Public Scoping Report Appendix C Written Comments

SAN JOAQUIN RIVER
RESTORATION PROGRAM

December 14 2007

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This appendix includes the written comments provided by individuals and organizations during the environmental scoping process. Comments are included in the order shown below.

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Revive the San Joaquin

Local and regional NGO's that work towards restoration of the San Joaquin River have a unique knowledge of the river and it's ecosystem, as well as an intimate knowledge of external factors, which could impact water quality and habitat necessary for a successful restoration effort. These NGO's also have the capacity to mobilize large groups of volunteers and provide low-cost labor needed to conduct cost-effective restoration solutions. **Engaging these groups will create a locally based workforce that is invested in restoration and which can plan for the long-term viability of restoration efforts. Local organizations should receive equal opportunity to participate during the RFQ/RFP process to ensure a long-term commitment to the restoration effort. Restoration project work should be advertised to all local stakeholders as well as the communities in which work is to be conducted. Outreach and advertisements should be made available in multiple languages and context appropriate language to take into account regional barriers to participation.**

Stakeholders and the public should be able to provide input regarding these factors as illustrated in the PIP including the following three core strategies:

- Proactive initial outreach and ongoing outreach and **involvement at project milestones.**
  Partnerships with local organizations to reach out and involve constituents and explore opportunities for joint public outreach and involvement opportunities.
- Opportunities for **stakeholder participation in Technical Subgroup discussions**.

These core strategies have not yet emerged from the SJRRP and should be implemented before or concurrent with the formation of Technical Workgroups or any progress on implementation of the Settlement Agreement.

The establishment of the Public Affairs Team (PAT) and the Speaker's Bureau should be publicized to stakeholders as soon as it is formed with further information and contacts for public interaction. The website should clearly list all the five-agency staff and participants involved with the various aspects of Settlement Agreement implementation, as well as establish contact points for key points of contact at each agency. All significant dates and actions initiated or completed by the team, as well as a list of upcoming events, should be posted on the website. These public outreach steps should be implemented before any project implementation activities occur.

faxed to mp 9/24

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card),* faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name James Areias

Organization and Address San Luis Canal Company

11704 W. Henry Miller Ave.

Dos Palos, CA 93620

Phone (209)826-6462 FAX ( ) E-mail

Comment here: September 17, 2007
Date

See attached comments.

All comments become part of the public record.

September 12, 2007

PUBLIC SCOPING COMMENTS for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

As landowners within San Luis Canal Company we would like to make the following comments on the San Joaquin River Restoration Program. Although they will be brief, we think they are very important to the successful implementation of the program. The Canal Company will be making additional comments on behalf of all landowners within its boundaries.

Our comments will be focused on the 4B reach of the River from the Sand Slough Diversion structure to the Mariposa Bypass.

This reach of the River is currently an environmentalist dream that is lined with thousands of trees, many of which are large oak trees that are over 150 years old. Along with the trees are a variety of bushes and plants that have created a natural habitat for a large variety of animal species.

South of Turner Island Road, there is a designated area where over 1,000 cranes and egrets roost within the vegetation of the River Channel. Joining them is a wide variety of birds such as quail, hawks, etc. that nest in the spring and call this habitat home. If the River Restoration program goes forward as planned in this reach, all this habitat would be destroyed in order to build the levees and fortify the surrounding land for the maximum flows as stated in the settlement.

We recommend that the existing Flood Bypass Channel be used instead of Reach 4B. It should be analyzed very extensively during the Bureau's process. The current Bypass Channel already has some trees within its boundaries and it looks as if it's wide enough to handle the stated flows.

Thanks for the opportunity to provide our comments.

Sincerely,

James A Areias

Jim Areias
Landowner/Farmer

Margaret Gidding - San Joaquin River Restoration

emailed to mg 9/24

From: <lsayres@aol.com>
To: <mgidding@mp.usbr.gov>
Date: 9/21/2007 4:45:35 PM
Subject: San Joaquin River Restoration

TO: Bureau of Reclamation

I wish to add a personal statement of support for the River Restoration Program.

