Appendix B

Interim Flows Project - Water Year 2011

Final Supplemental Environmental Assessment

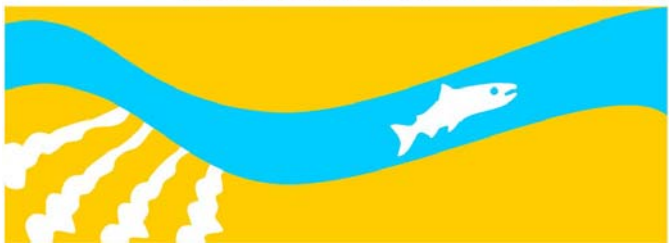
Draft 2010 Annual Technical Report

September 2010

DRAFT 1

2010 Annual Technical Report

SAN JOAQUIN RIVER
RESTORATION PROGRAM



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August 2010

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Appendix A Problem Statements and Studies
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Abbreviations and Acronyms

ATR	Annual Technical Report
CCID	Central California Irrigation District
CDEC	California Data Exchange Center
cfs	cubic feet per second
CVHM	Central Valley Hydrologic Model
CVP	Central Valley Project
Delta	Sacramento-San Joaquin Delta
DFG	California Department of Fish and Game
DMC	Delta-Mendota Canal
DWR	California Department of Water Resources
EC	electrical conductivity
FMP	Fisheries Management Plan
FMWG	Fisheries Management Work Group
PG&E	Pacific Gas and Electric Company
RA	Restoration Administrator
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
RWQCB	Regional Water Quality Control Board
Settlement	Stipulation of Settlement in *NRDC, et al. v. Kirk Rodgers, et al.*
SJRRP	San Joaquin River Restoration Program
SWRCB	State Water Resources Control Board
TAC	Technical Advisory Committee
TAF	thousand acre-feet
TSC	Technical Services Center
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Services
USGS	U.S. Geological Survey
WR	Water Right
WY	water year

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1.0 Introduction

The San Joaquin River Restoration Program (SJRR) is a comprehensive long-term effort to restore flows and a self-sustaining Chinook salmon fishery to the San Joaquin River from Friant Dam to the confluence of Merced River, while reducing or avoiding adverse water supply impacts. More information on the SJRRP is available at http://www.restoresjr.net.

Water Year 2010 Interim Flows releases began on October 1, 2009, paused on November 20, 2009, and resumed on February 1, 2010. This Draft 1 Annual Technical Report (ATR) for the San Joaquin River Restoration Program (SJRRP) provides an incremental update on monitoring and analyses completed during the spring 2010 Interim Flows period of February 1, 2010, through June 30, 2010. Draft 2 and Final ATRs will follow and build upon Draft 1, and incorporate additional information as it becomes available. The current reporting schedule calls for regular drafts released in July and December each year, with a Final ATR in March. ATRs report monitoring activities and data collected, problem statements and studies, and management performed to implement the Stipulation of Settlement in *NRDC, et al., v. Kirk Rodgers, et al.* (Settlement). The ATR is a means for the Implementing Agencies to present to stakeholders the process used to address specific SJRRP needs.

Physical objectives identified by the Settlement, and related legislation and environmental documentation include flow, seepage, channel capacity, native vegetation, and spawning gravel. Monitoring activities that support these objectives are presented in Appendices B through F. The Fisheries Management Work Group (FMWG) identified objectives for the SJRRP in the Draft Fisheries Management Plan (FMP) (SJRRP 2009a). The FMP sets the foundation for an adaptive management approach and identifies program goals and quantitative objectives. Fisheries objectives for the SJRRP are focused on meeting the requirements of the Settlement Restoration Goal, based on life history strategies and requirements of each life stage for both spring and fall-run Chinook salmon. The SJRRP approaches fisheries objectives in terms of the successful completion of each life stage. Attachment 1 illustrates the conceptual model for the desired outcome at each life stage of Chinook salmon, biological processes that may limit the outcome, and the physical parameters that influence the biology. While the Restoration Goal indicates restoration of Chinook salmon and other fish, the monitoring program is focused on evaluating conditions for Chinook salmon with the assumption that conditions geared for salmon will be suitable for other fish.

1.1 Report Organization

The main body of the ATR is focused on succinctly describing a summary of results from monitoring activities during the respective Interim Flows monitoring period. The ATR appendices provide details about how the SJRRP is addressing challenges associated with implementing the Settlement. The ATR appendices describe in detail problem statements,

monitoring methods, and monitoring data. Appendix A introduces problem statements, which describe specific needs to be addressed in the next year for the SJRRP and describe current knowledge associated with the problem and assumptions for how the current knowledge drives SJRRP functions. Under each problem statement, studies describe efforts to improve assumptions based on monitoring data and analyses. Studies form the basis for new or continued monitoring plans in subsequent years. Additional studies may be identified in future years, as the understanding of problem statements improve. Appendices B through F present methods and data collected as part of the SJRRP monitoring for the spring 2010 Interim Flows period. While some efforts to address areas problem statements may span multiple years of the life of the SJRRP, others may be resolved in one a shorter time period. The modular format of Appendix A allows problems to be addressed as they are identified by monitoring year, and removed from further analysis when they have been resolved. A brief description of the document organization is presented in the bullets below.

- **Section 1.0 Introduction** – the purpose and structure of the annual technical report.

- **Section 2.0 Spring 2010 Summary** – a description of the operations and overview of results from the monitoring program.

- **Section 3.0 Monitoring Network** – a description of the components monitored and presentation of monitoring locations.

- **Section 4.0 Models and Analytical Tools** – a description of available numerical models for analysis.

- **Section 5.0 Conclusions** – a description of results and revised understanding of physical and biological systems based upon monitoring data.

- **Appendix A. Problem Statements and Studies** – a description of problem statements and studies for spring 2010 including Gravelly Ford Flow Targets, Unexpected Seepage Losses Downstream from Gravelly Ford, Seepage Management, San Joaquin River Channel Capacity Management, Mature Spawners, Healthy Fry Production, Smolt Outmigrants, Smolt Survival, Adult Recruits, and Adult Passage.

- **Appendix B. Surface Water Stage and Flow** – a description of monitoring methodology and presentation of surface water stage and flow data.

- **Appendix C. Surface Water Quality** – a description of monitoring methodology and presentation of surface water quality data.

- **Appendix D. Sediment** – a description of monitoring methodology and presentation of suspended sediment data, bed profile survey data, and bed mobility data.

- **Appendix E. Seepage** – a description of monitoring methodology, groundwater levels, record of hotline calls, daily seepage evaluations, and flow bench evaluations.

- **Appendix F. Surveys** – a description of methodology and bathymetric surveys data.

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2.0 Spring 2010 Summary

The following section presents a summary of data collected during the spring 2010 Interim Flow period.

