1,277	149	2,140	1,455	42	4,700	3,520
05-Jan-00	325	1,935	1,335	149	2,130	1,448	40	4,490	3,363
06-Jan-00	313	1,955	1,349	149	2,085	1,418	42	4,600	3,445
07-Jan-00	307	1,945	1,342	165	2,040	1,387	40	4,660	3,490
08-Jan-00	292	2,005	1,383	167	2,075	1,411	40	4,670	3,498
09-Jan-00	282	2,015	1,390	171	2,100	1,428	40	4,660	3,490
10-Jan-00	276	1,975	1,363	169	2,155	1,465	40	4,580	3,430
11-Jan-00	276	2,010	1,387	167	2,180	1,482	40	4,590	3,438
12-Jan-00	284	1,980	1,366	167	2,150	1,462	46	4,400	3,296
13-Jan-00	280	1,990	1,373	169	2,160	1,469	44	4,360	3,266

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
14-Jan-00	266	2,000	1,380	167	2,175	1,479	42	4,460	3,341
15-Jan-00	266	2,040	1,408	173	2,145	1,459	44	4,430	3,318
16-Jan-00	264	1,990	1,373	176	2,165	1,472	46	4,560	3,415
17-Jan-00	264	1,915	1,321	175	2,200	1,496	48	4,640	3,475
18-Jan-00	293	1,850	1,277	182	2,190	1,489	54	4,420	3,311
19-Jan-00	323			196	2,150	1,462	69	4,640	3,475
20-Jan-00	359			218	2,080	1,414	77	4,710	3,528
21-Jan-00	343			232	2,060	1,401	61	4,840	3,625
22-Jan-00	351			232	2,075	1,411	58	4,860	3,640
23-Jan-00	397			234	2,090	1,421	61	4,460	3,341
24-Jan-00	484	1,740	1,201	297	2,000	1,360	73	3,260	2,442
25-Jan-00	587	1,730	1,194	408	1,855	1,261	93	3,760	2,816
26-Jan-00	642	1,790	1,235	496	1,825	1,241	97	4,380	3,281
27-Jan-00	619	1,850	1,277	476	1,895	1,289	79	4,550	3,408
28-Jan-00	595	1,735	1,197	393	2,010	1,367	67	4,190	3,138
29-Jan-00	577	1,740	1,201	359	2,040	1,387	67	4,100	3,071
30-Jan-00	561	1,810	1,249	347	2,025	1,377	67	4,170	3,123
31-Jan-00	573	1,810	1,249	331	2,070	1,408	71	4,140	3,101
01-Feb-00	543	1,920	1,325	321	2,135	1,452	71	4,660	3,490
02-Feb-00	504	2,095	1,446	327	2,245	1,527	71	4,850	3,633
03-Feb-00	462	2,220	1,532	319	2,250	1,530	69	4,870	3,648
04-Feb-00	399	2,305	1,590	383	2,105	1,431	75	4,880	3,655
05-Feb-00	365	2,385	1,646	403	2,040	1,387	77	4,930	3,693
06-Feb-00	341	2,495	1,722	387	2,015	1,370	85	4,960	3,715
07-Feb-00	327	2,555	1,763	405	1,970	1,340	87	4,950	3,708
08-Feb-00	325			401	1,900	1,292	91	5,030	3,767
09-Feb-00	333	2,550	1,760	385	1,890	1,285	101	4,950	3,708
10-Feb-00	329	2,525	1,742	371	1,900	1,292	103	4,700	3,520
11-Feb-00	315	2,435	1,680	377	1,785	1,214	95	4,350	3,258
12-Feb-00	327	2,320	1,601	426	1,675	1,139	95	4,140	3,101
13-Feb-00	371	2,355	1,625	500	1,610	1,095	99	4,410	3,303
14-Feb-00	470	2,120	1,463	593	1,540	1,047	111	4,480	3,356
15-Feb-00	601			807	1,520	1,034	131	4,400	3,296
16-Feb-00	629	1,915	1,321	993	1,575	1,071	125	4,430	3,318
17-Feb-00	712	1,700	1,173	920	1,640	1,115	131	4,190	3,138
18-Feb-00	718	1,790	1,235	851	1,705	1,159	145	4,530	3,393
19-Feb-00	692	1,710	1,180	648	1,850	1,258	135	4,340	3,251
20-Feb-00	676	1,605	1,107	508	1,830	1,244	125	4,100	3,071
21-Feb-00	680	1,770	1,221	498	1,740	1,183	137	4,350	3,258
22-Feb-00	664	1,780	1,228	494	1,720	1,170	129	4,610	3,453
23-Feb-00	684	1,710	1,180	506	1,690	1,149	119	4,680	3,505
24-Feb-00	706	1,665	1,149	573	1,580	1,074	133	4,440	3,326
25-Feb-00	698	1,570	1,083	732	1,565	1,064	121	4,770	3,573
26-Feb-00	688	1,555	1,073	676	1,620	1,102	107	4,870	3,648
27-Feb-00	688	1,640	1,132	581	1,570	1,068	133	5,200	3,895
28-Feb-00	686	1,820	1,256	551	1,535	1,044	145	5,070	3,797
29-Feb-00	672	1,980	1,366	728	1,500	1,020	143	5,090	3,812
01-Mar-00	708	1,950	1,346	815	1,555	1,057	141	5,010	3,752

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
02-Mar-00	706	2,090	1,442	777	1,550	1,054	149	4,990	3,738
03-Mar-00	658	2,260	1,559	714	1,580	1,074	149	4,750	3,558
04-Mar-00	603	2,355	1,625	682	1,565	1,064	145	4,590	3,438
05-Mar-00	533	2,495	1,722	678	1,570	1,068	135	4,580	3,430
06-Mar-00	490	2,665	1,839	698	1,565	1,064	139	4,740	3,550
07-Mar-00	472	2,805	1,935	869	1,480	1,006	149	4,870	3,648
08-Mar-00	472	2,790	1,925	888	1,510	1,027	135	4,980	3,730
09-Mar-00	452	2,770	1,911	851	1,510	1,027	123	4,950	3,708
10-Mar-00	446	2,620	1,808	928	1,515	1,030	117	4,960	3,715
11-Mar-00	436			896	1,520	1,034	107	5,030	3,767
12-Mar-00	412			825	1,535	1,044	97	5,150	3,857
13-Mar-00	399			763	1,535	1,044	101	5,480	4,105
14-Mar-00	482	2,315	1,597	746	1,480	1,006	97	5,410	4,052
15-Mar-00	500	2,205	1,521	726	1,525	1,037	97	5,490	4,112
16-Mar-00	464	2,440	1,684	754	1,510	1,027	97	5,530	4,142
17-Mar-00	407	2,615	1,804	815	1,445	983	95	5,530	4,142
18-Mar-00	367	2,670	1,842	817	1,470	1,000	99	5,590	4,187
19-Mar-00	351	2,735	1,887	807	1,415	962	93	5,640	4,224
20-Mar-00	329	2,780	1,918	787	1,350	918	89	5,750	4,307
21-Mar-00	301			763	1,350	918	91	5,640	4,224
22-Mar-00	286	3,205	2,211	738	1,420	966	99	5,640	4,224
23-Mar-00	260	3,230	2,229	718	1,410	959	91	5,620	4,209
24-Mar-00	248	3,300	2,277	708	1,410	959	91	5,700	4,269
25-Mar-00	246	3,285	2,267	706	1,375	935	91	5,660	4,239
26-Mar-00	256	3,155	2,177	690	1,345	915	87	5,620	4,209
27-Mar-00	248	3,155	2,177	686	1,325	901	83	5,580	4,179
28-Mar-00	240	3,090	2,132	676	1,325	901	91	5,380	4,030
29-Mar-00	214	3,490	2,408	654	1,345	915	89	5,620	4,209
30-Mar-00	198	3,580	2,470	639	1,250	850	81	5,690	4,262
31-Mar-00	176	3,665	2,529	585	1,345	915	79	5,530	4,142
01-Apr-00	165	3,805	2,625	516	1,420	966	83	5,290	3,962
02-Apr-00	167	3,595	2,481	506	1,450	986	85	5,240	3,925
03-Apr-00	184	3,365	2,322	549	1,365	928	87	5,330	3,992
04-Apr-00	184	3,335	2,301	557	1,315	894	83	5,270	3,947
05-Apr-00	175	3,380	2,332	524	1,360	925	89	5,080	3,805
06-Apr-00	214	3,080	2,125	510	1,245	847	91	5,090	3,812
07-Apr-00	204	3,170	2,187	492	1,190	809	79	4,970	3,723
08-Apr-00	182	3,145	2,170	500	1,155	785	75	4,880	3,655
09-Apr-00	180	3,200	2,208	486	1,165	792	81	4,910	3,678
10-Apr-00	169	3,455	2,384	448	1,170	796	77	4,890	3,663
11-Apr-00	161	3,765	2,598	389	1,230	836	83	5,070	3,797
12-Apr-00	151	3,725	2,570	311	1,355	921	75	4,720	3,535
13-Apr-00	137	3,615	2,494	288	1,380	938	73	4,700	3,520
14-Apr-00	139	3,745	2,584	349	1,275	867	69	5,410	4,052
15-Apr-00	153	3,490	2,408	492	1,115	758	75	5,090	3,812
16-Apr-00	155	3,445	2,377	520	1,165	792	81	5,390	4,037
17-Apr-00	184			567	1,125	765	89	5,490	4,112
18-Apr-00	228			672	1,035	704	99	5,380	4,030

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
19-Apr-00	280			880	965	656	151	5,140	3,850
20-Apr-00	266	3,175	2,191	980	1,013	689	143	4,750	3,558
21-Apr-00	238	2,390	1,649	882	1,150	782	113	3,860	2,891
22-Apr-00	228	2,160	1,490	712	1,255	853	107	4,070	3,048
23-Apr-00	202	2,620	1,808	637	1,295	881	95	4,460	3,341
24-Apr-00	169	3,410	2,353	603	1,305	887	87	4,900	3,670
25-Apr-00	145	4,115	2,839	541	1,335	908	87	5,270	3,947
26-Apr-00	131	4,440	3,064	416	1,425	969	85	5,390	4,037
27-Apr-00	123	4,480	3,091	381	1,475	1,003	81	5,460	4,090
28-Apr-00	113	4,705	3,246	353	1,505	1,023	75	5,590	4,187
29-Apr-00	111	4,665	3,219	343	1,505	1,023	77	5,540	4,149
30-Apr-00	111	4,610	3,181	369	1,465	996	81	5,520	4,134
01-May-00	107	4,655	3,212	369	1,440	979	79	5,600	4,194
02-May-00	105	4,720	3,257	373	1,430	972	81	5,540	4,149
03-May-00	103	4,475	3,088	430	1,340	911	79	5,240	3,925
04-May-00	109	4,460	3,077	442	1,285	874	89	5,400	4,045
05-May-00	119	4,190	2,891	426	1,320	898	89	5,450	4,082
06-May-00	143	3,760	2,594	440	1,295	881	93	5,400	4,045
07-May-00	153	3,360	2,318	492	1,170	796	95	5,100	3,820
08-May-00	175	3,135	2,163	529	1,080	734	107	4,700	3,520
09-May-00	184	2,985	2,060	539	1,045	711	117	4,290	3,213
10-May-00	171	3,020	2,084	531	1,055	717	111	4,100	3,071
11-May-00	184	2,840	1,960	539	1,060	721	107	3,950	2,959
12-May-00	202	2,560	1,766	494	1,088	740	105	4,100	3,071
13-May-00	206	2,315	1,597	448	1,240	843	93	4,290	3,213
14-May-00	194	1,785	1,232	414	1,335	908	83	4,510	3,378
15-May-00	176			410	1,280	870	81	4,280	3,206
16-May-00	182	1,715	1,183	387	1,300	884	79	4,110	3,078
17-May-00	198	1,565	1,080	341	1,420	966	77	4,020	3,011
18-May-00	210	1,380	952	325	1,420	966	81	4,070	3,048
19-May-00	184	1,635	1,128	351	1,255	853	83	4,360	3,266
20-May-00	169	1,690	1,166	317	1,290	877	75	4,430	3,318
21-May-00	163	2,070	1,428	355	1,220	830	73	4,530	3,393
22-May-00	161	2,790	1,925	365	1,150	782	77	4,420	3,311
23-May-00	159	2,665	1,839	303	1,170	796	77	4,160	3,116
24-May-00	167	2,760	1,904	270	1,210	823	77	4,570	3,423
25-May-00	176	3,055	2,108	228	1,250	850	91	4,700	3,520
26-May-00	202	2,765	1,908	228	1,275	867	99	4,370	3,273
27-May-00	216	2,755	1,901	299	1,145	779	103	4,370	3,273
28-May-00	200	2,985	2,060	303	1,110	755	103	4,520	3,385
29-May-00	194	3,065	2,115	309	1,105	751	113	4,280	3,206
30-May-00	196	3,255	2,246	292	1,095	745	121	4,410	3,303
31-May-00	208	3,045	2,101	288	1,115	758	105	4,500	3,371
01-Jun-00	250	2,475	1,708	307	1,110	755	101	4,330	3,243
02-Jun-00	198			319	1,090	741	105	4,240	3,176
03-Jun-00	161			236	1,200	816	109	4,390	3,288
04-Jun-00	147	3,505	2,418	244	1,250	850	109	4,510	3,378
05-Jun-00	157	3,310	2,284	272	1,210	823	113	4,360	3,266

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
06-Jun-00	171	3,300	2,277	292	1,160	789	111	4,390	3,288
07-Jun-00	173	3,425	2,363	268	1,180	802	117	4,280	3,206
08-Jun-00	167	3,525	2,432	232	1,230	836	119	3,980	2,981
09-Jun-00	186	3,255	2,246	295	1,220	830	133	4,290	3,213
10-Jun-00	200	2,585	1,784	420	1,095	745	149	4,300	3,221
11-Jun-00	204	2,745	1,894	458	1,050	714	149	4,360	3,266
12-Jun-00	200	2,370	1,635	436	1,055	717	149	4,350	3,258
13-Jun-00	188	2,905	2,004	444	991	674	141	4,250	3,183
14-Jun-00	182	3,380	2,332	410	954	649	137	4,100	3,071
15-Jun-00	169	3,440	2,374	387	917	624	131	4,120	3,086
16-Jun-00	167	3,515	2,425	329	1,002	681	125	4,270	3,198
17-Jun-00	165	3,420	2,360	363	972	661	119	4,350	3,258
18-Jun-00	165	3,320	2,291	353	957	650	117	4,220	3,161
19-Jun-00	165	3,340	2,305	434	928	631	113	4,380	3,281
20-Jun-00	188	3,070	2,118	498	885	602	109	4,440	3,326
21-Jun-00	176	3,135	2,163	478	900	612	117	4,540	3,400
22-Jun-00	171	3,490	2,408	408	931	633	121	4,580	3,430
23-Jun-00	163	3,450	2,381	341	966	657	121	4,480	3,356
24-Jun-00	151	3,385	2,336	337	936	636	115	4,230	3,168
25-Jun-00	149	3,310	2,284	345	916	623	115	4,100	3,071
26-Jun-00	143	3,470	2,394	319	944	642	119	4,270	3,198
27-Jun-00	137	3,425	2,363	341	1,005	683	123	4,280	3,206
28-Jun-00	133	3,200	2,208	373	978	665	113	4,200	3,146
29-Jun-00	123	3,380	2,332	339	1,027	698	111	4,200	3,146
30-Jun-00	133	3,265	2,253	321	1,045	711	121	4,480	3,356
01-Jul-00	149	3,235	2,232	345	1,002	681	115	4,700	3,520
02-Jul-00	153	2,890	1,994	379	1,001	681	113	4,280	3,206
03-Jul-00	137	3,220	2,222	408	943	641	113	4,480	3,356
04-Jul-00	137	3,335	2,301	464	911	619	115	4,270	3,198
05-Jul-00	143	3,070	2,118	510	872	593	113	4,070	3,048
06-Jul-00	143	3,275	2,260	500	857	583	123	4,080	3,056
07-Jul-00	147	3,290	2,270	462	896	609	123	4,130	3,093
08-Jul-00	159	3,145	2,170	438	933	634	127	4,090	3,063
09-Jul-00	163	3,070	2,118	426	964	656	131	4,070	3,048
10-Jul-00	155	3,285	2,267	458	961	653	133	3,990	2,989
11-Jul-00	143	3,345	2,308	490	957	650	127	3,980	2,981
12-Jul-00	143	3,270	2,256	456	983	668	133	3,800	2,846
13-Jul-00	135	3,325	2,294	426	1,009	686	123	3,940	2,951
14-Jul-00	131	3,380	2,332	385	1,050	714	119	3,770	2,824
15-Jul-00	129	3,410	2,353	416	1,050	714	117	3,890	2,914
16-Jul-00	145	3,310	2,284	454	1,035	704	125	3,860	2,891
17-Jul-00	141	3,240	2,236	464	1,025	697	117	3,870	2,899
18-Jul-00	135			476	1,080	734	115	3,760	2,816
19-Jul-00	129	2,960	2,042	468	1,024	696	111	3,710	2,779
20-Jul-00	125			470	921	626	113	3,760	2,816
21-Jul-00	129	3,380	2,332	444	960	653	115	4,160	3,116
22-Jul-00	131	3,430	2,367	391	1,019	693	115	4,180	3,131
23-Jul-00	133	3,500	2,415	361	1,059	720	123	4,160	3,116

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
24-Jul-00	133	3,445	2,377	373	926	630	127	4,070	3,048
25-Jul-00	131	3,410	2,353	403	834	567	125	4,130	3,093
26-Jul-00	125	3,525	2,432	355	928	631	113	4,140	3,101
27-Jul-00	121	3,515	2,425	355	929	632	109	4,040	3,026
28-Jul-00	119	3,415	2,356	341	910	618	103	3,990	2,989
29-Jul-00	113	3,510	2,422	395	860	584	103	4,090	3,063
30-Jul-00	111	3,590	2,477	426	860	584	105	4,090	3,063
31-Jul-00	113	3,560	2,456	450	846	575	111	3,930	2,944
01-Aug-00	109	3,590	2,477	452	855	581	113	3,980	2,981
02-Aug-00	103	3,450	2,381	405	840	571	109	3,830	2,869
03-Aug-00	109	3,600	2,484	365	870	591	119	3,840	2,876
04-Aug-00	113	3,415	2,356	377	862	586	117	3,770	2,824
05-Aug-00	113	3,425	2,363	369	849	577	115	3,670	2,749
06-Aug-00	109	3,610	2,491	401	807	549	107	4,110	3,078
07-Aug-00	113	3,260	2,249	456	774	526	105	3,700	2,771
08-Aug-00	127	3,120	2,153	466	776	528	113	3,690	2,764
09-Aug-00	125	3,200	2,208	408	847	576	109	3,840	2,876
10-Aug-00	121	3,225	2,225	335	930	632	113	3,710	2,779
11-Aug-00	115	3,180	2,194	327	954	649	111	3,650	2,734
12-Aug-00	109	3,230	2,229	341	938	638	111	3,820	2,861
13-Aug-00	109	3,130	2,160	353	934	635	107	3,650	2,734
14-Aug-00	109	3,115	2,149	357	911	619	103	3,640	2,726
15-Aug-00	111	2,755	1,901	341	914	622	99	3,320	2,487
16-Aug-00	115	2,720	1,877	305	990	673	99	3,420	2,562
17-Aug-00	111	2,865	1,977	307	1,008	685	97	3,450	2,584
18-Aug-00	115	3,035	2,094	272	1,040	707	109	3,730	2,794
19-Aug-00	135	2,980	2,056	337	1,013	689	133	3,870	2,899
20-Aug-00	135	2,905	2,004	383	974	662	131	3,600	2,696
21-Aug-00	129	2,625	1,811	418	949	645	125	3,160	2,367
22-Aug-00	119	2,755	1,901	395	987	671	113	3,340	2,502
23-Aug-00	117	2,665	1,839	329	1,026	698	111	3,250	2,434
24-Aug-00	125	2,825	1,949	335	1,065	724	115	3,530	2,644
25-Aug-00	125	2,845	1,963	377	1,040	707	117	3,540	2,651
26-Aug-00	115	2,895	1,998	373	1,045	711	109	3,670	2,749
27-Aug-00	115	2,830	1,953	323	1,090	741	111	3,420	2,562
28-Aug-00	119	2,735	1,887	339	1,065	724	113	3,440	2,577
29-Aug-00	119	2,925	2,018	270	1,105	751	111	3,770	2,824
30-Aug-00	121	3,055	2,108	216	1,200	816	117	3,870	2,899
31-Aug-00	113	3,085	2,129	254	1,230	836	109	4,000	2,996
01-Sep-00	105	2,920	2,015	317	1,195	813	101	3,630	2,719
02-Sep-00	103	2,890	1,994	329	1,135	772	95	3,800	2,846
03-Sep-00	121	2,635	1,818	317	1,130	768	95	3,970	2,974
04-Sep-00	121	2,780	1,918	313			99	4,260	3,191
05-Sep-00	123	2,845	1,963	252			99	4,160	3,116
06-Sep-00	111	2,725	1,880	206			93	4,020	3,011
07-Sep-00	119	2,475	1,708	202			91	3,830	2,869
08-Sep-00	111	2,580	1,780	216	1,350	918	85	3,910	2,929
09-Sep-00	113	2,550	1,760	202	1,335	908	81	3,920	2,936

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
10-Sep-00	109	2,505	1,728	254	1,165	792	73	3,790	2,839
11-Sep-00	109	2,305	1,590	293	1,007	684	61	3,760	2,816
12-Sep-00	101	2,085	1,439	258	1,001	680	50	3,720	2,786
13-Sep-00	103	1,955	1,349	210	990	673	44	3,620	2,711
14-Sep-00	85	1,975	1,363	202	827	562	36	3,500	2,622
15-Sep-00	85	1,935	1,335	196	930	632	38	3,520	2,636
16-Sep-00	95	1,990	1,373	236	791	538	42	3,390	2,539
17-Sep-00	107	1,765	1,218	218	667	454	44	3,740	2,801
18-Sep-00	117	1,920	1,325	212	671	456	44	4,700	3,520
19-Sep-00	107	2,145	1,480	204	664	452	42	4,880	3,655
20-Sep-00	103	2,225	1,535	180	718	488	42	4,860	3,640
21-Sep-00	99	2,505	1,728	165	742	505	46	4,860	3,640
22-Sep-00	97	2,865	1,977	157	728	495	52	4,790	3,588
23-Sep-00	101	2,875	1,984	153	869	591	56	4,310	3,228
24-Sep-00	101	2,670	1,842	161	937	637	54	4,220	3,161
25-Sep-00	97	2,540	1,753	210	832	566	46	4,440	3,326
26-Sep-00	85	2,615	1,804	230	696	473	38	4,280	3,206
27-Sep-00	83	2,435	1,680	149	727	494	36	4,080	3,056
28-Sep-00	85	2,185	1,508	131	783	532	36	4,030	3,018
29-Sep-00	91	2,050	1,415	137	816	555	38	4,120	3,086
30-Sep-00	111	1,840	1,270	159	797	542	40	4,040	3,026
01-Oct-00	129	1,685	1,163	182	860	584	36	3,960	2,966
02-Oct-00	137	1,595	1,101	165	899	611	38	3,960	2,966
03-Oct-00	155	1,490	1,028	149	933	634	38	4,430	3,318
04-Oct-00	175	1,500	1,035	169	948	644	38	4,530	3,393
05-Oct-00	212	1,445	997	180	958	651	42	4,480	3,356
06-Oct-00	240	1,330	918	165	978	665	42	4,350	3,258
07-Oct-00	250	1,330	918	175	1,030	700	40	4,280	3,206
08-Oct-00	250	1,260	869	198	1,004	682	38	4,050	3,033
09-Oct-00	270	1,155	797	232	938	638	34	3,820	2,861
10-Oct-00	359	1,070	738	276	930	632	34	3,770	2,824
11-Oct-00	440	1,125	776	367	923	627	48	3,690	2,764
12-Oct-00	428	1,220	842	418			67	3,450	2,584
13-Oct-00	405	1,255	866	407			65	3,650	2,734
14-Oct-00	389	1,285	887	357			54	4,340	3,251
15-Oct-00	375	1,315	907	286			50	4,710	3,528
16-Oct-00	369	1,275	880	258			46	4,320	3,236
17-Oct-00	375	1,185	818	242			42	4,110	3,078
18-Oct-00	387	1,135	783	232			40	3,750	2,809
19-Oct-00	395	1,105	762	222			42	3,470	2,599
20-Oct-00	401	1,090	752	230			38	3,430	2,569
21-Oct-00	407	1,020	704	230			34	3,460	2,592
22-Oct-00	414	1,020	704	212			32	3,530	2,644
23-Oct-00	410	1,060	731	202			32	3,670	2,749
24-Oct-00	401	1,135	783	200			34	4,090	3,063
25-Oct-00	375	1,190	821	196			30	4,150	3,108
26-Oct-00	383	1,290	890	204	1,185	806	32	4,040	3,026
27-Oct-00	496	1,200	828	242	1,180	802	38	4,040	3,026

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
28-Oct-00	571	1,185	818	345			46	4,140	3,101
29-Oct-00	597	1,205	831	385	1,310	891	44	4,150	3,108
30-Oct-00	535	1,250	863	373			42	4,140	3,101
31-Oct-00	518	1,235	852	371			38	4,020	3,011
01-Nov-00	466	1,295	894	357			42	3,960	2,966
02-Nov-00	440	1,335	921	375			40	3,950	2,959
03-Nov-00	428	1,380	952	381			42	4,130	3,093
04-Nov-00	420			381			50	3,850	2,884
05-Nov-00	399			369			48	3,770	2,824
06-Nov-00	381			359			40	3,890	2,914
07-Nov-00	351			345			38	3,930	2,944
08-Nov-00	335			347	1,625	1,105	38	4,350	3,258
09-Nov-00	325			341	1,670	1,136	38	4,420	3,311
10-Nov-00	319			317	1,750	1,190	36	3,750	2,809
11-Nov-00	327	1,505	1,038	288			34	3,720	2,786
12-Nov-00	311	1,570	1,083	272			36	3,900	2,921
13-Nov-00	299	1,640	1,132	262	1,330	904	34	4,220	3,161
14-Nov-00	282	1,735	1,197	252			34	4,430	3,318
15-Nov-00	260	1,830	1,263	256	1,360	925	34	4,470	3,348
16-Nov-00	260	1,865	1,287	242	1,345	915	38	4,500	3,371
17-Nov-00	262	1,870	1,290	222			38	4,530	3,393
18-Nov-00	256	1,885	1,301	212			38	4,510	3,378
19-Nov-00	256	1,875	1,294	218			38	4,430	3,318
20-Nov-00	254	1,880	1,297	220			36	4,410	3,303
21-Nov-00	246	1,910	1,318	222			38	4,380	3,281
22-Nov-00	250	1,910	1,318	230			38	4,430	3,318
23-Nov-00	252	1,935	1,335	244			44	4,450	3,333
24-Nov-00	252	1,945	1,342	262			42	4,530	3,393
25-Nov-00	260	1,870	1,290	262			40	4,430	3,318
26-Nov-00	260	1,850	1,277	278			40	4,410	3,303
27-Nov-00	280	1,830	1,263	276			44	4,340	3,251
28-Nov-00	292	1,790	1,235	270			44	4,340	3,251
29-Nov-00	303			266			44	4,550	3,408
30-Nov-00	311			250			44	4,330	3,243
01-Dec-00	319			266			48	4,010	3,003
02-Dec-00	307			309			48	4,000	2,996
03-Dec-00	305			325			48	3,680	2,756
04-Dec-00	297			355			46	3,600	2,696
05-Dec-00	288			373			46	3,770	2,824
06-Dec-00	276			359	1,360	925	46	4,130	3,093
07-Dec-00	282			335	1,430	972	48	3,750	2,809
08-Dec-00	284	1,975	1,363	345			50	4,150	3,108
09-Dec-00	284	1,995	1,377	345	1,385	942	48	4,150	3,108
10-Dec-00	282	1,960	1,352	345			46	4,200	3,146
11-Dec-00	292	1,955	1,349	341			48	4,210	3,153
12-Dec-00	303	1,975	1,363	337			50	4,200	3,146
13-Dec-00	313	1,940	1,339	313			48	4,260	3,191
14-Dec-00	331	1,925	1,328	292			56	4,340	3,251

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
15-Dec-00	327	2,015	1,390	293			56	4,410	3,303
16-Dec-00	313	2,030	1,401	299	1,130	768	50	4,420	3,311
17-Dec-00	307	2,015	1,390	293	1,125	765	46	4,360	3,266
18-Dec-00	305	1,985	1,370	270	1,155	785	46	4,250	3,183
19-Dec-00	309	1,960	1,352	262	1,155	785	46	4,080	3,056
20-Dec-00	313	1,905	1,314	258	1,165	792	46	3,920	2,936
21-Dec-00	319	1,880	1,297	258	1,170	796	48	3,400	2,547
22-Dec-00	315	1,955	1,349	254	1,180	802	48	4,110	3,078
23-Dec-00	301	2,005	1,383	252	1,180	802	48	4,220	3,161
24-Dec-00	295	2,025	1,397	250			46	4,210	3,153
25-Dec-00	292	2,050	1,415	246			46	4,250	3,183
26-Dec-00	282	2,095	1,446	244			46	4,270	3,198
27-Dec-00	274	2,120	1,463	240			46	4,320	3,236
28-Dec-00	268	2,160	1,490	242			48	4,310	3,228
29-Dec-00	252	2,175	1,501	230			44	4,290	3,213
30-Dec-00	246	2,165	1,494	226			42	4,320	3,236
31-Dec-00	248	2,150	1,484	220			42	4,320	3,236
01-Jan-01	246	2,155	1,487	222			42	4,310	3,228
02-Jan-01	238	2,175	1,501	230			40	4,290	3,213
03-Jan-01	228	2,205	1,521	214			40	4,260	3,191
04-Jan-01	224	1,115	769	206			42	4,380	3,281
05-Jan-01	224	2,295	1,584	206			44	4,190	3,138
06-Jan-01	222	2,325	1,604	214			44	4,160	3,116
07-Jan-01	218	2,330	1,608	252			46	4,110	3,078
08-Jan-01	250	2,275	1,570	323			52	4,130	3,093
09-Jan-01	280	2,170	1,497	414			54	4,160	3,116
10-Jan-01	321	2,040	1,408	452			52	4,160	3,116
11-Jan-01	403	1,945	1,342	607			50	4,050	3,033
12-Jan-01	446	1,885	1,301	700			63	4,030	3,018
13-Jan-01	446	1,840	1,270	633	1,420	966	63	4,050	3,033
14-Jan-01	377	1,795	1,239	575	1,500	1,020	56	3,980	2,981
15-Jan-01	357	1,840	1,270	522	1,520	1,034	54	4,110	3,078
16-Jan-01	337	1,885	1,301	466	1,625	1,105	50	4,010	3,003
17-Jan-01	377	1,940	1,339	418	1,580	1,074	56	4,100	3,071
18-Jan-01	357	2,020	1,394	395	1,670	1,136	54	4,280	3,206
19-Jan-01	347	2,030	1,401	369	1,700	1,156	52	4,340	3,251
20-Jan-01	347	2,050	1,415	339	1,750	1,190	52	4,340	3,251
21-Jan-01	347	2,050	1,415	317	1,780	1,210	52	4,220	3,161
22-Jan-01	357	2,030	1,401	307	1,780	1,210	54	4,240	3,176
23-Jan-01	395	2,025	1,397	309	1,800	1,224	59	4,100	3,071
24-Jan-01	399	2,060	1,421	319	1,790	1,217	65	4,330	3,243
25-Jan-01	410	2,130	1,470	369	1,665	1,132	65	4,340	3,251
26-Jan-01	432	2,110	1,456	428	1,535	1,044	67	4,440	3,326
27-Jan-01	430	2,180	1,504	454	1,510	1,027	71	4,540	3,400
28-Jan-01	418	2,205	1,521	452	1,545	1,051	71	4,500	3,371
29-Jan-01	418	2,145	1,480	434	1,625	1,105	73	4,390	3,288
30-Jan-01	426	2,135	1,473	426	1,605	1,091	69	4,250	3,183
31-Jan-01	412	2,130	1,470	393	1,680	1,142	69	4,130	3,093

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
01-Feb-01	405	2,205	1,521	379	1,775	1,207	73	4,180	3,131
02-Feb-01	397	2,295	1,584	379	1,795	1,221	81	4,430	3,318
03-Feb-01	393	2,365	1,632	418	1,665	1,132	85	4,430	3,318
04-Feb-01	393	2,425	1,673	430	1,615	1,098	97	4,360	3,266
05-Feb-01	387	2,405	1,659	436	1,645	1,119	101	4,110	3,078
06-Feb-01	387	2,470	1,704	440	1,635	1,112	105	4,230	3,168
07-Feb-01	393	1,185	818	432	1,620	1,102	115	3,960	2,966
08-Feb-01	391			418	1,635	1,112	115	4,090	3,063
09-Feb-01	383	2,320	1,601	434	1,580	1,074	103	4,100	3,071
10-Feb-01	399	2,440	1,684	456	1,490	1,013	103	4,000	2,996
11-Feb-01	434	2,460	1,697	488	1,425	969	109	4,250	3,183
12-Feb-01	474	2,405	1,659	569	1,390	945	117	4,300	3,221
13-Feb-01	500	2,505	1,728	613	1,365	928	127	4,460	3,341
14-Feb-01	472	2,520	1,739	619	1,405	955	123	4,290	3,213
15-Feb-01	452			496	1,510	1,027	121	4,360	3,266
16-Feb-01	424	2,565	1,770	414	1,590	1,081	115	4,480	3,356
17-Feb-01	408	2,675	1,846	424	1,570	1,068	109	4,510	3,378
18-Feb-01	410	2,695	1,860	428	1,540	1,047	109	4,490	3,363
19-Feb-01	428	2,665	1,839	446	1,500	1,020	115	4,460	3,341
20-Feb-01	416			466	1,475	1,003	115	4,650	3,483
21-Feb-01	418			472	1,495	1,017	115	4,570	3,423
22-Feb-01	408			462	1,545	1,051	113	4,680	3,505
23-Feb-01	420			490	1,520	1,034	113	4,740	3,550
24-Feb-01	458	2,665	1,839	597	1,415	962	119	4,500	3,371
25-Feb-01	492	2,620	1,808	765	1,395	949	125	4,570	3,423
26-Feb-01	478	2,775	1,915	896	1,415	962	133	4,820	3,610
27-Feb-01	468	1,350	932	916	1,435	976	125	4,840	3,625
28-Feb-01	458			835	1,480	1,006	125	4,590	3,438
01-Mar-01	440	2,730	1,884	710	1,510	1,027	125	4,650	3,483
02-Mar-01	440	2,580	1,780	658	1,485	1,010	113	4,530	3,393
03-Mar-01	448	2,650	1,829	708	1,425	969	113	4,930	3,693
04-Mar-01	482	2,685	1,853	839	1,340	911	113	5,030	3,767
05-Mar-01	575	2,580	1,780	1,005	1,290	877	119	5,030	3,767
06-Mar-01	698	2,375	1,639	1,170	1,285	874	133	5,070	3,797
07-Mar-01	771	2,605	1,797	1,364	1,255	853	157	5,200	3,895
08-Mar-01	831	2,420	1,670	1,422	1,305	887	163	4,690	3,513
09-Mar-01	819	2,445	1,687	1,283	1,420	966	151	4,710	3,528
10-Mar-01	835	2,430	1,677	1,047	1,515	1,030	141	5,210	3,902
11-Mar-01	851	2,465	1,701	859	1,545	1,051	133	5,330	3,992
12-Mar-01	789	2,490	1,718	801	1,530	1,040	131	5,360	4,015
13-Mar-01	694	2,630	1,815	817	1,530	1,040	129	5,350	4,007
14-Mar-01	662	2,630	1,815	811	1,550	1,054	121	5,260	3,940
15-Mar-01	623	2,725	1,880	795	1,550	1,054	115	5,330	3,992
16-Mar-01	545	2,995	2,067	833	1,530	1,040	111	5,660	4,239
17-Mar-01	412	3,180	2,194	825	1,615	1,098	111	5,680	4,254
18-Mar-01	395	3,060	2,111	722	1,710	1,163	107	5,800	4,344
19-Mar-01	363	1,495	1,032	637	1,725	1,173	107	5,840	4,374
20-Mar-01	333	3,265	2,253	539	1,785	1,214	115	5,730	4,292

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
21-Mar-01	303	3,320	2,291	516	1,795	1,221	109	5,730	4,292
22-Mar-01	262	3,255	2,246	502	1,805	1,227	91	5,750	4,307
23-Mar-01	232	3,195	2,205	496	1,780	1,210	81	5,480	4,105
24-Mar-01	204	3,340	2,305	518	1,695	1,153	75	5,480	4,105
25-Mar-01	200	3,415	2,356	615	1,550	1,054	75	5,230	3,917
26-Mar-01	192	3,580	2,470	708	1,460	993	81	5,340	4,000
27-Mar-01	190	3,705	2,556	744	1,430	972	89	5,330	3,992
28-Mar-01	186			708	1,480	1,006	99	5,500	4,120
29-Mar-01	192			615	1,570	1,068	103	5,350	4,007
30-Mar-01	173	2,090	1,442	478	1,635	1,112	93	5,450	4,082
31-Mar-01	159	4,470	3,084	490	1,595	1,085	85	5,260	3,940
01-Apr-01	145	4,400	3,036	529	1,585	1,078	81	5,220	3,910
02-Apr-01	139	4,745	3,274	549	1,575	1,071	79	5,750	4,307
03-Apr-01	143			551	1,585	1,078	81	5,740	4,299
04-Apr-01	135			571	1,625	1,105	75	5,610	4,202
05-Apr-01	137			567	1,655	1,125	77	5,600	4,194
06-Apr-01	133			508	1,630	1,108	75	5,670	4,247
07-Apr-01	129	4,230	2,919	492	1,550	1,054	69	5,700	4,269
08-Apr-01	131	4,290	2,960	531	1,410	959	69	5,670	4,247
09-Apr-01	135	3,910	2,698	581	1,340	911	69	5,230	3,917
10-Apr-01	149	3,515	2,425	619	1,310	891	73	5,120	3,835
11-Apr-01	176	1,495	1,032	611	1,410	959	73	5,100	3,820
12-Apr-01	188	3,060	2,111	541	1,475	1,003	75	5,130	3,842
13-Apr-01	184	3,090	2,132	464	1,540	1,047	73	5,390	4,037
14-Apr-01	180	3,145	2,170	408	1,640	1,115	69	5,290	3,962
15-Apr-01	167			410	1,630	1,108	67	5,510	4,127
16-Apr-01	153			420	1,520	1,034	67	5,570	4,172
17-Apr-01	131			389	1,540	1,047	67	5,470	4,097
18-Apr-01	113			343	1,635	1,112	67	5,510	4,127
19-Apr-01	113	5,045	3,481	313	1,690	1,149	63	5,640	4,224
20-Apr-01	115	4,780	3,298	399	1,520	1,034	61	5,540	4,149
21-Apr-01	131	4,765	3,288	446	1,290	877	65	5,440	4,075
22-Apr-01	139	2,370	1,635	468	1,205	819	75	5,570	4,172
23-Apr-01	123			448	1,265	860	73	5,580	4,179
24-Apr-01	111			426	1,295	881	65	5,310	3,977
25-Apr-01	115			424	1,310	891	67	5,030	3,767
26-Apr-01	107			420	1,295	881	63	5,250	3,932
27-Apr-01	123			412	1,315	894	73	5,320	3,985
28-Apr-01	117			405	1,315	894	69	5,590	4,187
29-Apr-01	115			399	1,340	911	67	5,550	4,157
30-Apr-01	121			407	1,295	881	71	5,210	3,902
01-May-01	111			379	1,295	881	65	5,250	3,932
02-May-01	101			284	1,490	1,013	59	5,480	4,105
03-May-01	115			246	1,675	1,139	67	5,250	3,932
04-May-01	105			282	1,545	1,051	61	4,980	3,730
05-May-01	107			276	1,470	1,000	63	4,980	3,730
06-May-01	119			288	1,435	976	69	5,140	3,850
07-May-01	119			282	1,430	972	69	5,150	3,857

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
08-May-01	127			248	1,550	1,054	75	5,320	3,985
09-May-01	111			295	1,445	983	65	4,870	3,648
10-May-01	119			383	1,220	830	69	4,900	3,670
11-May-01	119	3,620	2,498	367	1,225	833	69	5,100	3,820
12-May-01	143	3,255	2,246	359	1,250	850	71	4,870	3,648
13-May-01	153	3,240	2,236	339	1,290	877	75	5,110	3,827
14-May-01	188	3,010	2,077	341	1,265	860	85	4,960	3,715
15-May-01	228	2,760	1,904	414	1,110	755	83	4,830	3,618
16-May-01	198	3,055	2,108	446	1,050	714	79	4,730	3,543
17-May-01	155	3,350	2,312	444	1,051	714	79	4,540	3,400
18-May-01	131	3,615	2,494	436	1,145	779	79	4,600	3,445
19-May-01	119	3,905	2,694	405	1,230	836	79	4,620	3,460
20-May-01	131	3,740	2,581	333	1,300	884	79	4,540	3,400
21-May-01	149	3,435	2,370	258	1,415	962	91	4,230	3,168
22-May-01	145	3,490	2,408	242	1,425	969	97	4,440	3,326
23-May-01	151	3,530	2,436	240			91	4,470	3,348
24-May-01	143	3,400	2,346	272			89	4,360	3,266
25-May-01	139	3,505	2,418	297	1,350	918	99	4,630	3,468
26-May-01	133	3,585	2,474	345	1,280	870	97	4,200	3,146
27-May-01	149			329	1,260	857	83	4,260	3,191
28-May-01	186			303	1,335	908	83	4,230	3,168
29-May-01	188			288	1,355	921	83	4,260	3,191
30-May-01	182			280	1,355	921	91	4,360	3,266
31-May-01	173			232	1,435	976	99	4,590	3,438
01-Jun-01	129			252	1,390	945	101	4,630	3,468
02-Jun-01	123			210	1,340	911	103	4,410	3,303
03-Jun-01	141			232	1,330	904	107	4,310	3,228
04-Jun-01	143			317	1,160	789	103	4,470	3,348
05-Jun-01	131			311	1,100	748	107	4,600	3,445
06-Jun-01	143			292	1,205	819	115	4,680	3,505
07-Jun-01	153			288	1,305	887	111	4,390	3,288
08-Jun-01	143			301	1,295	881	117	4,910	3,678
09-Jun-01	139			260	1,340	911	113	4,990	3,738
10-Jun-01	145			238	1,430	972	117	4,910	3,678
11-Jun-01	145			222	1,470	1,000	117	4,900	3,670
12-Jun-01	145			260	1,380	938	123	4,850	3,633
13-Jun-01	129			276	1,410	959	117	4,730	3,543
14-Jun-01	117			321	1,330	904	101	4,720	3,535
15-Jun-01	115			327	1,235	840	97	4,720	3,535
16-Jun-01	109			379	1,195	813	89	4,600	3,445
17-Jun-01	123			345	1,255	853	87	4,680	3,505
18-Jun-01	135			341	1,280	870	91	4,820	3,610
19-Jun-01	139			410	1,175	799	99	4,790	3,588
20-Jun-01	121			401	1,175	799	99	4,620	3,460
21-Jun-01	117			351	1,180	802	97	4,710	3,528
22-Jun-01	119			341	1,170	796	99	4,620	3,460
23-Jun-01	121	3,880	2,677	353	1,105	751	103	4,230	3,168
24-Jun-01	115	3,820	2,636	365	1,095	745	99	4,420	3,311

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
25-Jun-01	111	4,040	2,788	383	1,047	712	97	4,270	3,198
26-Jun-01	113	4,020	2,774	401	1,010	686	95	4,240	3,176
27-Jun-01	121	3,805	2,625	405	1,050	714	99	4,300	3,221
28-Jun-01	123	3,890	2,684	383	1,080	734	107	4,330	3,243
29-Jun-01	125	3,990	2,753	345	1,115	758	103	4,400	3,296
30-Jun-01	137	3,970	2,739	295	1,220	830	111	4,400	3,296
01-Jul-01	131	4,110	2,836	319	1,205	819	113	4,210	3,153
02-Jul-01	143	3,745	2,584	329	1,150	782	117	4,010	3,003
03-Jul-01	163	3,290	2,270	331	1,130	768	117	3,970	2,974
04-Jul-01	153	3,455	2,384	232	1,300	884	117	3,890	2,914
05-Jul-01	151	3,400	2,346	256	1,345	915	117	4,065	3,045
06-Jul-01	151	3,475	2,398	301	1,180	802	119	4,240	3,176
07-Jul-01	159	3,695	2,550	293	1,195	813	131	4,180	3,131
08-Jul-01	153	3,660	2,525	323	1,190	809	123	4,050	3,033
09-Jul-01	153	3,560	2,456	331	1,120	762	123	3,960	2,966
10-Jul-01	155	3,615	2,494	339	1,065	724	119	4,140	3,101
11-Jul-01	139	3,575	2,467	385	996	677	115	3,900	2,921
12-Jul-01	139	3,560	2,456	387	974	662	119	3,880	2,906
13-Jul-01	135	3,710	2,560	407	948	644	119	3,990	2,989
14-Jul-01	133	3,785	2,612	414	919	625	117	4,050	3,033
15-Jul-01	129	4,010	2,767	389	988	672	113	4,200	3,146
16-Jul-01	139	4,030	2,781	345	1,100	748	117	4,170	3,123
17-Jul-01	145	3,925	2,708	349	1,115	758	117	4,090	3,063
18-Jul-01	165	3,855	2,660	385	1,090	741	125	4,190	3,138
19-Jul-01	147	4,000	2,760	387	1,100	748	117	4,400	3,296
20-Jul-01	141	4,075	2,812	373	1,060	721	117	4,550	3,408
21-Jul-01	135	4,035	2,784	414	1,095	745	113	4,580	3,430
22-Jul-01	125	4,125	2,846	416	1,065	724	109	4,520	3,385
23-Jul-01	133	3,940	2,719	440	1,026	698	115	4,420	3,311
24-Jul-01	133	3,830	2,643	442	1,007	685	113	4,450	3,333
25-Jul-01	123	4,115	2,839	375	1,040	707	107	4,680	3,505
26-Jul-01	125	4,000	2,760	361	898	611	105	4,500	3,371
27-Jul-01	161	3,150	2,174	355	1,006	684	107	4,510	3,378
28-Jul-01	161	3,040	2,098	337	1,004	682	103	4,440	3,326
29-Jul-01	159	3,090	2,132	355	972	661	103	4,400	3,296
30-Jul-01	141	3,435	2,370	369	898	610	103	4,330	3,243
31-Jul-01	133	3,745	2,584	385	868	590	109	4,230	3,168
01-Aug-01	133	3,780	2,608	357	918	624	111	4,150	3,108
02-Aug-01	135	3,625	2,501	331	1,007	684	117	3,810	2,854
03-Aug-01	129	3,595	2,481	307	1,044	710	109	4,180	3,131
04-Aug-01	121	3,915	2,701	311	1,019	693	111	4,310	3,228
05-Aug-01	133	3,720	2,567	327	968	658	113	4,100	3,071
06-Aug-01	151	3,400	2,346	315	1,007	685	121	4,040	3,026
07-Aug-01	147	3,290	2,270	301	1,006	684	121	3,710	2,779
08-Aug-01	133	3,530	2,436	246	1,105	751	117	3,720	2,786
09-Aug-01	127	3,410	2,353	224	1,160	789	111	3,540	2,651
10-Aug-01	125	3,295	2,274	216	1,165	792	111	3,310	2,479
11-Aug-01	117	3,200	2,208	208	1,190	809	109	3,300	2,472

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
12-Aug-01	107	3,470	2,394	244	1,105	751	101	3,530	2,644
13-Aug-01	119	3,370	2,325	250	1,110	755	107	3,640	2,726
14-Aug-01	113	3,430	2,367	268	1,060	721	111	3,560	2,666
15-Aug-01	115	3,560	2,456	268	1,080	734	117	3,680	2,756
16-Aug-01	131	3,435	2,370	282	1,110	755	121	3,520	2,636
17-Aug-01	135	3,020	2,084	335	1,068	726	119	3,570	2,674
18-Aug-01	133	2,790	1,925	367	1,010	686	115	3,330	2,494
19-Aug-01	119	3,175	2,191	387	996	677	113	3,560	2,666
20-Aug-01	123	3,355	2,315	405	964	656	113	3,660	2,741
21-Aug-01	119	3,300	2,277	412	959	652	111	3,570	2,674
22-Aug-01	119	3,240	2,236	385	1,007	685	105	3,740	2,801
23-Aug-01	127	3,055	2,108	365	1,030	700	99	3,760	2,816
24-Aug-01	135	3,045	2,101	345	1,045	711	103	3,900	2,921
25-Aug-01	141	3,410	2,353	357	1,020	693	123	3,900	2,921
26-Aug-01	127	3,285	2,267	347	1,050	714	109	3,760	2,816
27-Aug-01	127	3,100	2,139	321	1,080	734	103	3,640	2,726
28-Aug-01	129	3,065	2,115	266	1,160	789	105	3,580	2,681
29-Aug-01	119	3,325	2,294	186	1,320	898	99	3,930	2,944
30-Aug-01	123	3,650	2,519	155	1,430	972	107	4,240	3,176
31-Aug-01	117	3,825	2,639	147	1,465	996	101	4,510	3,378
01-Sep-01	113	3,975	2,743	171	1,380	938	101	4,630	3,468
02-Sep-01	113	3,700	2,553	171	1,335	908	99	4,300	3,221
03-Sep-01	89	3,370	2,325	139	1,425	969	77	3,930	2,944
04-Sep-01	81	3,225	2,225	115	1,490	1,013	65	4,110	3,078
05-Sep-01	81	3,025	2,087	101	1,585	1,078	63	3,730	2,794
06-Sep-01	95	2,845	1,963	113	1,520	1,034	71	4,010	3,003
07-Sep-01	105	2,825	1,949	113	1,540	1,047	67	4,470	3,348
08-Sep-01	139	2,405	1,659	115	1,525	1,037	65	4,590	3,438
09-Sep-01	141	2,595	1,791	127	1,430	972	71	4,530	3,393
10-Sep-01	143	2,360	1,628	131	1,310	891	61	4,170	3,123
11-Sep-01	135	2,105	1,452	123	1,375	935	52	4,220	3,161
12-Sep-01	119	2,360	1,628	111	1,460	993	48	4,260	3,191
13-Sep-01	93	2,705	1,866	125	1,500	1,020	38	4,460	3,341
14-Sep-01	87	2,510	1,732	135	1,450	986	38	3,660	2,741
15-Sep-01	81	2,275	1,570	107	1,480	1,006	30	3,900	2,921
16-Sep-01	75	2,355	1,625	95	1,550	1,054	24	4,630	3,468
17-Sep-01	79	2,490	1,718	97	1,565	1,064	22	4,650	3,483
18-Sep-01	85			99	1,595	1,085	26	4,680	3,505
19-Sep-01	89			103	1,600	1,088	30	4,790	3,588
20-Sep-01	91			101	1,650	1,122	32	4,620	3,460
21-Sep-01	97			103	1,640	1,115	32	4,530	3,393
22-Sep-01	115			83	1,745	1,187	30	4,430	3,318
23-Sep-01	111			87	1,740	1,183	26	4,610	3,453
24-Sep-01	111			109	1,530	1,040	26	4,790	3,588
25-Sep-01	135			149	1,345	915	22	4,930	3,693
26-Sep-01	135			141	1,350	918	20	5,080	3,805
27-Sep-01	129			121	1,445	983	18	4,945	3,704
28-Sep-01	133			139	1,435	976	16	4,810	3,603

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
29-Sep-01	157			129	1,455	989	18	4,420	3,311
30-Sep-01	171			115	1,535	1,044	20	4,450	3,333
01-Oct-01					1,570	1,068	22	4,350	3,258
02-Oct-01					1,685	1,146	20	4,380	3,281
03-Oct-01					1,765	1,200	18	4,260	3,191
04-Oct-01					1,610	1,095	20	4,110	3,078
05-Oct-01					1,405	955	26	4,200	3,146
06-Oct-01					1,455	989	32	4,310	3,228
07-Oct-01					1,485	1,010	42	4,310	3,228
08-Oct-01					1,285	874	42	3,990	2,989
09-Oct-01					1,190	809	44	3,820	2,861
10-Oct-01					1,210	823	46	4,290	3,213
11-Oct-01					1,345	915	54	4,520	3,385
12-Oct-01					1,405	955	58	4,410	3,303
13-Oct-01					1,235	840	44	3,960	2,966
14-Oct-01					1,155	785	36	3,710	2,779
15-Oct-01					1,130	768	38	3,460	2,592
16-Oct-01					1,115	758	38	3,570	2,674
17-Oct-01					1,120	762	34	4,120	3,086
18-Oct-01					1,185	806	36	4,030	3,018
19-Oct-01					1,410	959	34	4,040	3,026
20-Oct-01					1,625	1,105	34	4,210	3,153
21-Oct-01					1,640	1,115	40	4,420	3,311
22-Oct-01					1,605	1,091	38	4,430	3,318
23-Oct-01					1,580	1,074	36	4,460	3,341
24-Oct-01					1,570	1,068	34	4,400	3,296
25-Oct-01					1,625	1,105	30	4,240	3,176
26-Oct-01					1,700	1,156	28	4,120	3,086
27-Oct-01					1,700	1,156	30	4,140	3,101
28-Oct-01					1,660	1,129	34	4,340	3,251
29-Oct-01					1,680	1,142	34	4,410	3,303
30-Oct-01					1,690	1,149	34	4,270	3,198
31-Oct-01					1,625	1,105	36	4,230	3,168
01-Nov-01					1,530	1,040	40	4,170	3,123
02-Nov-01					1,455	989	38	4,160	3,116
03-Nov-01					1,515	1,030	38	4,240	3,176
04-Nov-01					1,510	1,027	40	4,280	3,206
05-Nov-01					1,455	989	42	4,330	3,243
06-Nov-01					1,340	911	42	4,110	3,078
07-Nov-01					1,325	901	40	3,790	2,839
08-Nov-01					1,425	969	40	3,910	2,929
09-Nov-01					1,520	1,034	38	4,030	3,018
10-Nov-01					1,485	1,010	34	4,310	3,228
11-Nov-01					1,460	993	36	4,570	3,423
12-Nov-01					1,425	969	44	4,020	3,011
13-Nov-01					1,315	894	54	3,720	2,786
14-Nov-01					1,220	830	73	3,780	2,831
15-Nov-01					1,290	877	56	3,690	2,764

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
16-Nov-01					1,375	935	48	4,080	3,056
17-Nov-01					1,415	962	48	4,160	3,116
18-Nov-01					1,460	993	48	4,290	3,213
19-Nov-01					1,470	1,000	44	4,180	3,131
20-Nov-01					1,505	1,023	42	3,660	2,741
21-Nov-01					1,515	1,030	40	3,540	2,651
22-Nov-01					1,530	1,040	42	4,020	3,011
23-Nov-01					1,525	1,037	44	4,160	3,116
24-Nov-01					1,535	1,044	42	4,340	3,251
25-Nov-01					1,565	1,064	42	4,330	3,243
26-Nov-01					1,530	1,040	46	4,130	3,093
27-Nov-01					1,510	1,027	42	4,050	3,033
28-Nov-01					1,590	1,081	42	4,290	3,213
29-Nov-01					1,560	1,061	42	4,340	3,251
30-Nov-01					1,450	986	44	4,360	3,266
01-Dec-01					1,500	1,020	46	4,430	3,318
02-Dec-01					1,480	1,006	44	4,410	3,303
03-Dec-01					1,425	969	54	4,330	3,243
04-Dec-01					1,445	983	56	4,080	3,056
05-Dec-01					1,465	996	46	4,130	3,093
06-Dec-01					1,420	966	40	4,290	3,213
07-Dec-01					1,415	962	40	4,450	3,333
08-Dec-01					1,450	986	40	4,490	3,363
09-Dec-01					1,480	1,006	42	4,330	3,243
10-Dec-01					1,515	1,030	44	4,250	3,183
11-Dec-01					1,605	1,091	40	4,120	3,086
12-Dec-01					1,735	1,180	40	4,210	3,153
13-Dec-01					1,785	1,214	38	4,260	3,191
14-Dec-01					1,900	1,292	46	4,330	3,243
15-Dec-01					2,055	1,397	44	4,400	3,296
16-Dec-01					2,150	1,462	44	4,400	3,296
17-Dec-01					2,195	1,493	36	4,390	3,288
18-Dec-01					2,220	1,510	34	4,470	3,348
19-Dec-01					2,255	1,533	32	4,480	3,356
20-Dec-01					2,275	1,547	32	4,470	3,348
21-Dec-01					2,255	1,533	36	4,380	3,281
22-Dec-01					2,235	1,520	34	4,190	3,138
23-Dec-01					2,210	1,503	34	4,080	3,056
24-Dec-01					2,250	1,530	30	4,030	3,018
25-Dec-01					2,290	1,557	30	4,130	3,093
26-Dec-01					2,340	1,591	30	4,110	3,078
27-Dec-01					2,365	1,608	30	4,090	3,063
28-Dec-01					2,360	1,605	32	4,180	3,131
29-Dec-01					2,340	1,591	36	4,220	3,161
30-Dec-01					2,230	1,516	52	4,190	3,138
31-Dec-01					2,170	1,476	56	4,170	3,123
01-Jan-02					2,100	1,428	50	4,200	3,146
02-Jan-02					2,060	1,401	50	4,190	3,138

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
03-Jan-02					1,985	1,350	58	4,130	3,093
04-Jan-02					1,920	1,306	77	4,230	3,168
05-Jan-02					1,970	1,340	61	3,960	2,966
06-Jan-02					1,995	1,357	54	4,160	3,116
07-Jan-02					1,980	1,346	52	4,170	3,123
08-Jan-02					2,030	1,380	50	4,370	3,273
09-Jan-02					2,080	1,414	50	4,200	3,146
10-Jan-02					2,015	1,370	52	4,200	3,146
11-Jan-02					2,015	1,370	48	4,400	3,296
12-Jan-02					2,040	1,387	48	4,500	3,371
13-Jan-02					2,060	1,401	48	4,550	3,408
14-Jan-02					2,085	1,418	48	4,560	3,415
15-Jan-02					2,095	1,425	50	4,590	3,438
16-Jan-02					2,120	1,442	54	4,560	3,415
17-Jan-02					2,170	1,476	58	4,450	3,333
18-Jan-02					2,215	1,506	56	4,630	3,468
19-Jan-02					2,175	1,479	59	4,690	3,513
20-Jan-02					2,090	1,421	58	4,770	3,573
21-Jan-02					2,020	1,374	54	4,890	3,663
22-Jan-02					2,010	1,367	54	4,930	3,693
23-Jan-02					1,980	1,346	50	4,920	3,685
24-Jan-02					1,965	1,336	50	4,890	3,663
25-Jan-02					1,930	1,312	50	4,870	3,648
26-Jan-02					1,970	1,340	50	4,790	3,588
27-Jan-02					2,010	1,367	56	4,820	3,610
28-Jan-02					2,110	1,435	54	4,790	3,588
29-Jan-02					2,065	1,404	56	4,850	3,633
30-Jan-02					2,065	1,404	61	4,820	3,610
31-Jan-02					1,910	1,299	56	4,770	3,573
01-Feb-02					1,760	1,197	65	4,960	3,715
02-Feb-02					1,735	1,180	79	5,120	3,835
03-Feb-02					1,685	1,146	79	4,940	3,700
04-Feb-02					1,565	1,064	83	4,920	3,685
05-Feb-02					1,510	1,027	83	4,340	3,251
06-Feb-02					1,580	1,074	81	4,180	3,131
07-Feb-02					1,570	1,068	83	4,250	3,183
08-Feb-02					1,450	986	97	4,240	3,176
09-Feb-02					1,430	972	101	4,360	3,266
10-Feb-02					1,515	1,030	99	4,490	3,363
11-Feb-02					1,530	1,040	101	4,250	3,183
12-Feb-02					1,585	1,078	101	4,360	3,266
13-Feb-02					1,630	1,108	97	4,460	3,341
14-Feb-02					1,650	1,122	101	4,530	3,393
15-Feb-02					1,625	1,105	105	4,530	3,393
16-Feb-02					1,645	1,119	99	4,790	3,588
17-Feb-02					1,600	1,088	99	4,570	3,423
18-Feb-02					1,450	986	103	4,590	3,438
19-Feb-02					1,355	921	101	4,700	3,520

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
20-Feb-02					1,375	935	97	4,930	3,693
21-Feb-02					1,400	952	101	4,950	3,708
22-Feb-02					1,495	1,017	103	4,990	3,738
23-Feb-02					1,465	996	103	5,030	3,767
24-Feb-02					1,475	1,003	109	5,020	3,760
25-Feb-02					1,510	1,027	107	5,080	3,805
26-Feb-02					1,555	1,057	111	5,080	3,805
27-Feb-02					1,600	1,088	117	4,860	3,640
28-Feb-02					1,550	1,054	121	5,050	3,782
01-Mar-02					1,585	1,078	133	4,800	3,595
02-Mar-02					1,670	1,136	127	4,720	3,535
03-Mar-02					1,720	1,170	119	4,800	3,595
04-Mar-02					1,735	1,180	117	4,780	3,580
05-Mar-02					1,670	1,136	111	4,730	3,543
06-Mar-02					1,595	1,085	113	4,760	3,565
07-Mar-02					1,575	1,071	119	4,590	3,438
08-Mar-02					1,575	1,071	121	4,770	3,573
09-Mar-02					1,615	1,098	115	4,650	3,483
10-Mar-02					1,705	1,159	113	4,670	3,498
11-Mar-02					1,725	1,173	117	4,760	3,565
12-Mar-02					1,695	1,153	119	4,770	3,573
13-Mar-02					1,715	1,166	123	4,710	3,528
14-Mar-02					1,740	1,183	119	4,680	3,505
15-Mar-02					1,725	1,173	109	4,480	3,356
16-Mar-02					1,655	1,125	113	4,460	3,341
17-Mar-02					1,645	1,119	119	4,660	3,490
18-Mar-02					1,630	1,108	131	4,870	3,648
19-Mar-02					1,625	1,105	135	4,620	3,460
20-Mar-02					1,660	1,129	127	4,390	3,288
21-Mar-02					1,750	1,190	115	4,170	3,123
22-Mar-02					1,880	1,278	107	4,080	3,056
23-Mar-02					1,860	1,265	101	4,400	3,296
24-Mar-02					1,765	1,200	95	4,720	3,535
25-Mar-02					1,775	1,207	87	4,970	3,723
26-Mar-02					1,850	1,258	85	5,030	3,767
27-Mar-02					1,900	1,292	81	5,190	3,887
28-Mar-02					1,960	1,333	79	5,190	3,887
29-Mar-02					1,865	1,268	79	5,410	4,052
30-Mar-02					1,815	1,234	75	5,470	4,097
31-Mar-02					1,735	1,180	65	5,490	4,112
01-Apr-02					1,640	1,115	67	5,550	4,157
02-Apr-02					1,655	1,125	71	5,490	4,112
03-Apr-02					1,775	1,207	67	5,350	4,007
04-Apr-02					1,750	1,190	69	5,520	4,134
05-Apr-02					1,715	1,166	67	5,390	4,037
06-Apr-02					1,660	1,129	69	5,290	3,962
07-Apr-02					1,650	1,122	73	5,410	4,052
08-Apr-02					1,680	1,142	75	5,320	3,985

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
09-Apr-02					1,775	1,207	73	5,290	3,962
10-Apr-02					1,780	1,210	67	5,240	3,925
11-Apr-02					1,665	1,132	67	5,260	3,940
12-Apr-02					1,680	1,142	69	5,450	4,082
13-Apr-02					1,610	1,095	75	5,420	4,060
14-Apr-02					1,495	1,017	77	5,480	4,105
15-Apr-02					1,425	969	79	5,230	3,917
16-Apr-02					1,600	1,088	87	5,060	3,790
17-Apr-02					1,740	1,183	85	5,090	3,812
18-Apr-02					1,605	1,091	91	5,180	3,880
19-Apr-02					1,665	1,132	99	5,150	3,857
20-Apr-02					1,540	1,047	93	4,980	3,730
21-Apr-02					1,450	986	91	4,510	3,378
22-Apr-02					1,420	966	95	4,620	3,460
23-Apr-02					1,575	1,071	93	4,910	3,678
24-Apr-02					1,715	1,166	87	5,040	3,775
25-Apr-02					1,685	1,146	83	5,020	3,760
26-Apr-02					1,690	1,149	87	5,130	3,842
27-Apr-02					1,780	1,210	91	5,060	3,790
28-Apr-02					1,575	1,071	91	5,240	3,925
29-Apr-02					1,395	949	91	5,240	3,925
30-Apr-02					1,285	874	91	3,250	2,434
01-May-02					1,415	962	91	5,260	3,940
02-May-02					1,500	1,020	85	5,060	3,790
03-May-02					1,525	1,037	79	4,910	3,678
04-May-02					1,625	1,105	77	4,890	3,663
05-May-02					1,690	1,149	73	4,730	3,543
06-May-02					1,690	1,149	65	4,620	3,460
07-May-02					1,705	1,159	63	4,790	3,588
08-May-02					1,785	1,214	71	4,920	3,685
09-May-02					1,745	1,187	69	4,890	3,663
10-May-02					1,865	1,268	67	5,130	3,842
11-May-02					1,915	1,302	67	5,080	3,805
12-May-02					1,790	1,217	61	5,020	3,760
13-May-02					1,615	1,098	63	5,000	3,745
14-May-02					1,590	1,081	63	5,060	3,790
15-May-02					1,705	1,159	69	5,240	3,925
16-May-02					1,570	1,068	71	5,160	3,865
17-May-02					1,425	969	69	4,980	3,730
18-May-02					1,350	918	65	4,930	3,693
19-May-02					1,190	809	71	5,030	3,767
20-May-02					1,125	765	83	4,820	3,610
21-May-02					1,100	748	105	4,820	3,610
22-May-02					1,175	799	113	4,010	3,003
23-May-02					1,205	819	113	4,090	3,063
24-May-02					1,165	792	111	4,180	3,131
25-May-02					1,105	751	103	3,840	2,876
26-May-02					1,120	762	107	3,760	2,816

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
27-May-02					1,210	823	113	3,960	2,966
28-May-02					1,285	874	105	4,120	3,086
29-May-02					1,425	969	107	4,070	3,048
30-May-02					1,340	911	113	4,130	3,093
31-May-02					1,410	959	121	4,280	3,206
01-Jun-02					1,435	976	109	4,190	3,138
02-Jun-02					1,230	836	101	4,290	3,213
03-Jun-02					994	676	101	4,340	3,251
04-Jun-02					1,010	686	103	4,460	3,341
05-Jun-02					1,049	713	103	4,620	3,460
06-Jun-02					1,215	826	95	4,470	3,348
07-Jun-02					1,360	925	101	4,620	3,460
08-Jun-02					1,405	955	103	4,700	3,520
09-Jun-02					1,430	972	111	4,750	3,558
10-Jun-02					1,415	962	101	4,680	3,505
11-Jun-02					1,260	857	113	4,490	3,363
12-Jun-02					1,225	833	105	4,420	3,311
13-Jun-02					1,225	833	101	4,300	3,221
14-Jun-02					1,275	867	109	4,590	3,438
15-Jun-02					1,320	898	117	4,600	3,445
16-Jun-02					1,320	898	123	4,660	3,490
17-Jun-02					1,310	891	127	4,440	3,326
18-Jun-02					1,265	860	137	4,290	3,213
19-Jun-02					1,235	840	137	4,350	3,258
20-Jun-02					1,275	867	131	4,130	3,093
21-Jun-02					1,285	874	131	4,240	3,176
22-Jun-02					1,245	847	131	4,250	3,183
23-Jun-02					1,180	802	125	3,960	2,966
24-Jun-02					1,095	745	119	4,120	3,086
25-Jun-02					1,100	748	123	4,100	3,071
26-Jun-02					1,095	745	107	4,360	3,266
27-Jun-02					1,125	765	85	4,310	3,228
28-Jun-02					1,130	768	91	4,390	3,288
29-Jun-02					1,145	779	89	4,320	3,236
30-Jun-02					1,145	779	93	4,290	3,213
01-Jul-02					1,135	772	91	4,120	3,086
02-Jul-02					1,150	782	103	4,010	3,003
03-Jul-02					1,210	823	125	4,370	3,273
04-Jul-02					1,260	857	115	4,440	3,326
05-Jul-02					1,185	806	115	4,440	3,326
06-Jul-02					1,100	748	115	4,390	3,288
07-Jul-02					1,085	738	115	4,350	3,258
08-Jul-02					1,115	758	119	4,510	3,378
09-Jul-02					1,110	755	115	4,540	3,400
10-Jul-02					1,100	748	109	4,540	3,400
11-Jul-02					1,255	853	115	4,490	3,363
12-Jul-02					1,320	898	109	4,330	3,243
13-Jul-02					1,190	809	103	4,080	3,056

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
14-Jul-02					1,075	731	105	3,960	2,966
15-Jul-02							109	4,100	3,071
16-Jul-02					1,305	887	109	4,120	3,086
17-Jul-02					1,260	857	107	4,270	3,198
18-Jul-02					1,140	775	107	4,180	3,131
19-Jul-02					1,007	684	107	4,520	3,385
20-Jul-02					973	661	109	4,270	3,198
21-Jul-02					968	658	111	4,150	3,108
22-Jul-02					885	601	111	4,010	3,003
23-Jul-02					871	592	105	3,930	2,944
24-Jul-02					889	604	101	3,920	2,936
25-Jul-02					963	655	93	3,850	2,884
26-Jul-02					965	656	91	3,970	2,974
27-Jul-02					966	657	99	3,900	2,921
28-Jul-02					897	610	89	3,570	2,674
29-Jul-02					803	546	85	3,560	2,666
30-Jul-02					731	497	85	3,510	2,629
31-Jul-02					746	507	87	3,460	2,592
01-Aug-02					793	539	97	3,660	2,741
02-Aug-02					797	542	113	3,970	2,974
03-Aug-02					786	534	113	4,060	3,041
04-Aug-02					822	559	115	4,000	2,996
05-Aug-02					847	576	117	4,200	3,146
06-Aug-02					833	566	115	4,160	3,116
07-Aug-02					824	560	109	3,940	2,951
08-Aug-02					814	554	113	4,080	3,056
09-Aug-02					947	644	109	4,070	3,048
10-Aug-02					1,021	694	103	3,900	2,921
11-Aug-02					998	679	101	3,760	2,816
12-Aug-02					1,045	711	109	3,780	2,831
13-Aug-02					1,065	724	115	3,820	2,861
14-Aug-02					1,095	745	121	3,740	2,801
15-Aug-02					1,035	704	119	3,540	2,651
16-Aug-02					1,020	693	125	3,650	2,734
17-Aug-02					1,025	697	123	3,640	2,726
18-Aug-02					1,001	681	119	3,530	2,644
19-Aug-02					998	679	115	3,580	2,681
20-Aug-02					992	675	115	3,560	2,666
21-Aug-02					1,053	716	115	3,600	2,696
22-Aug-02					1,115	758	111	3,650	2,734
23-Aug-02					1,135	772	115	3,890	2,914
24-Aug-02					1,220	830	113	3,700	2,771
25-Aug-02					1,205	819	105	3,650	2,734
26-Aug-02					1,155	785	109	3,520	2,636
27-Aug-02					1,165	792	103	3,520	2,636
28-Aug-02					1,190	809	93	3,490	2,614
29-Aug-02					1,275	867	93	3,450	2,584
30-Aug-02					1,365	928	89	3,720	2,786

Attachment 5-3: Daily Flow and Water Quality Data for Mud Slough, Salt Slough, and the San Luis Drain

	Mud Slough			Salt Slough			San Luis Drain		
Date	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)	Q (acre-feet)	EC (uS/cm)	TDS (mg/L)
31-Aug-02					1,425	969	91	3,710	2,779
01-Sep-02					1,305	887	95	3,690	2,764
02-Sep-02					1,250	850	97	3,790	2,839
03-Sep-02					1,130	768	87	3,740	2,801
04-Sep-02					1,100	748	85	3,820	2,861
05-Sep-02					1,075	731	97	3,570	2,674
06-Sep-02					1,055	717	87	4,000	2,996
07-Sep-02					1,035	704	83	4,210	3,153
08-Sep-02					1,033	702	81	3,880	2,906
09-Sep-02					1,013	689	79	3,990	2,989
10-Sep-02					1,035	704	71	3,930	2,944
11-Sep-02					1,160	789	85	4,210	3,153
12-Sep-02					1,270	864	77	3,970	2,974
13-Sep-02					1,280	870	59	4,760	3,565
14-Sep-02					1,230	836	54	4,840	3,625
15-Sep-02					1,185	806	58	3,930	2,944
16-Sep-02					1,255	853	61	3,620	2,711
17-Sep-02					1,225	833	63	4,160	3,116
18-Sep-02					1,275	867	67	4,690	3,513
19-Sep-02					1,250	850	56	4,990	3,738
20-Sep-02					1,115	758	50	4,670	3,498
21-Sep-02					1,055	717	46	4,500	3,371
22-Sep-02					1,090	741	50	4,250	3,183
23-Sep-02					1,070	728	46	3,870	2,899
24-Sep-02					1,130	768	44	3,720	2,786
25-Sep-02					1,195	813	42	4,290	3,213
26-Sep-02					1,200	816	36	4,430	3,318
27-Sep-02					1,230	836	38	4,750	3,558
28-Sep-02					1,350	918	44	4,840	3,625
29-Sep-02					1,375	935	38	4,840	3,625
30-Sep-02							32	4,880	3,655

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APPENDIX 5

ATTACHMENT 5-4

ATTACHMENT 5-4: Spreadsheet Calculation of Annual Wetland Discharges

Date	Deliveries to Wetlands	Evaporation & Precipitation	Net Inflow (deliveries+evap. and precip)	Seepage	Cumulative Pond Volume	Annual Spill Volume	Annual Supply Volume
Sep-91	11,139	-24,751	0	0	0		
Oct-91	75,130	-14,149	60,981	30,169	30,812		
Nov-91	16,870	-10,836	6,034	0	36,846		
Dec-91	6,953	-1,598	5,355	0	42,201		
Jan-92	889	1,130	2,019	0	44,220		
Feb-92	4,910	7,991	12,901	0	57,120		
Mar-92	680	-6,431	0	0	57,120		
Apr-92	266	-29,429	0	0	57,120	57,120	116,837
May-92	3,861	-40,187	0	0	0		
Jun-92	2,344	-36,406	0	0	0		
Jul-92	1,150	-39,992	0	0	0		
Aug-92	1,928	-37,380	0	0	0		
Sep-92	23,655	-28,259	0	0	0		
Oct-92	71,471	-12,356	59,115	30,169	28,946		
Nov-92	10,683	-10,212	471	0	29,416		
Dec-92	8,723	4,677	13,400	0	42,817		
Jan-93	188	15,552	15,740	0	58,557		
Feb-93	7,192	10,953	18,145	0	76,702		
Mar-93	0	-2,339	0	0	76,702		
Apr-93	106	-20,853	0	0	76,702	76,702	131,301
May-93	5,822	-19,255	0	0	0		
Jun-93	11,728	-30,364	0	0	0		
Jul-93	16,409	-39,368	0	0	0		
Aug-93	6,728	-35,509	0	0	0		
Sep-93	32,812	-26,038	6,774	6,774	0		
Oct-93	60,791	-12,200	48,591	23,395	25,196		
Nov-93	22,294	-6,743	15,551	0	40,747		
Dec-93	14,526	351	14,877	0	55,624		
Jan-94	9,549	15,552	25,101	0	80,725		
Feb-94	24,772	10,953	35,725	0	116,450		
Mar-94	4,399	-2,339	2,060	0	118,510		
Apr-94	3,580	-20,853	0	0	118,510	118,510	213,410
May-94	12,734	-19,255	0	0	0		
Jun-94	6,686	-30,364	0	0	0		
Jul-94	6,036	-39,368	0	0	0		
Aug-94	11,283	-35,509	0	0	0		
Sep-94	26,120	-26,038	82	82	0		
Oct-94	64,715	-12,200	52,515	30,087	22,428		
Nov-94	19,122	-6,743	12,379	0	34,807		
Dec-94	24,119	351	24,470	0	59,277		
Jan-95	3,014	16,488	19,502	0	78,778		
Feb-95	4,867	-2,417	2,450	0	81,229		
Mar-95	577	5,535	6,112	0	87,341		
Apr-95	2,647	-13,603	0	0	87,341	87,341	181,920

ATTACHMENT 5-4: Spreadsheet Calculation of Annual Wetland Discharges

Date	Deliveries to Wetlands	Evaporation & Precipitation	Net Inflow (deliveries+evap. and precip)	Seepage	Cumulative Pond Volume	Annual Spill Volume	Annual Supply Volume
May-95	17,889	-22,296	0	0	0		
Jun-95	15,884	-27,947	0	0	0		
Jul-95	19,951	-31,378	0	0	0		
Aug-95	10,541	-29,818	0	0	0		
Sep-95	46,651	-22,101	24,550	24,550	0		
Oct-95	47,727	-16,254	31,473	5,619	25,854		
Nov-95	15,352	-8,107	7,245	0	33,099		
Dec-95	5,535	2,417	7,952	0	41,050		
Jan-96	7,460	7,445	14,905	0	55,955		
Feb-96	17,148	6,782	23,930	0	79,885		
Mar-96	908	-5,496	0	0	79,885		
Apr-96	4,154	-20,269	0	0	79,885	79,885	209,200
May-96	22,839	-25,258	0	0	0		
Jun-96	16,851	-32,040	0	0	0		
Jul-96	19,692	-32,625	0	0	0		
Aug-96	16,258	-26,466	0	0	0		
Sep-96	57,450	-21,828	35,622	30,169	5,453		
Oct-96	52,978	-11,187	41,791	0	47,244		
Nov-96	18,907	-117	18,790	0	66,034		
Dec-96	9,865	9,082	18,947	0	84,981		
Jan-97	3,945	14,890	18,835	0	103,816		
Feb-97	27,283	-7,874	19,409	0	123,225		
Mar-97	6,734	-14,188	0	0	123,225		
Apr-97	9,123	-24,167	0	0	123,225	123,225	261,925
May-97	33,967	-31,962	2,005	0	0		
Jun-97	21,467	-32,586	0	0	0		
Jul-97	22,067	-33,132	0	0	0		
Aug-97	24,748	-28,532	0	0	0		
Sep-97	115,507	-22,724	92,783	30,169	62,613		
Oct-97	31,522	-15,747	15,775	0	78,388		
Nov-97	26,690	4,405	31,095	0	109,483		
Dec-97	6,728	3,898	10,626	0	120,109		
Jan-98	18,757	-1,598	17,159	0	137,267		
Feb-98	4,555	38,900	43,455	0	180,723		
Mar-98	173	-2,612	0	0	180,723		
Apr-98	25	-16,020	0	0	180,723	180,723	306,206