The river, downstream from US 99, is unsightly and generally inaccessible. Creating a conservation zone, a river parkway to the Bay Area would be great. It would connect the two regions. It would create an amenity for our region.

I do recognize and support the water supply, fish and wild life habitat, and flood control benefits.

Hopefully the design and quality of work will result in an attractive, accessible river, too.

Respectfully submitted,

Lee Ayres
5132 N Palm Avenue PMB 102
Fresno CA 93704
559 261 1551 Office
559 261 1556 Facimile
559 285 3906 Cellular

Margaret Gidding - River Restoration Program - San Joaquin River emailed to mg 9/24

From: <lsayres@aol.com>
To: <mgidding@mp.usbr.gov>
Date: 9/21/2007 4:37:31 PM
Subject: River Restoration Program - San Joaquin River

TO: Department of Interior, Bureau of Reclamation
ATTn: Margaret Gidding

Pleased I could meet you in Fresno at the scoping meeting.

We support the river restoration program to implement the settlement as presented at the meeting.

TreeTOPS is a joint venture by the Regional Jobs Initiative and Tree Fresno to promote Trees, Trails, and Open Space for the Fresno Region. It was initiated to support amenities which will attract and retain the profressional workforce needed by our region. We have a grant proposal pending with CAL FIRE to undertake a Regional Urban Forest Initiative which would address the river corridors, including the San Joaquin River.

The San Joaquin River is a vital to our economy. In addition to being a source of water for irrigation, it joins the national parks in attracting visitors from around the World. Further, it contributes to the quality of life for our region which enables us to attract and retain a qualified work force.

Obviously, the San Joaquin River requires significant improvements to fulfill its potential and to reduce flooding. The River Restoration Program is timely and welcomed.

Lee Ayres
Project Coordinator
TreeTOPS
5132 N Palm Avenue PMB 102
Fresno CA 93704
559 261 1551 Office
559 261 1556 Facimile
559 285 3906 Cellular

Faxed to mp 9/25

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

September 19, 2007

Ms. Margaret Gidding
Bureau of Reclamation
2800 Cottage Way MP-140
Sacramento, CA. 95825

Subject: Scoping Comments for the San Joaquin River Restoration Program, Fresno, Madera, Merced Counties, California

The U.S. Environmental Protection Agency (EPA) has reviewed the Federal Register Notice published August 2, 2007 requesting comments on the Bureau of Reclamation decision to prepare a Programmatic Environmental Impact Statement (PEIS) for the above action. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The commitment of the Settling Parties and implementing agencies to restoring and maintaining fish populations (Restoration Goal) while reducing adverse water supply impacts (Water Management Goal) is an essential step in reestablishing the San Joaquin River (River) as a resource supporting a full range of beneficial uses. While we recognize the important focus of the Settlement on fisheries, we recommend a holistic restoration approach which considers the scope of the entire River to the Sacramento-San Joaquin River Delta (Delta), integrates other beneficial uses, and acknowledges the role of the River in the larger context of the Sacramento Valley and Delta. Special attention should be given to reasonably expected future changes and activities within the San Joaquin region which may affect River restoration.

Considering the dual goals of the San Joaquin River Restoration Program (Program), the PEIS should include a description of a project study area which includes the entire San Joaquin River from Friant Dam to the Delta, the Delta region, water service contract areas, and areas which may be affected by proposed water transfers and other actions taken to achieve the Water Management Goal. The recently released Draft EIS for the Proposed Lower Yuba River Accord provides one possible approach for the environmental evaluation of a complex, multifaceted river restoration project. While we recognize that the current analysis is intended to be 'programmatic,' we also recommend that the PEIS be structured to support actions which could be implemented in the near future. Some of these actions could receive separate, site-specific analysis but would benefit from integration into a watershed-wide perspective.