2.1 Allocation

The volume of water available for Friant Dam releases for Interim Flows depends on the total water supply to Millerton Lake for the year. At the start of the Restoration year, the water supply is unknown and requires estimation. U.S. Department of the Interior, Bureau of Reclamation (Reclamation), water supply forecasts include 10 percent, 50 percent, and 90 percent exceedence estimates for total unimpaired inflow below Friant Dam. Reclamation may declare a water supply between the 50 and 90 percent probability for use in scheduling flows. The February forecast resulted in a Normal-Dry year-type, increased to a Normal-Wet year-type by March, and remained Normal-Wet through June as illustrated in Figure 2-1. Channel capacity constraints limit the amount of water released for the SJRRP. The final water supply declaration occurs at the end of July. Table 2-1 presents the SJRRP allocation for spring 2010 Interim Flows.

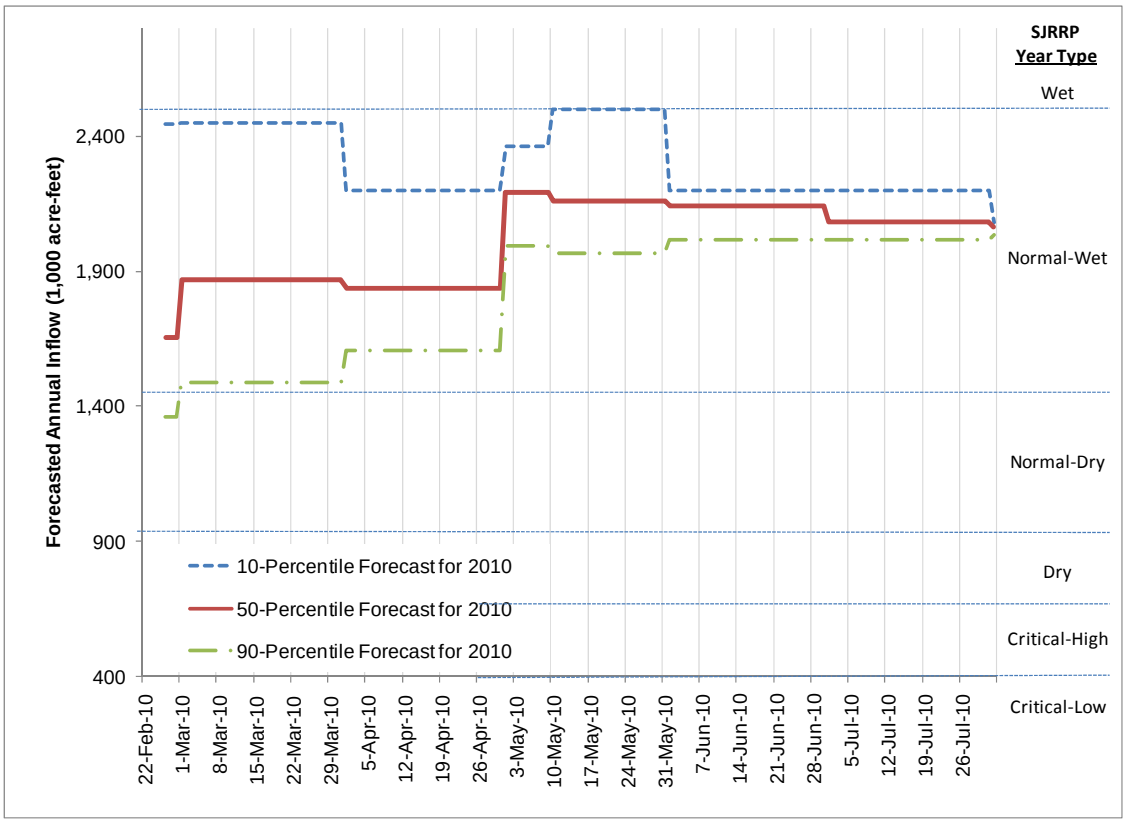


Figure 2-1. Unimpaired Inflow Forecasts Below Friant Dam

Table 2-1. SJRRP Allocation for Spring 2010 Interim Flows

Date	Declared Inflow (TAF)	Restoration Allocation (TAF)
Feb. 01, 2010	2.2 990	NA
Mar. 01, 2010	2.3 1,310	265
Apr. 01, 2010	2.4 1,490	289
May. 01, 2010	2.5 1,607	305
May. 10, 2010	2.6 1,967	335
Jun. 01, 2010	2.7 2,141	377
Jul. 01, 2010	2.8 2,081	377
Aug. 01, 2010	2.9 2,066	377

Kay:
TAF = thousand acre-feet

2.10 Flow

An independent Restoration Administrator (RA) makes recommendations on scheduling the release of flows for the SJRRP. The SJRRP Restoration Administer (RA) issued 2010 Interim Flows Recommendations for February 1 – December 1, 2010 that consist of flow rates and durations for releasing water allocated to the SJRRP. An intial recommendation of the SJRRP RA was to release 350 cubic feet per second (cfs) on February 1, 2010. Before changing releases from Friant Dam, Reclamation conducts a flow bench evaluation to determine if downstream constraints permit releases according to the RA Recommendations. Potential constraints include known conveyance thresholds, groundwater conditions, water quality, loss stabilization, and special district operations. The timeline below presents the reason for changing releases from Friant Dam during the spring 2010 Interim Flows.

- **February 1, 2010** – Friant Dam releases 350 cfs based on SJRRP RA recommendation.

- **March 1, 2010** – Friant Dam releases 500 cfs based on SJRRP RA recommendation.

- **March 16, 2010** – Friant Dam releases 800 cfs based on SJRRP RA recommendation.

- **March 29, 2010** – Friant Dam releases 1,100 cfs based on SJRRP RA recommendation delayed from March 25, 2010 to allow stabilization of flows in lower reaches. Reclamation advised the RA that flow benches of 14 days between planned increases would allow sufficient time to evaluate potential impacts. Central California Irrigation District (CCID) identified concerns with gaining

operating experience at Mendota Dam because flows at Sack Dam and groundwater well levels had not yet stabilized.

- **April 12, 2010** – Friant Dam releases 1,500 cfs delayed from April 2, 2010 due to delayed 1,100 cfs release; Sack Dam release at a maximum of 700 cfs because of potential seepage impacts in Reach 4; and Mendota Dam releases 700 cfs (in addition to Arroyo Canal demand) so not to exceed 1,300 cfs in Reach 3.
- **April 13, 2010** – Friant Dam releases 1,250 cfs reduced when irrigation demand was low at Mendota Pool.
- **April 17, 2010** – Friant Dam releases 1,350 cfs increased with irrigation demand at Mendota Pool.
- **April 19, 2010** – Friant Dam releases 1,100 cfs, reduced when irrigation demand was low.
- **April 23, 2010** – Friant Dam releases 1,350 cfs to manage high electrical conductivity in Mendota Pool with low electrical conductivity San Joaquin River water.
- **May 1, 2010** – Friant Dam releases 1,550 cfs increased because of increase in exchangeable deliveries.
- **May 9, 2010** – Sack Dam flow target decreased to 500 cfs to provide opportunity to track the response of groundwater to flow changes.
- **May 10, 2010** – Sack Dam flow target decreased to 300 cfs to provide opportunity to track the response of groundwater to flow changes.
- **May 24, 2010** – Sack Dam flow target increased to 500 cfs to meet demand.
- **May 25, 2010** – Sack Dam flow target increased to 500 cfs to meet demand.
- **May 28, 2010** – Friant Dam releases 800 cfs decreased for re-evaluation of flow releases at Friant Dam to manage for Gravelly Ford targets.