ATTACHMENT 5-4: Spreadsheet Calculation of Annual Wetland Discharges

Date	Deliveries to Wetlands	Evaporation & Precipitation	Net Inflow (deliveries+evap. and precip)	Seepage	Cumulative Pond Volume	Annual Spill Volume	Annual Supply Volume
May-98	57	-18,788	0	0	0		
Jun-98	1,342	-27,402	0	0	0		
Jul-98	7,136	-33,210	0	0	0		
Aug-98	11,085	-30,325	0	0	0		
Sep-98	71,854	-20,853	51,001	30,169	20,831		
Oct-98	54,874	-10,407	44,467	0	65,298		
Nov-98	42,764	-2,923	39,841	0	105,139		
Dec-98	15,405	-2,417	12,988	0	118,127		
Jan-99	31,922	5,067	36,989	0	155,116		
Feb-99	28,889	-2,066	26,823	0	181,939		
Mar-99	4,917	10,056	14,973	0	196,913		
Apr-99	7,311	-18,398	0	0	196,913	196,913	277,556
May-99	38,986	-30,247	8,739	0	0		
Jun-99	14,941	-31,845	0	0	0		
Jul-99	11,520	-33,210	0	0	0		
Aug-99	25,642	-27,753	0	0	0		
Sep-99	103,932	-22,257	81,675	30,169	51,506		
Oct-99	82,313	-15,124	67,189	0	118,696		
Nov-99	37,663	-4,444	33,219	0	151,915		
Dec-99	19,190	-5,730	13,460	0	165,375		
Jan-00	17,102	6,782	23,884	0	189,259		
Feb-00	11,323	2,728	14,051	0	203,311		
Mar-00	6,063	-16,059	0	0	203,311		
Apr-00	644	-16,371	0	0	203,311	203,311	369,319
May-00	11,062	-26,310	0	0	0		
Jun-00	17,252	-31,767	0	0	0		
Jul-00	22,453	-32,937	0	0	0		
Aug-00	30,434	-29,234	1,200	0	0		
Sep-00	117,950	-20,775	97,175	30,169	67,005		
Oct-00	52,618	-7,640	44,978	0	111,984		
Nov-00	24,939	-5,730	19,209	0	131,193		
Dec-00	26,036	-4,677	21,359	0	152,551		
Jan-01	23,138	3,040	26,178	0	178,730		
Feb-01	23,667	-1,169	22,498	0	201,227		
Mar-01	7,329	-10,914	0	0	201,227		
Apr-01	1,640	-16,917	0	0	201,227	201,227	358,518

all values in acre feet

10-year mean	**132,496**	**242,619**

APPENDIX 5

ATTACHMENT 5-5

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-21	W	96,390	303	39,758	0	0	0	0	0	0
Nov-21	W	101,985	342	47,459	0	0	0	0	0	0
Dec-21	W	107,845	382	55,963	0	0	0	0	0	0
Jan-22	W	111,913	421	64,084	0	0	0	0	0	0
Feb-22	W	227,050	423	130,446	0	0	0	0	0	0
Mar-22	W	162,122	592	130,369	0	0	0	0	0	0
Apr-22	W	209,760	230	65,532	0	0	0	0	0	0
May-22	W	269,066	193	70,562	0	0	0	0	0	0
Jun-22	W	428,834	232	135,314	0	0	0	0	0	0
Jul-22	W	114,586	303	47,248	0	0	0	0	0	0
Aug-22	W	121,624	265	43,751	0	0	0	0	0	0
Sep-22	W	99,613	319	43,241	0	0	0	0	0	0
Oct-22	AN	234,864	146	46,649	0	0	0	0	0	0
Nov-22	AN	130,455	319	56,594	0	0	0	0	0	0
Dec-22	AN	178,857	294	71,561	0	0	0	0	0	0
Jan-23	AN	189,313	319	82,076	0	0	0	0	0	0
Feb-23	AN	190,050	420	108,620	0	0	0	0	0	0
Mar-23	AN	130,978	641	114,157	0	0	0	0	0	0
Apr-23	AN	261,700	222	78,806	0	0	0	0	0	0
May-23	AN	287,496	168	65,741	0	0	0	0	0	0
Jun-23	AN	89,156	203	24,581	0	0	0	0	0	0
Jul-23	AN	124,644	375	63,511	0	0	0	0	0	0
Aug-23	AN	143,569	416	81,215	0	0	0	0	0	0
Sep-23	AN	96,998	285	37,622	0	0	0	0	0	0
Oct-23	C	123,421	278	46,713	0	0	0	0	0	0
Nov-23	C	93,407	449	57,030	0	0	0	0	0	0
Dec-23	C	99,932	519	70,469	0	0	0	0	0	0
Jan-24	C	101,030	477	65,544	0	0	0	0	0	0
Feb-24	C	133,411	546	98,975	0	0	0	0	0	0
Mar-24	C	115,023	778	121,659	0	0	0	0	0	0
Apr-24	C	89,742	251	30,647	0	0	0	0	0	0
May-24	C	94,352	253	32,401	0	0	0	0	0	0
Jun-24	C	82,140	392	43,730	0	0	0	0	0	0
Jul-24	C	70,612	506	48,555	0	0	0	0	0	0
Aug-24	C	54,003	365	26,761	0	0	0	0	0	0
Sep-24	C	71,118	509	49,251	0	0	0	0	0	0
Oct-24	BN	74,615	445	45,151	0	0	0	0	0	0
Nov-24	BN	79,117	547	58,846	0	0	0	0	0	0
Dec-24	BN	78,258	561	59,707	0	0	0	0	0	0
Jan-25	BN	83,641	538	61,119	0	0	0	0	0	0
Feb-25	BN	130,835	616	109,621	0	0	0	0	0	0
Mar-25	BN	122,631	684	114,101	0	0	0	0	0	0
Apr-25	BN	159,572	306	66,275	0	0	0	0	0	0
May-25	BN	156,993	221	47,104	0	0	0	0	0	0
Jun-25	BN	99,215	391	52,699	0	0	0	0	0	0
Jul-25	BN	105,993	388	55,910	0	0	0	0	0	0
Aug-25	BN	86,448	246	28,947	0	0	0	0	0	0
Sep-25	BN	87,165	390	46,251	0	0	0	0	0	0
Oct-25	D	81,807	362	40,294	0	0	0	0	0	0
Nov-25	D	81,110	448	49,412	0	0	0	0	0	0
Dec-25	D	83,855	568	64,741	0	0	0	0	0	0
Jan-26	D	96,272	610	79,838	0	0	0	0	0	0
Feb-26	D	151,308	499	102,708	0	0	0	0	0	0
Mar-26	D	108,219	686	100,956	0	0	0	0	0	0
Apr-26	D	148,463	349	70,400	0	0	0	0	0	0
May-26	D	148,035	188	37,795	0	0	0	0	0	0
Jun-26	D	86,678	551	64,917	0	0	0	0	0	0
Jul-26	D	92,623	380	47,812	0	0	0	0	0	0
Aug-26	D	68,895	478	44,799	0	0	0	0	0	0
Sep-26	D	59,530	448	36,281	0	0	0	0	0	0
Oct-26	AN	68,470	372	34,637	0	0	0	0	0	0
Nov-26	AN	89,228	417	50,621	0	0	0	0	0	0
Dec-26	AN	83,927	558	63,621	0	0	0	0	0	0
Jan-27	AN	83,134	667	75,373	0	0	0	0	0	0
Feb-27	AN	189,600	494	127,257	0	0	0	0	0	0
Mar-27	AN	128,504	572	99,842	0	0	0	0	0	0
Apr-27	AN	230,479	249	77,864	0	0	0	0	0	0
May-27	AN	253,313	204	70,219	0	0	0	0	0	0
Jun-27	AN	107,362	411	60,004	0	0	0	0	0	0
Jul-27	AN	108,039	309	45,386	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	96,390	303	39,758	610			
0	0	0	0	101,985	342	47,459	610			
0	0	0	0	107,845	382	55,963	610			
0	0	0	0	111,913	421	64,084	610			
0	0	0	0	227,050	423	130,446	610			
0	0	0	0	162,122	592	130,369	610			
0	0	0	0	209,760	230	65,532	427			
0	0	0	0	269,066	193	70,562	427			
0	0	0	0	428,834	232	135,314	427			
0	0	0	0	114,586	303	47,248	427			
0	0	0	0	121,624	265	43,751	427			
0	0	0	0	99,613	319	43,241	610			
0	0	0	0	234,864	146	46,649	610			
0	0	0	0	130,455	319	56,594	610			
0	0	0	0	178,857	294	71,561	610			
0	0	0	0	189,313	319	82,076	610			
0	0	0	0	190,050	420	108,620	610			
0	0	0	0	130,978	641	114,157	610	1	1	
0	0	0	0	261,700	222	78,806	427			
0	0	0	0	287,496	168	65,741	427			
0	0	0	0	89,156	203	24,581	427			
0	0	0	0	124,644	375	63,511	427			
0	0	0	0	143,569	416	81,215	427			
0	0	0	0	96,998	285	37,622	610			
0	0	0	0	123,421	278	46,713	610			
0	0	0	0	93,407	449	57,030	610			
0	0	0	0	99,932	519	70,469	610			
0	0	0	0	101,030	477	65,544	610			
0	0	0	0	133,411	546	98,975	610			
0	0	0	0	115,023	778	121,659	610	1	1	
0	0	0	0	89,742	251	30,647	427			
0	0	0	0	94,352	253	32,401	427			
0	0	0	0	82,140	392	43,730	427			
0	0	0	0	70,612	506	48,555	427	1		1
0	0	0	0	54,003	365	26,761	427			
0	0	0	0	71,118	509	49,251	610			
0	0	0	0	74,615	445	45,151	610			
0	0	0	0	79,117	547	58,846	610			
0	0	0	0	78,258	561	59,707	610			
0	0	0	0	83,641	538	61,119	610			
0	0	0	0	130,835	616	109,621	610	1	1	
0	0	0	0	122,631	684	114,101	610	1	1	
0	0	0	0	159,572	306	66,275	427			
0	0	0	0	156,993	221	47,104	427			
0	0	0	0	99,215	391	52,699	427			
0	0	0	0	105,993	388	55,910	427			
0	0	0	0	86,448	246	28,947	427			
0	0	0	0	87,165	390	46,251	610			
0	0	0	0	81,807	362	40,294	610			
0	0	0	0	81,110	448	49,412	610			
0	0	0	0	83,855	568	64,741	610			
0	0	0	0	96,272	610	79,838	610			
0	0	0	0	151,308	499	102,708	610			
0	0	0	0	108,219	686	100,956	610	1	1	
0	0	0	0	148,463	349	70,400	427			
0	0	0	0	148,035	188	37,795	427			
0	0	0	0	86,678	551	64,917	427	1		1
0	0	0	0	92,623	380	47,812	427			
0	0	0	0	68,895	478	44,799	427	1		1
0	0	0	0	59,530	448	36,281	610			
0	0	0	0	68,470	372	34,637	610			
0	0	0	0	89,228	417	50,621	610			
0	0	0	0	83,927	558	63,621	610			
0	0	0	0	83,134	667	75,373	610	1	1	
0	0	0	0	189,600	494	127,257	610			
0	0	0	0	128,504	572	99,842	610			
0	0	0	0	230,479	249	77,864	427			
0	0	0	0	253,313	204	70,219	427			
0	0	0	0	107,362	411	60,004	427			
0	0	0	0	108,039	309	45,386	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Aug-27	AN	116,998	356	56,593	0	0	0	0	0	0
Sep-27	AN	108,210	403	59,330	0	0	0	0	0	0
Oct-27	BN	272,563	142	52,618	0	0	0	0	0	0
Nov-27	BN	102,395	437	60,847	0	0	0	0	0	0
Dec-27	BN	115,656	306	48,145	0	0	0	0	0	0
Jan-28	BN	126,172	477	81,803	0	0	0	0	0	0
Feb-28	BN	143,124	468	91,140	0	0	0	0	0	0
Mar-28	BN	135,743	583	107,570	0	0	0	0	0	0
Apr-28	BN	215,723	286	83,994	0	0	0	0	0	0
May-28	BN	220,782	207	62,252	0	0	0	0	0	0
Jun-28	BN	96,467	462	60,551	0	0	0	0	0	0
Jul-28	BN	111,574	299	45,308	0	0	0	0	0	0
Aug-28	BN	110,680	339	50,979	0	0	0	0	0	0
Sep-28	BN	72,629	308	30,441	0	0	0	0	0	0
Oct-28	C	76,897	350	36,569	0	0	0	0	0	0
Nov-28	C	78,163	416	44,152	0	0	0	0	0	0
Dec-28	C	87,302	553	65,598	0	0	0	0	0	0
Jan-29	C	92,262	577	72,373	0	0	0	0	0	0
Feb-29	C	109,855	679	101,467	0	0	0	0	0	0
Mar-29	C	119,217	814	131,946	0	0	0	0	0	0
Apr-29	C	146,739	292	58,152	0	0	0	0	0	0
May-29	C	156,314	281	59,651	0	0	0	0	0	0
Jun-29	C	69,870	413	39,249	0	0	0	0	0	0
Jul-29	C	66,562	641	57,978	0	0	0	0	0	0
Aug-29	C	62,266	371	31,439	0	0	0	0	0	0
Sep-29	C	50,802	375	25,913	0	0	0	0	0	0
Oct-29	C	71,069	431	41,604	0	0	0	0	0	0
Nov-29	C	74,732	492	49,976	0	0	0	0	0	0
Dec-29	C	76,065	544	56,297	0	0	0	0	0	0
Jan-30	C	83,081	620	70,062	0	0	0	0	0	0
Feb-30	C	106,704	685	99,340	0	0	0	0	0	0
Mar-30	C	111,740	678	102,950	0	0	0	0	0	0
Apr-30	C	139,846	385	73,196	0	0	0	0	0	0
May-30	C	137,381	254	47,458	0	0	0	0	0	0
Jun-30	C	84,539	371	42,616	0	0	0	0	0	0
Jul-30	C	76,373	480	49,807	0	0	0	0	0	0
Aug-30	C	52,191	230	16,298	0	0	0	0	0	0
Sep-30	C	61,528	572	47,838	0	0	0	0	0	0
Oct-30	C	73,954	447	44,942	0	0	0	0	0	0
Nov-30	C	67,418	479	43,866	0	0	0	0	0	0
Dec-30	C	74,019	597	60,106	0	0	0	0	0	0
Jan-31	C	83,766	649	73,942	0	0	0	0	0	0
Feb-31	C	97,028	764	100,832	0	0	0	0	0	0
Mar-31	C	105,249	763	109,203	0	0	0	0	0	0
Apr-31	C	94,626	261	33,628	0	0	0	0	0	0
May-31	C	103,328	230	32,267	0	0	0	0	0	0
Jun-31	C	62,755	494	42,137	0	0	0	0	0	0
Jul-31	C	77,435	622	65,427	0	0	0	0	0	0
Aug-31	C	57,596	483	37,812	0	0	0	0	0	0
Sep-31	C	65,969	426	38,161	0	0	0	0	0	0
Oct-31	AN	68,155	366	33,894	0	0	0	0	0	0
Nov-31	AN	79,692	458	49,609	0	0	0	0	0	0
Dec-31	AN	102,741	508	70,900	0	0	0	0	0	0
Jan-32	AN	100,881	555	76,090	0	0	0	0	0	0
Feb-32	AN	180,185	454	111,115	0	0	0	0	0	0
Mar-32	AN	112,549	535	81,876	0	0	0	0	0	0
Apr-32	AN	170,580	272	63,031	0	0	0	0	0	0
May-32	AN	244,640	282	93,723	0	0	0	0	0	0
Jun-32	AN	94,102	312	39,864	0	0	0	0	0	0
Jul-32	AN	119,978	328	53,435	0	0	0	0	0	0
Aug-32	AN	119,998	397	64,798	0	0	0	0	0	0
Sep-32	AN	99,464	319	43,109	0	0	0	0	0	0
Oct-32	D	161,418	231	50,692	0	0	0	0	0	0
Nov-32	D	87,267	440	52,190	0	0	0	0	0	0
Dec-32	D	84,889	458	52,799	0	0	0	0	0	0
Jan-33	D	100,616	538	73,619	0	0	0	0	0	0
Feb-33	D	123,354	549	92,117	0	0	0	0	0	0
Mar-33	D	121,520	664	109,747	0	0	0	0	0	0
Apr-33	D	123,795	257	43,219	0	0	0	0	0	0
May-33	D	145,916	330	65,443	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	116,998	356	56,593	427			
0	0	0	0	108,210	403	59,330	610			
0	0	0	0	272,563	142	52,618	610			
0	0	0	0	102,395	437	60,847	610			
0	0	0	0	115,656	306	48,145	610			
0	0	0	0	126,172	477	81,803	610			
0	0	0	0	143,124	468	91,140	610			
0	0	0	0	135,743	583	107,570	610			
0	0	0	0	215,723	286	83,994	427			
0	0	0	0	220,782	207	62,252	427			
0	0	0	0	96,467	462	60,551	427	1		1
0	0	0	0	111,574	299	45,308	427			
0	0	0	0	110,680	339	50,979	427			
0	0	0	0	72,629	308	30,441	610			
0	0	0	0	76,897	350	36,569	610			
0	0	0	0	78,163	416	44,152	610			
0	0	0	0	87,302	553	65,598	610			
0	0	0	0	92,262	577	72,373	610			
0	0	0	0	109,855	679	101,467	610	1	1	
0	0	0	0	119,217	814	131,946	610	1	1	
0	0	0	0	146,739	292	58,152	427			
0	0	0	0	156,314	281	59,651	427			
0	0	0	0	69,870	413	39,249	427			
0	0	0	0	66,562	641	57,978	427	1		1
0	0	0	0	62,266	371	31,439	427			
0	0	0	0	50,802	375	25,913	610			
0	0	0	0	71,069	431	41,604	610			
0	0	0	0	74,732	492	49,976	610			
0	0	0	0	76,065	544	56,297	610			
0	0	0	0	83,081	620	70,062	610	1	1	
0	0	0	0	106,704	685	99,340	610	1	1	
0	0	0	0	111,740	678	102,950	610	1	1	
0	0	0	0	139,846	385	73,196	427			
0	0	0	0	137,381	254	47,458	427			
0	0	0	0	84,539	371	42,616	427			
0	0	0	0	76,373	480	49,807	427	1		1
0	0	0	0	52,191	230	16,298	427			
0	0	0	0	61,528	572	47,838	610			
0	0	0	0	73,954	447	44,942	610			
0	0	0	0	67,418	479	43,866	610			
0	0	0	0	74,019	597	60,106	610			
0	0	0	0	83,766	649	73,942	610	1	1	
0	0	0	0	97,028	764	100,832	610	1	1	
0	0	0	0	105,249	763	109,203	610	1	1	
0	0	0	0	94,626	261	33,628	427			
0	0	0	0	103,328	230	32,267	427			
0	0	0	0	62,755	494	42,137	427	1		1
0	0	0	0	77,435	622	65,427	427	1		1
0	0	0	0	57,596	483	37,812	427	1		1
0	0	0	0	65,969	426	38,161	610			
0	0	0	0	68,155	366	33,894	610			
0	0	0	0	79,692	458	49,609	610			
0	0	0	0	102,741	508	70,900	610			
0	0	0	0	100,881	555	76,090	610			
0	0	0	0	180,185	454	111,115	610			
0	0	0	0	112,549	535	81,876	610			
0	0	0	0	170,580	272	63,031	427			
0	0	0	0	244,640	282	93,723	427			
0	0	0	0	94,102	312	39,864	427			
0	0	0	0	119,978	328	53,435	427			
0	0	0	0	119,998	397	64,798	427			
0	0	0	0	99,464	319	43,109	610			
0	0	0	0	161,418	231	50,692	610			
0	0	0	0	87,267	440	52,190	610			
0	0	0	0	84,889	458	52,799	610			
0	0	0	0	100,616	538	73,619	610			
0	0	0	0	123,354	549	92,117	610			
0	0	0	0	121,520	664	109,747	610	1	1	
0	0	0	0	123,795	257	43,219	427			
0	0	0	0	145,916	330	65,443	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Jun-33	D	81,422	401	44,333	0	0	0	0	0	0
Jul-33	D	77,185	587	61,543	0	0	0	0	0	0
Aug-33	D	79,613	363	39,321	0	0	0	0	0	0
Sep-33	D	64,978	458	40,494	0	0	0	0	0	0
Oct-33	C	72,245	461	45,288	0	0	0	0	0	0
Nov-33	C	72,118	462	45,326	0	0	0	0	0	0
Dec-33	C	74,065	476	47,889	0	0	0	0	0	0
Jan-34	C	84,284	643	73,655	0	0	0	0	0	0
Feb-34	C	120,228	642	104,869	0	0	0	0	0	0
Mar-34	C	101,622	716	98,878	0	0	0	0	0	0
Apr-34	C	117,988	409	65,557	0	0	0	0	0	0
May-34	C	128,155	407	70,980	0	0	0	0	0	0
Jun-34	C	66,756	472	42,863	0	0	0	0	0	0
Jul-34	C	64,304	462	40,362	0	0	0	0	0	0
Aug-34	C	85,411	398	46,168	0	0	0	0	0	0
Sep-34	C	63,372	402	34,617	0	0	0	0	0	0
Oct-34	AN	70,311	515	49,180	0	0	0	0	0	0
Nov-34	AN	83,520	434	49,222	0	0	0	0	0	0
Dec-34	AN	82,783	542	61,010	0	0	0	0	0	0
Jan-35	AN	97,841	472	62,716	0	0	0	0	0	0
Feb-35	AN	122,855	776	129,642	0	0	0	0	0	0
Mar-35	AN	128,365	629	109,803	0	0	0	0	0	0
Apr-35	AN	241,714	296	97,400	0	0	0	0	0	0
May-35	AN	259,282	190	67,080	0	0	0	0	0	0
Jun-35	AN	167,766	207	47,189	0	0	0	0	0	0
Jul-35	AN	92,774	334	42,126	0	0	0	0	0	0
Aug-35	AN	129,517	340	59,902	0	0	0	0	0	0
Sep-35	AN	98,677	277	37,173	0	0	0	0	0	0
Oct-35	AN	180,882	223	54,789	0	0	0	0	0	0
Nov-35	AN	93,953	368	47,017	0	0	0	0	0	0
Dec-35	AN	99,120	518	69,735	0	0	0	0	0	0
Jan-36	AN	135,757	414	76,335	0	0	0	0	0	0
Feb-36	AN	517,182	212	149,129	0	0	0	0	0	0
Mar-36	AN	142,991	646	125,541	0	0	0	0	0	0
Apr-36	AN	191,720	235	61,251	0	0	0	0	0	0
May-36	AN	285,665	224	86,993	0	0	0	0	0	0
Jun-36	AN	99,874	377	51,216	0	0	0	0	0	0
Jul-36	AN	116,012	435	68,560	0	0	0	0	0	0
Aug-36	AN	122,659	299	49,843	0	0	0	0	0	0
Sep-36	AN	104,350	266	37,778	0	0	0	0	0	0
Oct-36	W	142,763	275	53,413	0	0	0	0	0	0
Nov-36	W	95,454	389	50,441	0	0	0	0	0	0
Dec-36	W	110,177	373	55,810	0	0	0	0	0	0
Jan-37	W	169,417	383	88,121	0	0	0	0	0	0
Feb-37	W	572,991	221	172,233	0	0	0	0	0	0
Mar-37	W	416,022	238	134,665	0	0	0	0	0	0
Apr-37	W	248,674	194	65,620	0	0	0	0	0	0
May-37	W	491,303	214	142,602	0	0	0	0	0	0
Jun-37	W	141,822	296	57,071	0	0	0	0	0	0
Jul-37	W	123,750	396	66,639	0	0	0	0	0	0
Aug-37	W	136,532	266	49,337	0	0	0	0	0	0
Sep-37	W	104,668	367	52,152	0	0	0	0	0	0
Oct-37	W	169,309	188	43,250	0	0	0	0	0	0
Nov-37	W	109,722	380	56,624	0	0	0	0	0	0
Dec-37	W	315,673	210	89,994	0	0	0	0	0	0
Jan-38	W	412,695	214	120,179	0	0	0	0	0	0
Feb-38	W	1,097,178	133	198,981	0	0	0	0	0	0
Mar-38	W	1,483,383	131	263,376	0	0	0	0	0	0
Apr-38	W	689,819	166	155,207	0	0	0	0	0	0
May-38	W	1,473,291	103	206,303	0	0	0	0	0	0
Jun-38	W	800,540	128	139,416	0	0	0	0	0	0
Jul-38	W	233,167	302	95,795	0	0	0	0	0	0
Aug-38	W	123,724	369	62,100	0	0	0	0	0	0
Sep-38	W	206,500	215	60,218	0	0	0	0	0	0
Oct-38	D	320,261	137	59,518	0	0	0	0	0	0
Nov-38	D	158,079	273	58,734	0	0	0	0	0	0
Dec-38	D	123,222	354	59,269	0	0	0	0	0	0
Jan-39	D	145,382	332	65,698	0	0	0	0	0	0
Feb-39	D	214,656	442	128,987	0	0	0	0	0	0
Mar-39	D	147,518	592	118,706	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	81,422	401	44,333	427			
0	0	0	0	77,185	587	61,543	427	1		1
0	0	0	0	79,613	363	39,321	427			
0	0	0	0	64,978	458	40,494	610			
0	0	0	0	72,245	461	45,288	610			
0	0	0	0	72,118	462	45,326	610			
0	0	0	0	74,065	476	47,889	610			
0	0	0	0	84,284	643	73,655	610	1	1	
0	0	0	0	120,228	642	104,869	610	1	1	
0	0	0	0	101,622	716	98,878	610	1	1	
0	0	0	0	117,988	409	65,557	427			
0	0	0	0	128,155	407	70,980	427			
0	0	0	0	66,756	472	42,863	427	1		1
0	0	0	0	64,304	462	40,362	427	1		1
0	0	0	0	85,411	398	46,168	427			
0	0	0	0	63,372	402	34,617	610			
0	0	0	0	70,311	515	49,180	610			
0	0	0	0	83,520	434	49,222	610			
0	0	0	0	82,783	542	61,010	610			
0	0	0	0	97,841	472	62,716	610			
0	0	0	0	122,855	776	129,642	610	1	1	
0	0	0	0	128,365	629	109,803	610	1	1	
0	0	0	0	241,714	296	97,400	427			
0	0	0	0	259,282	190	67,080	427			
0	0	0	0	167,766	207	47,189	427			
0	0	0	0	92,774	334	42,126	427			
0	0	0	0	129,517	340	59,902	427			
0	0	0	0	98,677	277	37,173	610			
0	0	0	0	180,882	223	54,789	610			
0	0	0	0	93,953	368	47,017	610			
0	0	0	0	99,120	518	69,735	610			
0	0	0	0	135,757	414	76,335	610			
0	0	0	0	517,182	212	149,129	610			
0	0	0	0	142,991	646	125,541	610	1	1	
0	0	0	0	191,720	235	61,251	427			
0	0	0	0	285,665	224	86,993	427			
0	0	0	0	99,874	377	51,216	427			
0	0	0	0	116,012	435	68,560	427	1		1
0	0	0	0	122,659	299	49,843	427			
0	0	0	0	104,350	266	37,778	610			
0	0	0	0	142,763	275	53,413	610			
0	0	0	0	95,454	389	50,441	610			
0	0	0	0	110,177	373	55,810	610			
0	0	0	0	169,417	383	88,121	610			
0	0	0	0	572,991	221	172,233	610			
0	0	0	0	416,022	238	134,665	610			
0	0	0	0	248,674	194	65,620	427			
0	0	0	0	491,303	214	142,602	427			
0	0	0	0	141,822	296	57,071	427			
0	0	0	0	123,750	396	66,639	427			
0	0	0	0	136,532	266	49,337	427			
0	0	0	0	104,668	367	52,152	610			
0	0	0	0	169,309	188	43,250	610			
0	0	0	0	109,722	380	56,624	610			
0	0	0	0	315,673	210	89,994	610			
0	0	0	0	412,695	214	120,179	610			
0	0	0	0	1,097,178	133	198,981	610			
0	0	0	0	1,483,383	131	263,376	610			
0	0	0	0	689,819	166	155,207	427			
0	0	0	0	1,473,291	103	206,303	427			
0	0	0	0	800,540	128	139,416	427			
0	0	0	0	233,167	302	95,795	427			
0	0	0	0	123,724	369	62,100	427			
0	0	0	0	206,500	215	60,218	610			
0	0	0	0	320,261	137	59,518	610			
0	0	0	0	158,079	273	58,734	610			
0	0	0	0	123,222	354	59,269	610			
0	0	0	0	145,382	332	65,698	610			
0	0	0	0	214,656	442	128,987	610			
0	0	0	0	147,518	592	118,706	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Apr-39	D	215,332	208	60,803	0	0	0	0	0	0
May-39	D	179,125	190	46,245	0	0	0	0	0	0
Jun-39	D	97,745	340	45,154	0	0	0	0	0	0
Jul-39	D	80,206	275	29,975	0	0	0	0	0	0
Aug-39	D	115,599	360	56,592	0	0	0	0	0	0
Sep-39	D	66,563	386	34,912	0	0	0	0	0	0
Oct-39	AN	80,297	501	54,691	0	0	0	0	0	0
Nov-39	AN	83,722	354	40,338	0	0	0	0	0	0
Dec-39	AN	79,681	376	40,720	0	0	0	0	0	0
Jan-40	AN	134,144	427	77,817	0	0	0	0	0	0
Feb-40	AN	239,665	406	132,122	0	0	0	0	0	0
Mar-40	AN	464,911	224	141,642	0	0	0	0	0	0
Apr-40	AN	261,233	198	70,212	0	0	0	0	0	0
May-40	AN	301,766	143	58,707	0	0	0	0	0	0
Jun-40	AN	99,698	192	25,996	0	0	0	0	0	0
Jul-40	AN	107,366	296	43,205	0	0	0	0	0	0
Aug-40	AN	138,828	292	55,187	0	0	0	0	0	0
Sep-40	AN	112,413	355	54,314	0	0	0	0	0	0
Oct-40	W	111,893	310	47,081	0	0	0	0	0	0
Nov-40	W	98,378	310	41,461	0	0	0	0	0	0
Dec-40	W	196,761	249	66,607	0	0	0	0	0	0
Jan-41	W	199,250	267	72,433	0	0	0	0	0	0
Feb-41	W	651,247	183	162,200	0	0	0	0	0	0
Mar-41	W	472,609	209	134,285	0	0	0	0	0	0
Apr-41	W	321,423	139	60,608	0	0	0	0	0	0
May-41	W	510,533	159	110,149	0	0	0	0	0	0
Jun-41	W	486,208	139	91,813	0	0	0	0	0	0
Jul-41	W	127,349	336	58,207	0	0	0	0	0	0
Aug-41	W	114,300	312	48,544	0	0	0	0	0	0
Sep-41	W	111,222	338	51,168	0	0	0	0	0	0
Oct-41	W	301,344	149	60,960	0	0	0	0	0	0
Nov-41	W	136,110	341	63,025	0	0	0	0	0	0
Dec-41	W	216,924	257	75,732	0	0	0	0	0	0
Jan-42	W	410,432	154	86,097	0	0	0	0	0	0
Feb-42	W	447,480	240	146,247	0	0	0	0	0	0
Mar-42	W	290,628	264	104,388	0	0	0	0	0	0
Apr-42	W	312,290	188	79,774	0	0	0	0	0	0
May-42	W	336,079	162	73,881	0	0	0	0	0	0
Jun-42	W	382,823	248	129,227	0	0	0	0	0	0
Jul-42	W	147,817	275	55,263	0	0	0	0	0	0
Aug-42	W	121,275	285	47,055	0	0	0	0	0	0
Sep-42	W	127,760	193	33,453	0	0	0	0	0	0
Oct-42	W	286,096	158	61,337	0	0	0	0	0	0
Nov-42	W	213,488	230	66,754	0	0	0	0	0	0
Dec-42	W	201,620	231	63,372	0	0	0	0	0	0
Jan-43	W	656,099	134	119,256	0	0	0	0	0	0
Feb-43	W	550,309	163	121,873	0	0	0	0	0	0
Mar-43	W	981,482	148	197,880	0	0	0	0	0	0
Apr-43	W	305,956	203	84,396	0	0	0	0	0	0
May-43	W	350,679	174	82,859	0	0	0	0	0	0
Jun-43	W	196,495	125	33,365	0	0	0	0	0	0
Jul-43	W	139,051	396	74,784	0	0	0	0	0	0
Aug-43	W	117,304	303	48,289	0	0	0	0	0	0
Sep-43	W	105,881	292	42,075	0	0	0	0	0	0
Oct-43	BN	191,050	210	54,570	0	0	0	0	0	0
Nov-43	BN	112,373	383	58,496	0	0	0	0	0	0
Dec-43	BN	109,403	390	58,036	0	0	0	0	0	0
Jan-44	BN	123,414	432	72,465	0	0	0	0	0	0
Feb-44	BN	171,687	434	101,323	0	0	0	0	0	0
Mar-44	BN	155,088	599	126,189	0	0	0	0	0	0
Apr-44	BN	264,171	197	70,751	0	0	0	0	0	0
May-44	BN	198,661	255	68,735	0	0	0	0	0	0
Jun-44	BN	88,224	357	42,855	0	0	0	0	0	0
Jul-44	BN	103,141	472	66,142	0	0	0	0	0	0
Aug-44	BN	94,918	330	42,519	0	0	0	0	0	0
Sep-44	BN	85,856	284	33,137	0	0	0	0	0	0
Oct-44	AN	88,422	316	37,962	0	0	0	0	0	0
Nov-44	AN	93,287	483	61,281	0	0	0	0	0	0
Dec-44	AN	88,517	406	48,834	0	0	0	0	0	0
Jan-45	AN	91,708	473	58,947	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	215,332	208	60,803	427			
0	0	0	0	179,125	190	46,245	427			
0	0	0	0	97,745	340	45,154	427			
0	0	0	0	80,206	275	29,975	427			
0	0	0	0	115,599	360	56,592	427			
0	0	0	0	66,563	386	34,912	610			
0	0	0	0	80,297	501	54,691	610			
0	0	0	0	83,722	354	40,338	610			
0	0	0	0	79,681	376	40,720	610			
0	0	0	0	134,144	427	77,817	610			
0	0	0	0	239,665	406	132,122	610			
0	0	0	0	464,911	224	141,642	610			
0	0	0	0	261,233	198	70,212	427			
0	0	0	0	301,766	143	58,707	427			
0	0	0	0	99,698	192	25,996	427			
0	0	0	0	107,366	296	43,205	427			
0	0	0	0	138,828	292	55,187	427			
0	0	0	0	112,413	355	54,314	610			
0	0	0	0	111,893	310	47,081	610			
0	0	0	0	98,378	310	41,461	610			
0	0	0	0	196,761	249	66,607	610			
0	0	0	0	199,250	267	72,433	610			
0	0	0	0	651,247	183	162,200	610			
0	0	0	0	472,609	209	134,285	610			
0	0	0	0	321,423	139	60,608	427			
0	0	0	0	510,533	159	110,149	427			
0	0	0	0	486,208	139	91,813	427			
0	0	0	0	127,349	336	58,207	427			
0	0	0	0	114,300	312	48,544	427			
0	0	0	0	111,222	338	51,168	610			
0	0	0	0	301,344	149	60,960	610			
0	0	0	0	136,110	341	63,025	610			
0	0	0	0	216,924	257	75,732	610			
0	0	0	0	410,432	154	86,097	610			
0	0	0	0	447,480	240	146,247	610			
0	0	0	0	290,628	264	104,388	610			
0	0	0	0	312,290	188	79,774	427			
0	0	0	0	336,079	162	73,881	427			
0	0	0	0	382,823	248	129,227	427			
0	0	0	0	147,817	275	55,263	427			
0	0	0	0	121,275	285	47,055	427			
0	0	0	0	127,760	193	33,453	610			
0	0	0	0	286,096	158	61,337	610			
0	0	0	0	213,488	230	66,754	610			
0	0	0	0	201,620	231	63,372	610			
0	0	0	0	656,099	134	119,256	610			
0	0	0	0	550,309	163	121,873	610			
0	0	0	0	981,482	148	197,880	610			
0	0	0	0	305,956	203	84,396	427			
0	0	0	0	350,679	174	82,859	427			
0	0	0	0	196,495	125	33,365	427			
0	0	0	0	139,051	396	74,784	427			
0	0	0	0	117,304	303	48,289	427			
0	0	0	0	105,881	292	42,075	610			
0	0	0	0	191,050	210	54,570	610			
0	0	0	0	112,373	383	58,496	610			
0	0	0	0	109,403	390	58,036	610			
0	0	0	0	123,414	432	72,465	610			
0	0	0	0	171,687	434	101,323	610			
0	0	0	0	155,088	599	126,189	610			
0	0	0	0	264,171	197	70,751	427			
0	0	0	0	198,661	255	68,735	427			
0	0	0	0	88,224	357	42,855	427			
0	0	0	0	103,141	472	66,142	427	1		1
0	0	0	0	94,918	330	42,519	427			
0	0	0	0	85,856	284	33,137	610			
0	0	0	0	88,422	316	37,962	610			
0	0	0	0	93,287	483	61,281	610			
0	0	0	0	88,517	406	48,834	610			
0	0	0	0	91,708	473	58,947	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Feb-45	AN	322,236	272	118,939	0	0	0	0	0	0
Mar-45	AN	345,459	301	141,271	0	0	0	0	0	0
Apr-45	AN	222,299	174	52,495	0	0	0	0	0	0
May-45	AN	272,192	144	53,249	0	0	0	0	0	0
Jun-45	AN	127,635	388	67,274	0	0	0	0	0	0
Jul-45	AN	130,621	405	71,902	0	0	0	0	0	0
Aug-45	AN	105,829	305	43,824	0	0	0	0	0	0
Sep-45	AN	109,513	428	63,692	0	0	0	0	0	0
Oct-45	AN	212,304	171	49,442	0	0	0	0	0	0
Nov-45	AN	133,548	268	48,585	0	0	0	0	0	0
Dec-45	AN	302,067	151	62,010	0	0	0	0	0	0
Jan-46	AN	336,084	188	85,944	0	0	0	0	0	0
Feb-46	AN	294,513	303	121,438	0	0	0	0	0	0
Mar-46	AN	262,765	337	120,458	0	0	0	0	0	0
Apr-46	AN	292,332	191	75,948	0	0	0	0	0	0
May-46	AN	268,166	172	62,706	0	0	0	0	0	0
Jun-46	AN	123,174	392	65,559	0	0	0	0	0	0
Jul-46	AN	127,043	339	58,464	0	0	0	0	0	0
Aug-46	AN	138,749	399	75,320	0	0	0	0	0	0
Sep-46	AN	101,904	291	40,370	0	0	0	0	0	0
Oct-46	D	98,348	296	39,603	0	0	0	0	0	0
Nov-46	D	103,194	316	44,360	0	0	0	0	0	0
Dec-46	D	126,129	374	64,114	0	0	0	0	0	0
Jan-47	D	131,018	486	86,477	0	0	0	0	0	0
Feb-47	D	157,668	457	98,044	0	0	0	0	0	0
Mar-47	D	129,332	645	113,338	0	0	0	0	0	0
Apr-47	D	143,001	281	54,590	0	0	0	0	0	0
May-47	D	153,783	301	62,909	0	0	0	0	0	0
Jun-47	D	73,499	217	21,633	0	0	0	0	0	0
Jul-47	D	80,140	323	35,224	0	0	0	0	0	0
Aug-47	D	99,061	441	59,391	0	0	0	0	0	0
Sep-47	D	76,922	401	41,924	0	0	0	0	0	0
Oct-47	BN	71,161	367	35,544	0	0	0	0	0	0
Nov-47	BN	79,816	549	59,518	0	0	0	0	0	0
Dec-47	BN	76,564	463	48,183	0	0	0	0	0	0
Jan-48	BN	87,134	548	64,880	0	0	0	0	0	0
Feb-48	BN	114,162	695	107,789	0	0	0	0	0	0
Mar-48	BN	119,508	692	112,414	0	0	0	0	0	0
Apr-48	BN	175,082	264	62,910	0	0	0	0	0	0
May-48	BN	173,401	301	70,934	0	0	0	0	0	0
Jun-48	BN	88,853	278	33,557	0	0	0	0	0	0
Jul-48	BN	94,774	341	43,936	0	0	0	0	0	0
Aug-48	BN	104,223	286	40,467	0	0	0	0	0	0
Sep-48	BN	77,041	302	31,589	0	0	0	0	0	0
Oct-48	BN	82,359	348	38,942	0	0	0	0	0	0
Nov-48	BN	80,048	406	44,129	0	0	0	0	0	0
Dec-48	BN	78,811	431	46,147	0	0	0	0	0	0
Jan-49	BN	91,528	622	77,422	0	0	0	0	0	0
Feb-49	BN	102,784	628	87,740	0	0	0	0	0	0
Mar-49	BN	121,360	704	116,070	0	0	0	0	0	0
Apr-49	BN	175,186	300	71,331	0	0	0	0	0	0
May-49	BN	180,376	286	70,182	0	0	0	0	0	0
Jun-49	BN	84,053	157	17,975	0	0	0	0	0	0
Jul-49	BN	90,101	383	46,853	0	0	0	0	0	0
Aug-49	BN	107,143	318	46,247	0	0	0	0	0	0
Sep-49	BN	81,978	295	32,855	0	0	0	0	0	0
Oct-49	BN	83,289	319	36,064	0	0	0	0	0	0
Nov-49	BN	78,653	443	47,402	0	0	0	0	0	0
Dec-49	BN	85,653	533	62,089	0	0	0	0	0	0
Jan-50	BN	90,242	459	56,263	0	0	0	0	0	0
Feb-50	BN	119,732	604	98,365	0	0	0	0	0	0
Mar-50	BN	122,474	746	124,145	0	0	0	0	0	0
Apr-50	BN	180,969	287	70,610	0	0	0	0	0	0
May-50	BN	196,371	280	74,751	0	0	0	0	0	0
Jun-50	BN	107,186	414	60,313	0	0	0	0	0	0
Jul-50	BN	115,678	411	64,667	0	0	0	0	0	0
Aug-50	BN	108,338	393	57,883	0	0	0	0	0	0
Sep-50	BN	86,626	324	38,133	0	0	0	0	0	0
Oct-50	AN	80,618	510	55,841	0	0	0	0	0	0
Nov-50	AN	112,735	386	59,144	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	322,236	272	118,939	610			
0	0	0	0	345,459	301	141,271	610			
0	0	0	0	222,299	174	52,495	427			
0	0	0	0	272,192	144	53,249	427			
0	0	0	0	127,635	388	67,274	427			
0	0	0	0	130,621	405	71,902	427			
0	0	0	0	105,829	305	43,824	427			
0	0	0	0	109,513	428	63,692	610			
0	0	0	0	212,304	171	49,442	610			
0	0	0	0	133,548	268	48,585	610			
0	0	0	0	302,067	151	62,010	610			
0	0	0	0	336,084	188	85,944	610			
0	0	0	0	294,513	303	121,438	610			
0	0	0	0	262,765	337	120,458	610			
0	0	0	0	292,332	191	75,948	427			
0	0	0	0	268,166	172	62,706	427			
0	0	0	0	123,174	392	65,559	427			
0	0	0	0	127,043	339	58,464	427			
0	0	0	0	138,749	399	75,320	427			
0	0	0	0	101,904	291	40,370	610			
0	0	0	0	98,348	296	39,603	610			
0	0	0	0	103,194	316	44,360	610			
0	0	0	0	126,129	374	64,114	610			
0	0	0	0	131,018	486	86,477	610			
0	0	0	0	157,668	457	98,044	610			
0	0	0	0	129,332	645	113,338	610	1	1	
0	0	0	0	143,001	281	54,590	427			
0	0	0	0	153,783	301	62,909	427			
0	0	0	0	73,499	217	21,633	427			
0	0	0	0	80,140	323	35,224	427			
0	0	0	0	99,061	441	59,391	427	1		1
0	0	0	0	76,922	401	41,924	610			
0	0	0	0	71,161	367	35,544	610			
0	0	0	0	79,816	549	59,518	610			
0	0	0	0	76,564	463	48,183	610			
0	0	0	0	87,134	548	64,880	610			
0	0	0	0	114,162	695	107,789	610	1	1	
0	0	0	0	119,508	692	112,414	610	1	1	
0	0	0	0	175,082	264	62,910	427			
0	0	0	0	173,401	301	70,934	427			
0	0	0	0	88,853	278	33,557	427			
0	0	0	0	94,774	341	43,936	427			
0	0	0	0	104,223	286	40,467	427			
0	0	0	0	77,041	302	31,589	610			
0	0	0	0	82,359	348	38,942	610			
0	0	0	0	80,048	406	44,129	610			
0	0	0	0	78,811	431	46,147	610			
0	0	0	0	91,528	622	77,422	610	1	1	
0	0	0	0	102,784	628	87,740	610	1	1	
0	0	0	0	121,360	704	116,070	610	1	1	
0	0	0	0	175,186	300	71,331	427			
0	0	0	0	180,376	286	70,182	427			
0	0	0	0	84,053	157	17,975	427			
0	0	0	0	90,101	383	46,853	427			
0	0	0	0	107,143	318	46,247	427			
0	0	0	0	81,978	295	32,855	610			
0	0	0	0	83,289	319	36,064	610			
0	0	0	0	78,653	443	47,402	610			
0	0	0	0	85,653	533	62,089	610			
0	0	0	0	90,242	459	56,263	610			
0	0	0	0	119,732	604	98,365	610			
0	0	0	0	122,474	746	124,145	610	1	1	
0	0	0	0	180,969	287	70,610	427			
0	0	0	0	196,371	280	74,751	427			
0	0	0	0	107,186	414	60,313	427			
0	0	0	0	115,678	411	64,667	427			
0	0	0	0	108,338	393	57,883	427			
0	0	0	0	86,626	324	38,133	610			
0	0	0	0	80,618	510	55,841	610			
0	0	0	0	112,735	386	59,144	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Dec-50	AN	486,196	144	95,380	0	0	0	0	0	0
Jan-51	AN	510,994	168	116,570	0	0	0	0	0	0
Feb-51	AN	387,795	240	126,688	0	0	0	0	0	0
Mar-51	AN	295,433	262	105,150	0	0	0	0	0	0
Apr-51	AN	306,407	193	80,396	0	0	0	0	0	0
May-51	AN	241,523	153	50,073	0	0	0	0	0	0
Jun-51	AN	109,820	172	25,605	0	0	0	0	0	0
Jul-51	AN	126,655	407	70,046	0	0	0	0	0	0
Aug-51	AN	121,483	320	52,833	0	0	0	0	0	0
Sep-51	AN	102,444	294	40,932	0	0	0	0	0	0
Oct-51	W	106,550	405	58,681	0	0	0	0	0	0
Nov-51	W	109,025	358	52,988	0	0	0	0	0	0
Dec-51	W	115,668	391	61,406	0	0	0	0	0	0
Jan-52	W	177,343	314	75,729	0	0	0	0	0	0
Feb-52	W	235,623	363	116,151	0	0	0	0	0	0
Mar-52	W	505,444	224	153,784	0	0	0	0	0	0
Apr-52	W	481,644	146	95,338	0	0	0	0	0	0
May-52	W	1,009,027	120	163,927	0	0	0	0	0	0
Jun-52	W	638,853	94	81,728	0	0	0	0	0	0
Jul-52	W	268,907	164	59,955	0	0	0	0	0	0
Aug-52	W	202,497	285	78,487	0	0	0	0	0	0
Sep-52	W	210,760	185	53,008	0	0	0	0	0	0
Oct-52	BN	290,859	136	53,857	0	0	0	0	0	0
Nov-52	BN	138,896	277	52,268	0	0	0	0	0	0
Dec-52	BN	157,748	311	66,589	0	0	0	0	0	0
Jan-53	BN	265,415	201	72,672	0	0	0	0	0	0
Feb-53	BN	318,621	290	125,705	0	0	0	0	0	0
Mar-53	BN	230,419	402	126,022	0	0	0	0	0	0
Apr-53	BN	256,947	197	68,746	0	0	0	0	0	0
May-53	BN	258,165	274	96,062	0	0	0	0	0	0
Jun-53	BN	115,104	437	68,383	0	0	0	0	0	0
Jul-53	BN	115,809	408	64,221	0	0	0	0	0	0
Aug-53	BN	122,120	290	48,163	0	0	0	0	0	0
Sep-53	BN	94,421	356	45,737	0	0	0	0	0	0
Oct-53	BN	91,360	293	36,404	0	0	0	0	0	0
Nov-53	BN	96,500	453	59,482	0	0	0	0	0	0
Dec-53	BN	93,834	497	63,337	0	0	0	0	0	0
Jan-54	BN	95,397	498	64,561	0	0	0	0	0	0
Feb-54	BN	124,394	655	110,786	0	0	0	0	0	0
Mar-54	BN	142,721	666	129,243	0	0	0	0	0	0
Apr-54	BN	204,193	261	72,481	0	0	0	0	0	0
May-54	BN	182,418	182	45,235	0	0	0	0	0	0
Jun-54	BN	104,417	595	84,463	0	0	0	0	0	0
Jul-54	BN	119,559	474	77,093	0	0	0	0	0	0
Aug-54	BN	96,226	322	42,085	0	0	0	0	0	0
Sep-54	BN	85,702	333	38,798	0	0	0	0	0	0
Oct-54	D	92,896	369	46,602	0	0	0	0	0	0
Nov-54	D	84,534	440	50,532	0	0	0	0	0	0
Dec-54	D	84,615	425	48,889	0	0	0	0	0	0
Jan-55	D	100,729	465	63,609	0	0	0	0	0	0
Feb-55	D	119,632	711	115,669	0	0	0	0	0	0
Mar-55	D	114,828	773	120,734	0	0	0	0	0	0
Apr-55	D	147,333	390	78,097	0	0	0	0	0	0
May-55	D	143,718	287	56,075	0	0	0	0	0	0
Jun-55	D	81,721	281	31,186	0	0	0	0	0	0
Jul-55	D	105,966	572	82,388	0	0	0	0	0	0
Aug-55	D	62,708	371	31,637	0	0	0	0	0	0
Sep-55	D	69,724	398	37,698	0	0	0	0	0	0
Oct-55	W	76,166	390	40,342	0	0	0	0	0	0
Nov-55	W	88,821	435	52,503	0	0	0	0	0	0
Dec-55	W	369,353	211	105,900	0	0	0	0	0	0
Jan-56	W	1,088,384	113	167,793	0	0	0	0	0	0
Feb-56	W	594,957	195	157,563	0	0	0	0	0	0
Mar-56	W	362,903	278	137,205	0	0	0	0	0	0
Apr-56	W	310,622	181	76,223	0	0	0	0	0	0
May-56	W	376,331	213	109,027	0	0	0	0	0	0
Jun-56	W	442,795	130	77,956	0	0	0	0	0	0
Jul-56	W	146,176	290	57,631	0	0	0	0	0	0
Aug-56	W	130,432	308	54,668	0	0	0	0	0	0
Sep-56	W	122,306	276	45,875	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	486,196	144	95,380	610			
0	0	0	0	510,994	168	116,570	610			
0	0	0	0	387,795	240	126,688	610			
0	0	0	0	295,433	262	105,150	610			
0	0	0	0	306,407	193	80,396	427			
0	0	0	0	241,523	153	50,073	427			
0	0	0	0	109,820	172	25,605	427			
0	0	0	0	126,655	407	70,046	427			
0	0	0	0	121,483	320	52,833	427			
0	0	0	0	102,444	294	40,932	610			
0	0	0	0	106,550	405	58,681	610			
0	0	0	0	109,025	358	52,988	610			
0	0	0	0	115,668	391	61,406	610			
0	0	0	0	177,343	314	75,729	610			
0	0	0	0	235,623	363	116,151	610			
0	0	0	0	505,444	224	153,784	610			
0	0	0	0	481,644	146	95,338	427			
0	0	0	0	1,009,027	120	163,927	427			
0	0	0	0	638,853	94	81,728	427			
0	0	0	0	268,907	164	59,955	427			
0	0	0	0	202,497	285	78,487	427			
0	0	0	0	210,760	185	53,008	610			
0	0	0	0	290,859	136	53,857	610			
0	0	0	0	138,896	277	52,268	610			
0	0	0	0	157,748	311	66,589	610			
0	0	0	0	265,415	201	72,672	610			
0	0	0	0	318,621	290	125,705	610			
0	0	0	0	230,419	402	126,022	610			
0	0	0	0	256,947	197	68,746	427			
0	0	0	0	258,165	274	96,062	427			
0	0	0	0	115,104	437	68,383	427	1		1
0	0	0	0	115,809	408	64,221	427			
0	0	0	0	122,120	290	48,163	427			
0	0	0	0	94,421	356	45,737	610			
0	0	0	0	91,360	293	36,404	610			
0	0	0	0	96,500	453	59,482	610			
0	0	0	0	93,834	497	63,337	610			
0	0	0	0	95,397	498	64,561	610			
0	0	0	0	124,394	655	110,786	610	1	1	
0	0	0	0	142,721	666	129,243	610	1	1	
0	0	0	0	204,193	261	72,481	427			
0	0	0	0	182,418	182	45,235	427			
0	0	0	0	104,417	595	84,463	427	1		1
0	0	0	0	119,559	474	77,093	427	1		1
0	0	0	0	96,226	322	42,085	427			
0	0	0	0	85,702	333	38,798	610			
0	0	0	0	92,896	369	46,602	610			
0	0	0	0	84,534	440	50,532	610			
0	0	0	0	84,615	425	48,889	610			
0	0	0	0	100,729	465	63,609	610			
0	0	0	0	119,632	711	115,669	610	1	1	
0	0	0	0	114,828	773	120,734	610	1	1	
0	0	0	0	147,333	390	78,097	427			
0	0	0	0	143,718	287	56,075	427			
0	0	0	0	81,721	281	31,186	427			
0	0	0	0	105,966	572	82,388	427	1		1
0	0	0	0	62,708	371	31,637	427			
0	0	0	0	69,724	398	37,698	610			
0	0	0	0	76,166	390	40,342	610			
0	0	0	0	88,821	435	52,503	610			
0	0	0	0	369,353	211	105,900	610			
0	0	0	0	1,088,384	113	167,793	610			
0	0	0	0	594,957	195	157,563	610			
0	0	0	0	362,903	278	137,205	610			
0	0	0	0	310,622	181	76,223	427			
0	0	0	0	376,331	213	109,027	427			
0	0	0	0	442,795	130	77,956	427			
0	0	0	0	146,176	290	57,631	427			
0	0	0	0	130,432	308	54,668	427			
0	0	0	0	122,306	276	45,875	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-56	BN	287,309	122	47,457	0	0	0	0	0	0
Nov-56	BN	105,481	400	57,289	0	0	0	0	0	0
Dec-56	BN	102,226	320	44,486	0	0	0	0	0	0
Jan-57	BN	117,728	462	73,976	0	0	0	0	0	0
Feb-57	BN	178,034	455	110,054	0	0	0	0	0	0
Mar-57	BN	198,450	403	108,726	0	0	0	0	0	0
Apr-57	BN	272,715	273	101,328	0	0	0	0	0	0
May-57	BN	228,676	138	42,871	0	0	0	0	0	0
Jun-57	BN	100,973	339	46,522	0	0	0	0	0	0
Jul-57	BN	125,749	342	58,501	0	0	0	0	0	0
Aug-57	BN	117,549	275	43,979	0	0	0	0	0	0
Sep-57	BN	88,419	300	36,110	0	0	0	0	0	0
Oct-57	W	100,284	331	45,168	0	0	0	0	0	0
Nov-57	W	97,870	356	47,341	0	0	0	0	0	0
Dec-57	W	92,178	383	48,046	0	0	0	0	0	0
Jan-58	W	107,296	485	70,790	0	0	0	0	0	0
Feb-58	W	147,153	563	112,631	0	0	0	0	0	0
Mar-58	W	446,391	234	141,825	0	0	0	0	0	0
Apr-58	W	537,498	118	85,861	0	0	0	0	0	0
May-58	W	649,196	125	110,588	0	0	0	0	0	0
Jun-58	W	619,292	140	117,449	0	0	0	0	0	0
Jul-58	W	107,828	257	37,689	0	0	0	0	0	0
Aug-58	W	136,661	437	81,265	0	0	0	0	0	0
Sep-58	W	119,452	227	36,782	0	0	0	0	0	0
Oct-58	D	295,512	137	55,200	0	0	0	0	0	0
Nov-58	D	144,171	266	52,136	0	0	0	0	0	0
Dec-58	D	102,805	334	46,667	0	0	0	0	0	0
Jan-59	D	140,010	358	68,086	0	0	0	0	0	0
Feb-59	D	250,145	319	108,449	0	0	0	0	0	0
Mar-59	D	221,534	375	113,001	0	0	0	0	0	0
Apr-59	D	183,532	222	55,267	0	0	0	0	0	0
May-59	D	200,539	280	76,337	0	0	0	0	0	0
Jun-59	D	77,970	319	33,846	0	0	0	0	0	0
Jul-59	D	104,703	559	79,584	0	0	0	0	0	0
Aug-59	D	117,681	337	53,836	0	0	0	0	0	0
Sep-59	D	74,769	343	34,865	0	0	0	0	0	0
Oct-59	C	80,385	404	44,118	0	0	0	0	0	0
Nov-59	C	81,466	529	58,533	0	0	0	0	0	0
Dec-59	C	79,852	511	55,419	0	0	0	0	0	0
Jan-60	C	86,349	432	50,690	0	0	0	0	0	0
Feb-60	C	116,638	671	106,352	0	0	0	0	0	0
Mar-60	C	103,922	702	99,236	0	0	0	0	0	0
Apr-60	C	126,523	296	50,914	0	0	0	0	0	0
May-60	C	165,930	318	71,645	0	0	0	0	0	0
Jun-60	C	78,617	413	44,152	0	0	0	0	0	0
Jul-60	C	109,737	596	88,871	0	0	0	0	0	0
Aug-60	C	92,150	446	55,899	0	0	0	0	0	0
Sep-60	C	66,734	514	46,614	0	0	0	0	0	0
Oct-60	C	66,056	379	34,062	0	0	0	0	0	0
Nov-60	C	74,648	541	54,943	0	0	0	0	0	0
Dec-60	C	75,844	499	51,411	0	0	0	0	0	0
Jan-61	C	81,499	656	72,706	0	0	0	0	0	0
Feb-61	C	106,456	745	107,793	0	0	0	0	0	0
Mar-61	C	108,918	737	109,190	0	0	0	0	0	0
Apr-61	C	85,246	297	34,443	0	0	0	0	0	0
May-61	C	92,621	324	40,747	0	0	0	0	0	0
Jun-61	C	87,542	581	69,159	0	0	0	0	0	0
Jul-61	C	92,368	427	53,645	0	0	0	0	0	0
Aug-61	C	71,457	361	35,031	0	0	0	0	0	0
Sep-61	C	58,056	443	34,957	0	0	0	0	0	0
Oct-61	BN	70,934	453	43,646	0	0	0	0	0	0
Nov-61	BN	76,629	411	42,858	0	0	0	0	0	0
Dec-61	BN	77,839	574	60,763	0	0	0	0	0	0
Jan-62	BN	81,157	751	82,838	0	0	0	0	0	0
Feb-62	BN	194,148	455	119,989	0	0	0	0	0	0
Mar-62	BN	121,776	625	103,538	0	0	0	0	0	0
Apr-62	BN	161,859	262	57,630	0	0	0	0	0	0
May-62	BN	204,762	237	66,002	0	0	0	0	0	0
Jun-62	BN	88,644	353	42,565	0	0	0	0	0	0
Jul-62	BN	81,085	374	41,184	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	287,309	122	47,457	610			
0	0	0	0	105,481	400	57,289	610			
0	0	0	0	102,226	320	44,486	610			
0	0	0	0	117,728	462	73,976	610			
0	0	0	0	178,034	455	110,054	610			
0	0	0	0	198,450	403	108,726	610			
0	0	0	0	272,715	273	101,328	427			
0	0	0	0	228,676	138	42,871	427			
0	0	0	0	100,973	339	46,522	427			
0	0	0	0	125,749	342	58,501	427			
0	0	0	0	117,549	275	43,979	427			
0	0	0	0	88,419	300	36,110	610			
0	0	0	0	100,284	331	45,168	610			
0	0	0	0	97,870	356	47,341	610			
0	0	0	0	92,178	383	48,046	610			
0	0	0	0	107,296	485	70,790	610			
0	0	0	0	147,153	563	112,631	610			
0	0	0	0	446,391	234	141,825	610			
0	0	0	0	537,498	118	85,861	427			
0	0	0	0	649,196	125	110,588	427			
0	0	0	0	619,292	140	117,449	427			
0	0	0	0	107,828	257	37,689	427			
0	0	0	0	136,661	437	81,265	427	1		1
0	0	0	0	119,452	227	36,782	610			
0	0	0	0	295,512	137	55,200	610			
0	0	0	0	144,171	266	52,136	610			
0	0	0	0	102,805	334	46,667	610			
0	0	0	0	140,010	358	68,086	610			
0	0	0	0	250,145	319	108,449	610			
0	0	0	0	221,534	375	113,001	610			
0	0	0	0	183,532	222	55,267	427			
0	0	0	0	200,539	280	76,337	427			
0	0	0	0	77,970	319	33,846	427			
0	0	0	0	104,703	559	79,584	427	1		1
0	0	0	0	117,681	337	53,836	427			
0	0	0	0	74,769	343	34,865	610			
0	0	0	0	80,385	404	44,118	610			
0	0	0	0	81,466	529	58,533	610			
0	0	0	0	79,852	511	55,419	610			
0	0	0	0	86,349	432	50,690	610			
0	0	0	0	116,638	671	106,352	610	1	1	
0	0	0	0	103,922	702	99,236	610	1	1	
0	0	0	0	126,523	296	50,914	427			
0	0	0	0	165,930	318	71,645	427			
0	0	0	0	78,617	413	44,152	427			
0	0	0	0	109,737	596	88,871	427	1		1
0	0	0	0	92,150	446	55,899	427	1		1
0	0	0	0	66,734	514	46,614	610			
0	0	0	0	66,056	379	34,062	610			
0	0	0	0	74,648	541	54,943	610			
0	0	0	0	75,844	499	51,411	610			
0	0	0	0	81,499	656	72,706	610	1	1	
0	0	0	0	106,456	745	107,793	610	1	1	
0	0	0	0	108,918	737	109,190	610	1	1	
0	0	0	0	85,246	297	34,443	427			
0	0	0	0	92,621	324	40,747	427			
0	0	0	0	87,542	581	69,159	427	1		1
0	0	0	0	92,368	427	53,645	427	1		1
0	0	0	0	71,457	361	35,031	427			
0	0	0	0	58,056	443	34,957	610			
0	0	0	0	70,934	453	43,646	610			
0	0	0	0	76,629	411	42,858	610			
0	0	0	0	77,839	574	60,763	610			
0	0	0	0	81,157	751	82,838	610	1	1	
0	0	0	0	194,148	455	119,989	610			
0	0	0	0	121,776	625	103,538	610	1	1	
0	0	0	0	161,859	262	57,630	427			
0	0	0	0	204,762	237	66,002	427			
0	0	0	0	88,644	353	42,565	427			
0	0	0	0	81,085	374	41,184	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Aug-62	BN	86,580	306	36,030	0	0	0	0	0	0
Sep-62	BN	87,557	331	39,353	0	0	0	0	0	0
Oct-62	AN	80,123	433	47,165	0	0	0	0	0	0
Nov-62	AN	90,339	541	66,493	0	0	0	0	0	0
Dec-62	AN	84,154	476	54,458	0	0	0	0	0	0
Jan-63	AN	89,381	562	68,278	0	0	0	0	0	0
Feb-63	AN	153,919	506	105,840	0	0	0	0	0	0
Mar-63	AN	131,329	616	110,053	0	0	0	0	0	0
Apr-63	AN	226,938	253	78,180	0	0	0	0	0	0
May-63	AN	228,428	185	57,358	0	0	0	0	0	0
Jun-63	AN	94,186	406	51,987	0	0	0	0	0	0
Jul-63	AN	109,086	447	66,217	0	0	0	0	0	0
Aug-63	AN	104,583	316	44,901	0	0	0	0	0	0
Sep-63	AN	91,235	268	33,266	0	0	0	0	0	0
Oct-63	D	122,105	317	52,556	0	0	0	0	0	0
Nov-63	D	119,254	408	66,099	0	0	0	0	0	0
Dec-63	D	108,667	487	71,946	0	0	0	0	0	0
Jan-64	D	115,766	397	62,466	0	0	0	0	0	0
Feb-64	D	131,473	620	110,764	0	0	0	0	0	0
Mar-64	D	120,599	661	108,341	0	0	0	0	0	0
Apr-64	D	150,202	374	76,411	0	0	0	0	0	0
May-64	D	149,508	326	66,221	0	0	0	0	0	0
Jun-64	D	97,384	464	61,417	0	0	0	0	0	0
Jul-64	D	99,342	443	59,789	0	0	0	0	0	0
Aug-64	D	77,352	448	47,101	0	0	0	0	0	0
Sep-64	D	59,799	355	28,893	0	0	0	0	0	0
Oct-64	W	80,398	493	53,875	0	0	0	0	0	0
Nov-64	W	79,993	346	37,660	0	0	0	0	0	0
Dec-64	W	151,838	302	62,299	0	0	0	0	0	0
Jan-65	W	481,901	149	97,551	0	0	0	0	0	0
Feb-65	W	367,982	228	113,862	0	0	0	0	0	0
Mar-65	W	259,260	350	123,327	0	0	0	0	0	0
Apr-65	W	317,393	207	89,363	0	0	0	0	0	0
May-65	W	285,308	188	72,727	0	0	0	0	0	0
Jun-65	W	112,700	298	45,658	0	0	0	0	0	0
Jul-65	W	121,093	268	44,087	0	0	0	0	0	0
Aug-65	W	119,885	370	60,239	0	0	0	0	0	0
Sep-65	W	111,040	342	51,568	0	0	0	0	0	0
Oct-65	BN	257,963	202	70,912	0	0	0	0	0	0
Nov-65	BN	197,345	203	54,463	0	0	0	0	0	0
Dec-65	BN	256,544	171	59,779	0	0	0	0	0	0
Jan-66	BN	272,822	238	88,163	0	0	0	0	0	0
Feb-66	BN	302,979	280	115,250	0	0	0	0	0	0
Mar-66	BN	215,369	403	117,937	0	0	0	0	0	0
Apr-66	BN	218,323	198	58,828	0	0	0	0	0	0
May-66	BN	186,000	277	69,968	0	0	0	0	0	0
Jun-66	BN	98,585	443	59,307	0	0	0	0	0	0
Jul-66	BN	115,935	344	54,156	0	0	0	0	0	0
Aug-66	BN	128,698	367	64,265	0	0	0	0	0	0
Sep-66	BN	84,757	338	38,970	0	0	0	0	0	0
Oct-66	W	89,647	423	51,541	0	0	0	0	0	0
Nov-66	W	88,298	405	48,581	0	0	0	0	0	0
Dec-66	W	103,243	404	56,691	0	0	0	0	0	0
Jan-67	W	113,643	468	72,305	0	0	0	0	0	0
Feb-67	W	157,104	494	105,489	0	0	0	0	0	0
Mar-67	W	281,390	322	123,104	0	0	0	0	0	0
Apr-67	W	555,049	166	125,564	0	0	0	0	0	0
May-67	W	905,056	143	176,197	0	0	0	0	0	0
Jun-67	W	803,916	141	153,556	0	0	0	0	0	0
Jul-67	W	575,146	153	119,945	0	0	0	0	0	0
Aug-67	W	117,370	399	63,586	0	0	0	0	0	0
Sep-67	W	179,079	196	47,742	0	0	0	0	0	0
Oct-67	D	302,229	162	66,604	0	0	0	0	0	0
Nov-67	D	118,550	335	53,959	0	0	0	0	0	0
Dec-67	D	107,536	386	56,431	0	0	0	0	0	0
Jan-68	D	115,909	497	78,253	0	0	0	0	0	0
Feb-68	D	210,721	400	114,447	0	0	0	0	0	0
Mar-68	D	189,665	499	128,744	0	0	0	0	0	0
Apr-68	D	221,352	182	54,769	0	0	0	0	0	0
May-68	D	171,889	190	44,330	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	86,580	306	36,030	427			
0	0	0	0	87,557	331	39,353	610			
0	0	0	0	80,123	433	47,165	610			
0	0	0	0	90,339	541	66,493	610			
0	0	0	0	84,154	476	54,458	610			
0	0	0	0	89,381	562	68,278	610			
0	0	0	0	153,919	506	105,840	610			
0	0	0	0	131,329	616	110,053	610	1	1	
0	0	0	0	226,938	253	78,180	427			
0	0	0	0	228,428	185	57,358	427			
0	0	0	0	94,186	406	51,987	427			
0	0	0	0	109,086	447	66,217	427	1		1
0	0	0	0	104,583	316	44,901	427			
0	0	0	0	91,235	268	33,266	610			
0	0	0	0	122,105	317	52,556	610			
0	0	0	0	119,254	408	66,099	610			
0	0	0	0	108,667	487	71,946	610			
0	0	0	0	115,766	397	62,466	610			
0	0	0	0	131,473	620	110,764	610	1	1	
0	0	0	0	120,599	661	108,341	610	1	1	
0	0	0	0	150,202	374	76,411	427			
0	0	0	0	149,508	326	66,221	427			
0	0	0	0	97,384	464	61,417	427	1		1
0	0	0	0	99,342	443	59,789	427	1		1
0	0	0	0	77,352	448	47,101	427	1		1
0	0	0	0	59,799	355	28,893	610			
0	0	0	0	80,398	493	53,875	610			
0	0	0	0	79,993	346	37,660	610			
0	0	0	0	151,838	302	62,299	610			
0	0	0	0	481,901	149	97,551	610			
0	0	0	0	367,982	228	113,862	610			
0	0	0	0	259,260	350	123,327	610			
0	0	0	0	317,393	207	89,363	427			
0	0	0	0	285,308	188	72,727	427			
0	0	0	0	112,700	298	45,658	427			
0	0	0	0	121,093	268	44,087	427			
0	0	0	0	119,885	370	60,239	427			
0	0	0	0	111,040	342	51,568	610			
0	0	0	0	257,963	202	70,912	610			
0	0	0	0	197,345	203	54,463	610			
0	0	0	0	256,544	171	59,779	610			
0	0	0	0	272,822	238	88,163	610			
0	0	0	0	302,979	280	115,250	610			
0	0	0	0	215,369	403	117,937	610			
0	0	0	0	218,323	198	58,828	427			
0	0	0	0	186,000	277	69,968	427			
0	0	0	0	98,585	443	59,307	427	1		1
0	0	0	0	115,935	344	54,156	427			
0	0	0	0	128,698	367	64,265	427			
0	0	0	0	84,757	338	38,970	610			
0	0	0	0	89,647	423	51,541	610			
0	0	0	0	88,298	405	48,581	610			
0	0	0	0	103,243	404	56,691	610			
0	0	0	0	113,643	468	72,305	610			
0	0	0	0	157,104	494	105,489	610			
0	0	0	0	281,390	322	123,104	610			
0	0	0	0	555,049	166	125,564	427			
0	0	0	0	905,056	143	176,197	427			
0	0	0	0	803,916	141	153,556	427			
0	0	0	0	575,146	153	119,945	427			
0	0	0	0	117,370	399	63,586	427			
0	0	0	0	179,079	196	47,742	610			
0	0	0	0	302,229	162	66,604	610			
0	0	0	0	118,550	335	53,959	610			
0	0	0	0	107,536	386	56,431	610			
0	0	0	0	115,909	497	78,253	610			
0	0	0	0	210,721	400	114,447	610			
0	0	0	0	189,665	499	128,744	610			
0	0	0	0	221,352	182	54,769	427			
0	0	0	0	171,889	190	44,330	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Jun-68	D	95,220	324	41,994	0	0	0	0	0	0
Jul-68	D	93,828	342	43,587	0	0	0	0	0	0
Aug-68	D	89,496	419	50,943	0	0	0	0	0	0
Sep-68	D	73,150	541	53,781	0	0	0	0	0	0
Oct-68	W	84,959	471	54,344	0	0	0	0	0	0
Nov-68	W	86,332	382	44,823	0	0	0	0	0	0
Dec-68	W	92,419	460	57,809	0	0	0	0	0	0
Jan-69	W	605,803	155	127,821	0	0	0	0	0	0
Feb-69	W	1,484,150	121	244,747	0	0	0	0	0	0
Mar-69	W	972,482	165	218,145	0	0	0	0	0	0
Apr-69	W	1,129,551	126	193,796	0	0	0	0	0	0
May-69	W	1,685,679	95	217,710	0	0	0	0	0	0
Jun-69	W	1,153,940	94	146,838	0	0	0	0	0	0
Jul-69	W	364,061	245	121,409	0	0	0	0	0	0
Aug-69	W	179,067	200	48,615	0	0	0	0	0	0
Sep-69	W	205,559	198	55,333	0	0	0	0	0	0
Oct-69	AN	320,808	146	63,720	0	0	0	0	0	0
Nov-69	AN	174,286	236	55,918	0	0	0	0	0	0
Dec-69	AN	200,184	223	60,635	0	0	0	0	0	0
Jan-70	AN	1,053,767	98	140,538	0	0	0	0	0	0
Feb-70	AN	525,783	209	149,608	0	0	0	0	0	0
Mar-70	AN	363,701	257	127,222	0	0	0	0	0	0
Apr-70	AN	299,608	182	74,050	0	0	0	0	0	0
May-70	AN	287,228	177	69,155	0	0	0	0	0	0
Jun-70	AN	125,558	401	68,364	0	0	0	0	0	0
Jul-70	AN	112,191	506	77,192	0	0	0	0	0	0
Aug-70	AN	128,996	305	53,488	0	0	0	0	0	0
Sep-70	AN	100,723	355	48,611	0	0	0	0	0	0
Oct-70	BN	100,506	310	42,317	0	0	0	0	0	0
Nov-70	BN	100,418	357	48,737	0	0	0	0	0	0
Dec-70	BN	101,346	346	47,658	0	0	0	0	0	0
Jan-71	BN	101,720	446	61,663	0	0	0	0	0	0
Feb-71	BN	130,481	625	110,921	0	0	0	0	0	0
Mar-71	BN	217,265	365	107,663	0	0	0	0	0	0
Apr-71	BN	248,580	182	61,573	0	0	0	0	0	0
May-71	BN	262,805	312	111,615	0	0	0	0	0	0
Jun-71	BN	104,716	430	61,215	0	0	0	0	0	0
Jul-71	BN	119,356	464	75,258	0	0	0	0	0	0
Aug-71	BN	93,651	278	35,356	0	0	0	0	0	0
Sep-71	BN	94,156	406	51,906	0	0	0	0	0	0
Oct-71	D	98,615	409	54,847	0	0	0	0	0	0
Nov-71	D	83,213	383	43,328	0	0	0	0	0	0
Dec-71	D	87,491	436	51,848	0	0	0	0	0	0
Jan-72	D	99,602	600	81,232	0	0	0	0	0	0
Feb-72	D	123,895	601	101,263	0	0	0	0	0	0
Mar-72	D	113,035	612	94,077	0	0	0	0	0	0
Apr-72	D	163,160	297	65,791	0	0	0	0	0	0
May-72	D	134,352	223	40,713	0	0	0	0	0	0
Jun-72	D	84,941	213	24,550	0	0	0	0	0	0
Jul-72	D	103,599	500	70,464	0	0	0	0	0	0
Aug-72	D	107,094	370	53,928	0	0	0	0	0	0
Sep-72	D	63,514	520	44,918	0	0	0	0	0	0
Oct-72	AN	76,422	417	43,304	0	0	0	0	0	0
Nov-72	AN	80,191	436	47,489	0	0	0	0	0	0
Dec-72	AN	78,131	357	37,910	0	0	0	0	0	0
Jan-73	AN	90,872	493	60,930	0	0	0	0	0	0
Feb-73	AN	206,407	379	106,267	0	0	0	0	0	0
Mar-73	AN	365,922	261	129,989	0	0	0	0	0	0
Apr-73	AN	195,993	158	42,126	0	0	0	0	0	0
May-73	AN	307,514	216	90,093	0	0	0	0	0	0
Jun-73	AN	131,057	486	86,574	0	0	0	0	0	0
Jul-73	AN	127,760	465	80,696	0	0	0	0	0	0
Aug-73	AN	131,596	310	55,425	0	0	0	0	0	0
Sep-73	AN	98,439	317	42,357	0	0	0	0	0	0
Oct-73	W	192,551	210	54,946	0	0	0	0	0	0
Nov-73	W	150,049	224	45,674	0	0	0	0	0	0
Dec-73	W	159,394	230	49,732	0	0	0	0	0	0
Jan-74	W	421,318	161	92,218	0	0	0	0	0	0
Feb-74	W	304,775	299	124,012	0	0	0	0	0	0
Mar-74	W	379,625	281	145,024	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	95,220	324	41,994	427			
0	0	0	0	93,828	342	43,587	427			
0	0	0	0	89,496	419	50,943	427			
0	0	0	0	73,150	541	53,781	610			
0	0	0	0	84,959	471	54,344	610			
0	0	0	0	86,332	382	44,823	610			
0	0	0	0	92,419	460	57,809	610			
0	0	0	0	605,803	155	127,821	610			
0	0	0	0	1,484,150	121	244,747	610			
0	0	0	0	972,482	165	218,145	610			
0	0	0	0	1,129,551	126	193,796	427			
0	0	0	0	1,685,679	95	217,710	427			
0	0	0	0	1,153,940	94	146,838	427			
0	0	0	0	364,061	245	121,409	427			
0	0	0	0	179,067	200	48,615	427			
0	0	0	0	205,559	198	55,333	610			
0	0	0	0	320,808	146	63,720	610			
0	0	0	0	174,286	236	55,918	610			
0	0	0	0	200,184	223	60,635	610			
0	0	0	0	1,053,767	98	140,538	610			
0	0	0	0	525,783	209	149,608	610			
0	0	0	0	363,701	257	127,222	610			
0	0	0	0	299,608	182	74,050	427			
0	0	0	0	287,228	177	69,155	427			
0	0	0	0	125,558	401	68,364	427			
0	0	0	0	112,191	506	77,192	427	1		1
0	0	0	0	128,996	305	53,488	427			
0	0	0	0	100,723	355	48,611	610			
0	0	0	0	100,506	310	42,317	610			
0	0	0	0	100,418	357	48,737	610			
0	0	0	0	101,346	346	47,658	610			
0	0	0	0	101,720	446	61,663	610			
0	0	0	0	130,481	625	110,921	610	1	1	
0	0	0	0	217,265	365	107,663	610			
0	0	0	0	248,580	182	61,573	427			
0	0	0	0	262,805	312	111,615	427			
0	0	0	0	104,716	430	61,215	427	1		1
0	0	0	0	119,356	464	75,258	427	1		1
0	0	0	0	93,651	278	35,356	427			
0	0	0	0	94,156	406	51,906	610			
0	0	0	0	98,615	409	54,847	610			
0	0	0	0	83,213	383	43,328	610			
0	0	0	0	87,491	436	51,848	610			
0	0	0	0	99,602	600	81,232	610			
0	0	0	0	123,895	601	101,263	610			
0	0	0	0	113,035	612	94,077	610	1	1	
0	0	0	0	163,160	297	65,791	427			
0	0	0	0	134,352	223	40,713	427			
0	0	0	0	84,941	213	24,550	427			
0	0	0	0	103,599	500	70,464	427	1		1
0	0	0	0	107,094	370	53,928	427			
0	0	0	0	63,514	520	44,918	610			
0	0	0	0	76,422	417	43,304	610			
0	0	0	0	80,191	436	47,489	610			
0	0	0	0	78,131	357	37,910	610			
0	0	0	0	90,872	493	60,930	610			
0	0	0	0	206,407	379	106,267	610			
0	0	0	0	365,922	261	129,989	610			
0	0	0	0	195,993	158	42,126	427			
0	0	0	0	307,514	216	90,093	427			
0	0	0	0	131,057	486	86,574	427	1		1
0	0	0	0	127,760	465	80,696	427	1		1
0	0	0	0	131,596	310	55,425	427			
0	0	0	0	98,439	317	42,357	610			
0	0	0	0	192,551	210	54,946	610			
0	0	0	0	150,049	224	45,674	610			
0	0	0	0	159,394	230	49,732	610			
0	0	0	0	421,318	161	92,218	610			
0	0	0	0	304,775	299	124,012	610			
0	0	0	0	379,625	281	145,024	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Apr-74	W	305,514	160	66,414	0	0	0	0	0	0
May-74	W	306,131	193	80,449	0	0	0	0	0	0
Jun-74	W	181,452	419	103,237	0	0	0	0	0	0
Jul-74	W	120,163	313	51,181	0	0	0	0	0	0
Aug-74	W	111,433	348	52,644	0	0	0	0	0	0
Sep-74	W	102,464	300	41,748	0	0	0	0	0	0
Oct-74	W	202,721	196	53,880	0	0	0	0	0	0
Nov-74	W	107,252	352	51,296	0	0	0	0	0	0
Dec-74	W	113,632	321	49,558	0	0	0	0	0	0
Jan-75	W	131,508	358	64,041	0	0	0	0	0	0
Feb-75	W	261,268	303	107,659	0	0	0	0	0	0
Mar-75	W	404,837	254	139,795	0	0	0	0	0	0
Apr-75	W	261,628	201	71,492	0	0	0	0	0	0
May-75	W	287,549	175	68,451	0	0	0	0	0	0
Jun-75	W	329,262	123	55,103	0	0	0	0	0	0
Jul-75	W	106,150	304	43,813	0	0	0	0	0	0
Aug-75	W	121,406	325	53,625	0	0	0	0	0	0
Sep-75	W	101,758	290	40,091	0	0	0	0	0	0
Oct-75	C	244,422	165	54,961	0	0	0	0	0	0
Nov-75	C	118,182	415	66,645	0	0	0	0	0	0
Dec-75	C	109,676	440	65,621	0	0	0	0	0	0
Jan-76	C	101,932	460	63,745	0	0	0	0	0	0
Feb-76	C	141,242	494	94,800	0	0	0	0	0	0
Mar-76	C	116,701	568	90,053	0	0	0	0	0	0
Apr-76	C	142,979	264	51,355	0	0	0	0	0	0
May-76	C	180,673	322	79,165	0	0	0	0	0	0
Jun-76	C	68,792	306	28,618	0	0	0	0	0	0
Jul-76	C	111,392	556	84,123	0	0	0	0	0	0
Aug-76	C	89,406	370	44,924	0	0	0	0	0	0
Sep-76	C	61,133	292	24,260	0	0	0	0	0	0
Oct-76	C	92,809	413	52,110	0	0	0	0	0	0
Nov-76	C	75,450	486	49,810	0	0	0	0	0	0
Dec-76	C	82,015	574	64,012	0	0	0	0	0	0
Jan-77	C	93,225	602	76,234	0	0	0	0	0	0
Feb-77	C	114,754	723	112,778	0	0	0	0	0	0
Mar-77	C	101,639	796	110,004	0	0	0	0	0	0
Apr-77	C	115,812	386	60,822	0	0	0	0	0	0
May-77	C	102,077	271	37,580	0	0	0	0	0	0
Jun-77	C	79,774	388	42,080	0	0	0	0	0	0
Jul-77	C	91,415	569	70,665	0	0	0	0	0	0
Aug-77	C	66,563	395	35,763	0	0	0	0	0	0
Sep-77	C	57,785	398	31,266	0	0	0	0	0	0
Oct-77	W	73,957	409	41,153	0	0	0	0	0	0
Nov-77	W	78,551	473	50,458	0	0	0	0	0	0
Dec-77	W	85,504	441	51,286	0	0	0	0	0	0
Jan-78	W	114,847	426	66,560	0	0	0	0	0	0
Feb-78	W	211,277	523	150,193	0	0	0	0	0	0
Mar-78	W	517,451	260	183,114	0	0	0	0	0	0
Apr-78	W	682,956	167	154,963	0	0	0	0	0	0
May-78	W	576,161	170	132,846	0	0	0	0	0	0
Jun-78	W	336,882	182	83,492	0	0	0	0	0	0
Jul-78	W	199,173	385	104,140	0	0	0	0	0	0
Aug-78	W	104,233	259	36,645	0	0	0	0	0	0
Sep-78	W	168,352	184	42,113	0	0	0	0	0	0
Oct-78	AN	261,176	167	59,225	0	0	0	0	0	0
Nov-78	AN	124,464	357	60,475	0	0	0	0	0	0
Dec-78	AN	101,179	408	56,122	0	0	0	0	0	0
Jan-79	AN	220,581	284	85,046	0	0	0	0	0	0
Feb-79	AN	460,568	211	132,179	0	0	0	0	0	0
Mar-79	AN	397,458	219	118,065	0	0	0	0	0	0
Apr-79	AN	217,587	211	62,268	0	0	0	0	0	0
May-79	AN	286,788	215	83,631	0	0	0	0	0	0
Jun-79	AN	106,670	342	49,596	0	0	0	0	0	0
Jul-79	AN	139,432	441	83,576	0	0	0	0	0	0
Aug-79	AN	109,467	311	46,328	0	0	0	0	0	0
Sep-79	AN	95,587	367	47,692	0	0	0	0	0	0
Oct-79	W	133,297	221	40,049	0	0	0	0	0	0
Nov-79	W	105,597	309	44,331	0	0	0	0	0	0
Dec-79	W	112,725	329	50,465	0	0	0	0	0	0
Jan-80	W	740,704	119	119,630	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	305,514	160	66,414	427			
0	0	0	0	306,131	193	80,449	427			
0	0	0	0	181,452	419	103,237	427			
0	0	0	0	120,163	313	51,181	427			
0	0	0	0	111,433	348	52,644	427			
0	0	0	0	102,464	300	41,748	610			
0	0	0	0	202,721	196	53,880	610			
0	0	0	0	107,252	352	51,296	610			
0	0	0	0	113,632	321	49,558	610			
0	0	0	0	131,508	358	64,041	610			
0	0	0	0	261,268	303	107,659	610			
0	0	0	0	404,837	254	139,795	610			
0	0	0	0	261,628	201	71,492	427			
0	0	0	0	287,549	175	68,451	427			
0	0	0	0	329,262	123	55,103	427			
0	0	0	0	106,150	304	43,813	427			
0	0	0	0	121,406	325	53,625	427			
0	0	0	0	101,758	290	40,091	610			
0	0	0	0	244,422	165	54,961	610			
0	0	0	0	118,182	415	66,645	610			
0	0	0	0	109,676	440	65,621	610			
0	0	0	0	101,932	460	63,745	610			
0	0	0	0	141,242	494	94,800	610			
0	0	0	0	116,701	568	90,053	610			
0	0	0	0	142,979	264	51,355	427			
0	0	0	0	180,673	322	79,165	427			
0	0	0	0	68,792	306	28,618	427			
0	0	0	0	111,392	556	84,123	427	1		1
0	0	0	0	89,406	370	44,924	427			
0	0	0	0	61,133	292	24,260	610			
0	0	0	0	92,809	413	52,110	610			
0	0	0	0	75,450	486	49,810	610			
0	0	0	0	82,015	574	64,012	610			
0	0	0	0	93,225	602	76,234	610			
0	0	0	0	114,754	723	112,778	610	1	1	
0	0	0	0	101,639	796	110,004	610	1	1	
0	0	0	0	115,812	386	60,822	427			
0	0	0	0	102,077	271	37,580	427			
0	0	0	0	79,774	388	42,080	427			
0	0	0	0	91,415	569	70,665	427	1		1
0	0	0	0	66,563	395	35,763	427			
0	0	0	0	57,785	398	31,266	610			
0	0	0	0	73,957	409	41,153	610			
0	0	0	0	78,551	473	50,458	610			
0	0	0	0	85,504	441	51,286	610			
0	0	0	0	114,847	426	66,560	610			
0	0	0	0	211,277	523	150,193	610			
0	0	0	0	517,451	260	183,114	610			
0	0	0	0	682,956	167	154,963	427			
0	0	0	0	576,161	170	132,846	427			
0	0	0	0	336,882	182	83,492	427			
0	0	0	0	199,173	385	104,140	427			
0	0	0	0	104,233	259	36,645	427			
0	0	0	0	168,352	184	42,113	610			
0	0	0	0	261,176	167	59,225	610			
0	0	0	0	124,464	357	60,475	610			
0	0	0	0	101,179	408	56,122	610			
0	0	0	0	220,581	284	85,046	610			
0	0	0	0	460,568	211	132,179	610			
0	0	0	0	397,458	219	118,065	610			
0	0	0	0	217,587	211	62,268	427			
0	0	0	0	286,788	215	83,631	427			
0	0	0	0	106,670	342	49,596	427			
0	0	0	0	139,432	441	83,576	427	1		1
0	0	0	0	109,467	311	46,328	427			
0	0	0	0	95,587	367	47,692	610			
0	0	0	0	133,297	221	40,049	610			
0	0	0	0	105,597	309	44,331	610			
0	0	0	0	112,725	329	50,465	610			
0	0	0	0	740,704	119	119,630	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Feb-80	W	1,137,209	134	206,550	0	0	0	0	0	0
Mar-80	W	845,055	195	224,026	0	0	0	0	0	0
Apr-80	W	289,604	177	69,530	0	0	0	0	0	0
May-80	W	447,872	214	130,057	0	0	0	0	0	0
Jun-80	W	469,046	158	100,560	0	0	0	0	0	0
Jul-80	W	243,167	181	59,935	0	0	0	0	0	0
Aug-80	W	122,025	341	56,603	0	0	0	0	0	0
Sep-80	W	169,530	204	46,925	0	0	0	0	0	0
Oct-80	D	290,729	134	52,805	0	0	0	0	0	0
Nov-80	D	130,233	380	67,262	0	0	0	0	0	0
Dec-80	D	102,104	391	54,219	0	0	0	0	0	0
Jan-81	D	122,574	392	65,389	0	0	0	0	0	0
Feb-81	D	163,047	432	95,825	0	0	0	0	0	0
Mar-81	D	181,091	461	113,446	0	0	0	0	0	0
Apr-81	D	231,587	189	59,379	0	0	0	0	0	0
May-81	D	182,840	238	59,210	0	0	0	0	0	0
Jun-81	D	69,627	164	15,533	0	0	0	0	0	0
Jul-81	D	75,484	233	23,890	0	0	0	0	0	0
Aug-81	D	94,778	354	45,626	0	0	0	0	0	0
Sep-81	D	61,784	323	27,122	0	0	0	0	0	0
Oct-81	W	83,666	376	42,756	0	0	0	0	0	0
Nov-81	W	92,624	339	42,625	0	0	0	0	0	0
Dec-81	W	94,258	497	63,623	0	0	0	0	0	0
Jan-82	W	413,818	166	93,614	0	0	0	0	0	0
Feb-82	W	822,753	131	145,969	0	0	0	0	0	0
Mar-82	W	760,150	160	164,831	0	0	0	0	0	0
Apr-82	W	1,437,734	99	192,919	0	0	0	0	0	0
May-82	W	872,099	124	146,898	0	0	0	0	0	0
Jun-82	W	540,799	131	95,946	0	0	0	0	0	0
Jul-82	W	265,342	182	65,725	0	0	0	0	0	0
Aug-82	W	187,882	257	65,644	0	0	0	0	0	0
Sep-82	W	322,264	134	58,620	0	0	0	0	0	0
Oct-82	W	542,632	101	74,656	0	0	0	0	0	0
Nov-82	W	552,337	141	106,027	0	0	0	0	0	0
Dec-82	W	1,135,783	109	167,689	0	0	0	0	0	0
Jan-83	W	1,426,094	103	198,724	0	0	0	0	0	0
Feb-83	W	1,901,234	105	271,396	0	0	0	0	0	0
Mar-83	W	2,219,894	102	307,227	0	0	0	0	0	0
Apr-83	W	947,887	139	178,607	0	0	0	0	0	0
May-83	W	1,145,933	120	186,636	0	0	0	0	0	0
Jun-83	W	2,308,703	76	239,481	0	0	0	0	0	0
Jul-83	W	998,718	92	124,371	0	0	0	0	0	0
Aug-83	W	209,683	196	55,930	0	0	0	0	0	0
Sep-83	W	481,495	101	65,787	0	0	0	0	0	0
Oct-83	AN	470,571	139	89,116	0	0	0	0	0	0
Nov-83	AN	875,398	114	136,029	0	0	0	0	0	0
Dec-83	AN	1,289,867	90	157,120	0	0	0	0	0	0
Jan-84	AN	949,653	131	168,741	0	0	0	0	0	0
Feb-84	AN	522,144	182	129,265	0	0	0	0	0	0
Mar-84	AN	367,219	327	163,000	0	0	0	0	0	0
Apr-84	AN	312,166	205	86,957	0	0	0	0	0	0
May-84	AN	247,418	121	40,801	0	0	0	0	0	0
Jun-84	AN	117,069	269	42,749	0	0	0	0	0	0
Jul-84	AN	114,999	363	56,752	0	0	0	0	0	0
Aug-84	AN	106,045	277	39,877	0	0	0	0	0	0
Sep-84	AN	116,244	307	48,564	0	0	0	0	0	0
Oct-84	D	100,014	310	42,123	0	0	0	0	0	0
Nov-84	D	104,073	321	45,432	0	0	0	0	0	0
Dec-84	D	101,172	451	62,032	0	0	0	0	0	0
Jan-85	D	101,800	517	71,579	0	0	0	0	0	0
Feb-85	D	129,668	619	109,172	0	0	0	0	0	0
Mar-85	D	121,850	560	92,701	0	0	0	0	0	0
Apr-85	D	178,468	271	65,776	0	0	0	0	0	0
May-85	D	186,924	297	75,348	0	0	0	0	0	0
Jun-85	D	72,697	321	31,755	0	0	0	0	0	0
Jul-85	D	97,092	418	55,175	0	0	0	0	0	0
Aug-85	D	88,562	274	33,014	0	0	0	0	0	0
Sep-85	D	64,410	400	34,982	0	0	0	0	0	0
Oct-85	W	81,899	469	52,242	0	0	0	0	0	0
Nov-85	W	95,763	370	48,183	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	1,137,209	134	206,550	610			
0	0	0	0	845,055	195	224,026	610			
0	0	0	0	289,604	177	69,530	427			
0	0	0	0	447,872	214	130,057	427			
0	0	0	0	469,046	158	100,560	427			
0	0	0	0	243,167	181	59,935	427			
0	0	0	0	122,025	341	56,603	427			
0	0	0	0	169,530	204	46,925	610			
0	0	0	0	290,729	134	52,805	610			
0	0	0	0	130,233	380	67,262	610			
0	0	0	0	102,104	391	54,219	610			
0	0	0	0	122,574	392	65,389	610			
0	0	0	0	163,047	432	95,825	610			
0	0	0	0	181,091	461	113,446	610			
0	0	0	0	231,587	189	59,379	427			
0	0	0	0	182,840	238	59,210	427			
0	0	0	0	69,627	164	15,533	427			
0	0	0	0	75,484	233	23,890	427			
0	0	0	0	94,778	354	45,626	427			
0	0	0	0	61,784	323	27,122	610			
0	0	0	0	83,666	376	42,756	610			
0	0	0	0	92,624	339	42,625	610			
0	0	0	0	94,258	497	63,623	610			
0	0	0	0	413,818	166	93,614	610			
0	0	0	0	822,753	131	145,969	610			
0	0	0	0	760,150	160	164,831	610			
0	0	0	0	1,437,734	99	192,919	427			
0	0	0	0	872,099	124	146,898	427			
0	0	0	0	540,799	131	95,946	427			
0	0	0	0	265,342	182	65,725	427			
0	0	0	0	187,882	257	65,644	427			
0	0	0	0	322,264	134	58,620	610			
0	0	0	0	542,632	101	74,656	610			
0	0	0	0	552,337	141	106,027	610			
0	0	0	0	1,135,783	109	167,689	610			
0	0	0	0	1,426,094	103	198,724	610			
0	0	0	0	1,901,234	105	271,396	610			
0	0	0	0	2,219,894	102	307,227	610			
0	0	0	0	947,887	139	178,607	427			
0	0	0	0	1,145,933	120	186,636	427			
0	0	0	0	2,308,703	76	239,481	427			
0	0	0	0	998,718	92	124,371	427			
0	0	0	0	209,683	196	55,930	427			
0	0	0	0	481,495	101	65,787	610			
0	0	0	0	470,571	139	89,116	610			
0	0	0	0	875,398	114	136,029	610			
0	0	0	0	1,289,867	90	157,120	610			
0	0	0	0	949,653	131	168,741	610			
0	0	0	0	522,144	182	129,265	610			
0	0	0	0	367,219	327	163,000	610			
0	0	0	0	312,166	205	86,957	427			
0	0	0	0	247,418	121	40,801	427			
0	0	0	0	117,069	269	42,749	427			
0	0	0	0	114,999	363	56,752	427			
0	0	0	0	106,045	277	39,877	427			
0	0	0	0	116,244	307	48,564	610			
0	0	0	0	100,014	310	42,123	610			
0	0	0	0	104,073	321	45,432	610			
0	0	0	0	101,172	451	62,032	610			
0	0	0	0	101,800	517	71,579	610			
0	0	0	0	129,668	619	109,172	610	1	1	
0	0	0	0	121,850	560	92,701	610			
0	0	0	0	178,468	271	65,776	427			
0	0	0	0	186,924	297	75,348	427			
0	0	0	0	72,697	321	31,755	427			
0	0	0	0	97,092	418	55,175	427			
0	0	0	0	88,562	274	33,014	427			
0	0	0	0	64,410	400	34,982	610			
0	0	0	0	81,899	469	52,242	610			
0	0	0	0	95,763	370	48,183	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Dec-85	W	85,833	405	47,306	0	0	0	0	0	0
Jan-86	W	103,406	461	64,864	0	0	0	0	0	0
Feb-86	W	1,064,759	134	194,549	0	0	0	0	0	0
Mar-86	W	1,456,611	117	231,691	0	0	0	0	0	0
Apr-86	W	441,385	215	129,014	0	0	0	0	0	0
May-86	W	524,392	155	110,786	0	0	0	0	0	0
Jun-86	W	565,710	137	105,364	0	0	0	0	0	0
Jul-86	W	111,341	217	32,786	0	0	0	0	0	0
Aug-86	W	112,091	327	49,785	0	0	0	0	0	0
Sep-86	W	118,977	348	56,224	0	0	0	0	0	0
Oct-86	C	206,987	206	57,968	0	0	0	0	0	0
Nov-86	C	110,772	341	51,383	0	0	0	0	0	0
Dec-86	C	96,423	427	55,961	0	0	0	0	0	0
Jan-87	C	102,052	508	70,452	0	0	0	0	0	0
Feb-87	C	141,358	542	104,121	0	0	0	0	0	0
Mar-87	C	127,948	661	114,908	0	0	0	0	0	0
Apr-87	C	137,702	387	72,355	0	0	0	0	0	0
May-87	C	148,356	263	53,105	0	0	0	0	0	0
Jun-87	C	109,695	433	64,588	0	0	0	0	0	0
Jul-87	C	125,558	452	77,086	0	0	0	0	0	0
Aug-87	C	89,809	332	40,548	0	0	0	0	0	0
Sep-87	C	73,392	581	58,010	0	0	0	0	0	0
Oct-87	C	76,249	414	42,957	0	0	0	0	0	0
Nov-87	C	74,513	462	46,781	0	0	0	0	0	0
Dec-87	C	75,861	460	47,462	0	0	0	0	0	0
Jan-88	C	85,220	544	63,038	0	0	0	0	0	0
Feb-88	C	113,788	755	116,810	0	0	0	0	0	0
Mar-88	C	112,059	759	115,660	0	0	0	0	0	0
Apr-88	C	118,172	292	46,943	0	0	0	0	0	0
May-88	C	127,071	330	56,922	0	0	0	0	0	0
Jun-88	C	97,041	430	56,702	0	0	0	0	0	0
Jul-88	C	67,596	321	29,508	0	0	0	0	0	0
Aug-88	C	93,701	615	78,355	0	0	0	0	0	0
Sep-88	C	59,935	431	35,143	0	0	0	0	0	0
Oct-88	C	70,524	410	39,281	0	0	0	0	0	0
Nov-88	C	69,526	615	58,149	0	0	0	0	0	0
Dec-88	C	74,220	529	53,407	0	0	0	0	0	0
Jan-89	C	84,278	579	66,385	0	0	0	0	0	0
Feb-89	C	97,331	629	83,217	0	0	0	0	0	0
Mar-89	C	113,266	776	119,431	0	0	0	0	0	0
Apr-89	C	128,528	368	64,267	0	0	0	0	0	0
May-89	C	115,376	267	41,896	0	0	0	0	0	0
Jun-89	C	79,508	345	37,281	0	0	0	0	0	0
Jul-89	C	98,500	622	83,279	0	0	0	0	0	0
Aug-89	C	67,443	535	49,008	0	0	0	0	0	0
Sep-89	C	60,430	579	47,600	0	0	0	0	0	0
Oct-89	C	67,803	430	39,637	0	0	0	0	0	0
Nov-89	C	74,439	570	57,654	0	0	0	0	0	0
Dec-89	C	71,718	529	51,558	0	0	0	0	0	0
Jan-90	C	78,702	570	61,009	0	0	0	0	0	0
Feb-90	C	100,856	704	96,528	0	0	0	0	0	0
Mar-90	C	113,782	904	139,852	0	0	0	0	0	0
Apr-90	C	95,391	323	41,823	0	0	0	0	0	0
May-90	C	93,959	303	38,641	0	0	0	0	0	0
Jun-90	C	79,247	623	67,077	0	0	0	0	0	0
Jul-90	C	60,586	456	37,584	0	0	0	0	0	0
Aug-90	C	79,284	475	51,188	0	0	0	0	0	0
Sep-90	C	55,908	317	24,079	0	0	0	0	0	0
Oct-90	C	66,277	396	35,708	0	0	0	0	0	0
Nov-90	C	71,985	489	47,865	0	0	0	0	0	0
Dec-90	C	76,222	614	63,594	0	0	0	0	0	0
Jan-91	C	79,834	554	60,117	0	0	0	0	0	0
Feb-91	C	103,928	679	95,908	0	0	0	0	0	0
Mar-91	C	109,645	663	98,858	0	0	0	0	0	0
Apr-91	C	101,562	410	56,569	0	0	0	0	0	0
May-91	C	96,330	560	73,272	0	0	0	0	0	0
Jun-91	C	71,937	721	70,464	0	0	0	0	0	0
Jul-91	C	64,286	452	39,521	0	0	0	0	0	0
Aug-91	C	88,109	628	75,212	0	0	0	0	0	0
Sep-91	C	69,106	412	38,735	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	85,833	405	47,306	610			
0	0	0	0	103,406	461	64,864	610			
0	0	0	0	1,064,759	134	194,549	610			
0	0	0	0	1,456,611	117	231,691	610			
0	0	0	0	441,385	215	129,014	427			
0	0	0	0	524,392	155	110,786	427			
0	0	0	0	565,710	137	105,364	427			
0	0	0	0	111,341	217	32,786	427			
0	0	0	0	112,091	327	49,785	427			
0	0	0	0	118,977	348	56,224	610			
0	0	0	0	206,987	206	57,968	610			
0	0	0	0	110,772	341	51,383	610			
0	0	0	0	96,423	427	55,961	610			
0	0	0	0	102,052	508	70,452	610			
0	0	0	0	141,358	542	104,121	610			
0	0	0	0	127,948	661	114,908	610	1	1	
0	0	0	0	137,702	387	72,355	427			
0	0	0	0	148,356	263	53,105	427			
0	0	0	0	109,695	433	64,588	427	1		1
0	0	0	0	125,558	452	77,086	427	1		1
0	0	0	0	89,809	332	40,548	427			
0	0	0	0	73,392	581	58,010	610			
0	0	0	0	76,249	414	42,957	610			
0	0	0	0	74,513	462	46,781	610			
0	0	0	0	75,861	460	47,462	610			
0	0	0	0	85,220	544	63,038	610			
0	0	0	0	113,788	755	116,810	610	1	1	
0	0	0	0	112,059	759	115,660	610	1	1	
0	0	0	0	118,172	292	46,943	427			
0	0	0	0	127,071	330	56,922	427			
0	0	0	0	97,041	430	56,702	427	1		1
0	0	0	0	67,596	321	29,508	427			
0	0	0	0	93,701	615	78,355	427	1		1
0	0	0	0	59,935	431	35,143	610			
0	0	0	0	70,524	410	39,281	610			
0	0	0	0	69,526	615	58,149	610	1	1	
0	0	0	0	74,220	529	53,407	610			
0	0	0	0	84,278	579	66,385	610			
0	0	0	0	97,331	629	83,217	610	1	1	
0	0	0	0	113,266	776	119,431	610	1	1	
0	0	0	0	128,528	368	64,267	427			
0	0	0	0	115,376	267	41,896	427			
0	0	0	0	79,508	345	37,281	427			
0	0	0	0	98,500	622	83,279	427	1		1
0	0	0	0	67,443	535	49,008	427	1		1
0	0	0	0	60,430	579	47,600	610			
0	0	0	0	67,803	430	39,637	610			
0	0	0	0	74,439	570	57,654	610			
0	0	0	0	71,718	529	51,558	610			
0	0	0	0	78,702	570	61,009	610			
0	0	0	0	100,856	704	96,528	610	1	1	
0	0	0	0	113,782	904	139,852	610	1	1	
0	0	0	0	95,391	323	41,823	427			
0	0	0	0	93,959	303	38,641	427			
0	0	0	0	79,247	623	67,077	427	1		1
0	0	0	0	60,586	456	37,584	427	1		1
0	0	0	0	79,284	475	51,188	427	1		1
0	0	0	0	55,908	317	24,079	610			
0	0	0	0	66,277	396	35,708	610			
0	0	0	0	71,985	489	47,865	610			
0	0	0	0	76,222	614	63,594	610	1	1	
0	0	0	0	79,834	554	60,117	610			
0	0	0	0	103,928	679	95,908	610	1	1	
0	0	0	0	109,645	663	98,858	610	1	1	
0	0	0	0	101,562	410	56,569	427			
0	0	0	0	96,330	560	73,272	427	1		1
0	0	0	0	71,937	721	70,464	427	1		1
0	0	0	0	64,286	452	39,521	427	1		1
0	0	0	0	88,109	628	75,212	427	1		1
0	0	0	0	69,106	412	38,735	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 1- Base Case Conditon No Action