EPA advocates an integrated approach which places fisheries restoration in the context of the other beneficial uses associated with the River, such as wetlands, wildlife habitat, and municipal supply. The PEIS should include a realistic and forward-looking examination of the socio-economic and land use trends in the regional watershed to gain perspective on factors which will influence the character and condition of the River. The PEIS should examine, for example, existing and potential water quality stressors in the watershed, and should take account of other programs and projects addressing these issues, such as local watershed groups and water quality coalitions. In addition, we recommend the PDEIS describe reasonably foreseeable actions such as efforts to maintain and restore the Delta, provide flood protection, urbanization, and water supply and reliability projects. A short evaluation of the potential consequences of climate change on efforts to restore the San Joaquin River should also be included in the PEIS.

The Program should consider the comprehensive monitoring and assessment which will be needed to track restoration and water management. Currently there are several efforts to better align and coordinate monitoring for the San Joaquin Basin and Delta—one of them an EPA-funded project to formulate a San Joaquin regional monitoring strategy. The PEIS should review the state of monitoring for water quality, biota, and other parameters of concern, address any key gaps, and discuss how monitoring, assessment, and reporting to support the restoration effort will be accomplished

As the Program Management Plan for the Restoration Program (May 1, 2007) recognizes, the participation of a wide range of interests and expertise will be needed for this effort. We recommend the Technical Working Groups include a broad spectrum of experts in water quality, hydrogeology, air quality, and aquatic and terrestrial resources. Additionally, the implementing agencies should reach out to regionally and locally-based groups which may be planning and/or implementing activities affecting the River. For example, there are opportunities to coordinate this Program with planning and restoration of the extensive wetlands and refuge areas along the River and the San Joaquin River Parkway.

EPA has the overall national responsibility for implementing the Clean Water Act (CWA) in partnership with states and tribes. In addition, we work collaboratively with states and tribes to ensure protection of public water supplies under the Safe Drinking Water Act and protection of air quality under the Clean Air Act. EPA has worked closely with the Bureau of Reclamation (Bureau), US Fish and Wildlife Service, National Marine Fisheries Service, California Department of Water Resources, and other San Joaquin Valley stakeholders to address water quality and air quality issues of the San Joaquin River and Valley.

As stated in our meeting of May 24, 2007 with Jason Phillips of the Bureau, we are interested in being a cooperating agency because of our expertise in environmental issues and current involvement in many activities regarding the San Joaquin River and Valley. We request the Bureau designate EPA as a cooperating agency for this PEIS and the San Joaquin Restoration Program pursuant to the Council on Environmental Quality

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NEPA implementing regulations (40 CFR 1501.6). We look forward to the opportunity for early involvement and working with the Bureau and other implementing agencies.

We request a written response to our request to be a cooperating agency on this PEIS and restoration program. Please direct your response to the Environmental Review Office at the address above (mail code: CED-2). If you have any questions, please contact me at 415-972-3846 or Laura Fujii, the lead reviewer for this project, at 415-972-3852 or fujii.laura@epa.gov.

Sincerely,

Connell Dunning

FOR Nova Blazej, Manager
Environmental Review Office

cc: Jason Phillips, Bureau of Reclamation
Dan Castleberry, U.S. Fish and Wildlife Service
Russell Bellmer, NOAA Fisheries
Paula Landis, California Department of Water Resources
Dale Mitchell, California Department of Fish and Game
Sharon Weaver, San Joaquin River Parkway

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

PAUL D. THAYER, *Executive Officer*
(916) 574-1800 FAX (916) 574-1810
Relay Service From TDD Phone **1-800-735-2929**
from Voice Phone **1-800-735-2922**

Contact Phone: **(916) 574-1814**
Contact FAX: **(916) 574-1885**

September 19, 2007

File Ref: W 25161

Ms. Margaret Gidding
Bureau of Reclamation
2800 Cottage Way MP-140
Sacramento, CA 95825

Ms. Karen Dulk
Department of Water Resources
3374 E. Shields Avenue
Fresno, CA 93726