Flow measurements collected during the spring 2010 Interim Flow period at Friant Dam, Gravelly Ford, and just downstream of Mendota Dam at Sack Dam are illustrated in Figure 2-2.

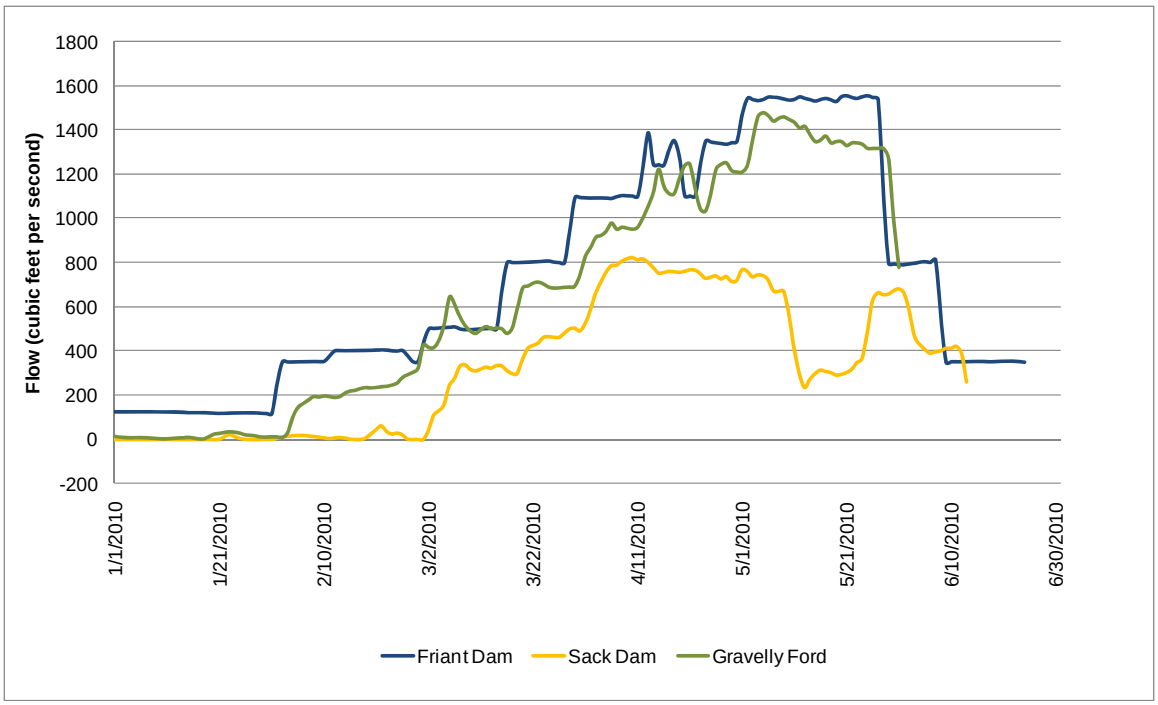


Figure 2-2.
Measurements of San Joaquin River Flow During 2010 Spring Interim Flows

The SJRRP continued and expanded monitoring during spring 2010 with several stage and flow monitoring efforts. The U.S. Geological Survey (USGS), Reclamation, and the California Department of Water Resources (DWR) took manual streamflow measurements to support development of continuous flow records at stream gage sites, including the development of rating curves at the Sack Dam and Washington Road gages. Additional manual streamflow measurements were made at certain sites that do not have stream gages. Reclamation's Technical Services Center (TSC) conducted water surface and bathymetric surveys in Reaches 3 – 5. DWR installed stage recorders, conducted water surface profile and cross-section surveys, and made manual streamflow measurements. Methods and data from these monitoring efforts are presented in Appendices B and F.

2.11 Temperature

Water Year 2010 was a Normal-Wet year type and had unusually late spring rains, an above-average and persistent snow pack, and low air temperatures. The San Joaquin River temperatures during spring 2010, at gage stations below Friant Dam, at Donny Bridge, at Sack Dam, at Fremont Ford Bridge, and at the Merced Confluence are illustrated in Figure 2-3.

The California Department of Fish and Game (DFG) deployed temperature sensors in Reaches 1 – 5 during spring 2010 Interim Flows to support fisheries studies. Data are included in Appendix C.