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-91	C	72,030	519	50,862	0	0	0	0	0	0
Nov-91	C	80,770	488	53,575	0	0	0	0	0	0
Dec-91	C	73,745	534	53,497	0	0	0	0	0	0
Jan-92	C	78,804	544	58,270	0	0	0	0	0	0
Feb-92	C	112,620	632	96,809	0	0	0	0	0	0
Mar-92	C	115,938	709	111,672	0	0	0	0	0	0
Apr-92	C	107,982	438	64,255	0	0	0	0	0	0
May-92	C	96,699	375	49,325	0	0	0	0	0	0
Jun-92	C	20,269	247	6,798	0	0	0	0	0	0
Jul-92	C	62,278	583	49,335	0	0	0	0	0	0
Aug-92	C	33,587	485	22,146	0	0	0	0	0	0
Sep-92	C	54,425	629	46,503	0	0	0	0	0	0
Oct-92	W	67,225	368	33,623	0	0	0	0	0	0
Nov-92	W	80,742	462	50,702	0	0	0	0	0	0
Dec-92	W	84,901	506	58,392	0	0	0	0	0	0
Jan-93	W	170,926	373	86,768	0	0	0	0	0	0
Feb-93	W	156,961	526	112,285	0	0	0	0	0	0
Mar-93	W	196,606	486	129,767	0	0	0	0	0	0
Apr-93	W	201,259	225	61,535	0	0	0	0	0	0
May-93	W	303,299	187	77,065	0	0	0	0	0	0
Jun-93	W	345,138	258	121,104	0	0	0	0	0	0
Jul-93	W	148,179	472	95,145	0	0	0	0	0	0
Aug-93	W	126,166	313	53,618	0	0	0	0	0	0
Sep-93	W	104,072	254	35,952	0	0	0	0	0	0
Oct-93	C	235,902	165	52,949	0	0	0	0	0	0
Nov-93	C	104,193	426	60,329	0	0	0	0	0	0
Dec-93	C	90,318	516	63,407	0	0	0	0	0	0
Jan-94	C	92,442	590	74,123	0	0	0	0	0	0
Feb-94	C	130,770	515	91,522	0	0	0	0	0	0
Mar-94	C	112,007	604	92,034	0	0	0	0	0	0
Apr-94	C	158,003	287	61,649	0	0	0	0	0	0
May-94	C	127,651	251	43,576	0	0	0	0	0	0
Jun-94	C	91,562	344	42,821	0	0	0	0	0	0
Jul-94	C	63,501	447	38,589	0	0	0	0	0	0
Aug-94	C	90,570	571	70,356	0	0	0	0	0	0
Sep-94	C	72,020	466	45,646	0	0	0	0	0	0

Note 1: A floor on the minimium load is imposed s

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	72,030	519	50,862	610			
0	0	0	0	80,770	488	53,575	610			
0	0	0	0	73,745	534	53,497	610			
0	0	0	0	78,804	544	58,270	610			
0	0	0	0	112,620	632	96,809	610	1	1	
0	0	0	0	115,938	709	111,672	610	1	1	
0	0	0	0	107,982	438	64,255	427	1		1
0	0	0	0	96,699	375	49,325	427			
0	0	0	0	20,269	247	6,798	427			
0	0	0	0	62,278	583	49,335	427	1		1
0	0	0	0	33,587	485	22,146	427	1		1
0	0	0	0	54,425	629	46,503	610	1	1	
0	0	0	0	67,225	368	33,623	610			
0	0	0	0	80,742	462	50,702	610			
0	0	0	0	84,901	506	58,392	610			
0	0	0	0	170,926	373	86,768	610			
0	0	0	0	156,961	526	112,285	610			
0	0	0	0	196,606	486	129,767	610			
0	0	0	0	201,259	225	61,535	427			
0	0	0	0	303,299	187	77,065	427			
0	0	0	0	345,138	258	121,104	427			
0	0	0	0	148,179	472	95,145	427	1		1
0	0	0	0	126,166	313	53,618	427			
0	0	0	0	104,072	254	35,952	610			
0	0	0	0	235,902	165	52,949	610			
0	0	0	0	104,193	426	60,329	610			
0	0	0	0	90,318	516	63,407	610			
0	0	0	0	92,442	590	74,123	610			
0	0	0	0	130,770	515	91,522	610			
0	0	0	0	112,007	604	92,034	610			
0	0	0	0	158,003	287	61,649	427			
0	0	0	0	127,651	251	43,576	427			
0	0	0	0	91,562	344	42,821	427			
0	0	0	0	63,501	447	38,589	427	1		1
0	0	0	0	90,570	571	70,356	427	1		1
0	0	0	0	72,020	466	45,646	610			

such that claculated TDS can never drop below 84 mg/L

Total	119	61	58

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-21	W	96,390	303	39,758	1,958	9,033	899	2,085	2,588	1,345
Nov-21	W	101,985	342	47,459	1,796	8,109	498	1,081	876	854
Dec-21	W	107,845	382	55,963	1,823	8,231	354	857	880	1,127
Jan-22	W	111,913	421	64,084	2,441	11,010	275	647	752	1,004
Feb-22	W	227,050	423	130,446	4,945	21,577	604	1,598	1,044	876
Mar-22	W	162,122	592	130,369	5,295	27,267	756	1,938	2,249	5,213
Apr-22	W	209,760	230	65,532	4,012	21,843	1,203	2,770	7,091	9,996
May-22	W	269,066	193	70,562	4,134	20,758	1,216	2,459	9,236	8,907
Jun-22	W	428,834	232	135,314	4,157	20,038	1,224	2,460	8,970	7,116
Jul-22	W	114,586	303	47,248	4,508	19,629	1,153	2,272	9,783	5,764
Aug-22	W	121,624	265	43,751	4,252	16,875	1,132	2,828	9,844	4,828
Sep-22	W	99,613	319	43,241	2,413	9,876	1,051	2,609	6,688	4,368
Oct-22	AN	234,864	146	46,649	1,492	6,881	899	2,085	2,588	1,345
Nov-22	AN	130,455	319	56,594	1,368	6,177	498	1,081	876	854
Dec-22	AN	178,857	294	71,561	1,389	6,270	354	857	880	1,127
Jan-23	AN	189,313	319	82,076	1,860	8,387	275	647	752	1,004
Feb-23	AN	190,050	420	108,620	3,767	16,437	604	1,598	1,044	876
Mar-23	AN	130,978	641	114,157	4,034	20,771	756	1,938	2,249	5,213
Apr-23	AN	261,700	222	78,806	3,056	16,640	1,203	2,770	7,091	9,996
May-23	AN	287,496	168	65,741	3,149	15,813	1,216	2,459	9,236	8,907
Jun-23	AN	89,156	203	24,581	3,167	15,265	1,224	2,460	8,970	7,116
Jul-23	AN	124,644	375	63,511	3,434	14,953	1,153	2,272	9,783	5,764
Aug-23	AN	143,569	416	81,215	3,239	12,855	1,132	2,828	9,844	4,828
Sep-23	AN	96,998	285	37,622	1,838	7,523	1,051	2,609	6,688	4,368
Oct-23	C	123,421	278	46,713	1,053	4,858	899	2,085	2,588	1,345
Nov-23	C	93,407	449	57,030	966	4,360	498	1,081	876	854
Dec-23	C	99,932	519	70,469	980	4,426	354	857	880	1,127
Jan-24	C	101,030	477	65,544	1,313	5,920	275	647	752	1,004
Feb-24	C	133,411	546	98,975	2,659	11,603	604	1,598	1,044	876
Mar-24	C	115,023	778	121,659	2,847	14,662	756	1,938	2,249	5,213
Apr-24	C	89,742	251	30,647	2,157	11,746	1,203	2,770	7,091	9,996
May-24	C	94,352	253	32,401	2,223	11,162	1,216	2,459	9,236	8,907
Jun-24	C	82,140	392	43,730	2,236	10,775	1,224	2,460	8,970	7,116
Jul-24	C	70,612	506	48,555	2,424	10,555	1,153	2,272	9,783	5,764
Aug-24	C	54,003	365	26,761	2,287	9,074	1,132	2,828	9,844	4,828
Sep-24	C	71,118	509	49,251	1,298	5,310	1,051	2,609	6,688	4,368
Oct-24	BN	74,615	445	45,151	1,410	6,502	899	2,085	2,588	1,345
Nov-24	BN	79,117	547	58,846	1,293	5,836	498	1,081	876	854
Dec-24	BN	78,258	561	59,707	1,312	5,924	354	857	880	1,127
Jan-25	BN	83,641	538	61,119	1,757	7,924	275	647	752	1,004
Feb-25	BN	130,835	616	109,621	3,559	15,530	604	1,598	1,044	876
Mar-25	BN	122,631	684	114,101	3,811	19,626	756	1,938	2,249	5,213
Apr-25	BN	159,572	306	66,275	2,887	15,722	1,203	2,770	7,091	9,996
May-25	BN	156,993	221	47,104	2,976	14,941	1,216	2,459	9,236	8,907
Jun-25	BN	99,215	391	52,699	2,992	14,423	1,224	2,460	8,970	7,116
Jul-25	BN	105,993	388	55,910	3,244	14,128	1,153	2,272	9,783	5,764
Aug-25	BN	86,448	246	28,947	3,061	12,146	1,132	2,828	9,844	4,828
Sep-25	BN	87,165	390	46,251	1,737	7,108	1,051	2,609	6,688	4,368
Oct-25	D	81,807	362	40,294	1,327	6,122	899	2,085	2,588	1,345
Nov-25	D	81,110	448	49,412	1,217	5,496	498	1,081	876	854
Dec-25	D	83,855	568	64,741	1,235	5,579	354	857	880	1,127
Jan-26	D	96,272	610	79,838	1,654	7,462	275	647	752	1,004
Feb-26	D	151,308	499	102,708	3,351	14,624	604	1,598	1,044	876
Mar-26	D	108,219	686	100,956	3,589	18,480	756	1,938	2,249	5,213
Apr-26	D	148,463	349	70,400	2,719	14,804	1,203	2,770	7,091	9,996
May-26	D	148,035	188	37,795	2,802	14,069	1,216	2,459	9,236	8,907
Jun-26	D	86,678	551	64,917	2,818	13,581	1,224	2,460	8,970	7,116
Jul-26	D	92,623	380	47,812	3,055	13,304	1,153	2,272	9,783	5,764
Aug-26	D	68,895	478	44,799	2,882	11,437	1,132	2,828	9,844	4,828
Sep-26	D	59,530	448	36,281	1,636	6,693	1,051	2,609	6,688	4,368
Oct-26	AN	68,470	372	34,637	1,492	6,881	899	2,085	2,588	1,345
Nov-26	AN	89,228	417	50,621	1,368	6,177	498	1,081	876	854
Dec-26	AN	83,927	558	63,621	1,389	6,270	354	857	880	1,127
Jan-27	AN	83,134	667	75,373	1,860	8,387	275	647	752	1,004
Feb-27	AN	189,600	494	127,257	3,767	16,437	604	1,598	1,044	876
Mar-27	AN	128,504	572	99,842	4,034	20,771	756	1,938	2,249	5,213
Apr-27	AN	230,479	249	77,864	3,056	16,640	1,203	2,770	7,091	9,996
May-27	AN	253,313	204	70,219	3,149	15,813	1,216	2,459	9,236	8,907
Jun-27	AN	107,362	411	60,004	3,167	15,265	1,224	2,460	8,970	7,116
Jul-27	AN	108,039	309	45,386	3,434	14,953	1,153	2,272	9,783	5,764

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
7,909	10,755	11,724	3,410	71,311	135	13,129	610			
8,568	11,651	3,970	3,235	86,276	192	22,529	610			
13,182	17,925	3,985	3,491	87,622	204	24,332	610			
13,182	17,925	3,405	2,463	91,859	249	31,035	610			
32,954	44,812	4,729	4,246	182,775	231	57,337	610			
32,954	44,812	10,186	7,463	110,682	290	43,677	610			
9,886	13,444	32,121	18,309	155,447	84	17,752	427			
2,109	2,868	41,839	20,029	210,531	84	24,042	427			
1,977	2,689	40,634	20,157	371,871	164	82,853	427			
3,296	4,482	44,316	24,006	51,531	84	5,885	427			
3,427	4,661	44,591	23,839	58,378	84	6,667	427			
2,373	3,227	30,294	12,532	56,795	138	10,631	610			
7,909	10,755	11,724	3,410	210,251	84	24,010	610			
8,568	11,651	3,970	3,235	115,174	215	33,595	610			
13,182	17,925	3,985	3,491	159,068	194	41,891	610			
13,182	17,925	3,405	2,463	169,840	224	51,650	610			
32,954	44,812	4,729	4,246	146,953	203	40,651	610			
32,954	44,812	10,186	7,463	80,799	309	33,961	610			
9,886	13,444	32,121	18,309	208,343	84	23,792	427			
2,109	2,868	41,839	20,029	229,946	84	26,259	427			
1,977	2,689	40,634	20,157	33,183	84	3,789	427			
3,296	4,482	44,316	24,006	62,663	141	12,036	427			
3,427	4,661	44,591	23,839	81,336	291	32,204	427			
2,373	3,227	30,294	12,532	54,755	99	7,364	610			
7,909	10,755	11,724	3,410	99,247	180	24,260	610			
8,568	11,651	3,970	3,235	78,528	336	35,848	610			
13,182	17,925	3,985	3,491	80,552	389	42,643	610			
13,182	17,925	3,405	2,463	82,104	337	37,584	610			
32,954	44,812	4,729	4,246	91,422	288	35,840	610			
32,954	44,812	10,186	7,463	66,031	530	47,571	610			
9,886	13,444	32,121	18,309	37,283	84	4,258	427			
2,109	2,868	41,839	20,029	37,728	84	4,309	427			
1,977	2,689	40,634	20,157	27,099	84	3,095	427			
3,296	4,482	44,316	24,006	9,641	113	1,478	427			
3,427	4,661	44,591	23,839	-7,277	84	-831	427			
2,373	3,227	30,294	12,532	29,415	530	21,206	610			
7,909	10,755	11,724	3,410	50,085	309	21,053	610			
8,568	11,651	3,970	3,235	63,911	416	36,188	610			
13,182	17,925	3,985	3,491	58,546	382	30,383	610			
13,182	17,925	3,405	2,463	64,271	357	31,156	610			
32,954	44,812	4,729	4,246	87,946	356	42,559	610			
32,954	44,812	10,186	7,463	72,675	355	35,050	610			
9,886	13,444	32,121	18,309	106,383	84	12,149	427			
2,109	2,868	41,839	20,029	99,617	84	11,376	427			
1,977	2,689	40,634	20,157	43,417	99	5,853	427			
3,296	4,482	44,316	24,006	44,201	88	5,259	427			
3,427	4,661	44,591	23,839	24,393	84	2,786	427			
2,373	3,227	30,294	12,532	45,023	268	16,408	610			
7,909	10,755	11,724	3,410	57,359	213	16,576	610			
8,568	11,651	3,970	3,235	65,980	302	27,095	610			
13,182	17,925	3,985	3,491	64,220	410	35,763	610			
13,182	17,925	3,405	2,463	77,004	481	50,337	610			
32,954	44,812	4,729	4,246	108,627	248	36,551	610			
32,954	44,812	10,186	7,463	58,485	290	23,051	610			
9,886	13,444	32,121	18,309	95,443	85	11,077	427			
2,109	2,868	41,839	20,029	90,832	84	10,373	427			
1,977	2,689	40,634	20,157	31,055	448	18,914	427	1		1
3,296	4,482	44,316	24,006	31,021	84	3,542	427			
3,427	4,661	44,591	23,839	7,019	84	802	427			
2,373	3,227	30,294	12,532	17,489	288	6,853	610			
7,909	10,755	11,724	3,410	43,857	170	10,160	610			
8,568	11,651	3,970	3,235	73,947	275	27,622	610			
13,182	17,925	3,985	3,491	64,138	389	33,951	610			
13,182	17,925	3,405	2,463	63,661	519	44,948	610			
32,954	44,812	4,729	4,246	146,503	298	59,288	610			
32,954	44,812	10,186	7,463	78,325	184	19,645	610			
9,886	13,444	32,121	18,309	177,122	84	20,227	427			
2,109	2,868	41,839	20,029	195,763	84	22,356	427			
1,977	2,689	40,634	20,157	51,389	176	12,316	427			
3,296	4,482	44,316	24,006	46,058	84	5,260	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Aug-27	AN	116,998	356	56,593	3,239	12,855	1,132	2,828	9,844	4,828
Sep-27	AN	108,210	403	59,330	1,838	7,523	1,051	2,609	6,688	4,368
Oct-27	BN	272,563	142	52,618	1,410	6,502	899	2,085	2,588	1,345
Nov-27	BN	102,395	437	60,847	1,293	5,836	498	1,081	876	854
Dec-27	BN	115,656	306	48,145	1,312	5,924	354	857	880	1,127
Jan-28	BN	126,172	477	81,803	1,757	7,924	275	647	752	1,004
Feb-28	BN	143,124	468	91,140	3,559	15,530	604	1,598	1,044	876
Mar-28	BN	135,743	583	107,570	3,811	19,626	756	1,938	2,249	5,213
Apr-28	BN	215,723	286	83,994	2,887	15,722	1,203	2,770	7,091	9,996
May-28	BN	220,782	207	62,252	2,976	14,941	1,216	2,459	9,236	8,907
Jun-28	BN	96,467	462	60,551	2,992	14,423	1,224	2,460	8,970	7,116
Jul-28	BN	111,574	299	45,308	3,244	14,128	1,153	2,272	9,783	5,764
Aug-28	BN	110,680	339	50,979	3,061	12,146	1,132	2,828	9,844	4,828
Sep-28	BN	72,629	308	30,441	1,737	7,108	1,051	2,609	6,688	4,368
Oct-28	C	76,897	350	36,569	1,053	4,858	899	2,085	2,588	1,345
Nov-28	C	78,163	416	44,152	966	4,360	498	1,081	876	854
Dec-28	C	87,302	553	65,598	980	4,426	354	857	880	1,127
Jan-29	C	92,262	577	72,373	1,313	5,920	275	647	752	1,004
Feb-29	C	109,855	679	101,467	2,659	11,603	604	1,598	1,044	876
Mar-29	C	119,217	814	131,946	2,847	14,662	756	1,938	2,249	5,213
Apr-29	C	146,739	292	58,152	2,157	11,746	1,203	2,770	7,091	9,996
May-29	C	156,314	281	59,651	2,223	11,162	1,216	2,459	9,236	8,907
Jun-29	C	69,870	413	39,249	2,236	10,775	1,224	2,460	8,970	7,116
Jul-29	C	66,562	641	57,978	2,424	10,555	1,153	2,272	9,783	5,764
Aug-29	C	62,266	371	31,439	2,287	9,074	1,132	2,828	9,844	4,828
Sep-29	C	50,802	375	25,913	1,298	5,310	1,051	2,609	6,688	4,368
Oct-29	C	71,069	431	41,604	1,053	4,858	899	2,085	2,588	1,345
Nov-29	C	74,732	492	49,976	966	4,360	498	1,081	876	854
Dec-29	C	76,065	544	56,297	980	4,426	354	857	880	1,127
Jan-30	C	83,081	620	70,062	1,313	5,920	275	647	752	1,004
Feb-30	C	106,704	685	99,340	2,659	11,603	604	1,598	1,044	876
Mar-30	C	111,740	678	102,950	2,847	14,662	756	1,938	2,249	5,213
Apr-30	C	139,846	385	73,196	2,157	11,746	1,203	2,770	7,091	9,996
May-30	C	137,381	254	47,458	2,223	11,162	1,216	2,459	9,236	8,907
Jun-30	C	84,539	371	42,616	2,236	10,775	1,224	2,460	8,970	7,116
Jul-30	C	76,373	480	49,807	2,424	10,555	1,153	2,272	9,783	5,764
Aug-30	C	52,191	230	16,298	2,287	9,074	1,132	2,828	9,844	4,828
Sep-30	C	61,528	572	47,838	1,298	5,310	1,051	2,609	6,688	4,368
Oct-30	C	73,954	447	44,942	1,053	4,858	899	2,085	2,588	1,345
Nov-30	C	67,418	479	43,866	966	4,360	498	1,081	876	854
Dec-30	C	74,019	597	60,106	980	4,426	354	857	880	1,127
Jan-31	C	83,766	649	73,942	1,313	5,920	275	647	752	1,004
Feb-31	C	97,028	764	100,832	2,659	11,603	604	1,598	1,044	876
Mar-31	C	105,249	763	109,203	2,847	14,662	756	1,938	2,249	5,213
Apr-31	C	94,626	261	33,628	2,157	11,746	1,203	2,770	7,091	9,996
May-31	C	103,328	230	32,267	2,223	11,162	1,216	2,459	9,236	8,907
Jun-31	C	62,755	494	42,137	2,236	10,775	1,224	2,460	8,970	7,116
Jul-31	C	77,435	622	65,427	2,424	10,555	1,153	2,272	9,783	5,764
Aug-31	C	57,596	483	37,812	2,287	9,074	1,132	2,828	9,844	4,828
Sep-31	C	65,969	426	38,161	1,298	5,310	1,051	2,609	6,688	4,368
Oct-31	AN	68,155	366	33,894	1,492	6,881	899	2,085	2,588	1,345
Nov-31	AN	79,692	458	49,609	1,368	6,177	498	1,081	876	854
Dec-31	AN	102,741	508	70,900	1,389	6,270	354	857	880	1,127
Jan-32	AN	100,881	555	76,090	1,860	8,387	275	647	752	1,004
Feb-32	AN	180,185	454	111,115	3,767	16,437	604	1,598	1,044	876
Mar-32	AN	112,549	535	81,876	4,034	20,771	756	1,938	2,249	5,213
Apr-32	AN	170,580	272	63,031	3,056	16,640	1,203	2,770	7,091	9,996
May-32	AN	244,640	282	93,723	3,149	15,813	1,216	2,459	9,236	8,907
Jun-32	AN	94,102	312	39,864	3,167	15,265	1,224	2,460	8,970	7,116
Jul-32	AN	119,978	328	53,435	3,434	14,953	1,153	2,272	9,783	5,764
Aug-32	AN	119,998	397	64,798	3,239	12,855	1,132	2,828	9,844	4,828
Sep-32	AN	99,464	319	43,109	1,838	7,523	1,051	2,609	6,688	4,368
Oct-32	D	161,418	231	50,692	1,327	6,122	899	2,085	2,588	1,345
Nov-32	D	87,267	440	52,190	1,217	5,496	498	1,081	876	854
Dec-32	D	84,889	458	52,799	1,235	5,579	354	857	880	1,127
Jan-33	D	100,616	538	73,619	1,654	7,462	275	647	752	1,004
Feb-33	D	123,354	549	92,117	3,351	14,624	604	1,598	1,044	876
Mar-33	D	121,520	664	109,747	3,589	18,480	756	1,938	2,249	5,213
Apr-33	D	123,795	257	43,219	2,719	14,804	1,203	2,770	7,091	9,996
May-33	D	145,916	330	65,443	2,802	14,069	1,216	2,459	9,236	8,907

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
3,427	4,661	44,591	23,839	54,765	102	7,582	427			
2,373	3,227	30,294	12,532	65,967	324	29,072	610			
7,909	10,755	11,724	3,410	248,033	85	28,521	610			
8,568	11,651	3,970	3,235	87,189	322	38,189	610			
13,182	17,925	3,985	3,491	95,944	144	18,821	610			
13,182	17,925	3,405	2,463	106,802	357	51,840	610			
32,954	44,812	4,729	4,246	100,235	177	24,077	610			
32,954	44,812	10,186	7,463	85,787	245	28,519	610			
9,886	13,444	32,121	18,309	162,534	107	23,753	427			
2,109	2,868	41,839	20,029	163,406	84	18,661	427			
1,977	2,689	40,634	20,157	40,669	248	13,705	427			
3,296	4,482	44,316	24,006	49,782	84	5,685	427			
3,427	4,661	44,591	23,839	48,625	84	5,553	427			
2,373	3,227	30,294	12,532	30,487	84	3,482	610			
7,909	10,755	11,724	3,410	52,723	197	14,116	610			
8,568	11,651	3,970	3,235	63,284	267	22,970	610			
13,182	17,925	3,985	3,491	67,922	409	37,772	610			
13,182	17,925	3,405	2,463	73,336	445	44,414	610			
32,954	44,812	4,729	4,246	67,866	415	38,332	610			
32,954	44,812	10,186	7,463	70,225	606	57,858	610			
9,886	13,444	32,121	18,309	94,280	84	10,767	427			
2,109	2,868	41,839	20,029	99,690	105	14,225	427			
1,977	2,689	40,634	20,157	14,829	84	1,693	427			
3,296	4,482	44,316	24,006	5,591	1,434	10,900	427	1		1
3,427	4,661	44,591	23,839	986	84	113	427			
2,373	3,227	30,294	12,532	9,099	84	1,039	610			
7,909	10,755	11,724	3,410	46,895	300	19,151	610			
8,568	11,651	3,970	3,235	59,853	354	28,795	610			
13,182	17,925	3,985	3,491	56,685	369	28,471	610			
13,182	17,925	3,405	2,463	64,155	483	42,103	610			
32,954	44,812	4,729	4,246	64,715	412	36,205	610			
32,954	44,812	10,186	7,463	62,748	338	28,862	610			
9,886	13,444	32,121	18,309	87,387	143	16,932	427			
2,109	2,868	41,839	20,029	80,757	84	9,222	427			
1,977	2,689	40,634	20,157	29,498	84	3,369	427			
3,296	4,482	44,316	24,006	15,402	130	2,729	427			
3,427	4,661	44,591	23,839	-9,089	84	-1,038	427			
2,373	3,227	30,294	12,532	19,825	734	19,793	610	1	1	
7,909	10,755	11,724	3,410	49,780	332	22,489	610			
8,568	11,651	3,970	3,235	52,539	318	22,684	610			
13,182	17,925	3,985	3,491	54,639	435	32,280	610			
13,182	17,925	3,405	2,463	64,840	522	45,983	610			
32,954	44,812	4,729	4,246	55,039	504	37,697	610			
32,954	44,812	10,186	7,463	56,257	459	35,116	610			
9,886	13,444	32,121	18,309	42,167	84	4,815	427			
2,109	2,868	41,839	20,029	46,704	84	5,334	427			
1,977	2,689	40,634	20,157	7,714	84	881	427			
3,296	4,482	44,316	24,006	16,464	820	18,349	427	1		1
3,427	4,661	44,591	23,839	-3,684	84	-421	427			
2,373	3,227	30,294	12,532	24,266	307	10,116	610			
7,909	10,755	11,724	3,410	43,542	159	9,417	610			
8,568	11,651	3,970	3,235	64,411	304	26,611	610			
13,182	17,925	3,985	3,491	82,952	366	41,230	610			
13,182	17,925	3,405	2,463	81,408	413	45,664	610			
32,954	44,812	4,729	4,246	137,088	232	43,145	610			
32,954	44,812	10,186	7,463	62,370	84	7,123	610			
9,886	13,444	32,121	18,309	117,223	84	13,387	427			
2,109	2,868	41,839	20,029	187,090	172	43,647	427			
1,977	2,689	40,634	20,157	38,129	84	4,354	427			
3,296	4,482	44,316	24,006	57,997	84	6,623	427			
3,427	4,661	44,591	23,839	57,765	201	15,787	427			
2,373	3,227	30,294	12,532	57,221	165	12,851	610			
7,909	10,755	11,724	3,410	136,970	145	26,975	610			
8,568	11,651	3,970	3,235	72,137	305	29,873	610			
13,182	17,925	3,985	3,491	65,254	269	23,820	610			
13,182	17,925	3,405	2,463	81,348	399	44,118	610			
32,954	44,812	4,729	4,246	80,673	237	25,961	610			
32,954	44,812	10,186	7,463	71,786	326	31,841	610			
9,886	13,444	32,121	18,309	70,775	84	8,082	427			
2,109	2,868	41,839	20,029	88,713	142	17,110	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Jun-33	D	81,422	401	44,333	2,818	13,581	1,224	2,460	8,970	7,116
Jul-33	D	77,185	587	61,543	3,055	13,304	1,153	2,272	9,783	5,764
Aug-33	D	79,613	363	39,321	2,882	11,437	1,132	2,828	9,844	4,828
Sep-33	D	64,978	458	40,494	1,636	6,693	1,051	2,609	6,688	4,368
Oct-33	C	72,245	461	45,288	1,053	4,858	899	2,085	2,588	1,345
Nov-33	C	72,118	462	45,326	966	4,360	498	1,081	876	854
Dec-33	C	74,065	476	47,889	980	4,426	354	857	880	1,127
Jan-34	C	84,284	643	73,655	1,313	5,920	275	647	752	1,004
Feb-34	C	120,228	642	104,869	2,659	11,603	604	1,598	1,044	876
Mar-34	C	101,622	716	98,878	2,847	14,662	756	1,938	2,249	5,213
Apr-34	C	117,988	409	65,557	2,157	11,746	1,203	2,770	7,091	9,996
May-34	C	128,155	407	70,980	2,223	11,162	1,216	2,459	9,236	8,907
Jun-34	C	66,756	472	42,863	2,236	10,775	1,224	2,460	8,970	7,116
Jul-34	C	64,304	462	40,362	2,424	10,555	1,153	2,272	9,783	5,764
Aug-34	C	85,411	398	46,168	2,287	9,074	1,132	2,828	9,844	4,828
Sep-34	C	63,372	402	34,617	1,298	5,310	1,051	2,609	6,688	4,368
Oct-34	AN	70,311	515	49,180	1,492	6,881	899	2,085	2,588	1,345
Nov-34	AN	83,520	434	49,222	1,368	6,177	498	1,081	876	854
Dec-34	AN	82,783	542	61,010	1,389	6,270	354	857	880	1,127
Jan-35	AN	97,841	472	62,716	1,860	8,387	275	647	752	1,004
Feb-35	AN	122,855	776	129,642	3,767	16,437	604	1,598	1,044	876
Mar-35	AN	128,365	629	109,803	4,034	20,771	756	1,938	2,249	5,213
Apr-35	AN	241,714	296	97,400	3,056	16,640	1,203	2,770	7,091	9,996
May-35	AN	259,282	190	67,080	3,149	15,813	1,216	2,459	9,236	8,907
Jun-35	AN	167,766	207	47,189	3,167	15,265	1,224	2,460	8,970	7,116
Jul-35	AN	92,774	334	42,126	3,434	14,953	1,153	2,272	9,783	5,764
Aug-35	AN	129,517	340	59,902	3,239	12,855	1,132	2,828	9,844	4,828
Sep-35	AN	98,677	277	37,173	1,838	7,523	1,051	2,609	6,688	4,368
Oct-35	AN	180,882	223	54,789	1,492	6,881	899	2,085	2,588	1,345
Nov-35	AN	93,953	368	47,017	1,368	6,177	498	1,081	876	854
Dec-35	AN	99,120	518	69,735	1,389	6,270	354	857	880	1,127
Jan-36	AN	135,757	414	76,335	1,860	8,387	275	647	752	1,004
Feb-36	AN	517,182	212	149,129	3,767	16,437	604	1,598	1,044	876
Mar-36	AN	142,991	646	125,541	4,034	20,771	756	1,938	2,249	5,213
Apr-36	AN	191,720	235	61,251	3,056	16,640	1,203	2,770	7,091	9,996
May-36	AN	285,665	224	86,993	3,149	15,813	1,216	2,459	9,236	8,907
Jun-36	AN	99,874	377	51,216	3,167	15,265	1,224	2,460	8,970	7,116
Jul-36	AN	116,012	435	68,560	3,434	14,953	1,153	2,272	9,783	5,764
Aug-36	AN	122,659	299	49,843	3,239	12,855	1,132	2,828	9,844	4,828
Sep-36	AN	104,350	266	37,778	1,838	7,523	1,051	2,609	6,688	4,368
Oct-36	W	142,763	275	53,413	1,958	9,033	899	2,085	2,588	1,345
Nov-36	W	95,454	389	50,441	1,796	8,109	498	1,081	876	854
Dec-36	W	110,177	373	55,810	1,823	8,231	354	857	880	1,127
Jan-37	W	169,417	383	88,121	2,441	11,010	275	647	752	1,004
Feb-37	W	572,991	221	172,233	4,945	21,577	604	1,598	1,044	876
Mar-37	W	416,022	238	134,665	5,295	27,267	756	1,938	2,249	5,213
Apr-37	W	248,674	194	65,620	4,012	21,843	1,203	2,770	7,091	9,996
May-37	W	491,303	214	142,602	4,134	20,758	1,216	2,459	9,236	8,907
Jun-37	W	141,822	296	57,071	4,157	20,038	1,224	2,460	8,970	7,116
Jul-37	W	123,750	396	66,639	4,508	19,629	1,153	2,272	9,783	5,764
Aug-37	W	136,532	266	49,337	4,252	16,875	1,132	2,828	9,844	4,828
Sep-37	W	104,668	367	52,152	2,413	9,876	1,051	2,609	6,688	4,368
Oct-37	W	169,309	188	43,250	1,958	9,033	899	2,085	2,588	1,345
Nov-37	W	109,722	380	56,624	1,796	8,109	498	1,081	876	854
Dec-37	W	315,673	210	89,994	1,823	8,231	354	857	880	1,127
Jan-38	W	412,695	214	120,179	2,441	11,010	275	647	752	1,004
Feb-38	W	1,097,178	133	198,981	4,945	21,577	604	1,598	1,044	876
Mar-38	W	1,483,383	131	263,376	5,295	27,267	756	1,938	2,249	5,213
Apr-38	W	689,819	166	155,207	4,012	21,843	1,203	2,770	7,091	9,996
May-38	W	1,473,291	103	206,303	4,134	20,758	1,216	2,459	9,236	8,907
Jun-38	W	800,540	128	139,416	4,157	20,038	1,224	2,460	8,970	7,116
Jul-38	W	233,167	302	95,795	4,508	19,629	1,153	2,272	9,783	5,764
Aug-38	W	123,724	369	62,100	4,252	16,875	1,132	2,828	9,844	4,828
Sep-38	W	206,500	215	60,218	2,413	9,876	1,051	2,609	6,688	4,368
Oct-38	D	320,261	137	59,518	1,327	6,122	899	2,085	2,588	1,345
Nov-38	D	158,079	273	58,734	1,217	5,496	498	1,081	876	854
Dec-38	D	123,222	354	59,269	1,235	5,579	354	857	880	1,127
Jan-39	D	145,382	332	65,698	1,654	7,462	275	647	752	1,004
Feb-39	D	214,656	442	128,987	3,351	14,624	604	1,598	1,044	876
Mar-39	D	147,518	592	118,706	3,589	18,480	756	1,938	2,249	5,213

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
1,977	2,689	40,634	20,157	25,799	84	2,946	427			
3,296	4,482	44,316	24,006	15,583	553	11,717	427	1		1
3,427	4,661	44,591	23,839	17,737	84	2,026	427			
2,373	3,227	30,294	12,532	22,937	355	11,066	610			
7,909	10,755	11,724	3,410	48,071	349	22,835	610			
8,568	11,651	3,970	3,235	57,239	310	24,144	610			
13,182	17,925	3,985	3,491	54,685	270	20,063	610			
13,182	17,925	3,405	2,463	65,358	514	45,695	610			
32,954	44,812	4,729	4,246	78,239	392	41,734	610			
32,954	44,812	10,186	7,463	52,630	346	24,790	610			
9,886	13,444	32,121	18,309	65,529	104	9,293	427			
2,109	2,868	41,839	20,029	71,531	263	25,554	427			
1,977	2,689	40,634	20,157	11,715	84	1,338	427			
3,296	4,482	44,316	24,006	3,333	84	381	427			
3,427	4,661	44,591	23,839	24,131	84	2,756	427			
2,373	3,227	30,294	12,532	21,669	223	6,572	610			
7,909	10,755	11,724	3,410	45,698	398	24,703	610			
8,568	11,651	3,970	3,235	68,239	283	26,224	610			
13,182	17,925	3,985	3,491	62,994	366	31,340	610			
13,182	17,925	3,405	2,463	78,368	303	32,291	610			
32,954	44,812	4,729	4,246	79,758	569	61,673	610			
32,954	44,812	10,186	7,463	78,186	279	29,607	610			
9,886	13,444	32,121	18,309	188,357	142	36,242	427			
2,109	2,868	41,839	20,029	201,732	84	23,037	427			
1,977	2,689	40,634	20,157	111,793	84	12,767	427			
3,296	4,482	44,316	24,006	30,793	84	3,516	427			
3,427	4,661	44,591	23,839	67,284	119	10,891	427			
2,373	3,227	30,294	12,532	56,434	90	6,916	610			
7,909	10,755	11,724	3,410	156,269	143	30,312	610			
8,568	11,651	3,970	3,235	78,672	225	24,019	610			
13,182	17,925	3,985	3,491	79,331	371	40,065	610			
13,182	17,925	3,405	2,463	116,284	290	45,909	610			
32,954	44,812	4,729	4,246	474,085	126	81,160	610			
32,954	44,812	10,186	7,463	92,812	359	45,345	610			
9,886	13,444	32,121	18,309	138,363	84	15,801	427			
2,109	2,868	41,839	20,029	228,115	119	36,916	427			
1,977	2,689	40,634	20,157	43,901	84	5,013	427			
3,296	4,482	44,316	24,006	54,031	233	17,085	427			
3,427	4,661	44,591	23,839	60,426	84	6,901	427			
2,373	3,227	30,294	12,532	62,107	89	7,521	610			
7,909	10,755	11,724	3,410	117,684	167	26,784	610			
8,568	11,651	3,970	3,235	79,745	235	25,511	610			
13,182	17,925	3,985	3,491	89,954	198	24,179	610			
13,182	17,925	3,405	2,463	149,363	271	55,073	610			
32,954	44,812	4,729	4,246	528,716	138	99,124	610			
32,954	44,812	10,186	7,463	364,582	97	47,973	610			
9,886	13,444	32,121	18,309	194,361	84	22,196	427			
2,109	2,868	41,839	20,029	432,768	149	87,581	427			
1,977	2,689	40,634	20,157	84,859	84	9,691	427			
3,296	4,482	44,316	24,006	60,695	127	10,488	427			
3,427	4,661	44,591	23,839	73,286	84	8,369	427			
2,373	3,227	30,294	12,532	61,850	232	19,541	610			
7,909	10,755	11,724	3,410	144,230	85	16,621	610			
8,568	11,651	3,970	3,235	94,013	248	31,694	610			
13,182	17,925	3,985	3,491	295,450	145	58,363	610			
13,182	17,925	3,405	2,463	392,641	163	87,130	610			
32,954	44,812	4,729	4,246	1,052,903	88	125,872	610			
32,954	44,812	10,186	7,463	1,431,943	91	176,684	610			
9,886	13,444	32,121	18,309	635,506	103	88,845	427			
2,109	2,868	41,839	20,029	1,414,756	84	161,562	427			
1,977	2,689	40,634	20,157	743,577	86	86,955	427			
3,296	4,482	44,316	24,006	170,112	171	39,643	427			
3,427	4,661	44,591	23,839	60,478	110	9,069	427			
2,373	3,227	30,294	12,532	163,682	124	27,608	610			
7,909	10,755	11,724	3,410	295,813	89	35,801	610			
8,568	11,651	3,970	3,235	142,949	187	36,417	610			
13,182	17,925	3,985	3,491	103,587	215	30,290	610			
13,182	17,925	3,405	2,463	126,114	211	36,197	610			
32,954	44,812	4,729	4,246	171,975	269	62,830	610			
32,954	44,812	10,186	7,463	97,784	307	40,800	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Apr-39	D	215,332	208	60,803	2,719	14,804	1,203	2,770	7,091	9,996
May-39	D	179,125	190	46,245	2,802	14,069	1,216	2,459	9,236	8,907
Jun-39	D	97,745	340	45,154	2,818	13,581	1,224	2,460	8,970	7,116
Jul-39	D	80,206	275	29,975	3,055	13,304	1,153	2,272	9,783	5,764
Aug-39	D	115,599	360	56,592	2,882	11,437	1,132	2,828	9,844	4,828
Sep-39	D	66,563	386	34,912	1,636	6,693	1,051	2,609	6,688	4,368
Oct-39	AN	80,297	501	54,691	1,492	6,881	899	2,085	2,588	1,345
Nov-39	AN	83,722	354	40,338	1,368	6,177	498	1,081	876	854
Dec-39	AN	79,681	376	40,720	1,389	6,270	354	857	880	1,127
Jan-40	AN	134,144	427	77,817	1,860	8,387	275	647	752	1,004
Feb-40	AN	239,665	406	132,122	3,767	16,437	604	1,598	1,044	876
Mar-40	AN	464,911	224	141,642	4,034	20,771	756	1,938	2,249	5,213
Apr-40	AN	261,233	198	70,212	3,056	16,640	1,203	2,770	7,091	9,996
May-40	AN	301,766	143	58,707	3,149	15,813	1,216	2,459	9,236	8,907
Jun-40	AN	99,698	192	25,996	3,167	15,265	1,224	2,460	8,970	7,116
Jul-40	AN	107,366	296	43,205	3,434	14,953	1,153	2,272	9,783	5,764
Aug-40	AN	138,828	292	55,187	3,239	12,855	1,132	2,828	9,844	4,828
Sep-40	AN	112,413	355	54,314	1,838	7,523	1,051	2,609	6,688	4,368
Oct-40	W	111,893	310	47,081	1,958	9,033	899	2,085	2,588	1,345
Nov-40	W	98,378	310	41,461	1,796	8,109	498	1,081	876	854
Dec-40	W	196,761	249	66,607	1,823	8,231	354	857	880	1,127
Jan-41	W	199,250	267	72,433	2,441	11,010	275	647	752	1,004
Feb-41	W	651,247	183	162,200	4,945	21,577	604	1,598	1,044	876
Mar-41	W	472,609	209	134,285	5,295	27,267	756	1,938	2,249	5,213
Apr-41	W	321,423	139	60,608	4,012	21,843	1,203	2,770	7,091	9,996
May-41	W	510,533	159	110,149	4,134	20,758	1,216	2,459	9,236	8,907
Jun-41	W	486,208	139	91,813	4,157	20,038	1,224	2,460	8,970	7,116
Jul-41	W	127,349	336	58,207	4,508	19,629	1,153	2,272	9,783	5,764
Aug-41	W	114,300	312	48,544	4,252	16,875	1,132	2,828	9,844	4,828
Sep-41	W	111,222	338	51,168	2,413	9,876	1,051	2,609	6,688	4,368
Oct-41	W	301,344	149	60,960	1,958	9,033	899	2,085	2,588	1,345
Nov-41	W	136,110	341	63,025	1,796	8,109	498	1,081	876	854
Dec-41	W	216,924	257	75,732	1,823	8,231	354	857	880	1,127
Jan-42	W	410,432	154	86,097	2,441	11,010	275	647	752	1,004
Feb-42	W	447,480	240	146,247	4,945	21,577	604	1,598	1,044	876
Mar-42	W	290,628	264	104,388	5,295	27,267	756	1,938	2,249	5,213
Apr-42	W	312,290	188	79,774	4,012	21,843	1,203	2,770	7,091	9,996
May-42	W	336,079	162	73,881	4,134	20,758	1,216	2,459	9,236	8,907
Jun-42	W	382,823	248	129,227	4,157	20,038	1,224	2,460	8,970	7,116
Jul-42	W	147,817	275	55,263	4,508	19,629	1,153	2,272	9,783	5,764
Aug-42	W	121,275	285	47,055	4,252	16,875	1,132	2,828	9,844	4,828
Sep-42	W	127,760	193	33,453	2,413	9,876	1,051	2,609	6,688	4,368
Oct-42	W	286,096	158	61,337	1,958	9,033	899	2,085	2,588	1,345
Nov-42	W	213,488	230	66,754	1,796	8,109	498	1,081	876	854
Dec-42	W	201,620	231	63,372	1,823	8,231	354	857	880	1,127
Jan-43	W	656,099	134	119,256	2,441	11,010	275	647	752	1,004
Feb-43	W	550,309	163	121,873	4,945	21,577	604	1,598	1,044	876
Mar-43	W	981,482	148	197,880	5,295	27,267	756	1,938	2,249	5,213
Apr-43	W	305,956	203	84,396	4,012	21,843	1,203	2,770	7,091	9,996
May-43	W	350,679	174	82,859	4,134	20,758	1,216	2,459	9,236	8,907
Jun-43	W	196,495	125	33,365	4,157	20,038	1,224	2,460	8,970	7,116
Jul-43	W	139,051	396	74,784	4,508	19,629	1,153	2,272	9,783	5,764
Aug-43	W	117,304	303	48,289	4,252	16,875	1,132	2,828	9,844	4,828
Sep-43	W	105,881	292	42,075	2,413	9,876	1,051	2,609	6,688	4,368
Oct-43	BN	191,050	210	54,570	1,410	6,502	899	2,085	2,588	1,345
Nov-43	BN	112,373	383	58,496	1,293	5,836	498	1,081	876	854
Dec-43	BN	109,403	390	58,036	1,312	5,924	354	857	880	1,127
Jan-44	BN	123,414	432	72,465	1,757	7,924	275	647	752	1,004
Feb-44	BN	171,687	434	101,323	3,559	15,530	604	1,598	1,044	876
Mar-44	BN	155,088	599	126,189	3,811	19,626	756	1,938	2,249	5,213
Apr-44	BN	264,171	197	70,751	2,887	15,722	1,203	2,770	7,091	9,996
May-44	BN	198,661	255	68,735	2,976	14,941	1,216	2,459	9,236	8,907
Jun-44	BN	88,224	357	42,855	2,992	14,423	1,224	2,460	8,970	7,116
Jul-44	BN	103,141	472	66,142	3,244	14,128	1,153	2,272	9,783	5,764
Aug-44	BN	94,918	330	42,519	3,061	12,146	1,132	2,828	9,844	4,828
Sep-44	BN	85,856	284	33,137	1,737	7,108	1,051	2,609	6,688	4,368
Oct-44	AN	88,422	316	37,962	1,492	6,881	899	2,085	2,588	1,345
Nov-44	AN	93,287	483	61,281	1,368	6,177	498	1,081	876	854
Dec-44	AN	88,517	406	48,834	1,389	6,270	354	857	880	1,127
Jan-45	AN	91,708	473	58,947	1,860	8,387	275	647	752	1,004

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
9,886	13,444	32,121	18,309	162,312	84	18,536	427			
2,109	2,868	41,839	20,029	121,922	84	13,923	427			
1,977	2,689	40,634	20,157	42,122	84	4,810	427			
3,296	4,482	44,316	24,006	18,604	84	2,124	427			
3,427	4,661	44,591	23,839	53,723	123	8,999	427			
2,373	3,227	30,294	12,532	24,522	164	5,484	610			
7,909	10,755	11,724	3,410	55,684	399	30,214	610			
8,568	11,651	3,970	3,235	68,441	186	17,340	610			
13,182	17,925	3,985	3,491	59,892	136	11,050	610			
13,182	17,925	3,405	2,463	114,671	304	47,391	610			
32,954	44,812	4,729	4,246	196,568	240	64,153	610			
32,954	44,812	10,186	7,463	414,732	109	61,445	610			
9,886	13,444	32,121	18,309	207,876	84	23,739	427			
2,109	2,868	41,839	20,029	244,216	84	27,889	427			
1,977	2,689	40,634	20,157	43,725	84	4,993	427			
3,296	4,482	44,316	24,006	45,385	84	5,183	427			
3,427	4,661	44,591	23,839	76,595	84	8,747	427			
2,373	3,227	30,294	12,532	70,170	252	24,056	610			
7,909	10,755	11,724	3,410	86,814	173	20,452	610			
8,568	11,651	3,970	3,235	82,669	147	16,531	610			
13,182	17,925	3,985	3,491	176,538	146	34,976	610			
13,182	17,925	3,405	2,463	179,196	162	39,385	610			
32,954	44,812	4,729	4,246	606,972	108	89,091	610			
32,954	44,812	10,186	7,463	421,169	84	48,097	610			
9,886	13,444	32,121	18,309	267,110	84	30,503	427			
2,109	2,868	41,839	20,029	451,998	90	55,127	427			
1,977	2,689	40,634	20,157	429,245	84	49,019	427			
3,296	4,482	44,316	24,006	64,294	84	7,342	427			
3,427	4,661	44,591	23,839	51,054	84	5,830	427			
2,373	3,227	30,294	12,532	68,404	200	18,558	610			
7,909	10,755	11,724	3,410	276,265	91	34,331	610			
8,568	11,651	3,970	3,235	120,401	233	38,095	610			
13,182	17,925	3,985	3,491	196,701	165	44,102	610			
13,182	17,925	3,405	2,463	390,378	100	53,048	610			
32,954	44,812	4,729	4,246	403,205	133	73,138	610			
32,954	44,812	10,186	7,463	239,188	84	27,315	610			
9,886	13,444	32,121	18,309	257,977	84	29,460	427			
2,109	2,868	41,839	20,029	277,544	84	31,695	427			
1,977	2,689	40,634	20,157	325,860	173	76,766	427			
3,296	4,482	44,316	24,006	84,762	84	9,680	427			
3,427	4,661	44,591	23,839	58,029	84	6,627	427			
2,373	3,227	30,294	12,532	84,942	84	9,700	610			
7,909	10,755	11,724	3,410	261,017	98	34,708	610			
8,568	11,651	3,970	3,235	197,779	156	41,824	610			
13,182	17,925	3,985	3,491	181,397	129	31,742	610			
13,182	17,925	3,405	2,463	636,045	100	86,207	610			
32,954	44,812	4,729	4,246	506,034	84	57,788	610			
32,954	44,812	10,186	7,463	930,042	88	111,188	610			
9,886	13,444	32,121	18,309	251,643	84	28,737	427			
2,109	2,868	41,839	20,029	292,144	84	33,362	427			
1,977	2,689	40,634	20,157	139,532	84	15,934	427			
3,296	4,482	44,316	24,006	75,996	180	18,633	427			
3,427	4,661	44,591	23,839	54,058	84	6,173	427			
2,373	3,227	30,294	12,532	63,063	110	9,465	610			
7,909	10,755	11,724	3,410	166,520	135	30,472	610			
8,568	11,651	3,970	3,235	97,167	271	35,838	610			
13,182	17,925	3,985	3,491	89,691	235	28,711	610			
13,182	17,925	3,405	2,463	104,044	300	42,501	610			
32,954	44,812	4,729	4,246	128,798	196	34,260	610			
32,954	44,812	10,186	7,463	105,132	330	47,138	610			
9,886	13,444	32,121	18,309	210,982	84	24,094	427			
2,109	2,868	41,839	20,029	141,285	102	19,530	427			
1,977	2,689	40,634	20,157	32,426	84	3,703	427			
3,296	4,482	44,316	24,006	41,349	276	15,491	427			
3,427	4,661	44,591	23,839	32,863	84	3,753	427			
2,373	3,227	30,294	12,532	43,714	84	4,992	610			
7,909	10,755	11,724	3,410	63,809	155	13,485	610			
8,568	11,651	3,970	3,235	78,006	361	38,283	610			
13,182	17,925	3,985	3,491	68,728	205	19,163	610			
13,182	17,925	3,405	2,463	72,235	290	28,521	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Feb-45	AN	322,236	272	118,939	3,767	16,437	604	1,598	1,044	876
Mar-45	AN	345,459	301	141,271	4,034	20,771	756	1,938	2,249	5,213
Apr-45	AN	222,299	174	52,495	3,056	16,640	1,203	2,770	7,091	9,996
May-45	AN	272,192	144	53,249	3,149	15,813	1,216	2,459	9,236	8,907
Jun-45	AN	127,635	388	67,274	3,167	15,265	1,224	2,460	8,970	7,116
Jul-45	AN	130,621	405	71,902	3,434	14,953	1,153	2,272	9,783	5,764
Aug-45	AN	105,829	305	43,824	3,239	12,855	1,132	2,828	9,844	4,828
Sep-45	AN	109,513	428	63,692	1,838	7,523	1,051	2,609	6,688	4,368
Oct-45	AN	212,304	171	49,442	1,492	6,881	899	2,085	2,588	1,345
Nov-45	AN	133,548	268	48,585	1,368	6,177	498	1,081	876	854
Dec-45	AN	302,067	151	62,010	1,389	6,270	354	857	880	1,127
Jan-46	AN	336,084	188	85,944	1,860	8,387	275	647	752	1,004
Feb-46	AN	294,513	303	121,438	3,767	16,437	604	1,598	1,044	876
Mar-46	AN	262,765	337	120,458	4,034	20,771	756	1,938	2,249	5,213
Apr-46	AN	292,332	191	75,948	3,056	16,640	1,203	2,770	7,091	9,996
May-46	AN	268,166	172	62,706	3,149	15,813	1,216	2,459	9,236	8,907
Jun-46	AN	123,174	392	65,559	3,167	15,265	1,224	2,460	8,970	7,116
Jul-46	AN	127,043	339	58,464	3,434	14,953	1,153	2,272	9,783	5,764
Aug-46	AN	138,749	399	75,320	3,239	12,855	1,132	2,828	9,844	4,828
Sep-46	AN	101,904	291	40,370	1,838	7,523	1,051	2,609	6,688	4,368
Oct-46	D	98,348	296	39,603	1,327	6,122	899	2,085	2,588	1,345
Nov-46	D	103,194	316	44,360	1,217	5,496	498	1,081	876	854
Dec-46	D	126,129	374	64,114	1,235	5,579	354	857	880	1,127
Jan-47	D	131,018	486	86,477	1,654	7,462	275	647	752	1,004
Feb-47	D	157,668	457	98,044	3,351	14,624	604	1,598	1,044	876
Mar-47	D	129,332	645	113,338	3,589	18,480	756	1,938	2,249	5,213
Apr-47	D	143,001	281	54,590	2,719	14,804	1,203	2,770	7,091	9,996
May-47	D	153,783	301	62,909	2,802	14,069	1,216	2,459	9,236	8,907
Jun-47	D	73,499	217	21,633	2,818	13,581	1,224	2,460	8,970	7,116
Jul-47	D	80,140	323	35,224	3,055	13,304	1,153	2,272	9,783	5,764
Aug-47	D	99,061	441	59,391	2,882	11,437	1,132	2,828	9,844	4,828
Sep-47	D	76,922	401	41,924	1,636	6,693	1,051	2,609	6,688	4,368
Oct-47	BN	71,161	367	35,544	1,410	6,502	899	2,085	2,588	1,345
Nov-47	BN	79,816	549	59,518	1,293	5,836	498	1,081	876	854
Dec-47	BN	76,564	463	48,183	1,312	5,924	354	857	880	1,127
Jan-48	BN	87,134	548	64,880	1,757	7,924	275	647	752	1,004
Feb-48	BN	114,162	695	107,789	3,559	15,530	604	1,598	1,044	876
Mar-48	BN	119,508	692	112,414	3,811	19,626	756	1,938	2,249	5,213
Apr-48	BN	175,082	264	62,910	2,887	15,722	1,203	2,770	7,091	9,996
May-48	BN	173,401	301	70,934	2,976	14,941	1,216	2,459	9,236	8,907
Jun-48	BN	88,853	278	33,557	2,992	14,423	1,224	2,460	8,970	7,116
Jul-48	BN	94,774	341	43,936	3,244	14,128	1,153	2,272	9,783	5,764
Aug-48	BN	104,223	286	40,467	3,061	12,146	1,132	2,828	9,844	4,828
Sep-48	BN	77,041	302	31,589	1,737	7,108	1,051	2,609	6,688	4,368
Oct-48	BN	82,359	348	38,942	1,410	6,502	899	2,085	2,588	1,345
Nov-48	BN	80,048	406	44,129	1,293	5,836	498	1,081	876	854
Dec-48	BN	78,811	431	46,147	1,312	5,924	354	857	880	1,127
Jan-49	BN	91,528	622	77,422	1,757	7,924	275	647	752	1,004
Feb-49	BN	102,784	628	87,740	3,559	15,530	604	1,598	1,044	876
Mar-49	BN	121,360	704	116,070	3,811	19,626	756	1,938	2,249	5,213
Apr-49	BN	175,186	300	71,331	2,887	15,722	1,203	2,770	7,091	9,996
May-49	BN	180,376	286	70,182	2,976	14,941	1,216	2,459	9,236	8,907
Jun-49	BN	84,053	157	17,975	2,992	14,423	1,224	2,460	8,970	7,116
Jul-49	BN	90,101	383	46,853	3,244	14,128	1,153	2,272	9,783	5,764
Aug-49	BN	107,143	318	46,247	3,061	12,146	1,132	2,828	9,844	4,828
Sep-49	BN	81,978	295	32,855	1,737	7,108	1,051	2,609	6,688	4,368
Oct-49	BN	83,289	319	36,064	1,410	6,502	899	2,085	2,588	1,345
Nov-49	BN	78,653	443	47,402	1,293	5,836	498	1,081	876	854
Dec-49	BN	85,653	533	62,089	1,312	5,924	354	857	880	1,127
Jan-50	BN	90,242	459	56,263	1,757	7,924	275	647	752	1,004
Feb-50	BN	119,732	604	98,365	3,559	15,530	604	1,598	1,044	876
Mar-50	BN	122,474	746	124,145	3,811	19,626	756	1,938	2,249	5,213
Apr-50	BN	180,969	287	70,610	2,887	15,722	1,203	2,770	7,091	9,996
May-50	BN	196,371	280	74,751	2,976	14,941	1,216	2,459	9,236	8,907
Jun-50	BN	107,186	414	60,313	2,992	14,423	1,224	2,460	8,970	7,116
Jul-50	BN	115,678	411	64,667	3,244	14,128	1,153	2,272	9,783	5,764
Aug-50	BN	108,338	393	57,883	3,061	12,146	1,132	2,828	9,844	4,828
Sep-50	BN	86,626	324	38,133	1,737	7,108	1,051	2,609	6,688	4,368
Oct-50	AN	80,618	510	55,841	1,492	6,881	899	2,085	2,588	1,345
Nov-50	AN	112,735	386	59,144	1,368	6,177	498	1,081	876	854