Ms. Nadell Gayou
The Resources Agency
1020 Ninth Street
Sacramento, CA 95814

Subject: Notice of Intent to Prepare a Program Environmental Impact Statement/Environmental Impact Report (PEIS/EIR) for the San Joaquin River Restoration Program (Program), SCH#2007081125, Fresno, Madera, Merced, Tulare, and Kern Counties

Dear Ms. Gidding, Dulk and Gayou:

Staff of the California State Lands Commission (CSLC) has received a copy of the subject notice. The Bureau of Reclamation is the federal Lead for the National Environmental Policy Act (NEPA), and the Department of Water Resources is the state Lead for the California Environmental Quality Act (CEQA). The CSLC is a responsible/ trustee agency under the CEQA. The State of California is the sovereign landowner of the bed of the San Joaquin River within the proposed project and under the jurisdiction of the CSLC (Public Resources Code Section 6301). The San Joaquin River Restoration Program PEIS/EIR will include initial planning and environmental review activities to implement a Settlement Agreement involving a lawsuit known as the *Natural Resources Defense Council et al., v. Rodgers, et al.* that includes restoration components for the San Joaquin River from Friant Dam downstream to its confluence with the Merced River. Based upon staff's review, we offer the following comments:

Jurisdiction

The State acquired sovereign ownership of tidelands and submerged lands and beds of navigable waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all the people of the State for Public Trust purposes which include waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. The landward boundaries of the State's sovereign interests in areas that are subject to tidal action are generally based upon the ordinary high water marks of these waterways as they last existed prior to fill or artificially-induced accretions. In non-tidal navigable waterways the State holds a fee ownership in the bed of the waterway between the two ordinary low water marks. The entire non-tidal navigable waterway between the ordinary high water marks is subject to the Public Trust. The State's sovereign interests are under the jurisdiction of the CSLC.

The area encompassed by the proposed project involves lands under the Commission's jurisdiction. The historic bed of the San Joaquin River within the proposed project is under the land ownership and management jurisdiction of the CSLC. Mapping of the historic bed of the San Joaquin River between Friant Dam and State Highway 99 depicting the historic High and Low Water Lines has been completed by the CSLC. The CSLC also has in its collection numerous historical maps of the river down stream of Highway 99. Site specific improvements for the Program will need to be evaluated by CSLC boundary staff on a case-by-case basis. It is anticipated that identifying lands already owned by the State for the Program will save significant funds allocated for implementation of the Program. This should be identified as significant data needs as part of the planning under Stage 1 of the Program. Commission staff has already saved the San Joaquin River Conservancy and Wildlife Conservation Board over $10,000,000 in acquisition costs between Friant and Highway 99. The CSLC staff strongly supports restoration of the San Joaquin River and hopes to provide its expertise and services to save additional millions of taxpayer dollars for this Program. In addition, any improvements involving modifications to the river will require authorization from the CSLC.

Please contact Judy Brown at (916) 574-1868, or by email at brownj@slc.ca.gov, to discuss the leasing jurisdiction and the involvement of the CSLC.

Environmental Review

Stage 1 of the Program will include formulating reasonable alternatives. At this point, no alternatives have been developed for the Program. Staff recommends that the lead agencies conduct agency/public workshops in formulating Program alternatives.

Restoring riparian vegetation along the 150-mile section of the San Joaquin River will be important for restoring an ecosystem to eventually support self-sustaining populations of salmon. The Riparian Habitat Joint Venture (RHJV) is made up of 18 federal, State and private organizations working through a Cooperative Agreement to protect and enhance riparian habitats throughout California. The RHJV should be

consulted during the development of riparian habitat restoration plans throughout the Program reach. Ann Chrisney is the RHJV Coordinator and her contact information is (916) 278-9428 or achrisney@prbo.org.

An important component of the Program needs to consider the control and management of riparian and aquatic invasive species within the Program reach and should be part of the planning process and data needs of Stage 1.

Please contact Eric Gillies (916) 574-1897, or by email at gilliee@slc.ca.gov, to discuss the environmental review comments. CSLC staff looks forward to receiving future notifications on this Program as they become available.