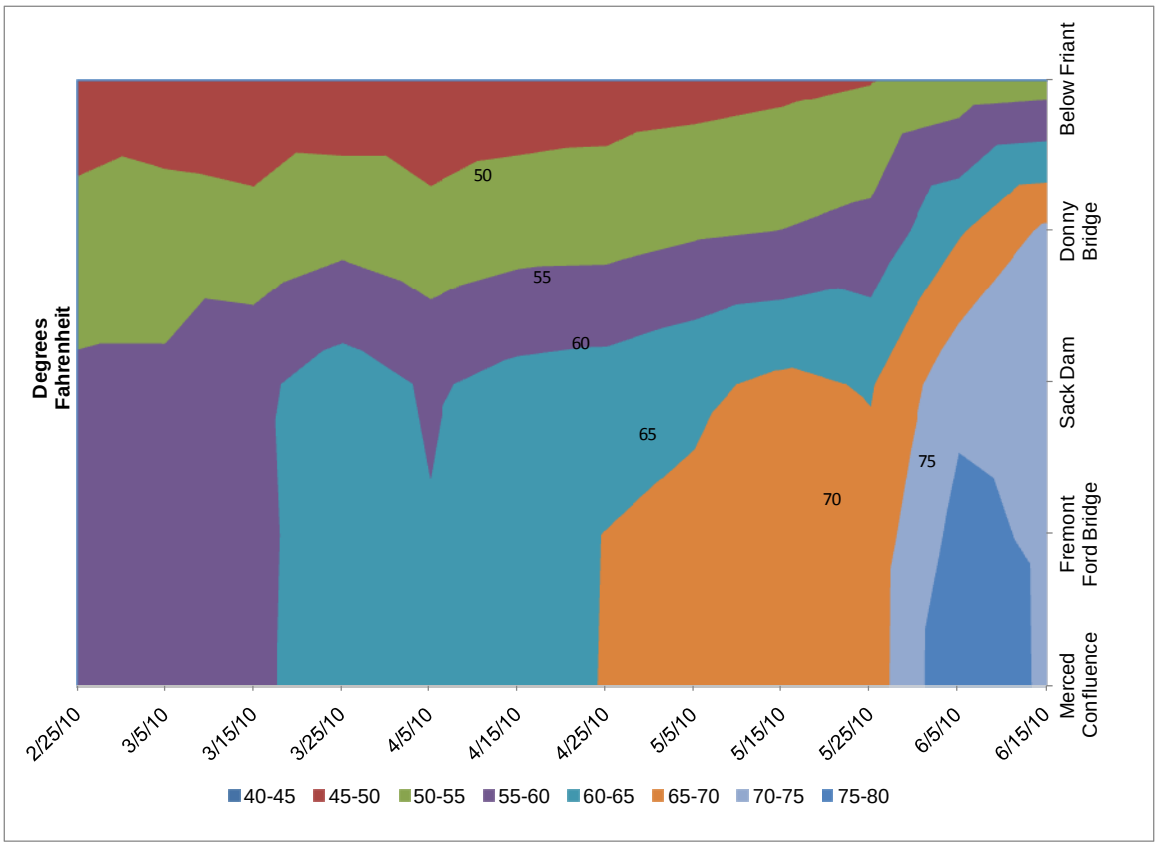


Figure 2-3. San Joaquin River Temperatures at Telemetered Gages During Spring 2010 Interim Flows

2.12 Seepage

Groundwater monitoring wells installed during spring 2010 expanded the monitoring well network to over 80 wells. Weekly groundwater reports on results from key wells equipped to telemeter hourly data, and manual measurements, provided information on the state of groundwater levels. Reclamation evaluated the potential for increasing groundwater levels, and compared to levels believed to potentially impact crops during flow bench evaluations described in Section 2.2. Field staff visited sites to evaluate locations where stakeholders identified the potential for seepage impacts. Figure 2-4 displays the shallowest groundwater conditions experienced at individual monitoring wells during the 2010 Interim Flows before June 30, 2010.

A Seepage Hotline provided a formal opportunity for stakeholders to identify concerns related to Interim Flows. During spring 2010, stakeholders used the hotline 12 times to contact Reclamation about seepage concerns and DWR about levee concerns.

Approximately 50 soil salinity surveys conducted during spring 2010 to established baseline salinity levels and improved understanding of the influence of Interim Flows on soil salinity levels. The availability of soil salinity data is pending a complete analysis.

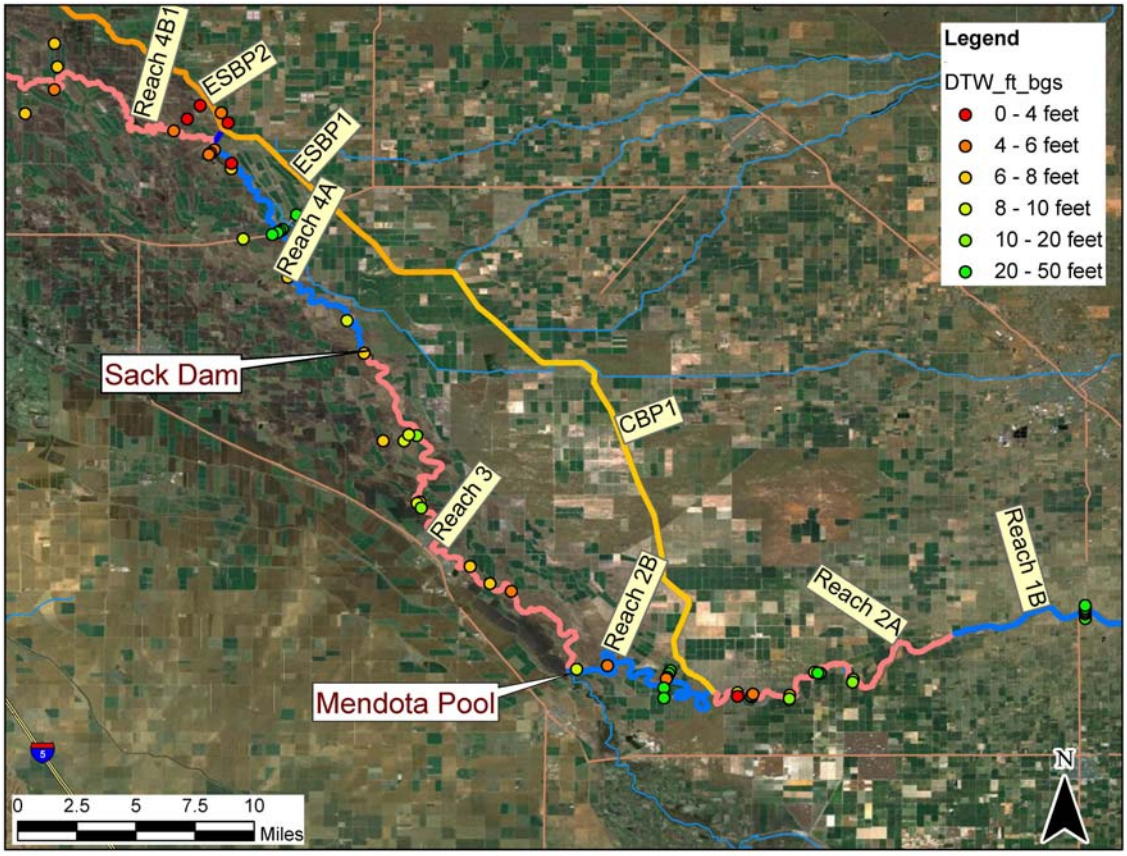


Figure 2-4. Shallowest Depth to Groundwater 2009 – 2010

Key
bgs = below ground surface
DTW = depth to water
ft = feet

Releases from Friant Dam of 1,550 cfs achieved 1,481 cfs above the Mendota Pool. Information from seepage management resulted in limiting flows below the Mendota Pool to less than 700 cfs for the SJRRP because of uncertainty in potential impacts to downstream lands. Spring 2010 seepage monitoring identified a potential area of concern near the Sand Slough Control Structure on the south side of Reach 4A, as well as the adjacent north side of the Eastside Bypass. The SJRRP conducted a study of the surface-groundwater connection in this key area by reducing and holding Sack Dam flow targets to 300 cfs for two weeks before increasing back to 700 cfs. Figure 2-5 shows depth to water below ground surface in six wells plotted versus the stage in the river at the Sand Slough Control Structure in Reach 4. Appendix E includes a compilation of seepage data, including a monitoring well atlas, a record of hotline calls, daily seepage evaluations, and flow bench evaluations.