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
32,954	44,812	4,729	4,246	279,139	134	50,970	610			
32,954	44,812	10,186	7,463	295,280	152	61,075	610			
9,886	13,444	32,121	18,309	168,942	84	19,293	427			
2,109	2,868	41,839	20,029	214,642	84	24,512	427			
1,977	2,689	40,634	20,157	71,662	201	19,586	427			
3,296	4,482	44,316	24,006	68,640	219	20,427	427			
3,427	4,661	44,591	23,839	43,596	84	4,979	427			
2,373	3,227	30,294	12,532	67,270	366	33,434	610			
7,909	10,755	11,724	3,410	187,691	98	24,965	610			
8,568	11,651	3,970	3,235	118,267	159	25,587	610			
13,182	17,925	3,985	3,491	282,278	84	32,340	610			
13,182	17,925	3,405	2,463	316,611	129	55,518	610			
32,954	44,812	4,729	4,246	251,416	156	53,469	610			
32,954	44,812	10,186	7,463	212,586	139	40,261	610			
9,886	13,444	32,121	18,309	238,975	84	27,290	427			
2,109	2,868	41,839	20,029	210,616	84	24,052	427			
1,977	2,689	40,634	20,157	67,201	196	17,871	427			
3,296	4,482	44,316	24,006	65,062	84	7,430	427			
3,427	4,661	44,591	23,839	76,516	253	26,309	427			
2,373	3,227	30,294	12,532	59,661	125	10,112	610			
7,909	10,755	11,724	3,410	73,900	158	15,885	610			
8,568	11,651	3,970	3,235	88,064	184	22,043	610			
13,182	17,925	3,985	3,491	106,494	243	35,135	610			
13,182	17,925	3,405	2,463	111,750	375	56,976	610			
32,954	44,812	4,729	4,246	114,987	204	31,887	610			
32,954	44,812	10,186	7,463	79,598	327	35,432	610			
9,886	13,444	32,121	18,309	89,981	84	10,276	427			
2,109	2,868	41,839	20,029	96,580	111	14,576	427			
1,977	2,689	40,634	20,157	17,876	84	2,041	427			
3,296	4,482	44,316	24,006	18,538	84	2,117	427			
3,427	4,661	44,591	23,839	37,185	233	11,798	427			
2,373	3,227	30,294	12,532	34,881	264	12,496	610			
7,909	10,755	11,724	3,410	46,631	181	11,446	610			
8,568	11,651	3,970	3,235	64,610	420	36,860	610			
13,182	17,925	3,985	3,491	56,852	244	18,858	610			
13,182	17,925	3,405	2,463	67,764	379	34,916	610			
32,954	44,812	4,729	4,246	71,273	420	40,726	610			
32,954	44,812	10,186	7,463	69,552	353	33,363	610			
9,886	13,444	32,121	18,309	121,893	84	13,920	427			
2,109	2,868	41,839	20,029	116,025	138	21,729	427			
1,977	2,689	40,634	20,157	33,055	84	3,775	427			
3,296	4,482	44,316	24,006	32,982	84	3,767	427			
3,427	4,661	44,591	23,839	42,168	84	4,816	427			
2,373	3,227	30,294	12,532	34,899	84	3,985	610			
7,909	10,755	11,724	3,410	57,829	189	14,845	610			
8,568	11,651	3,970	3,235	64,842	244	21,471	610			
13,182	17,925	3,985	3,491	59,099	209	16,822	610			
13,182	17,925	3,405	2,463	72,158	484	47,458	610			
32,954	44,812	4,729	4,246	59,895	254	20,677	610			
32,954	44,812	10,186	7,463	71,404	381	37,019	610			
9,886	13,444	32,121	18,309	121,997	84	13,932	427			
2,109	2,868	41,839	20,029	123,000	125	20,978	427			
1,977	2,689	40,634	20,157	28,255	84	3,227	427			
3,296	4,482	44,316	24,006	28,309	84	3,233	427			
3,427	4,661	44,591	23,839	45,088	84	5,149	427			
2,373	3,227	30,294	12,532	39,836	84	4,549	610			
7,909	10,755	11,724	3,410	58,759	150	11,967	610			
8,568	11,651	3,970	3,235	63,447	287	24,744	610			
13,182	17,925	3,985	3,491	65,941	365	32,764	610			
13,182	17,925	3,405	2,463	70,872	273	26,299	610			
32,954	44,812	4,729	4,246	76,843	300	31,303	610			
32,954	44,812	10,186	7,463	72,518	457	45,094	610			
9,886	13,444	32,121	18,309	127,780	84	14,592	427			
2,109	2,868	41,839	20,029	138,995	135	25,546	427			
1,977	2,689	40,634	20,157	51,388	193	13,468	427			
3,296	4,482	44,316	24,006	53,886	191	14,016	427			
3,427	4,661	44,591	23,839	46,283	152	9,581	427			
2,373	3,227	30,294	12,532	44,484	137	8,290	610			
7,909	10,755	11,724	3,410	56,005	412	31,364	610			
8,568	11,651	3,970	3,235	97,454	273	36,146	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Dec-50	AN	486,196	144	95,380	1,389	6,270	354	857	880	1,127
Jan-51	AN	510,994	168	116,570	1,860	8,387	275	647	752	1,004
Feb-51	AN	387,795	240	126,688	3,767	16,437	604	1,598	1,044	876
Mar-51	AN	295,433	262	105,150	4,034	20,771	756	1,938	2,249	5,213
Apr-51	AN	306,407	193	80,396	3,056	16,640	1,203	2,770	7,091	9,996
May-51	AN	241,523	153	50,073	3,149	15,813	1,216	2,459	9,236	8,907
Jun-51	AN	109,820	172	25,605	3,167	15,265	1,224	2,460	8,970	7,116
Jul-51	AN	126,655	407	70,046	3,434	14,953	1,153	2,272	9,783	5,764
Aug-51	AN	121,483	320	52,833	3,239	12,855	1,132	2,828	9,844	4,828
Sep-51	AN	102,444	294	40,932	1,838	7,523	1,051	2,609	6,688	4,368
Oct-51	W	106,550	405	58,681	1,958	9,033	899	2,085	2,588	1,345
Nov-51	W	109,025	358	52,988	1,796	8,109	498	1,081	876	854
Dec-51	W	115,668	391	61,406	1,823	8,231	354	857	880	1,127
Jan-52	W	177,343	314	75,729	2,441	11,010	275	647	752	1,004
Feb-52	W	235,623	363	116,151	4,945	21,577	604	1,598	1,044	876
Mar-52	W	505,444	224	153,784	5,295	27,267	756	1,938	2,249	5,213
Apr-52	W	481,644	146	95,338	4,012	21,843	1,203	2,770	7,091	9,996
May-52	W	1,009,027	120	163,927	4,134	20,758	1,216	2,459	9,236	8,907
Jun-52	W	638,853	94	81,728	4,157	20,038	1,224	2,460	8,970	7,116
Jul-52	W	268,907	164	59,955	4,508	19,629	1,153	2,272	9,783	5,764
Aug-52	W	202,497	285	78,487	4,252	16,875	1,132	2,828	9,844	4,828
Sep-52	W	210,760	185	53,008	2,413	9,876	1,051	2,609	6,688	4,368
Oct-52	BN	290,859	136	53,857	1,410	6,502	899	2,085	2,588	1,345
Nov-52	BN	138,896	277	52,268	1,293	5,836	498	1,081	876	854
Dec-52	BN	157,748	311	66,589	1,312	5,924	354	857	880	1,127
Jan-53	BN	265,415	201	72,672	1,757	7,924	275	647	752	1,004
Feb-53	BN	318,621	290	125,705	3,559	15,530	604	1,598	1,044	876
Mar-53	BN	230,419	402	126,022	3,811	19,626	756	1,938	2,249	5,213
Apr-53	BN	256,947	197	68,746	2,887	15,722	1,203	2,770	7,091	9,996
May-53	BN	258,165	274	96,062	2,976	14,941	1,216	2,459	9,236	8,907
Jun-53	BN	115,104	437	68,383	2,992	14,423	1,224	2,460	8,970	7,116
Jul-53	BN	115,809	408	64,221	3,244	14,128	1,153	2,272	9,783	5,764
Aug-53	BN	122,120	290	48,163	3,061	12,146	1,132	2,828	9,844	4,828
Sep-53	BN	94,421	356	45,737	1,737	7,108	1,051	2,609	6,688	4,368
Oct-53	BN	91,360	293	36,404	1,410	6,502	899	2,085	2,588	1,345
Nov-53	BN	96,500	453	59,482	1,293	5,836	498	1,081	876	854
Dec-53	BN	93,834	497	63,337	1,312	5,924	354	857	880	1,127
Jan-54	BN	95,397	498	64,561	1,757	7,924	275	647	752	1,004
Feb-54	BN	124,394	655	110,786	3,559	15,530	604	1,598	1,044	876
Mar-54	BN	142,721	666	129,243	3,811	19,626	756	1,938	2,249	5,213
Apr-54	BN	204,193	261	72,481	2,887	15,722	1,203	2,770	7,091	9,996
May-54	BN	182,418	182	45,235	2,976	14,941	1,216	2,459	9,236	8,907
Jun-54	BN	104,417	595	84,463	2,992	14,423	1,224	2,460	8,970	7,116
Jul-54	BN	119,559	474	77,093	3,244	14,128	1,153	2,272	9,783	5,764
Aug-54	BN	96,226	322	42,085	3,061	12,146	1,132	2,828	9,844	4,828
Sep-54	BN	85,702	333	38,798	1,737	7,108	1,051	2,609	6,688	4,368
Oct-54	D	92,896	369	46,602	1,327	6,122	899	2,085	2,588	1,345
Nov-54	D	84,534	440	50,532	1,217	5,496	498	1,081	876	854
Dec-54	D	84,615	425	48,889	1,235	5,579	354	857	880	1,127
Jan-55	D	100,729	465	63,609	1,654	7,462	275	647	752	1,004
Feb-55	D	119,632	711	115,669	3,351	14,624	604	1,598	1,044	876
Mar-55	D	114,828	773	120,734	3,589	18,480	756	1,938	2,249	5,213
Apr-55	D	147,333	390	78,097	2,719	14,804	1,203	2,770	7,091	9,996
May-55	D	143,718	287	56,075	2,802	14,069	1,216	2,459	9,236	8,907
Jun-55	D	81,721	281	31,186	2,818	13,581	1,224	2,460	8,970	7,116
Jul-55	D	105,966	572	82,388	3,055	13,304	1,153	2,272	9,783	5,764
Aug-55	D	62,708	371	31,637	2,882	11,437	1,132	2,828	9,844	4,828
Sep-55	D	69,724	398	37,698	1,636	6,693	1,051	2,609	6,688	4,368
Oct-55	W	76,166	390	40,342	1,958	9,033	899	2,085	2,588	1,345
Nov-55	W	88,821	435	52,503	1,796	8,109	498	1,081	876	854
Dec-55	W	369,353	211	105,900	1,823	8,231	354	857	880	1,127
Jan-56	W	1,088,384	113	167,793	2,441	11,010	275	647	752	1,004
Feb-56	W	594,957	195	157,563	4,945	21,577	604	1,598	1,044	876
Mar-56	W	362,903	278	137,205	5,295	27,267	756	1,938	2,249	5,213
Apr-56	W	310,622	181	76,223	4,012	21,843	1,203	2,770	7,091	9,996
May-56	W	376,331	213	109,027	4,134	20,758	1,216	2,459	9,236	8,907
Jun-56	W	442,795	130	77,956	4,157	20,038	1,224	2,460	8,970	7,116
Jul-56	W	146,176	290	57,631	4,508	19,629	1,153	2,272	9,783	5,764
Aug-56	W	130,432	308	54,668	4,252	16,875	1,132	2,828	9,844	4,828
Sep-56	W	122,306	276	45,875	2,413	9,876	1,051	2,609	6,688	4,368

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
13,182	17,925	3,985	3,491	466,407	104	65,710	610			
13,182	17,925	3,405	2,463	491,521	129	86,144	610			
32,954	44,812	4,729	4,246	344,698	125	58,719	610			
32,954	44,812	10,186	7,463	245,254	84	28,008	610			
9,886	13,444	32,121	18,309	253,050	84	28,898	427			
2,109	2,868	41,839	20,029	183,973	84	21,009	427			
1,977	2,689	40,634	20,157	53,847	84	6,149	427			
3,296	4,482	44,316	24,006	64,674	211	18,571	427			
3,427	4,661	44,591	23,839	59,250	84	6,766	427			
2,373	3,227	30,294	12,532	60,201	130	10,675	610			
7,909	10,755	11,724	3,410	81,471	289	32,052	610			
8,568	11,651	3,970	3,235	93,316	221	28,058	610			
13,182	17,925	3,985	3,491	95,445	229	29,776	610			
13,182	17,925	3,405	2,463	157,289	200	42,680	610			
32,954	44,812	4,729	4,246	191,348	165	43,042	610			
32,954	44,812	10,186	7,463	454,004	109	67,092	610			
9,886	13,444	32,121	18,309	427,331	84	48,800	427			
2,109	2,868	41,839	20,029	950,492	84	108,905	427			
1,977	2,689	40,634	20,157	581,890	84	66,451	427			
3,296	4,482	44,316	24,006	205,852	84	23,508	427			
3,427	4,661	44,591	23,839	139,251	134	25,456	427			
2,373	3,227	30,294	12,532	167,942	89	20,397	610			
7,909	10,755	11,724	3,410	266,329	84	30,414	610			
8,568	11,651	3,970	3,235	123,690	176	29,610	610			
13,182	17,925	3,985	3,491	138,036	199	37,265	610			
13,182	17,925	3,405	2,463	246,045	128	42,708	610			
32,954	44,812	4,729	4,246	275,732	156	58,642	610			
32,954	44,812	10,186	7,463	180,463	191	46,971	610			
9,886	13,444	32,121	18,309	203,758	84	23,269	427			
2,109	2,868	41,839	20,029	200,789	172	46,857	427			
1,977	2,689	40,634	20,157	59,306	267	21,538	427			
3,296	4,482	44,316	24,006	54,017	185	13,570	427			
3,427	4,661	44,591	23,839	60,065	84	6,859	427			
2,373	3,227	30,294	12,532	52,279	224	15,894	610			
7,909	10,755	11,724	3,410	66,830	135	12,307	610			
8,568	11,651	3,970	3,235	81,294	333	36,825	610			
13,182	17,925	3,985	3,491	74,122	338	34,013	610			
13,182	17,925	3,405	2,463	76,027	335	34,597	610			
32,954	44,812	4,729	4,246	81,505	395	43,724	610			
32,954	44,812	10,186	7,463	92,765	398	50,192	610			
9,886	13,444	32,121	18,309	151,004	84	17,244	427			
2,109	2,868	41,839	20,029	125,042	84	14,280	427			
1,977	2,689	40,634	20,157	48,619	569	37,618	427	1		1
3,296	4,482	44,316	24,006	57,767	337	26,442	427			
3,427	4,661	44,591	23,839	34,171	84	3,902	427			
2,373	3,227	30,294	12,532	43,560	151	8,956	610			
7,909	10,755	11,724	3,410	68,448	246	22,884	610			
8,568	11,651	3,970	3,235	69,404	299	28,215	610			
13,182	17,925	3,985	3,491	64,980	225	19,911	610			
13,182	17,925	3,405	2,463	81,461	308	34,108	610			
32,954	44,812	4,729	4,246	76,951	473	49,513	610			
32,954	44,812	10,186	7,463	65,094	484	42,829	610			
9,886	13,444	32,121	18,309	94,313	146	18,774	427			
2,109	2,868	41,839	20,029	86,515	84	9,880	427			
1,977	2,689	40,634	20,157	26,098	84	2,980	427			
3,296	4,482	44,316	24,006	44,364	540	32,562	427	1		1
3,427	4,661	44,591	23,839	832	84	95	427			
2,373	3,227	30,294	12,532	27,683	220	8,270	610			
7,909	10,755	11,724	3,410	51,087	197	13,713	610			
8,568	11,651	3,970	3,235	73,112	277	27,573	610			
13,182	17,925	3,985	3,491	349,130	156	74,269	610			
13,182	17,925	3,405	2,463	1,068,330	93	134,745	610			
32,954	44,812	4,729	4,246	550,682	113	84,454	610			
32,954	44,812	10,186	7,463	311,463	119	50,513	610			
9,886	13,444	32,121	18,309	256,309	84	29,270	427			
2,109	2,868	41,839	20,029	317,796	125	54,005	427			
1,977	2,689	40,634	20,157	385,832	84	44,061	427			
3,296	4,482	44,316	24,006	83,121	84	9,492	427			
3,427	4,661	44,591	23,839	67,186	84	7,672	427			
2,373	3,227	30,294	12,532	79,488	123	13,265	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-56	BN	287,309	122	47,457	1,410	6,502	899	2,085	2,588	1,345
Nov-56	BN	105,481	400	57,289	1,293	5,836	498	1,081	876	854
Dec-56	BN	102,226	320	44,486	1,312	5,924	354	857	880	1,127
Jan-57	BN	117,728	462	73,976	1,757	7,924	275	647	752	1,004
Feb-57	BN	178,034	455	110,054	3,559	15,530	604	1,598	1,044	876
Mar-57	BN	198,450	403	108,726	3,811	19,626	756	1,938	2,249	5,213
Apr-57	BN	272,715	273	101,328	2,887	15,722	1,203	2,770	7,091	9,996
May-57	BN	228,676	138	42,871	2,976	14,941	1,216	2,459	9,236	8,907
Jun-57	BN	100,973	339	46,522	2,992	14,423	1,224	2,460	8,970	7,116
Jul-57	BN	125,749	342	58,501	3,244	14,128	1,153	2,272	9,783	5,764
Aug-57	BN	117,549	275	43,979	3,061	12,146	1,132	2,828	9,844	4,828
Sep-57	BN	88,419	300	36,110	1,737	7,108	1,051	2,609	6,688	4,368
Oct-57	W	100,284	331	45,168	1,958	9,033	899	2,085	2,588	1,345
Nov-57	W	97,870	356	47,341	1,796	8,109	498	1,081	876	854
Dec-57	W	92,178	383	48,046	1,823	8,231	354	857	880	1,127
Jan-58	W	107,296	485	70,790	2,441	11,010	275	647	752	1,004
Feb-58	W	147,153	563	112,631	4,945	21,577	604	1,598	1,044	876
Mar-58	W	446,391	234	141,825	5,295	27,267	756	1,938	2,249	5,213
Apr-58	W	537,498	118	85,861	4,012	21,843	1,203	2,770	7,091	9,996
May-58	W	649,196	125	110,588	4,134	20,758	1,216	2,459	9,236	8,907
Jun-58	W	619,292	140	117,449	4,157	20,038	1,224	2,460	8,970	7,116
Jul-58	W	107,828	257	37,689	4,508	19,629	1,153	2,272	9,783	5,764
Aug-58	W	136,661	437	81,265	4,252	16,875	1,132	2,828	9,844	4,828
Sep-58	W	119,452	227	36,782	2,413	9,876	1,051	2,609	6,688	4,368
Oct-58	D	295,512	137	55,200	1,327	6,122	899	2,085	2,588	1,345
Nov-58	D	144,171	266	52,136	1,217	5,496	498	1,081	876	854
Dec-58	D	102,805	334	46,667	1,235	5,579	354	857	880	1,127
Jan-59	D	140,010	358	68,086	1,654	7,462	275	647	752	1,004
Feb-59	D	250,145	319	108,449	3,351	14,624	604	1,598	1,044	876
Mar-59	D	221,534	375	113,001	3,589	18,480	756	1,938	2,249	5,213
Apr-59	D	183,532	222	55,267	2,719	14,804	1,203	2,770	7,091	9,996
May-59	D	200,539	280	76,337	2,802	14,069	1,216	2,459	9,236	8,907
Jun-59	D	77,970	319	33,846	2,818	13,581	1,224	2,460	8,970	7,116
Jul-59	D	104,703	559	79,584	3,055	13,304	1,153	2,272	9,783	5,764
Aug-59	D	117,681	337	53,836	2,882	11,437	1,132	2,828	9,844	4,828
Sep-59	D	74,769	343	34,865	1,636	6,693	1,051	2,609	6,688	4,368
Oct-59	C	80,385	404	44,118	1,053	4,858	899	2,085	2,588	1,345
Nov-59	C	81,466	529	58,533	966	4,360	498	1,081	876	854
Dec-59	C	79,852	511	55,419	980	4,426	354	857	880	1,127
Jan-60	C	86,349	432	50,690	1,313	5,920	275	647	752	1,004
Feb-60	C	116,638	671	106,352	2,659	11,603	604	1,598	1,044	876
Mar-60	C	103,922	702	99,236	2,847	14,662	756	1,938	2,249	5,213
Apr-60	C	126,523	296	50,914	2,157	11,746	1,203	2,770	7,091	9,996
May-60	C	165,930	318	71,645	2,223	11,162	1,216	2,459	9,236	8,907
Jun-60	C	78,617	413	44,152	2,236	10,775	1,224	2,460	8,970	7,116
Jul-60	C	109,737	596	88,871	2,424	10,555	1,153	2,272	9,783	5,764
Aug-60	C	92,150	446	55,899	2,287	9,074	1,132	2,828	9,844	4,828
Sep-60	C	66,734	514	46,614	1,298	5,310	1,051	2,609	6,688	4,368
Oct-60	C	66,056	379	34,062	1,053	4,858	899	2,085	2,588	1,345
Nov-60	C	74,648	541	54,943	966	4,360	498	1,081	876	854
Dec-60	C	75,844	499	51,411	980	4,426	354	857	880	1,127
Jan-61	C	81,499	656	72,706	1,313	5,920	275	647	752	1,004
Feb-61	C	106,456	745	107,793	2,659	11,603	604	1,598	1,044	876
Mar-61	C	108,918	737	109,190	2,847	14,662	756	1,938	2,249	5,213
Apr-61	C	85,246	297	34,443	2,157	11,746	1,203	2,770	7,091	9,996
May-61	C	92,621	324	40,747	2,223	11,162	1,216	2,459	9,236	8,907
Jun-61	C	87,542	581	69,159	2,236	10,775	1,224	2,460	8,970	7,116
Jul-61	C	92,368	427	53,645	2,424	10,555	1,153	2,272	9,783	5,764
Aug-61	C	71,457	361	35,031	2,287	9,074	1,132	2,828	9,844	4,828
Sep-61	C	58,056	443	34,957	1,298	5,310	1,051	2,609	6,688	4,368
Oct-61	BN	70,934	453	43,646	1,410	6,502	899	2,085	2,588	1,345
Nov-61	BN	76,629	411	42,858	1,293	5,836	498	1,081	876	854
Dec-61	BN	77,839	574	60,763	1,312	5,924	354	857	880	1,127
Jan-62	BN	81,157	751	82,838	1,757	7,924	275	647	752	1,004
Feb-62	BN	194,148	455	119,989	3,559	15,530	604	1,598	1,044	876
Mar-62	BN	121,776	625	103,538	3,811	19,626	756	1,938	2,249	5,213
Apr-62	BN	161,859	262	57,630	2,887	15,722	1,203	2,770	7,091	9,996
May-62	BN	204,762	237	66,002	2,976	14,941	1,216	2,459	9,236	8,907
Jun-62	BN	88,644	353	42,565	2,992	14,423	1,224	2,460	8,970	7,116
Jul-62	BN	81,085	374	41,184	3,244	14,128	1,153	2,272	9,783	5,764

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
7,909	10,755	11,724	3,410	262,779	84	30,009	610			
8,568	11,651	3,970	3,235	90,275	282	34,631	610			
13,182	17,925	3,985	3,491	82,514	135	15,162	610			
13,182	17,925	3,405	2,463	98,358	329	44,012	610			
32,954	44,812	4,729	4,246	135,145	234	42,992	610			
32,954	44,812	10,186	7,463	148,494	147	29,675	610			
9,886	13,444	32,121	18,309	219,526	138	41,087	427			
2,109	2,868	41,839	20,029	171,300	84	19,562	427			
1,977	2,689	40,634	20,157	45,175	84	5,159	427			
3,296	4,482	44,316	24,006	63,957	90	7,850	427			
3,427	4,661	44,591	23,839	55,494	84	6,337	427			
2,373	3,227	30,294	12,532	46,277	100	6,267	610			
7,909	10,755	11,724	3,410	75,205	181	18,539	610			
8,568	11,651	3,970	3,235	82,161	201	22,411	610			
13,182	17,925	3,985	3,491	71,955	168	16,415	610			
13,182	17,925	3,405	2,463	87,242	318	37,742	610			
32,954	44,812	4,729	4,246	102,878	283	39,522	610			
32,954	44,812	10,186	7,463	394,951	103	55,133	610			
9,886	13,444	32,121	18,309	483,185	84	55,179	427			
2,109	2,868	41,839	20,029	590,661	84	67,452	427			
1,977	2,689	40,634	20,157	562,329	85	64,988	427			
3,296	4,482	44,316	24,006	44,773	84	5,113	427			
3,427	4,661	44,591	23,839	73,415	283	28,234	427			
2,373	3,227	30,294	12,532	76,634	84	8,751	610			
7,909	10,755	11,724	3,410	271,064	85	31,482	610			
8,568	11,651	3,970	3,235	129,041	170	29,819	610			
13,182	17,925	3,985	3,491	83,170	156	17,688	610			
13,182	17,925	3,405	2,463	120,742	235	38,585	610			
32,954	44,812	4,729	4,246	207,464	150	42,293	610			
32,954	44,812	10,186	7,463	171,800	150	35,096	610			
9,886	13,444	32,121	18,309	130,512	84	14,904	427			
2,109	2,868	41,839	20,029	143,336	144	28,004	427			
1,977	2,689	40,634	20,157	22,347	84	2,552	427			
3,296	4,482	44,316	24,006	43,101	508	29,758	427	1		1
3,427	4,661	44,591	23,839	55,805	84	6,373	427			
2,373	3,227	30,294	12,532	32,728	122	5,437	610			
7,909	10,755	11,724	3,410	56,211	283	21,665	610			
8,568	11,651	3,970	3,235	66,587	413	37,351	610			
13,182	17,925	3,985	3,491	60,472	336	27,593	610			
13,182	17,925	3,405	2,463	67,423	248	22,730	610			
32,954	44,812	4,729	4,246	74,649	426	43,217	610			
32,954	44,812	10,186	7,463	54,930	337	25,149	610			
9,886	13,444	32,121	18,309	74,064	84	8,458	427			
2,109	2,868	41,839	20,029	109,306	176	26,219	427			
1,977	2,689	40,634	20,157	23,576	84	2,692	427			
3,296	4,482	44,316	24,006	48,766	630	41,793	427	1		1
3,427	4,661	44,591	23,839	30,870	254	10,669	427			
2,373	3,227	30,294	12,532	25,031	546	18,569	610			
7,909	10,755	11,724	3,410	41,882	204	11,609	610			
8,568	11,651	3,970	3,235	59,769	415	33,762	610			
13,182	17,925	3,985	3,491	56,464	307	23,585	610			
13,182	17,925	3,405	2,463	62,573	526	44,746	610			
32,954	44,812	4,729	4,246	64,467	510	44,658	610			
32,954	44,812	10,186	7,463	59,926	431	35,102	610			
9,886	13,444	32,121	18,309	32,787	84	3,744	427			
2,109	2,868	41,839	20,029	35,997	84	4,111	427			
1,977	2,689	40,634	20,157	32,501	588	25,961	427	1		1
3,296	4,482	44,316	24,006	31,397	154	6,568	427			
3,427	4,661	44,591	23,839	10,177	84	1,162	427			
2,373	3,227	30,294	12,532	16,353	311	6,912	610			
7,909	10,755	11,724	3,410	46,404	310	19,549	610			
8,568	11,651	3,970	3,235	61,423	242	20,201	610			
13,182	17,925	3,985	3,491	58,127	398	31,439	610			
13,182	17,925	3,405	2,463	61,787	629	52,875	610	1	1	
32,954	44,812	4,729	4,246	151,259	257	52,926	610			
32,954	44,812	10,186	7,463	71,820	251	24,487	610			
9,886	13,444	32,121	18,309	108,670	84	12,410	427			
2,109	2,868	41,839	20,029	147,386	84	16,831	427			
1,977	2,689	40,634	20,157	32,846	84	3,751	427			
3,296	4,482	44,316	24,006	19,293	84	2,203	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Aug-62	BN	86,580	306	36,030	3,061	12,146	1,132	2,828	9,844	4,828
Sep-62	BN	87,557	331	39,353	1,737	7,108	1,051	2,609	6,688	4,368
Oct-62	AN	80,123	433	47,165	1,492	6,881	899	2,085	2,588	1,345
Nov-62	AN	90,339	541	66,493	1,368	6,177	498	1,081	876	854
Dec-62	AN	84,154	476	54,458	1,389	6,270	354	857	880	1,127
Jan-63	AN	89,381	562	68,278	1,860	8,387	275	647	752	1,004
Feb-63	AN	153,919	506	105,840	3,767	16,437	604	1,598	1,044	876
Mar-63	AN	131,329	616	110,053	4,034	20,771	756	1,938	2,249	5,213
Apr-63	AN	226,938	253	78,180	3,056	16,640	1,203	2,770	7,091	9,996
May-63	AN	228,428	185	57,358	3,149	15,813	1,216	2,459	9,236	8,907
Jun-63	AN	94,186	406	51,987	3,167	15,265	1,224	2,460	8,970	7,116
Jul-63	AN	109,086	447	66,217	3,434	14,953	1,153	2,272	9,783	5,764
Aug-63	AN	104,583	316	44,901	3,239	12,855	1,132	2,828	9,844	4,828
Sep-63	AN	91,235	268	33,266	1,838	7,523	1,051	2,609	6,688	4,368
Oct-63	D	122,105	317	52,556	1,327	6,122	899	2,085	2,588	1,345
Nov-63	D	119,254	408	66,099	1,217	5,496	498	1,081	876	854
Dec-63	D	108,667	487	71,946	1,235	5,579	354	857	880	1,127
Jan-64	D	115,766	397	62,466	1,654	7,462	275	647	752	1,004
Feb-64	D	131,473	620	110,764	3,351	14,624	604	1,598	1,044	876
Mar-64	D	120,599	661	108,341	3,589	18,480	756	1,938	2,249	5,213
Apr-64	D	150,202	374	76,411	2,719	14,804	1,203	2,770	7,091	9,996
May-64	D	149,508	326	66,221	2,802	14,069	1,216	2,459	9,236	8,907
Jun-64	D	97,384	464	61,417	2,818	13,581	1,224	2,460	8,970	7,116
Jul-64	D	99,342	443	59,789	3,055	13,304	1,153	2,272	9,783	5,764
Aug-64	D	77,352	448	47,101	2,882	11,437	1,132	2,828	9,844	4,828
Sep-64	D	59,799	355	28,893	1,636	6,693	1,051	2,609	6,688	4,368
Oct-64	W	80,398	493	53,875	1,958	9,033	899	2,085	2,588	1,345
Nov-64	W	79,993	346	37,660	1,796	8,109	498	1,081	876	854
Dec-64	W	151,838	302	62,299	1,823	8,231	354	857	880	1,127
Jan-65	W	481,901	149	97,551	2,441	11,010	275	647	752	1,004
Feb-65	W	367,982	228	113,862	4,945	21,577	604	1,598	1,044	876
Mar-65	W	259,260	350	123,327	5,295	27,267	756	1,938	2,249	5,213
Apr-65	W	317,393	207	89,363	4,012	21,843	1,203	2,770	7,091	9,996
May-65	W	285,308	188	72,727	4,134	20,758	1,216	2,459	9,236	8,907
Jun-65	W	112,700	298	45,658	4,157	20,038	1,224	2,460	8,970	7,116
Jul-65	W	121,093	268	44,087	4,508	19,629	1,153	2,272	9,783	5,764
Aug-65	W	119,885	370	60,239	4,252	16,875	1,132	2,828	9,844	4,828
Sep-65	W	111,040	342	51,568	2,413	9,876	1,051	2,609	6,688	4,368
Oct-65	BN	257,963	202	70,912	1,410	6,502	899	2,085	2,588	1,345
Nov-65	BN	197,345	203	54,463	1,293	5,836	498	1,081	876	854
Dec-65	BN	256,544	171	59,779	1,312	5,924	354	857	880	1,127
Jan-66	BN	272,822	238	88,163	1,757	7,924	275	647	752	1,004
Feb-66	BN	302,979	280	115,250	3,559	15,530	604	1,598	1,044	876
Mar-66	BN	215,369	403	117,937	3,811	19,626	756	1,938	2,249	5,213
Apr-66	BN	218,323	198	58,828	2,887	15,722	1,203	2,770	7,091	9,996
May-66	BN	186,000	277	69,968	2,976	14,941	1,216	2,459	9,236	8,907
Jun-66	BN	98,585	443	59,307	2,992	14,423	1,224	2,460	8,970	7,116
Jul-66	BN	115,935	344	54,156	3,244	14,128	1,153	2,272	9,783	5,764
Aug-66	BN	128,698	367	64,265	3,061	12,146	1,132	2,828	9,844	4,828
Sep-66	BN	84,757	338	38,970	1,737	7,108	1,051	2,609	6,688	4,368
Oct-66	W	89,647	423	51,541	1,958	9,033	899	2,085	2,588	1,345
Nov-66	W	88,298	405	48,581	1,796	8,109	498	1,081	876	854
Dec-66	W	103,243	404	56,691	1,823	8,231	354	857	880	1,127
Jan-67	W	113,643	468	72,305	2,441	11,010	275	647	752	1,004
Feb-67	W	157,104	494	105,489	4,945	21,577	604	1,598	1,044	876
Mar-67	W	281,390	322	123,104	5,295	27,267	756	1,938	2,249	5,213
Apr-67	W	555,049	166	125,564	4,012	21,843	1,203	2,770	7,091	9,996
May-67	W	905,056	143	176,197	4,134	20,758	1,216	2,459	9,236	8,907
Jun-67	W	803,916	141	153,556	4,157	20,038	1,224	2,460	8,970	7,116
Jul-67	W	575,146	153	119,945	4,508	19,629	1,153	2,272	9,783	5,764
Aug-67	W	117,370	399	63,586	4,252	16,875	1,132	2,828	9,844	4,828
Sep-67	W	179,079	196	47,742	2,413	9,876	1,051	2,609	6,688	4,368
Oct-67	D	302,229	162	66,604	1,327	6,122	899	2,085	2,588	1,345
Nov-67	D	118,550	335	53,959	1,217	5,496	498	1,081	876	854
Dec-67	D	107,536	386	56,431	1,235	5,579	354	857	880	1,127
Jan-68	D	115,909	497	78,253	1,654	7,462	275	647	752	1,004
Feb-68	D	210,721	400	114,447	3,351	14,624	604	1,598	1,044	876
Mar-68	D	189,665	499	128,744	3,589	18,480	756	1,938	2,249	5,213
Apr-68	D	221,352	182	54,769	2,719	14,804	1,203	2,770	7,091	9,996
May-68	D	171,889	190	44,330	2,802	14,069	1,216	2,459	9,236	8,907

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
3,427	4,661	44,591	23,839	24,525	84	2,801	427			
2,373	3,227	30,294	12,532	45,415	154	9,510	610			
7,909	10,755	11,724	3,410	55,510	301	22,689	610			
8,568	11,651	3,970	3,235	75,058	426	43,494	610			
13,182	17,925	3,985	3,491	64,365	283	24,788	610			
13,182	17,925	3,405	2,463	69,908	398	37,852	610			
32,954	44,812	4,729	4,246	110,822	251	37,871	610			
32,954	44,812	10,186	7,463	81,150	271	29,857	610			
9,886	13,444	32,121	18,309	173,581	84	19,823	427			
2,109	2,868	41,839	20,029	170,878	84	19,514	427			
1,977	2,689	40,634	20,157	38,213	84	4,364	427			
3,296	4,482	44,316	24,006	47,105	230	14,742	427			
3,427	4,661	44,591	23,839	42,350	84	4,836	427			
2,373	3,227	30,294	12,532	48,992	84	5,595	610			
7,909	10,755	11,724	3,410	97,657	217	28,838	610			
8,568	11,651	3,970	3,235	104,124	309	43,782	610			
13,182	17,925	3,985	3,491	89,032	355	42,967	610			
13,182	17,925	3,405	2,463	96,498	251	32,965	610			
32,954	44,812	4,729	4,246	88,792	370	44,607	610			
32,954	44,812	10,186	7,463	70,865	316	30,436	610			
9,886	13,444	32,121	18,309	97,182	129	17,088	427			
2,109	2,868	41,839	20,029	92,305	143	17,888	427			
1,977	2,689	40,634	20,157	41,761	271	15,414	427			
3,296	4,482	44,316	24,006	37,740	194	9,963	427			
3,427	4,661	44,591	23,839	15,476	84	1,767	427			
2,373	3,227	30,294	12,532	17,758	84	2,028	610			
7,909	10,755	11,724	3,410	55,319	362	27,246	610			
8,568	11,651	3,970	3,235	64,284	146	12,730	610			
13,182	17,925	3,985	3,491	131,615	171	30,668	610			
13,182	17,925	3,405	2,463	461,847	103	64,502	610			
32,954	44,812	4,729	4,246	323,707	93	40,753	610			
32,954	44,812	10,186	7,463	207,820	130	36,635	610			
9,886	13,444	32,121	18,309	263,080	84	30,043	427			
2,109	2,868	41,839	20,029	226,773	84	25,897	427			
1,977	2,689	40,634	20,157	55,737	84	6,365	427			
3,296	4,482	44,316	24,006	58,038	84	6,628	427			
3,427	4,661	44,591	23,839	56,639	94	7,208	427			
2,373	3,227	30,294	12,532	68,222	204	18,957	610			
7,909	10,755	11,724	3,410	233,433	148	46,814	610			
8,568	11,651	3,970	3,235	182,139	128	31,805	610			
13,182	17,925	3,985	3,491	236,832	95	30,455	610			
13,182	17,925	3,405	2,463	253,452	169	58,200	610			
32,954	44,812	4,729	4,246	260,090	136	48,187	610			
32,954	44,812	10,186	7,463	165,413	173	38,886	610			
9,886	13,444	32,121	18,309	165,134	84	18,858	427			
2,109	2,868	41,839	20,029	128,624	119	20,764	427			
1,977	2,689	40,634	20,157	42,787	214	12,461	427			
3,296	4,482	44,316	24,006	54,143	84	6,183	427			
3,427	4,661	44,591	23,839	66,643	176	15,963	427			
2,373	3,227	30,294	12,532	42,615	158	9,127	610			
7,909	10,755	11,724	3,410	64,568	284	24,912	610			
8,568	11,651	3,970	3,235	72,589	240	23,651	610			
13,182	17,925	3,985	3,491	83,020	222	25,060	610			
13,182	17,925	3,405	2,463	93,589	309	39,256	610			
32,954	44,812	4,729	4,246	112,829	211	32,379	610			
32,954	44,812	10,186	7,463	229,950	116	36,412	610			
9,886	13,444	32,121	18,309	500,736	87	59,202	427			
2,109	2,868	41,839	20,029	846,521	105	121,175	427			
1,977	2,689	40,634	20,157	746,953	100	101,095	427			
3,296	4,482	44,316	24,006	512,091	92	63,794	427			
3,427	4,661	44,591	23,839	54,124	143	10,555	427			
2,373	3,227	30,294	12,532	136,261	84	15,561	610			
7,909	10,755	11,724	3,410	277,781	114	42,886	610			
8,568	11,651	3,970	3,235	103,420	225	31,642	610			
13,182	17,925	3,985	3,491	87,901	230	27,453	610			
13,182	17,925	3,405	2,463	96,641	371	48,752	610			
32,954	44,812	4,729	4,246	168,040	211	48,291	610			
32,954	44,812	10,186	7,463	139,931	267	50,839	610			
9,886	13,444	32,121	18,309	168,332	84	19,223	427			
2,109	2,868	41,839	20,029	114,686	84	13,097	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Jun-68	D	95,220	324	41,994	2,818	13,581	1,224	2,460	8,970	7,116
Jul-68	D	93,828	342	43,587	3,055	13,304	1,153	2,272	9,783	5,764
Aug-68	D	89,496	419	50,943	2,882	11,437	1,132	2,828	9,844	4,828
Sep-68	D	73,150	541	53,781	1,636	6,693	1,051	2,609	6,688	4,368
Oct-68	W	84,959	471	54,344	1,958	9,033	899	2,085	2,588	1,345
Nov-68	W	86,332	382	44,823	1,796	8,109	498	1,081	876	854
Dec-68	W	92,419	460	57,809	1,823	8,231	354	857	880	1,127
Jan-69	W	605,803	155	127,821	2,441	11,010	275	647	752	1,004
Feb-69	W	1,484,150	121	244,747	4,945	21,577	604	1,598	1,044	876
Mar-69	W	972,482	165	218,145	5,295	27,267	756	1,938	2,249	5,213
Apr-69	W	1,129,551	126	193,796	4,012	21,843	1,203	2,770	7,091	9,996
May-69	W	1,685,679	95	217,710	4,134	20,758	1,216	2,459	9,236	8,907
Jun-69	W	1,153,940	94	146,838	4,157	20,038	1,224	2,460	8,970	7,116
Jul-69	W	364,061	245	121,409	4,508	19,629	1,153	2,272	9,783	5,764
Aug-69	W	179,067	200	48,615	4,252	16,875	1,132	2,828	9,844	4,828
Sep-69	W	205,559	198	55,333	2,413	9,876	1,051	2,609	6,688	4,368
Oct-69	AN	320,808	146	63,720	1,492	6,881	899	2,085	2,588	1,345
Nov-69	AN	174,286	236	55,918	1,368	6,177	498	1,081	876	854
Dec-69	AN	200,184	223	60,635	1,389	6,270	354	857	880	1,127
Jan-70	AN	1,053,767	98	140,538	1,860	8,387	275	647	752	1,004
Feb-70	AN	525,783	209	149,608	3,767	16,437	604	1,598	1,044	876
Mar-70	AN	363,701	257	127,222	4,034	20,771	756	1,938	2,249	5,213
Apr-70	AN	299,608	182	74,050	3,056	16,640	1,203	2,770	7,091	9,996
May-70	AN	287,228	177	69,155	3,149	15,813	1,216	2,459	9,236	8,907
Jun-70	AN	125,558	401	68,364	3,167	15,265	1,224	2,460	8,970	7,116
Jul-70	AN	112,191	506	77,192	3,434	14,953	1,153	2,272	9,783	5,764
Aug-70	AN	128,996	305	53,488	3,239	12,855	1,132	2,828	9,844	4,828
Sep-70	AN	100,723	355	48,611	1,838	7,523	1,051	2,609	6,688	4,368
Oct-70	BN	100,506	310	42,317	1,410	6,502	899	2,085	2,588	1,345
Nov-70	BN	100,418	357	48,737	1,293	5,836	498	1,081	876	854
Dec-70	BN	101,346	346	47,658	1,312	5,924	354	857	880	1,127
Jan-71	BN	101,720	446	61,663	1,757	7,924	275	647	752	1,004
Feb-71	BN	130,481	625	110,921	3,559	15,530	604	1,598	1,044	876
Mar-71	BN	217,265	365	107,663	3,811	19,626	756	1,938	2,249	5,213
Apr-71	BN	248,580	182	61,573	2,887	15,722	1,203	2,770	7,091	9,996
May-71	BN	262,805	312	111,615	2,976	14,941	1,216	2,459	9,236	8,907
Jun-71	BN	104,716	430	61,215	2,992	14,423	1,224	2,460	8,970	7,116
Jul-71	BN	119,356	464	75,258	3,244	14,128	1,153	2,272	9,783	5,764
Aug-71	BN	93,651	278	35,356	3,061	12,146	1,132	2,828	9,844	4,828
Sep-71	BN	94,156	406	51,906	1,737	7,108	1,051	2,609	6,688	4,368
Oct-71	D	98,615	409	54,847	1,327	6,122	899	2,085	2,588	1,345
Nov-71	D	83,213	383	43,328	1,217	5,496	498	1,081	876	854
Dec-71	D	87,491	436	51,848	1,235	5,579	354	857	880	1,127
Jan-72	D	99,602	600	81,232	1,654	7,462	275	647	752	1,004
Feb-72	D	123,895	601	101,263	3,351	14,624	604	1,598	1,044	876
Mar-72	D	113,035	612	94,077	3,589	18,480	756	1,938	2,249	5,213
Apr-72	D	163,160	297	65,791	2,719	14,804	1,203	2,770	7,091	9,996
May-72	D	134,352	223	40,713	2,802	14,069	1,216	2,459	9,236	8,907
Jun-72	D	84,941	213	24,550	2,818	13,581	1,224	2,460	8,970	7,116
Jul-72	D	103,599	500	70,464	3,055	13,304	1,153	2,272	9,783	5,764
Aug-72	D	107,094	370	53,928	2,882	11,437	1,132	2,828	9,844	4,828
Sep-72	D	63,514	520	44,918	1,636	6,693	1,051	2,609	6,688	4,368
Oct-72	AN	76,422	417	43,304	1,492	6,881	899	2,085	2,588	1,345
Nov-72	AN	80,191	436	47,489	1,368	6,177	498	1,081	876	854
Dec-72	AN	78,131	357	37,910	1,389	6,270	354	857	880	1,127
Jan-73	AN	90,872	493	60,930	1,860	8,387	275	647	752	1,004
Feb-73	AN	206,407	379	106,267	3,767	16,437	604	1,598	1,044	876
Mar-73	AN	365,922	261	129,989	4,034	20,771	756	1,938	2,249	5,213
Apr-73	AN	195,993	158	42,126	3,056	16,640	1,203	2,770	7,091	9,996
May-73	AN	307,514	216	90,093	3,149	15,813	1,216	2,459	9,236	8,907
Jun-73	AN	131,057	486	86,574	3,167	15,265	1,224	2,460	8,970	7,116
Jul-73	AN	127,760	465	80,696	3,434	14,953	1,153	2,272	9,783	5,764
Aug-73	AN	131,596	310	55,425	3,239	12,855	1,132	2,828	9,844	4,828
Sep-73	AN	98,439	317	42,357	1,838	7,523	1,051	2,609	6,688	4,368
Oct-73	W	192,551	210	54,946	1,958	9,033	899	2,085	2,588	1,345
Nov-73	W	150,049	224	45,674	1,796	8,109	498	1,081	876	854
Dec-73	W	159,394	230	49,732	1,823	8,231	354	857	880	1,127
Jan-74	W	421,318	161	92,218	2,441	11,010	275	647	752	1,004
Feb-74	W	304,775	299	124,012	4,945	21,577	604	1,598	1,044	876
Mar-74	W	379,625	281	145,024	5,295	27,267	756	1,938	2,249	5,213

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
1,977	2,689	40,634	20,157	39,597	84	4,522	427			
3,296	4,482	44,316	24,006	32,226	84	3,680	427			
3,427	4,661	44,591	23,839	27,620	89	3,350	427			
2,373	3,227	30,294	12,532	31,109	576	24,353	610			
7,909	10,755	11,724	3,410	59,880	340	27,715	610			
8,568	11,651	3,970	3,235	70,623	207	19,893	610			
13,182	17,925	3,985	3,491	72,196	267	26,178	610			
13,182	17,925	3,405	2,463	585,749	119	94,772	610			
32,954	44,812	4,729	4,246	1,439,875	88	171,638	610			
32,954	44,812	10,186	7,463	921,042	105	131,453	610			
9,886	13,444	32,121	18,309	1,075,238	87	127,434	427			
2,109	2,868	41,839	20,029	1,627,144	84	185,817	427			
1,977	2,689	40,634	20,157	1,096,977	84	125,273	427			
3,296	4,482	44,316	24,006	301,006	159	65,258	427			
3,427	4,661	44,591	23,839	115,821	84	13,227	427			
2,373	3,227	30,294	12,532	162,741	103	22,722	610			
7,909	10,755	11,724	3,410	296,195	97	39,243	610			
8,568	11,651	3,970	3,235	159,005	152	32,920	610			
13,182	17,925	3,985	3,491	180,395	126	30,965	610			
13,182	17,925	3,405	2,463	1,034,294	84	118,114	610			
32,954	44,812	4,729	4,246	482,686	124	81,639	610			
32,954	44,812	10,186	7,463	313,522	110	47,026	610			
9,886	13,444	32,121	18,309	246,251	84	28,121	427			
2,109	2,868	41,839	20,029	229,678	84	26,229	427			
1,977	2,689	40,634	20,157	69,585	219	20,676	427			
3,296	4,482	44,316	24,006	50,210	377	25,717	427			
3,427	4,661	44,591	23,839	66,763	84	7,624	427			
2,373	3,227	30,294	12,532	58,480	231	18,353	610			
7,909	10,755	11,724	3,410	75,976	176	18,219	610			
8,568	11,651	3,970	3,235	85,212	225	26,079	610			
13,182	17,925	3,985	3,491	81,634	165	18,334	610			
13,182	17,925	3,405	2,463	82,350	283	31,699	610			
32,954	44,812	4,729	4,246	87,592	368	43,859	610			
32,954	44,812	10,186	7,463	167,309	126	28,612	610			
9,886	13,444	32,121	18,309	195,391	84	22,313	427			
2,109	2,868	41,839	20,029	205,429	223	62,411	427			
1,977	2,689	40,634	20,157	48,918	216	14,370	427			
3,296	4,482	44,316	24,006	57,564	314	24,608	427			
3,427	4,661	44,591	23,839	31,596	84	3,608	427			
2,373	3,227	30,294	12,532	52,014	312	22,063	610			
7,909	10,755	11,724	3,410	74,167	309	31,129	610			
8,568	11,651	3,970	3,235	68,083	227	21,011	610			
13,182	17,925	3,985	3,491	67,856	248	22,869	610			
13,182	17,925	3,405	2,463	80,334	474	51,731	610			
32,954	44,812	4,729	4,246	81,214	318	35,107	610			
32,954	44,812	10,186	7,463	63,301	188	16,172	610			
9,886	13,444	32,121	18,309	110,140	84	12,578	427			
2,109	2,868	41,839	20,029	77,149	84	8,810	427			
1,977	2,689	40,634	20,157	29,318	84	3,348	427			
3,296	4,482	44,316	24,006	41,997	361	20,638	427			
3,427	4,661	44,591	23,839	45,218	103	6,335	427			
2,373	3,227	30,294	12,532	21,473	531	15,490	610			
7,909	10,755	11,724	3,410	51,809	267	18,827	610			
8,568	11,651	3,970	3,235	64,910	278	24,491	610			
13,182	17,925	3,985	3,491	58,342	104	8,240	610			
13,182	17,925	3,405	2,463	71,399	314	30,504	610			
32,954	44,812	4,729	4,246	163,310	172	38,298	610			
32,954	44,812	10,186	7,463	315,743	116	49,793	610			
9,886	13,444	32,121	18,309	142,636	84	16,289	427			
2,109	2,868	41,839	20,029	249,964	118	40,016	427			
1,977	2,689	40,634	20,157	75,084	381	38,886	427			
3,296	4,482	44,316	24,006	65,779	327	29,221	427			
3,427	4,661	44,591	23,839	69,363	84	7,921	427			
2,373	3,227	30,294	12,532	56,196	158	12,099	610			
7,909	10,755	11,724	3,410	167,472	124	28,317	610			
8,568	11,651	3,970	3,235	134,340	114	20,744	610			
13,182	17,925	3,985	3,491	139,171	96	18,101	610			
13,182	17,925	3,405	2,463	401,264	108	59,169	610			
32,954	44,812	4,729	4,246	260,500	144	50,903	610			
32,954	44,812	10,186	7,463	328,185	131	58,332	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Apr-74	W	305,514	160	66,414	4,012	21,843	1,203	2,770	7,091	9,996
May-74	W	306,131	193	80,449	4,134	20,758	1,216	2,459	9,236	8,907
Jun-74	W	181,452	419	103,237	4,157	20,038	1,224	2,460	8,970	7,116
Jul-74	W	120,163	313	51,181	4,508	19,629	1,153	2,272	9,783	5,764
Aug-74	W	111,433	348	52,644	4,252	16,875	1,132	2,828	9,844	4,828
Sep-74	W	102,464	300	41,748	2,413	9,876	1,051	2,609	6,688	4,368
Oct-74	W	202,721	196	53,880	1,958	9,033	899	2,085	2,588	1,345
Nov-74	W	107,252	352	51,296	1,796	8,109	498	1,081	876	854
Dec-74	W	113,632	321	49,558	1,823	8,231	354	857	880	1,127
Jan-75	W	131,508	358	64,041	2,441	11,010	275	647	752	1,004
Feb-75	W	261,268	303	107,659	4,945	21,577	604	1,598	1,044	876
Mar-75	W	404,837	254	139,795	5,295	27,267	756	1,938	2,249	5,213
Apr-75	W	261,628	201	71,492	4,012	21,843	1,203	2,770	7,091	9,996
May-75	W	287,549	175	68,451	4,134	20,758	1,216	2,459	9,236	8,907
Jun-75	W	329,262	123	55,103	4,157	20,038	1,224	2,460	8,970	7,116
Jul-75	W	106,150	304	43,813	4,508	19,629	1,153	2,272	9,783	5,764
Aug-75	W	121,406	325	53,625	4,252	16,875	1,132	2,828	9,844	4,828
Sep-75	W	101,758	290	40,091	2,413	9,876	1,051	2,609	6,688	4,368
Oct-75	C	244,422	165	54,961	1,053	4,858	899	2,085	2,588	1,345
Nov-75	C	118,182	415	66,645	966	4,360	498	1,081	876	854
Dec-75	C	109,676	440	65,621	980	4,426	354	857	880	1,127
Jan-76	C	101,932	460	63,745	1,313	5,920	275	647	752	1,004
Feb-76	C	141,242	494	94,800	2,659	11,603	604	1,598	1,044	876
Mar-76	C	116,701	568	90,053	2,847	14,662	756	1,938	2,249	5,213
Apr-76	C	142,979	264	51,355	2,157	11,746	1,203	2,770	7,091	9,996
May-76	C	180,673	322	79,165	2,223	11,162	1,216	2,459	9,236	8,907
Jun-76	C	68,792	306	28,618	2,236	10,775	1,224	2,460	8,970	7,116
Jul-76	C	111,392	556	84,123	2,424	10,555	1,153	2,272	9,783	5,764
Aug-76	C	89,406	370	44,924	2,287	9,074	1,132	2,828	9,844	4,828
Sep-76	C	61,133	292	24,260	1,298	5,310	1,051	2,609	6,688	4,368
Oct-76	C	92,809	413	52,110	1,053	4,858	899	2,085	2,588	1,345
Nov-76	C	75,450	486	49,810	966	4,360	498	1,081	876	854
Dec-76	C	82,015	574	64,012	980	4,426	354	857	880	1,127
Jan-77	C	93,225	602	76,234	1,313	5,920	275	647	752	1,004
Feb-77	C	114,754	723	112,778	2,659	11,603	604	1,598	1,044	876
Mar-77	C	101,639	796	110,004	2,847	14,662	756	1,938	2,249	5,213
Apr-77	C	115,812	386	60,822	2,157	11,746	1,203	2,770	7,091	9,996
May-77	C	102,077	271	37,580	2,223	11,162	1,216	2,459	9,236	8,907
Jun-77	C	79,774	388	42,080	2,236	10,775	1,224	2,460	8,970	7,116
Jul-77	C	91,415	569	70,665	2,424	10,555	1,153	2,272	9,783	5,764
Aug-77	C	66,563	395	35,763	2,287	9,074	1,132	2,828	9,844	4,828
Sep-77	C	57,785	398	31,266	1,298	5,310	1,051	2,609	6,688	4,368
Oct-77	W	73,957	409	41,153	1,958	9,033	899	2,085	2,588	1,345
Nov-77	W	78,551	473	50,458	1,796	8,109	498	1,081	876	854
Dec-77	W	85,504	441	51,286	1,823	8,231	354	857	880	1,127
Jan-78	W	114,847	426	66,560	2,441	11,010	275	647	752	1,004
Feb-78	W	211,277	523	150,193	4,945	21,577	604	1,598	1,044	876
Mar-78	W	517,451	260	183,114	5,295	27,267	756	1,938	2,249	5,213
Apr-78	W	682,956	167	154,963	4,012	21,843	1,203	2,770	7,091	9,996
May-78	W	576,161	170	132,846	4,134	20,758	1,216	2,459	9,236	8,907
Jun-78	W	336,882	182	83,492	4,157	20,038	1,224	2,460	8,970	7,116
Jul-78	W	199,173	385	104,140	4,508	19,629	1,153	2,272	9,783	5,764
Aug-78	W	104,233	259	36,645	4,252	16,875	1,132	2,828	9,844	4,828
Sep-78	W	168,352	184	42,113	2,413	9,876	1,051	2,609	6,688	4,368
Oct-78	AN	261,176	167	59,225	1,492	6,881	899	2,085	2,588	1,345
Nov-78	AN	124,464	357	60,475	1,368	6,177	498	1,081	876	854
Dec-78	AN	101,179	408	56,122	1,389	6,270	354	857	880	1,127
Jan-79	AN	220,581	284	85,046	1,860	8,387	275	647	752	1,004
Feb-79	AN	460,568	211	132,179	3,767	16,437	604	1,598	1,044	876
Mar-79	AN	397,458	219	118,065	4,034	20,771	756	1,938	2,249	5,213
Apr-79	AN	217,587	211	62,268	3,056	16,640	1,203	2,770	7,091	9,996
May-79	AN	286,788	215	83,631	3,149	15,813	1,216	2,459	9,236	8,907
Jun-79	AN	106,670	342	49,596	3,167	15,265	1,224	2,460	8,970	7,116
Jul-79	AN	139,432	441	83,576	3,434	14,953	1,153	2,272	9,783	5,764
Aug-79	AN	109,467	311	46,328	3,239	12,855	1,132	2,828	9,844	4,828
Sep-79	AN	95,587	367	47,692	1,838	7,523	1,051	2,609	6,688	4,368
Oct-79	W	133,297	221	40,049	1,958	9,033	899	2,085	2,588	1,345
Nov-79	W	105,597	309	44,331	1,796	8,109	498	1,081	876	854
Dec-79	W	112,725	329	50,465	1,823	8,231	354	857	880	1,127
Jan-80	W	740,704	119	119,630	2,441	11,010	275	647	752	1,004

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
9,886	13,444	32,121	18,309	251,201	84	28,687	427			
2,109	2,868	41,839	20,029	247,596	84	28,275	427			
1,977	2,689	40,634	20,157	124,489	300	50,776	427			
3,296	4,482	44,316	24,006	57,108	84	6,522	427			
3,427	4,661	44,591	23,839	48,187	84	5,503	427			
2,373	3,227	30,294	12,532	59,646	113	9,138	610			
7,909	10,755	11,724	3,410	177,642	113	27,251	610			
8,568	11,651	3,970	3,235	91,543	212	26,366	610			
13,182	17,925	3,985	3,491	93,409	141	17,927	610			
13,182	17,925	3,405	2,463	111,454	205	30,992	610			
32,954	44,812	4,729	4,246	216,993	117	34,550	610			
32,954	44,812	10,186	7,463	353,397	111	53,103	610			
9,886	13,444	32,121	18,309	207,315	84	23,675	427			
2,109	2,868	41,839	20,029	229,014	84	26,153	427			
1,977	2,689	40,634	20,157	272,299	84	31,096	427			
3,296	4,482	44,316	24,006	43,095	84	4,921	427			
3,427	4,661	44,591	23,839	58,160	84	6,642	427			
2,373	3,227	30,294	12,532	58,940	93	7,481	610			
7,909	10,755	11,724	3,410	220,248	109	32,508	610			
8,568	11,651	3,970	3,235	103,303	324	45,464	610			
13,182	17,925	3,985	3,491	90,296	308	37,795	610			
13,182	17,925	3,405	2,463	83,006	317	35,786	610			
32,954	44,812	4,729	4,246	99,253	235	31,664	610			
32,954	44,812	10,186	7,463	67,709	173	15,965	610			
9,886	13,444	32,121	18,309	90,520	84	10,337	427			
2,109	2,868	41,839	20,029	124,049	200	33,739	427			
1,977	2,689	40,634	20,157	13,751	84	1,570	427			
3,296	4,482	44,316	24,006	50,421	540	37,046	427	1		1
3,427	4,661	44,591	23,839	28,126	84	3,212	427			
2,373	3,227	30,294	12,532	19,430	84	2,219	610			
7,909	10,755	11,724	3,410	68,635	318	29,657	610			
8,568	11,651	3,970	3,235	60,571	348	28,628	610			
13,182	17,925	3,985	3,491	62,635	425	36,186	610			
13,182	17,925	3,405	2,463	74,299	478	48,274	610			
32,954	44,812	4,729	4,246	72,765	502	49,643	610			
32,954	44,812	10,186	7,463	52,647	502	35,916	610			
9,886	13,444	32,121	18,309	63,353	84	7,235	427			
2,109	2,868	41,839	20,029	45,453	84	5,191	427			
1,977	2,689	40,634	20,157	24,733	84	2,824	427			
3,296	4,482	44,316	24,006	30,444	570	23,587	427	1		1
3,427	4,661	44,591	23,839	5,283	84	603	427			
2,373	3,227	30,294	12,532	16,082	147	3,221	610			
7,909	10,755	11,724	3,410	48,878	219	14,524	610			
8,568	11,651	3,970	3,235	62,842	299	25,528	610			
13,182	17,925	3,985	3,491	65,281	221	19,655	610			
13,182	17,925	3,405	2,463	94,793	260	33,511	610			
32,954	44,812	4,729	4,246	167,002	340	77,084	610			
32,954	44,812	10,186	7,463	466,011	152	96,422	610			
9,886	13,444	32,121	18,309	628,643	104	88,601	427			
2,109	2,868	41,839	20,029	517,626	111	77,824	427			
1,977	2,689	40,634	20,157	279,919	84	31,966	427			
3,296	4,482	44,316	24,006	136,118	259	47,989	427			
3,427	4,661	44,591	23,839	40,987	84	4,681	427			
2,373	3,227	30,294	12,532	125,534	84	14,336	610			
7,909	10,755	11,724	3,410	236,563	108	34,749	610			
8,568	11,651	3,970	3,235	109,183	252	37,477	610			
13,182	17,925	3,985	3,491	81,390	239	26,451	610			
13,182	17,925	3,405	2,463	201,108	200	54,620	610			
32,954	44,812	4,729	4,246	417,471	113	64,210	610			
32,954	44,812	10,186	7,463	347,279	84	39,659	610			
9,886	13,444	32,121	18,309	164,230	84	18,755	427			
2,109	2,868	41,839	20,029	229,238	108	33,554	427			
1,977	2,689	40,634	20,157	50,697	84	5,790	427			
3,296	4,482	44,316	24,006	77,451	305	32,101	427			
3,427	4,661	44,591	23,839	47,234	84	5,394	427			
2,373	3,227	30,294	12,532	53,344	240	17,434	610			
7,909	10,755	11,724	3,410	108,218	91	13,420	610			
8,568	11,651	3,970	3,235	89,888	159	19,401	610			
13,182	17,925	3,985	3,491	92,502	150	18,834	610			
13,182	17,925	3,405	2,463	720,650	88	86,581	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Feb-80	W	1,137,209	134	206,550	4,945	21,577	604	1,598	1,044	876
Mar-80	W	845,055	195	224,026	5,295	27,267	756	1,938	2,249	5,213
Apr-80	W	289,604	177	69,530	4,012	21,843	1,203	2,770	7,091	9,996
May-80	W	447,872	214	130,057	4,134	20,758	1,216	2,459	9,236	8,907
Jun-80	W	469,046	158	100,560	4,157	20,038	1,224	2,460	8,970	7,116
Jul-80	W	243,167	181	59,935	4,508	19,629	1,153	2,272	9,783	5,764
Aug-80	W	122,025	341	56,603	4,252	16,875	1,132	2,828	9,844	4,828
Sep-80	W	169,530	204	46,925	2,413	9,876	1,051	2,609	6,688	4,368
Oct-80	D	290,729	134	52,805	1,327	6,122	899	2,085	2,588	1,345
Nov-80	D	130,233	380	67,262	1,217	5,496	498	1,081	876	854
Dec-80	D	102,104	391	54,219	1,235	5,579	354	857	880	1,127
Jan-81	D	122,574	392	65,389	1,654	7,462	275	647	752	1,004
Feb-81	D	163,047	432	95,825	3,351	14,624	604	1,598	1,044	876
Mar-81	D	181,091	461	113,446	3,589	18,480	756	1,938	2,249	5,213
Apr-81	D	231,587	189	59,379	2,719	14,804	1,203	2,770	7,091	9,996
May-81	D	182,840	238	59,210	2,802	14,069	1,216	2,459	9,236	8,907
Jun-81	D	69,627	164	15,533	2,818	13,581	1,224	2,460	8,970	7,116
Jul-81	D	75,484	233	23,890	3,055	13,304	1,153	2,272	9,783	5,764
Aug-81	D	94,778	354	45,626	2,882	11,437	1,132	2,828	9,844	4,828
Sep-81	D	61,784	323	27,122	1,636	6,693	1,051	2,609	6,688	4,368
Oct-81	W	83,666	376	42,756	1,958	9,033	899	2,085	2,588	1,345
Nov-81	W	92,624	339	42,625	1,796	8,109	498	1,081	876	854
Dec-81	W	94,258	497	63,623	1,823	8,231	354	857	880	1,127
Jan-82	W	413,818	166	93,614	2,441	11,010	275	647	752	1,004
Feb-82	W	822,753	131	145,969	4,945	21,577	604	1,598	1,044	876
Mar-82	W	760,150	160	164,831	5,295	27,267	756	1,938	2,249	5,213
Apr-82	W	1,437,734	99	192,919	4,012	21,843	1,203	2,770	7,091	9,996
May-82	W	872,099	124	146,898	4,134	20,758	1,216	2,459	9,236	8,907
Jun-82	W	540,799	131	95,946	4,157	20,038	1,224	2,460	8,970	7,116
Jul-82	W	265,342	182	65,725	4,508	19,629	1,153	2,272	9,783	5,764
Aug-82	W	187,882	257	65,644	4,252	16,875	1,132	2,828	9,844	4,828
Sep-82	W	322,264	134	58,620	2,413	9,876	1,051	2,609	6,688	4,368
Oct-82	W	542,632	101	74,656	1,958	9,033	899	2,085	2,588	1,345
Nov-82	W	552,337	141	106,027	1,796	8,109	498	1,081	876	854
Dec-82	W	1,135,783	109	167,689	1,823	8,231	354	857	880	1,127
Jan-83	W	1,426,094	103	198,724	2,441	11,010	275	647	752	1,004
Feb-83	W	1,901,234	105	271,396	4,945	21,577	604	1,598	1,044	876
Mar-83	W	2,219,894	102	307,227	5,295	27,267	756	1,938	2,249	5,213
Apr-83	W	947,887	139	178,607	4,012	21,843	1,203	2,770	7,091	9,996
May-83	W	1,145,933	120	186,636	4,134	20,758	1,216	2,459	9,236	8,907
Jun-83	W	2,308,703	76	239,481	4,157	20,038	1,224	2,460	8,970	7,116
Jul-83	W	998,718	92	124,371	4,508	19,629	1,153	2,272	9,783	5,764
Aug-83	W	209,683	196	55,930	4,252	16,875	1,132	2,828	9,844	4,828
Sep-83	W	481,495	101	65,787	2,413	9,876	1,051	2,609	6,688	4,368
Oct-83	AN	470,571	139	89,116	1,492	6,881	899	2,085	2,588	1,345
Nov-83	AN	875,398	114	136,029	1,368	6,177	498	1,081	876	854
Dec-83	AN	1,289,867	90	157,120	1,389	6,270	354	857	880	1,127
Jan-84	AN	949,653	131	168,741	1,860	8,387	275	647	752	1,004
Feb-84	AN	522,144	182	129,265	3,767	16,437	604	1,598	1,044	876
Mar-84	AN	367,219	327	163,000	4,034	20,771	756	1,938	2,249	5,213
Apr-84	AN	312,166	205	86,957	3,056	16,640	1,203	2,770	7,091	9,996
May-84	AN	247,418	121	40,801	3,149	15,813	1,216	2,459	9,236	8,907
Jun-84	AN	117,069	269	42,749	3,167	15,265	1,224	2,460	8,970	7,116
Jul-84	AN	114,999	363	56,752	3,434	14,953	1,153	2,272	9,783	5,764
Aug-84	AN	106,045	277	39,877	3,239	12,855	1,132	2,828	9,844	4,828
Sep-84	AN	116,244	307	48,564	1,838	7,523	1,051	2,609	6,688	4,368
Oct-84	D	100,014	310	42,123	1,327	6,122	899	2,085	2,588	1,345
Nov-84	D	104,073	321	45,432	1,217	5,496	498	1,081	876	854
Dec-84	D	101,172	451	62,032	1,235	5,579	354	857	880	1,127
Jan-85	D	101,800	517	71,579	1,654	7,462	275	647	752	1,004
Feb-85	D	129,668	619	109,172	3,351	14,624	604	1,598	1,044	876
Mar-85	D	121,850	560	92,701	3,589	18,480	756	1,938	2,249	5,213
Apr-85	D	178,468	271	65,776	2,719	14,804	1,203	2,770	7,091	9,996
May-85	D	186,924	297	75,348	2,802	14,069	1,216	2,459	9,236	8,907
Jun-85	D	72,697	321	31,755	2,818	13,581	1,224	2,460	8,970	7,116
Jul-85	D	97,092	418	55,175	3,055	13,304	1,153	2,272	9,783	5,764
Aug-85	D	88,562	274	33,014	2,882	11,437	1,132	2,828	9,844	4,828
Sep-85	D	64,410	400	34,982	1,636	6,693	1,051	2,609	6,688	4,368
Oct-85	W	81,899	469	52,242	1,958	9,033	899	2,085	2,588	1,345
Nov-85	W	95,763	370	48,183	1,796	8,109	498	1,081	876	854

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
32,954	44,812	4,729	4,246	1,092,934	90	133,441	610			
32,954	44,812	10,186	7,463	793,615	127	137,334	610			
9,886	13,444	32,121	18,309	235,291	84	26,870	427			
2,109	2,868	41,839	20,029	389,337	142	75,035	427			
1,977	2,689	40,634	20,157	412,083	86	48,099	427			
3,296	4,482	44,316	24,006	180,112	84	20,568	427			
3,427	4,661	44,591	23,839	58,779	84	6,712	427			
2,373	3,227	30,294	12,532	126,712	84	14,470	610			
7,909	10,755	11,724	3,410	266,281	84	30,409	610			
8,568	11,651	3,970	3,235	115,103	287	44,945	610			
13,182	17,925	3,985	3,491	82,469	225	25,241	610			
13,182	17,925	3,405	2,463	103,306	256	35,888	610			
32,954	44,812	4,729	4,246	120,366	181	29,668	610			
32,954	44,812	10,186	7,463	131,357	199	35,540	610			
9,886	13,444	32,121	18,309	178,567	84	20,392	427			
2,109	2,868	41,839	20,029	125,637	84	14,348	427			
1,977	2,689	40,634	20,157	14,004	84	1,599	427			
3,296	4,482	44,316	24,006	13,882	84	1,585	427			
3,427	4,661	44,591	23,839	32,902	84	3,757	427			
2,373	3,227	30,294	12,532	19,743	84	2,255	610			
7,909	10,755	11,724	3,410	58,587	202	16,127	610			
8,568	11,651	3,970	3,235	76,915	169	17,695	610			
13,182	17,925	3,985	3,491	74,035	318	31,993	610			
13,182	17,925	3,405	2,463	393,764	113	60,566	610			
32,954	44,812	4,729	4,246	778,478	84	88,901	610			
32,954	44,812	10,186	7,463	708,710	84	80,933	610			
9,886	13,444	32,121	18,309	1,383,421	84	157,984	427			
2,109	2,868	41,839	20,029	813,564	84	92,907	427			
1,977	2,689	40,634	20,157	483,836	84	55,253	427			
3,296	4,482	44,316	24,006	202,287	84	23,101	427			
3,427	4,661	44,591	23,839	124,636	84	14,233	427			
2,373	3,227	30,294	12,532	279,446	84	31,912	610			
7,909	10,755	11,724	3,410	517,553	84	59,104	610			
8,568	11,651	3,970	3,235	536,628	111	81,097	610			
13,182	17,925	3,985	3,491	1,115,560	90	136,058	610			
13,182	17,925	3,405	2,463	1,406,040	87	165,676	610			
32,954	44,812	4,729	4,246	1,856,959	84	212,061	610			
32,954	44,812	10,186	7,463	2,168,454	84	247,633	610			
9,886	13,444	32,121	18,309	893,574	92	112,245	427			
2,109	2,868	41,839	20,029	1,087,398	89	131,614	427			
1,977	2,689	40,634	20,157	2,251,740	84	257,144	427			
3,296	4,482	44,316	24,006	935,663	84	106,851	427			
3,427	4,661	44,591	23,839	146,437	84	16,723	427			
2,373	3,227	30,294	12,532	438,677	84	50,096	610			
7,909	10,755	11,724	3,410	445,958	107	64,639	610			
8,568	11,651	3,970	3,235	860,117	97	113,031	610			
13,182	17,925	3,985	3,491	1,270,078	84	145,040	610			
13,182	17,925	3,405	2,463	930,180	109	138,315	610			
32,954	44,812	4,729	4,246	479,047	94	61,295	610			
32,954	44,812	10,186	7,463	317,040	192	82,803	610			
9,886	13,444	32,121	18,309	258,809	84	29,555	427			
2,109	2,868	41,839	20,029	189,868	84	21,683	427			
1,977	2,689	40,634	20,157	61,096	84	6,977	427			
3,296	4,482	44,316	24,006	53,018	84	6,055	427			
3,427	4,661	44,591	23,839	43,812	84	5,003	427			
2,373	3,227	30,294	12,532	74,001	182	18,306	610			
7,909	10,755	11,724	3,410	75,566	179	18,405	610			
8,568	11,651	3,970	3,235	88,943	191	23,115	610			
13,182	17,925	3,985	3,491	81,537	298	33,054	610			
13,182	17,925	3,405	2,463	82,532	375	42,078	610			
32,954	44,812	4,729	4,246	86,987	364	43,016	610			
32,954	44,812	10,186	7,463	72,116	151	14,795	610			
9,886	13,444	32,121	18,309	125,448	84	14,326	427			
2,109	2,868	41,839	20,029	129,721	153	27,015	427			
1,977	2,689	40,634	20,157	17,074	84	1,950	427			
3,296	4,482	44,316	24,006	35,490	111	5,349	427			
3,427	4,661	44,591	23,839	26,686	84	3,048	427			
2,373	3,227	30,294	12,532	22,369	183	5,554	610			
7,909	10,755	11,724	3,410	56,820	332	25,613	610			
8,568	11,651	3,970	3,235	80,054	214	23,253	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Dec-85	W	85,833	405	47,306	1,823	8,231	354	857	880	1,127
Jan-86	W	103,406	461	64,864	2,441	11,010	275	647	752	1,004
Feb-86	W	1,064,759	134	194,549	4,945	21,577	604	1,598	1,044	876
Mar-86	W	1,456,611	117	231,691	5,295	27,267	756	1,938	2,249	5,213
Apr-86	W	441,385	215	129,014	4,012	21,843	1,203	2,770	7,091	9,996
May-86	W	524,392	155	110,786	4,134	20,758	1,216	2,459	9,236	8,907
Jun-86	W	565,710	137	105,364	4,157	20,038	1,224	2,460	8,970	7,116
Jul-86	W	111,341	217	32,786	4,508	19,629	1,153	2,272	9,783	5,764
Aug-86	W	112,091	327	49,785	4,252	16,875	1,132	2,828	9,844	4,828
Sep-86	W	118,977	348	56,224	2,413	9,876	1,051	2,609	6,688	4,368
Oct-86	C	206,987	206	57,968	1,053	4,858	899	2,085	2,588	1,345
Nov-86	C	110,772	341	51,383	966	4,360	498	1,081	876	854
Dec-86	C	96,423	427	55,961	980	4,426	354	857	880	1,127
Jan-87	C	102,052	508	70,452	1,313	5,920	275	647	752	1,004
Feb-87	C	141,358	542	104,121	2,659	11,603	604	1,598	1,044	876
Mar-87	C	127,948	661	114,908	2,847	14,662	756	1,938	2,249	5,213
Apr-87	C	137,702	387	72,355	2,157	11,746	1,203	2,770	7,091	9,996
May-87	C	148,356	263	53,105	2,223	11,162	1,216	2,459	9,236	8,907
Jun-87	C	109,695	433	64,588	2,236	10,775	1,224	2,460	8,970	7,116
Jul-87	C	125,558	452	77,086	2,424	10,555	1,153	2,272	9,783	5,764
Aug-87	C	89,809	332	40,548	2,287	9,074	1,132	2,828	9,844	4,828
Sep-87	C	73,392	581	58,010	1,298	5,310	1,051	2,609	6,688	4,368
Oct-87	C	76,249	414	42,957	1,053	4,858	899	2,085	2,588	1,345
Nov-87	C	74,513	462	46,781	966	4,360	498	1,081	876	854
Dec-87	C	75,861	460	47,462	980	4,426	354	857	880	1,127
Jan-88	C	85,220	544	63,038	1,313	5,920	275	647	752	1,004
Feb-88	C	113,788	755	116,810	2,659	11,603	604	1,598	1,044	876
Mar-88	C	112,059	759	115,660	2,847	14,662	756	1,938	2,249	5,213
Apr-88	C	118,172	292	46,943	2,157	11,746	1,203	2,770	7,091	9,996
May-88	C	127,071	330	56,922	2,223	11,162	1,216	2,459	9,236	8,907
Jun-88	C	97,041	430	56,702	2,236	10,775	1,224	2,460	8,970	7,116
Jul-88	C	67,596	321	29,508	2,424	10,555	1,153	2,272	9,783	5,764
Aug-88	C	93,701	615	78,355	2,287	9,074	1,132	2,828	9,844	4,828
Sep-88	C	59,935	431	35,143	1,298	5,310	1,051	2,609	6,688	4,368
Oct-88	C	70,524	410	39,281	1,053	4,858	899	2,085	2,588	1,345
Nov-88	C	69,526	615	58,149	966	4,360	498	1,081	876	854
Dec-88	C	74,220	529	53,407	980	4,426	354	857	880	1,127
Jan-89	C	84,278	579	66,385	1,313	5,920	275	647	752	1,004
Feb-89	C	97,331	629	83,217	2,659	11,603	604	1,598	1,044	876
Mar-89	C	113,266	776	119,431	2,847	14,662	756	1,938	2,249	5,213
Apr-89	C	128,528	368	64,267	2,157	11,746	1,203	2,770	7,091	9,996
May-89	C	115,376	267	41,896	2,223	11,162	1,216	2,459	9,236	8,907
Jun-89	C	79,508	345	37,281	2,236	10,775	1,224	2,460	8,970	7,116
Jul-89	C	98,500	622	83,279	2,424	10,555	1,153	2,272	9,783	5,764
Aug-89	C	67,443	535	49,008	2,287	9,074	1,132	2,828	9,844	4,828
Sep-89	C	60,430	579	47,600	1,298	5,310	1,051	2,609	6,688	4,368
Oct-89	C	67,803	430	39,637	1,053	4,858	899	2,085	2,588	1,345
Nov-89	C	74,439	570	57,654	966	4,360	498	1,081	876	854
Dec-89	C	71,718	529	51,558	980	4,426	354	857	880	1,127
Jan-90	C	78,702	570	61,009	1,313	5,920	275	647	752	1,004
Feb-90	C	100,856	704	96,528	2,659	11,603	604	1,598	1,044	876
Mar-90	C	113,782	904	139,852	2,847	14,662	756	1,938	2,249	5,213
Apr-90	C	95,391	323	41,823	2,157	11,746	1,203	2,770	7,091	9,996
May-90	C	93,959	303	38,641	2,223	11,162	1,216	2,459	9,236	8,907
Jun-90	C	79,247	623	67,077	2,236	10,775	1,224	2,460	8,970	7,116
Jul-90	C	60,586	456	37,584	2,424	10,555	1,153	2,272	9,783	5,764
Aug-90	C	79,284	475	51,188	2,287	9,074	1,132	2,828	9,844	4,828
Sep-90	C	55,908	317	24,079	1,298	5,310	1,051	2,609	6,688	4,368
Oct-90	C	66,277	396	35,708	1,053	4,858	899	2,085	2,588	1,345
Nov-90	C	71,985	489	47,865	966	4,360	498	1,081	876	854
Dec-90	C	76,222	614	63,594	980	4,426	354	857	880	1,127
Jan-91	C	79,834	554	60,117	1,313	5,920	275	647	752	1,004
Feb-91	C	103,928	679	95,908	2,659	11,603	604	1,598	1,044	876
Mar-91	C	109,645	663	98,858	2,847	14,662	756	1,938	2,249	5,213
Apr-91	C	101,562	410	56,569	2,157	11,746	1,203	2,770	7,091	9,996
May-91	C	96,330	560	73,272	2,223	11,162	1,216	2,459	9,236	8,907
Jun-91	C	71,937	721	70,464	2,236	10,775	1,224	2,460	8,970	7,116
Jul-91	C	64,286	452	39,521	2,424	10,555	1,153	2,272	9,783	5,764
Aug-91	C	88,109	628	75,212	2,287	9,074	1,132	2,828	9,844	4,828
Sep-91	C	69,106	412	38,735	1,298	5,310	1,051	2,609	6,688	4,368