Sincerely,

Marina R. Brand

Marina R. Brand, Assistant Chief
Division of Environmental Planning
and Management

cc: Paul Thayer, Executive Officer
Curtis Fossum, Assistant Chief Counsel
Barbara Dugal, Chief, Division of Land Management
Steve Lehman, Supervising Boundary Determination Officer
Michael McKown, Boundary Determination Officer
Judy Brown, Public Land Management Specialist
Eric Gillies, Staff Environmental Scientist

Melinda Marks, Executive Director, San Joaquin River Conservancy
Michael Crow, Deputy Attorney General
Ann Chrisney, Coordinator, Riparian Habitat Joint Venture

GRISWOLD, LASALLE, COBB, DOWD & GIN, L.L.P.

ATTORNEYS

A California Limited Liability Partnership including Professional Corporations

311 N. DOUTY STREET
HANFORD, CA 93230

TELEPHONE (559) 584-6656 - FACSIMILE (559) 582-3106

Robert M. Dowd*
Robert W. Gin*
Randy L. Edwards
Jim D. Lee
Jeffrey L. Levinson*
Raymond L. Carlson
Ty N. Mizote*
Carol E. Helding
Kristine M. Howe
Michael R. Johnson
*a Professional Corporation

September 7, 2007

VIA HAND DELIVERY 9/10/07 & U.S. MAIL

Margaret Gidding
U.S. BUREAU OF RECLAMATION
2800 Cottage Way, MP-140
Sacramento, CA 95825

Re: San Joaquin River Restoration Program

Dear Ms Gidding:

This firm represents the San Joaquin River Association, Inc. ("Association") which is composed of many of the land owners along the San Joaquin River below Friant Dam. This letter is submitted to comment on the scope of the PEIS/PEIR for the San Joaquin River Restoration Program (Program).

The Association is a non-partisan membership organization, organized as a non-profit corporation. The principal purpose of the Association is to protect and advance the rights and interests, including protection of private property rights, of persons affected by the flow of the San Joaquin River below Friant Dam.

Members of the Association include landowners whose land is riparian to the San Joaquin River. Other members own lands with appurtenant pre-1914 appropriative rights, or other basis of right, including Water Rights Settlement Contracts with the United States. The PEIS/PEIR must recognize the water rights of lands below Friant Dam, and provide that implementation of the Program shall not inure to the detriment of any such rights, including the free exercise of such rights.

The Association supports the settlement reached in Natural Resources Defense Council v. Rodgers. The execution of the settlement, however, must not interfere with existing property rights including water rights. Please add the Association to your mailing list to receive notice concerning the PEIS/PEIR and implementation of the Program.

Very truly yours,

GRISWOLD, LaSALLE, COBB,
DOWD & GIN, L.L.P.

By: Raymond L. Carlson
RAYMOND L. CARLSON

cc: Jim Cobb
C:\RLC\SJRA\GIDDING.907

✓ mp

Fresno

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other - PARKS

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name Cala Carter

Organization and Address Friends of the San Joaquin
5636 W El Paso
Fresno, CA 93722

Phone (559) 276-4846 FAX ( ) _____ E-mail calacarter@yahoo.com

Comment here: 8/29/07
Date

I support returning the river to original, native conditions, with higher water levels. But I also desire that Madera & Fresno County citizens will be able to enjoy non-destructive recreational use of the river. So improvements such as parks along the river, boat marinas, walking & biking trails, some areas for cultural events such as an auditorium / festival area / and parking facilities. Maybe some camping sites away from urban zones - these are ideas I support & hope can become a reality for our children & beyond.

All comments become part of the public record.

√mp

Fresno

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

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(Please print clearly)

Name DAVID CEARS

Organization and Address 14747 E. Tulare
Sanger CA 93657

Phone ( ) _____ FAX ( ) _____ E-mail _____

Comment here: 8/22
Date

Not look just at channel capacities for flood flows. But look at the channels under natural conditions - anastomosing channels & wide flood plains - to see how water & sediment move within this natural system. Look at how far from channels should any levee's be located - the further from the channel the more flood waters can spread out, slow down (dropping sediment), & recharge local aquifers.