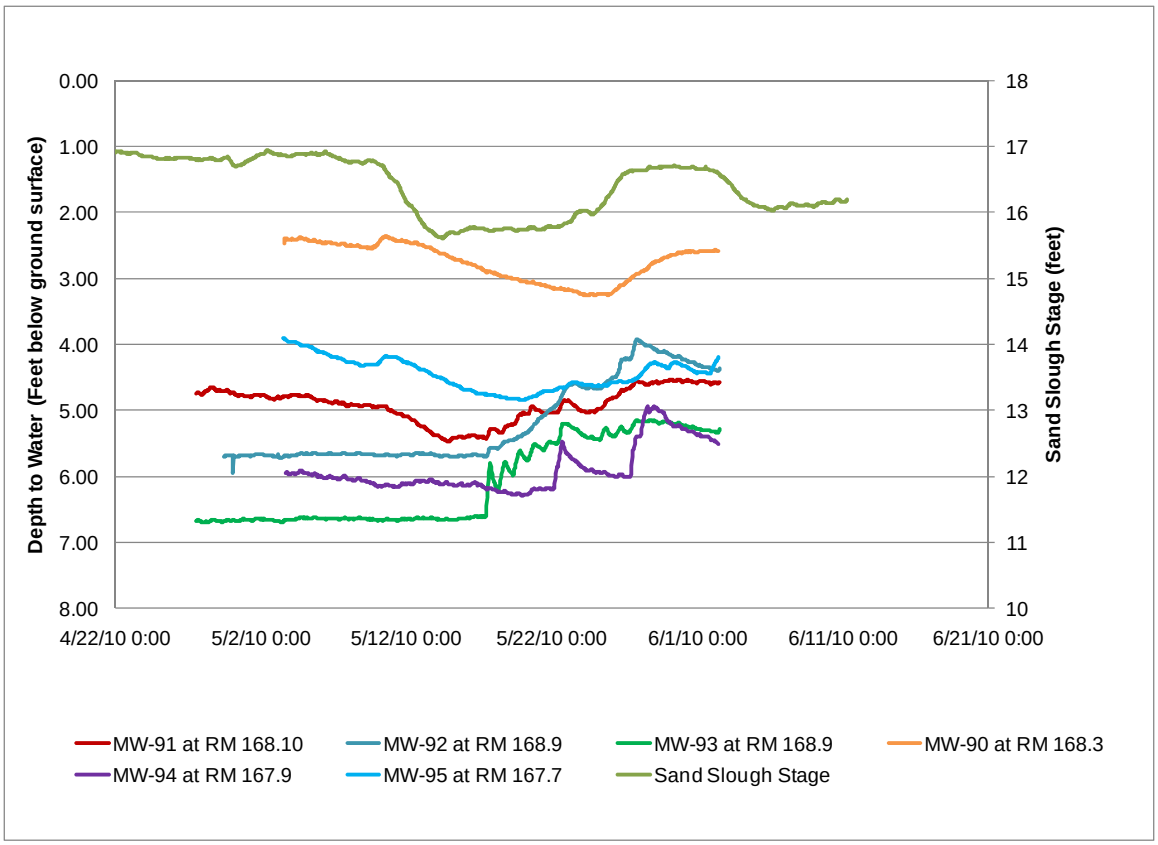


Figure 2-5.
Reach 4 Hourly Logged Depth to Water Measurements

2.13 Water Quality

The water quality monitoring program for the 2010 SJRRP Interim Flows includes 16 real-time monitoring sites and seven sites where water samples are measured for total suspended solids, nutrients, total and dissolved carbon, bacteria, trace elements, and pesticides based on recommendations by the Regional Water Quality Control Board (RWQCB) and the SJRRP FMWG. Appendix C provides a complete list of parameters, constituents, and results for spring 2010. Water Year 2010 Interim Flows water quality monitoring did not detect any toxins or constituents of concern.

Figure 2-6 illustrates measurements of electrical conductivity (EC) measured during the spring 2010 Interim Flows. The California Data Exchange (CDEC) electrical conductivity sensor at stream gage DM3 recorded a spike in Mendota Pool salinity due to the introduction of Sacramento-San Joaquin Delta (Delta) water from the Delta-Mendota Canal (DMC) that has higher salinity water than Friant Dam. From April 22 through 28, recaptured SJRRP flows and low irrigation demands at Mendota Pool reduced Delta deliveries. Seepage drainage water returned to the DMC resulted in EC levels that would not permit the Mendota Pool pump-in program. The water delivered to the Mendota Pool from the DMC did not thoroughly mix with low-salinity releases from Friant Dam and resulted in higher salinity water in Fresno Slough and the irrigation canal headworks,

than desired by irrigators. Reclamation, the San Luis and Delta-Mendota Water Authority, and the San Joaquin River Exchange Contractors Water Authority adjusted operations to close the DMC at Check 21, meet Arroyo Canal demands through the Firebaugh Wasteway, and dilute high salinity in Mendota Pool/Fresno Slough with low-salinity San Joaquin River water. Reclamation met demands at Mendota Pool with deliveries from Friant Dam. Water quality monitoring included telemetered EC readings and grab samples, as reported in Appendix C.