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
13,182	17,925	3,985	3,491	65,610	176	15,675	610			
13,182	17,925	3,405	2,463	83,352	281	31,815	610			
32,954	44,812	4,729	4,246	1,020,484	88	121,440	610			
32,954	44,812	10,186	7,463	1,405,171	84	160,468	610			
9,886	13,444	32,121	18,309	387,072	119	62,652	427			
2,109	2,868	41,839	20,029	465,857	88	55,765	427			
1,977	2,689	40,634	20,157	508,747	84	58,098	427			
3,296	4,482	44,316	24,006	48,286	84	5,514	427			
3,427	4,661	44,591	23,839	48,845	84	5,578	427			
2,373	3,227	30,294	12,532	76,159	228	23,614	610			
7,909	10,755	11,724	3,410	182,813	143	35,515	610			
8,568	11,651	3,970	3,235	95,893	232	30,201	610			
13,182	17,925	3,985	3,491	77,043	269	28,135	610			
13,182	17,925	3,405	2,463	83,126	376	42,493	610			
32,954	44,812	4,729	4,246	99,369	303	40,986	610			
32,954	44,812	10,186	7,463	78,956	380	40,821	610			
9,886	13,444	32,121	18,309	85,243	139	16,090	427			
2,109	2,868	41,839	20,029	91,732	84	10,476	427			
1,977	2,689	40,634	20,157	54,654	288	21,390	427			
3,296	4,482	44,316	24,006	64,587	342	30,009	427			
3,427	4,661	44,591	23,839	28,529	84	3,258	427			
2,373	3,227	30,294	12,532	31,689	696	29,965	610	1	1	
7,909	10,755	11,724	3,410	52,075	290	20,504	610			
8,568	11,651	3,970	3,235	59,634	316	25,599	610			
13,182	17,925	3,985	3,491	56,481	256	19,636	610			
13,182	17,925	3,405	2,463	66,294	389	35,078	610			
32,954	44,812	4,729	4,246	71,799	550	53,675	610			
32,954	44,812	10,186	7,463	63,067	485	41,572	610			
9,886	13,444	32,121	18,309	65,713	84	7,504	427			
2,109	2,868	41,839	20,029	70,447	120	11,496	427			
1,977	2,689	40,634	20,157	42,000	237	13,504	427			
3,296	4,482	44,316	24,006	6,625	84	757	427			
3,427	4,661	44,591	23,839	32,421	752	33,125	427	1		1
2,373	3,227	30,294	12,532	18,232	286	7,098	610			
7,909	10,755	11,724	3,410	46,350	267	16,828	610			
8,568	11,651	3,970	3,235	54,647	498	36,967	610			
13,182	17,925	3,985	3,491	54,840	343	25,581	610			
13,182	17,925	3,405	2,463	65,352	432	38,426	610			
32,954	44,812	4,729	4,246	55,342	267	20,082	610			
32,954	44,812	10,186	7,463	64,274	519	45,343	610			
9,886	13,444	32,121	18,309	76,069	84	8,687	427			
2,109	2,868	41,839	20,029	58,752	84	6,709	427			
1,977	2,689	40,634	20,157	24,467	84	2,794	427			
3,296	4,482	44,316	24,006	37,529	710	36,201	427	1		1
3,427	4,661	44,591	23,839	6,163	451	3,777	427	1		1
2,373	3,227	30,294	12,532	18,727	768	19,555	610	1	1	
7,909	10,755	11,724	3,410	43,629	290	17,184	610			
8,568	11,651	3,970	3,235	59,560	450	36,472	610			
13,182	17,925	3,985	3,491	52,338	334	23,732	610			
13,182	17,925	3,405	2,463	59,776	407	33,049	610			
32,954	44,812	4,729	4,246	58,867	417	33,393	610			
32,954	44,812	10,186	7,463	64,790	747	65,765	610	1	1	
9,886	13,444	32,121	18,309	42,932	84	4,903	427			
2,109	2,868	41,839	20,029	37,335	84	4,264	427			
1,977	2,689	40,634	20,157	24,206	726	23,879	427	1		1
3,296	4,482	44,316	24,006	-385	84	-44	427			
3,427	4,661	44,591	23,839	18,004	243	5,958	427			
2,373	3,227	30,294	12,532	14,205	84	1,622	610			
7,909	10,755	11,724	3,410	42,103	232	13,255	610			
8,568	11,651	3,970	3,235	57,106	344	26,683	610			
13,182	17,925	3,985	3,491	56,842	463	35,768	610			
13,182	17,925	3,405	2,463	60,908	388	32,158	610			
32,954	44,812	4,729	4,246	61,939	389	32,773	610			
32,954	44,812	10,186	7,463	60,653	300	24,770	610			
9,886	13,444	32,121	18,309	49,103	84	5,608	427			
2,109	2,868	41,839	20,029	39,706	516	27,846	427	1		1
1,977	2,689	40,634	20,157	16,896	1,187	27,266	427	1		1
3,296	4,482	44,316	24,006	3,315	84	379	427			
3,427	4,661	44,591	23,839	26,829	822	29,982	427	1		1
2,373	3,227	30,294	12,532	27,403	287	10,690	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 2- Prohibition of Discharge

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-91	C	72,030	519	50,862	1,053	4,858	899	2,085	2,588	1,345
Nov-91	C	80,770	488	53,575	966	4,360	498	1,081	876	854
Dec-91	C	73,745	534	53,497	980	4,426	354	857	880	1,127
Jan-92	C	78,804	544	58,270	1,313	5,920	275	647	752	1,004
Feb-92	C	112,620	632	96,809	2,659	11,603	604	1,598	1,044	876
Mar-92	C	115,938	709	111,672	2,847	14,662	756	1,938	2,249	5,213
Apr-92	C	107,982	438	64,255	2,157	11,746	1,203	2,770	7,091	9,996
May-92	C	96,699	375	49,325	2,223	11,162	1,216	2,459	9,236	8,907
Jun-92	C	20,269	247	6,798	2,236	10,775	1,224	2,460	8,970	7,116
Jul-92	C	62,278	583	49,335	2,424	10,555	1,153	2,272	9,783	5,764
Aug-92	C	33,587	485	22,146	2,287	9,074	1,132	2,828	9,844	4,828
Sep-92	C	54,425	629	46,503	1,298	5,310	1,051	2,609	6,688	4,368
Oct-92	W	67,225	368	33,623	1,958	9,033	899	2,085	2,588	1,345
Nov-92	W	80,742	462	50,702	1,796	8,109	498	1,081	876	854
Dec-92	W	84,901	506	58,392	1,823	8,231	354	857	880	1,127
Jan-93	W	170,926	373	86,768	2,441	11,010	275	647	752	1,004
Feb-93	W	156,961	526	112,285	4,945	21,577	604	1,598	1,044	876
Mar-93	W	196,606	486	129,767	5,295	27,267	756	1,938	2,249	5,213
Apr-93	W	201,259	225	61,535	4,012	21,843	1,203	2,770	7,091	9,996
May-93	W	303,299	187	77,065	4,134	20,758	1,216	2,459	9,236	8,907
Jun-93	W	345,138	258	121,104	4,157	20,038	1,224	2,460	8,970	7,116
Jul-93	W	148,179	472	95,145	4,508	19,629	1,153	2,272	9,783	5,764
Aug-93	W	126,166	313	53,618	4,252	16,875	1,132	2,828	9,844	4,828
Sep-93	W	104,072	254	35,952	2,413	9,876	1,051	2,609	6,688	4,368
Oct-93	C	235,902	165	52,949	1,053	4,858	899	2,085	2,588	1,345
Nov-93	C	104,193	426	60,329	966	4,360	498	1,081	876	854
Dec-93	C	90,318	516	63,407	980	4,426	354	857	880	1,127
Jan-94	C	92,442	590	74,123	1,313	5,920	275	647	752	1,004
Feb-94	C	130,770	515	91,522	2,659	11,603	604	1,598	1,044	876
Mar-94	C	112,007	604	92,034	2,847	14,662	756	1,938	2,249	5,213
Apr-94	C	158,003	287	61,649	2,157	11,746	1,203	2,770	7,091	9,996
May-94	C	127,651	251	43,576	2,223	11,162	1,216	2,459	9,236	8,907
Jun-94	C	91,562	344	42,821	2,236	10,775	1,224	2,460	8,970	7,116
Jul-94	C	63,501	447	38,589	2,424	10,555	1,153	2,272	9,783	5,764
Aug-94	C	90,570	571	70,356	2,287	9,074	1,132	2,828	9,844	4,828
Sep-94	C	72,020	466	45,646	1,298	5,310	1,051	2,609	6,688	4,368

Note 1: A floor on the minimium load is imposed such that claculate

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
7,909	10,755	11,724	3,410	47,856	437	28,409	610			
8,568	11,651	3,970	3,235	65,891	362	32,393	610			
13,182	17,925	3,985	3,491	54,365	347	25,671	610			
13,182	17,925	3,405	2,463	59,878	372	30,311	610			
32,954	44,812	4,729	4,246	70,631	351	33,674	610			
32,954	44,812	10,186	7,463	66,946	413	37,584	610			
9,886	13,444	32,121	18,309	55,523	106	7,990	427			
2,109	2,868	41,839	20,029	40,075	84	4,577	427			
1,977	2,689	40,634	20,157	-34,772	84	-3,971	427			
3,296	4,482	44,316	24,006	1,307	1,271	2,258	427	1		1
3,427	4,661	44,591	23,839	-27,693	84	-3,163	427			
2,373	3,227	30,294	12,532	12,722	1,067	18,458	610	1	1	
7,909	10,755	11,724	3,410	42,146	122	6,994	610			
8,568	11,651	3,970	3,235	65,033	291	25,772	610			
13,182	17,925	3,985	3,491	64,678	304	26,762	610			
13,182	17,925	3,405	2,463	150,872	262	53,720	610			
32,954	44,812	4,729	4,246	112,686	256	39,176	610			
32,954	44,812	10,186	7,463	145,166	218	43,075	610			
9,886	13,444	32,121	18,309	146,946	84	16,781	427			
2,109	2,868	41,839	20,029	244,764	84	27,952	427			
1,977	2,689	40,634	20,157	288,175	175	68,643	427			
3,296	4,482	44,316	24,006	85,124	337	38,993	427			
3,427	4,661	44,591	23,839	62,920	84	7,185	427			
2,373	3,227	30,294	12,532	61,254	84	6,995	610			
7,909	10,755	11,724	3,410	211,728	106	30,496	610			
8,568	11,651	3,970	3,235	89,314	322	39,147	610			
13,182	17,925	3,985	3,491	70,938	369	35,581	610			
13,182	17,925	3,405	2,463	73,516	462	46,164	610			
32,954	44,812	4,729	4,246	88,781	235	28,387	610			
32,954	44,812	10,186	7,463	63,015	209	17,946	610			
9,886	13,444	32,121	18,309	105,544	84	12,053	427			
2,109	2,868	41,839	20,029	71,027	84	8,111	427			
1,977	2,689	40,634	20,157	36,521	84	4,171	427			
3,296	4,482	44,316	24,006	2,530	84	289	427			
3,427	4,661	44,591	23,839	29,290	631	25,126	427	1		1
2,373	3,227	30,294	12,532	30,317	427	17,601	610			

ed TDS can never drop below 84 mg/L

Total	26	6	20

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-21	W	96,390	303	39,758	0	0	0	0	0	0
Nov-21	W	101,985	342	47,459	0	0	0	0	0	0
Dec-21	W	107,845	382	55,963	0	0	0	0	0	0
Jan-22	W	111,913	421	64,084	538	2,425	0	0	0	0
Feb-22	W	227,050	423	130,446	691	3,016	0	0	0	0
Mar-22	W	162,122	592	130,369	1,848	9,517	0	0	0	0
Apr-22	W	209,760	230	65,532	1,051	5,725	0	0	0	0
May-22	W	269,066	193	70,562	16	81	0	0	0	0
Jun-22	W	428,834	232	135,314	4,157	20,038	1,224	2,460	8,970	7,116
Jul-22	W	114,586	303	47,248	4,508	19,629	1,153	2,272	9,783	5,764
Aug-22	W	121,624	265	43,751	4,252	16,875	1,132	2,828	9,844	4,828
Sep-22	W	99,613	319	43,241	0	0	0	0	0	0
Oct-22	AN	234,864	146	46,649	0	0	0	0	0	0
Nov-22	AN	130,455	319	56,594	0	0	0	0	0	0
Dec-22	AN	178,857	294	71,561	0	0	0	0	0	0
Jan-23	AN	189,313	319	82,076	0	0	0	0	0	0
Feb-23	AN	190,050	420	108,620	0	0	0	0	0	0
Mar-23	AN	130,978	641	114,157	3,165	16,299	0	0	0	0
Apr-23	AN	261,700	222	78,806	39	212	0	0	0	0
May-23	AN	287,496	168	65,741	181	910	0	0	0	0
Jun-23	AN	89,156	203	24,581	3,167	15,265	1,224	2,460	8,970	7,116
Jul-23	AN	124,644	375	63,511	3,434	14,953	1,153	2,272	9,783	5,764
Aug-23	AN	143,569	416	81,215	3,239	12,855	1,132	2,828	9,844	4,828
Sep-23	AN	96,998	285	37,622	0	0	0	0	0	0
Oct-23	C	123,421	278	46,713	378	1,744	0	0	0	0
Nov-23	C	93,407	449	57,030	341	1,539	0	0	0	0
Dec-23	C	99,932	519	70,469	980	4,426	64	154	0	0
Jan-24	C	101,030	477	65,544	1,313	5,920	275	647	752	1,004
Feb-24	C	133,411	546	98,975	2,659	11,603	604	1,598	1,044	876
Mar-24	C	115,023	778	121,659	2,847	14,662	756	1,938	2,249	5,213
Apr-24	C	89,742	251	30,647	2,157	11,746	1,203	2,770	7,091	9,996
May-24	C	94,352	253	32,401	2,223	11,162	1,216	2,459	9,236	8,907
Jun-24	C	82,140	392	43,730	2,236	10,775	1,224	2,460	8,970	7,116
Jul-24	C	70,612	506	48,555	2,424	10,555	1,153	2,272	9,783	5,764
Aug-24	C	54,003	365	26,761	2,287	9,074	1,132	2,828	9,844	4,828
Sep-24	C	71,118	509	49,251	1,298	5,310	1,051	2,609	4,330	2,828
Oct-24	BN	74,615	445	45,151	0	0	0	0	0	0
Nov-24	BN	79,117	547	58,846	0	0	0	0	0	0
Dec-24	BN	78,258	561	59,707	0	0	0	0	0	0
Jan-25	BN	83,641	538	61,119	1,617	7,293	0	0	0	0
Feb-25	BN	130,835	616	109,621	3,559	15,530	604	1,598	1,044	876
Mar-25	BN	122,631	684	114,101	3,811	19,626	756	1,938	2,249	5,213
Apr-25	BN	159,572	306	66,275	2,887	15,722	1,203	2,770	2,398	3,380
May-25	BN	156,993	221	47,104	2,976	14,941	1,216	2,459	5,747	5,542
Jun-25	BN	99,215	391	52,699	2,992	14,423	1,224	2,460	8,970	7,116
Jul-25	BN	105,993	388	55,910	3,244	14,128	1,153	2,272	9,783	5,764
Aug-25	BN	86,448	246	28,947	3,061	12,146	1,132	2,828	9,844	4,828
Sep-25	BN	87,165	390	46,251	0	0	0	0	0	0
Oct-25	D	81,807	362	40,294	0	0	0	0	0	0
Nov-25	D	81,110	448	49,412	0	0	0	0	0	0
Dec-25	D	83,855	568	64,741	265	1,197	0	0	0	0
Jan-26	D	96,272	610	79,838	132	594	0	0	0	0
Feb-26	D	151,308	499	102,708	3,351	14,624	604	1,598	1,044	876
Mar-26	D	108,219	686	100,956	3,589	18,480	756	1,938	2,249	5,213
Apr-26	D	148,463	349	70,400	2,719	14,804	1,203	2,770	7,091	9,996
May-26	D	148,035	188	37,795	2,802	14,069	1,216	2,459	9,236	8,907
Jun-26	D	86,678	551	64,917	2,818	13,581	1,224	2,460	8,970	7,116
Jul-26	D	92,623	380	47,812	3,055	13,304	1,153	2,272	9,783	5,764
Aug-26	D	68,895	478	44,799	2,882	11,437	1,132	2,828	9,844	4,828
Sep-26	D	59,530	448	36,281	1,440	5,894	0	0	0	0
Oct-26	AN	68,470	372	34,637	0	0	0	0	0	0
Nov-26	AN	89,228	417	50,621	0	0	0	0	0	0
Dec-26	AN	83,927	558	63,621	0	0	0	0	0	0
Jan-27	AN	83,134	667	75,373	0	0	0	0	0	0
Feb-27	AN	189,600	494	127,257	0	0	0	0	0	0
Mar-27	AN	128,504	572	99,842	3,165	16,299	0	0	0	0
Apr-27	AN	230,479	249	77,864	39	212	0	0	0	0
May-27	AN	253,313	204	70,219	181	910	0	0	0	0
Jun-27	AN	107,362	411	60,004	3,167	15,265	1,224	2,460	8,970	7,116
Jul-27	AN	108,039	309	45,386	3,434	14,953	1,153	2,272	9,783	5,764

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	96,390	39,758	303	610			
0	0	0	0	101,985	47,459	342	610			
0	0	0	0	107,845	55,963	382	610			
0	0	0	0	111,375	64,084	423	610			
0	0	0	0	226,359	130,446	424	610			
0	0	0	0	160,274	130,369	598	610			
0	0	0	0	208,709	59,807	211	427			
0	0	0	0	269,050	70,562	193	427			
8,970	8,970	40,634	20,157	371,871	82,853	164	427			
9,783	9,783	44,316	24,006	51,531	5,885	84	427			
9,844	9,844	35,982	19,237	66,987	7,650	84	427			
0	0	0	0	99,613	43,241	319	610			
0	0	0	0	234,864	46,649	146	610			
0	0	0	0	130,455	56,594	319	610			
0	0	0	0	178,857	71,561	294	610			
0	0	0	0	189,313	82,076	319	610			
0	0	0	0	190,050	108,620	420	610			
0	0	0	0	127,813	97,858	563	610			
0	0	0	0	261,661	78,806	222	427			
0	0	0	0	287,315	64,832	166	427			
8,970	8,970	40,634	20,157	33,183	3,789	84	427			
9,783	9,783	44,316	24,006	62,663	12,036	141	427			
9,844	9,844	44,591	23,839	81,336	32,204	291	427			
0	0	0	0	96,998	37,622	285	610			
0	0	0	0	123,043	46,713	279	610			
0	0	0	0	93,066	57,030	451	610			
0	0	0	0	98,888	65,889	490	610			
752	752	0	0	97,451	56,286	425	610			
1,044	1,044	0	0	104,724	51,745	363	610			
2,249	2,249	0	0	78,946	58,745	547	610			
7,091	7,091	32,121	18,309	37,283	4,258	84	427			
9,236	9,236	41,839	20,029	37,728	4,309	84	427			
8,970	8,970	40,634	20,157	27,099	3,095	84	427			
9,783	9,783	44,316	24,006	9,641	1,478	113	427			
9,844	9,844	44,591	23,839	-7,277	-18,470	1,867	427			
4,330	4,330	0	0	64,439	38,504	440	610			
0	0	0	0	74,615	45,151	445	610			
0	0	0	0	79,117	58,846	547	610			
0	0	0	0	78,258	59,707	561	610			
0	0	0	0	82,024	53,826	483	610			
1,044	1,044	0	0	107,085	66,401	456	610			
2,249	2,249	0	0	100,182	66,066	485	610			
2,398	2,398	0	0	153,083	44,403	213	427			
5,747	5,747	0	0	147,054	24,162	121	427			
8,970	8,970	40,634	20,157	43,417	5,853	99	427			
9,783	9,783	44,316	24,006	44,201	5,259	88	427			
9,844	9,844	44,591	23,839	24,393	2,786	84	427			
0	0	0	0	87,165	46,251	390	610			
0	0	0	0	81,807	40,294	362	610			
0	0	0	0	81,110	49,412	448	610			
0	0	0	0	83,590	63,544	559	610			
0	0	0	0	96,140	79,243	606	610			
1,044	1,044	0	0	139,855	76,834	404	610			
2,249	2,249	0	0	81,406	47,831	432	610			
7,091	7,091	527	301	127,036	29,086	168	427			
9,236	9,236	16,883	8,083	115,788	13,223	84	427			
8,970	8,970	40,634	20,157	31,055	18,914	448	427	1		1
9,783	9,783	44,316	24,006	31,021	3,542	84	427			
9,844	9,844	44,591	23,839	7,019	802	84	427			
0	0	0	0	58,090	30,387	385	610			
0	0	0	0	68,470	34,637	372	610			
0	0	0	0	89,228	50,621	417	610			
0	0	0	0	83,927	63,621	558	610			
0	0	0	0	83,134	75,373	667	610	1	1	
0	0	0	0	189,600	127,257	494	610			
0	0	0	0	125,339	83,542	490	610			
0	0	0	0	230,440	77,864	249	427			
0	0	0	0	253,132	69,309	201	427			
8,970	8,970	40,634	20,157	51,389	12,316	176	427			
9,783	9,783	44,316	24,006	46,058	5,260	84	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Aug-27	AN	116,998	356	56,593	3,239	12,855	1,132	2,828	9,844	4,828
Sep-27	AN	108,210	403	59,330	0	0	0	0	0	0
Oct-27	BN	272,563	142	52,618	0	0	0	0	0	0
Nov-27	BN	102,395	437	60,847	0	0	0	0	0	0
Dec-27	BN	115,656	306	48,145	0	0	0	0	0	0
Jan-28	BN	126,172	477	81,803	1,617	7,293	0	0	0	0
Feb-28	BN	143,124	468	91,140	3,559	15,530	604	1,598	1,044	876
Mar-28	BN	135,743	583	107,570	3,811	19,626	756	1,938	2,249	5,213
Apr-28	BN	215,723	286	83,994	2,887	15,722	1,203	2,770	2,398	3,380
May-28	BN	220,782	207	62,252	2,976	14,941	1,216	2,459	5,747	5,542
Jun-28	BN	96,467	462	60,551	2,992	14,423	1,224	2,460	8,970	7,116
Jul-28	BN	111,574	299	45,308	3,244	14,128	1,153	2,272	9,783	5,764
Aug-28	BN	110,680	339	50,979	3,061	12,146	1,132	2,828	9,844	4,828
Sep-28	BN	72,629	308	30,441	0	0	0	0	0	0
Oct-28	C	76,897	350	36,569	378	1,744	0	0	0	0
Nov-28	C	78,163	416	44,152	341	1,539	0	0	0	0
Dec-28	C	87,302	553	65,598	980	4,426	64	154	0	0
Jan-29	C	92,262	577	72,373	1,313	5,920	275	647	752	1,004
Feb-29	C	109,855	679	101,467	2,659	11,603	604	1,598	1,044	876
Mar-29	C	119,217	814	131,946	2,847	14,662	756	1,938	2,249	5,213
Apr-29	C	146,739	292	58,152	2,157	11,746	1,203	2,770	7,091	9,996
May-29	C	156,314	281	59,651	2,223	11,162	1,216	2,459	9,236	8,907
Jun-29	C	69,870	413	39,249	2,236	10,775	1,224	2,460	8,970	7,116
Jul-29	C	66,562	641	57,978	2,424	10,555	1,153	2,272	9,783	5,764
Aug-29	C	62,266	371	31,439	2,287	9,074	1,132	2,828	9,844	4,828
Sep-29	C	50,802	375	25,913	1,298	5,310	1,051	2,609	4,330	2,828
Oct-29	C	71,069	431	41,604	378	1,744	0	0	0	0
Nov-29	C	74,732	492	49,976	341	1,539	0	0	0	0
Dec-29	C	76,065	544	56,297	980	4,426	64	154	0	0
Jan-30	C	83,081	620	70,062	1,313	5,920	275	647	752	1,004
Feb-30	C	106,704	685	99,340	2,659	11,603	604	1,598	1,044	876
Mar-30	C	111,740	678	102,950	2,847	14,662	756	1,938	2,249	5,213
Apr-30	C	139,846	385	73,196	2,157	11,746	1,203	2,770	7,091	9,996
May-30	C	137,381	254	47,458	2,223	11,162	1,216	2,459	9,236	8,907
Jun-30	C	84,539	371	42,616	2,236	10,775	1,224	2,460	8,970	7,116
Jul-30	C	76,373	480	49,807	2,424	10,555	1,153	2,272	9,783	5,764
Aug-30	C	52,191	230	16,298	2,287	9,074	1,132	2,828	9,844	4,828
Sep-30	C	61,528	572	47,838	1,298	5,310	1,051	2,609	4,330	2,828
Oct-30	C	73,954	447	44,942	378	1,744	0	0	0	0
Nov-30	C	67,418	479	43,866	341	1,539	0	0	0	0
Dec-30	C	74,019	597	60,106	980	4,426	64	154	0	0
Jan-31	C	83,766	649	73,942	1,313	5,920	275	647	752	1,004
Feb-31	C	97,028	764	100,832	2,659	11,603	604	1,598	1,044	876
Mar-31	C	105,249	763	109,203	2,847	14,662	756	1,938	2,249	5,213
Apr-31	C	94,626	261	33,628	2,157	11,746	1,203	2,770	7,091	9,996
May-31	C	103,328	230	32,267	2,223	11,162	1,216	2,459	9,236	8,907
Jun-31	C	62,755	494	42,137	2,236	10,775	1,224	2,460	8,970	7,116
Jul-31	C	77,435	622	65,427	2,424	10,555	1,153	2,272	9,783	5,764
Aug-31	C	57,596	483	37,812	2,287	9,074	1,132	2,828	9,844	4,828
Sep-31	C	65,969	426	38,161	1,298	5,310	1,051	2,609	4,330	2,828
Oct-31	AN	68,155	366	33,894	0	0	0	0	0	0
Nov-31	AN	79,692	458	49,609	0	0	0	0	0	0
Dec-31	AN	102,741	508	70,900	0	0	0	0	0	0
Jan-32	AN	100,881	555	76,090	0	0	0	0	0	0
Feb-32	AN	180,185	454	111,115	0	0	0	0	0	0
Mar-32	AN	112,549	535	81,876	3,165	16,299	0	0	0	0
Apr-32	AN	170,580	272	63,031	39	212	0	0	0	0
May-32	AN	244,640	282	93,723	181	910	0	0	0	0
Jun-32	AN	94,102	312	39,864	3,167	15,265	1,224	2,460	8,970	7,116
Jul-32	AN	119,978	328	53,435	3,434	14,953	1,153	2,272	9,783	5,764
Aug-32	AN	119,998	397	64,798	3,239	12,855	1,132	2,828	9,844	4,828
Sep-32	AN	99,464	319	43,109	0	0	0	0	0	0
Oct-32	D	161,418	231	50,692	0	0	0	0	0	0
Nov-32	D	87,267	440	52,190	0	0	0	0	0	0
Dec-32	D	84,889	458	52,799	265	1,197	0	0	0	0
Jan-33	D	100,616	538	73,619	132	594	0	0	0	0
Feb-33	D	123,354	549	92,117	3,351	14,624	604	1,598	1,044	876
Mar-33	D	121,520	664	109,747	3,589	18,480	756	1,938	2,249	5,213
Apr-33	D	123,795	257	43,219	2,719	14,804	1,203	2,770	7,091	9,996
May-33	D	145,916	330	65,443	2,802	14,069	1,216	2,459	9,236	8,907

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
9,844	9,844	44,591	23,839	54,765	7,582	102	427			
0	0	0	0	108,210	59,330	403	610			
0	0	0	0	272,563	52,618	142	610			
0	0	0	0	102,395	60,847	437	610			
0	0	0	0	115,656	48,145	306	610			
0	0	0	0	124,555	74,510	440	610			
1,044	1,044	0	0	119,374	47,919	295	610			
2,249	2,249	0	0	113,294	59,535	387	610			
2,398	2,398	0	0	209,234	62,122	218	427			
5,747	5,747	0	0	210,843	39,309	137	427			
8,970	8,970	40,634	20,157	40,669	13,705	248	427			
9,783	9,783	44,316	24,006	49,782	5,685	84	427			
9,844	9,844	44,591	23,839	48,625	5,553	84	427			
0	0	0	0	72,629	30,441	308	610			
0	0	0	0	76,519	36,569	352	610			
0	0	0	0	77,822	44,152	417	610			
0	0	0	0	86,258	61,018	520	610			
752	752	0	0	88,683	63,116	524	610			
1,044	1,044	0	0	81,168	54,237	492	610			
2,249	2,249	0	0	83,140	69,032	611	610	1	1	
7,091	7,091	32,121	18,309	94,280	10,767	84	427			
9,236	9,236	41,839	20,029	99,690	14,225	105	427			
8,970	8,970	40,634	20,157	14,829	1,693	84	427			
9,783	9,783	44,316	24,006	5,591	10,900	1,434	427	1		1
9,844	9,844	44,591	23,839	986	113	84	427			
4,330	4,330	0	0	44,123	15,166	253	610			
0	0	0	0	70,691	41,604	433	610			
0	0	0	0	74,391	49,976	494	610			
0	0	0	0	75,021	51,717	507	610			
752	752	0	0	79,502	60,805	563	610			
1,044	1,044	0	0	78,017	52,110	491	610			
2,249	2,249	0	0	75,663	40,036	389	610			
7,091	7,091	32,121	18,309	87,387	16,932	143	427			
9,236	9,236	41,839	20,029	80,757	9,222	84	427			
8,970	8,970	40,634	20,157	29,498	3,369	84	427			
9,783	9,783	44,316	24,006	15,402	2,729	130	427			
9,844	9,844	44,591	23,839	-9,089	-28,932	2,341	427			
4,330	4,330	0	0	54,849	37,091	497	610			
0	0	0	0	73,576	44,942	449	610			
0	0	0	0	67,077	43,866	481	610			
0	0	0	0	72,975	55,526	560	610			
752	752	0	0	80,187	64,685	593	610			
1,044	1,044	0	0	68,341	53,602	577	610			
2,249	2,249	0	0	69,172	46,290	492	610			
7,091	7,091	32,121	18,309	42,167	4,815	84	427			
9,236	9,236	41,839	20,029	46,704	5,334	84	427			
8,970	8,970	40,634	20,157	7,714	881	84	427			
9,783	9,783	44,316	24,006	16,464	18,349	820	427	1		1
9,844	9,844	44,591	23,839	-3,684	-7,418	1,481	427			
4,330	4,330	0	0	59,290	27,414	340	610			
0	0	0	0	68,155	33,894	366	610			
0	0	0	0	79,692	49,609	458	610			
0	0	0	0	102,741	70,900	508	610			
0	0	0	0	100,881	76,090	555	610			
0	0	0	0	180,185	111,115	454	610			
0	0	0	0	109,384	65,576	441	610			
0	0	0	0	170,541	63,031	272	427			
0	0	0	0	244,459	92,814	279	427			
8,970	8,970	40,634	20,157	38,129	4,354	84	427			
9,783	9,783	44,316	24,006	57,997	6,623	84	427			
9,844	9,844	44,591	23,839	57,765	15,787	201	427			
0	0	0	0	99,464	43,109	319	610			
0	0	0	0	161,418	50,692	231	610			
0	0	0	0	87,267	52,190	440	610			
0	0	0	0	84,624	51,601	449	610			
0	0	0	0	100,484	73,025	535	610			
1,044	1,044	0	0	111,901	66,244	435	610			
2,249	2,249	0	0	94,707	56,621	440	610			
7,091	7,091	527	301	102,368	11,690	84	427			
9,236	9,236	16,883	8,083	113,669	29,057	188	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Jun-33	D	81,422	401	44,333	2,818	13,581	1,224	2,460	8,970	7,116
Jul-33	D	77,185	587	61,543	3,055	13,304	1,153	2,272	9,783	5,764
Aug-33	D	79,613	363	39,321	2,882	11,437	1,132	2,828	9,844	4,828
Sep-33	D	64,978	458	40,494	1,440	5,894	0	0	0	0
Oct-33	C	72,245	461	45,288	378	1,744	0	0	0	0
Nov-33	C	72,118	462	45,326	341	1,539	0	0	0	0
Dec-33	C	74,065	476	47,889	980	4,426	64	154	0	0
Jan-34	C	84,284	643	73,655	1,313	5,920	275	647	752	1,004
Feb-34	C	120,228	642	104,869	2,659	11,603	604	1,598	1,044	876
Mar-34	C	101,622	716	98,878	2,847	14,662	756	1,938	2,249	5,213
Apr-34	C	117,988	409	65,557	2,157	11,746	1,203	2,770	7,091	9,996
May-34	C	128,155	407	70,980	2,223	11,162	1,216	2,459	9,236	8,907
Jun-34	C	66,756	472	42,863	2,236	10,775	1,224	2,460	8,970	7,116
Jul-34	C	64,304	462	40,362	2,424	10,555	1,153	2,272	9,783	5,764
Aug-34	C	85,411	398	46,168	2,287	9,074	1,132	2,828	9,844	4,828
Sep-34	C	63,372	402	34,617	1,298	5,310	1,051	2,609	4,330	2,828
Oct-34	AN	70,311	515	49,180	0	0	0	0	0	0
Nov-34	AN	83,520	434	49,222	0	0	0	0	0	0
Dec-34	AN	82,783	542	61,010	0	0	0	0	0	0
Jan-35	AN	97,841	472	62,716	0	0	0	0	0	0
Feb-35	AN	122,855	776	129,642	0	0	0	0	0	0
Mar-35	AN	128,365	629	109,803	3,165	16,299	0	0	0	0
Apr-35	AN	241,714	296	97,400	39	212	0	0	0	0
May-35	AN	259,282	190	67,080	181	910	0	0	0	0
Jun-35	AN	167,766	207	47,189	3,167	15,265	1,224	2,460	8,970	7,116
Jul-35	AN	92,774	334	42,126	3,434	14,953	1,153	2,272	9,783	5,764
Aug-35	AN	129,517	340	59,902	3,239	12,855	1,132	2,828	9,844	4,828
Sep-35	AN	98,677	277	37,173	0	0	0	0	0	0
Oct-35	AN	180,882	223	54,789	0	0	0	0	0	0
Nov-35	AN	93,953	368	47,017	0	0	0	0	0	0
Dec-35	AN	99,120	518	69,735	0	0	0	0	0	0
Jan-36	AN	135,757	414	76,335	0	0	0	0	0	0
Feb-36	AN	517,182	212	149,129	0	0	0	0	0	0
Mar-36	AN	142,991	646	125,541	3,165	16,299	0	0	0	0
Apr-36	AN	191,720	235	61,251	39	212	0	0	0	0
May-36	AN	285,665	224	86,993	181	910	0	0	0	0
Jun-36	AN	99,874	377	51,216	3,167	15,265	1,224	2,460	8,970	7,116
Jul-36	AN	116,012	435	68,560	3,434	14,953	1,153	2,272	9,783	5,764
Aug-36	AN	122,659	299	49,843	3,239	12,855	1,132	2,828	9,844	4,828
Sep-36	AN	104,350	266	37,778	0	0	0	0	0	0
Oct-36	W	142,763	275	53,413	0	0	0	0	0	0
Nov-36	W	95,454	389	50,441	0	0	0	0	0	0
Dec-36	W	110,177	373	55,810	0	0	0	0	0	0
Jan-37	W	169,417	383	88,121	538	2,425	0	0	0	0
Feb-37	W	572,991	221	172,233	691	3,016	0	0	0	0
Mar-37	W	416,022	238	134,665	1,848	9,517	0	0	0	0
Apr-37	W	248,674	194	65,620	1,051	5,725	0	0	0	0
May-37	W	491,303	214	142,602	16	81	0	0	0	0
Jun-37	W	141,822	296	57,071	4,157	20,038	1,224	2,460	8,970	7,116
Jul-37	W	123,750	396	66,639	4,508	19,629	1,153	2,272	9,783	5,764
Aug-37	W	136,532	266	49,337	4,252	16,875	1,132	2,828	9,844	4,828
Sep-37	W	104,668	367	52,152	0	0	0	0	0	0
Oct-37	W	169,309	188	43,250	0	0	0	0	0	0
Nov-37	W	109,722	380	56,624	0	0	0	0	0	0
Dec-37	W	315,673	210	89,994	0	0	0	0	0	0
Jan-38	W	412,695	214	120,179	538	2,425	0	0	0	0
Feb-38	W	1,097,178	133	198,981	691	3,016	0	0	0	0
Mar-38	W	1,483,383	131	263,376	1,848	9,517	0	0	0	0
Apr-38	W	689,819	166	155,207	1,051	5,725	0	0	0	0
May-38	W	1,473,291	103	206,303	16	81	0	0	0	0
Jun-38	W	800,540	128	139,416	4,157	20,038	1,224	2,460	8,970	7,116
Jul-38	W	233,167	302	95,795	4,508	19,629	1,153	2,272	9,783	5,764
Aug-38	W	123,724	369	62,100	4,252	16,875	1,132	2,828	9,844	4,828
Sep-38	W	206,500	215	60,218	0	0	0	0	0	0
Oct-38	D	320,261	137	59,518	0	0	0	0	0	0
Nov-38	D	158,079	273	58,734	0	0	0	0	0	0
Dec-38	D	123,222	354	59,269	265	1,197	0	0	0	0
Jan-39	D	145,382	332	65,698	132	594	0	0	0	0
Feb-39	D	214,656	442	128,987	3,351	14,624	604	1,598	1,044	876
Mar-39	D	147,518	592	118,706	3,589	18,480	756	1,938	2,249	5,213

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
8,970	8,970	40,634	20,157	25,799	2,946	84	427			
9,783	9,783	44,316	24,006	15,583	11,717	553	427	1		1
9,844	9,844	44,591	23,839	17,737	2,026	84	427			
0	0	0	0	63,538	34,600	401	610			
0	0	0	0	71,867	45,288	464	610			
0	0	0	0	71,777	45,326	464	610			
0	0	0	0	73,021	43,309	436	610			
752	752	0	0	80,705	64,397	587	610			
1,044	1,044	0	0	91,541	57,640	463	610			
2,249	2,249	0	0	65,545	35,964	404	610			
7,091	7,091	32,121	18,309	65,529	9,293	104	427			
9,236	9,236	41,839	20,029	71,531	25,554	263	427			
8,970	8,970	40,634	20,157	11,715	1,338	84	427			
9,783	9,783	44,316	24,006	3,333	381	84	427			
9,844	9,844	44,591	23,839	24,131	2,756	84	427			
4,330	4,330	0	0	56,693	23,869	310	610			
0	0	0	0	70,311	49,180	515	610			
0	0	0	0	83,520	49,222	434	610			
0	0	0	0	82,783	61,010	542	610			
0	0	0	0	97,841	62,716	472	610			
0	0	0	0	122,855	129,642	776	610	1	1	
0	0	0	0	125,200	93,504	549	610			
0	0	0	0	241,675	97,400	296	427			
0	0	0	0	259,101	66,170	188	427			
8,970	8,970	40,634	20,157	111,793	12,767	84	427			
9,783	9,783	44,316	24,006	30,793	3,516	84	427			
9,844	9,844	44,591	23,839	67,284	10,891	119	427			
0	0	0	0	98,677	37,173	277	610			
0	0	0	0	180,882	54,789	223	610			
0	0	0	0	93,953	47,017	368	610			
0	0	0	0	99,120	69,735	518	610			
0	0	0	0	135,757	76,335	414	610			
0	0	0	0	517,182	149,129	212	610			
0	0	0	0	139,826	109,242	575	610			
0	0	0	0	191,681	61,251	235	427			
0	0	0	0	285,484	86,083	222	427			
8,970	8,970	40,634	20,157	43,901	5,013	84	427			
9,783	9,783	44,316	24,006	54,031	17,085	233	427			
9,844	9,844	44,591	23,839	60,426	6,901	84	427			
0	0	0	0	104,350	37,778	266	610			
0	0	0	0	142,763	53,413	275	610			
0	0	0	0	95,454	50,441	389	610			
0	0	0	0	110,177	55,810	373	610			
0	0	0	0	168,879	88,121	384	610			
0	0	0	0	572,300	172,233	221	610			
0	0	0	0	414,174	134,665	239	610			
0	0	0	0	247,623	59,895	178	427			
0	0	0	0	491,287	142,602	214	427			
8,970	8,970	40,634	20,157	84,859	9,691	84	427			
9,783	9,783	44,316	24,006	60,695	10,488	127	427			
9,844	9,844	35,982	19,237	81,895	9,352	84	427			
0	0	0	0	104,668	52,152	367	610			
0	0	0	0	169,309	43,250	188	610			
0	0	0	0	109,722	56,624	380	610			
0	0	0	0	315,673	89,994	210	610			
0	0	0	0	412,157	120,179	214	610			
0	0	0	0	1,096,487	198,981	133	610			
0	0	0	0	1,481,535	263,376	131	610			
0	0	0	0	688,768	149,483	160	427			
0	0	0	0	1,473,275	206,303	103	427			
8,970	8,970	40,634	20,157	743,577	86,955	86	427			
9,783	9,783	44,316	24,006	170,112	39,643	171	427			
9,844	9,844	35,982	19,237	69,087	13,672	146	427			
0	0	0	0	206,500	60,218	215	610			
0	0	0	0	320,261	59,518	137	610			
0	0	0	0	158,079	58,734	273	610			
0	0	0	0	122,957	58,072	347	610			
0	0	0	0	145,250	65,103	330	610			
1,044	1,044	0	0	203,203	103,113	373	610			
2,249	2,249	0	0	120,705	65,581	400	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Apr-39	D	215,332	208	60,803	2,719	14,804	1,203	2,770	7,091	9,996
May-39	D	179,125	190	46,245	2,802	14,069	1,216	2,459	9,236	8,907
Jun-39	D	97,745	340	45,154	2,818	13,581	1,224	2,460	8,970	7,116
Jul-39	D	80,206	275	29,975	3,055	13,304	1,153	2,272	9,783	5,764
Aug-39	D	115,599	360	56,592	2,882	11,437	1,132	2,828	9,844	4,828
Sep-39	D	66,563	386	34,912	1,440	5,894	0	0	0	0
Oct-39	AN	80,297	501	54,691	0	0	0	0	0	0
Nov-39	AN	83,722	354	40,338	0	0	0	0	0	0
Dec-39	AN	79,681	376	40,720	0	0	0	0	0	0
Jan-40	AN	134,144	427	77,817	0	0	0	0	0	0
Feb-40	AN	239,665	406	132,122	0	0	0	0	0	0
Mar-40	AN	464,911	224	141,642	3,165	16,299	0	0	0	0
Apr-40	AN	261,233	198	70,212	39	212	0	0	0	0
May-40	AN	301,766	143	58,707	181	910	0	0	0	0
Jun-40	AN	99,698	192	25,996	3,167	15,265	1,224	2,460	8,970	7,116
Jul-40	AN	107,366	296	43,205	3,434	14,953	1,153	2,272	9,783	5,764
Aug-40	AN	138,828	292	55,187	3,239	12,855	1,132	2,828	9,844	4,828
Sep-40	AN	112,413	355	54,314	0	0	0	0	0	0
Oct-40	W	111,893	310	47,081	0	0	0	0	0	0
Nov-40	W	98,378	310	41,461	0	0	0	0	0	0
Dec-40	W	196,761	249	66,607	0	0	0	0	0	0
Jan-41	W	199,250	267	72,433	538	2,425	0	0	0	0
Feb-41	W	651,247	183	162,200	691	3,016	0	0	0	0
Mar-41	W	472,609	209	134,285	1,848	9,517	0	0	0	0
Apr-41	W	321,423	139	60,608	1,051	5,725	0	0	0	0
May-41	W	510,533	159	110,149	16	81	0	0	0	0
Jun-41	W	486,208	139	91,813	4,157	20,038	1,224	2,460	8,970	7,116
Jul-41	W	127,349	336	58,207	4,508	19,629	1,153	2,272	9,783	5,764
Aug-41	W	114,300	312	48,544	4,252	16,875	1,132	2,828	9,844	4,828
Sep-41	W	111,222	338	51,168	0	0	0	0	0	0
Oct-41	W	301,344	149	60,960	0	0	0	0	0	0
Nov-41	W	136,110	341	63,025	0	0	0	0	0	0
Dec-41	W	216,924	257	75,732	0	0	0	0	0	0
Jan-42	W	410,432	154	86,097	538	2,425	0	0	0	0
Feb-42	W	447,480	240	146,247	691	3,016	0	0	0	0
Mar-42	W	290,628	264	104,388	1,848	9,517	0	0	0	0
Apr-42	W	312,290	188	79,774	1,051	5,725	0	0	0	0
May-42	W	336,079	162	73,881	16	81	0	0	0	0
Jun-42	W	382,823	248	129,227	4,157	20,038	1,224	2,460	8,970	7,116
Jul-42	W	147,817	275	55,263	4,508	19,629	1,153	2,272	9,783	5,764
Aug-42	W	121,275	285	47,055	4,252	16,875	1,132	2,828	9,844	4,828
Sep-42	W	127,760	193	33,453	0	0	0	0	0	0
Oct-42	W	286,096	158	61,337	0	0	0	0	0	0
Nov-42	W	213,488	230	66,754	0	0	0	0	0	0
Dec-42	W	201,620	231	63,372	0	0	0	0	0	0
Jan-43	W	656,099	134	119,256	538	2,425	0	0	0	0
Feb-43	W	550,309	163	121,873	691	3,016	0	0	0	0
Mar-43	W	981,482	148	197,880	1,848	9,517	0	0	0	0
Apr-43	W	305,956	203	84,396	1,051	5,725	0	0	0	0
May-43	W	350,679	174	82,859	16	81	0	0	0	0
Jun-43	W	196,495	125	33,365	4,157	20,038	1,224	2,460	8,970	7,116
Jul-43	W	139,051	396	74,784	4,508	19,629	1,153	2,272	9,783	5,764
Aug-43	W	117,304	303	48,289	4,252	16,875	1,132	2,828	9,844	4,828
Sep-43	W	105,881	292	42,075	0	0	0	0	0	0
Oct-43	BN	191,050	210	54,570	0	0	0	0	0	0
Nov-43	BN	112,373	383	58,496	0	0	0	0	0	0
Dec-43	BN	109,403	390	58,036	0	0	0	0	0	0
Jan-44	BN	123,414	432	72,465	1,617	7,293	0	0	0	0
Feb-44	BN	171,687	434	101,323	3,559	15,530	604	1,598	1,044	876
Mar-44	BN	155,088	599	126,189	3,811	19,626	756	1,938	2,249	5,213
Apr-44	BN	264,171	197	70,751	2,887	15,722	1,203	2,770	2,398	3,380
May-44	BN	198,661	255	68,735	2,976	14,941	1,216	2,459	5,747	5,542
Jun-44	BN	88,224	357	42,855	2,992	14,423	1,224	2,460	8,970	7,116
Jul-44	BN	103,141	472	66,142	3,244	14,128	1,153	2,272	9,783	5,764
Aug-44	BN	94,918	330	42,519	3,061	12,146	1,132	2,828	9,844	4,828
Sep-44	BN	85,856	284	33,137	0	0	0	0	0	0
Oct-44	AN	88,422	316	37,962	0	0	0	0	0	0
Nov-44	AN	93,287	483	61,281	0	0	0	0	0	0
Dec-44	AN	88,517	406	48,834	0	0	0	0	0	0
Jan-45	AN	91,708	473	58,947	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
7,091	7,091	527	301	193,905	22,144	84	427			
9,236	9,236	16,883	8,083	146,878	16,773	84	427			
8,970	8,970	40,634	20,157	42,122	4,810	84	427			
9,783	9,783	44,316	24,006	18,604	2,124	84	427			
9,844	9,844	44,591	23,839	53,723	8,999	123	427			
0	0	0	0	65,123	29,018	328	610			
0	0	0	0	80,297	54,691	501	610			
0	0	0	0	83,722	40,338	354	610			
0	0	0	0	79,681	40,720	376	610			
0	0	0	0	134,144	77,817	427	610			
0	0	0	0	239,665	132,122	406	610			
0	0	0	0	461,746	125,342	200	610			
0	0	0	0	261,194	70,212	198	427			
0	0	0	0	301,585	57,797	141	427			
8,970	8,970	40,634	20,157	43,725	4,993	84	427			
9,783	9,783	44,316	24,006	45,385	5,183	84	427			
9,844	9,844	44,591	23,839	76,595	8,747	84	427			
0	0	0	0	112,413	54,314	355	610			
0	0	0	0	111,893	47,081	310	610			
0	0	0	0	98,378	41,461	310	610			
0	0	0	0	196,761	66,607	249	610			
0	0	0	0	198,712	72,433	268	610			
0	0	0	0	650,556	162,200	183	610			
0	0	0	0	470,761	134,285	210	610			
0	0	0	0	320,372	54,884	126	427			
0	0	0	0	510,517	110,149	159	427			
8,970	8,970	40,634	20,157	429,245	49,019	84	427			
9,783	9,783	44,316	24,006	64,294	7,342	84	427			
9,844	9,844	35,982	19,237	59,663	6,813	84	427			
0	0	0	0	111,222	51,168	338	610			
0	0	0	0	301,344	60,960	149	610			
0	0	0	0	136,110	63,025	341	610			
0	0	0	0	216,924	75,732	257	610			
0	0	0	0	409,894	86,097	155	610			
0	0	0	0	446,789	146,247	241	610			
0	0	0	0	288,780	104,388	266	610			
0	0	0	0	311,239	74,050	175	427			
0	0	0	0	336,063	73,881	162	427			
8,970	8,970	40,634	20,157	325,860	76,766	173	427			
9,783	9,783	44,316	24,006	84,762	9,680	84	427			
9,844	9,844	35,982	19,237	66,638	7,610	84	427			
0	0	0	0	127,760	33,453	193	610			
0	0	0	0	286,096	61,337	158	610			
0	0	0	0	213,488	66,754	230	610			
0	0	0	0	201,620	63,372	231	610			
0	0	0	0	655,561	119,256	134	610			
0	0	0	0	549,618	121,873	163	610			
0	0	0	0	979,634	197,880	149	610			
0	0	0	0	304,905	78,671	190	427			
0	0	0	0	350,663	82,859	174	427			
8,970	8,970	40,634	20,157	139,532	15,934	84	427			
9,783	9,783	44,316	24,006	75,996	18,633	180	427			
9,844	9,844	35,982	19,237	62,667	7,156	84	427			
0	0	0	0	105,881	42,075	292	610			
0	0	0	0	191,050	54,570	210	610			
0	0	0	0	112,373	58,496	383	610			
0	0	0	0	109,403	58,036	390	610			
0	0	0	0	121,797	65,172	394	610			
1,044	1,044	0	0	147,937	58,102	289	610			
2,249	2,249	0	0	132,639	78,154	433	610			
2,398	2,398	0	0	257,682	48,879	140	427			
5,747	5,747	0	0	188,722	45,793	178	427			
8,970	8,970	40,634	20,157	32,426	3,703	84	427			
9,783	9,783	44,316	24,006	41,349	15,491	276	427			
9,844	9,844	44,591	23,839	32,863	3,753	84	427			
0	0	0	0	85,856	33,137	284	610			
0	0	0	0	88,422	37,962	316	610			
0	0	0	0	93,287	61,281	483	610			
0	0	0	0	88,517	48,834	406	610			
0	0	0	0	91,708	58,947	473	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Feb-45	AN	322,236	272	118,939	0	0	0	0	0	0
Mar-45	AN	345,459	301	141,271	3,165	16,299	0	0	0	0
Apr-45	AN	222,299	174	52,495	39	212	0	0	0	0
May-45	AN	272,192	144	53,249	181	910	0	0	0	0
Jun-45	AN	127,635	388	67,274	3,167	15,265	1,224	2,460	8,970	7,116
Jul-45	AN	130,621	405	71,902	3,434	14,953	1,153	2,272	9,783	5,764
Aug-45	AN	105,829	305	43,824	3,239	12,855	1,132	2,828	9,844	4,828
Sep-45	AN	109,513	428	63,692	0	0	0	0	0	0
Oct-45	AN	212,304	171	49,442	0	0	0	0	0	0
Nov-45	AN	133,548	268	48,585	0	0	0	0	0	0
Dec-45	AN	302,067	151	62,010	0	0	0	0	0	0
Jan-46	AN	336,084	188	85,944	0	0	0	0	0	0
Feb-46	AN	294,513	303	121,438	0	0	0	0	0	0
Mar-46	AN	262,765	337	120,458	3,165	16,299	0	0	0	0
Apr-46	AN	292,332	191	75,948	39	212	0	0	0	0
May-46	AN	268,166	172	62,706	181	910	0	0	0	0
Jun-46	AN	123,174	392	65,559	3,167	15,265	1,224	2,460	8,970	7,116
Jul-46	AN	127,043	339	58,464	3,434	14,953	1,153	2,272	9,783	5,764
Aug-46	AN	138,749	399	75,320	3,239	12,855	1,132	2,828	9,844	4,828
Sep-46	AN	101,904	291	40,370	0	0	0	0	0	0
Oct-46	D	98,348	296	39,603	0	0	0	0	0	0
Nov-46	D	103,194	316	44,360	0	0	0	0	0	0
Dec-46	D	126,129	374	64,114	265	1,197	0	0	0	0
Jan-47	D	131,018	486	86,477	132	594	0	0	0	0
Feb-47	D	157,668	457	98,044	3,351	14,624	604	1,598	1,044	876
Mar-47	D	129,332	645	113,338	3,589	18,480	756	1,938	2,249	5,213
Apr-47	D	143,001	281	54,590	2,719	14,804	1,203	2,770	7,091	9,996
May-47	D	153,783	301	62,909	2,802	14,069	1,216	2,459	9,236	8,907
Jun-47	D	73,499	217	21,633	2,818	13,581	1,224	2,460	8,970	7,116
Jul-47	D	80,140	323	35,224	3,055	13,304	1,153	2,272	9,783	5,764
Aug-47	D	99,061	441	59,391	2,882	11,437	1,132	2,828	9,844	4,828
Sep-47	D	76,922	401	41,924	1,440	5,894	0	0	0	0
Oct-47	BN	71,161	367	35,544	0	0	0	0	0	0
Nov-47	BN	79,816	549	59,518	0	0	0	0	0	0
Dec-47	BN	76,564	463	48,183	0	0	0	0	0	0
Jan-48	BN	87,134	548	64,880	1,617	7,293	0	0	0	0
Feb-48	BN	114,162	695	107,789	3,559	15,530	604	1,598	1,044	876
Mar-48	BN	119,508	692	112,414	3,811	19,626	756	1,938	2,249	5,213
Apr-48	BN	175,082	264	62,910	2,887	15,722	1,203	2,770	2,398	3,380
May-48	BN	173,401	301	70,934	2,976	14,941	1,216	2,459	5,747	5,542
Jun-48	BN	88,853	278	33,557	2,992	14,423	1,224	2,460	8,970	7,116
Jul-48	BN	94,774	341	43,936	3,244	14,128	1,153	2,272	9,783	5,764
Aug-48	BN	104,223	286	40,467	3,061	12,146	1,132	2,828	9,844	4,828
Sep-48	BN	77,041	302	31,589	0	0	0	0	0	0
Oct-48	BN	82,359	348	38,942	0	0	0	0	0	0
Nov-48	BN	80,048	406	44,129	0	0	0	0	0	0
Dec-48	BN	78,811	431	46,147	0	0	0	0	0	0
Jan-49	BN	91,528	622	77,422	1,617	7,293	0	0	0	0
Feb-49	BN	102,784	628	87,740	3,559	15,530	604	1,598	1,044	876
Mar-49	BN	121,360	704	116,070	3,811	19,626	756	1,938	2,249	5,213
Apr-49	BN	175,186	300	71,331	2,887	15,722	1,203	2,770	2,398	3,380
May-49	BN	180,376	286	70,182	2,976	14,941	1,216	2,459	5,747	5,542
Jun-49	BN	84,053	157	17,975	2,992	14,423	1,224	2,460	8,970	7,116
Jul-49	BN	90,101	383	46,853	3,244	14,128	1,153	2,272	9,783	5,764
Aug-49	BN	107,143	318	46,247	3,061	12,146	1,132	2,828	9,844	4,828
Sep-49	BN	81,978	295	32,855	0	0	0	0	0	0
Oct-49	BN	83,289	319	36,064	0	0	0	0	0	0
Nov-49	BN	78,653	443	47,402	0	0	0	0	0	0
Dec-49	BN	85,653	533	62,089	0	0	0	0	0	0
Jan-50	BN	90,242	459	56,263	1,617	7,293	0	0	0	0
Feb-50	BN	119,732	604	98,365	3,559	15,530	604	1,598	1,044	876
Mar-50	BN	122,474	746	124,145	3,811	19,626	756	1,938	2,249	5,213
Apr-50	BN	180,969	287	70,610	2,887	15,722	1,203	2,770	2,398	3,380
May-50	BN	196,371	280	74,751	2,976	14,941	1,216	2,459	5,747	5,542
Jun-50	BN	107,186	414	60,313	2,992	14,423	1,224	2,460	8,970	7,116
Jul-50	BN	115,678	411	64,667	3,244	14,128	1,153	2,272	9,783	5,764
Aug-50	BN	108,338	393	57,883	3,061	12,146	1,132	2,828	9,844	4,828
Sep-50	BN	86,626	324	38,133	0	0	0	0	0	0
Oct-50	AN	80,618	510	55,841	0	0	0	0	0	0
Nov-50	AN	112,735	386	59,144	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	322,236	118,939	272	610			
0	0	0	0	342,294	124,972	269	610			
0	0	0	0	222,260	52,495	174	427			
0	0	0	0	272,011	52,340	142	427			
8,970	8,970	40,634	20,157	71,662	19,586	201	427			
9,783	9,783	44,316	24,006	68,640	20,427	219	427			
9,844	9,844	44,591	23,839	43,596	4,979	84	427			
0	0	0	0	109,513	63,692	428	610			
0	0	0	0	212,304	49,442	171	610			
0	0	0	0	133,548	48,585	268	610			
0	0	0	0	302,067	62,010	151	610			
0	0	0	0	336,084	85,944	188	610			
0	0	0	0	294,513	121,438	303	610			
0	0	0	0	259,600	104,158	295	610			
0	0	0	0	292,293	75,948	191	427			
0	0	0	0	267,985	61,797	170	427			
8,970	8,970	40,634	20,157	67,201	17,871	196	427			
9,783	9,783	44,316	24,006	65,062	7,430	84	427			
9,844	9,844	44,591	23,839	76,516	26,309	253	427			
0	0	0	0	101,904	40,370	291	610			
0	0	0	0	98,348	39,603	296	610			
0	0	0	0	103,194	44,360	316	610			
0	0	0	0	125,864	62,916	368	610			
0	0	0	0	130,886	85,882	483	610			
1,044	1,044	0	0	146,215	72,170	363	610			
2,249	2,249	0	0	102,519	60,213	432	610			
7,091	7,091	527	301	121,574	13,884	84	427			
9,236	9,236	16,883	8,083	121,536	26,523	161	427			
8,970	8,970	40,634	20,157	17,876	2,041	84	427			
9,783	9,783	44,316	24,006	18,538	2,117	84	427			
9,844	9,844	44,591	23,839	37,185	11,798	233	427			
0	0	0	0	75,482	36,030	351	610			
0	0	0	0	71,161	35,544	367	610			
0	0	0	0	79,816	59,518	549	610			
0	0	0	0	76,564	48,183	463	610			
0	0	0	0	85,517	57,587	495	610			
1,044	1,044	0	0	90,412	64,568	525	610			
2,249	2,249	0	0	97,059	64,379	488	610			
2,398	2,398	0	0	168,593	41,038	179	427			
5,747	5,747	0	0	163,462	47,991	216	427			
8,970	8,970	40,634	20,157	33,055	3,775	84	427			
9,783	9,783	44,316	24,006	32,982	3,767	84	427			
9,844	9,844	44,591	23,839	42,168	4,816	84	427			
0	0	0	0	77,041	31,589	302	610			
0	0	0	0	82,359	38,942	348	610			
0	0	0	0	80,048	44,129	406	610			
0	0	0	0	78,811	46,147	431	610			
0	0	0	0	89,911	70,129	574	610			
1,044	1,044	0	0	79,034	44,519	414	610			
2,249	2,249	0	0	98,911	68,035	506	610			
2,398	2,398	0	0	168,697	49,459	216	427			
5,747	5,747	0	0	170,437	47,240	204	427			
8,970	8,970	40,634	20,157	28,255	3,227	84	427			
9,783	9,783	44,316	24,006	28,309	3,233	84	427			
9,844	9,844	44,591	23,839	45,088	5,149	84	427			
0	0	0	0	81,978	32,855	295	610			
0	0	0	0	83,289	36,064	319	610			
0	0	0	0	78,653	47,402	443	610			
0	0	0	0	85,653	62,089	533	610			
0	0	0	0	88,625	48,970	406	610			
1,044	1,044	0	0	95,982	55,145	423	610			
2,249	2,249	0	0	100,025	76,110	560	610			
2,398	2,398	0	0	174,480	48,738	205	427			
5,747	5,747	0	0	186,432	51,808	204	427			
8,970	8,970	40,634	20,157	51,388	13,468	193	427			
9,783	9,783	44,316	24,006	53,886	14,016	191	427			
9,844	9,844	44,591	23,839	46,283	9,581	152	427			
0	0	0	0	86,626	38,133	324	610			
0	0	0	0	80,618	55,841	510	610			
0	0	0	0	112,735	59,144	386	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Dec-50	AN	486,196	144	95,380	0	0	0	0	0	0
Jan-51	AN	510,994	168	116,570	0	0	0	0	0	0
Feb-51	AN	387,795	240	126,688	0	0	0	0	0	0
Mar-51	AN	295,433	262	105,150	3,165	16,299	0	0	0	0
Apr-51	AN	306,407	193	80,396	39	212	0	0	0	0
May-51	AN	241,523	153	50,073	181	910	0	0	0	0
Jun-51	AN	109,820	172	25,605	3,167	15,265	1,224	2,460	8,970	7,116
Jul-51	AN	126,655	407	70,046	3,434	14,953	1,153	2,272	9,783	5,764
Aug-51	AN	121,483	320	52,833	3,239	12,855	1,132	2,828	9,844	4,828
Sep-51	AN	102,444	294	40,932	0	0	0	0	0	0
Oct-51	W	106,550	405	58,681	0	0	0	0	0	0
Nov-51	W	109,025	358	52,988	0	0	0	0	0	0
Dec-51	W	115,668	391	61,406	0	0	0	0	0	0
Jan-52	W	177,343	314	75,729	538	2,425	0	0	0	0
Feb-52	W	235,623	363	116,151	691	3,016	0	0	0	0
Mar-52	W	505,444	224	153,784	1,848	9,517	0	0	0	0
Apr-52	W	481,644	146	95,338	1,051	5,725	0	0	0	0
May-52	W	1,009,027	120	163,927	16	81	0	0	0	0
Jun-52	W	638,853	94	81,728	4,157	20,038	1,224	2,460	8,970	7,116
Jul-52	W	268,907	164	59,955	4,508	19,629	1,153	2,272	9,783	5,764
Aug-52	W	202,497	285	78,487	4,252	16,875	1,132	2,828	9,844	4,828
Sep-52	W	210,760	185	53,008	0	0	0	0	0	0
Oct-52	BN	290,859	136	53,857	0	0	0	0	0	0
Nov-52	BN	138,896	277	52,268	0	0	0	0	0	0
Dec-52	BN	157,748	311	66,589	0	0	0	0	0	0
Jan-53	BN	265,415	201	72,672	1,617	7,293	0	0	0	0
Feb-53	BN	318,621	290	125,705	3,559	15,530	604	1,598	1,044	876
Mar-53	BN	230,419	402	126,022	3,811	19,626	756	1,938	2,249	5,213
Apr-53	BN	256,947	197	68,746	2,887	15,722	1,203	2,770	2,398	3,380
May-53	BN	258,165	274	96,062	2,976	14,941	1,216	2,459	5,747	5,542
Jun-53	BN	115,104	437	68,383	2,992	14,423	1,224	2,460	8,970	7,116
Jul-53	BN	115,809	408	64,221	3,244	14,128	1,153	2,272	9,783	5,764
Aug-53	BN	122,120	290	48,163	3,061	12,146	1,132	2,828	9,844	4,828
Sep-53	BN	94,421	356	45,737	0	0	0	0	0	0
Oct-53	BN	91,360	293	36,404	0	0	0	0	0	0
Nov-53	BN	96,500	453	59,482	0	0	0	0	0	0
Dec-53	BN	93,834	497	63,337	0	0	0	0	0	0
Jan-54	BN	95,397	498	64,561	1,617	7,293	0	0	0	0
Feb-54	BN	124,394	655	110,786	3,559	15,530	604	1,598	1,044	876
Mar-54	BN	142,721	666	129,243	3,811	19,626	756	1,938	2,249	5,213
Apr-54	BN	204,193	261	72,481	2,887	15,722	1,203	2,770	2,398	3,380
May-54	BN	182,418	182	45,235	2,976	14,941	1,216	2,459	5,747	5,542
Jun-54	BN	104,417	595	84,463	2,992	14,423	1,224	2,460	8,970	7,116
Jul-54	BN	119,559	474	77,093	3,244	14,128	1,153	2,272	9,783	5,764
Aug-54	BN	96,226	322	42,085	3,061	12,146	1,132	2,828	9,844	4,828
Sep-54	BN	85,702	333	38,798	0	0	0	0	0	0
Oct-54	D	92,896	369	46,602	0	0	0	0	0	0
Nov-54	D	84,534	440	50,532	0	0	0	0	0	0
Dec-54	D	84,615	425	48,889	265	1,197	0	0	0	0
Jan-55	D	100,729	465	63,609	132	594	0	0	0	0
Feb-55	D	119,632	711	115,669	3,351	14,624	604	1,598	1,044	876
Mar-55	D	114,828	773	120,734	3,589	18,480	756	1,938	2,249	5,213
Apr-55	D	147,333	390	78,097	2,719	14,804	1,203	2,770	7,091	9,996
May-55	D	143,718	287	56,075	2,802	14,069	1,216	2,459	9,236	8,907
Jun-55	D	81,721	281	31,186	2,818	13,581	1,224	2,460	8,970	7,116
Jul-55	D	105,966	572	82,388	3,055	13,304	1,153	2,272	9,783	5,764
Aug-55	D	62,708	371	31,637	2,882	11,437	1,132	2,828	9,844	4,828
Sep-55	D	69,724	398	37,698	1,440	5,894	0	0	0	0
Oct-55	W	76,166	390	40,342	0	0	0	0	0	0
Nov-55	W	88,821	435	52,503	0	0	0	0	0	0
Dec-55	W	369,353	211	105,900	0	0	0	0	0	0
Jan-56	W	1,088,384	113	167,793	538	2,425	0	0	0	0
Feb-56	W	594,957	195	157,563	691	3,016	0	0	0	0
Mar-56	W	362,903	278	137,205	1,848	9,517	0	0	0	0
Apr-56	W	310,622	181	76,223	1,051	5,725	0	0	0	0
May-56	W	376,331	213	109,027	16	81	0	0	0	0
Jun-56	W	442,795	130	77,956	4,157	20,038	1,224	2,460	8,970	7,116
Jul-56	W	146,176	290	57,631	4,508	19,629	1,153	2,272	9,783	5,764
Aug-56	W	130,432	308	54,668	4,252	16,875	1,132	2,828	9,844	4,828
Sep-56	W	122,306	276	45,875	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	486,196	95,380	144	610			
0	0	0	0	510,994	116,570	168	610			
0	0	0	0	387,795	126,688	240	610			
0	0	0	0	292,268	88,850	224	610			
0	0	0	0	306,368	80,396	193	427			
0	0	0	0	241,342	49,164	150	427			
8,970	8,970	40,634	20,157	53,847	6,149	84	427			
9,783	9,783	44,316	24,006	64,674	18,571	211	427			
9,844	9,844	44,591	23,839	59,250	6,766	84	427			
0	0	0	0	102,444	40,932	294	610			
0	0	0	0	106,550	58,681	405	610			
0	0	0	0	109,025	52,988	358	610			
0	0	0	0	115,668	61,406	391	610			
0	0	0	0	176,805	75,729	315	610			
0	0	0	0	234,932	116,151	364	610			
0	0	0	0	503,596	153,784	225	610			
0	0	0	0	480,593	89,614	137	427			
0	0	0	0	1,009,011	163,927	120	427			
8,970	8,970	40,634	20,157	581,890	66,451	84	427			
9,783	9,783	44,316	24,006	205,852	23,508	84	427			
9,844	9,844	35,982	19,237	147,860	30,058	150	427			
0	0	0	0	210,760	53,008	185	610			
0	0	0	0	290,859	53,857	136	610			
0	0	0	0	138,896	52,268	277	610			
0	0	0	0	157,748	66,589	311	610			
0	0	0	0	263,798	65,379	182	610			
1,044	1,044	0	0	294,871	82,484	206	610			
2,249	2,249	0	0	207,970	77,988	276	610			
2,398	2,398	0	0	250,458	46,874	138	427			
5,747	5,747	0	0	248,226	73,120	217	427			
8,970	8,970	40,634	20,157	59,306	21,538	267	427			
9,783	9,783	44,316	24,006	54,017	13,570	185	427			
9,844	9,844	44,591	23,839	60,065	6,859	84	427			
0	0	0	0	94,421	45,737	356	610			
0	0	0	0	91,360	36,404	293	610			
0	0	0	0	96,500	59,482	453	610			
0	0	0	0	93,834	63,337	497	610			
0	0	0	0	93,780	57,268	449	610			
1,044	1,044	0	0	100,644	67,566	494	610			
2,249	2,249	0	0	120,272	81,208	497	610			
2,398	2,398	0	0	197,704	50,609	188	427			
5,747	5,747	0	0	172,479	22,292	95	427			
8,970	8,970	40,634	20,157	48,619	37,618	569	427	1		1
9,783	9,783	44,316	24,006	57,767	26,442	337	427			
9,844	9,844	44,591	23,839	34,171	3,902	84	427			
0	0	0	0	85,702	38,798	333	610			
0	0	0	0	92,896	46,602	369	610			
0	0	0	0	84,534	50,532	440	610			
0	0	0	0	84,350	47,692	416	610			
0	0	0	0	100,597	63,015	461	610			
1,044	1,044	0	0	108,179	89,796	611	610	1	1	
2,249	2,249	0	0	88,015	67,609	565	610			
7,091	7,091	527	301	125,906	36,782	215	427			
9,236	9,236	16,883	8,083	111,471	19,690	130	427			
8,970	8,970	40,634	20,157	26,098	2,980	84	427			
9,783	9,783	44,316	24,006	44,364	32,562	540	427	1		1
9,844	9,844	44,591	23,839	832	95	84	427			
0	0	0	0	68,284	31,804	343	610			
0	0	0	0	76,166	40,342	390	610			
0	0	0	0	88,821	52,503	435	610			
0	0	0	0	369,353	105,900	211	610			
0	0	0	0	1,087,846	167,793	113	610			
0	0	0	0	594,266	157,563	195	610			
0	0	0	0	361,055	137,205	280	610			
0	0	0	0	309,571	70,499	168	427			
0	0	0	0	376,315	109,027	213	427			
8,970	8,970	40,634	20,157	385,832	44,061	84	427			
9,783	9,783	44,316	24,006	83,121	9,492	84	427			
9,844	9,844	35,982	19,237	75,795	8,656	84	427			
0	0	0	0	122,306	45,875	276	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-56	BN	287,309	122	47,457	0	0	0	0	0	0
Nov-56	BN	105,481	400	57,289	0	0	0	0	0	0
Dec-56	BN	102,226	320	44,486	0	0	0	0	0	0
Jan-57	BN	117,728	462	73,976	1,617	7,293	0	0	0	0
Feb-57	BN	178,034	455	110,054	3,559	15,530	604	1,598	1,044	876
Mar-57	BN	198,450	403	108,726	3,811	19,626	756	1,938	2,249	5,213
Apr-57	BN	272,715	273	101,328	2,887	15,722	1,203	2,770	2,398	3,380
May-57	BN	228,676	138	42,871	2,976	14,941	1,216	2,459	5,747	5,542
Jun-57	BN	100,973	339	46,522	2,992	14,423	1,224	2,460	8,970	7,116
Jul-57	BN	125,749	342	58,501	3,244	14,128	1,153	2,272	9,783	5,764
Aug-57	BN	117,549	275	43,979	3,061	12,146	1,132	2,828	9,844	4,828
Sep-57	BN	88,419	300	36,110	0	0	0	0	0	0
Oct-57	W	100,284	331	45,168	0	0	0	0	0	0
Nov-57	W	97,870	356	47,341	0	0	0	0	0	0
Dec-57	W	92,178	383	48,046	0	0	0	0	0	0
Jan-58	W	107,296	485	70,790	538	2,425	0	0	0	0
Feb-58	W	147,153	563	112,631	691	3,016	0	0	0	0
Mar-58	W	446,391	234	141,825	1,848	9,517	0	0	0	0
Apr-58	W	537,498	118	85,861	1,051	5,725	0	0	0	0
May-58	W	649,196	125	110,588	16	81	0	0	0	0
Jun-58	W	619,292	140	117,449	4,157	20,038	1,224	2,460	8,970	7,116
Jul-58	W	107,828	257	37,689	4,508	19,629	1,153	2,272	9,783	5,764
Aug-58	W	136,661	437	81,265	4,252	16,875	1,132	2,828	9,844	4,828
Sep-58	W	119,452	227	36,782	0	0	0	0	0	0
Oct-58	D	295,512	137	55,200	0	0	0	0	0	0
Nov-58	D	144,171	266	52,136	0	0	0	0	0	0
Dec-58	D	102,805	334	46,667	265	1,197	0	0	0	0
Jan-59	D	140,010	358	68,086	132	594	0	0	0	0
Feb-59	D	250,145	319	108,449	3,351	14,624	604	1,598	1,044	876
Mar-59	D	221,534	375	113,001	3,589	18,480	756	1,938	2,249	5,213
Apr-59	D	183,532	222	55,267	2,719	14,804	1,203	2,770	7,091	9,996
May-59	D	200,539	280	76,337	2,802	14,069	1,216	2,459	9,236	8,907
Jun-59	D	77,970	319	33,846	2,818	13,581	1,224	2,460	8,970	7,116
Jul-59	D	104,703	559	79,584	3,055	13,304	1,153	2,272	9,783	5,764
Aug-59	D	117,681	337	53,836	2,882	11,437	1,132	2,828	9,844	4,828
Sep-59	D	74,769	343	34,865	1,440	5,894	0	0	0	0
Oct-59	C	80,385	404	44,118	378	1,744	0	0	0	0
Nov-59	C	81,466	529	58,533	341	1,539	0	0	0	0
Dec-59	C	79,852	511	55,419	980	4,426	64	154	0	0
Jan-60	C	86,349	432	50,690	1,313	5,920	275	647	752	1,004
Feb-60	C	116,638	671	106,352	2,659	11,603	604	1,598	1,044	876
Mar-60	C	103,922	702	99,236	2,847	14,662	756	1,938	2,249	5,213
Apr-60	C	126,523	296	50,914	2,157	11,746	1,203	2,770	7,091	9,996
May-60	C	165,930	318	71,645	2,223	11,162	1,216	2,459	9,236	8,907
Jun-60	C	78,617	413	44,152	2,236	10,775	1,224	2,460	8,970	7,116
Jul-60	C	109,737	596	88,871	2,424	10,555	1,153	2,272	9,783	5,764
Aug-60	C	92,150	446	55,899	2,287	9,074	1,132	2,828	9,844	4,828
Sep-60	C	66,734	514	46,614	1,298	5,310	1,051	2,609	4,330	2,828
Oct-60	C	66,056	379	34,062	378	1,744	0	0	0	0
Nov-60	C	74,648	541	54,943	341	1,539	0	0	0	0
Dec-60	C	75,844	499	51,411	980	4,426	64	154	0	0
Jan-61	C	81,499	656	72,706	1,313	5,920	275	647	752	1,004
Feb-61	C	106,456	745	107,793	2,659	11,603	604	1,598	1,044	876
Mar-61	C	108,918	737	109,190	2,847	14,662	756	1,938	2,249	5,213
Apr-61	C	85,246	297	34,443	2,157	11,746	1,203	2,770	7,091	9,996
May-61	C	92,621	324	40,747	2,223	11,162	1,216	2,459	9,236	8,907
Jun-61	C	87,542	581	69,159	2,236	10,775	1,224	2,460	8,970	7,116
Jul-61	C	92,368	427	53,645	2,424	10,555	1,153	2,272	9,783	5,764
Aug-61	C	71,457	361	35,031	2,287	9,074	1,132	2,828	9,844	4,828
Sep-61	C	58,056	443	34,957	1,298	5,310	1,051	2,609	4,330	2,828
Oct-61	BN	70,934	453	43,646	0	0	0	0	0	0
Nov-61	BN	76,629	411	42,858	0	0	0	0	0	0
Dec-61	BN	77,839	574	60,763	0	0	0	0	0	0
Jan-62	BN	81,157	751	82,838	1,617	7,293	0	0	0	0
Feb-62	BN	194,148	455	119,989	3,559	15,530	604	1,598	1,044	876
Mar-62	BN	121,776	625	103,538	3,811	19,626	756	1,938	2,249	5,213
Apr-62	BN	161,859	262	57,630	2,887	15,722	1,203	2,770	2,398	3,380
May-62	BN	204,762	237	66,002	2,976	14,941	1,216	2,459	5,747	5,542
Jun-62	BN	88,644	353	42,565	2,992	14,423	1,224	2,460	8,970	7,116
Jul-62	BN	81,085	374	41,184	3,244	14,128	1,153	2,272	9,783	5,764