All comments become part of the public record.

From: David Cehrs <dcehrs@cvip.net>
To: <mgidding@mp.usbr.gov>
Date: 9/10/2007 10:50:33 AM
Subject: SJR scoping comments

Public Scoping Comments
for the San Joaquin River Restoration Program
EIS/EIR

Bureau of Reclamation
email to mgidding@mp.usbr.gov

I would like to submit the following comments to the public scoping record.

1) Water chemistry and water quality needs to be looked at and addressed along the length of the river from its headwaters to the mouth in the delta. There is increasing pressure along the length of the river from development (housing, commercial, and industrial) and agriculture. All of these "off stream" users have the potential to pollute the San Joaquin River or alter natural water chemistries and temperatures. To have a healthy river it should be in as pristine a water chemistry as possible.

2) Natural river processes along the river need to be investigated. These include, but are not limited to: meandering stream channels, anastomosing stream channels, marsh/wetlands adjacent to and connected with the meandering/anastomosing stream channels, wide natural flood plains where high volume flood waters may dissipate, sediment movement and storage along the river channels, the lack of new sediment inputs to the river channel due to the dams upstream, channel avulsion and migration, the relation between dead instream and overhanging live vegetation to the fisheries.

A healthy San Joaquin River would be one that is a migrating, meandering, anastomosing channeled river on a wide natural flood plain. The river would have the ability to migrate, pool, form marshes and wetlands within and between channels. A wide flood plain would allow high flood volumes to spread out, dissipate, percolate, drop sediment and be less of a hazard to anthropogenic infrastructure, and not put as much pressure on any levees still confining the river. A healthy river would also have a continuous sediment input that is moved by high flow regimes. This sediment input is necessary for the river to operate naturally otherwise it will want to erode so that it does have some sediment load to carry; witness the erosion of the levees in the 2006 runoff.

I am not a biologist so I do not know the relationship between sediment loads, types, and distributions necessary for the different types of fish populations, birds, and other riparian creatures but this probably should be looked into. Again I don't know the relationship between riparian habitats and ecology to a migrating, meandering, anastomosing river channel and the wetlands and marshes between channels but it should be looked into.

Sincerely,
Dr. David Cehrs (Hydrologist), RG, CHG
14747 E. Tulare Ave.
Sanger, CA 93657
559-875-9495

SAN JOAQUIN RIVER EXCHANGE CONTRACTORS WATER AUTHORITY
CENTRAL CALIFORNIA IRRIGATION DISTRICT
FIREBAUGH CANAL WATER DISTRICT
SAN LUIS CANAL COMPANY

Ms. Margaret Gidding
Bureau of Reclamation
2800 Cottage Way, MP-140
Sacramento, CA 95825
e-mail: *mgidding@mp.usbr.gov*

Ms. Karen Dulik
Senior Environmental Scientist
DWR-San Joaquin District
3374 E. Shields Ave.,
Fresno, CA 93726
e-mail: *kdulik@water.ca.gov*

Re: San Joaquin River Restoration Program

Dear Ms. Gidding and Ms. Dulik:

This letter is written in response to the Notice of Preparation(NOP) of a Draft Program Environmental Impact Statement/Environmental Impact Report (PEIS/EIR) for the San Joaquin River Restoration Program and the Notice of Intent to Prepare a Program Environmental Impact Statement/Environmental Impact Report and Notice of Scoping Meetings. We understand that comments on the scope of the PEIS/EIR are due September 21, 2007.

The San Joaquin River Exchange Contractors Water Authority ("Exchange Contractors") is a joint powers agency comprised of the Central California Irrigation District ("CCID"), Columbia Canal Company ("Columbia"), Firebaugh Canal Water District ("Firebaugh"), and the San Luis Canal Company ("San Luis"). These comments are submitted jointly and severally by each of these entities – with the exception of Columbia, and each entity reserves the right to appear on its own behalf and to pursue its rights and remedies individually or collectively. Columbia supports these comment, however it will be submitting comments on its own. .For convenience, the three entities and the Exchange Contractors will be referred to hereafter collectively as the "Exchange Contractors."