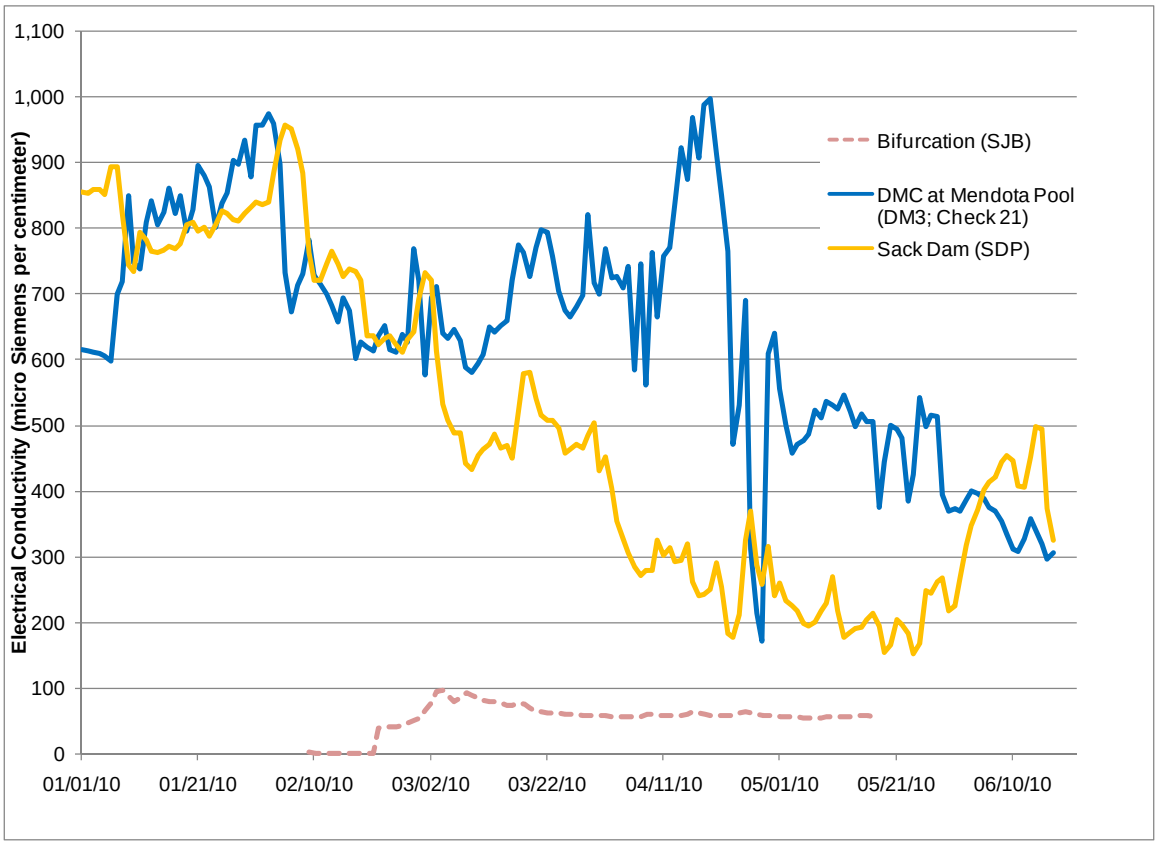


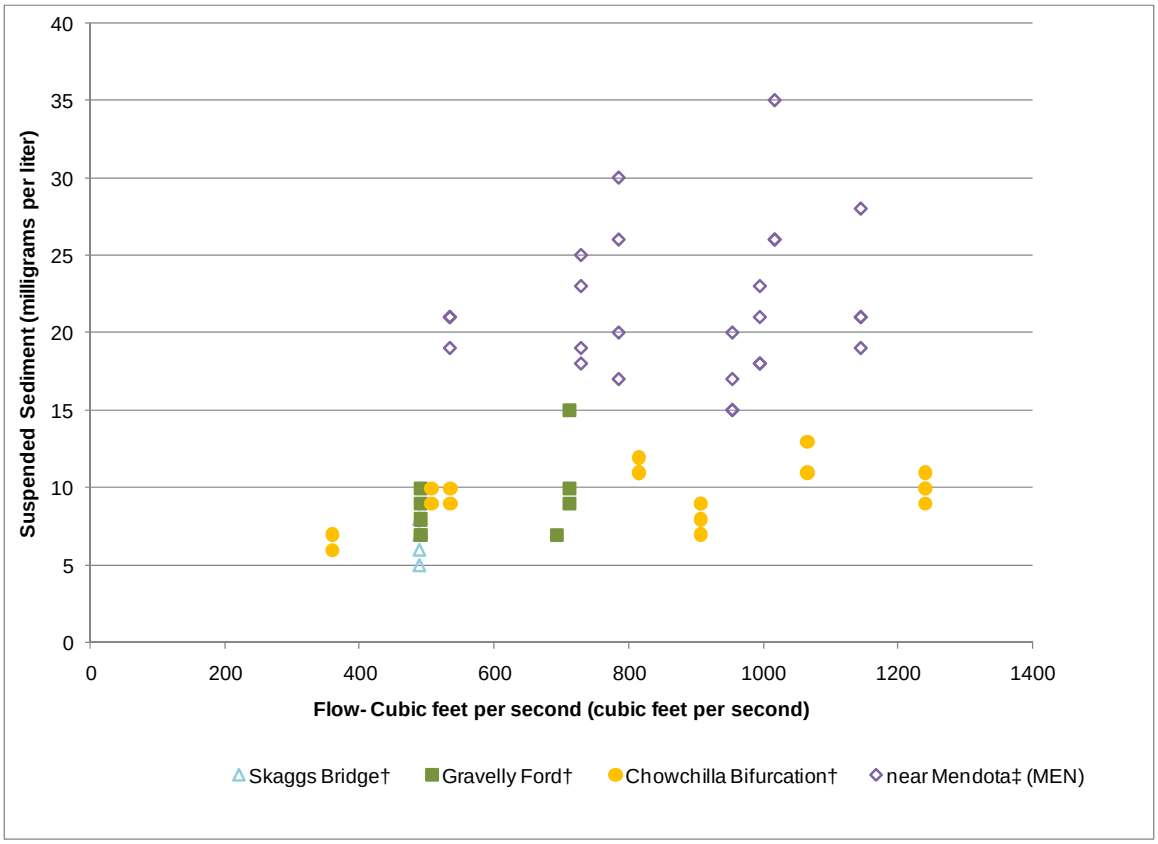
Figure 2-6. Electrical Conductivity of Surface Water at the Chowchilla Bifurcation station, Sack Dam, and the Delta Mendota Canal at Mendota Pool

2.14 Sediment

SJRRP spring 2010 Interim Flows monitoring included sediment sampling to collect data for channel capacity and fisheries studies. Monitoring included suspended sediment and bedload sampling by USGS and Reclamation, and bed material sampling, bed profile surveys, and bed mobility studies conducted by DWR.

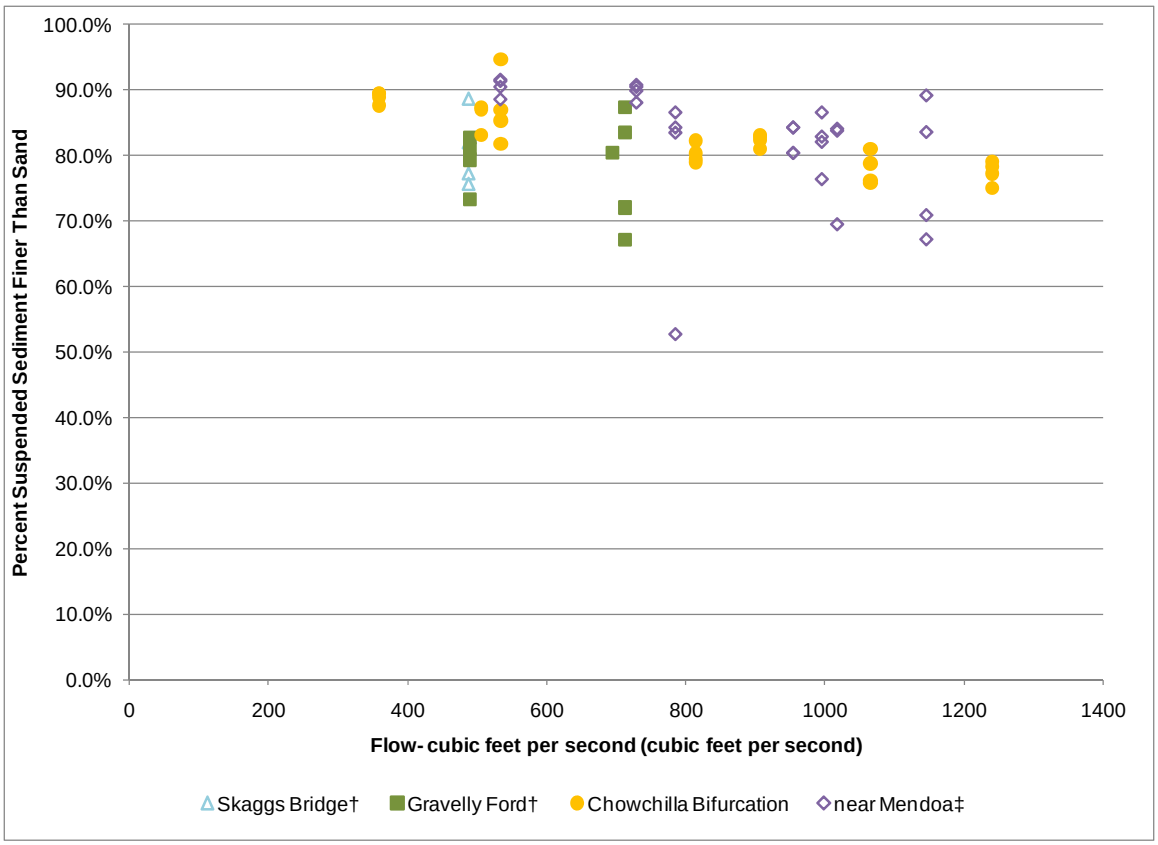
Friant Dam releases ranged from 500 to 1,550 cfs when sediment samples were collected during spring 2010 Interim Flows by USGS. USGS sampled suspended sediment and bedload at five sites (State Route (SR) Highway 41, Skaggs Bridge, Gravelly Ford, Chowchilla Bifurcation Structure, and near Mendota). Data are currently available for four of these sites, as illustrated in Figure 2-7. Each site was sampled eight times between early March and early May and sampling included at least one streamflow measurement per sampling date to assist Reclamation in developing high-flow rating curves. Suspended sediment analysis included a sand/fine split and sediment concentration for composite samples (see Figure 2-8).