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	287,309	47,457	122	610			
0	0	0	0	105,481	57,289	400	610			
0	0	0	0	102,226	44,486	320	610			
0	0	0	0	116,111	66,683	422	610			
1,044	1,044	0	0	154,284	66,834	319	610			
2,249	2,249	0	0	176,001	60,692	254	610			
2,398	2,398	0	0	266,226	79,456	220	427			
5,747	5,747	0	0	218,737	24,979	84	427			
8,970	8,970	40,634	20,157	45,175	5,159	84	427			
9,783	9,783	44,316	24,006	63,957	7,850	90	427			
9,844	9,844	44,591	23,839	55,494	6,337	84	427			
0	0	0	0	88,419	36,110	300	610			
0	0	0	0	100,284	45,168	331	610			
0	0	0	0	97,870	47,341	356	610			
0	0	0	0	92,178	48,046	383	610			
0	0	0	0	106,758	70,790	488	610			
0	0	0	0	146,462	112,631	566	610			
0	0	0	0	444,543	141,825	235	610			
0	0	0	0	536,447	80,136	110	427			
0	0	0	0	649,180	110,588	125	427			
8,970	8,970	40,634	20,157	562,329	64,988	85	427			
9,783	9,783	44,316	24,006	44,773	5,113	84	427			
9,844	9,844	35,982	19,237	82,024	32,836	294	427			
0	0	0	0	119,452	36,782	227	610			
0	0	0	0	295,512	55,200	137	610			
0	0	0	0	144,171	52,136	266	610			
0	0	0	0	102,540	45,470	326	610			
0	0	0	0	139,878	67,491	355	610			
1,044	1,044	0	0	238,692	82,575	254	610			
2,249	2,249	0	0	194,721	59,876	226	610			
7,091	7,091	527	301	162,105	18,512	84	427			
9,236	9,236	16,883	8,083	168,292	39,951	175	427			
8,970	8,970	40,634	20,157	22,347	2,552	84	427			
9,783	9,783	44,316	24,006	43,101	29,758	508	427	1		1
9,844	9,844	44,591	23,839	55,805	6,373	84	427			
0	0	0	0	73,329	28,971	291	610			
0	0	0	0	80,007	44,118	406	610			
0	0	0	0	81,125	58,533	531	610			
0	0	0	0	78,808	50,839	475	610			
752	752	0	0	82,770	41,432	368	610			
1,044	1,044	0	0	87,951	59,123	494	610			
2,249	2,249	0	0	67,845	36,323	394	610			
7,091	7,091	32,121	18,309	74,064	8,458	84	427			
9,236	9,236	41,839	20,029	109,306	26,219	176	427			
8,970	8,970	40,634	20,157	23,576	2,692	84	427			
9,783	9,783	44,316	24,006	48,766	41,793	630	427	1		1
9,844	9,844	44,591	23,839	30,870	10,669	254	427			
4,330	4,330	0	0	60,055	35,867	439	610			
0	0	0	0	65,678	34,062	381	610			
0	0	0	0	74,307	54,943	544	610			
0	0	0	0	74,800	46,831	461	610			
752	752	0	0	77,920	63,448	599	610			
1,044	1,044	0	0	77,769	60,563	573	610			
2,249	2,249	0	0	72,841	46,276	467	610			
7,091	7,091	32,121	18,309	32,787	3,744	84	427			
9,236	9,236	41,839	20,029	35,997	4,111	84	427			
8,970	8,970	40,634	20,157	32,501	25,961	588	427	1		1
9,783	9,783	44,316	24,006	31,397	6,568	154	427			
9,844	9,844	44,591	23,839	10,177	1,162	84	427			
4,330	4,330	0	0	51,377	24,209	347	610			
0	0	0	0	70,934	43,646	453	610			
0	0	0	0	76,629	42,858	411	610			
0	0	0	0	77,839	60,763	574	610			
0	0	0	0	79,540	75,545	699	610	1	1	
1,044	1,044	0	0	170,398	76,768	331	610			
2,249	2,249	0	0	99,327	55,503	411	610			
2,398	2,398	0	0	155,370	35,758	169	427			
5,747	5,747	0	0	194,823	43,060	163	427			
8,970	8,970	40,634	20,157	32,846	3,751	84	427			
9,783	9,783	44,316	24,006	19,293	2,203	84	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Aug-62	BN	86,580	306	36,030	3,061	12,146	1,132	2,828	9,844	4,828
Sep-62	BN	87,557	331	39,353	0	0	0	0	0	0
Oct-62	AN	80,123	433	47,165	0	0	0	0	0	0
Nov-62	AN	90,339	541	66,493	0	0	0	0	0	0
Dec-62	AN	84,154	476	54,458	0	0	0	0	0	0
Jan-63	AN	89,381	562	68,278	0	0	0	0	0	0
Feb-63	AN	153,919	506	105,840	0	0	0	0	0	0
Mar-63	AN	131,329	616	110,053	3,165	16,299	0	0	0	0
Apr-63	AN	226,938	253	78,180	39	212	0	0	0	0
May-63	AN	228,428	185	57,358	181	910	0	0	0	0
Jun-63	AN	94,186	406	51,987	3,167	15,265	1,224	2,460	8,970	7,116
Jul-63	AN	109,086	447	66,217	3,434	14,953	1,153	2,272	9,783	5,764
Aug-63	AN	104,583	316	44,901	3,239	12,855	1,132	2,828	9,844	4,828
Sep-63	AN	91,235	268	33,266	0	0	0	0	0	0
Oct-63	D	122,105	317	52,556	0	0	0	0	0	0
Nov-63	D	119,254	408	66,099	0	0	0	0	0	0
Dec-63	D	108,667	487	71,946	265	1,197	0	0	0	0
Jan-64	D	115,766	397	62,466	132	594	0	0	0	0
Feb-64	D	131,473	620	110,764	3,351	14,624	604	1,598	1,044	876
Mar-64	D	120,599	661	108,341	3,589	18,480	756	1,938	2,249	5,213
Apr-64	D	150,202	374	76,411	2,719	14,804	1,203	2,770	7,091	9,996
May-64	D	149,508	326	66,221	2,802	14,069	1,216	2,459	9,236	8,907
Jun-64	D	97,384	464	61,417	2,818	13,581	1,224	2,460	8,970	7,116
Jul-64	D	99,342	443	59,789	3,055	13,304	1,153	2,272	9,783	5,764
Aug-64	D	77,352	448	47,101	2,882	11,437	1,132	2,828	9,844	4,828
Sep-64	D	59,799	355	28,893	1,440	5,894	0	0	0	0
Oct-64	W	80,398	493	53,875	0	0	0	0	0	0
Nov-64	W	79,993	346	37,660	0	0	0	0	0	0
Dec-64	W	151,838	302	62,299	0	0	0	0	0	0
Jan-65	W	481,901	149	97,551	538	2,425	0	0	0	0
Feb-65	W	367,982	228	113,862	691	3,016	0	0	0	0
Mar-65	W	259,260	350	123,327	1,848	9,517	0	0	0	0
Apr-65	W	317,393	207	89,363	1,051	5,725	0	0	0	0
May-65	W	285,308	188	72,727	16	81	0	0	0	0
Jun-65	W	112,700	298	45,658	4,157	20,038	1,224	2,460	8,970	7,116
Jul-65	W	121,093	268	44,087	4,508	19,629	1,153	2,272	9,783	5,764
Aug-65	W	119,885	370	60,239	4,252	16,875	1,132	2,828	9,844	4,828
Sep-65	W	111,040	342	51,568	0	0	0	0	0	0
Oct-65	BN	257,963	202	70,912	0	0	0	0	0	0
Nov-65	BN	197,345	203	54,463	0	0	0	0	0	0
Dec-65	BN	256,544	171	59,779	0	0	0	0	0	0
Jan-66	BN	272,822	238	88,163	1,617	7,293	0	0	0	0
Feb-66	BN	302,979	280	115,250	3,559	15,530	604	1,598	1,044	876
Mar-66	BN	215,369	403	117,937	3,811	19,626	756	1,938	2,249	5,213
Apr-66	BN	218,323	198	58,828	2,887	15,722	1,203	2,770	2,398	3,380
May-66	BN	186,000	277	69,968	2,976	14,941	1,216	2,459	5,747	5,542
Jun-66	BN	98,585	443	59,307	2,992	14,423	1,224	2,460	8,970	7,116
Jul-66	BN	115,935	344	54,156	3,244	14,128	1,153	2,272	9,783	5,764
Aug-66	BN	128,698	367	64,265	3,061	12,146	1,132	2,828	9,844	4,828
Sep-66	BN	84,757	338	38,970	0	0	0	0	0	0
Oct-66	W	89,647	423	51,541	0	0	0	0	0	0
Nov-66	W	88,298	405	48,581	0	0	0	0	0	0
Dec-66	W	103,243	404	56,691	0	0	0	0	0	0
Jan-67	W	113,643	468	72,305	538	2,425	0	0	0	0
Feb-67	W	157,104	494	105,489	691	3,016	0	0	0	0
Mar-67	W	281,390	322	123,104	1,848	9,517	0	0	0	0
Apr-67	W	555,049	166	125,564	1,051	5,725	0	0	0	0
May-67	W	905,056	143	176,197	16	81	0	0	0	0
Jun-67	W	803,916	141	153,556	4,157	20,038	1,224	2,460	8,970	7,116
Jul-67	W	575,146	153	119,945	4,508	19,629	1,153	2,272	9,783	5,764
Aug-67	W	117,370	399	63,586	4,252	16,875	1,132	2,828	9,844	4,828
Sep-67	W	179,079	196	47,742	0	0	0	0	0	0
Oct-67	D	302,229	162	66,604	0	0	0	0	0	0
Nov-67	D	118,550	335	53,959	0	0	0	0	0	0
Dec-67	D	107,536	386	56,431	265	1,197	0	0	0	0
Jan-68	D	115,909	497	78,253	132	594	0	0	0	0
Feb-68	D	210,721	400	114,447	3,351	14,624	604	1,598	1,044	876
Mar-68	D	189,665	499	128,744	3,589	18,480	756	1,938	2,249	5,213
Apr-68	D	221,352	182	54,769	2,719	14,804	1,203	2,770	7,091	9,996
May-68	D	171,889	190	44,330	2,802	14,069	1,216	2,459	9,236	8,907

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
9,844	9,844	44,591	23,839	24,525	2,801	84	427			
0	0	0	0	87,557	39,353	331	610			
0	0	0	0	80,123	47,165	433	610			
0	0	0	0	90,339	66,493	541	610			
0	0	0	0	84,154	54,458	476	610			
0	0	0	0	89,381	68,278	562	610			
0	0	0	0	153,919	105,840	506	610			
0	0	0	0	128,164	93,754	538	610			
0	0	0	0	226,899	78,180	253	427			
0	0	0	0	228,247	56,449	182	427			
8,970	8,970	40,634	20,157	38,213	4,364	84	427			
9,783	9,783	44,316	24,006	47,105	14,742	230	427			
9,844	9,844	44,591	23,839	42,350	4,836	84	427			
0	0	0	0	91,235	33,266	268	610			
0	0	0	0	122,105	52,556	317	610			
0	0	0	0	119,254	66,099	408	610			
0	0	0	0	108,402	70,749	480	610			
0	0	0	0	115,634	61,871	394	610			
1,044	1,044	0	0	120,020	84,890	520	610			
2,249	2,249	0	0	93,786	55,216	433	610			
7,091	7,091	527	301	128,775	35,097	200	427			
9,236	9,236	16,883	8,083	117,261	29,835	187	427			
8,970	8,970	40,634	20,157	41,761	15,414	271	427			
9,783	9,783	44,316	24,006	37,740	9,963	194	427			
9,844	9,844	44,591	23,839	15,476	1,767	84	427			
0	0	0	0	58,359	22,999	290	610			
0	0	0	0	80,398	53,875	493	610			
0	0	0	0	79,993	37,660	346	610			
0	0	0	0	151,838	62,299	302	610			
0	0	0	0	481,363	97,551	149	610			
0	0	0	0	367,291	113,862	228	610			
0	0	0	0	257,412	123,327	352	610			
0	0	0	0	316,342	83,638	194	427			
0	0	0	0	285,292	72,727	188	427			
8,970	8,970	40,634	20,157	55,737	6,365	84	427			
9,783	9,783	44,316	24,006	58,038	6,628	84	427			
9,844	9,844	35,982	19,237	65,248	11,810	133	427			
0	0	0	0	111,040	51,568	342	610			
0	0	0	0	257,963	70,912	202	610			
0	0	0	0	197,345	54,463	203	610			
0	0	0	0	256,544	59,779	171	610			
0	0	0	0	271,205	80,870	219	610			
1,044	1,044	0	0	279,229	72,029	190	610			
2,249	2,249	0	0	192,920	69,903	267	610			
2,398	2,398	0	0	211,834	36,956	128	427			
5,747	5,747	0	0	176,061	47,026	196	427			
8,970	8,970	40,634	20,157	42,787	12,461	214	427			
9,783	9,783	44,316	24,006	54,143	6,183	84	427			
9,844	9,844	44,591	23,839	66,643	15,963	176	427			
0	0	0	0	84,757	38,970	338	610			
0	0	0	0	89,647	51,541	423	610			
0	0	0	0	88,298	48,581	405	610			
0	0	0	0	103,243	56,691	404	610			
0	0	0	0	113,105	72,305	470	610			
0	0	0	0	156,413	105,489	496	610			
0	0	0	0	279,542	123,104	324	610			
0	0	0	0	553,998	119,839	159	427			
0	0	0	0	905,040	176,197	143	427			
8,970	8,970	40,634	20,157	746,953	101,095	100	427			
9,783	9,783	44,316	24,006	512,091	63,794	92	427			
9,844	9,844	35,982	19,237	62,733	15,158	178	427			
0	0	0	0	179,079	47,742	196	610			
0	0	0	0	302,229	66,604	162	610			
0	0	0	0	118,550	53,959	335	610			
0	0	0	0	107,271	55,234	379	610			
0	0	0	0	115,777	77,659	493	610			
1,044	1,044	0	0	199,268	88,573	327	610			
2,249	2,249	0	0	162,852	75,619	342	610			
7,091	7,091	527	301	199,925	22,831	84	427			
9,236	9,236	16,883	8,083	139,642	15,947	84	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Jun-68	D	95,220	324	41,994	2,818	13,581	1,224	2,460	8,970	7,116
Jul-68	D	93,828	342	43,587	3,055	13,304	1,153	2,272	9,783	5,764
Aug-68	D	89,496	419	50,943	2,882	11,437	1,132	2,828	9,844	4,828
Sep-68	D	73,150	541	53,781	1,440	5,894	0	0	0	0
Oct-68	W	84,959	471	54,344	0	0	0	0	0	0
Nov-68	W	86,332	382	44,823	0	0	0	0	0	0
Dec-68	W	92,419	460	57,809	0	0	0	0	0	0
Jan-69	W	605,803	155	127,821	538	2,425	0	0	0	0
Feb-69	W	1,484,150	121	244,747	691	3,016	0	0	0	0
Mar-69	W	972,482	165	218,145	1,848	9,517	0	0	0	0
Apr-69	W	1,129,551	126	193,796	1,051	5,725	0	0	0	0
May-69	W	1,685,679	95	217,710	16	81	0	0	0	0
Jun-69	W	1,153,940	94	146,838	4,157	20,038	1,224	2,460	8,970	7,116
Jul-69	W	364,061	245	121,409	4,508	19,629	1,153	2,272	9,783	5,764
Aug-69	W	179,067	200	48,615	4,252	16,875	1,132	2,828	9,844	4,828
Sep-69	W	205,559	198	55,333	0	0	0	0	0	0
Oct-69	AN	320,808	146	63,720	0	0	0	0	0	0
Nov-69	AN	174,286	236	55,918	0	0	0	0	0	0
Dec-69	AN	200,184	223	60,635	0	0	0	0	0	0
Jan-70	AN	1,053,767	98	140,538	0	0	0	0	0	0
Feb-70	AN	525,783	209	149,608	0	0	0	0	0	0
Mar-70	AN	363,701	257	127,222	3,165	16,299	0	0	0	0
Apr-70	AN	299,608	182	74,050	39	212	0	0	0	0
May-70	AN	287,228	177	69,155	181	910	0	0	0	0
Jun-70	AN	125,558	401	68,364	3,167	15,265	1,224	2,460	8,970	7,116
Jul-70	AN	112,191	506	77,192	3,434	14,953	1,153	2,272	9,783	5,764
Aug-70	AN	128,996	305	53,488	3,239	12,855	1,132	2,828	9,844	4,828
Sep-70	AN	100,723	355	48,611	0	0	0	0	0	0
Oct-70	BN	100,506	310	42,317	0	0	0	0	0	0
Nov-70	BN	100,418	357	48,737	0	0	0	0	0	0
Dec-70	BN	101,346	346	47,658	0	0	0	0	0	0
Jan-71	BN	101,720	446	61,663	1,617	7,293	0	0	0	0
Feb-71	BN	130,481	625	110,921	3,559	15,530	604	1,598	1,044	876
Mar-71	BN	217,265	365	107,663	3,811	19,626	756	1,938	2,249	5,213
Apr-71	BN	248,580	182	61,573	2,887	15,722	1,203	2,770	2,398	3,380
May-71	BN	262,805	312	111,615	2,976	14,941	1,216	2,459	5,747	5,542
Jun-71	BN	104,716	430	61,215	2,992	14,423	1,224	2,460	8,970	7,116
Jul-71	BN	119,356	464	75,258	3,244	14,128	1,153	2,272	9,783	5,764
Aug-71	BN	93,651	278	35,356	3,061	12,146	1,132	2,828	9,844	4,828
Sep-71	BN	94,156	406	51,906	0	0	0	0	0	0
Oct-71	D	98,615	409	54,847	0	0	0	0	0	0
Nov-71	D	83,213	383	43,328	0	0	0	0	0	0
Dec-71	D	87,491	436	51,848	265	1,197	0	0	0	0
Jan-72	D	99,602	600	81,232	132	594	0	0	0	0
Feb-72	D	123,895	601	101,263	3,351	14,624	604	1,598	1,044	876
Mar-72	D	113,035	612	94,077	3,589	18,480	756	1,938	2,249	5,213
Apr-72	D	163,160	297	65,791	2,719	14,804	1,203	2,770	7,091	9,996
May-72	D	134,352	223	40,713	2,802	14,069	1,216	2,459	9,236	8,907
Jun-72	D	84,941	213	24,550	2,818	13,581	1,224	2,460	8,970	7,116
Jul-72	D	103,599	500	70,464	3,055	13,304	1,153	2,272	9,783	5,764
Aug-72	D	107,094	370	53,928	2,882	11,437	1,132	2,828	9,844	4,828
Sep-72	D	63,514	520	44,918	1,440	5,894	0	0	0	0
Oct-72	AN	76,422	417	43,304	0	0	0	0	0	0
Nov-72	AN	80,191	436	47,489	0	0	0	0	0	0
Dec-72	AN	78,131	357	37,910	0	0	0	0	0	0
Jan-73	AN	90,872	493	60,930	0	0	0	0	0	0
Feb-73	AN	206,407	379	106,267	0	0	0	0	0	0
Mar-73	AN	365,922	261	129,989	3,165	16,299	0	0	0	0
Apr-73	AN	195,993	158	42,126	39	212	0	0	0	0
May-73	AN	307,514	216	90,093	181	910	0	0	0	0
Jun-73	AN	131,057	486	86,574	3,167	15,265	1,224	2,460	8,970	7,116
Jul-73	AN	127,760	465	80,696	3,434	14,953	1,153	2,272	9,783	5,764
Aug-73	AN	131,596	310	55,425	3,239	12,855	1,132	2,828	9,844	4,828
Sep-73	AN	98,439	317	42,357	0	0	0	0	0	0
Oct-73	W	192,551	210	54,946	0	0	0	0	0	0
Nov-73	W	150,049	224	45,674	0	0	0	0	0	0
Dec-73	W	159,394	230	49,732	0	0	0	0	0	0
Jan-74	W	421,318	161	92,218	538	2,425	0	0	0	0
Feb-74	W	304,775	299	124,012	691	3,016	0	0	0	0
Mar-74	W	379,625	281	145,024	1,848	9,517	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
8,970	8,970	40,634	20,157	39,597	4,522	84	427			
9,783	9,783	44,316	24,006	32,226	3,680	84	427			
9,844	9,844	44,591	23,839	27,620	3,350	89	427			
0	0	0	0	71,710	47,887	491	610			
0	0	0	0	84,959	54,344	471	610			
0	0	0	0	86,332	44,823	382	610			
0	0	0	0	92,419	57,809	460	610			
0	0	0	0	605,265	127,821	155	610			
0	0	0	0	1,483,459	244,747	121	610			
0	0	0	0	970,634	218,145	165	610			
0	0	0	0	1,128,500	188,071	123	427			
0	0	0	0	1,685,663	217,710	95	427			
8,970	8,970	40,634	20,157	1,096,977	125,273	84	427			
9,783	9,783	44,316	24,006	301,006	65,258	159	427			
9,844	9,844	35,982	19,237	124,430	14,210	84	427			
0	0	0	0	205,559	55,333	198	610			
0	0	0	0	320,808	63,720	146	610			
0	0	0	0	174,286	55,918	236	610			
0	0	0	0	200,184	60,635	223	610			
0	0	0	0	1,053,767	140,538	98	610			
0	0	0	0	525,783	149,608	209	610			
0	0	0	0	360,536	110,923	226	610			
0	0	0	0	299,569	74,050	182	427			
0	0	0	0	287,047	68,246	175	427			
8,970	8,970	40,634	20,157	69,585	20,676	219	427			
9,783	9,783	44,316	24,006	50,210	25,717	377	427			
9,844	9,844	44,591	23,839	66,763	7,624	84	427			
0	0	0	0	100,723	48,611	355	610			
0	0	0	0	100,506	42,317	310	610			
0	0	0	0	100,418	48,737	357	610			
0	0	0	0	101,346	47,658	346	610			
0	0	0	0	100,103	54,370	400	610			
1,044	1,044	0	0	106,731	67,701	467	610			
2,249	2,249	0	0	194,816	59,628	225	610			
2,398	2,398	0	0	242,091	39,701	121	427			
5,747	5,747	0	0	252,866	88,673	258	427			
8,970	8,970	40,634	20,157	48,918	14,370	216	427			
9,783	9,783	44,316	24,006	57,564	24,608	314	427			
9,844	9,844	44,591	23,839	31,596	3,608	84	427			
0	0	0	0	94,156	51,906	406	610			
0	0	0	0	98,615	54,847	409	610			
0	0	0	0	83,213	43,328	383	610			
0	0	0	0	87,226	50,651	427	610			
0	0	0	0	99,470	80,637	596	610			
1,044	1,044	0	0	112,442	75,389	493	610			
2,249	2,249	0	0	86,222	40,952	349	610			
7,091	7,091	527	301	141,733	24,476	127	427			
9,236	9,236	16,883	8,083	102,105	11,660	84	427			
8,970	8,970	40,634	20,157	29,318	3,348	84	427			
9,783	9,783	44,316	24,006	41,997	20,638	361	427			
9,844	9,844	44,591	23,839	45,218	6,335	103	427			
0	0	0	0	62,074	39,024	462	610			
0	0	0	0	76,422	43,304	417	610			
0	0	0	0	80,191	47,489	436	610			
0	0	0	0	78,131	37,910	357	610			
0	0	0	0	90,872	60,930	493	610			
0	0	0	0	206,407	106,267	379	610			
0	0	0	0	362,757	113,690	231	610			
0	0	0	0	195,954	42,126	158	427			
0	0	0	0	307,333	89,184	213	427			
8,970	8,970	40,634	20,157	75,084	38,886	381	427			
9,783	9,783	44,316	24,006	65,779	29,221	327	427			
9,844	9,844	44,591	23,839	69,363	7,921	84	427			
0	0	0	0	98,439	42,357	317	610			
0	0	0	0	192,551	54,946	210	610			
0	0	0	0	150,049	45,674	224	610			
0	0	0	0	159,394	49,732	230	610			
0	0	0	0	420,780	92,218	161	610			
0	0	0	0	304,084	124,012	300	610			
0	0	0	0	377,777	145,024	282	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Apr-74	W	305,514	160	66,414	1,051	5,725	0	0	0	0
May-74	W	306,131	193	80,449	16	81	0	0	0	0
Jun-74	W	181,452	419	103,237	4,157	20,038	1,224	2,460	8,970	7,116
Jul-74	W	120,163	313	51,181	4,508	19,629	1,153	2,272	9,783	5,764
Aug-74	W	111,433	348	52,644	4,252	16,875	1,132	2,828	9,844	4,828
Sep-74	W	102,464	300	41,748	0	0	0	0	0	0
Oct-74	W	202,721	196	53,880	0	0	0	0	0	0
Nov-74	W	107,252	352	51,296	0	0	0	0	0	0
Dec-74	W	113,632	321	49,558	0	0	0	0	0	0
Jan-75	W	131,508	358	64,041	538	2,425	0	0	0	0
Feb-75	W	261,268	303	107,659	691	3,016	0	0	0	0
Mar-75	W	404,837	254	139,795	1,848	9,517	0	0	0	0
Apr-75	W	261,628	201	71,492	1,051	5,725	0	0	0	0
May-75	W	287,549	175	68,451	16	81	0	0	0	0
Jun-75	W	329,262	123	55,103	4,157	20,038	1,224	2,460	8,970	7,116
Jul-75	W	106,150	304	43,813	4,508	19,629	1,153	2,272	9,783	5,764
Aug-75	W	121,406	325	53,625	4,252	16,875	1,132	2,828	9,844	4,828
Sep-75	W	101,758	290	40,091	0	0	0	0	0	0
Oct-75	C	244,422	165	54,961	378	1,744	0	0	0	0
Nov-75	C	118,182	415	66,645	341	1,539	0	0	0	0
Dec-75	C	109,676	440	65,621	980	4,426	64	154	0	0
Jan-76	C	101,932	460	63,745	1,313	5,920	275	647	752	1,004
Feb-76	C	141,242	494	94,800	2,659	11,603	604	1,598	1,044	876
Mar-76	C	116,701	568	90,053	2,847	14,662	756	1,938	2,249	5,213
Apr-76	C	142,979	264	51,355	2,157	11,746	1,203	2,770	7,091	9,996
May-76	C	180,673	322	79,165	2,223	11,162	1,216	2,459	9,236	8,907
Jun-76	C	68,792	306	28,618	2,236	10,775	1,224	2,460	8,970	7,116
Jul-76	C	111,392	556	84,123	2,424	10,555	1,153	2,272	9,783	5,764
Aug-76	C	89,406	370	44,924	2,287	9,074	1,132	2,828	9,844	4,828
Sep-76	C	61,133	292	24,260	1,298	5,310	1,051	2,609	4,330	2,828
Oct-76	C	92,809	413	52,110	378	1,744	0	0	0	0
Nov-76	C	75,450	486	49,810	341	1,539	0	0	0	0
Dec-76	C	82,015	574	64,012	980	4,426	64	154	0	0
Jan-77	C	93,225	602	76,234	1,313	5,920	275	647	752	1,004
Feb-77	C	114,754	723	112,778	2,659	11,603	604	1,598	1,044	876
Mar-77	C	101,639	796	110,004	2,847	14,662	756	1,938	2,249	5,213
Apr-77	C	115,812	386	60,822	2,157	11,746	1,203	2,770	7,091	9,996
May-77	C	102,077	271	37,580	2,223	11,162	1,216	2,459	9,236	8,907
Jun-77	C	79,774	388	42,080	2,236	10,775	1,224	2,460	8,970	7,116
Jul-77	C	91,415	569	70,665	2,424	10,555	1,153	2,272	9,783	5,764
Aug-77	C	66,563	395	35,763	2,287	9,074	1,132	2,828	9,844	4,828
Sep-77	C	57,785	398	31,266	1,298	5,310	1,051	2,609	4,330	2,828
Oct-77	W	73,957	409	41,153	0	0	0	0	0	0
Nov-77	W	78,551	473	50,458	0	0	0	0	0	0
Dec-77	W	85,504	441	51,286	0	0	0	0	0	0
Jan-78	W	114,847	426	66,560	538	2,425	0	0	0	0
Feb-78	W	211,277	523	150,193	691	3,016	0	0	0	0
Mar-78	W	517,451	260	183,114	1,848	9,517	0	0	0	0
Apr-78	W	682,956	167	154,963	1,051	5,725	0	0	0	0
May-78	W	576,161	170	132,846	16	81	0	0	0	0
Jun-78	W	336,882	182	83,492	4,157	20,038	1,224	2,460	8,970	7,116
Jul-78	W	199,173	385	104,140	4,508	19,629	1,153	2,272	9,783	5,764
Aug-78	W	104,233	259	36,645	4,252	16,875	1,132	2,828	9,844	4,828
Sep-78	W	168,352	184	42,113	0	0	0	0	0	0
Oct-78	AN	261,176	167	59,225	0	0	0	0	0	0
Nov-78	AN	124,464	357	60,475	0	0	0	0	0	0
Dec-78	AN	101,179	408	56,122	0	0	0	0	0	0
Jan-79	AN	220,581	284	85,046	0	0	0	0	0	0
Feb-79	AN	460,568	211	132,179	0	0	0	0	0	0
Mar-79	AN	397,458	219	118,065	3,165	16,299	0	0	0	0
Apr-79	AN	217,587	211	62,268	39	212	0	0	0	0
May-79	AN	286,788	215	83,631	181	910	0	0	0	0
Jun-79	AN	106,670	342	49,596	3,167	15,265	1,224	2,460	8,970	7,116
Jul-79	AN	139,432	441	83,576	3,434	14,953	1,153	2,272	9,783	5,764
Aug-79	AN	109,467	311	46,328	3,239	12,855	1,132	2,828	9,844	4,828
Sep-79	AN	95,587	367	47,692	0	0	0	0	0	0
Oct-79	W	133,297	221	40,049	0	0	0	0	0	0
Nov-79	W	105,597	309	44,331	0	0	0	0	0	0
Dec-79	W	112,725	329	50,465	0	0	0	0	0	0
Jan-80	W	740,704	119	119,630	538	2,425	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	304,463	60,689	147	427			
0	0	0	0	306,115	80,449	193	427			
8,970	8,970	40,634	20,157	124,489	50,776	300	427			
9,783	9,783	44,316	24,006	57,108	6,522	84	427			
9,844	9,844	35,982	19,237	56,796	6,486	84	427			
0	0	0	0	102,464	41,748	300	610			
0	0	0	0	202,721	53,880	196	610			
0	0	0	0	107,252	51,296	352	610			
0	0	0	0	113,632	49,558	321	610			
0	0	0	0	130,970	64,041	360	610			
0	0	0	0	260,577	107,659	304	610			
0	0	0	0	402,989	139,795	255	610			
0	0	0	0	260,577	65,768	186	427			
0	0	0	0	287,533	68,451	175	427			
8,970	8,970	40,634	20,157	272,299	31,096	84	427			
9,783	9,783	44,316	24,006	43,095	4,921	84	427			
9,844	9,844	35,982	19,237	66,769	7,625	84	427			
0	0	0	0	101,758	40,091	290	610			
0	0	0	0	244,044	54,961	166	610			
0	0	0	0	117,841	66,645	416	610			
0	0	0	0	108,632	61,041	413	610			
752	752	0	0	98,353	54,488	408	610			
1,044	1,044	0	0	112,555	47,570	311	610			
2,249	2,249	0	0	80,624	27,139	248	610			
7,091	7,091	32,121	18,309	90,520	10,337	84	427			
9,236	9,236	41,839	20,029	124,049	33,739	200	427			
8,970	8,970	40,634	20,157	13,751	1,570	84	427			
9,783	9,783	44,316	24,006	50,421	37,046	540	427	1		1
9,844	9,844	44,591	23,839	28,126	3,212	84	427			
4,330	4,330	0	0	54,454	13,513	183	610			
0	0	0	0	92,431	52,110	415	610			
0	0	0	0	75,109	49,810	488	610			
0	0	0	0	80,971	59,432	540	610			
752	752	0	0	89,646	66,976	550	610			
1,044	1,044	0	0	86,067	65,548	560	610			
2,249	2,249	0	0	65,562	47,090	528	610			
7,091	7,091	32,121	18,309	63,353	7,235	84	427			
9,236	9,236	41,839	20,029	45,453	5,191	84	427			
8,970	8,970	40,634	20,157	24,733	2,824	84	427			
9,783	9,783	44,316	24,006	30,444	23,587	570	427	1		1
9,844	9,844	44,591	23,839	5,283	603	84	427			
4,330	4,330	0	0	51,106	20,519	295	610			
0	0	0	0	73,957	41,153	409	610			
0	0	0	0	78,551	50,458	473	610			
0	0	0	0	85,504	51,286	441	610			
0	0	0	0	114,309	66,560	428	610			
0	0	0	0	210,586	150,193	525	610			
0	0	0	0	515,603	183,114	261	610			
0	0	0	0	681,905	149,238	161	427			
0	0	0	0	576,145	132,846	170	427			
8,970	8,970	40,634	20,157	279,919	31,966	84	427			
9,783	9,783	44,316	24,006	136,118	47,989	259	427			
9,844	9,844	35,982	19,237	49,596	5,664	84	427			
0	0	0	0	168,352	42,113	184	610			
0	0	0	0	261,176	59,225	167	610			
0	0	0	0	124,464	60,475	357	610			
0	0	0	0	101,179	56,122	408	610			
0	0	0	0	220,581	85,046	284	610			
0	0	0	0	460,568	132,179	211	610			
0	0	0	0	394,293	101,766	190	610			
0	0	0	0	217,548	62,268	211	427			
0	0	0	0	286,607	82,722	212	427			
8,970	8,970	40,634	20,157	50,697	5,790	84	427			
9,783	9,783	44,316	24,006	77,451	32,101	305	427			
9,844	9,844	44,591	23,839	47,234	5,394	84	427			
0	0	0	0	95,587	47,692	367	610			
0	0	0	0	133,297	40,049	221	610			
0	0	0	0	105,597	44,331	309	610			
0	0	0	0	112,725	50,465	329	610			
0	0	0	0	740,166	119,630	119	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Feb-80	W	1,137,209	134	206,550	691	3,016	0	0	0	0
Mar-80	W	845,055	195	224,026	1,848	9,517	0	0	0	0
Apr-80	W	289,604	177	69,530	1,051	5,725	0	0	0	0
May-80	W	447,872	214	130,057	16	81	0	0	0	0
Jun-80	W	469,046	158	100,560	4,157	20,038	1,224	2,460	8,970	7,116
Jul-80	W	243,167	181	59,935	4,508	19,629	1,153	2,272	9,783	5,764
Aug-80	W	122,025	341	56,603	4,252	16,875	1,132	2,828	9,844	4,828
Sep-80	W	169,530	204	46,925	0	0	0	0	0	0
Oct-80	D	290,729	134	52,805	0	0	0	0	0	0
Nov-80	D	130,233	380	67,262	0	0	0	0	0	0
Dec-80	D	102,104	391	54,219	265	1,197	0	0	0	0
Jan-81	D	122,574	392	65,389	132	594	0	0	0	0
Feb-81	D	163,047	432	95,825	3,351	14,624	604	1,598	1,044	876
Mar-81	D	181,091	461	113,446	3,589	18,480	756	1,938	2,249	5,213
Apr-81	D	231,587	189	59,379	2,719	14,804	1,203	2,770	7,091	9,996
May-81	D	182,840	238	59,210	2,802	14,069	1,216	2,459	9,236	8,907
Jun-81	D	69,627	164	15,533	2,818	13,581	1,224	2,460	8,970	7,116
Jul-81	D	75,484	233	23,890	3,055	13,304	1,153	2,272	9,783	5,764
Aug-81	D	94,778	354	45,626	2,882	11,437	1,132	2,828	9,844	4,828
Sep-81	D	61,784	323	27,122	1,440	5,894	0	0	0	0
Oct-81	W	83,666	376	42,756	0	0	0	0	0	0
Nov-81	W	92,624	339	42,625	0	0	0	0	0	0
Dec-81	W	94,258	497	63,623	0	0	0	0	0	0
Jan-82	W	413,818	166	93,614	538	2,425	0	0	0	0
Feb-82	W	822,753	131	145,969	691	3,016	0	0	0	0
Mar-82	W	760,150	160	164,831	1,848	9,517	0	0	0	0
Apr-82	W	1,437,734	99	192,919	1,051	5,725	0	0	0	0
May-82	W	872,099	124	146,898	16	81	0	0	0	0
Jun-82	W	540,799	131	95,946	4,157	20,038	1,224	2,460	8,970	7,116
Jul-82	W	265,342	182	65,725	4,508	19,629	1,153	2,272	9,783	5,764
Aug-82	W	187,882	257	65,644	4,252	16,875	1,132	2,828	9,844	4,828
Sep-82	W	322,264	134	58,620	0	0	0	0	0	0
Oct-82	W	542,632	101	74,656	0	0	0	0	0	0
Nov-82	W	552,337	141	106,027	0	0	0	0	0	0
Dec-82	W	1,135,783	109	167,689	0	0	0	0	0	0
Jan-83	W	1,426,094	103	198,724	538	2,425	0	0	0	0
Feb-83	W	1,901,234	105	271,396	691	3,016	0	0	0	0
Mar-83	W	2,219,894	102	307,227	1,848	9,517	0	0	0	0
Apr-83	W	947,887	139	178,607	1,051	5,725	0	0	0	0
May-83	W	1,145,933	120	186,636	16	81	0	0	0	0
Jun-83	W	2,308,703	76	239,481	4,157	20,038	1,224	2,460	8,970	7,116
Jul-83	W	998,718	92	124,371	4,508	19,629	1,153	2,272	9,783	5,764
Aug-83	W	209,683	196	55,930	4,252	16,875	1,132	2,828	9,844	4,828
Sep-83	W	481,495	101	65,787	0	0	0	0	0	0
Oct-83	AN	470,571	139	89,116	0	0	0	0	0	0
Nov-83	AN	875,398	114	136,029	0	0	0	0	0	0
Dec-83	AN	1,289,867	90	157,120	0	0	0	0	0	0
Jan-84	AN	949,653	131	168,741	0	0	0	0	0	0
Feb-84	AN	522,144	182	129,265	0	0	0	0	0	0
Mar-84	AN	367,219	327	163,000	3,165	16,299	0	0	0	0
Apr-84	AN	312,166	205	86,957	39	212	0	0	0	0
May-84	AN	247,418	121	40,801	181	910	0	0	0	0
Jun-84	AN	117,069	269	42,749	3,167	15,265	1,224	2,460	8,970	7,116
Jul-84	AN	114,999	363	56,752	3,434	14,953	1,153	2,272	9,783	5,764
Aug-84	AN	106,045	277	39,877	3,239	12,855	1,132	2,828	9,844	4,828
Sep-84	AN	116,244	307	48,564	0	0	0	0	0	0
Oct-84	D	100,014	310	42,123	0	0	0	0	0	0
Nov-84	D	104,073	321	45,432	0	0	0	0	0	0
Dec-84	D	101,172	451	62,032	265	1,197	0	0	0	0
Jan-85	D	101,800	517	71,579	132	594	0	0	0	0
Feb-85	D	129,668	619	109,172	3,351	14,624	604	1,598	1,044	876
Mar-85	D	121,850	560	92,701	3,589	18,480	756	1,938	2,249	5,213
Apr-85	D	178,468	271	65,776	2,719	14,804	1,203	2,770	7,091	9,996
May-85	D	186,924	297	75,348	2,802	14,069	1,216	2,459	9,236	8,907
Jun-85	D	72,697	321	31,755	2,818	13,581	1,224	2,460	8,970	7,116
Jul-85	D	97,092	418	55,175	3,055	13,304	1,153	2,272	9,783	5,764
Aug-85	D	88,562	274	33,014	2,882	11,437	1,132	2,828	9,844	4,828
Sep-85	D	64,410	400	34,982	1,440	5,894	0	0	0	0
Oct-85	W	81,899	469	52,242	0	0	0	0	0	0
Nov-85	W	95,763	370	48,183	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	1,136,518	206,550	134	610			
0	0	0	0	843,207	224,026	195	610			
0	0	0	0	288,553	63,806	163	427			
0	0	0	0	447,856	130,057	214	427			
8,970	8,970	40,634	20,157	412,083	48,099	86	427			
9,783	9,783	44,316	24,006	180,112	20,568	84	427			
9,844	9,844	35,982	19,237	67,388	8,174	89	427			
0	0	0	0	169,530	46,925	204	610			
0	0	0	0	290,729	52,805	134	610			
0	0	0	0	130,233	67,262	380	610			
0	0	0	0	101,839	53,022	383	610			
0	0	0	0	122,442	64,795	389	610			
1,044	1,044	0	0	151,594	69,951	339	610			
2,249	2,249	0	0	154,278	60,321	288	610			
7,091	7,091	527	301	210,160	24,000	84	427			
9,236	9,236	16,883	8,083	150,593	22,824	111	427			
8,970	8,970	40,634	20,157	14,004	1,599	84	427			
9,783	9,783	44,316	24,006	13,882	1,585	84	427			
9,844	9,844	44,591	23,839	32,902	3,757	84	427			
0	0	0	0	60,344	21,228	259	610			
0	0	0	0	83,666	42,756	376	610			
0	0	0	0	92,624	42,625	339	610			
0	0	0	0	94,258	63,623	497	610			
0	0	0	0	413,280	93,614	167	610			
0	0	0	0	822,062	145,969	131	610			
0	0	0	0	758,302	164,831	160	610			
0	0	0	0	1,436,683	187,194	96	427			
0	0	0	0	872,083	146,898	124	427			
8,970	8,970	40,634	20,157	483,836	55,253	84	427			
9,783	9,783	44,316	24,006	202,287	23,101	84	427			
9,844	9,844	35,982	19,237	133,245	17,216	95	427			
0	0	0	0	322,264	58,620	134	610			
0	0	0	0	542,632	74,656	101	610			
0	0	0	0	552,337	106,027	141	610			
0	0	0	0	1,135,783	167,689	109	610			
0	0	0	0	1,425,556	198,724	103	610			
0	0	0	0	1,900,543	271,396	105	610			
0	0	0	0	2,218,046	307,227	102	610			
0	0	0	0	946,836	172,883	134	427			
0	0	0	0	1,145,917	186,636	120	427			
8,970	8,970	40,634	20,157	2,251,740	257,144	84	427			
9,783	9,783	44,316	24,006	935,663	106,851	84	427			
9,844	9,844	35,982	19,237	155,046	17,706	84	427			
0	0	0	0	481,495	65,787	101	610			
0	0	0	0	470,571	89,116	139	610			
0	0	0	0	875,398	136,029	114	610			
0	0	0	0	1,289,867	157,120	90	610			
0	0	0	0	949,653	168,741	131	610			
0	0	0	0	522,144	129,265	182	610			
0	0	0	0	364,054	146,701	296	610			
0	0	0	0	312,127	86,957	205	427			
0	0	0	0	247,237	39,892	119	427			
8,970	8,970	40,634	20,157	61,096	6,977	84	427			
9,783	9,783	44,316	24,006	53,018	6,055	84	427			
9,844	9,844	44,591	23,839	43,812	5,003	84	427			
0	0	0	0	116,244	48,564	307	610			
0	0	0	0	100,014	42,123	310	610			
0	0	0	0	104,073	45,432	321	610			
0	0	0	0	100,907	60,835	443	610			
0	0	0	0	101,668	70,985	514	610			
1,044	1,044	0	0	118,215	83,299	518	610			
2,249	2,249	0	0	95,037	39,575	306	610			
7,091	7,091	527	301	157,041	24,462	115	427			
9,236	9,236	16,883	8,083	154,677	38,962	185	427			
8,970	8,970	40,634	20,157	17,074	1,950	84	427			
9,783	9,783	44,316	24,006	35,490	5,349	111	427			
9,844	9,844	44,591	23,839	26,686	3,048	84	427			
0	0	0	0	62,970	29,088	340	610			
0	0	0	0	81,899	52,242	469	610			
0	0	0	0	95,763	48,183	370	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Dec-85	W	85,833	405	47,306	0	0	0	0	0	0
Jan-86	W	103,406	461	64,864	538	2,425	0	0	0	0
Feb-86	W	1,064,759	134	194,549	691	3,016	0	0	0	0
Mar-86	W	1,456,611	117	231,691	1,848	9,517	0	0	0	0
Apr-86	W	441,385	215	129,014	1,051	5,725	0	0	0	0
May-86	W	524,392	155	110,786	16	81	0	0	0	0
Jun-86	W	565,710	137	105,364	4,157	20,038	1,224	2,460	8,970	7,116
Jul-86	W	111,341	217	32,786	4,508	19,629	1,153	2,272	9,783	5,764
Aug-86	W	112,091	327	49,785	4,252	16,875	1,132	2,828	9,844	4,828
Sep-86	W	118,977	348	56,224	0	0	0	0	0	0
Oct-86	C	206,987	206	57,968	378	1,744	0	0	0	0
Nov-86	C	110,772	341	51,383	341	1,539	0	0	0	0
Dec-86	C	96,423	427	55,961	980	4,426	64	154	0	0
Jan-87	C	102,052	508	70,452	1,313	5,920	275	647	752	1,004
Feb-87	C	141,358	542	104,121	2,659	11,603	604	1,598	1,044	876
Mar-87	C	127,948	661	114,908	2,847	14,662	756	1,938	2,249	5,213
Apr-87	C	137,702	387	72,355	2,157	11,746	1,203	2,770	7,091	9,996
May-87	C	148,356	263	53,105	2,223	11,162	1,216	2,459	9,236	8,907
Jun-87	C	109,695	433	64,588	2,236	10,775	1,224	2,460	8,970	7,116
Jul-87	C	125,558	452	77,086	2,424	10,555	1,153	2,272	9,783	5,764
Aug-87	C	89,809	332	40,548	2,287	9,074	1,132	2,828	9,844	4,828
Sep-87	C	73,392	581	58,010	1,298	5,310	1,051	2,609	4,330	2,828
Oct-87	C	76,249	414	42,957	378	1,744	0	0	0	0
Nov-87	C	74,513	462	46,781	341	1,539	0	0	0	0
Dec-87	C	75,861	460	47,462	980	4,426	64	154	0	0
Jan-88	C	85,220	544	63,038	1,313	5,920	275	647	752	1,004
Feb-88	C	113,788	755	116,810	2,659	11,603	604	1,598	1,044	876
Mar-88	C	112,059	759	115,660	2,847	14,662	756	1,938	2,249	5,213
Apr-88	C	118,172	292	46,943	2,157	11,746	1,203	2,770	7,091	9,996
May-88	C	127,071	330	56,922	2,223	11,162	1,216	2,459	9,236	8,907
Jun-88	C	97,041	430	56,702	2,236	10,775	1,224	2,460	8,970	7,116
Jul-88	C	67,596	321	29,508	2,424	10,555	1,153	2,272	9,783	5,764
Aug-88	C	93,701	615	78,355	2,287	9,074	1,132	2,828	9,844	4,828
Sep-88	C	59,935	431	35,143	1,298	5,310	1,051	2,609	4,330	2,828
Oct-88	C	70,524	410	39,281	378	1,744	0	0	0	0
Nov-88	C	69,526	615	58,149	341	1,539	0	0	0	0
Dec-88	C	74,220	529	53,407	980	4,426	64	154	0	0
Jan-89	C	84,278	579	66,385	1,313	5,920	275	647	752	1,004
Feb-89	C	97,331	629	83,217	2,659	11,603	604	1,598	1,044	876
Mar-89	C	113,266	776	119,431	2,847	14,662	756	1,938	2,249	5,213
Apr-89	C	128,528	368	64,267	2,157	11,746	1,203	2,770	7,091	9,996
May-89	C	115,376	267	41,896	2,223	11,162	1,216	2,459	9,236	8,907
Jun-89	C	79,508	345	37,281	2,236	10,775	1,224	2,460	8,970	7,116
Jul-89	C	98,500	622	83,279	2,424	10,555	1,153	2,272	9,783	5,764
Aug-89	C	67,443	535	49,008	2,287	9,074	1,132	2,828	9,844	4,828
Sep-89	C	60,430	579	47,600	1,298	5,310	1,051	2,609	4,330	2,828
Oct-89	C	67,803	430	39,637	378	1,744	0	0	0	0
Nov-89	C	74,439	570	57,654	341	1,539	0	0	0	0
Dec-89	C	71,718	529	51,558	980	4,426	64	154	0	0
Jan-90	C	78,702	570	61,009	1,313	5,920	275	647	752	1,004
Feb-90	C	100,856	704	96,528	2,659	11,603	604	1,598	1,044	876
Mar-90	C	113,782	904	139,852	2,847	14,662	756	1,938	2,249	5,213
Apr-90	C	95,391	323	41,823	2,157	11,746	1,203	2,770	7,091	9,996
May-90	C	93,959	303	38,641	2,223	11,162	1,216	2,459	9,236	8,907
Jun-90	C	79,247	623	67,077	2,236	10,775	1,224	2,460	8,970	7,116
Jul-90	C	60,586	456	37,584	2,424	10,555	1,153	2,272	9,783	5,764
Aug-90	C	79,284	475	51,188	2,287	9,074	1,132	2,828	9,844	4,828
Sep-90	C	55,908	317	24,079	1,298	5,310	1,051	2,609	4,330	2,828
Oct-90	C	66,277	396	35,708	378	1,744	0	0	0	0
Nov-90	C	71,985	489	47,865	341	1,539	0	0	0	0
Dec-90	C	76,222	614	63,594	980	4,426	64	154	0	0
Jan-91	C	79,834	554	60,117	1,313	5,920	275	647	752	1,004
Feb-91	C	103,928	679	95,908	2,659	11,603	604	1,598	1,044	876
Mar-91	C	109,645	663	98,858	2,847	14,662	756	1,938	2,249	5,213
Apr-91	C	101,562	410	56,569	2,157	11,746	1,203	2,770	7,091	9,996
May-91	C	96,330	560	73,272	2,223	11,162	1,216	2,459	9,236	8,907
Jun-91	C	71,937	721	70,464	2,236	10,775	1,224	2,460	8,970	7,116
Jul-91	C	64,286	452	39,521	2,424	10,555	1,153	2,272	9,783	5,764
Aug-91	C	88,109	628	75,212	2,287	9,074	1,132	2,828	9,844	4,828
Sep-91	C	69,106	412	38,735	1,298	5,310	1,051	2,609	4,330	2,828

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	85,833	47,306	405	610			
0	0	0	0	102,868	64,864	464	610			
0	0	0	0	1,064,068	194,549	134	610			
0	0	0	0	1,454,763	231,691	117	610			
0	0	0	0	440,334	123,289	206	427			
0	0	0	0	524,376	110,786	155	427			
8,970	8,970	40,634	20,157	508,747	58,098	84	427			
9,783	9,783	44,316	24,006	48,286	5,514	84	427			
9,844	9,844	35,982	19,237	57,454	6,561	84	427			
0	0	0	0	118,977	56,224	348	610			
0	0	0	0	206,609	57,968	206	610			
0	0	0	0	110,431	51,383	342	610			
0	0	0	0	95,379	51,381	396	610			
752	752	0	0	98,473	61,195	457	610			
1,044	1,044	0	0	112,671	56,891	371	610			
2,249	2,249	0	0	91,871	51,995	416	610			
7,091	7,091	32,121	18,309	85,243	16,090	139	427			
9,236	9,236	41,839	20,029	91,732	10,476	84	427			
8,970	8,970	40,634	20,157	54,654	21,390	288	427			
9,783	9,783	44,316	24,006	64,587	30,009	342	427			
9,844	9,844	44,591	23,839	28,529	3,258	84	427			
4,330	4,330	0	0	66,713	47,263	521	610			
0	0	0	0	75,871	42,957	416	610			
0	0	0	0	74,172	46,781	464	610			
0	0	0	0	74,817	42,882	422	610			
752	752	0	0	81,641	53,780	485	610			
1,044	1,044	0	0	85,101	69,580	601	610			
2,249	2,249	0	0	75,982	52,746	511	610			
7,091	7,091	32,121	18,309	65,713	7,504	84	427			
9,236	9,236	41,839	20,029	70,447	11,496	120	427			
8,970	8,970	40,634	20,157	42,000	13,504	237	427			
9,783	9,783	44,316	24,006	6,625	757	84	427			
9,844	9,844	44,591	23,839	32,421	33,125	752	427	1		1
4,330	4,330	0	0	53,256	24,396	337	610			
0	0	0	0	70,146	39,281	412	610			
0	0	0	0	69,185	58,149	618	610	1	1	
0	0	0	0	73,176	48,828	491	610			
752	752	0	0	80,699	57,128	521	610			
1,044	1,044	0	0	68,644	35,987	386	610			
2,249	2,249	0	0	77,189	56,518	539	610			
7,091	7,091	32,121	18,309	76,069	8,687	84	427			
9,236	9,236	41,839	20,029	58,752	6,709	84	427			
8,970	8,970	40,634	20,157	24,467	2,794	84	427			
9,783	9,783	44,316	24,006	37,529	36,201	710	427	1		1
9,844	9,844	44,591	23,839	6,163	3,777	451	427	1		1
4,330	4,330	0	0	53,751	36,853	504	610			
0	0	0	0	67,425	39,637	432	610			
0	0	0	0	74,098	57,654	572	610			
0	0	0	0	70,674	46,978	489	610			
752	752	0	0	75,123	51,751	507	610			
1,044	1,044	0	0	72,169	49,298	502	610			
2,249	2,249	0	0	77,705	76,939	728	610	1	1	
7,091	7,091	32,121	18,309	42,932	4,903	84	427			
9,236	9,236	41,839	20,029	37,335	4,264	84	427			
8,970	8,970	40,634	20,157	24,206	23,879	726	427	1		1
9,783	9,783	44,316	24,006	-385	-9,494	18,128	427			
9,844	9,844	44,591	23,839	18,004	5,958	243	427			
4,330	4,330	0	0	49,229	13,332	199	610			
0	0	0	0	65,899	35,708	399	610			
0	0	0	0	71,644	47,865	491	610			
0	0	0	0	75,178	59,014	577	610			
752	752	0	0	76,255	50,860	491	610			
1,044	1,044	0	0	75,241	48,678	476	610			
2,249	2,249	0	0	73,568	35,945	359	610			
7,091	7,091	32,121	18,309	49,103	5,608	84	427			
9,236	9,236	41,839	20,029	39,706	27,846	516	427	1		1
8,970	8,970	40,634	20,157	16,896	27,266	1,187	427	1		1
9,783	9,783	44,316	24,006	3,315	379	84	427			
9,844	9,844	44,591	23,839	26,829	29,982	822	427	1		1
4,330	4,330	0	0	62,427	27,988	330	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 3- TMDL Fixed Base Load Allocations

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-91	C	72,030	519	50,862	378	1,744	0	0	0	0
Nov-91	C	80,770	488	53,575	341	1,539	0	0	0	0
Dec-91	C	73,745	534	53,497	980	4,426	64	154	0	0
Jan-92	C	78,804	544	58,270	1,313	5,920	275	647	752	1,004
Feb-92	C	112,620	632	96,809	2,659	11,603	604	1,598	1,044	876
Mar-92	C	115,938	709	111,672	2,847	14,662	756	1,938	2,249	5,213
Apr-92	C	107,982	438	64,255	2,157	11,746	1,203	2,770	7,091	9,996
May-92	C	96,699	375	49,325	2,223	11,162	1,216	2,459	9,236	8,907
Jun-92	C	20,269	247	6,798	2,236	10,775	1,224	2,460	8,970	7,116
Jul-92	C	62,278	583	49,335	2,424	10,555	1,153	2,272	9,783	5,764
Aug-92	C	33,587	485	22,146	2,287	9,074	1,132	2,828	9,844	4,828
Sep-92	C	54,425	629	46,503	1,298	5,310	1,051	2,609	4,330	2,828
Oct-92	W	67,225	368	33,623	0	0	0	0	0	0
Nov-92	W	80,742	462	50,702	0	0	0	0	0	0
Dec-92	W	84,901	506	58,392	0	0	0	0	0	0
Jan-93	W	170,926	373	86,768	538	2,425	0	0	0	0
Feb-93	W	156,961	526	112,285	691	3,016	0	0	0	0
Mar-93	W	196,606	486	129,767	1,848	9,517	0	0	0	0
Apr-93	W	201,259	225	61,535	1,051	5,725	0	0	0	0
May-93	W	303,299	187	77,065	16	81	0	0	0	0
Jun-93	W	345,138	258	121,104	4,157	20,038	1,224	2,460	8,970	7,116
Jul-93	W	148,179	472	95,145	4,508	19,629	1,153	2,272	9,783	5,764
Aug-93	W	126,166	313	53,618	4,252	16,875	1,132	2,828	9,844	4,828
Sep-93	W	104,072	254	35,952	0	0	0	0	0	0
Oct-93	C	235,902	165	52,949	378	1,744	0	0	0	0
Nov-93	C	104,193	426	60,329	341	1,539	0	0	0	0
Dec-93	C	90,318	516	63,407	980	4,426	64	154	0	0
Jan-94	C	92,442	590	74,123	1,313	5,920	275	647	752	1,004
Feb-94	C	130,770	515	91,522	2,659	11,603	604	1,598	1,044	876
Mar-94	C	112,007	604	92,034	2,847	14,662	756	1,938	2,249	5,213
Apr-94	C	158,003	287	61,649	2,157	11,746	1,203	2,770	7,091	9,996
May-94	C	127,651	251	43,576	2,223	11,162	1,216	2,459	9,236	8,907
Jun-94	C	91,562	344	42,821	2,236	10,775	1,224	2,460	8,970	7,116
Jul-94	C	63,501	447	38,589	2,424	10,555	1,153	2,272	9,783	5,764
Aug-94	C	90,570	571	70,356	2,287	9,074	1,132	2,828	9,844	4,828
Sep-94	C	72,020	466	45,646	1,298	5,310	1,051	2,609	4,330	2,828

Note 1: A floor on the minimium load is imposed such that calculated TDS can never drop below 84 mg/L

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis						
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	Exceedances (all year)	Exceedances (non irrig season)	Exceedances (irrig season)
0	0	0	0	71,652	50,862	522	610			
0	0	0	0	80,429	53,575	490	610			
0	0	0	0	72,701	48,917	495	610			
752	752	0	0	75,225	49,013	479	610			
1,044	1,044	0	0	83,933	49,580	434	610			
2,249	2,249	0	0	79,861	48,759	449	610			
7,091	7,091	32,121	18,309	55,523	7,990	106	427			
9,236	9,236	41,839	20,029	40,075	4,577	84	427			
8,970	8,970	40,634	20,157	-34,772	-36,400	770	427			
9,783	9,783	44,316	24,006	1,307	2,258	1,271	427	1		1
9,844	9,844	44,591	23,839	-27,693	-23,084	613	427			
4,330	4,330	0	0	47,746	35,756	551	610			
0	0	0	0	67,225	33,623	368	610			
0	0	0	0	80,742	50,702	462	610			
0	0	0	0	84,901	58,392	506	610			
0	0	0	0	170,388	86,768	375	610			
0	0	0	0	156,270	112,285	529	610			
0	0	0	0	194,758	129,767	490	610			
0	0	0	0	200,208	55,811	205	427			
0	0	0	0	303,283	77,065	187	427			
8,970	8,970	40,634	20,157	288,175	68,643	175	427			
9,783	9,783	44,316	24,006	85,124	38,993	337	427			
9,844	9,844	35,982	19,237	71,529	8,168	84	427			
0	0	0	0	104,072	35,952	254	610			
0	0	0	0	235,524	52,949	165	610			
0	0	0	0	103,852	60,329	427	610			
0	0	0	0	89,274	58,827	485	610			
752	752	0	0	88,863	64,866	537	610			
1,044	1,044	0	0	102,083	44,292	319	610			
2,249	2,249	0	0	75,930	29,121	282	610			
7,091	7,091	32,121	18,309	105,544	12,053	84	427			
9,236	9,236	41,839	20,029	71,027	8,111	84	427			
8,970	8,970	40,634	20,157	36,521	4,171	84	427			
9,783	9,783	44,316	24,006	2,530	289	84	427			
9,844	9,844	44,591	23,839	29,290	25,126	631	427	1		1
4,330	4,330	0	0	65,341	34,899	393	610			
							Total	27	7	20

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-21	W	96,390	303	39,758	0	0	0	0	0	0
Nov-21	W	101,985	342	47,459	0	0	0	0	0	0
Dec-21	W	107,845	382	55,963	0	0	0	0	0	0
Jan-22	W	111,913	421	64,084	538	2,425	0	0	0	0
Feb-22	W	227,050	423	130,446	691	3,016	0	0	0	0
Mar-22	W	162,122	592	130,369	1,848	9,517	0	0	0	0
Apr-22	W	209,760	230	65,532	896	4,879	0	0	0	0
May-22	W	269,066	193	70,562	16	81	0	0	0	0
Jun-22	W	428,834	232	135,314	742	3,576	0	0	0	0
Jul-22	W	114,586	303	47,248	53	230	0	0	0	0
Aug-22	W	121,624	265	43,751	0	0	0	0	0	0
Sep-22	W	99,613	319	43,241	0	0	0	0	0	0
Oct-22	AN	234,864	146	46,649	0	0	0	0	0	0
Nov-22	AN	130,455	319	56,594	0	0	0	0	0	0
Dec-22	AN	178,857	294	71,561	0	0	0	0	0	0
Jan-23	AN	189,313	319	82,076	0	0	0	0	0	0
Feb-23	AN	190,050	420	108,620	0	0	0	0	0	0
Mar-23	AN	130,978	641	114,157	3,185	16,400	0	0	0	0
Apr-23	AN	261,700	222	78,806	39	212	0	0	0	0
May-23	AN	287,496	168	65,741	0	0	0	0	0	0
Jun-23	AN	89,156	203	24,581	1,122	5,406	0	0	0	0
Jul-23	AN	124,644	375	63,511	756	3,292	0	0	0	0
Aug-23	AN	143,569	416	81,215	1,564	6,207	0	0	0	0
Sep-23	AN	96,998	285	37,622	0	0	0	0	0	0
Oct-23	C	123,421	278	46,713	378	1,744	0	0	0	0
Nov-23	C	93,407	449	57,030	341	1,539	0	0	0	0
Dec-23	C	99,932	519	70,469	0	0	0	0	0	0
Jan-24	C	101,030	477	65,544	0	0	0	0	0	0
Feb-24	C	133,411	546	98,975	1,848	8,066	0	0	0	0
Mar-24	C	115,023	778	121,659	2,847	14,662	756	1,938	2,249	5,213
Apr-24	C	89,742	251	30,647	1,535	8,360	0	0	0	0
May-24	C	94,352	253	32,401	1,379	6,922	0	0	0	0
Jun-24	C	82,140	392	43,730	1,570	7,567	0	0	0	0
Jul-24	C	70,612	506	48,555	2,424	10,555	562	1,108	0	0
Aug-24	C	54,003	365	26,761	1,217	4,829	0	0	0	0
Sep-24	C	71,118	509	49,251	534	2,187	0	0	0	0
Oct-24	BN	74,615	445	45,151	0	0	0	0	0	0
Nov-24	BN	79,117	547	58,846	0	0	0	0	0	0
Dec-24	BN	78,258	561	59,707	287	1,298	0	0	0	0
Jan-25	BN	83,641	538	61,119	0	0	0	0	0	0
Feb-25	BN	130,835	616	109,621	2,743	11,971	0	0	0	0
Mar-25	BN	122,631	684	114,101	3,811	19,626	756	1,938	436	1,010
Apr-25	BN	159,572	306	66,275	1,699	9,252	0	0	0	0
May-25	BN	156,993	221	47,104	1,391	6,985	0	0	0	0
Jun-25	BN	99,215	391	52,699	1,738	8,377	0	0	0	0
Jul-25	BN	105,993	388	55,910	1,605	6,990	0	0	0	0
Aug-25	BN	86,448	246	28,947	1,107	4,392	0	0	0	0
Sep-25	BN	87,165	390	46,251	0	0	0	0	0	0
Oct-25	D	81,807	362	40,294	0	0	0	0	0	0
Nov-25	D	81,110	448	49,412	0	0	0	0	0	0
Dec-25	D	83,855	568	64,741	477	2,155	0	0	0	0
Jan-26	D	96,272	610	79,838	1,654	7,462	221	522	0	0
Feb-26	D	151,308	499	102,708	1,739	7,588	0	0	0	0
Mar-26	D	108,219	686	100,956	3,589	18,480	666	1,705	0	0
Apr-26	D	148,463	349	70,400	1,531	8,334	0	0	0	0
May-26	D	148,035	188	37,795	1,218	6,113	0	0	0	0
Jun-26	D	86,678	551	64,917	2,818	13,581	1,224	2,460	4,526	3,591
Jul-26	D	92,623	380	47,812	1,416	6,165	0	0	0	0
Aug-26	D	68,895	478	44,799	2,219	8,804	0	0	0	0
Sep-26	D	59,530	448	36,281	0	0	0	0	0	0
Oct-26	AN	68,470	372	34,637	0	0	0	0	0	0
Nov-26	AN	89,228	417	50,621	0	0	0	0	0	0
Dec-26	AN	83,927	558	63,621	217	981	0	0	0	0
Jan-27	AN	83,134	667	75,373	1,860	8,387	275	647	752	1,004
Feb-27	AN	189,600	494	127,257	0	0	0	0	0	0
Mar-27	AN	128,504	572	99,842	763	3,931	0	0	0	0
Apr-27	AN	230,479	249	77,864	39	212	0	0	0	0
May-27	AN	253,313	204	70,219	0	0	0	0	0	0
Jun-27	AN	107,362	411	60,004	1,122	5,406	0	0	0	0
Jul-27	AN	108,039	309	45,386	756	3,292	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	96,390	303	39,758	610			
0	0	0	0	101,985	342	47,459	610			
0	0	0	0	107,845	382	55,963	610			
0	0	0	0	111,375	407	61,659	610			
0	0	0	0	226,359	414	127,430	610			
0	0	0	0	160,274	555	120,852	610			
0	0	0	0	208,864	214	60,652	427			
0	0	0	0	269,050	193	70,481	427			
0	0	0	0	428,092	226	131,738	427			
0	0	0	0	114,533	302	47,018	427			
0	0	0	0	121,624	265	43,751	427			
0	0	0	0	99,613	319	43,241	610			
0	0	0	0	234,864	146	46,649	610			
0	0	0	0	130,455	319	56,594	610			
0	0	0	0	178,857	294	71,561	610			
0	0	0	0	189,313	319	82,076	610			
0	0	0	0	190,050	420	108,620	610			
0	0	0	0	127,793	563	97,757	610			
0	0	0	0	261,661	221	78,593	427			
0	0	0	0	287,496	168	65,741	427			
0	0	0	0	88,034	160	19,175	427			
0	0	0	0	123,888	358	60,220	427			
0	0	0	0	142,005	389	75,008	427			
0	0	0	0	96,998	285	37,622	610			
0	0	0	0	123,043	269	44,969	610			
0	0	0	0	93,066	439	55,491	610			
0	0	0	0	99,932	519	70,469	610			
0	0	0	0	101,030	477	65,544	610			
0	0	0	0	131,563	508	90,909	610			
10,293	13,997	0	0	98,878	639	85,849	610	1	1	
0	0	0	0	88,207	186	22,288	427			
0	0	0	0	92,973	202	25,479	427			
0	0	0	0	80,570	330	36,163	427			
0	0	0	0	67,626	401	36,892	427			
0	0	0	0	52,786	306	21,931	427			
0	0	0	0	70,584	490	47,064	610			
0	0	0	0	74,615	445	45,151	610			
0	0	0	0	79,117	547	58,846	610			
0	0	0	0	77,971	551	58,409	610			
0	0	0	0	83,641	538	61,119	610			
0	0	0	0	128,092	561	97,651	610			
0	0	0	0	117,628	572	91,528	610			
0	0	0	0	157,873	266	57,023	427			
0	0	0	0	155,602	190	40,119	427			
0	0	0	0	97,477	334	44,321	427			
0	0	0	0	104,388	345	48,920	427			
0	0	0	0	85,341	212	24,555	427			
0	0	0	0	87,165	390	46,251	610			
0	0	0	0	81,807	362	40,294	610			
0	0	0	0	81,110	448	49,412	610			
0	0	0	0	83,378	552	62,586	610			
0	0	0	0	94,396	560	71,854	610			
0	0	0	0	149,569	468	95,120	610			
0	0	0	0	103,965	571	80,771	610			
0	0	0	0	146,932	311	62,066	427			
0	0	0	0	146,817	159	31,682	427			
0	0	0	0	78,110	426	45,285	427			
0	0	0	0	91,207	336	41,647	427			
0	0	0	0	66,676	397	35,995	427			
0	0	0	0	59,530	448	36,281	610			
0	0	0	0	68,470	372	34,637	610			
0	0	0	0	89,228	417	50,621	610			
0	0	0	0	83,710	550	62,640	610			
2,417	3,287	0	0	77,831	586	62,048	610			
0	0	0	0	189,600	494	127,257	610			
0	0	0	0	127,741	552	95,911	610			
0	0	0	0	230,440	248	77,652	427			
0	0	0	0	253,313	204	70,219	427			
0	0	0	0	106,240	378	54,598	427			
0	0	0	0	107,283	289	42,094	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Aug-27	AN	116,998	356	56,593	30	120	0	0	0	0
Sep-27	AN	108,210	403	59,330	0	0	0	0	0	0
Oct-27	BN	272,563	142	52,618	0	0	0	0	0	0
Nov-27	BN	102,395	437	60,847	0	0	0	0	0	0
Dec-27	BN	115,656	306	48,145	0	0	0	0	0	0
Jan-28	BN	126,172	477	81,803	0	0	0	0	0	0
Feb-28	BN	143,124	468	91,140	1,947	8,494	0	0	0	0
Mar-28	BN	135,743	583	107,570	2,512	12,933	0	0	0	0
Apr-28	BN	215,723	286	83,994	1,699	9,252	0	0	0	0
May-28	BN	220,782	207	62,252	1,391	6,985	0	0	0	0
Jun-28	BN	96,467	462	60,551	2,106	10,151	0	0	0	0
Jul-28	BN	111,574	299	45,308	1,605	6,990	0	0	0	0
Aug-28	BN	110,680	339	50,979	1,107	4,392	0	0	0	0
Sep-28	BN	72,629	308	30,441	0	0	0	0	0	0
Oct-28	C	76,897	350	36,569	378	1,744	0	0	0	0
Nov-28	C	78,163	416	44,152	341	1,539	0	0	0	0
Dec-28	C	87,302	553	65,598	97	439	0	0	0	0
Jan-29	C	92,262	577	72,373	779	3,512	0	0	0	0
Feb-29	C	109,855	679	101,467	2,659	11,603	604	1,598	1,044	876
Mar-29	C	119,217	814	131,946	2,847	14,662	756	1,938	2,249	5,213
Apr-29	C	146,739	292	58,152	1,535	8,360	0	0	0	0
May-29	C	156,314	281	59,651	1,379	6,922	0	0	0	0
Jun-29	C	69,870	413	39,249	1,570	7,567	0	0	0	0
Jul-29	C	66,562	641	57,978	2,424	10,555	1,153	2,272	9,783	5,764
Aug-29	C	62,266	371	31,439	1,217	4,829	0	0	0	0
Sep-29	C	50,802	375	25,913	534	2,187	0	0	0	0
Oct-29	C	71,069	431	41,604	378	1,744	0	0	0	0
Nov-29	C	74,732	492	49,976	341	1,539	0	0	0	0
Dec-29	C	76,065	544	56,297	0	0	0	0	0	0
Jan-30	C	83,081	620	70,062	1,313	5,920	275	647	752	1,004
Feb-30	C	106,704	685	99,340	2,659	11,603	604	1,598	1,044	876
Mar-30	C	111,740	678	102,950	2,847	14,662	756	1,938	1,273	2,951
Apr-30	C	139,846	385	73,196	1,535	8,360	0	0	0	0
May-30	C	137,381	254	47,458	1,379	6,922	0	0	0	0
Jun-30	C	84,539	371	42,616	1,570	7,567	0	0	0	0
Jul-30	C	76,373	480	49,807	2,275	9,905	0	0	0	0
Aug-30	C	52,191	230	16,298	1,217	4,829	0	0	0	0
Sep-30	C	61,528	572	47,838	534	2,187	0	0	0	0
Oct-30	C	73,954	447	44,942	378	1,744	0	0	0	0
Nov-30	C	67,418	479	43,866	341	1,539	0	0	0	0
Dec-30	C	74,019	597	60,106	980	4,426	179	434	0	0
Jan-31	C	83,766	649	73,942	1,313	5,920	275	647	752	1,004
Feb-31	C	97,028	764	100,832	2,659	11,603	604	1,598	1,044	876
Mar-31	C	105,249	763	109,203	2,847	14,662	756	1,938	2,249	5,213
Apr-31	C	94,626	261	33,628	1,535	8,360	0	0	0	0
May-31	C	103,328	230	32,267	1,379	6,922	0	0	0	0
Jun-31	C	62,755	494	42,137	1,940	9,351	0	0	0	0
Jul-31	C	77,435	622	65,427	2,424	10,555	1,153	2,272	9,783	5,764
Aug-31	C	57,596	483	37,812	1,945	7,721	0	0	0	0
Sep-31	C	65,969	426	38,161	534	2,187	0	0	0	0
Oct-31	AN	68,155	366	33,894	0	0	0	0	0	0
Nov-31	AN	79,692	458	49,609	0	0	0	0	0	0
Dec-31	AN	102,741	508	70,900	0	0	0	0	0	0
Jan-32	AN	100,881	555	76,090	176	795	0	0	0	0
Feb-32	AN	180,185	454	111,115	0	0	0	0	0	0
Mar-32	AN	112,549	535	81,876	700	3,604	0	0	0	0
Apr-32	AN	170,580	272	63,031	39	212	0	0	0	0
May-32	AN	244,640	282	93,723	0	0	0	0	0	0
Jun-32	AN	94,102	312	39,864	1,122	5,406	0	0	0	0
Jul-32	AN	119,978	328	53,435	756	3,292	0	0	0	0
Aug-32	AN	119,998	397	64,798	530	2,104	0	0	0	0
Sep-32	AN	99,464	319	43,109	0	0	0	0	0	0
Oct-32	D	161,418	231	50,692	0	0	0	0	0	0
Nov-32	D	87,267	440	52,190	0	0	0	0	0	0
Dec-32	D	84,889	458	52,799	0	0	0	0	0	0
Jan-33	D	100,616	538	73,619	0	0	0	0	0	0
Feb-33	D	123,354	549	92,117	1,739	7,588	0	0	0	0
Mar-33	D	121,520	664	109,747	3,589	18,480	222	568	0	0
Apr-33	D	123,795	257	43,219	1,531	8,334	0	0	0	0
May-33	D	145,916	330	65,443	1,218	6,113	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	116,968	355	56,473	427			
0	0	0	0	108,210	403	59,330	610			
0	0	0	0	272,563	142	52,618	610			
0	0	0	0	102,395	437	60,847	610			
0	0	0	0	115,656	306	48,145	610			
0	0	0	0	126,172	477	81,803	610			
0	0	0	0	141,177	431	82,646	610			
0	0	0	0	133,231	522	94,637	610			
0	0	0	0	214,024	257	74,742	427			
0	0	0	0	219,391	185	55,267	427			
0	0	0	0	94,361	393	50,400	427			
0	0	0	0	109,969	256	38,318	427			
0	0	0	0	109,573	313	46,587	427			
0	0	0	0	72,629	308	30,441	610			
0	0	0	0	76,519	335	34,824	610			
0	0	0	0	77,822	403	42,613	610			
0	0	0	0	87,205	550	65,159	610			
0	0	0	0	91,483	554	68,861	610			
3,970	5,398	0	0	101,579	594	81,992	610			
15,556	21,153	0	0	97,809	669	88,979	610	1	1	
0	0	0	0	145,204	252	49,792	427			
0	0	0	0	154,935	250	52,729	427			
0	0	0	0	68,300	341	31,683	427			
3,296	4,482	240	130	49,667	515	34,776	427	1		1
0	0	0	0	61,049	321	26,610	427			
0	0	0	0	50,268	347	23,726	610			
0	0	0	0	70,691	415	39,860	610			
0	0	0	0	74,391	479	48,437	610			
0	0	0	0	76,065	544	56,297	610			
354	482	0	0	80,388	567	62,009	610			
4,135	5,623	0	0	98,262	596	79,640	610			
0	0	0	0	106,863	574	83,399	610			
0	0	0	0	138,311	345	64,837	427			
0	0	0	0	136,002	219	40,536	427			
0	0	0	0	82,969	311	35,050	427			
0	0	0	0	74,098	396	39,902	427			
0	0	0	0	50,974	165	11,469	427			
0	0	0	0	60,994	551	45,651	610			
0	0	0	0	73,576	432	43,197	610			
0	0	0	0	67,077	464	42,327	610			
0	0	0	0	72,860	558	55,245	610			
2,832	3,851	0	0	78,595	585	62,520	610			
10,543	14,337	0	0	82,179	648	72,418	610	1	1	
6,498	8,836	0	0	92,899	622	78,554	610	1	1	
0	0	0	0	93,091	200	25,268	427			
0	0	0	0	101,949	183	25,345	427			
0	0	0	0	60,815	397	32,787	427			
3,296	4,482	3,505	1,899	57,275	520	40,456	427	1		1
0	0	0	0	55,651	398	30,091	427			
0	0	0	0	65,435	404	35,974	610			
0	0	0	0	68,155	366	33,894	610			
0	0	0	0	79,692	458	49,609	610			
0	0	0	0	102,741	508	70,900	610			
0	0	0	0	100,705	550	75,294	610			
0	0	0	0	180,185	454	111,115	610			
0	0	0	0	111,849	515	78,272	610			
0	0	0	0	170,541	271	62,819	427			
0	0	0	0	244,640	282	93,723	427			
0	0	0	0	92,980	273	34,457	427			
0	0	0	0	119,222	309	50,143	427			
0	0	0	0	119,468	386	62,694	427			
0	0	0	0	99,464	319	43,109	610			
0	0	0	0	161,418	231	50,692	610			
0	0	0	0	87,267	440	52,190	610			
0	0	0	0	84,889	458	52,799	610			
0	0	0	0	100,616	538	73,619	610			
0	0	0	0	121,615	511	84,530	610			
0	0	0	0	117,710	567	90,698	610			
0	0	0	0	122,264	210	34,885	427			
0	0	0	0	144,698	302	59,330	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Jun-33	D	81,422	401	44,333	1,563	7,536	0	0	0	0
Jul-33	D	77,185	587	61,543	3,055	13,304	1,153	2,272	9,577	5,642
Aug-33	D	79,613	363	39,321	928	3,683	0	0	0	0
Sep-33	D	64,978	458	40,494	0	0	0	0	0	0
Oct-33	C	72,245	461	45,288	378	1,744	0	0	0	0
Nov-33	C	72,118	462	45,326	341	1,539	0	0	0	0
Dec-33	C	74,065	476	47,889	0	0	0	0	0	0
Jan-34	C	84,284	643	73,655	1,313	5,920	275	647	752	1,004
Feb-34	C	120,228	642	104,869	2,659	11,603	604	1,598	1,044	876
Mar-34	C	101,622	716	98,878	2,847	14,662	756	1,938	2,249	5,213
Apr-34	C	117,988	409	65,557	1,535	8,360	0	0	0	0
May-34	C	128,155	407	70,980	1,379	6,922	0	0	0	0
Jun-34	C	66,756	472	42,863	1,657	7,986	0	0	0	0
Jul-34	C	64,304	462	40,362	1,554	6,766	0	0	0	0
Aug-34	C	85,411	398	46,168	1,217	4,829	0	0	0	0
Sep-34	C	63,372	402	34,617	534	2,187	0	0	0	0
Oct-34	AN	70,311	515	49,180	0	0	0	0	0	0
Nov-34	AN	83,520	434	49,222	0	0	0	0	0	0
Dec-34	AN	82,783	542	61,010	0	0	0	0	0	0
Jan-35	AN	97,841	472	62,716	0	0	0	0	0	0
Feb-35	AN	122,855	776	129,642	3,767	16,437	604	1,598	1,044	876
Mar-35	AN	128,365	629	109,803	2,718	13,996	0	0	0	0
Apr-35	AN	241,714	296	97,400	39	212	0	0	0	0
May-35	AN	259,282	190	67,080	0	0	0	0	0	0
Jun-35	AN	167,766	207	47,189	1,122	5,406	0	0	0	0
Jul-35	AN	92,774	334	42,126	756	3,292	0	0	0	0
Aug-35	AN	129,517	340	59,902	30	120	0	0	0	0
Sep-35	AN	98,677	277	37,173	0	0	0	0	0	0
Oct-35	AN	180,882	223	54,789	0	0	0	0	0	0
Nov-35	AN	93,953	368	47,017	0	0	0	0	0	0
Dec-35	AN	99,120	518	69,735	0	0	0	0	0	0
Jan-36	AN	135,757	414	76,335	0	0	0	0	0	0
Feb-36	AN	517,182	212	149,129	0	0	0	0	0	0
Mar-36	AN	142,991	646	125,541	3,654	18,818	0	0	0	0
Apr-36	AN	191,720	235	61,251	39	212	0	0	0	0
May-36	AN	285,665	224	86,993	0	0	0	0	0	0
Jun-36	AN	99,874	377	51,216	1,122	5,406	0	0	0	0
Jul-36	AN	116,012	435	68,560	1,825	7,949	0	0	0	0
Aug-36	AN	122,659	299	49,843	30	120	0	0	0	0
Sep-36	AN	104,350	266	37,778	0	0	0	0	0	0
Oct-36	W	142,763	275	53,413	0	0	0	0	0	0
Nov-36	W	95,454	389	50,441	0	0	0	0	0	0
Dec-36	W	110,177	373	55,810	0	0	0	0	0	0
Jan-37	W	169,417	383	88,121	538	2,425	0	0	0	0
Feb-37	W	572,991	221	172,233	691	3,016	0	0	0	0
Mar-37	W	416,022	238	134,665	1,848	9,517	0	0	0	0
Apr-37	W	248,674	194	65,620	896	4,879	0	0	0	0
May-37	W	491,303	214	142,602	16	81	0	0	0	0
Jun-37	W	141,822	296	57,071	742	3,576	0	0	0	0
Jul-37	W	123,750	396	66,639	456	1,985	0	0	0	0
Aug-37	W	136,532	266	49,337	0	0	0	0	0	0
Sep-37	W	104,668	367	52,152	0	0	0	0	0	0
Oct-37	W	169,309	188	43,250	0	0	0	0	0	0
Nov-37	W	109,722	380	56,624	0	0	0	0	0	0
Dec-37	W	315,673	210	89,994	0	0	0	0	0	0
Jan-38	W	412,695	214	120,179	538	2,425	0	0	0	0
Feb-38	W	1,097,178	133	198,981	691	3,016	0	0	0	0
Mar-38	W	1,483,383	131	263,376	1,848	9,517	0	0	0	0
Apr-38	W	689,819	166	155,207	896	4,879	0	0	0	0
May-38	W	1,473,291	103	206,303	16	81	0	0	0	0
Jun-38	W	800,540	128	139,416	742	3,576	0	0	0	0
Jul-38	W	233,167	302	95,795	53	230	0	0	0	0
Aug-38	W	123,724	369	62,100	0	0	0	0	0	0
Sep-38	W	206,500	215	60,218	0	0	0	0	0	0
Oct-38	D	320,261	137	59,518	0	0	0	0	0	0
Nov-38	D	158,079	273	58,734	0	0	0	0	0	0
Dec-38	D	123,222	354	59,269	0	0	0	0	0	0
Jan-39	D	145,382	332	65,698	0	0	0	0	0	0
Feb-39	D	214,656	442	128,987	1,739	7,588	0	0	0	0
Mar-39	D	147,518	592	118,706	2,289	11,788	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	79,859	339	36,797	427			
0	0	0	0	63,400	468	40,326	427	1		1
0	0	0	0	78,685	333	35,638	427			
0	0	0	0	64,978	458	40,494	610			
0	0	0	0	71,867	446	43,544	610			
0	0	0	0	71,777	449	43,787	610			
0	0	0	0	74,065	476	47,889	610			
2,336	3,176	0	0	79,609	581	62,907	610			
779	1,059	0	0	115,143	573	89,734	610			
895	1,218	0	0	94,874	588	75,847	610			
0	0	0	0	116,453	361	57,197	427			
0	0	0	0	126,776	372	64,058	427			
0	0	0	0	65,099	394	34,877	427			
0	0	0	0	62,750	394	33,596	427			
0	0	0	0	84,194	361	41,339	427			
0	0	0	0	62,838	380	32,429	610			
0	0	0	0	70,311	515	49,180	610			
0	0	0	0	83,520	434	49,222	610			
0	0	0	0	82,783	542	61,010	610			
0	0	0	0	97,841	472	62,716	610			
13,999	19,037	0	0	103,442	652	91,695	610	1	1	
0	0	0	0	125,647	561	95,807	610			
0	0	0	0	241,675	296	97,188	427			
0	0	0	0	259,282	190	67,080	427			
0	0	0	0	166,644	184	41,783	427			
0	0	0	0	92,018	310	38,835	427			
0	0	0	0	129,487	340	59,782	427			
0	0	0	0	98,677	277	37,173	610			
0	0	0	0	180,882	223	54,789	610			
0	0	0	0	93,953	368	47,017	610			
0	0	0	0	99,120	518	69,735	610			
0	0	0	0	135,757	414	76,335	610			
0	0	0	0	517,182	212	149,129	610			
0	0	0	0	139,337	563	106,724	610			
0	0	0	0	191,681	234	61,039	427			
0	0	0	0	285,665	224	86,993	427			
0	0	0	0	98,752	341	45,810	427			
0	0	0	0	114,187	390	60,611	427			
0	0	0	0	122,629	298	49,723	427			
0	0	0	0	104,350	266	37,778	610			
0	0	0	0	142,763	275	53,413	610			
0	0	0	0	95,454	389	50,441	610			
0	0	0	0	110,177	373	55,810	610			
0	0	0	0	168,879	373	85,697	610			
0	0	0	0	572,300	217	169,216	610			
0	0	0	0	414,174	222	125,148	610			
0	0	0	0	247,778	180	60,740	427			
0	0	0	0	491,287	213	142,521	427			
0	0	0	0	141,080	279	53,495	427			
0	0	0	0	123,294	386	64,654	427			
0	0	0	0	136,532	266	49,337	427			
0	0	0	0	104,668	367	52,152	610			
0	0	0	0	169,309	188	43,250	610			
0	0	0	0	109,722	380	56,624	610			
0	0	0	0	315,673	210	89,994	610			
0	0	0	0	412,157	210	117,754	610			
0	0	0	0	1,096,487	131	195,965	610			
0	0	0	0	1,481,535	126	253,859	610			
0	0	0	0	688,923	161	150,328	427			
0	0	0	0	1,473,275	103	206,221	427			
0	0	0	0	799,798	125	135,839	427			
0	0	0	0	233,114	302	95,565	427			
0	0	0	0	123,724	369	62,100	427			
0	0	0	0	206,500	215	60,218	610			
0	0	0	0	320,261	137	59,518	610			
0	0	0	0	158,079	273	58,734	610			
0	0	0	0	123,222	354	59,269	610			
0	0	0	0	145,382	332	65,698	610			
0	0	0	0	212,917	419	121,399	610			
0	0	0	0	145,229	542	106,918	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Apr-39	D	215,332	208	60,803	1,531	8,334	0	0	0	0
May-39	D	179,125	190	46,245	1,218	6,113	0	0	0	0
Jun-39	D	97,745	340	45,154	1,563	7,536	0	0	0	0
Jul-39	D	80,206	275	29,975	1,416	6,165	0	0	0	0
Aug-39	D	115,599	360	56,592	928	3,683	0	0	0	0
Sep-39	D	66,563	386	34,912	0	0	0	0	0	0
Oct-39	AN	80,297	501	54,691	0	0	0	0	0	0
Nov-39	AN	83,722	354	40,338	0	0	0	0	0	0
Dec-39	AN	79,681	376	40,720	0	0	0	0	0	0
Jan-40	AN	134,144	427	77,817	0	0	0	0	0	0
Feb-40	AN	239,665	406	132,122	0	0	0	0	0	0
Mar-40	AN	464,911	224	141,642	700	3,604	0	0	0	0
Apr-40	AN	261,233	198	70,212	39	212	0	0	0	0
May-40	AN	301,766	143	58,707	0	0	0	0	0	0
Jun-40	AN	99,698	192	25,996	1,122	5,406	0	0	0	0
Jul-40	AN	107,366	296	43,205	756	3,292	0	0	0	0
Aug-40	AN	138,828	292	55,187	30	120	0	0	0	0
Sep-40	AN	112,413	355	54,314	0	0	0	0	0	0
Oct-40	W	111,893	310	47,081	0	0	0	0	0	0
Nov-40	W	98,378	310	41,461	0	0	0	0	0	0
Dec-40	W	196,761	249	66,607	0	0	0	0	0	0
Jan-41	W	199,250	267	72,433	538	2,425	0	0	0	0
Feb-41	W	651,247	183	162,200	691	3,016	0	0	0	0
Mar-41	W	472,609	209	134,285	1,848	9,517	0	0	0	0
Apr-41	W	321,423	139	60,608	896	4,879	0	0	0	0
May-41	W	510,533	159	110,149	16	81	0	0	0	0
Jun-41	W	486,208	139	91,813	742	3,576	0	0	0	0
Jul-41	W	127,349	336	58,207	53	230	0	0	0	0
Aug-41	W	114,300	312	48,544	0	0	0	0	0	0
Sep-41	W	111,222	338	51,168	0	0	0	0	0	0
Oct-41	W	301,344	149	60,960	0	0	0	0	0	0
Nov-41	W	136,110	341	63,025	0	0	0	0	0	0
Dec-41	W	216,924	257	75,732	0	0	0	0	0	0
Jan-42	W	410,432	154	86,097	538	2,425	0	0	0	0
Feb-42	W	447,480	240	146,247	691	3,016	0	0	0	0
Mar-42	W	290,628	264	104,388	1,848	9,517	0	0	0	0
Apr-42	W	312,290	188	79,774	896	4,879	0	0	0	0
May-42	W	336,079	162	73,881	16	81	0	0	0	0
Jun-42	W	382,823	248	129,227	742	3,576	0	0	0	0
Jul-42	W	147,817	275	55,263	53	230	0	0	0	0
Aug-42	W	121,275	285	47,055	0	0	0	0	0	0
Sep-42	W	127,760	193	33,453	0	0	0	0	0	0
Oct-42	W	286,096	158	61,337	0	0	0	0	0	0
Nov-42	W	213,488	230	66,754	0	0	0	0	0	0
Dec-42	W	201,620	231	63,372	0	0	0	0	0	0
Jan-43	W	656,099	134	119,256	538	2,425	0	0	0	0
Feb-43	W	550,309	163	121,873	691	3,016	0	0	0	0
Mar-43	W	981,482	148	197,880	1,848	9,517	0	0	0	0
Apr-43	W	305,956	203	84,396	896	4,879	0	0	0	0
May-43	W	350,679	174	82,859	16	81	0	0	0	0
Jun-43	W	196,495	125	33,365	742	3,576	0	0	0	0
Jul-43	W	139,051	396	74,784	491	2,136	0	0	0	0
Aug-43	W	117,304	303	48,289	0	0	0	0	0	0
Sep-43	W	105,881	292	42,075	0	0	0	0	0	0
Oct-43	BN	191,050	210	54,570	0	0	0	0	0	0
Nov-43	BN	112,373	383	58,496	0	0	0	0	0	0
Dec-43	BN	109,403	390	58,036	0	0	0	0	0	0
Jan-44	BN	123,414	432	72,465	0	0	0	0	0	0
Feb-44	BN	171,687	434	101,323	1,947	8,494	0	0	0	0
Mar-44	BN	155,088	599	126,189	2,512	12,933	0	0	0	0
Apr-44	BN	264,171	197	70,751	1,699	9,252	0	0	0	0
May-44	BN	198,661	255	68,735	1,391	6,985	0	0	0	0
Jun-44	BN	88,224	357	42,855	1,738	8,377	0	0	0	0
Jul-44	BN	103,141	472	66,142	2,814	12,255	0	0	0	0
Aug-44	BN	94,918	330	42,519	1,107	4,392	0	0	0	0
Sep-44	BN	85,856	284	33,137	0	0	0	0	0	0
Oct-44	AN	88,422	316	37,962	0	0	0	0	0	0
Nov-44	AN	93,287	483	61,281	0	0	0	0	0	0
Dec-44	AN	88,517	406	48,834	0	0	0	0	0	0
Jan-45	AN	91,708	473	58,947	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	213,801	181	52,469	427			
0	0	0	0	177,907	166	40,131	427			
0	0	0	0	96,182	288	37,618	427			
0	0	0	0	78,790	222	23,810	427			
0	0	0	0	114,671	339	52,909	427			
0	0	0	0	66,563	386	34,912	610			
0	0	0	0	80,297	501	54,691	610			
0	0	0	0	83,722	354	40,338	610			
0	0	0	0	79,681	376	40,720	610			
0	0	0	0	134,144	427	77,817	610			
0	0	0	0	239,665	406	132,122	610			
0	0	0	0	464,211	219	138,038	610			
0	0	0	0	261,194	197	70,000	427			
0	0	0	0	301,766	143	58,707	427			
0	0	0	0	98,576	154	20,590	427			
0	0	0	0	106,610	275	39,914	427			
0	0	0	0	138,798	292	55,067	427			
0	0	0	0	112,413	355	54,314	610			
0	0	0	0	111,893	310	47,081	610			
0	0	0	0	98,378	310	41,461	610			
0	0	0	0	196,761	249	66,607	610			
0	0	0	0	198,712	259	70,009	610			
0	0	0	0	650,556	180	159,184	610			
0	0	0	0	470,761	195	124,768	610			
0	0	0	0	320,527	128	55,729	427			
0	0	0	0	510,517	159	110,067	427			
0	0	0	0	485,466	134	88,237	427			
0	0	0	0	127,296	335	57,977	427			
0	0	0	0	114,300	312	48,544	427			
0	0	0	0	111,222	338	51,168	610			
0	0	0	0	301,344	149	60,960	610			
0	0	0	0	136,110	341	63,025	610			
0	0	0	0	216,924	257	75,732	610			
0	0	0	0	409,894	150	83,672	610			
0	0	0	0	446,789	236	143,231	610			
0	0	0	0	288,780	242	94,871	610			
0	0	0	0	311,394	177	74,895	427			
0	0	0	0	336,063	162	73,799	427			
0	0	0	0	382,081	242	125,651	427			
0	0	0	0	147,764	274	55,034	427			
0	0	0	0	121,275	285	47,055	427			
0	0	0	0	127,760	193	33,453	610			
0	0	0	0	286,096	158	61,337	610			
0	0	0	0	213,488	230	66,754	610			
0	0	0	0	201,620	231	63,372	610			
0	0	0	0	655,561	131	116,831	610			
0	0	0	0	549,618	159	118,857	610			
0	0	0	0	979,634	141	188,363	610			
0	0	0	0	305,060	192	79,516	427			
0	0	0	0	350,663	174	82,777	427			
0	0	0	0	195,753	112	29,789	427			
0	0	0	0	138,560	386	72,648	427			
0	0	0	0	117,304	303	48,289	427			
0	0	0	0	105,881	292	42,075	610			
0	0	0	0	191,050	210	54,570	610			
0	0	0	0	112,373	383	58,496	610			
0	0	0	0	109,403	390	58,036	610			
0	0	0	0	123,414	432	72,465	610			
0	0	0	0	169,740	402	92,829	610			
0	0	0	0	152,576	546	113,256	610			
0	0	0	0	262,472	172	61,499	427			
0	0	0	0	197,270	230	61,750	427			
0	0	0	0	86,486	293	34,477	427			
0	0	0	0	100,327	395	53,887	427			
0	0	0	0	93,811	299	38,127	427			
0	0	0	0	85,856	284	33,137	610			
0	0	0	0	88,422	316	37,962	610			
0	0	0	0	93,287	483	61,281	610			
0	0	0	0	88,517	406	48,834	610			
0	0	0	0	91,708	473	58,947	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Feb-45	AN	322,236	272	118,939	0	0	0	0	0	0
Mar-45	AN	345,459	301	141,271	700	3,604	0	0	0	0
Apr-45	AN	222,299	174	52,495	39	212	0	0	0	0
May-45	AN	272,192	144	53,249	0	0	0	0	0	0
Jun-45	AN	127,635	388	67,274	1,122	5,406	0	0	0	0
Jul-45	AN	130,621	405	71,902	840	3,658	0	0	0	0
Aug-45	AN	105,829	305	43,824	30	120	0	0	0	0
Sep-45	AN	109,513	428	63,692	0	0	0	0	0	0
Oct-45	AN	212,304	171	49,442	0	0	0	0	0	0
Nov-45	AN	133,548	268	48,585	0	0	0	0	0	0
Dec-45	AN	302,067	151	62,010	0	0	0	0	0	0
Jan-46	AN	336,084	188	85,944	0	0	0	0	0	0
Feb-46	AN	294,513	303	121,438	0	0	0	0	0	0
Mar-46	AN	262,765	337	120,458	700	3,604	0	0	0	0
Apr-46	AN	292,332	191	75,948	39	212	0	0	0	0
May-46	AN	268,166	172	62,706	0	0	0	0	0	0
Jun-46	AN	123,174	392	65,559	1,122	5,406	0	0	0	0
Jul-46	AN	127,043	339	58,464	756	3,292	0	0	0	0
Aug-46	AN	138,749	399	75,320	713	2,829	0	0	0	0
Sep-46	AN	101,904	291	40,370	0	0	0	0	0	0
Oct-46	D	98,348	296	39,603	0	0	0	0	0	0
Nov-46	D	103,194	316	44,360	0	0	0	0	0	0
Dec-46	D	126,129	374	64,114	0	0	0	0	0	0
Jan-47	D	131,018	486	86,477	0	0	0	0	0	0
Feb-47	D	157,668	457	98,044	1,739	7,588	0	0	0	0
Mar-47	D	129,332	645	113,338	3,264	16,809	0	0	0	0
Apr-47	D	143,001	281	54,590	1,531	8,334	0	0	0	0
May-47	D	153,783	301	62,909	1,218	6,113	0	0	0	0
Jun-47	D	73,499	217	21,633	1,563	7,536	0	0	0	0
Jul-47	D	80,140	323	35,224	1,416	6,165	0	0	0	0
Aug-47	D	99,061	441	59,391	1,924	7,636	0	0	0	0
Sep-47	D	76,922	401	41,924	0	0	0	0	0	0
Oct-47	BN	71,161	367	35,544	0	0	0	0	0	0
Nov-47	BN	79,816	549	59,518	0	0	0	0	0	0
Dec-47	BN	76,564	463	48,183	0	0	0	0	0	0
Jan-48	BN	87,134	548	64,880	0	0	0	0	0	0
Feb-48	BN	114,162	695	107,789	3,559	15,530	604	1,598	1,044	876
Mar-48	BN	119,508	692	112,414	3,811	19,626	756	1,938	713	1,654
Apr-48	BN	175,082	264	62,910	1,699	9,252	0	0	0	0
May-48	BN	173,401	301	70,934	1,391	6,985	0	0	0	0
Jun-48	BN	88,853	278	33,557	1,738	8,377	0	0	0	0
Jul-48	BN	94,774	341	43,936	1,605	6,990	0	0	0	0
Aug-48	BN	104,223	286	40,467	1,107	4,392	0	0	0	0
Sep-48	BN	77,041	302	31,589	0	0	0	0	0	0
Oct-48	BN	82,359	348	38,942	0	0	0	0	0	0
Nov-48	BN	80,048	406	44,129	0	0	0	0	0	0
Dec-48	BN	78,811	431	46,147	0	0	0	0	0	0
Jan-49	BN	91,528	622	77,422	1,757	7,924	275	647	402	537
Feb-49	BN	102,784	628	87,740	2,527	11,025	0	0	0	0
Mar-49	BN	121,360	704	116,070	3,811	19,626	756	1,938	1,694	3,927
Apr-49	BN	175,186	300	71,331	1,699	9,252	0	0	0	0
May-49	BN	180,376	286	70,182	1,391	6,985	0	0	0	0
Jun-49	BN	84,053	157	17,975	1,738	8,377	0	0	0	0
Jul-49	BN	90,101	383	46,853	1,605	6,990	0	0	0	0
Aug-49	BN	107,143	318	46,247	1,107	4,392	0	0	0	0
Sep-49	BN	81,978	295	32,855	0	0	0	0	0	0
Oct-49	BN	83,289	319	36,064	0	0	0	0	0	0
Nov-49	BN	78,653	443	47,402	0	0	0	0	0	0
Dec-49	BN	85,653	533	62,089	0	0	0	0	0	0
Jan-50	BN	90,242	459	56,263	0	0	0	0	0	0
Feb-50	BN	119,732	604	98,365	2,063	9,001	0	0	0	0
Mar-50	BN	122,474	746	124,145	3,811	19,626	756	1,938	2,249	5,213
Apr-50	BN	180,969	287	70,610	1,699	9,252	0	0	0	0
May-50	BN	196,371	280	74,751	1,391	6,985	0	0	0	0
Jun-50	BN	107,186	414	60,313	1,738	8,377	0	0	0	0
Jul-50	BN	115,678	411	64,667	1,605	6,990	0	0	0	0
Aug-50	BN	108,338	393	57,883	1,107	4,392	0	0	0	0
Sep-50	BN	86,626	324	38,133	0	0	0	0	0	0
Oct-50	AN	80,618	510	55,841	0	0	0	0	0	0
Nov-50	AN	112,735	386	59,144	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	322,236	272	118,939	610			
0	0	0	0	344,759	294	137,668	610			
0	0	0	0	222,260	173	52,283	427			
0	0	0	0	272,192	144	53,249	427			
0	0	0	0	126,513	360	61,868	427			
0	0	0	0	129,781	387	68,244	427			
0	0	0	0	105,799	304	43,704	427			
0	0	0	0	109,513	428	63,692	610			
0	0	0	0	212,304	171	49,442	610			
0	0	0	0	133,548	268	48,585	610			
0	0	0	0	302,067	151	62,010	610			
0	0	0	0	336,084	188	85,944	610			
0	0	0	0	294,513	303	121,438	610			
0	0	0	0	262,065	328	116,854	610			
0	0	0	0	292,293	191	75,736	427			
0	0	0	0	268,166	172	62,706	427			
0	0	0	0	122,052	363	60,153	427			
0	0	0	0	126,287	321	55,172	427			
0	0	0	0	138,036	386	72,490	427			
0	0	0	0	101,904	291	40,370	610			
0	0	0	0	98,348	296	39,603	610			
0	0	0	0	103,194	316	44,360	610			
0	0	0	0	126,129	374	64,114	610			
0	0	0	0	131,018	486	86,477	610			
0	0	0	0	155,929	427	90,456	610			
0	0	0	0	126,068	563	96,529	610			
0	0	0	0	141,470	241	46,256	427			
0	0	0	0	152,565	274	56,795	427			
0	0	0	0	71,936	144	14,097	427			
0	0	0	0	78,724	272	29,058	427			
0	0	0	0	97,137	392	51,755	427			
0	0	0	0	76,922	401	41,924	610			
0	0	0	0	71,161	367	35,544	610			
0	0	0	0	79,816	549	59,518	610			
0	0	0	0	76,564	463	48,183	610			
0	0	0	0	87,134	548	64,880	610			
3,366	4,578	0	0	105,589	594	85,207	610			
0	0	0	0	114,227	574	89,197	610			
0	0	0	0	173,383	228	53,658	427			
0	0	0	0	172,010	273	63,949	427			
0	0	0	0	87,115	213	25,180	427			
0	0	0	0	93,169	292	36,946	427			
0	0	0	0	103,116	257	36,075	427			
0	0	0	0	77,041	302	31,589	610			
0	0	0	0	82,359	348	38,942	610			
0	0	0	0	80,048	406	44,129	610			
0	0	0	0	78,811	431	46,147	610			
0	0	0	0	89,095	564	68,313	610			
0	0	0	0	100,257	563	76,714	610			
0	0	0	0	115,098	579	90,579	610			
0	0	0	0	173,487	263	62,079	427			
0	0	0	0	178,985	260	63,197	427			
0	0	0	0	82,315	86	9,597	427			
0	0	0	0	88,496	331	39,864	427			
0	0	0	0	106,036	290	41,856	427			
0	0	0	0	81,978	295	32,855	610			
0	0	0	0	83,289	319	36,064	610			
0	0	0	0	78,653	443	47,402	610			
0	0	0	0	85,653	533	62,089	610			
0	0	0	0	90,242	459	56,263	610			
0	0	0	0	117,669	559	89,364	610			
4,382	5,958	0	0	111,276	604	91,410	610			
0	0	0	0	179,270	252	61,358	427			
0	0	0	0	194,980	256	67,765	427			
0	0	0	0	105,448	362	51,936	427			
0	0	0	0	114,073	372	57,677	427			
0	0	0	0	107,231	367	53,491	427			
0	0	0	0	86,626	324	38,133	610			
0	0	0	0	80,618	510	55,841	610			
0	0	0	0	112,735	386	59,144	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Dec-50	AN	486,196	144	95,380	0	0	0	0	0	0
Jan-51	AN	510,994	168	116,570	0	0	0	0	0	0
Feb-51	AN	387,795	240	126,688	0	0	0	0	0	0
Mar-51	AN	295,433	262	105,150	700	3,604	0	0	0	0
Apr-51	AN	306,407	193	80,396	39	212	0	0	0	0
May-51	AN	241,523	153	50,073	0	0	0	0	0	0
Jun-51	AN	109,820	172	25,605	1,122	5,406	0	0	0	0
Jul-51	AN	126,655	407	70,046	890	3,874	0	0	0	0
Aug-51	AN	121,483	320	52,833	30	120	0	0	0	0
Sep-51	AN	102,444	294	40,932	0	0	0	0	0	0
Oct-51	W	106,550	405	58,681	0	0	0	0	0	0
Nov-51	W	109,025	358	52,988	0	0	0	0	0	0
Dec-51	W	115,668	391	61,406	0	0	0	0	0	0
Jan-52	W	177,343	314	75,729	538	2,425	0	0	0	0
Feb-52	W	235,623	363	116,151	691	3,016	0	0	0	0
Mar-52	W	505,444	224	153,784	1,848	9,517	0	0	0	0
Apr-52	W	481,644	146	95,338	896	4,879	0	0	0	0
May-52	W	1,009,027	120	163,927	16	81	0	0	0	0
Jun-52	W	638,853	94	81,728	742	3,576	0	0	0	0
Jul-52	W	268,907	164	59,955	53	230	0	0	0	0
Aug-52	W	202,497	285	78,487	0	0	0	0	0	0
Sep-52	W	210,760	185	53,008	0	0	0	0	0	0
Oct-52	BN	290,859	136	53,857	0	0	0	0	0	0
Nov-52	BN	138,896	277	52,268	0	0	0	0	0	0
Dec-52	BN	157,748	311	66,589	0	0	0	0	0	0
Jan-53	BN	265,415	201	72,672	0	0	0	0	0	0
Feb-53	BN	318,621	290	125,705	1,947	8,494	0	0	0	0
Mar-53	BN	230,419	402	126,022	2,512	12,933	0	0	0	0
Apr-53	BN	256,947	197	68,746	1,699	9,252	0	0	0	0
May-53	BN	258,165	274	96,062	1,391	6,985	0	0	0	0
Jun-53	BN	115,104	437	68,383	1,738	8,377	0	0	0	0
Jul-53	BN	115,809	408	64,221	1,605	6,990	0	0	0	0
Aug-53	BN	122,120	290	48,163	1,107	4,392	0	0	0	0
Sep-53	BN	94,421	356	45,737	0	0	0	0	0	0
Oct-53	BN	91,360	293	36,404	0	0	0	0	0	0
Nov-53	BN	96,500	453	59,482	0	0	0	0	0	0
Dec-53	BN	93,834	497	63,337	0	0	0	0	0	0
Jan-54	BN	95,397	498	64,561	0	0	0	0	0	0
Feb-54	BN	124,394	655	110,786	3,559	15,530	604	1,598	971	814
Mar-54	BN	142,721	666	129,243	3,811	19,626	756	1,938	499	1,157
Apr-54	BN	204,193	261	72,481	1,699	9,252	0	0	0	0
May-54	BN	182,418	182	45,235	1,391	6,985	0	0	0	0
Jun-54	BN	104,417	595	84,463	2,992	14,423	1,224	2,460	8,970	7,116
Jul-54	BN	119,559	474	77,093	3,244	14,128	254	500	0	0
Aug-54	BN	96,226	322	42,085	1,107	4,392	0	0	0	0
Sep-54	BN	85,702	333	38,798	0	0	0	0	0	0
Oct-54	D	92,896	369	46,602	0	0	0	0	0	0
Nov-54	D	84,534	440	50,532	0	0	0	0	0	0
Dec-54	D	84,615	425	48,889	0	0	0	0	0	0
Jan-55	D	100,729	465	63,609	0	0	0	0	0	0
Feb-55	D	119,632	711	115,669	3,351	14,624	604	1,598	1,044	876
Mar-55	D	114,828	773	120,734	3,589	18,480	756	1,938	2,249	5,213
Apr-55	D	147,333	390	78,097	1,531	8,334	0	0	0	0
May-55	D	143,718	287	56,075	1,218	6,113	0	0	0	0
Jun-55	D	81,721	281	31,186	1,563	7,536	0	0	0	0
Jul-55	D	105,966	572	82,388	3,055	13,304	1,153	2,272	9,783	5,764
Aug-55	D	62,708	371	31,637	928	3,683	0	0	0	0
Sep-55	D	69,724	398	37,698	0	0	0	0	0	0
Oct-55	W	76,166	390	40,342	0	0	0	0	0	0
Nov-55	W	88,821	435	52,503	0	0	0	0	0	0
Dec-55	W	369,353	211	105,900	0	0	0	0	0	0
Jan-56	W	1,088,384	113	167,793	538	2,425	0	0	0	0
Feb-56	W	594,957	195	157,563	691	3,016	0	0	0	0
Mar-56	W	362,903	278	137,205	1,848	9,517	0	0	0	0
Apr-56	W	310,622	181	76,223	896	4,879	0	0	0	0
May-56	W	376,331	213	109,027	16	81	0	0	0	0
Jun-56	W	442,795	130	77,956	742	3,576	0	0	0	0
Jul-56	W	146,176	290	57,631	53	230	0	0	0	0
Aug-56	W	130,432	308	54,668	0	0	0	0	0	0
Sep-56	W	122,306	276	45,875	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	486,196	144	95,380	610			
0	0	0	0	510,994	168	116,570	610			
0	0	0	0	387,795	240	126,688	610			
0	0	0	0	294,733	253	101,546	610			
0	0	0	0	306,368	193	80,184	427			
0	0	0	0	241,523	153	50,073	427			
0	0	0	0	108,698	137	20,199	427			
0	0	0	0	125,765	387	66,172	427			
0	0	0	0	121,453	319	52,714	427			
0	0	0	0	102,444	294	40,932	610			
0	0	0	0	106,550	405	58,681	610			
0	0	0	0	109,025	358	52,988	610			
0	0	0	0	115,668	391	61,406	610			
0	0	0	0	176,805	305	73,304	610			
0	0	0	0	234,932	354	113,135	610			
0	0	0	0	503,596	211	144,267	610			
0	0	0	0	480,748	138	90,459	427			
0	0	0	0	1,009,011	119	163,845	427			
0	0	0	0	638,111	90	78,152	427			
0	0	0	0	268,854	163	59,725	427			
0	0	0	0	202,497	285	78,487	427			
0	0	0	0	210,760	185	53,008	610			
0	0	0	0	290,859	136	53,857	610			
0	0	0	0	138,896	277	52,268	610			
0	0	0	0	157,748	311	66,589	610			
0	0	0	0	265,415	201	72,672	610			
0	0	0	0	316,674	272	117,211	610			
0	0	0	0	227,907	365	113,089	610			
0	0	0	0	255,248	171	59,494	427			
0	0	0	0	256,774	255	89,077	427			
0	0	0	0	113,366	389	60,006	427			
0	0	0	0	114,204	369	57,231	427			
0	0	0	0	121,013	266	43,771	427			
0	0	0	0	94,421	356	45,737	610			
0	0	0	0	91,360	293	36,404	610			
0	0	0	0	96,500	453	59,482	610			
0	0	0	0	93,834	497	63,337	610			
0	0	0	0	95,397	498	64,561	610			
0	0	0	0	119,260	573	92,843	610			
0	0	0	0	137,654	569	106,522	610			
0	0	0	0	202,494	230	63,230	427			
0	0	0	0	181,027	155	38,250	427			
1,977	2,689	6,494	3,221	82,759	485	54,553	427	1		1
0	0	0	0	116,061	396	62,464	427			
0	0	0	0	95,119	291	37,693	427			
0	0	0	0	85,702	333	38,798	610			
0	0	0	0	92,896	369	46,602	610			
0	0	0	0	84,534	440	50,532	610			
0	0	0	0	84,615	425	48,889	610			
0	0	0	0	100,729	465	63,609	610			
6,826	9,282	0	0	107,807	609	89,289	610			
6,913	9,400	0	0	101,322	622	85,704	610	1	1	
0	0	0	0	145,802	352	69,763	427			
0	0	0	0	142,500	258	49,962	427			
0	0	0	0	80,158	217	23,650	427			
3,296	4,482	2,225	1,205	86,454	471	55,363	427	1		1
0	0	0	0	61,780	333	27,954	427			
0	0	0	0	69,724	398	37,698	610			
0	0	0	0	76,166	390	40,342	610			
0	0	0	0	88,821	435	52,503	610			
0	0	0	0	369,353	211	105,900	610			
0	0	0	0	1,087,846	112	165,369	610			
0	0	0	0	594,266	191	154,546	610			
0	0	0	0	361,055	260	127,688	610			
0	0	0	0	309,726	169	71,344	427			
0	0	0	0	376,315	213	108,945	427			
0	0	0	0	442,053	124	74,380	427			
0	0	0	0	146,123	289	57,401	427			
0	0	0	0	130,432	308	54,668	427			
0	0	0	0	122,306	276	45,875	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-56	BN	287,309	122	47,457	0	0	0	0	0	0
Nov-56	BN	105,481	400	57,289	0	0	0	0	0	0
Dec-56	BN	102,226	320	44,486	0	0	0	0	0	0
Jan-57	BN	117,728	462	73,976	0	0	0	0	0	0
Feb-57	BN	178,034	455	110,054	1,947	8,494	0	0	0	0
Mar-57	BN	198,450	403	108,726	2,512	12,933	0	0	0	0
Apr-57	BN	272,715	273	101,328	1,699	9,252	0	0	0	0
May-57	BN	228,676	138	42,871	1,391	6,985	0	0	0	0
Jun-57	BN	100,973	339	46,522	1,738	8,377	0	0	0	0
Jul-57	BN	125,749	342	58,501	1,605	6,990	0	0	0	0
Aug-57	BN	117,549	275	43,979	1,107	4,392	0	0	0	0
Sep-57	BN	88,419	300	36,110	0	0	0	0	0	0
Oct-57	W	100,284	331	45,168	0	0	0	0	0	0
Nov-57	W	97,870	356	47,341	0	0	0	0	0	0
Dec-57	W	92,178	383	48,046	0	0	0	0	0	0
Jan-58	W	107,296	485	70,790	538	2,425	0	0	0	0
Feb-58	W	147,153	563	112,631	691	3,016	0	0	0	0
Mar-58	W	446,391	234	141,825	1,848	9,517	0	0	0	0
Apr-58	W	537,498	118	85,861	896	4,879	0	0	0	0
May-58	W	649,196	125	110,588	16	81	0	0	0	0
Jun-58	W	619,292	140	117,449	742	3,576	0	0	0	0
Jul-58	W	107,828	257	37,689	53	230	0	0	0	0
Aug-58	W	136,661	437	81,265	2,486	9,865	0	0	0	0
Sep-58	W	119,452	227	36,782	0	0	0	0	0	0
Oct-58	D	295,512	137	55,200	0	0	0	0	0	0
Nov-58	D	144,171	266	52,136	0	0	0	0	0	0
Dec-58	D	102,805	334	46,667	0	0	0	0	0	0
Jan-59	D	140,010	358	68,086	0	0	0	0	0	0
Feb-59	D	250,145	319	108,449	1,739	7,588	0	0	0	0
Mar-59	D	221,534	375	113,001	2,289	11,788	0	0	0	0
Apr-59	D	183,532	222	55,267	1,531	8,334	0	0	0	0
May-59	D	200,539	280	76,337	1,218	6,113	0	0	0	0
Jun-59	D	77,970	319	33,846	1,563	7,536	0	0	0	0
Jul-59	D	104,703	559	79,584	3,055	13,304	1,153	2,272	9,783	5,764
Aug-59	D	117,681	337	53,836	928	3,683	0	0	0	0
Sep-59	D	74,769	343	34,865	0	0	0	0	0	0
Oct-59	C	80,385	404	44,118	378	1,744	0	0	0	0
Nov-59	C	81,466	529	58,533	341	1,539	0	0	0	0
Dec-59	C	79,852	511	55,419	0	0	0	0	0	0
Jan-60	C	86,349	432	50,690	0	0	0	0	0	0
Feb-60	C	116,638	671	106,352	2,659	11,603	604	1,598	1,044	876
Mar-60	C	103,922	702	99,236	2,847	14,662	756	1,938	2,188	5,072
Apr-60	C	126,523	296	50,914	1,535	8,360	0	0	0	0
May-60	C	165,930	318	71,645	1,379	6,922	0	0	0	0
Jun-60	C	78,617	413	44,152	1,570	7,567	0	0	0	0
Jul-60	C	109,737	596	88,871	2,424	10,555	1,153	2,272	9,783	5,764
Aug-60	C	92,150	446	55,899	1,954	7,755	0	0	0	0
Sep-60	C	66,734	514	46,614	534	2,187	0	0	0	0
Oct-60	C	66,056	379	34,062	378	1,744	0	0	0	0
Nov-60	C	74,648	541	54,943	341	1,539	0	0	0	0
Dec-60	C	75,844	499	51,411	0	0	0	0	0	0
Jan-61	C	81,499	656	72,706	1,313	5,920	275	647	752	1,004
Feb-61	C	106,456	745	107,793	2,659	11,603	604	1,598	1,044	876
Mar-61	C	108,918	737	109,190	2,847	14,662	756	1,938	2,249	5,213
Apr-61	C	85,246	297	34,443	1,535	8,360	0	0	0	0
May-61	C	92,621	324	40,747	1,379	6,922	0	0	0	0
Jun-61	C	87,542	581	69,159	2,236	10,775	1,224	2,460	8,970	7,116
Jul-61	C	92,368	427	53,645	1,548	6,741	0	0	0	0
Aug-61	C	71,457	361	35,031	1,217	4,829	0	0	0	0
Sep-61	C	58,056	443	34,957	534	2,187	0	0	0	0
Oct-61	BN	70,934	453	43,646	0	0	0	0	0	0
Nov-61	BN	76,629	411	42,858	0	0	0	0	0	0
Dec-61	BN	77,839	574	60,763	591	2,667	0	0	0	0
Jan-62	BN	81,157	751	82,838	1,757	7,924	275	647	752	1,004
Feb-62	BN	194,148	455	119,989	1,947	8,494	0	0	0	0
Mar-62	BN	121,776	625	103,538	2,512	12,933	0	0	0	0
Apr-62	BN	161,859	262	57,630	1,699	9,252	0	0	0	0
May-62	BN	204,762	237	66,002	1,391	6,985	0	0	0	0
Jun-62	BN	88,644	353	42,565	1,738	8,377	0	0	0	0
Jul-62	BN	81,085	374	41,184	1,605	6,990	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	287,309	122	47,457	610			
0	0	0	0	105,481	400	57,289	610			
0	0	0	0	102,226	320	44,486	610			
0	0	0	0	117,728	462	73,976	610			
0	0	0	0	176,087	424	101,560	610			
0	0	0	0	195,938	360	95,793	610			
0	0	0	0	271,016	250	92,076	427			
0	0	0	0	227,285	116	35,886	427			
0	0	0	0	99,235	283	38,144	427			
0	0	0	0	124,144	305	51,511	427			
0	0	0	0	116,442	250	39,587	427			
0	0	0	0	88,419	300	36,110	610			
0	0	0	0	100,284	331	45,168	610			
0	0	0	0	97,870	356	47,341	610			
0	0	0	0	92,178	383	48,046	610			
0	0	0	0	106,758	471	68,366	610			
0	0	0	0	146,462	551	109,614	610			
0	0	0	0	444,543	219	132,308	610			
0	0	0	0	536,602	111	80,981	427			
0	0	0	0	649,180	125	110,506	427			
0	0	0	0	618,550	135	113,873	427			
0	0	0	0	107,775	256	37,459	427			
0	0	0	0	134,175	391	71,399	427			
0	0	0	0	119,452	227	36,782	610			
0	0	0	0	295,512	137	55,200	610			
0	0	0	0	144,171	266	52,136	610			
0	0	0	0	102,805	334	46,667	610			
0	0	0	0	140,010	358	68,086	610			
0	0	0	0	248,406	299	100,861	610			
0	0	0	0	219,245	340	101,213	610			
0	0	0	0	182,001	190	46,933	427			
0	0	0	0	199,321	259	70,224	427			
0	0	0	0	76,407	253	26,310	427			
2,605	3,543	0	0	88,107	457	54,703	427	1		1
0	0	0	0	116,753	316	50,153	427			
0	0	0	0	74,769	343	34,865	610			
0	0	0	0	80,007	390	42,374	610			
0	0	0	0	81,125	517	56,994	610			
0	0	0	0	79,852	511	55,419	610			
0	0	0	0	86,349	432	50,690	610			
3,840	5,221	0	0	108,492	590	87,055	610			
0	0	0	0	98,130	581	77,564	610			
0	0	0	0	124,988	250	42,554	427			
0	0	0	0	164,551	289	64,723	427			
0	0	0	0	77,047	349	36,585	427			
3,296	4,482	15,629	8,466	77,453	544	57,333	427	1		1
0	0	0	0	90,196	393	48,144	427			
0	0	0	0	66,200	494	44,427	610			
0	0	0	0	65,678	362	32,318	610			
0	0	0	0	74,307	529	53,404	610			
0	0	0	0	75,844	499	51,411	610			
3,167	4,306	0	0	75,994	589	60,828	610			
10,487	14,261	0	0	91,662	638	79,455	610	1	1	
4,474	6,084	0	0	98,591	607	81,293	610			
0	0	0	0	83,711	229	26,083	427			
0	0	0	0	91,242	273	33,825	427			
1,977	2,689	768	381	72,367	465	45,737	427	1		1
0	0	0	0	90,820	380	46,905	427			
0	0	0	0	70,240	316	30,201	427			
0	0	0	0	57,522	419	32,769	610			
0	0	0	0	70,934	453	43,646	610			
0	0	0	0	76,629	411	42,858	610			
0	0	0	0	77,248	553	58,096	610			
9,332	12,690	0	0	69,042	645	60,573	610	1	1	
0	0	0	0	192,201	427	111,495	610			
0	0	0	0	119,264	559	90,605	610			
0	0	0	0	160,160	222	48,379	427			
0	0	0	0	203,371	213	59,017	427			
0	0	0	0	86,906	289	34,187	427			
0	0	0	0	79,480	316	34,194	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Aug-62	BN	86,580	306	36,030	1,107	4,392	0	0	0	0
Sep-62	BN	87,557	331	39,353	0	0	0	0	0	0
Oct-62	AN	80,123	433	47,165	0	0	0	0	0	0
Nov-62	AN	90,339	541	66,493	0	0	0	0	0	0
Dec-62	AN	84,154	476	54,458	0	0	0	0	0	0
Jan-63	AN	89,381	562	68,278	348	1,568	0	0	0	0
Feb-63	AN	153,919	506	105,840	0	0	0	0	0	0
Mar-63	AN	131,329	616	110,053	2,337	12,034	0	0	0	0
Apr-63	AN	226,938	253	78,180	39	212	0	0	0	0
May-63	AN	228,428	185	57,358	0	0	0	0	0	0
Jun-63	AN	94,186	406	51,987	1,122	5,406	0	0	0	0
Jul-63	AN	109,086	447	66,217	2,118	9,224	0	0	0	0
Aug-63	AN	104,583	316	44,901	30	120	0	0	0	0
Sep-63	AN	91,235	268	33,266	0	0	0	0	0	0
Oct-63	D	122,105	317	52,556	0	0	0	0	0	0
Nov-63	D	119,254	408	66,099	0	0	0	0	0	0
Dec-63	D	108,667	487	71,946	0	0	0	0	0	0
Jan-64	D	115,766	397	62,466	0	0	0	0	0	0
Feb-64	D	131,473	620	110,764	2,896	12,637	0	0	0	0
Mar-64	D	120,599	661	108,341	3,560	18,330	0	0	0	0
Apr-64	D	150,202	374	76,411	1,531	8,334	0	0	0	0
May-64	D	149,508	326	66,221	1,218	6,113	0	0	0	0
Jun-64	D	97,384	464	61,417	2,186	10,539	0	0	0	0
Jul-64	D	99,342	443	59,789	1,811	7,887	0	0	0	0
Aug-64	D	77,352	448	47,101	1,685	6,688	0	0	0	0
Sep-64	D	59,799	355	28,893	0	0	0	0	0	0
Oct-64	W	80,398	493	53,875	0	0	0	0	0	0
Nov-64	W	79,993	346	37,660	0	0	0	0	0	0
Dec-64	W	151,838	302	62,299	0	0	0	0	0	0
Jan-65	W	481,901	149	97,551	538	2,425	0	0	0	0
Feb-65	W	367,982	228	113,862	691	3,016	0	0	0	0
Mar-65	W	259,260	350	123,327	1,848	9,517	0	0	0	0
Apr-65	W	317,393	207	89,363	896	4,879	0	0	0	0
May-65	W	285,308	188	72,727	16	81	0	0	0	0
Jun-65	W	112,700	298	45,658	742	3,576	0	0	0	0
Jul-65	W	121,093	268	44,087	53	230	0	0	0	0
Aug-65	W	119,885	370	60,239	0	0	0	0	0	0
Sep-65	W	111,040	342	51,568	0	0	0	0	0	0
Oct-65	BN	257,963	202	70,912	0	0	0	0	0	0
Nov-65	BN	197,345	203	54,463	0	0	0	0	0	0
Dec-65	BN	256,544	171	59,779	0	0	0	0	0	0
Jan-66	BN	272,822	238	88,163	0	0	0	0	0	0
Feb-66	BN	302,979	280	115,250	1,947	8,494	0	0	0	0
Mar-66	BN	215,369	403	117,937	2,512	12,933	0	0	0	0
Apr-66	BN	218,323	198	58,828	1,699	9,252	0	0	0	0
May-66	BN	186,000	277	69,968	1,391	6,985	0	0	0	0
Jun-66	BN	98,585	443	59,307	1,738	8,377	0	0	0	0
Jul-66	BN	115,935	344	54,156	1,605	6,990	0	0	0	0
Aug-66	BN	128,698	367	64,265	1,107	4,392	0	0	0	0
Sep-66	BN	84,757	338	38,970	0	0	0	0	0	0
Oct-66	W	89,647	423	51,541	0	0	0	0	0	0
Nov-66	W	88,298	405	48,581	0	0	0	0	0	0
Dec-66	W	103,243	404	56,691	0	0	0	0	0	0
Jan-67	W	113,643	468	72,305	538	2,425	0	0	0	0
Feb-67	W	157,104	494	105,489	691	3,016	0	0	0	0
Mar-67	W	281,390	322	123,104	1,848	9,517	0	0	0	0
Apr-67	W	555,049	166	125,564	896	4,879	0	0	0	0
May-67	W	905,056	143	176,197	16	81	0	0	0	0
Jun-67	W	803,916	141	153,556	742	3,576	0	0	0	0
Jul-67	W	575,146	153	119,945	53	230	0	0	0	0
Aug-67	W	117,370	399	63,586	571	2,266	0	0	0	0
Sep-67	W	179,079	196	47,742	0	0	0	0	0	0
Oct-67	D	302,229	162	66,604	0	0	0	0	0	0
Nov-67	D	118,550	335	53,959	0	0	0	0	0	0
Dec-67	D	107,536	386	56,431	0	0	0	0	0	0
Jan-68	D	115,909	497	78,253	0	0	0	0	0	0
Feb-68	D	210,721	400	114,447	1,739	7,588	0	0	0	0
Mar-68	D	189,665	499	128,744	2,289	11,788	0	0	0	0
Apr-68	D	221,352	182	54,769	1,531	8,334	0	0	0	0
May-68	D	171,889	190	44,330	1,218	6,113	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	85,473	272	31,638	427			
0	0	0	0	87,557	331	39,353	610			
0	0	0	0	80,123	433	47,165	610			
0	0	0	0	90,339	541	66,493	610			
0	0	0	0	84,154	476	54,458	610			
0	0	0	0	89,033	551	66,711	610			
0	0	0	0	153,919	506	105,840	610			
0	0	0	0	128,992	559	98,019	610			
0	0	0	0	226,899	253	77,967	427			
0	0	0	0	228,428	185	57,358	427			
0	0	0	0	93,064	368	46,581	427			
0	0	0	0	106,968	392	56,993	427			
0	0	0	0	104,553	315	44,781	427			
0	0	0	0	91,235	268	33,266	610			
0	0	0	0	122,105	317	52,556	610			
0	0	0	0	119,254	408	66,099	610			
0	0	0	0	108,667	487	71,946	610			
0	0	0	0	115,766	397	62,466	610			
0	0	0	0	128,577	561	98,127	610			
0	0	0	0	117,039	566	90,011	610			
0	0	0	0	148,671	337	68,077	427			
0	0	0	0	148,290	298	60,108	427			
0	0	0	0	95,198	393	50,879	427			
0	0	0	0	97,531	391	51,902	427			
0	0	0	0	75,667	393	40,413	427			
0	0	0	0	59,799	355	28,893	610			
0	0	0	0	80,398	493	53,875	610			
0	0	0	0	79,993	346	37,660	610			
0	0	0	0	151,838	302	62,299	610			
0	0	0	0	481,363	145	95,126	610			
0	0	0	0	367,291	222	110,845	610			
0	0	0	0	257,412	325	113,810	610			
0	0	0	0	316,497	196	84,483	427			
0	0	0	0	285,292	187	72,645	427			
0	0	0	0	111,958	276	42,082	427			
0	0	0	0	121,040	267	43,857	427			
0	0	0	0	119,885	370	60,239	427			
0	0	0	0	111,040	342	51,568	610			
0	0	0	0	257,963	202	70,912	610			
0	0	0	0	197,345	203	54,463	610			
0	0	0	0	256,544	171	59,779	610			
0	0	0	0	272,822	238	88,163	610			
0	0	0	0	301,032	261	106,756	610			
0	0	0	0	212,857	363	105,004	610			
0	0	0	0	216,624	168	49,576	427			
0	0	0	0	184,609	251	62,983	427			
0	0	0	0	96,847	387	50,929	427			
0	0	0	0	114,330	303	47,166	427			
0	0	0	0	127,591	345	59,873	427			
0	0	0	0	84,757	338	38,970	610			
0	0	0	0	89,647	423	51,541	610			
0	0	0	0	88,298	405	48,581	610			
0	0	0	0	103,243	404	56,691	610			
0	0	0	0	113,105	454	69,880	610			
0	0	0	0	156,413	482	102,472	610			
0	0	0	0	279,542	299	113,587	610			
0	0	0	0	554,153	160	120,684	427			
0	0	0	0	905,040	143	176,115	427			
0	0	0	0	803,174	137	149,980	427			
0	0	0	0	575,093	153	119,715	427			
0	0	0	0	116,799	386	61,321	427			
0	0	0	0	179,079	196	47,742	610			
0	0	0	0	302,229	162	66,604	610			
0	0	0	0	118,550	335	53,959	610			
0	0	0	0	107,536	386	56,431	610			
0	0	0	0	115,909	497	78,253	610			
0	0	0	0	208,982	376	106,859	610			
0	0	0	0	187,376	459	116,957	610			
0	0	0	0	219,821	155	46,435	427			
0	0	0	0	170,671	165	38,217	427			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Jun-68	D	95,220	324	41,994	1,563	7,536	0	0	0	0
Jul-68	D	93,828	342	43,587	1,416	6,165	0	0	0	0
Aug-68	D	89,496	419	50,943	1,055	4,185	0	0	0	0
Sep-68	D	73,150	541	53,781	0	0	0	0	0	0
Oct-68	W	84,959	471	54,344	0	0	0	0	0	0
Nov-68	W	86,332	382	44,823	0	0	0	0	0	0
Dec-68	W	92,419	460	57,809	0	0	0	0	0	0
Jan-69	W	605,803	155	127,821	538	2,425	0	0	0	0
Feb-69	W	1,484,150	121	244,747	691	3,016	0	0	0	0
Mar-69	W	972,482	165	218,145	1,848	9,517	0	0	0	0
Apr-69	W	1,129,551	126	193,796	896	4,879	0	0	0	0
May-69	W	1,685,679	95	217,710	16	81	0	0	0	0
Jun-69	W	1,153,940	94	146,838	742	3,576	0	0	0	0
Jul-69	W	364,061	245	121,409	53	230	0	0	0	0
Aug-69	W	179,067	200	48,615	0	0	0	0	0	0
Sep-69	W	205,559	198	55,333	0	0	0	0	0	0
Oct-69	AN	320,808	146	63,720	0	0	0	0	0	0
Nov-69	AN	174,286	236	55,918	0	0	0	0	0	0
Dec-69	AN	200,184	223	60,635	0	0	0	0	0	0
Jan-70	AN	1,053,767	98	140,538	0	0	0	0	0	0
Feb-70	AN	525,783	209	149,608	0	0	0	0	0	0
Mar-70	AN	363,701	257	127,222	700	3,604	0	0	0	0
Apr-70	AN	299,608	182	74,050	39	212	0	0	0	0
May-70	AN	287,228	177	69,155	0	0	0	0	0	0
Jun-70	AN	125,558	401	68,364	1,122	5,406	0	0	0	0
Jul-70	AN	112,191	506	77,192	3,434	14,953	1,153	2,272	2,296	1,353
Aug-70	AN	128,996	305	53,488	30	120	0	0	0	0
Sep-70	AN	100,723	355	48,611	0	0	0	0	0	0
Oct-70	BN	100,506	310	42,317	0	0	0	0	0	0
Nov-70	BN	100,418	357	48,737	0	0	0	0	0	0
Dec-70	BN	101,346	346	47,658	0	0	0	0	0	0
Jan-71	BN	101,720	446	61,663	0	0	0	0	0	0
Feb-71	BN	130,481	625	110,921	3,102	13,535	0	0	0	0
Mar-71	BN	217,265	365	107,663	2,512	12,933	0	0	0	0
Apr-71	BN	248,580	182	61,573	1,699	9,252	0	0	0	0
May-71	BN	262,805	312	111,615	1,391	6,985	0	0	0	0
Jun-71	BN	104,716	430	61,215	1,738	8,377	0	0	0	0
Jul-71	BN	119,356	464	75,258	2,962	12,900	0	0	0	0
Aug-71	BN	93,651	278	35,356	1,107	4,392	0	0	0	0
Sep-71	BN	94,156	406	51,906	0	0	0	0	0	0
Oct-71	D	98,615	409	54,847	0	0	0	0	0	0
Nov-71	D	83,213	383	43,328	0	0	0	0	0	0
Dec-71	D	87,491	436	51,848	0	0	0	0	0	0
Jan-72	D	99,602	600	81,232	1,528	6,892	0	0	0	0
Feb-72	D	123,895	601	101,263	2,015	8,792	0	0	0	0
Mar-72	D	113,035	612	94,077	2,289	11,788	0	0	0	0
Apr-72	D	163,160	297	65,791	1,531	8,334	0	0	0	0
May-72	D	134,352	223	40,713	1,218	6,113	0	0	0	0
Jun-72	D	84,941	213	24,550	1,563	7,536	0	0	0	0
Jul-72	D	103,599	500	70,464	3,055	13,304	1,153	2,272	1,294	763
Aug-72	D	107,094	370	53,928	928	3,683	0	0	0	0
Sep-72	D	63,514	520	44,918	0	0	0	0	0	0
Oct-72	AN	76,422	417	43,304	0	0	0	0	0	0
Nov-72	AN	80,191	436	47,489	0	0	0	0	0	0
Dec-72	AN	78,131	357	37,910	0	0	0	0	0	0
Jan-73	AN	90,872	493	60,930	0	0	0	0	0	0
Feb-73	AN	206,407	379	106,267	0	0	0	0	0	0
Mar-73	AN	365,922	261	129,989	700	3,604	0	0	0	0
Apr-73	AN	195,993	158	42,126	39	212	0	0	0	0
May-73	AN	307,514	216	90,093	0	0	0	0	0	0
Jun-73	AN	131,057	486	86,574	3,167	15,265	1,224	2,460	476	377
Jul-73	AN	127,760	465	80,696	3,203	13,947	0	0	0	0
Aug-73	AN	131,596	310	55,425	30	120	0	0	0	0
Sep-73	AN	98,439	317	42,357	0	0	0	0	0	0
Oct-73	W	192,551	210	54,946	0	0	0	0	0	0
Nov-73	W	150,049	224	45,674	0	0	0	0	0	0
Dec-73	W	159,394	230	49,732	0	0	0	0	0	0
Jan-74	W	421,318	161	92,218	538	2,425	0	0	0	0
Feb-74	W	304,775	299	124,012	691	3,016	0	0	0	0
Mar-74	W	379,625	281	145,024	1,848	9,517	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	93,657	271	34,458	427			
0	0	0	0	92,412	298	37,422	427			
0	0	0	0	88,441	389	46,758	427			
0	0	0	0	73,150	541	53,781	610			
0	0	0	0	84,959	471	54,344	610			
0	0	0	0	86,332	382	44,823	610			
0	0	0	0	92,419	460	57,809	610			
0	0	0	0	605,265	152	125,397	610			
0	0	0	0	1,483,459	120	241,731	610			
0	0	0	0	970,634	158	208,628	610			
0	0	0	0	1,128,655	123	188,916	427			
0	0	0	0	1,685,663	95	217,628	427			
0	0	0	0	1,153,198	91	143,262	427			
0	0	0	0	364,008	245	121,179	427			
0	0	0	0	179,067	200	48,615	427			
0	0	0	0	205,559	198	55,333	610			
0	0	0	0	320,808	146	63,720	610			
0	0	0	0	174,286	236	55,918	610			
0	0	0	0	200,184	223	60,635	610			
0	0	0	0	1,053,767	98	140,538	610			
0	0	0	0	525,783	209	149,608	610			
0	0	0	0	363,001	250	123,619	610			
0	0	0	0	299,569	181	73,838	427			
0	0	0	0	287,228	177	69,155	427			
0	0	0	0	124,436	372	62,958	427			
0	0	0	0	105,308	409	58,615	427			
0	0	0	0	128,966	304	53,368	427			
0	0	0	0	100,723	355	48,611	610			
0	0	0	0	100,506	310	42,317	610			
0	0	0	0	100,418	357	48,737	610			
0	0	0	0	101,346	346	47,658	610			
0	0	0	0	101,720	446	61,663	610			
0	0	0	0	127,379	562	97,387	610			
0	0	0	0	214,753	324	94,730	610			
0	0	0	0	246,881	156	52,322	427			
0	0	0	0	261,414	294	104,630	427			
0	0	0	0	102,978	377	52,838	427			
0	0	0	0	116,394	394	62,358	427			
0	0	0	0	92,544	246	30,965	427			
0	0	0	0	94,156	406	51,906	610			
0	0	0	0	98,615	409	54,847	610			
0	0	0	0	83,213	383	43,328	610			
0	0	0	0	87,491	436	51,848	610			
0	0	0	0	98,074	558	74,339	610			
0	0	0	0	121,880	558	92,471	610			
0	0	0	0	110,746	547	82,290	610			
0	0	0	0	161,629	261	57,457	427			
0	0	0	0	133,134	191	34,600	427			
0	0	0	0	83,378	150	17,015	427			
0	0	0	0	98,097	406	54,126	427			
0	0	0	0	106,166	348	50,245	427			
0	0	0	0	63,514	520	44,918	610			
0	0	0	0	76,422	417	43,304	610			
0	0	0	0	80,191	436	47,489	610			
0	0	0	0	78,131	357	37,910	610			
0	0	0	0	90,872	493	60,930	610			
0	0	0	0	206,407	379	106,267	610			
0	0	0	0	365,222	255	126,386	610			
0	0	0	0	195,954	157	41,914	427			
0	0	0	0	307,514	216	90,093	427			
0	0	0	0	126,190	399	68,471	427			
0	0	0	0	124,557	394	66,749	427			
0	0	0	0	131,566	309	55,305	427			
0	0	0	0	98,439	317	42,357	610			
0	0	0	0	192,551	210	54,946	610			
0	0	0	0	150,049	224	45,674	610			
0	0	0	0	159,394	230	49,732	610			
0	0	0	0	420,780	157	89,793	610			
0	0	0	0	304,084	293	120,996	610			
0	0	0	0	377,777	264	135,507	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Apr-74	W	305,514	160	66,414	896	4,879	0	0	0	0
May-74	W	306,131	193	80,449	16	81	0	0	0	0
Jun-74	W	181,452	419	103,237	1,750	8,437	0	0	0	0
Jul-74	W	120,163	313	51,181	53	230	0	0	0	0
Aug-74	W	111,433	348	52,644	0	0	0	0	0	0
Sep-74	W	102,464	300	41,748	0	0	0	0	0	0
Oct-74	W	202,721	196	53,880	0	0	0	0	0	0
Nov-74	W	107,252	352	51,296	0	0	0	0	0	0
Dec-74	W	113,632	321	49,558	0	0	0	0	0	0
Jan-75	W	131,508	358	64,041	538	2,425	0	0	0	0
Feb-75	W	261,268	303	107,659	691	3,016	0	0	0	0
Mar-75	W	404,837	254	139,795	1,848	9,517	0	0	0	0
Apr-75	W	261,628	201	71,492	896	4,879	0	0	0	0
May-75	W	287,549	175	68,451	16	81	0	0	0	0
Jun-75	W	329,262	123	55,103	742	3,576	0	0	0	0
Jul-75	W	106,150	304	43,813	53	230	0	0	0	0
Aug-75	W	121,406	325	53,625	0	0	0	0	0	0
Sep-75	W	101,758	290	40,091	0	0	0	0	0	0
Oct-75	C	244,422	165	54,961	378	1,744	0	0	0	0
Nov-75	C	118,182	415	66,645	341	1,539	0	0	0	0
Dec-75	C	109,676	440	65,621	0	0	0	0	0	0
Jan-76	C	101,932	460	63,745	0	0	0	0	0	0
Feb-76	C	141,242	494	94,800	1,848	8,066	0	0	0	0
Mar-76	C	116,701	568	90,053	2,198	11,316	0	0	0	0
Apr-76	C	142,979	264	51,355	1,535	8,360	0	0	0	0
May-76	C	180,673	322	79,165	1,379	6,922	0	0	0	0
Jun-76	C	68,792	306	28,618	1,570	7,567	0	0	0	0
Jul-76	C	111,392	556	84,123	2,424	10,555	1,153	2,272	9,783	5,764
Aug-76	C	89,406	370	44,924	1,217	4,829	0	0	0	0
Sep-76	C	61,133	292	24,260	534	2,187	0	0	0	0
Oct-76	C	92,809	413	52,110	378	1,744	0	0	0	0
Nov-76	C	75,450	486	49,810	341	1,539	0	0	0	0
Dec-76	C	82,015	574	64,012	620	2,799	0	0	0	0
Jan-77	C	93,225	602	76,234	1,313	5,920	275	647	65	86
Feb-77	C	114,754	723	112,778	2,659	11,603	604	1,598	1,044	876
Mar-77	C	101,639	796	110,004	2,847	14,662	756	1,938	2,249	5,213
Apr-77	C	115,812	386	60,822	1,535	8,360	0	0	0	0
May-77	C	102,077	271	37,580	1,379	6,922	0	0	0	0
Jun-77	C	79,774	388	42,080	1,570	7,567	0	0	0	0
Jul-77	C	91,415	569	70,665	2,424	10,555	1,153	2,272	9,783	5,764
Aug-77	C	66,563	395	35,763	1,217	4,829	0	0	0	0
Sep-77	C	57,785	398	31,266	534	2,187	0	0	0	0
Oct-77	W	73,957	409	41,153	0	0	0	0	0	0
Nov-77	W	78,551	473	50,458	0	0	0	0	0	0
Dec-77	W	85,504	441	51,286	0	0	0	0	0	0
Jan-78	W	114,847	426	66,560	538	2,425	0	0	0	0
Feb-78	W	211,277	523	150,193	691	3,016	0	0	0	0
Mar-78	W	517,451	260	183,114	1,848	9,517	0	0	0	0
Apr-78	W	682,956	167	154,963	896	4,879	0	0	0	0
May-78	W	576,161	170	132,846	16	81	0	0	0	0
Jun-78	W	336,882	182	83,492	742	3,576	0	0	0	0
Jul-78	W	199,173	385	104,140	53	230	0	0	0	0
Aug-78	W	104,233	259	36,645	0	0	0	0	0	0
Sep-78	W	168,352	184	42,113	0	0	0	0	0	0
Oct-78	AN	261,176	167	59,225	0	0	0	0	0	0
Nov-78	AN	124,464	357	60,475	0	0	0	0	0	0
Dec-78	AN	101,179	408	56,122	0	0	0	0	0	0
Jan-79	AN	220,581	284	85,046	0	0	0	0	0	0
Feb-79	AN	460,568	211	132,179	0	0	0	0	0	0
Mar-79	AN	397,458	219	118,065	700	3,604	0	0	0	0
Apr-79	AN	217,587	211	62,268	39	212	0	0	0	0
May-79	AN	286,788	215	83,631	0	0	0	0	0	0
Jun-79	AN	106,670	342	49,596	1,122	5,406	0	0	0	0
Jul-79	AN	139,432	441	83,576	2,464	10,729	0	0	0	0
Aug-79	AN	109,467	311	46,328	30	120	0	0	0	0
Sep-79	AN	95,587	367	47,692	0	0	0	0	0	0
Oct-79	W	133,297	221	40,049	0	0	0	0	0	0
Nov-79	W	105,597	309	44,331	0	0	0	0	0	0
Dec-79	W	112,725	329	50,465	0	0	0	0	0	0
Jan-80	W	740,704	119	119,630	538	2,425	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	304,618	149	61,534	427			
0	0	0	0	306,115	193	80,367	427			
0	0	0	0	179,702	388	94,801	427			
0	0	0	0	120,110	312	50,952	427			
0	0	0	0	111,433	348	52,644	427			
0	0	0	0	102,464	300	41,748	610			
0	0	0	0	202,721	196	53,880	610			
0	0	0	0	107,252	352	51,296	610			
0	0	0	0	113,632	321	49,558	610			
0	0	0	0	130,970	346	61,616	610			
0	0	0	0	260,577	295	104,643	610			
0	0	0	0	402,989	238	130,278	610			
0	0	0	0	260,732	188	66,613	427			
0	0	0	0	287,533	175	68,369	427			
0	0	0	0	328,520	115	51,527	427			
0	0	0	0	106,097	302	43,583	427			
0	0	0	0	121,406	325	53,625	427			
0	0	0	0	101,758	290	40,091	610			
0	0	0	0	244,044	160	53,217	610			
0	0	0	0	117,841	406	65,106	610			
0	0	0	0	109,676	440	65,621	610			
0	0	0	0	101,932	460	63,745	610			
0	0	0	0	139,394	458	86,734	610			
0	0	0	0	114,503	506	78,736	610			
0	0	0	0	141,444	224	42,995	427			
0	0	0	0	179,294	296	72,243	427			
0	0	0	0	67,222	230	21,051	427			
3,296	4,482	5,269	2,854	89,468	478	58,197	427	1		1
0	0	0	0	88,189	334	40,095	427			
0	0	0	0	60,599	268	22,073	610			
0	0	0	0	92,431	401	50,366	610			
0	0	0	0	75,109	473	48,271	610			
0	0	0	0	81,395	553	61,213	610			
0	0	0	0	91,573	559	69,580	610			
9,599	13,053	0	0	100,848	625	85,648	610	1	1	
9,068	12,331	0	0	86,719	643	75,860	610	1	1	
0	0	0	0	114,277	338	52,462	427			
0	0	0	0	100,698	224	30,658	427			
0	0	0	0	78,204	325	34,513	427			
3,172	4,314	0	0	74,883	469	47,760	427	1		1
0	0	0	0	65,346	348	30,933	427			
0	0	0	0	57,251	374	29,079	610			
0	0	0	0	73,957	409	41,153	610			
0	0	0	0	78,551	473	50,458	610			
0	0	0	0	85,504	441	51,286	610			
0	0	0	0	114,309	413	64,136	610			
0	0	0	0	210,586	514	147,177	610			
0	0	0	0	515,603	248	173,597	610			
0	0	0	0	682,060	162	150,084	427			
0	0	0	0	576,145	170	132,765	427			
0	0	0	0	336,140	175	79,916	427			
0	0	0	0	199,120	384	103,911	427			
0	0	0	0	104,233	259	36,645	427			
0	0	0	0	168,352	184	42,113	610			
0	0	0	0	261,176	167	59,225	610			
0	0	0	0	124,464	357	60,475	610			
0	0	0	0	101,179	408	56,122	610			
0	0	0	0	220,581	284	85,046	610			
0	0	0	0	460,568	211	132,179	610			
0	0	0	0	396,758	212	114,462	610			
0	0	0	0	217,548	210	62,056	427			
0	0	0	0	286,788	215	83,631	427			
0	0	0	0	105,548	308	44,190	427			
0	0	0	0	136,968	391	72,847	427			
0	0	0	0	109,437	311	46,208	427			
0	0	0	0	95,587	367	47,692	610			
0	0	0	0	133,297	221	40,049	610			
0	0	0	0	105,597	309	44,331	610			
0	0	0	0	112,725	329	50,465	610			
0	0	0	0	740,166	116	117,206	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Feb-80	W	1,137,209	134	206,550	691	3,016	0	0	0	0
Mar-80	W	845,055	195	224,026	1,848	9,517	0	0	0	0
Apr-80	W	289,604	177	69,530	896	4,879	0	0	0	0
May-80	W	447,872	214	130,057	16	81	0	0	0	0
Jun-80	W	469,046	158	100,560	742	3,576	0	0	0	0
Jul-80	W	243,167	181	59,935	53	230	0	0	0	0
Aug-80	W	122,025	341	56,603	0	0	0	0	0	0
Sep-80	W	169,530	204	46,925	0	0	0	0	0	0
Oct-80	D	290,729	134	52,805	0	0	0	0	0	0
Nov-80	D	130,233	380	67,262	0	0	0	0	0	0
Dec-80	D	102,104	391	54,219	0	0	0	0	0	0
Jan-81	D	122,574	392	65,389	0	0	0	0	0	0
Feb-81	D	163,047	432	95,825	1,739	7,588	0	0	0	0
Mar-81	D	181,091	461	113,446	2,289	11,788	0	0	0	0
Apr-81	D	231,587	189	59,379	1,531	8,334	0	0	0	0
May-81	D	182,840	238	59,210	1,218	6,113	0	0	0	0
Jun-81	D	69,627	164	15,533	1,563	7,536	0	0	0	0
Jul-81	D	75,484	233	23,890	1,416	6,165	0	0	0	0
Aug-81	D	94,778	354	45,626	928	3,683	0	0	0	0
Sep-81	D	61,784	323	27,122	0	0	0	0	0	0
Oct-81	W	83,666	376	42,756	0	0	0	0	0	0
Nov-81	W	92,624	339	42,625	0	0	0	0	0	0
Dec-81	W	94,258	497	63,623	0	0	0	0	0	0
Jan-82	W	413,818	166	93,614	538	2,425	0	0	0	0
Feb-82	W	822,753	131	145,969	691	3,016	0	0	0	0
Mar-82	W	760,150	160	164,831	1,848	9,517	0	0	0	0
Apr-82	W	1,437,734	99	192,919	896	4,879	0	0	0	0
May-82	W	872,099	124	146,898	16	81	0	0	0	0
Jun-82	W	540,799	131	95,946	742	3,576	0	0	0	0
Jul-82	W	265,342	182	65,725	53	230	0	0	0	0
Aug-82	W	187,882	257	65,644	0	0	0	0	0	0
Sep-82	W	322,264	134	58,620	0	0	0	0	0	0
Oct-82	W	542,632	101	74,656	0	0	0	0	0	0
Nov-82	W	552,337	141	106,027	0	0	0	0	0	0
Dec-82	W	1,135,783	109	167,689	0	0	0	0	0	0
Jan-83	W	1,426,094	103	198,724	538	2,425	0	0	0	0
Feb-83	W	1,901,234	105	271,396	691	3,016	0	0	0	0
Mar-83	W	2,219,894	102	307,227	1,848	9,517	0	0	0	0
Apr-83	W	947,887	139	178,607	896	4,879	0	0	0	0
May-83	W	1,145,933	120	186,636	16	81	0	0	0	0
Jun-83	W	2,308,703	76	239,481	742	3,576	0	0	0	0
Jul-83	W	998,718	92	124,371	53	230	0	0	0	0
Aug-83	W	209,683	196	55,930	0	0	0	0	0	0
Sep-83	W	481,495	101	65,787	0	0	0	0	0	0
Oct-83	AN	470,571	139	89,116	0	0	0	0	0	0
Nov-83	AN	875,398	114	136,029	0	0	0	0	0	0
Dec-83	AN	1,289,867	90	157,120	0	0	0	0	0	0
Jan-84	AN	949,653	131	168,741	0	0	0	0	0	0
Feb-84	AN	522,144	182	129,265	0	0	0	0	0	0
Mar-84	AN	367,219	327	163,000	700	3,604	0	0	0	0
Apr-84	AN	312,166	205	86,957	39	212	0	0	0	0
May-84	AN	247,418	121	40,801	0	0	0	0	0	0
Jun-84	AN	117,069	269	42,749	1,122	5,406	0	0	0	0
Jul-84	AN	114,999	363	56,752	756	3,292	0	0	0	0
Aug-84	AN	106,045	277	39,877	30	120	0	0	0	0
Sep-84	AN	116,244	307	48,564	0	0	0	0	0	0
Oct-84	D	100,014	310	42,123	0	0	0	0	0	0
Nov-84	D	104,073	321	45,432	0	0	0	0	0	0
Dec-84	D	101,172	451	62,032	0	0	0	0	0	0
Jan-85	D	101,800	517	71,579	0	0	0	0	0	0
Feb-85	D	129,668	619	109,172	2,840	12,393	0	0	0	0
Mar-85	D	121,850	560	92,701	2,289	11,788	0	0	0	0
Apr-85	D	178,468	271	65,776	1,531	8,334	0	0	0	0
May-85	D	186,924	297	75,348	1,218	6,113	0	0	0	0
Jun-85	D	72,697	321	31,755	1,563	7,536	0	0	0	0
Jul-85	D	97,092	418	55,175	1,416	6,165	0	0	0	0
Aug-85	D	88,562	274	33,014	928	3,683	0	0	0	0
Sep-85	D	64,410	400	34,982	0	0	0	0	0	0
Oct-85	W	81,899	469	52,242	0	0	0	0	0	0
Nov-85	W	95,763	370	48,183	0	0	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	1,136,518	132	203,534	610			
0	0	0	0	843,207	187	214,509	610			
0	0	0	0	288,708	165	64,651	427			
0	0	0	0	447,856	213	129,976	427			
0	0	0	0	468,304	152	96,984	427			
0	0	0	0	243,114	181	59,705	427			
0	0	0	0	122,025	341	56,603	427			
0	0	0	0	169,530	204	46,925	610			
0	0	0	0	290,729	134	52,805	610			
0	0	0	0	130,233	380	67,262	610			
0	0	0	0	102,104	391	54,219	610			
0	0	0	0	122,574	392	65,389	610			
0	0	0	0	161,308	402	88,237	610			
0	0	0	0	178,802	418	101,658	610			
0	0	0	0	230,056	163	51,045	427			
0	0	0	0	181,622	215	53,096	427			
0	0	0	0	68,064	86	7,998	427			
0	0	0	0	74,068	176	17,725	427			
0	0	0	0	93,850	329	41,943	427			
0	0	0	0	61,784	323	27,122	610			
0	0	0	0	83,666	376	42,756	610			
0	0	0	0	92,624	339	42,625	610			
0	0	0	0	94,258	497	63,623	610			
0	0	0	0	413,280	162	91,190	610			
0	0	0	0	822,062	128	142,952	610			
0	0	0	0	758,302	151	155,314	610			
0	0	0	0	1,436,838	96	188,040	427			
0	0	0	0	872,083	124	146,817	427			
0	0	0	0	540,057	126	92,370	427			
0	0	0	0	265,289	182	65,496	427			
0	0	0	0	187,882	257	65,644	427			
0	0	0	0	322,264	134	58,620	610			
0	0	0	0	542,632	101	74,656	610			
0	0	0	0	552,337	141	106,027	610			
0	0	0	0	1,135,783	109	167,689	610			
0	0	0	0	1,425,556	101	196,300	610			
0	0	0	0	1,900,543	104	268,380	610			
0	0	0	0	2,218,046	99	297,710	610			
0	0	0	0	946,991	135	173,728	427			
0	0	0	0	1,145,917	120	186,555	427			
0	0	0	0	2,307,961	84	263,565	427			
0	0	0	0	998,665	91	124,141	427			
0	0	0	0	209,683	196	55,930	427			
0	0	0	0	481,495	101	65,787	610			
0	0	0	0	470,571	139	89,116	610			
0	0	0	0	875,398	114	136,029	610			
0	0	0	0	1,289,867	90	157,120	610			
0	0	0	0	949,653	131	168,741	610			
0	0	0	0	522,144	182	129,265	610			
0	0	0	0	366,519	320	159,396	610			
0	0	0	0	312,127	204	86,745	427			
0	0	0	0	247,418	121	40,801	427			
0	0	0	0	115,947	237	37,343	427			
0	0	0	0	114,243	344	53,460	427			
0	0	0	0	106,015	276	39,757	427			
0	0	0	0	116,244	307	48,564	610			
0	0	0	0	100,014	310	42,123	610			
0	0	0	0	104,073	321	45,432	610			
0	0	0	0	101,172	451	62,032	610			
0	0	0	0	101,800	517	71,579	610			
0	0	0	0	126,828	561	96,780	610			
0	0	0	0	119,561	498	80,913	610			
0	0	0	0	176,937	239	57,442	427			
0	0	0	0	185,706	274	69,234	427			
0	0	0	0	71,134	250	24,219	427			
0	0	0	0	95,676	377	49,009	427			
0	0	0	0	87,634	246	29,331	427			
0	0	0	0	64,410	400	34,982	610			
0	0	0	0	81,899	469	52,242	610			
0	0	0	0	95,763	370	48,183	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Dec-85	W	85,833	405	47,306	0	0	0	0	0	0
Jan-86	W	103,406	461	64,864	538	2,425	0	0	0	0
Feb-86	W	1,064,759	134	194,549	691	3,016	0	0	0	0
Mar-86	W	1,456,611	117	231,691	1,848	9,517	0	0	0	0
Apr-86	W	441,385	215	129,014	896	4,879	0	0	0	0
May-86	W	524,392	155	110,786	16	81	0	0	0	0
Jun-86	W	565,710	137	105,364	742	3,576	0	0	0	0
Jul-86	W	111,341	217	32,786	53	230	0	0	0	0
Aug-86	W	112,091	327	49,785	0	0	0	0	0	0
Sep-86	W	118,977	348	56,224	0	0	0	0	0	0
Oct-86	C	206,987	206	57,968	378	1,744	0	0	0	0
Nov-86	C	110,772	341	51,383	341	1,539	0	0	0	0
Dec-86	C	96,423	427	55,961	0	0	0	0	0	0
Jan-87	C	102,052	508	70,452	0	0	0	0	0	0
Feb-87	C	141,358	542	104,121	1,848	8,066	0	0	0	0
Mar-87	C	127,948	661	114,908	2,847	14,662	756	1,938	1,213	2,812
Apr-87	C	137,702	387	72,355	1,535	8,360	0	0	0	0
May-87	C	148,356	263	53,105	1,379	6,922	0	0	0	0
Jun-87	C	109,695	433	64,588	1,570	7,567	0	0	0	0
Jul-87	C	125,558	452	77,086	2,424	10,555	473	933	0	0
Aug-87	C	89,809	332	40,548	1,217	4,829	0	0	0	0
Sep-87	C	73,392	581	58,010	790	3,233	0	0	0	0
Oct-87	C	76,249	414	42,957	378	1,744	0	0	0	0
Nov-87	C	74,513	462	46,781	341	1,539	0	0	0	0
Dec-87	C	75,861	460	47,462	0	0	0	0	0	0
Jan-88	C	85,220	544	63,038	0	0	0	0	0	0
Feb-88	C	113,788	755	116,810	2,659	11,603	604	1,598	1,044	876
Mar-88	C	112,059	759	115,660	2,847	14,662	756	1,938	2,249	5,213
Apr-88	C	118,172	292	46,943	1,535	8,360	0	0	0	0
May-88	C	127,071	330	56,922	1,379	6,922	0	0	0	0
Jun-88	C	97,041	430	56,702	1,570	7,567	0	0	0	0
Jul-88	C	67,596	321	29,508	1,548	6,741	0	0	0	0
Aug-88	C	93,701	615	78,355	2,287	9,074	1,132	2,828	9,844	4,828
Sep-88	C	59,935	431	35,143	534	2,187	0	0	0	0
Oct-88	C	70,524	410	39,281	378	1,744	0	0	0	0
Nov-88	C	69,526	615	58,149	966	4,360	498	1,081	837	816
Dec-88	C	74,220	529	53,407	0	0	0	0	0	0
Jan-89	C	84,278	579	66,385	772	3,483	0	0	0	0
Feb-89	C	97,331	629	83,217	2,423	10,572	0	0	0	0
Mar-89	C	113,266	776	119,431	2,847	14,662	756	1,938	2,249	5,213
Apr-89	C	128,528	368	64,267	1,535	8,360	0	0	0	0
May-89	C	115,376	267	41,896	1,379	6,922	0	0	0	0
Jun-89	C	79,508	345	37,281	1,570	7,567	0	0	0	0
Jul-89	C	98,500	622	83,279	2,424	10,555	1,153	2,272	9,783	5,764
Aug-89	C	67,443	535	49,008	2,287	9,074	1,132	2,828	3,811	1,869
Sep-89	C	60,430	579	47,600	610	2,497	0	0	0	0
Oct-89	C	67,803	430	39,637	378	1,744	0	0	0	0
Nov-89	C	74,439	570	57,654	464	2,095	0	0	0	0
Dec-89	C	71,718	529	51,558	0	0	0	0	0	0
Jan-90	C	78,702	570	61,009	503	2,268	0	0	0	0
Feb-90	C	100,856	704	96,528	2,659	11,603	604	1,598	1,044	876
Mar-90	C	113,782	904	139,852	2,847	14,662	756	1,938	2,249	5,213
Apr-90	C	95,391	323	41,823	1,535	8,360	0	0	0	0
May-90	C	93,959	303	38,641	1,379	6,922	0	0	0	0
Jun-90	C	79,247	623	67,077	2,236	10,775	1,224	2,460	8,970	7,116
Jul-90	C	60,586	456	37,584	1,548	6,741	0	0	0	0
Aug-90	C	79,284	475	51,188	2,287	9,074	277	691	0	0
Sep-90	C	55,908	317	24,079	534	2,187	0	0	0	0
Oct-90	C	66,277	396	35,708	378	1,744	0	0	0	0
Nov-90	C	71,985	489	47,865	341	1,539	0	0	0	0
Dec-90	C	76,222	614	63,594	980	4,426	354	857	880	1,127
Jan-91	C	79,834	554	60,117	118	532	0	0	0	0
Feb-91	C	103,928	679	95,908	2,659	11,603	604	1,598	1,044	876
Mar-91	C	109,645	663	98,858	2,847	14,662	756	1,938	182	423
Apr-91	C	101,562	410	56,569	1,535	8,360	0	0	0	0
May-91	C	96,330	560	73,272	2,223	11,162	1,216	2,459	9,236	8,907
Jun-91	C	71,937	721	70,464	2,236	10,775	1,224	2,460	8,970	7,116
Jul-91	C	64,286	452	39,521	1,548	6,741	0	0	0	0
Aug-91	C	88,109	628	75,212	2,287	9,074	1,132	2,828	9,844	4,828
Sep-91	C	69,106	412	38,735	534	2,187	0	0	0	0