Sediment results are preliminary at this time; analysis is pending the availability of complete data sets.



Key:
†Mean daily quality assurance / quality control flow record
‡ Mean daily streamflow gage California Data Exchange Center

Figure 2-7. USGS Suspended Sediment Sampling



Key
†Mean daily quality asurance / quality control flow record
‡ Mean daily streamflow gage California Data exchange Center

Figure 2-8. Preliminary USGS Monitoring Sand/Fine Particle Split Results During Spring 2010

DWR took bed profile surveys at two sites that were previously established for vegetation monitoring at river mile (RM) 223.8 (site M6.5) and RM 219.8 (site M10). Data collected from surveys during spring 2010 are presented in Appendix D.

2.15 Aerials

SJRRP conducted five aerial flights during 2010 Interim Flows to collect 2-foot color-infrared imagery of the Restoration Area. The flights acquired information for vegetation mapping during phenological periods optimal for species identification, and information for fisheries habitat studies at different flow rates (see Table 2-1).

Table 2-1. San Joaquin River QA/QC Flows on Aerial Flight Dates

Flight	Date	Friant Dam	Donny Bridge	Skaggs Bridge	Gravelly Ford	Bifurcation	Sack Dam	Washington Road
1	3/22/2010	804	760	735	707	495	426	(no data)
2	4/7/2010	1,100	1,056	1,003	952	805	789	693
3	4/24/2010	1,352	1,144	1,223	1,035	950	730	700
4	5/6/2010	1,552	1,463	1,365	1,468	1,271	724	798
5	6/25/2010	351	241	224	135	76	(data not yet available)	

Key
QA/QC = quality assurance/quality control
cfs = cubic feet per second

Vegetation maps produced from this imagery will include elderberry (*Sambucus sp.*) to establish a baseline for future consultation with the U.S. Fish and Wildlife Services (USFWS); the presence of five invasive species, including giant reed (*Arundo donax*), sponge plant (*Limnobium spongia*), Chinese tallow (*Sapium sebiferum*), red sesbania (*Sesbania punicea*), salt cedar (*Tamarix sp.)* with potential to compromise successful implementation of SJRRP; and a base vegetation-type map of the Restoration Area.

During georeferencing and analysis of the aerial imagery, each of the five image sets developed for each invasive species will yield a three-dimensional (3D) waterline surrounding the extent of inundation. Fisheries habitat assessments will use waterlines to estimate habitat areas for different flows before channel improvements. Aerials may also provide information during design for several site-specific projects.

2.16 Fisheries

The fish management plan describes life-history strategies and requirements within each stage for both spring and fall-run Chinook salmon. Attachment 1 displays life stages and the necessary outcome for continuation of the life cycle. Attachment 1 also displays existing and future components of the SJRRP monitoring program, designed from the Fisheries Problem Statement conceptual models in Appendix A, where complete descriptions of the current scientific understandings place these monitoring efforts within the context of salmon life-history.

Monitoring activities exclusively for fisheries during spring 2010 Interim Flows included an inventory of fisheries habitat by boat, deployment of hyporheic pots to collect information relevant to egg survival in the riverbed, and a fish barrier assessment. Results from these efforts are forthcoming. Aerial imagery and results from sediment, water temperature, water quality, streamflow, hydraulic modeling, and other data collection efforts described in Appendices B, C, D, and F support fisheries evaluation by the FMWG.

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3.0 Monitoring Network

The monitoring network for the SJRRP was developed to address problem statements presented in Appendix A, and to refine or strengthen conceptual models and assumptions. The monitoring network shown in Figure 3-1 includes sites currently monitored. The number of sites currently monitored, are presented by physical parameter in Table 3-1. The locations included in bathymetric, water surface profile, and cross section surveys are shown in figures presented in Appendices D and F. Additional information regarding the locations for aerial and biological surveys is not currently available.

Appendices B through F describe the monitoring methodology used for each of the physical parameters that were monitored and surveys that were conducted during the spring 2010 Interim Flows.

Table 3-1. Number of Monitoring Locations by Reach

Reach	Flow and Stage	Groundwater Levels and Temperature	Surface Water Temperature	Surface Water Quality	Sediment
1A	6	4	20	3	1
1B	2	11	3	1	3
2A	5	20	4	2	13
2B	2	10	3	1	1
3	1	13	4	2	1
4A	1	21	5	2	2
4B1	2	15	2	1	0
4B2	0	0	3		0
5	3	4	7	4	1
Bypasses	1	0	11	0	2
Tributaries				3	