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	85,833	405	47,306	610			
0	0	0	0	102,868	446	62,439	610			
0	0	0	0	1,064,068	132	191,533	610			
0	0	0	0	1,454,763	112	222,174	610			
0	0	0	0	440,489	207	124,134	427			
0	0	0	0	524,376	155	110,705	427			
0	0	0	0	564,968	133	101,788	427			
0	0	0	0	111,288	215	32,557	427			
0	0	0	0	112,091	327	49,785	427			
0	0	0	0	118,977	348	56,224	610			
0	0	0	0	206,609	200	56,224	610			
0	0	0	0	110,431	332	49,844	610			
0	0	0	0	96,423	427	55,961	610			
0	0	0	0	102,052	508	70,452	610			
0	0	0	0	139,510	506	96,056	610			
0	0	0	0	123,131	570	95,496	610			
0	0	0	0	136,167	346	63,995	427			
0	0	0	0	146,977	231	46,183	427			
0	0	0	0	108,125	388	57,022	427			
0	0	0	0	122,661	393	65,599	427			
0	0	0	0	88,592	297	35,719	427			
0	0	0	0	72,602	555	54,777	610			
0	0	0	0	75,871	400	41,213	610			
0	0	0	0	74,172	449	45,242	610			
0	0	0	0	75,861	460	47,462	610			
0	0	0	0	85,220	544	63,038	610			
13,094	17,806	0	0	96,387	648	84,927	610	1	1	
7,508	10,210	0	0	98,699	623	83,637	610	1	1	
0	0	0	0	116,637	243	38,583	427			
0	0	0	0	125,692	293	50,000	427			
0	0	0	0	95,471	379	49,136	427			
0	0	0	0	66,048	254	22,767	427			
3,427	4,661	14,982	8,009	62,030	581	48,955	427	1		1
0	0	0	0	59,401	408	32,956	610			
0	0	0	0	70,146	394	37,537	610			
0	0	0	0	67,225	568	51,892	610			
0	0	0	0	74,220	529	53,407	610			
0	0	0	0	83,506	554	62,902	610			
0	0	0	0	94,908	563	72,645	610			
9,619	13,080	0	0	97,795	636	84,538	610	1	1	
0	0	0	0	126,993	324	55,907	427			
0	0	0	0	113,997	226	34,974	427			
0	0	0	0	77,938	280	29,714	427			
3,296	4,482	16,144	8,745	65,701	576	51,462	427	1		1
0	0	0	0	60,213	430	35,236	427	1		1
0	0	0	0	59,820	555	45,103	610			
0	0	0	0	67,425	413	37,892	610			
0	0	0	0	73,975	552	55,559	610			
0	0	0	0	71,718	529	51,558	610			
0	0	0	0	78,199	553	58,740	610			
5,277	7,176	0	0	91,272	607	75,275	610			
24,353	33,116	0	0	83,577	747	84,923	610	1	1	
0	0	0	0	93,856	262	33,463	427			
0	0	0	0	92,580	252	31,719	427			
1,977	2,689	5,307	2,633	59,533	512	41,403	427	1		1
0	0	0	0	59,038	384	30,843	427			
0	0	0	0	76,721	397	41,422	427			
0	0	0	0	55,374	291	21,892	610			
0	0	0	0	65,899	379	33,964	610			
0	0	0	0	71,644	476	46,326	610			
217	295	0	0	73,792	567	56,889	610			
0	0	0	0	79,716	550	59,585	610			
3,135	4,263	0	0	96,487	591	77,568	610			
0	0	0	0	105,859	569	81,835	610			
0	0	0	0	100,027	355	48,209	427			
306	416	0	0	83,349	444	50,328	427	1		1
1,977	2,689	19,834	9,839	37,696	733	37,584	427	1		1
0	0	0	0	62,738	384	32,780	427			
3,427	4,661	14,567	7,788	56,852	596	46,033	427	1		1
0	0	0	0	68,572	392	36,548	610			

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4a- Real-time TMDL No Drainage Reoperation

		SJRIO Output			Grassland Subsurface Drainage Reduction (priority 1)		Non-Grassland Subsurface Drainage Reduction (priority 2)		Grassland Surface Drainage Reduction (priority 3)	
Date	Year Type	Flow	TDS	Load	Flow reduction	Load reduction	Flow reduction	Load reduction	Flow reduction	Load reduction
Oct-91	C	72,030	519	50,862	378	1,744	0	0	0	0
Nov-91	C	80,770	488	53,575	341	1,539	0	0	0	0
Dec-91	C	73,745	534	53,497	0	0	0	0	0	0
Jan-92	C	78,804	544	58,270	0	0	0	0	0	0
Feb-92	C	112,620	632	96,809	2,659	11,603	435	1,151	0	0
Mar-92	C	115,938	709	111,672	2,847	14,662	756	1,938	2,249	5,213
Apr-92	C	107,982	438	64,255	1,535	8,360	0	0	0	0
May-92	C	96,699	375	49,325	1,379	6,922	0	0	0	0
Jun-92	C	20,269	247	6,798	1,570	7,567	0	0	0	0
Jul-92	C	62,278	583	49,335	2,424	10,555	1,153	2,272	6,740	3,971
Aug-92	C	33,587	485	22,146	1,217	4,829	0	0	0	0
Sep-92	C	54,425	629	46,503	1,298	5,310	230	572	0	0
Oct-92	W	67,225	368	33,623	0	0	0	0	0	0
Nov-92	W	80,742	462	50,702	0	0	0	0	0	0
Dec-92	W	84,901	506	58,392	0	0	0	0	0	0
Jan-93	W	170,926	373	86,768	538	2,425	0	0	0	0
Feb-93	W	156,961	526	112,285	691	3,016	0	0	0	0
Mar-93	W	196,606	486	129,767	1,848	9,517	0	0	0	0
Apr-93	W	201,259	225	61,535	896	4,879	0	0	0	0
May-93	W	303,299	187	77,065	16	81	0	0	0	0
Jun-93	W	345,138	258	121,104	742	3,576	0	0	0	0
Jul-93	W	148,179	472	95,145	4,071	17,728	0	0	0	0
Aug-93	W	126,166	313	53,618	0	0	0	0	0	0
Sep-93	W	104,072	254	35,952	0	0	0	0	0	0
Oct-93	C	235,902	165	52,949	378	1,744	0	0	0	0
Nov-93	C	104,193	426	60,329	341	1,539	0	0	0	0
Dec-93	C	90,318	516	63,407	0	0	0	0	0	0
Jan-94	C	92,442	590	74,123	1,137	5,128	0	0	0	0
Feb-94	C	130,770	515	91,522	1,848	8,066	0	0	0	0
Mar-94	C	112,007	604	92,034	2,198	11,316	0	0	0	0
Apr-94	C	158,003	287	61,649	1,535	8,360	0	0	0	0
May-94	C	127,651	251	43,576	1,379	6,922	0	0	0	0
Jun-94	C	91,562	344	42,821	1,570	7,567	0	0	0	0
Jul-94	C	63,501	447	38,589	1,548	6,741	0	0	0	0
Aug-94	C	90,570	571	70,356	2,287	9,074	1,132	2,828	9,844	4,828
Sep-94	C	72,020	466	45,646	534	2,187	0	0	0	0

Note 1: A floor on the minimium load is imposed such that calculated TDS can never drop below 84 mg/L

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Wetland Drainage Reduction (priority 4)		Non-Grassland Surface Drainage Reduction (priority 5)		Recalculated Vernalis				Exceedances	Exceedances	Exceedances
Flow reduction	Load reduction	Flow reduction	Load reduction	Flow	TDS	Load [1]	WQO	(all year)	(non irrig season)	(irrig season)
0	0	0	0	71,652	504	49,118	610			
0	0	0	0	80,429	476	52,036	610			
0	0	0	0	73,745	534	53,497	610			
0	0	0	0	78,804	544	58,270	610			
0	0	0	0	109,526	565	84,056	610			
2,447	3,327	0	0	107,639	591	86,532	610			
0	0	0	0	106,447	386	55,895	427			
0	0	0	0	95,320	327	42,403	427			
0	0	0	0	18,699	84	2,135	427			
0	0	0	0	51,961	461	32,538	427	1		1
0	0	0	0	32,370	393	17,317	427			
0	0	0	0	52,897	565	40,621	610			
0	0	0	0	67,225	368	33,623	610			
0	0	0	0	80,742	462	50,702	610			
0	0	0	0	84,901	506	58,392	610			
0	0	0	0	170,388	364	84,344	610			
0	0	0	0	156,270	514	109,269	610			
0	0	0	0	194,758	454	120,250	610			
0	0	0	0	200,363	208	56,656	427			
0	0	0	0	303,283	187	76,984	427			
0	0	0	0	344,396	251	117,528	427			
0	0	0	0	144,108	395	77,417	427			
0	0	0	0	126,166	313	53,618	427			
0	0	0	0	104,072	254	35,952	610			
0	0	0	0	235,524	160	51,205	610			
0	0	0	0	103,852	416	58,790	610			
0	0	0	0	90,318	516	63,407	610			
0	0	0	0	91,305	556	68,996	610			
0	0	0	0	128,922	476	83,457	610			
0	0	0	0	109,809	541	80,718	610			
0	0	0	0	156,468	251	53,289	427			
0	0	0	0	126,272	214	36,654	427			
0	0	0	0	89,992	288	35,254	427			
0	0	0	0	61,953	378	31,849	427			
3,427	4,661	3,079	1,646	70,801	492	47,319	427	1		1
0	0	0	0	71,486	447	43,459	610			
							Total	33	14	19

Flow in in acre-feet
Load in tons
TDS and Water Quality Objective (WQO) in mg/L

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Oct-21	96,390	303	39,758	71,942	0	32,184	0	0
Nov-21	101,985	342	47,459	76,118	0	28,659	0	0
Dec-21	107,845	382	55,963	80,492	0	24,529	0	0
Jan-22	111,913	421	64,084	83,528	2425	21,869	0	0
Feb-22	227,050	423	130,446	169,462	3016	42,033	0	0
Mar-22	162,122	592	130,369	121,002	9517	150	0	0
Apr-22	209,760	230	65,532	109,590	4879	48,938	0	0
May-22	269,066	193	70,562	140,575	81	70,095	0	0
Jun-22	428,834	232	135,314	224,047	3576	92,309	0	0
Jul-22	114,586	303	47,248	59,866	230	12,848	0	0
Aug-22	121,624	265	43,751	63,543	0	19,792	0	0
Sep-22	99,613	319	43,241	74,348	0	31,107	0	0
Oct-22	234,864	146	46,649	175,294	0	128,645	0	0
Nov-22	130,455	319	56,594	97,367	0	40,774	0	0
Dec-22	178,857	294	71,561	133,493	0	61,932	0	0
Jan-23	189,313	319	82,076	141,297	0	59,221	0	0
Feb-23	190,050	420	108,620	141,847	0	33,227	0	0
Mar-23	130,978	641	114,157	97,757	16400	0	0	0
Apr-23	261,700	222	78,806	136,727	212	58,133	0	0
May-23	287,496	168	65,741	150,204	0	84,463	0	0
Jun-23	89,156	203	24,581	46,580	5406	27,405	0	0
Jul-23	124,644	375	63,511	65,121	3292	4,901	0	0
Aug-23	143,569	416	81,215	75,008	6207	0	0	0
Sep-23	96,998	285	37,622	72,396	0	34,774	0	0
Oct-23	123,421	278	46,713	92,117	1744	47,148	0	0
Nov-23	93,407	449	57,030	69,716	1539	14,225	0	0
Dec-23	99,932	519	70,469	74,586	0	4,116	0	0
Jan-24	101,030	477	65,544	75,405	0	9,862	0	0
Feb-24	133,411	546	98,975	99,573	8066	8,664	0	0
Mar-24	115,023	778	121,659	85,849	14662	-21,147	-21,147	21,147
Apr-24	89,742	251	30,647	46,886	8360	24,599	0	0
May-24	94,352	253	32,401	49,295	6922	23,815	0	0
Jun-24	82,140	392	43,730	42,915	7567	6,751	0	0
Jul-24	70,612	506	48,555	36,892	10555	-1,108	-1,108	1,108
Aug-24	54,003	365	26,761	28,214	4829	6,283	0	0
Sep-24	71,118	509	49,251	53,080	2187	6,016	0	0
Oct-24	74,615	445	45,151	55,690	0	10,540	0	0
Nov-24	79,117	547	58,846	59,050	0	204	0	0
Dec-24	78,258	561	59,707	58,409	1298	0	0	0
Jan-25	83,641	538	61,119	62,427	0	1,308	0	0
Feb-25	130,835	616	109,621	97,651	11971	0	0	0
Mar-25	122,631	684	114,101	91,528	19626	-2,948	-2,948	2,948
Apr-25	159,572	306	66,275	83,369	9252	26,346	0	0
May-25	156,993	221	47,104	82,022	6985	41,903	0	0
Jun-25	99,215	391	52,699	51,835	8377	7,514	0	0
Jul-25	105,993	388	55,910	55,377	6990	6,457	0	0
Aug-25	86,448	246	28,947	45,165	4392	20,610	0	0
Sep-25	87,165	390	46,251	65,057	0	18,806	0	0
Oct-25	81,807	362	40,294	61,058	0	20,764	0	0
Nov-25	81,110	448	49,412	60,538	0	11,126	0	0
Dec-25	83,855	568	64,741	62,586	2155	0	0	0
Jan-26	96,272	610	79,838	71,854	7462	-522	-522	522
Feb-26	151,308	499	102,708	112,931	7588	17,811	0	0
Mar-26	108,219	686	100,956	80,771	18480	-1,705	-1,705	1,705

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Apr-26	148,463	349	70,400	77,565	8334	15,499	0	0
May-26	148,035	188	37,795	77,342	6113	45,659	0	0
Jun-26	86,678	551	64,917	45,285	13581	-6,051	-6,051	6,051
Jul-26	92,623	380	47,812	48,391	6165	6,744	0	0
Aug-26	68,895	478	44,799	35,995	8804	0	0	0
Sep-26	59,530	448	36,281	44,431	0	8,150	0	0
Oct-26	68,470	372	34,637	51,104	0	16,467	0	0
Nov-26	89,228	417	50,621	66,597	0	15,976	0	0
Dec-26	83,927	558	63,621	62,640	981	0	0	0
Jan-27	83,134	667	75,373	62,048	8387	-4,938	-4,938	4,938
Feb-27	189,600	494	127,257	141,511	0	14,254	0	0
Mar-27	128,504	572	99,842	95,911	3931	0	0	0
Apr-27	230,479	249	77,864	120,415	212	42,763	0	0
May-27	253,313	204	70,219	132,345	0	62,126	0	0
Jun-27	107,362	411	60,004	56,092	5406	1,494	0	0
Jul-27	108,039	309	45,386	56,446	3292	14,352	0	0
Aug-27	116,998	356	56,593	61,126	120	4,653	0	0
Sep-27	108,210	403	59,330	80,764	0	21,434	0	0
Oct-27	272,563	142	52,618	203,432	0	150,814	0	0
Nov-27	102,395	437	60,847	76,424	0	15,577	0	0
Dec-27	115,656	306	48,145	86,322	0	38,176	0	0
Jan-28	126,172	477	81,803	94,170	0	12,367	0	0
Feb-28	143,124	468	91,140	106,823	8494	24,177	0	0
Mar-28	135,743	583	107,570	101,314	12933	6,677	0	0
Apr-28	215,723	286	83,994	112,706	9252	37,963	0	0
May-28	220,782	207	62,252	115,349	6985	60,082	0	0
Jun-28	96,467	462	60,551	50,400	10151	0	0	0
Jul-28	111,574	299	45,308	58,292	6990	19,974	0	0
Aug-28	110,680	339	50,979	57,825	4392	11,238	0	0
Sep-28	72,629	308	30,441	54,208	0	23,767	0	0
Oct-28	76,897	350	36,569	57,393	1744	22,569	0	0
Nov-28	78,163	416	44,152	58,338	1539	15,725	0	0
Dec-28	87,302	553	65,598	65,159	439	0	0	0
Jan-29	92,262	577	72,373	68,861	3512	0	0	0
Feb-29	109,855	679	101,467	81,992	11603	-7,872	-7,872	7,872
Mar-29	119,217	814	131,946	88,979	14662	-28,304	-36,176	36,176
Apr-29	146,739	292	58,152	76,665	8360	26,873	-9,303	9,303
May-29	156,314	281	59,651	81,667	6922	28,938	0	0
Jun-29	69,870	413	39,249	36,504	7567	4,821	0	0
Jul-29	66,562	641	57,978	34,776	10555	-12,647	-12,647	12,647
Aug-29	62,266	371	31,439	32,531	4829	5,921	-6,725	6,725
Sep-29	50,802	375	25,913	37,917	2187	14,191	0	0
Oct-29	71,069	431	41,604	53,043	1744	13,184	0	0
Nov-29	74,732	492	49,976	55,777	1539	7,340	0	0
Dec-29	76,065	544	56,297	56,772	0	476	0	0
Jan-30	83,081	620	70,062	62,009	5920	-2,133	-2,133	2,133
Feb-30	106,704	685	99,340	79,640	11603	-8,097	-10,230	10,230
Mar-30	111,740	678	102,950	83,399	14662	-4,888	-15,119	15,119
Apr-30	139,846	385	73,196	73,063	8360	8,227	-6,892	6,892
May-30	137,381	254	47,458	71,776	6922	31,239	0	0
Jun-30	84,539	371	42,616	44,168	7567	9,118	0	0
Jul-30	76,373	480	49,807	39,902	9905	0	0	0
Aug-30	52,191	230	16,298	27,267	4829	15,799	0	0
Sep-30	61,528	572	47,838	45,922	2187	272	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Oct-30	73,954	447	44,942	55,197	1744	11,999	0	0
Nov-30	67,418	479	43,866	50,318	1539	7,991	0	0
Dec-30	74,019	597	60,106	55,245	4426	-434	-434	434
Jan-31	83,766	649	73,942	62,520	5920	-5,502	-5,936	5,936
Feb-31	97,028	764	100,832	72,418	11603	-16,811	-22,747	22,747
Mar-31	105,249	763	109,203	78,554	14662	-15,987	-38,734	38,734
Apr-31	94,626	261	33,628	49,438	8360	24,170	-14,563	14,563
May-31	103,328	230	32,267	53,984	6922	28,639	0	0
Jun-31	62,755	494	42,137	32,787	9351	0	0	0
Jul-31	77,435	622	65,427	40,456	10555	-14,416	-14,416	14,416
Aug-31	57,596	483	37,812	30,091	7721	0	-14,416	14,416
Sep-31	65,969	426	38,161	49,237	2187	13,263	-1,152	1,152
Oct-31	68,155	366	33,894	50,869	0	16,975	0	0
Nov-31	79,692	458	49,609	59,479	0	9,870	0	0
Dec-31	102,741	508	70,900	76,682	0	5,783	0	0
Jan-32	100,881	555	76,090	75,294	795	0	0	0
Feb-32	180,185	454	111,115	134,484	0	23,369	0	0
Mar-32	112,549	535	81,876	84,003	3604	5,730	0	0
Apr-32	170,580	272	63,031	89,121	212	26,301	0	0
May-32	244,640	282	93,723	127,814	0	34,090	0	0
Jun-32	94,102	312	39,864	49,164	5406	14,707	0	0
Jul-32	119,978	328	53,435	62,683	3292	12,540	0	0
Aug-32	119,998	397	64,798	62,694	2104	0	0	0
Sep-32	99,464	319	43,109	74,236	0	31,128	0	0
Oct-32	161,418	231	50,692	120,477	0	69,784	0	0
Nov-32	87,267	440	52,190	65,133	0	12,944	0	0
Dec-32	84,889	458	52,799	63,358	0	10,560	0	0
Jan-33	100,616	538	73,619	75,096	0	1,477	0	0
Feb-33	123,354	549	92,117	92,067	7588	7,537	0	0
Mar-33	121,520	664	109,747	90,698	18480	-568	-568	568
Apr-33	123,795	257	43,219	64,677	8334	29,792	0	0
May-33	145,916	330	65,443	76,235	6113	16,905	0	0
Jun-33	81,422	401	44,333	42,539	7536	5,742	0	0
Jul-33	77,185	587	61,543	40,326	13304	-7,914	-7,914	7,914
Aug-33	79,613	363	39,321	41,594	3683	5,956	-1,958	1,958
Sep-33	64,978	458	40,494	48,497	0	8,003	0	0
Oct-33	72,245	461	45,288	53,921	1744	10,377	0	0
Nov-33	72,118	462	45,326	53,826	1539	10,039	0	0
Dec-33	74,065	476	47,889	55,280	0	7,391	0	0
Jan-34	84,284	643	73,655	62,907	5920	-4,828	-4,828	4,828
Feb-34	120,228	642	104,869	89,734	11603	-3,533	-8,361	8,361
Mar-34	101,622	716	98,878	75,847	14662	-8,368	-16,729	16,729
Apr-34	117,988	409	65,557	61,644	8360	4,446	-12,283	12,283
May-34	128,155	407	70,980	66,955	6922	2,897	-9,385	9,385
Jun-34	66,756	472	42,863	34,877	7986	0	-9,385	9,385
Jul-34	64,304	462	40,362	33,596	6766	0	-9,385	9,385
Aug-34	85,411	398	46,168	44,623	4829	3,285	-6,100	6,100
Sep-34	63,372	402	34,617	47,299	2187	14,869	0	0
Oct-34	70,311	515	49,180	52,478	0	3,298	0	0
Nov-34	83,520	434	49,222	62,336	0	13,114	0	0
Dec-34	82,783	542	61,010	61,786	0	777	0	0
Jan-35	97,841	472	62,716	73,025	0	10,309	0	0
Feb-35	122,855	776	129,642	91,695	16437	-21,511	-21,511	21,511
Mar-35	128,365	629	109,803	95,807	13996	0	-21,511	21,511

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Apr-35	241,714	296	97,400	126,285	212	29,097	0	0
May-35	259,282	190	67,080	135,463	0	68,384	0	0
Jun-35	167,766	207	47,189	87,650	5406	45,867	0	0
Jul-35	92,774	334	42,126	48,470	3292	9,636	0	0
Aug-35	129,517	340	59,902	67,667	120	7,885	0	0
Sep-35	98,677	277	37,173	73,649	0	36,476	0	0
Oct-35	180,882	223	54,789	135,004	0	80,216	0	0
Nov-35	93,953	368	47,017	70,123	0	23,106	0	0
Dec-35	99,120	518	69,735	73,980	0	4,245	0	0
Jan-36	135,757	414	76,335	101,324	0	24,990	0	0
Feb-36	517,182	212	149,129	386,007	0	236,877	0	0
Mar-36	142,991	646	125,541	106,724	18818	0	0	0
Apr-36	191,720	235	61,251	100,165	212	39,126	0	0
May-36	285,665	224	86,993	149,247	0	62,254	0	0
Jun-36	99,874	377	51,216	52,180	5406	6,370	0	0
Jul-36	116,012	435	68,560	60,611	7949	0	0	0
Aug-36	122,659	299	49,843	64,084	120	14,361	0	0
Sep-36	104,350	266	37,778	77,883	0	40,105	0	0
Oct-36	142,763	275	53,413	106,553	0	53,141	0	0
Nov-36	95,454	389	50,441	71,244	0	20,802	0	0
Dec-36	110,177	373	55,810	82,232	0	26,422	0	0
Jan-37	169,417	383	88,121	126,447	2425	40,750	0	0
Feb-37	572,991	221	172,233	427,661	3016	258,444	0	0
Mar-37	416,022	238	134,665	310,504	9517	185,357	0	0
Apr-37	248,674	194	65,620	129,921	4879	69,181	0	0
May-37	491,303	214	142,602	256,684	81	114,163	0	0
Jun-37	141,822	296	57,071	74,096	3576	20,601	0	0
Jul-37	123,750	396	66,639	64,654	1985	0	0	0
Aug-37	136,532	266	49,337	71,332	0	21,995	0	0
Sep-37	104,668	367	52,152	78,121	0	25,969	0	0
Oct-37	169,309	188	43,250	126,366	0	83,116	0	0
Nov-37	109,722	380	56,624	81,893	0	25,269	0	0
Dec-37	315,673	210	89,994	235,607	0	145,613	0	0
Jan-38	412,695	214	120,179	308,021	2425	190,267	0	0
Feb-38	1,097,178	133	198,981	818,896	3016	622,931	0	0
Mar-38	1,483,383	131	263,376	1,107,146	9517	853,287	0	0
Apr-38	689,819	166	155,207	360,400	4879	210,072	0	0
May-38	1,473,291	103	206,303	769,730	81	563,508	0	0
Jun-38	800,540	128	139,416	418,247	3576	282,407	0	0
Jul-38	233,167	302	95,795	121,819	230	26,255	0	0
Aug-38	123,724	369	62,100	64,640	0	2,540	0	0
Sep-38	206,500	215	60,218	154,124	0	93,906	0	0
Oct-38	320,261	137	59,518	239,032	0	179,513	0	0
Nov-38	158,079	273	58,734	117,985	0	59,250	0	0
Dec-38	123,222	354	59,269	91,969	0	32,700	0	0
Jan-39	145,382	332	65,698	108,508	0	42,810	0	0
Feb-39	214,656	442	128,987	160,212	7588	38,813	0	0
Mar-39	147,518	592	118,706	110,102	11788	3,184	0	0
Apr-39	215,332	208	60,803	112,501	8334	60,033	0	0
May-39	179,125	190	46,245	93,585	6113	53,454	0	0
Jun-39	97,745	340	45,154	51,067	7536	13,449	0	0
Jul-39	80,206	275	29,975	41,904	6165	18,094	0	0
Aug-39	115,599	360	56,592	60,395	3683	7,486	0	0
Sep-39	66,563	386	34,912	49,680	0	14,768	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Oct-39	80,297	501	54,691	59,931	0	5,240	0	0
Nov-39	83,722	354	40,338	62,487	0	22,149	0	0
Dec-39	79,681	376	40,720	59,471	0	18,751	0	0
Jan-40	134,144	427	77,817	100,120	0	22,304	0	0
Feb-40	239,665	406	132,122	178,878	0	46,756	0	0
Mar-40	464,911	224	141,642	346,994	3604	208,955	0	0
Apr-40	261,233	198	70,212	136,483	212	66,483	0	0
May-40	301,766	143	58,707	157,659	0	98,953	0	0
Jun-40	99,698	192	25,996	52,088	5406	31,497	0	0
Jul-40	107,366	296	43,205	56,094	3292	16,180	0	0
Aug-40	138,828	292	55,187	72,532	120	17,465	0	0
Sep-40	112,413	355	54,314	83,901	0	29,587	0	0
Oct-40	111,893	310	47,081	83,513	0	36,432	0	0
Nov-40	98,378	310	41,461	73,426	0	31,965	0	0
Dec-40	196,761	249	66,607	146,856	0	80,249	0	0
Jan-41	199,250	267	72,433	148,713	2425	78,704	0	0
Feb-41	651,247	183	162,200	486,068	3016	326,885	0	0
Mar-41	472,609	209	134,285	352,739	9517	227,971	0	0
Apr-41	321,423	139	60,608	167,929	4879	112,200	0	0
May-41	510,533	159	110,149	266,731	81	156,663	0	0
Jun-41	486,208	139	91,813	254,022	3576	165,786	0	0
Jul-41	127,349	336	58,207	66,534	230	8,557	0	0
Aug-41	114,300	312	48,544	59,717	0	11,173	0	0
Sep-41	111,222	338	51,168	83,012	0	31,844	0	0
Oct-41	301,344	149	60,960	224,913	0	163,953	0	0
Nov-41	136,110	341	63,025	101,588	0	38,563	0	0
Dec-41	216,924	257	75,732	161,905	0	86,172	0	0
Jan-42	410,432	154	86,097	306,332	2425	222,660	0	0
Feb-42	447,480	240	146,247	333,984	3016	190,753	0	0
Mar-42	290,628	264	104,388	216,915	9517	122,044	0	0
Apr-42	312,290	188	79,774	163,158	4879	88,263	0	0
May-42	336,079	162	73,881	175,586	81	101,787	0	0
Jun-42	382,823	248	129,227	200,008	3576	74,357	0	0
Jul-42	147,817	275	55,263	77,228	230	22,194	0	0
Aug-42	121,275	285	47,055	63,361	0	16,306	0	0
Sep-42	127,760	193	33,453	95,356	0	61,903	0	0
Oct-42	286,096	158	61,337	213,532	0	152,195	0	0
Nov-42	213,488	230	66,754	159,340	0	92,586	0	0
Dec-42	201,620	231	63,372	150,482	0	87,110	0	0
Jan-43	656,099	134	119,256	489,690	2425	372,858	0	0
Feb-43	550,309	163	121,873	410,732	3016	291,875	0	0
Mar-43	981,482	148	197,880	732,544	9517	544,181	0	0
Apr-43	305,956	203	84,396	159,849	4879	80,332	0	0
May-43	350,679	174	82,859	183,214	81	100,437	0	0
Jun-43	196,495	125	33,365	102,660	3576	72,871	0	0
Jul-43	139,051	396	74,784	72,648	2136	0	0	0
Aug-43	117,304	303	48,289	61,286	0	12,997	0	0
Sep-43	105,881	292	42,075	79,026	0	36,951	0	0
Oct-43	191,050	210	54,570	142,593	0	88,023	0	0
Nov-43	112,373	383	58,496	83,871	0	25,375	0	0
Dec-43	109,403	390	58,036	81,655	0	23,619	0	0
Jan-44	123,414	432	72,465	92,112	0	19,647	0	0
Feb-44	171,687	434	101,323	128,141	8494	35,313	0	0
Mar-44	155,088	599	126,189	115,752	12933	2,497	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Apr-44	264,171	197	70,751	138,018	9252	76,519	0	0
May-44	198,661	255	68,735	103,792	6985	42,042	0	0
Jun-44	88,224	357	42,855	46,093	8377	11,616	0	0
Jul-44	103,141	472	66,142	53,887	12255	0	0	0
Aug-44	94,918	330	42,519	49,590	4392	11,463	0	0
Sep-44	85,856	284	33,137	64,080	0	30,943	0	0
Oct-44	88,422	316	37,962	65,995	0	28,033	0	0
Nov-44	93,287	483	61,281	69,626	0	8,345	0	0
Dec-44	88,517	406	48,834	66,066	0	17,233	0	0
Jan-45	91,708	473	58,947	68,448	0	9,500	0	0
Feb-45	322,236	272	118,939	240,506	0	121,567	0	0
Mar-45	345,459	301	141,271	257,839	3604	120,171	0	0
Apr-45	222,299	174	52,495	116,141	212	63,859	0	0
May-45	272,192	144	53,249	142,208	0	88,959	0	0
Jun-45	127,635	388	67,274	66,684	5406	4,816	0	0
Jul-45	130,621	405	71,902	68,244	3658	0	0	0
Aug-45	105,829	305	43,824	55,291	120	11,587	0	0
Sep-45	109,513	428	63,692	81,737	0	18,045	0	0
Oct-45	212,304	171	49,442	158,456	0	109,015	0	0
Nov-45	133,548	268	48,585	99,676	0	51,091	0	0
Dec-45	302,067	151	62,010	225,452	0	163,443	0	0
Jan-46	336,084	188	85,944	250,842	0	164,897	0	0
Feb-46	294,513	303	121,438	219,814	0	98,376	0	0
Mar-46	262,765	337	120,458	196,119	3604	79,265	0	0
Apr-46	292,332	191	75,948	152,731	212	76,995	0	0
May-46	268,166	172	62,706	140,105	0	77,399	0	0
Jun-46	123,174	392	65,559	64,353	5406	4,200	0	0
Jul-46	127,043	339	58,464	66,374	3292	11,202	0	0
Aug-46	138,749	399	75,320	72,490	2829	0	0	0
Sep-46	101,904	291	40,370	76,058	0	35,688	0	0
Oct-46	98,348	296	39,603	73,404	0	33,800	0	0
Nov-46	103,194	316	44,360	77,020	0	32,660	0	0
Dec-46	126,129	374	64,114	94,138	0	30,025	0	0
Jan-47	131,018	486	86,477	97,787	0	11,311	0	0
Feb-47	157,668	457	98,044	117,678	7588	27,222	0	0
Mar-47	129,332	645	113,338	96,529	16809	0	0	0
Apr-47	143,001	281	54,590	74,712	8334	28,455	0	0
May-47	153,783	301	62,909	80,345	6113	23,549	0	0
Jun-47	73,499	217	21,633	38,400	7536	24,303	0	0
Jul-47	80,140	323	35,224	41,870	6165	12,811	0	0
Aug-47	99,061	441	59,391	51,755	7636	0	0	0
Sep-47	76,922	401	41,924	57,412	0	15,488	0	0
Oct-47	71,161	367	35,544	53,112	0	17,569	0	0
Nov-47	79,816	549	59,518	59,572	0	54	0	0
Dec-47	76,564	463	48,183	57,145	0	8,962	0	0
Jan-48	87,134	548	64,880	65,034	0	154	0	0
Feb-48	114,162	695	107,789	85,207	15530	-7,052	-7,052	7,052
Mar-48	119,508	692	112,414	89,197	19626	-3,591	-10,643	10,643
Apr-48	175,082	264	62,910	91,473	9252	37,815	0	0
May-48	173,401	301	70,934	90,594	6985	26,646	0	0
Jun-48	88,853	278	33,557	46,422	8377	21,242	0	0
Jul-48	94,774	341	43,936	49,515	6990	12,569	0	0
Aug-48	104,223	286	40,467	54,452	4392	18,377	0	0
Sep-48	77,041	302	31,589	57,501	0	25,912	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Oct-48	82,359	348	38,942	61,470	0	22,528	0	0
Nov-48	80,048	406	44,129	59,745	0	15,616	0	0
Dec-48	78,811	431	46,147	58,822	0	12,675	0	0
Jan-49	91,528	622	77,422	68,313	7924	-1,184	-1,184	1,184
Feb-49	102,784	628	87,740	76,714	11025	0	-1,184	1,184
Mar-49	121,360	704	116,070	90,579	19626	-5,865	-7,049	7,049
Apr-49	175,186	300	71,331	91,527	9252	29,448	0	0
May-49	180,376	286	70,182	94,238	6985	31,041	0	0
Jun-49	84,053	157	17,975	43,914	8377	34,317	0	0
Jul-49	90,101	383	46,853	47,074	6990	7,210	0	0
Aug-49	107,143	318	46,247	55,977	4392	14,122	0	0
Sep-49	81,978	295	32,855	61,186	0	28,330	0	0
Oct-49	83,289	319	36,064	62,164	0	26,100	0	0
Nov-49	78,653	443	47,402	58,704	0	11,302	0	0
Dec-49	85,653	533	62,089	63,928	0	1,840	0	0
Jan-50	90,242	459	56,263	67,354	0	11,091	0	0
Feb-50	119,732	604	98,365	89,364	9001	0	0	0
Mar-50	122,474	746	124,145	91,410	19626	-13,109	-13,109	13,109
Apr-50	180,969	287	70,610	94,548	9252	33,190	0	0
May-50	196,371	280	74,751	102,595	6985	34,830	0	0
Jun-50	107,186	414	60,313	56,000	8377	4,064	0	0
Jul-50	115,678	411	64,667	60,437	6990	2,759	0	0
Aug-50	108,338	393	57,883	56,602	4392	3,110	0	0
Sep-50	86,626	324	38,133	64,655	0	26,521	0	0
Oct-50	80,618	510	55,841	60,170	0	4,329	0	0
Nov-50	112,735	386	59,144	84,142	0	24,997	0	0
Dec-50	486,196	144	95,380	362,880	0	267,500	0	0
Jan-51	510,994	168	116,570	381,388	0	264,818	0	0
Feb-51	387,795	240	126,688	289,437	0	162,749	0	0
Mar-51	295,433	262	105,150	220,501	3604	118,955	0	0
Apr-51	306,407	193	80,396	160,084	212	79,900	0	0
May-51	241,523	153	50,073	126,185	0	76,112	0	0
Jun-51	109,820	172	25,605	57,376	5406	37,177	0	0
Jul-51	126,655	407	70,046	66,172	3874	0	0	0
Aug-51	121,483	320	52,833	63,470	120	10,756	0	0
Sep-51	102,444	294	40,932	76,461	0	35,528	0	0
Oct-51	106,550	405	58,681	79,525	0	20,845	0	0
Nov-51	109,025	358	52,988	81,372	0	28,384	0	0
Dec-51	115,668	391	61,406	86,331	0	24,924	0	0
Jan-52	177,343	314	75,729	132,363	2425	59,058	0	0
Feb-52	235,623	363	116,151	175,861	3016	62,726	0	0
Mar-52	505,444	224	153,784	377,246	9517	232,979	0	0
Apr-52	481,644	146	95,338	251,638	4879	161,179	0	0
May-52	1,009,027	120	163,927	527,172	81	363,327	0	0
Jun-52	638,853	94	81,728	333,772	3576	255,621	0	0
Jul-52	268,907	164	59,955	140,492	230	80,767	0	0
Aug-52	202,497	285	78,487	105,796	0	27,309	0	0
Sep-52	210,760	185	53,008	157,304	0	104,296	0	0
Oct-52	290,859	136	53,857	217,087	0	163,231	0	0
Nov-52	138,896	277	52,268	103,667	0	51,399	0	0
Dec-52	157,748	311	66,589	117,738	0	51,148	0	0
Jan-53	265,415	201	72,672	198,097	0	125,425	0	0
Feb-53	318,621	290	125,705	237,808	8494	120,597	0	0
Mar-53	230,419	402	126,022	171,977	12933	58,888	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Apr-53	256,947	197	68,746	134,243	9252	74,749	0	0
May-53	258,165	274	96,062	134,880	6985	45,803	0	0
Jun-53	115,104	437	68,383	60,137	8377	131	0	0
Jul-53	115,809	408	64,221	60,505	6990	3,274	0	0
Aug-53	122,120	290	48,163	63,802	4392	20,031	0	0
Sep-53	94,421	356	45,737	70,473	0	24,736	0	0
Oct-53	91,360	293	36,404	68,188	0	31,784	0	0
Nov-53	96,500	453	59,482	72,024	0	12,542	0	0
Dec-53	93,834	497	63,337	70,034	0	6,697	0	0
Jan-54	95,397	498	64,561	71,201	0	6,640	0	0
Feb-54	124,394	655	110,786	92,843	15530	-2,413	-2,413	2,413
Mar-54	142,721	666	129,243	106,522	19626	-3,095	-5,508	5,508
Apr-54	204,193	261	72,481	106,682	9252	43,452	0	0
May-54	182,418	182	45,235	95,305	6985	57,056	0	0
Jun-54	104,417	595	84,463	54,553	14423	-15,487	-15,487	15,487
Jul-54	119,559	474	77,093	62,464	14128	-500	-15,987	15,987
Aug-54	96,226	322	42,085	50,274	4392	12,581	-3,406	3,406
Sep-54	85,702	333	38,798	63,965	0	25,167	0	0
Oct-54	92,896	369	46,602	69,334	0	22,733	0	0
Nov-54	84,534	440	50,532	63,093	0	12,561	0	0
Dec-54	84,615	425	48,889	63,154	0	14,264	0	0
Jan-55	100,729	465	63,609	75,181	0	11,572	0	0
Feb-55	119,632	711	115,669	89,289	14624	-11,756	-11,756	11,756
Mar-55	114,828	773	120,734	85,704	18480	-16,551	-28,307	28,307
Apr-55	147,333	390	78,097	76,975	8334	7,212	-21,095	21,095
May-55	143,718	287	56,075	75,086	6113	25,124	0	0
Jun-55	81,721	281	31,186	42,696	7536	19,046	0	0
Jul-55	105,966	572	82,388	55,363	13304	-13,722	-13,722	13,722
Aug-55	62,708	371	31,637	32,762	3683	4,808	-8,914	8,914
Sep-55	69,724	398	37,698	52,040	0	14,342	0	0
Oct-55	76,166	390	40,342	56,848	0	16,505	0	0
Nov-55	88,821	435	52,503	66,293	0	13,790	0	0
Dec-55	369,353	211	105,900	275,672	0	169,772	0	0
Jan-56	1,088,384	113	167,793	812,332	2425	646,964	0	0
Feb-56	594,957	195	157,563	444,055	3016	289,509	0	0
Mar-56	362,903	278	137,205	270,858	9517	143,170	0	0
Apr-56	310,622	181	76,223	162,286	4879	90,942	0	0
May-56	376,331	213	109,027	196,616	81	87,671	0	0
Jun-56	442,795	130	77,956	231,341	3576	156,961	0	0
Jul-56	146,176	290	57,631	76,371	230	18,970	0	0
Aug-56	130,432	308	54,668	68,145	0	13,476	0	0
Sep-56	122,306	276	45,875	91,285	0	45,410	0	0
Oct-56	287,309	122	47,457	214,438	0	166,980	0	0
Nov-56	105,481	400	57,289	78,727	0	21,439	0	0
Dec-56	102,226	320	44,486	76,298	0	31,812	0	0
Jan-57	117,728	462	73,976	87,868	0	13,892	0	0
Feb-57	178,034	455	110,054	132,878	8494	31,318	0	0
Mar-57	198,450	403	108,726	148,116	12933	52,323	0	0
Apr-57	272,715	273	101,328	142,482	9252	50,406	0	0
May-57	228,676	138	42,871	119,473	6985	83,587	0	0
Jun-57	100,973	339	46,522	52,754	8377	14,610	0	0
Jul-57	125,749	342	58,501	65,698	6990	14,187	0	0
Aug-57	117,549	275	43,979	61,414	4392	21,827	0	0
Sep-57	88,419	300	36,110	65,993	0	29,883	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Oct-57	100,284	331	45,168	74,849	0	29,680	0	0
Nov-57	97,870	356	47,341	73,047	0	25,706	0	0
Dec-57	92,178	383	48,046	68,798	0	20,752	0	0
Jan-58	107,296	485	70,790	80,082	2425	11,716	0	0
Feb-58	147,153	563	112,631	109,830	3016	216	0	0
Mar-58	446,391	234	141,825	333,171	9517	200,863	0	0
Apr-58	537,498	118	85,861	280,819	4879	199,838	0	0
May-58	649,196	125	110,588	339,176	81	228,670	0	0
Jun-58	619,292	140	117,449	323,553	3576	209,680	0	0
Jul-58	107,828	257	37,689	56,335	230	18,876	0	0
Aug-58	136,661	437	81,265	71,399	9865	0	0	0
Sep-58	119,452	227	36,782	89,155	0	52,372	0	0
Oct-58	295,512	137	55,200	220,560	0	165,360	0	0
Nov-58	144,171	266	52,136	107,604	0	55,468	0	0
Dec-58	102,805	334	46,667	76,730	0	30,063	0	0
Jan-59	140,010	358	68,086	104,499	0	36,413	0	0
Feb-59	250,145	319	108,449	186,700	7588	85,838	0	0
Mar-59	221,534	375	113,001	165,345	11788	64,132	0	0
Apr-59	183,532	222	55,267	95,887	8334	48,955	0	0
May-59	200,539	280	76,337	104,773	6113	34,549	0	0
Jun-59	77,970	319	33,846	40,736	7536	14,426	0	0
Jul-59	104,703	559	79,584	54,703	13304	-11,578	-11,578	11,578
Aug-59	117,681	337	53,836	61,483	3683	11,330	-248	248
Sep-59	74,769	343	34,865	55,805	0	20,940	0	0
Oct-59	80,385	404	44,118	59,997	1744	17,623	0	0
Nov-59	81,466	529	58,533	60,803	1539	3,809	0	0
Dec-59	79,852	511	55,419	59,599	0	4,180	0	0
Jan-60	86,349	432	50,690	64,448	0	13,758	0	0
Feb-60	116,638	671	106,352	87,055	11603	-7,695	-7,695	7,695
Mar-60	103,922	702	99,236	77,564	14662	-7,010	-14,706	14,706
Apr-60	126,523	296	50,914	66,103	8360	23,548	0	0
May-60	165,930	318	71,645	86,691	6922	21,968	0	0
Jun-60	78,617	413	44,152	41,074	7567	4,489	0	0
Jul-60	109,737	596	88,871	57,333	10555	-20,983	-20,983	20,983
Aug-60	92,150	446	55,899	48,144	7755	0	-20,983	20,983
Sep-60	66,734	514	46,614	49,808	2187	5,381	-15,602	15,602
Oct-60	66,056	379	34,062	49,302	1744	16,984	0	0
Nov-60	74,648	541	54,943	55,715	1539	2,310	0	0
Dec-60	75,844	499	51,411	56,607	0	5,197	0	0
Jan-61	81,499	656	72,706	60,828	5920	-5,957	-5,957	5,957
Feb-61	106,456	745	107,793	79,455	11603	-16,735	-22,692	22,692
Mar-61	108,918	737	109,190	81,293	14662	-13,235	-35,927	35,927
Apr-61	85,246	297	34,443	44,537	8360	18,454	-17,473	17,473
May-61	92,621	324	40,747	48,390	6922	14,565	-2,908	2,908
Jun-61	87,542	581	69,159	45,737	10775	-12,646	-15,554	15,554
Jul-61	92,368	427	53,645	48,258	6741	1,354	-14,200	14,200
Aug-61	71,457	361	35,031	37,333	4829	7,132	-7,069	7,069
Sep-61	58,056	443	34,957	43,331	2187	10,562	0	0
Oct-61	70,934	453	43,646	52,943	0	9,296	0	0
Nov-61	76,629	411	42,858	57,193	0	14,335	0	0
Dec-61	77,839	574	60,763	58,096	2667	0	0	0
Jan-62	81,157	751	82,838	60,573	7924	-14,341	-14,341	14,341
Feb-62	194,148	455	119,989	144,905	8494	33,410	0	0
Mar-62	121,776	625	103,538	90,889	12933	285	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Apr-62	161,859	262	57,630	84,564	9252	36,185	0	0
May-62	204,762	237	66,002	106,979	6985	47,962	0	0
Jun-62	88,644	353	42,565	46,313	8377	12,125	0	0
Jul-62	81,085	374	41,184	42,363	6990	8,169	0	0
Aug-62	86,580	306	36,030	45,234	4392	13,596	0	0
Sep-62	87,557	331	39,353	65,350	0	25,997	0	0
Oct-62	80,123	433	47,165	59,801	0	12,636	0	0
Nov-62	90,339	541	66,493	67,426	0	933	0	0
Dec-62	84,154	476	54,458	62,810	0	8,352	0	0
Jan-63	89,381	562	68,278	66,711	1568	0	0	0
Feb-63	153,919	506	105,840	114,880	0	9,040	0	0
Mar-63	131,329	616	110,053	98,019	12034	0	0	0
Apr-63	226,938	253	78,180	118,565	212	40,598	0	0
May-63	228,428	185	57,358	119,344	0	61,985	0	0
Jun-63	94,186	406	51,987	49,208	5406	2,627	0	0
Jul-63	109,086	447	66,217	56,993	9224	0	0	0
Aug-63	104,583	316	44,901	54,640	120	9,859	0	0
Sep-63	91,235	268	33,266	68,095	0	34,829	0	0
Oct-63	122,105	317	52,556	91,135	0	38,579	0	0
Nov-63	119,254	408	66,099	89,007	0	22,908	0	0
Dec-63	108,667	487	71,946	81,105	0	9,159	0	0
Jan-64	115,766	397	62,466	86,404	0	23,938	0	0
Feb-64	131,473	620	110,764	98,127	12637	0	0	0
Mar-64	120,599	661	108,341	90,011	18330	0	0	0
Apr-64	150,202	374	76,411	78,474	8334	10,396	0	0
May-64	149,508	326	66,221	78,111	6113	18,004	0	0
Jun-64	97,384	464	61,417	50,879	10539	0	0	0
Jul-64	99,342	443	59,789	51,902	7887	0	0	0
Aug-64	77,352	448	47,101	40,413	6688	0	0	0
Sep-64	59,799	355	28,893	44,632	0	15,739	0	0
Oct-64	80,398	493	53,875	60,006	0	6,132	0	0
Nov-64	79,993	346	37,660	59,704	0	22,044	0	0
Dec-64	151,838	302	62,299	113,327	0	51,028	0	0
Jan-65	481,901	149	97,551	359,674	2425	264,548	0	0
Feb-65	367,982	228	113,862	274,649	3016	163,804	0	0
Mar-65	259,260	350	123,327	193,503	9517	79,693	0	0
Apr-65	317,393	207	89,363	165,824	4879	81,340	0	0
May-65	285,308	188	72,727	149,061	81	76,415	0	0
Jun-65	112,700	298	45,658	58,881	3576	16,799	0	0
Jul-65	121,093	268	44,087	63,266	230	19,409	0	0
Aug-65	119,885	370	60,239	62,635	0	2,396	0	0
Sep-65	111,040	342	51,568	82,876	0	31,309	0	0
Oct-65	257,963	202	70,912	192,535	0	121,623	0	0
Nov-65	197,345	203	54,463	147,291	0	92,829	0	0
Dec-65	256,544	171	59,779	191,476	0	131,696	0	0
Jan-66	272,822	238	88,163	203,625	0	115,462	0	0
Feb-66	302,979	280	115,250	226,133	8494	119,377	0	0
Mar-66	215,369	403	117,937	160,744	12933	55,740	0	0
Apr-66	218,323	198	58,828	114,064	9252	64,488	0	0
May-66	186,000	277	69,968	97,177	6985	34,194	0	0
Jun-66	98,585	443	59,307	51,506	8377	577	0	0
Jul-66	115,935	344	54,156	60,571	6990	13,405	0	0
Aug-66	128,698	367	64,265	67,239	4392	7,366	0	0
Sep-66	84,757	338	38,970	63,260	0	24,290	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Oct-66	89,647	423	51,541	66,909	0	15,368	0	0
Nov-66	88,298	405	48,581	65,903	0	17,322	0	0
Dec-66	103,243	404	56,691	77,057	0	20,366	0	0
Jan-67	113,643	468	72,305	84,819	2425	14,939	0	0
Feb-67	157,104	494	105,489	117,257	3016	14,785	0	0
Mar-67	281,390	322	123,104	210,020	9517	96,432	0	0
Apr-67	555,049	166	125,564	289,989	4879	169,304	0	0
May-67	905,056	143	176,197	472,852	81	296,737	0	0
Jun-67	803,916	141	153,556	420,011	3576	270,031	0	0
Jul-67	575,146	153	119,945	300,488	230	180,773	0	0
Aug-67	117,370	399	63,586	61,321	2266	0	0	0
Sep-67	179,079	196	47,742	133,658	0	85,916	0	0
Oct-67	302,229	162	66,604	225,573	0	158,970	0	0
Nov-67	118,550	335	53,959	88,482	0	34,522	0	0
Dec-67	107,536	386	56,431	80,261	0	23,830	0	0
Jan-68	115,909	497	78,253	86,510	0	8,257	0	0
Feb-68	210,721	400	114,447	157,275	7588	50,416	0	0
Mar-68	189,665	499	128,744	141,559	11788	24,603	0	0
Apr-68	221,352	182	54,769	115,647	8334	69,212	0	0
May-68	171,889	190	44,330	89,804	6113	51,588	0	0
Jun-68	95,220	324	41,994	49,748	7536	15,290	0	0
Jul-68	93,828	342	43,587	49,021	6165	11,599	0	0
Aug-68	89,496	419	50,943	46,758	4185	0	0	0
Sep-68	73,150	541	53,781	54,597	0	815	0	0
Oct-68	84,959	471	54,344	63,410	0	9,067	0	0
Nov-68	86,332	382	44,823	64,435	0	19,612	0	0
Dec-68	92,419	460	57,809	68,978	0	11,170	0	0
Jan-69	605,803	155	127,821	452,150	2425	326,754	0	0
Feb-69	1,484,150	121	244,747	1,107,718	3016	865,987	0	0
Mar-69	972,482	165	218,145	725,827	9517	517,199	0	0
Apr-69	1,129,551	126	193,796	590,141	4879	401,224	0	0
May-69	1,685,679	95	217,710	880,693	81	663,065	0	0
Jun-69	1,153,940	94	146,838	602,883	3576	459,621	0	0
Jul-69	364,061	245	121,409	190,206	230	69,026	0	0
Aug-69	179,067	200	48,615	93,555	0	44,939	0	0
Sep-69	205,559	198	55,333	153,422	0	98,090	0	0
Oct-69	320,808	146	63,720	239,440	0	175,720	0	0
Nov-69	174,286	236	55,918	130,081	0	74,163	0	0
Dec-69	200,184	223	60,635	149,410	0	88,775	0	0
Jan-70	1,053,767	98	140,538	786,495	0	645,958	0	0
Feb-70	525,783	209	149,608	392,426	0	242,818	0	0
Mar-70	363,701	257	127,222	271,454	3604	147,835	0	0
Apr-70	299,608	182	74,050	156,532	212	82,694	0	0
May-70	287,228	177	69,155	150,064	0	80,909	0	0
Jun-70	125,558	401	68,364	65,599	5406	2,641	0	0
Jul-70	112,191	506	77,192	58,615	14953	-3,625	-3,625	3,625
Aug-70	128,996	305	53,488	67,395	120	14,027	0	0
Sep-70	100,723	355	48,611	75,176	0	26,565	0	0
Oct-70	100,506	310	42,317	75,014	0	32,697	0	0
Nov-70	100,418	357	48,737	74,949	0	26,212	0	0
Dec-70	101,346	346	47,658	75,641	0	27,983	0	0
Jan-71	101,720	446	61,663	75,920	0	14,258	0	0
Feb-71	130,481	625	110,921	97,387	13535	0	0	0
Mar-71	217,265	365	107,663	162,159	12933	67,429	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Apr-71	248,580	182	61,573	129,872	9252	77,550	0	0
May-71	262,805	312	111,615	137,304	6985	32,674	0	0
Jun-71	104,716	430	61,215	54,709	8377	1,872	0	0
Jul-71	119,356	464	75,258	62,358	12900	0	0	0
Aug-71	93,651	278	35,356	48,929	4392	17,964	0	0
Sep-71	94,156	406	51,906	70,275	0	18,369	0	0
Oct-71	98,615	409	54,847	73,603	0	18,756	0	0
Nov-71	83,213	383	43,328	62,107	0	18,779	0	0
Dec-71	87,491	436	51,848	65,300	0	13,453	0	0
Jan-72	99,602	600	81,232	74,339	6892	0	0	0
Feb-72	123,895	601	101,263	92,471	8792	0	0	0
Mar-72	113,035	612	94,077	84,365	11788	2,076	0	0
Apr-72	163,160	297	65,791	85,244	8334	27,787	0	0
May-72	134,352	223	40,713	70,193	6113	35,593	0	0
Jun-72	84,941	213	24,550	44,378	7536	27,363	0	0
Jul-72	103,599	500	70,464	54,126	13304	-3,034	-3,034	3,034
Aug-72	107,094	370	53,928	55,952	3683	5,707	0	0
Sep-72	63,514	520	44,918	47,405	0	2,487	0	0
Oct-72	76,422	417	43,304	57,039	0	13,735	0	0
Nov-72	80,191	436	47,489	59,852	0	12,363	0	0
Dec-72	78,131	357	37,910	58,314	0	20,405	0	0
Jan-73	90,872	493	60,930	67,824	0	6,894	0	0
Feb-73	206,407	379	106,267	154,055	0	47,788	0	0
Mar-73	365,922	261	129,989	273,112	3604	146,726	0	0
Apr-73	195,993	158	42,126	102,398	212	60,484	0	0
May-73	307,514	216	90,093	160,662	0	70,569	0	0
Jun-73	131,057	486	86,574	68,471	15265	-2,838	-2,838	2,838
Jul-73	127,760	465	80,696	66,749	13947	0	-2,838	2,838
Aug-73	131,596	310	55,425	68,753	120	13,448	0	0
Sep-73	98,439	317	42,357	73,471	0	31,115	0	0
Oct-73	192,551	210	54,946	143,713	0	88,767	0	0
Nov-73	150,049	224	45,674	111,991	0	66,318	0	0
Dec-73	159,394	230	49,732	118,966	0	69,234	0	0
Jan-74	421,318	161	92,218	314,457	2425	224,664	0	0
Feb-74	304,775	299	124,012	227,474	3016	106,477	0	0
Mar-74	379,625	281	145,024	283,339	9517	147,832	0	0
Apr-74	305,514	160	66,414	159,618	4879	98,083	0	0
May-74	306,131	193	80,449	159,940	81	79,573	0	0
Jun-74	181,452	419	103,237	94,801	8437	0	0	0
Jul-74	120,163	313	51,181	62,780	230	11,828	0	0
Aug-74	111,433	348	52,644	58,219	0	5,575	0	0
Sep-74	102,464	300	41,748	76,476	0	34,727	0	0
Oct-74	202,721	196	53,880	151,304	0	97,424	0	0
Nov-74	107,252	352	51,296	80,049	0	28,754	0	0
Dec-74	113,632	321	49,558	84,811	0	35,253	0	0
Jan-75	131,508	358	64,041	98,153	2425	36,537	0	0
Feb-75	261,268	303	107,659	195,001	3016	90,358	0	0
Mar-75	404,837	254	139,795	302,156	9517	171,878	0	0
Apr-75	261,628	201	71,492	136,689	4879	70,076	0	0
May-75	287,549	175	68,451	150,232	81	81,862	0	0
Jun-75	329,262	123	55,103	172,025	3576	120,498	0	0
Jul-75	106,150	304	43,813	55,459	230	11,876	0	0
Aug-75	121,406	325	53,625	63,429	0	9,804	0	0
Sep-75	101,758	290	40,091	75,949	0	35,858	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Oct-75	244,422	165	54,961	182,428	1744	129,211	0	0
Nov-75	118,182	415	66,645	88,207	1539	23,101	0	0
Dec-75	109,676	440	65,621	81,858	0	16,237	0	0
Jan-76	101,932	460	63,745	76,079	0	12,333	0	0
Feb-76	141,242	494	94,800	105,418	8066	18,684	0	0
Mar-76	116,701	568	90,053	87,102	11316	8,365	0	0
Apr-76	142,979	264	51,355	74,700	8360	31,705	0	0
May-76	180,673	322	79,165	94,394	6922	22,151	0	0
Jun-76	68,792	306	28,618	35,941	7567	14,889	0	0
Jul-76	111,392	556	84,123	58,197	10555	-15,371	-15,371	15,371
Aug-76	89,406	370	44,924	46,711	4829	6,616	-8,755	8,755
Sep-76	61,133	292	24,260	45,628	2187	23,555	0	0
Oct-76	92,809	413	52,110	69,269	1744	18,904	0	0
Nov-76	75,450	486	49,810	56,313	1539	8,042	0	0
Dec-76	82,015	574	64,012	61,213	2799	0	0	0
Jan-77	93,225	602	76,234	69,580	5920	-734	-734	734
Feb-77	114,754	723	112,778	85,648	11603	-15,527	-16,261	16,261
Mar-77	101,639	796	110,004	75,860	14662	-19,481	-35,742	35,742
Apr-77	115,812	386	60,822	60,507	8360	8,045	-27,697	27,697
May-77	102,077	271	37,580	53,331	6922	22,673	-5,024	5,024
Jun-77	79,774	388	42,080	41,678	7567	7,165	0	0
Jul-77	91,415	569	70,665	47,760	10555	-12,349	-12,349	12,349
Aug-77	66,563	395	35,763	34,776	4829	3,843	-8,506	8,506
Sep-77	57,785	398	31,266	43,129	2187	14,050	0	0
Oct-77	73,957	409	41,153	55,199	0	14,046	0	0
Nov-77	78,551	473	50,458	58,628	0	8,169	0	0
Dec-77	85,504	441	51,286	63,817	0	12,531	0	0
Jan-78	114,847	426	66,560	85,718	2425	21,582	0	0
Feb-78	211,277	523	150,193	157,690	3016	10,513	0	0
Mar-78	517,451	260	183,114	386,208	9517	212,610	0	0
Apr-78	682,956	167	154,963	356,814	4879	206,731	0	0
May-78	576,161	170	132,846	301,019	81	168,254	0	0
Jun-78	336,882	182	83,492	176,006	3576	96,090	0	0
Jul-78	199,173	385	104,140	104,059	230	148	0	0
Aug-78	104,233	259	36,645	54,457	0	17,812	0	0
Sep-78	168,352	184	42,113	125,652	0	83,539	0	0
Oct-78	261,176	167	59,225	194,933	0	135,707	0	0
Nov-78	124,464	357	60,475	92,896	0	32,420	0	0
Dec-78	101,179	408	56,122	75,517	0	19,395	0	0
Jan-79	220,581	284	85,046	164,634	0	79,588	0	0
Feb-79	460,568	211	132,179	343,752	0	211,573	0	0
Mar-79	397,458	219	118,065	296,649	3604	182,187	0	0
Apr-79	217,587	211	62,268	113,680	212	51,624	0	0
May-79	286,788	215	83,631	149,834	0	66,203	0	0
Jun-79	106,670	342	49,596	55,730	5406	11,540	0	0
Jul-79	139,432	441	83,576	72,847	10729	0	0	0
Aug-79	109,467	311	46,328	57,192	120	10,984	0	0
Sep-79	95,587	367	47,692	71,343	0	23,651	0	0
Oct-79	133,297	221	40,049	99,488	0	59,439	0	0
Nov-79	105,597	309	44,331	78,814	0	34,483	0	0
Dec-79	112,725	329	50,465	84,134	0	33,669	0	0
Jan-80	740,704	119	119,630	552,836	2425	435,630	0	0
Feb-80	1,137,209	134	206,550	848,774	3016	645,240	0	0
Mar-80	845,055	195	224,026	630,720	9517	416,211	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Apr-80	289,604	177	69,530	151,305	4879	86,654	0	0
May-80	447,872	214	130,057	233,993	81	104,018	0	0
Jun-80	469,046	158	100,560	245,056	3576	148,072	0	0
Jul-80	243,167	181	59,935	127,044	230	67,339	0	0
Aug-80	122,025	341	56,603	63,753	0	7,150	0	0
Sep-80	169,530	204	46,925	126,531	0	79,606	0	0
Oct-80	290,729	134	52,805	216,990	0	164,185	0	0
Nov-80	130,233	380	67,262	97,201	0	29,939	0	0
Dec-80	102,104	391	54,219	76,207	0	21,988	0	0
Jan-81	122,574	392	65,389	91,485	0	26,096	0	0
Feb-81	163,047	432	95,825	121,693	7588	33,456	0	0
Mar-81	181,091	461	113,446	135,160	11788	33,502	0	0
Apr-81	231,587	189	59,379	120,994	8334	69,949	0	0
May-81	182,840	238	59,210	95,526	6113	42,429	0	0
Jun-81	69,627	164	15,533	36,377	7536	28,379	0	0
Jul-81	75,484	233	23,890	39,437	6165	21,712	0	0
Aug-81	94,778	354	45,626	49,517	3683	7,574	0	0
Sep-81	61,784	323	27,122	46,113	0	18,991	0	0
Oct-81	83,666	376	42,756	62,445	0	19,689	0	0
Nov-81	92,624	339	42,625	69,131	0	26,507	0	0
Dec-81	94,258	497	63,623	70,351	0	6,728	0	0
Jan-82	413,818	166	93,614	308,859	2425	217,670	0	0
Feb-82	822,753	131	145,969	614,074	3016	471,122	0	0
Mar-82	760,150	160	164,831	567,350	9517	412,036	0	0
Apr-82	1,437,734	99	192,919	751,153	4879	563,113	0	0
May-82	872,099	124	146,898	455,633	81	308,816	0	0
Jun-82	540,799	131	95,946	282,544	3576	190,174	0	0
Jul-82	265,342	182	65,725	138,629	230	73,134	0	0
Aug-82	187,882	257	65,644	98,160	0	32,516	0	0
Sep-82	322,264	134	58,620	240,527	0	181,907	0	0
Oct-82	542,632	101	74,656	405,002	0	330,346	0	0
Nov-82	552,337	141	106,027	412,245	0	306,218	0	0
Dec-82	1,135,783	109	167,689	847,709	0	680,020	0	0
Jan-83	1,426,094	103	198,724	1,064,387	2425	868,087	0	0
Feb-83	1,901,234	105	271,396	1,419,015	3016	1,150,635	0	0
Mar-83	2,219,894	102	307,227	1,656,852	9517	1,359,142	0	0
Apr-83	947,887	139	178,607	495,229	4879	321,501	0	0
May-83	1,145,933	120	186,636	598,699	81	412,145	0	0
Jun-83	2,308,703	76	239,481	1,206,195	3576	970,290	0	0
Jul-83	998,718	92	124,371	521,786	230	397,645	0	0
Aug-83	209,683	196	55,930	109,550	0	53,621	0	0
Sep-83	481,495	101	65,787	359,371	0	293,585	0	0
Oct-83	470,571	139	89,116	351,218	0	262,102	0	0
Nov-83	875,398	114	136,029	653,367	0	517,338	0	0
Dec-83	1,289,867	90	157,120	962,712	0	805,592	0	0
Jan-84	949,653	131	168,741	708,788	0	540,048	0	0
Feb-84	522,144	182	129,265	389,710	0	260,446	0	0
Mar-84	367,219	327	163,000	274,080	3604	114,683	0	0
Apr-84	312,166	205	86,957	163,093	212	76,348	0	0
May-84	247,418	121	40,801	129,265	0	88,464	0	0
Jun-84	117,069	269	42,749	61,163	5406	23,820	0	0
Jul-84	114,999	363	56,752	60,082	3292	6,622	0	0
Aug-84	106,045	277	39,877	55,404	120	15,647	0	0
Sep-84	116,244	307	48,564	86,761	0	38,197	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Oct-84	100,014	310	42,123	74,647	0	32,524	0	0
Nov-84	104,073	321	45,432	77,676	0	32,245	0	0
Dec-84	101,172	451	62,032	75,511	0	13,479	0	0
Jan-85	101,800	517	71,579	75,980	0	4,401	0	0
Feb-85	129,668	619	109,172	96,780	12393	0	0	0
Mar-85	121,850	560	92,701	90,945	11788	10,032	0	0
Apr-85	178,468	271	65,776	93,242	8334	35,799	0	0
May-85	186,924	297	75,348	97,660	6113	28,425	0	0
Jun-85	72,697	321	31,755	37,981	7536	13,762	0	0
Jul-85	97,092	418	55,175	50,726	6165	1,717	0	0
Aug-85	88,562	274	33,014	46,270	3683	16,939	0	0
Sep-85	64,410	400	34,982	48,073	0	13,091	0	0
Oct-85	81,899	469	52,242	61,127	0	8,885	0	0
Nov-85	95,763	370	48,183	71,474	0	23,291	0	0
Dec-85	85,833	405	47,306	64,063	0	16,757	0	0
Jan-86	103,406	461	64,864	77,179	2425	14,739	0	0
Feb-86	1,064,759	134	194,549	794,699	3016	603,166	0	0
Mar-86	1,456,611	117	231,691	1,087,164	9517	864,991	0	0
Apr-86	441,385	215	129,014	230,604	4879	106,470	0	0
May-86	524,392	155	110,786	273,972	81	163,267	0	0
Jun-86	565,710	137	105,364	295,558	3576	193,770	0	0
Jul-86	111,341	217	32,786	58,171	230	25,614	0	0
Aug-86	112,091	327	49,785	58,563	0	8,778	0	0
Sep-86	118,977	348	56,224	88,800	0	32,576	0	0
Oct-86	206,987	206	57,968	154,488	1744	98,264	0	0
Nov-86	110,772	341	51,383	82,676	1539	32,832	0	0
Dec-86	96,423	427	55,961	71,967	0	16,006	0	0
Jan-87	102,052	508	70,452	76,168	0	5,716	0	0
Feb-87	141,358	542	104,121	105,505	8066	9,449	0	0
Mar-87	127,948	661	114,908	95,496	14662	-4,750	-4,750	4,750
Apr-87	137,702	387	72,355	71,943	8360	7,948	0	0
May-87	148,356	263	53,105	77,509	6922	31,326	0	0
Jun-87	109,695	433	64,588	57,311	7567	289	0	0
Jul-87	125,558	452	77,086	65,599	10555	-933	-933	933
Aug-87	89,809	332	40,548	46,921	4829	11,203	0	0
Sep-87	73,392	581	58,010	54,777	3233	0	0	0
Oct-87	76,249	414	42,957	56,910	1744	15,697	0	0
Nov-87	74,513	462	46,781	55,614	1539	10,372	0	0
Dec-87	75,861	460	47,462	56,620	0	9,158	0	0
Jan-88	85,220	544	63,038	63,605	0	568	0	0
Feb-88	113,788	755	116,810	84,927	11603	-20,280	-20,280	20,280
Mar-88	112,059	759	115,660	83,637	14662	-17,360	-37,640	37,640
Apr-88	118,172	292	46,943	61,740	8360	23,156	-14,484	14,484
May-88	127,071	330	56,922	66,389	6922	16,389	0	0
Jun-88	97,041	430	56,702	50,700	7567	1,564	0	0
Jul-88	67,596	321	29,508	35,316	6741	12,549	0	0
Aug-88	93,701	615	78,355	48,955	9074	-20,326	-20,326	20,326
Sep-88	59,935	431	35,143	44,733	2187	11,778	-8,549	8,549
Oct-88	70,524	410	39,281	52,637	1744	15,100	0	0
Nov-88	69,526	615	58,149	51,892	4360	-1,897	-1,897	1,897
Dec-88	74,220	529	53,407	55,395	0	1,988	0	0
Jan-89	84,278	579	66,385	62,902	3483	0	0	0
Feb-89	97,331	629	83,217	72,645	10572	0	0	0
Mar-89	113,266	776	119,431	84,538	14662	-20,231	-20,231	20,231

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1](base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Apr-89	128,528	368	64,267	67,150	8360	11,243	-8,988	8,988
May-89	115,376	267	41,896	60,279	6922	25,305	0	0
Jun-89	79,508	345	37,281	41,539	7567	11,825	0	0
Jul-89	98,500	622	83,279	51,462	10555	-21,262	-21,262	21,262
Aug-89	67,443	535	49,008	35,236	9074	-4,697	-25,959	25,959
Sep-89	60,430	579	47,600	45,103	2497	0	-25,959	25,959
Oct-89	67,803	430	39,637	50,606	1744	12,713	-13,246	13,246
Nov-89	74,439	570	57,654	55,559	2095	0	-13,246	13,246
Dec-89	71,718	529	51,558	53,528	0	1,970	-11,276	11,276
Jan-90	78,702	570	61,009	58,740	2268	0	-11,276	11,276
Feb-90	100,856	704	96,528	75,275	11603	-9,650	-20,926	20,926
Mar-90	113,782	904	139,852	84,923	14662	-40,267	-61,193	61,193
Apr-90	95,391	323	41,823	49,838	8360	16,374	-44,819	44,819
May-90	93,959	303	38,641	49,089	6922	17,371	-27,448	27,448
Jun-90	79,247	623	67,077	41,403	10775	-14,898	-42,346	42,346
Jul-90	60,586	456	37,584	31,654	6741	810	-41,536	41,536
Aug-90	79,284	475	51,188	41,422	9074	-691	-42,227	42,227
Sep-90	55,908	317	24,079	41,728	2187	19,836	-22,391	22,391
Oct-90	66,277	396	35,708	49,467	1744	15,503	-6,888	6,888
Nov-90	71,985	489	47,865	53,727	1539	7,401	0	0
Dec-90	76,222	614	63,594	56,889	4426	-2,278	-2,278	2,278
Jan-91	79,834	554	60,117	59,585	532	0	-2,278	2,278
Feb-91	103,928	679	95,908	77,568	11603	-6,737	-9,015	9,015
Mar-91	109,645	663	98,858	81,835	14662	-2,361	-11,376	11,376
Apr-91	101,562	410	56,569	53,062	8360	4,853	-6,523	6,523
May-91	96,330	560	73,272	50,328	11162	-11,782	-18,305	18,305
Jun-91	71,937	721	70,464	37,584	10775	-22,104	-40,409	40,409
Jul-91	64,286	452	39,521	33,587	6741	807	-39,603	39,603
Aug-91	88,109	628	75,212	46,033	9074	-20,105	-59,708	59,708
Sep-91	69,106	412	38,735	51,578	2187	15,030	-44,678	44,678
Oct-91	72,030	519	50,862	53,761	1744	4,643	-40,035	40,035
Nov-91	80,770	488	53,575	60,284	1539	8,248	-31,787	31,787
Dec-91	73,745	534	53,497	55,041	0	1,544	-30,243	30,243
Jan-92	78,804	544	58,270	58,817	0	546	-29,697	29,697
Feb-92	112,620	632	96,809	84,056	11603	-1,151	-30,848	30,848
Mar-92	115,938	709	111,672	86,532	14662	-10,478	-41,325	41,325
Apr-92	107,982	438	64,255	56,416	8360	521	-40,805	40,805
May-92	96,699	375	49,325	50,521	6922	8,118	-32,686	32,686
Jun-92	20,269	247	6,798	10,590	7567	11,358	-21,328	21,328
Jul-92	62,278	583	49,335	32,538	10555	-6,243	-27,571	27,571
Aug-92	33,587	485	22,146	17,548	4829	231	-27,340	27,340
Sep-92	54,425	629	46,503	40,621	5310	-572	-27,911	27,911
Oct-92	67,225	368	33,623	50,174	0	16,551	-11,360	11,360
Nov-92	80,742	462	50,702	60,263	0	9,561	-1,799	1,799
Dec-92	84,901	506	58,392	63,367	0	4,975	0	0
Jan-93	170,926	373	86,768	127,573	2425	43,229	0	0
Feb-93	156,961	526	112,285	117,150	3016	7,882	0	0
Mar-93	196,606	486	129,767	146,740	9517	26,490	0	0
Apr-93	201,259	225	61,535	105,149	4879	48,493	0	0
May-93	303,299	187	77,065	158,460	81	81,476	0	0
Jun-93	345,138	258	121,104	180,319	3576	62,791	0	0
Jul-93	148,179	472	95,145	77,417	17728	0	0	0
Aug-93	126,166	313	53,618	65,916	0	12,298	0	0
Sep-93	104,072	254	35,952	77,676	0	41,724	0	0

Alternative 4b- Real-time TMDL With Drainage Reoperation

Date	SJRIO Vernalis[1] (base condition)			Calc. Assim Capacity[2] (tons)	Grassland Subsurface Drainage Retained [3] (tons)	Available Assim Capacity [4] (tons)	Load in storage Running Total [5] (tons)	Load in storage Running Total (pos.)[6] (tons)
	Flow (acre-feet)	TDS (mg/L)	Mod. Actual Load (tons)					
Oct-93	235,902	165	52,949	176,069	1744	124,864	0	0
Nov-93	104,193	426	60,329	77,766	1539	18,976	0	0
Dec-93	90,318	516	63,407	67,410	0	4,003	0	0
Jan-94	92,442	590	74,123	68,996	5128	0	0	0
Feb-94	130,770	515	91,522	97,602	8066	14,146	0	0
Mar-94	112,007	604	92,034	83,598	11316	2,880	0	0
Apr-94	158,003	287	61,649	82,550	8360	29,260	0	0
May-94	127,651	251	43,576	66,692	6922	30,038	0	0
Jun-94	91,562	344	42,821	47,837	7567	12,583	0	0
Jul-94	63,501	447	38,589	33,176	6741	1,328	0	0
Aug-94	90,570	571	70,356	47,319	9074	-13,963	-13,963	13,963
Sep-94	72,020	466	45,646	53,753	2187	10,294	-3,669	3,669

Summary	
Max Load Stored (tons)	**61,193**
Max Volume Stored (acre-feet)[7,8]	**45,028**

Notes:

0.001359 = conversion of acre-feet mg/L to tons

April through August water quality objectives = 426 mg/L

September through March water quality objectives = 610 mg/L

1 SJRIO Monte Carlo Simulation output

2 = flow in acre-feet x water quality objective in mg/L x 0.01359 * 0.9 (margin of safety)

3 from Alternative 4a: Real-time TMDL

4=calc.assim. capacity + Grassland subsurface drainage retained - modeled actual load

(negative numbers indicate that drainage must be retained to comply with objective)

5= previous month load in storage+ current month available assim. capacity

(negative numbers represent stored load)

(positive values set to zero)

6 load in storage converted to a positive number

7 = max load stored / (1000*0.001359)

(assumes a 1,000 mg/L TDS for stored drainage)

8 rounded up to 50 thousand acre feet for economic analysis

Step 1: Calculation of total drainage retained (held back by dischargers)

The total available monthly non point source salt loading (L_{NPS}) is the sum of salt loading from the following five drainage sources:

1. Grassland agricultural subsurface drainage (L_{GLSUB})
2. Grassland agricultural surface drainage (L_{GLSURF})
3. Non-Grassland agricultural subsurface drainage (L_{NGSUB})
4. Non-Grassland agricultural surface drainage (L_{NGSURF})
5. Wetland drainage (L_{WET})

$L_{NPS} = L_{GLSUB} + L_{GLSURF} + L_{NGSUB} + L_{NGSURF} + L_{WET}$

The model sets available monthly non point source salt loading as the maximum amount of drainage that can be retained to comply with TMDL base load allocations or real-time load allocations (Appendix1). This prevents more salt load from being retained by the model than is actually generated.

Monthly salt loading from each of these sources was calculated using the methods described in Appendix 5. Monthly drainage flows and salt loads from Grassland agricultural surface drainage, Non-Grassland agricultural subsurface drainage, Non-Grassland agricultural surface drainage, and wetland drainage sources were held constant (no year type variability) in this analysis. Year type variability was, however, imposed on Grassland agricultural subsurface drainage (Appendix 5, Table 5-8).

The total drainage load that must be retained from all sources (L_R) is equal to the TMDL base load allocation minus the total available monthly non point source salt loading.

L_R = TMDL BLA- L_{NPS}

or (in the case of Alternative 4: Real-time allocations)

L_R = Real Time LA- L_{NPS} (see Appendix 5 discussion of Alternative 4)

If the TMDL base load allocation is greater than the total available monthly non point source salt loading, then the total drainage load retained is set equal to the total available monthly non point source salt loading.

Step 2: Accounting for drainage retention by drainage source

A priority system was established to distribute total drainage load retained to each of the five drainage sources. Prioritization of drainage sources was primarily based on discharge salinity. Higher salinity sources were assigned a higher priority for retention/treatment (assumes drainage retention of the most concentrated salt sources first). Wetland drainage, however, was moved from third priority (based on estimated discharge quality) to fourth priority because the majority of wetland loading occurs during the non-irrigation season.

Drainage Source	Priority
Grassland agricultural subsurface drainage	1
Non-Grassland agricultural subsurface drainage	2
Grassland agricultural surface drainage	3
Wetland drainage	4
Non-Grassland agricultural subsurface drainage	5

The total monthly drainage load retained is sequentially attributed to each drainage source in order of priority until total drainage load retained is exhausted. In some months drainage load retention may therefore only be attributed to one drainage source (e.g. Grassland agricultural subsurface drainage; first priority for drainage reduction).

The monthly volume of drainage retained for each drainage source is calculated using the mean monthly drainage concentration for each drainage source.

Step 3: Consideration of selenium TMDL constraints

An existing TMDL for selenium in the LSJR limits the amount of selenium that can be discharged from the San Luis Drain (SLD). The model considers the constraint on Grassland agricultural subsurface discharges imposed by the LSJR selenium TMDL. Monthly drainage flows and loads that would need to be retained to comply with the selenium TMDL were calculated at the 2010 (most stringent) load allocations specified in the Selenium TMDL (McCarthy and Grober, 2001).

Maximum monthly salt loading allowed pursuant to the selenium TMDL (assumes salts would be limited along with selenium per the selenium TMDL) was estimated by multiplying the volume of allowable drainage by the Grassland agricultural subsurface drainage salt (TDS) concentration and a unit conversion factor 0.001359. The salt load that would need to be retained due to constraints caused by the selenium TMDL is therefore equal to the total monthly Grassland agricultural subsurface drainage salt load generated (Appendix 5 Table 5-8) minus the salt load allowed under the selenium TMDL. The spreadsheet model imposes this limitation on monthly Grassland agricultural subsurface drainage whenever the selenium TMDL load allocations are more restrictive than the salt TMDL load allocations.

Estimated maximum volume of drainage from the San Luis Drain allowed pursuant to 2020 Selenium TMDL load allocations

		Critical		Dry		Below Normal		Above Normal		Wet	
Month	SLD mean Se Conc.[1] (µg/L)	Se TMDL LA[2] (lbs)	Allowable Volume of Discharge[3] (acre feet)	Se TMDL LA (lbs)	Allowable Volume of Discharge 2(acre feet)	Se TMDL LA (lbs)	Allowable Volume of Discharge (acre feet)	Se TMDL LA (lbs)	Allowable Volume of Discharge (acre feet)	Se TMDL LA (lbs)	Allowable Volume of Discharge (acre feet)
Oct	46	55	675	233	2,860	233	2,860	260	3,191	328	4,025
Nov	50	55	625	233	2,647	233	2,647	260	2,954	328	3,727
Dec	54	152	1,604	319	3,366	319	3,366	398	4,199	211	2,226
Jan	63	151	1,362	319	2,878	319	2,878	398	3,591	211	1,904
Feb	65	93	811	185	1,612	185	1,612	472	4,114	488	4,253
Mar	80	92	650	184	1,300	184	1,300	472	3,334	488	3,447
Apr	92	101	622	193	1,188	193	1,188	490	3,017	506	3,115
May	71	105	845	197	1,585	197	1,585	497	3,998	512	4,118
Jun	59	69	666	130	1,254	130	1,254	212	2,045	354	3,415
Jul	45	70	876	131	1,639	131	1,639	214	2,678	356	4,455
Aug	40	75	1,070	137	1,954	137	1,954	225	3,209	366	5,220
Sep	42	57	763	235	3,146	235	3,146	264	3,535	332	4,445

1Mean of monthly mean October 1996 through March 2002
2 Source: McCarthy and Grober, 2001
3 Estimated allowable volume of discharge pursuant to selenium TMDL = Se TMDL LA (lbs)/ (SLD mean Se Conc. (µg/L) x 0.00176)
Note: Flow in units of acre feet x concentration in units of µg/L x conversion factor of 0.00176 = load in lbs
Flow in units of acre feet x concentration in units of mg/L x conversion factor of 0.001359 = load in tons

Step 4: Recalculation of Vernalis Flow and Salinity

Monthly drainage flows and salt loads for each drainage source were subtracted from the flows and salt loads generated from the original SJRIO Monte Carlo simulation for base case conditions, allowing flow and salinity to be recalculated with the appropriate drainage volumes and loads removed (Attachment 5-5). Exceedance rates of the Vernalis salinity water quality objectives are summarized by year type. Retained flows and salt loads are averaged by month and water-year type and used to generate cost estimates in Appendix 4.