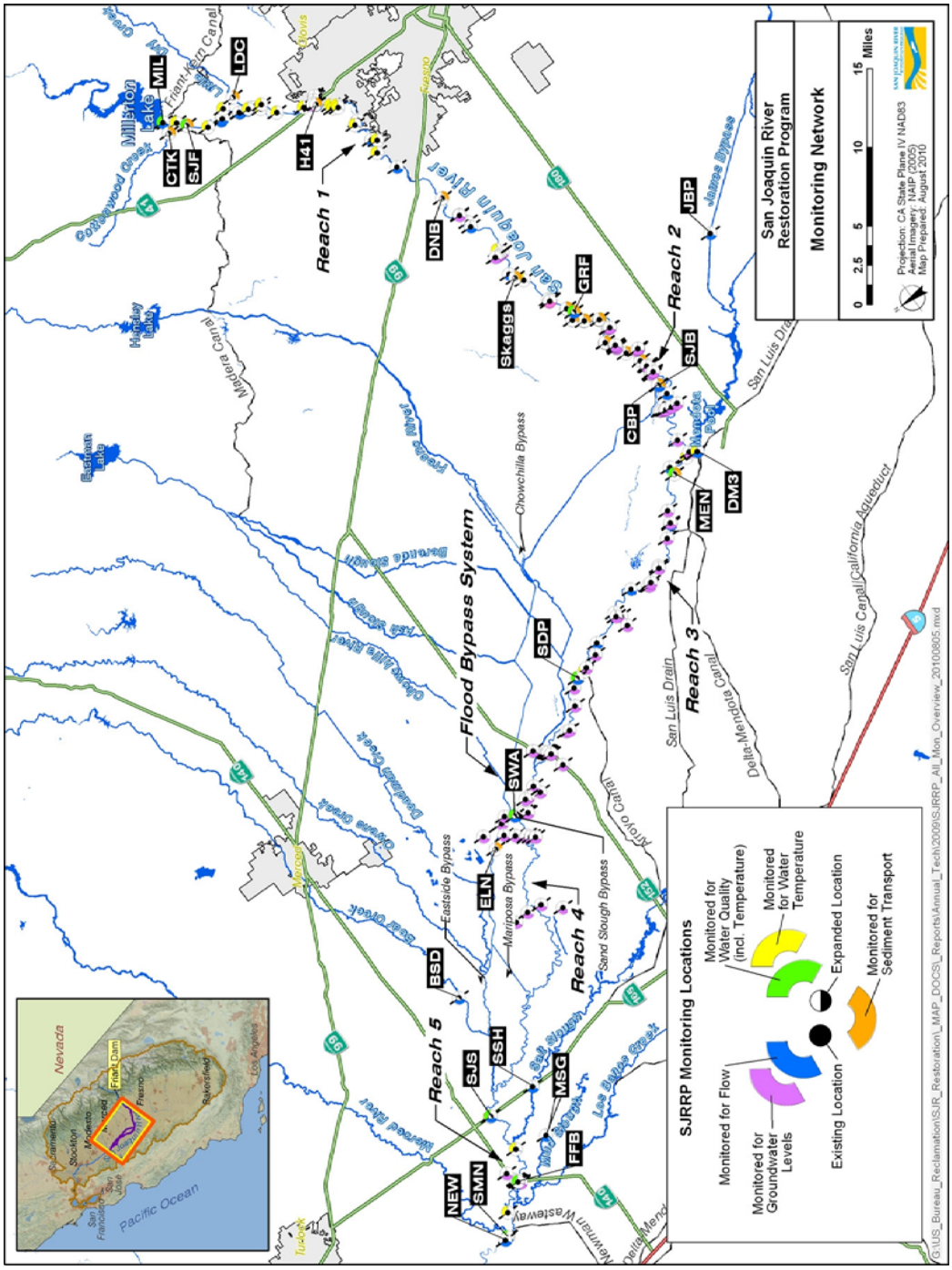

Figure 3-1. Monitoring Locations in Reaches 1 Through 5

4.0 Models and Analytical Tools

Modeling provides a numerical representation of conceptual models to assist in understanding and predicting conditions that may help formulate operations as well as other studies and plans. Improving models of the physical conditions in and around the San Joaquin River may support in resolving problem statements identified in Appendix A. The following models are currently available to represent physical conditions in the San Joaquin River:

- Water temperature relationships using HEC-5Q
- Mobile bed sediment boundary using the one-dimensional SRH-1D transport model
- Water surface using a one-dimensional HEC-RAS model and a two-dimensional SRH-2D
- Vegetation response to flow and sediment transport conditions using SRH-1DV
- Groundwater seepage using the three-dimensional USGS Central Valley Hydrologic Model (CVHM)

Aerial imagery taken during spring 2010 Interim Flows is another analytical tool that will be used to map fisheries habitat inundation at different flows, base vegetation types, presence of elderberry, and presence of invasive vegetation.

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5.0 Conclusions

The Implementing Agencies utilized the 2010 Interim Flows Spring Pulse to conduct physical and biological monitoring in support of implementation of the Settlement, authorizing legislation, environmental documents, and permits. Draft 1 ATR summarizes key activities and results, discloses the Agencies' approach to implementation through the Problem Statement structure, and links SJRRP monitoring to authorized Program needs.

The Spring Pulse provided an opportunity to test assumptions and identify aspects of the Program to be changed in the future, including:

- **Flow releases** –Flow benches of approximately 14 days appear to allow sufficient time for conditions in the Restoration Area to stabilize. Gage records may provide a basis to refine existing operational assumptions relying on the Settlement.

- **Water Quality** – Water quality monitoring resulted in non-detection or concentrations below maximum contaminant levels for all parameters of concern to the SWRCB and SJRRP. The current water quality monitoring program may be refined to adjust frequency of measurements or adjust the number of required monitoring sites with input from SWRCB and FMWG.

- **Water Temperature** – Results from stream gage temperature monitoring indicate that ambient air temperature rather than Friant Dam release temperature below the Mendota Pool is potentially the principal factor controlling temperature downstream to the Merced River confluence. Further study may be required to support this conclusion and to study the temperature influences on upstream San Joaquin River temperatures.

- **Seepage** – Seepage management strategy was conservative in most locations. Next steps include identifying potential ways to reduce or remove seepage constraints and improve understanding of surface and groundwater interactions. Problem Statement 4 in Appendix A describes the status of the SJRRP work. Additional analysis may be necessary to understand the role of all factors affecting shallow groundwater near the river. Thresholds may be refined based on lateral groundwater gradients below fields. Data collected during spring 2010 may be used to calibrate models.

- **Channel capacity** – Flows releases aided identification of flow-constricting, seepage-prone areas.

Monitoring network –The Program is planning to install a new stream gage at San Mateo Avenue, and additional groundwater monitoring wells.Many of the analyses of

spring 2010 data have yet to be completed, but should provide additional insight for the Program to respond to observations of the first year of Interim Flows.

The next step in the process will be to obtain the RA recommendation for the Spring and Summer Recommendations, developed in consultation with the Technical Advisory Committee (TAC), after reviewing this Draft 1 ATR and update agency plans.

6.0 References

Central Valley Operations Office (CVOO). 2010. 2009 Reservoir Operations Reports. Available at < http://www.usbr.gov/mp/cvo/rpt_09.html>.

San Joaquin River Restoration Program (SJRRP). 2009a. Draft Fisheries Management Plan: A Framework for Adaptive Management in the San Joaquin River Restoration Program. Available at <http://restoresjr.net/>.

San Joaquin River Restoration Program (SJRRP). 2009b. Draft Seepage Management Plan.

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Appendices to this document are located on the San Joaquin River Restoration Program Website at http://www.restoresjr.net/program_library/02-Program_Docs/index.html

Interim Flows Project – Water Year 2011

Final Supplemental Environmental Assessment

September 2010