In conjunction with the Scoping Meetings, you recently received a report prepared by the engineering firm of CH2MHill that was prepared for the San Joaquin River Resource Management Coalition ("RMC"), dated August 29, 2007, and entitled "Draft Initial Appraisal Report, San Joaquin River Settlement Agreement and Legislation." In that report, the RMC identified a number of impacts that must be considered as part of the San Joaquin River Settlement Agreement and Legislation. The Exchange Contractors are a member of the RMC. As such, for purposes of this letter, we adopt and incorporate the above-referenced Appraisal Report and include it as an attachment to this letter.

The Appraisal Report sets forth our initial concerns that need to be taken into account during the scoping process. We further wish to inform you that we believe that, pursuant to the California Environmental Quality Act ("CEQA"), the Exchange Contractors, acting on behalf of its members, and specifically CCID and San Luis, are responsible agencies. (Columbia is also a responsible agency, but it will set forth its comments in its own letter to you.) CEQA Guidelines define a responsible agency as "a public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency which have discretionary approval power over the project." (see Guidelines Section 15381)

As detailed in the Appraisal Report, various approvals, actions or authorizations will be required from or by CCID, San Luis and/or the Exchange Contractors. For example, the following actions will likely need to be undertaken:

- CCID will have to take discretionary actions related to Mendota Dam modifications.
- In Reach 3, Sack Dam is owned by San Luis. Sack Dam may need to be replaced or modified for fish passage. San Luis also operated Arroyo Canal which will need to be screened

In conclusion, the Exchange Contractors are pleased to be able to submit these comments and the attached RMC Report for your consideration. We look forward to working with Reclamation and DWR in developing the measures necessary to mitigate the adverse effects of the actions necessary to be carried out as part of the San Joaquin River Restoration Program.

If you have any questions regarding any matters contained in this letter or the attached report, please do not hesitate to contact the undersigned.

Respectfully yours,

Steve Chedester
Executive Director
San Joaquin River Exchange Contractors Water Authority

Chris White
General Manager
Central California Irrigation District

Chase Hurley
General Manager
San Luis Canal Company

cc: Member Agencies
San Joaquin River Resource Management Coalition

SAN JOAQUIN RIVER EXCHANGE CONTRACTORS WATER AUTHORITY
CCID • CCC
FCWD • SLCC

Consisting of 240,000 acres on the Westside of the San Joaquin Valley

September 21, 2007

P.O. Box 2115
541 H Street
Los Banos, CA 93635
(209) 827-8616
Fax (209) 827-9703
e-mail: sjrecwa@sbcglobal.net

Ms. Margaret Gidding
Bureau of Reclamation
2800 Cottage Way, MP-140
Sacramento, CA 95825
e-mail: *mgidding@mp.usbr.gov*

Ms. Karen Dulik
Senior Environmental Scientist
DWR-San Joaquin District
3374 E. Shields Ave.,
Fresno, CA 93726
e-mail: *kdulik@water.ca.gov*

RE: ***San Joaquin River Restoration Program***

Dear Ms. Gidding and Ms. Dulik:

This letter is written in response to the Notice of Preparation(NOP) of a Draft Program Environmental Impact Statement/Environmental Impact Report (PEIS/EIR) for the San Joaquin River Restoration Program and the Notice of Intent to Prepare a Program Environmental Impact Statement/Environmental Impact Report and Notice of Scoping Meetings. We understand that comments on the scope of the PEIS/EIR are due September 21, 2007.

The San Joaquin River Exchange Contractors Water Authority ("Exchange Contractors") is a joint powers agency comprised of the Central California Irrigation District ("CCID"), Columbia Canal Company ("Columbia"), Firebaugh Canal Water District ("Firebaugh"), and the San Luis Canal Company ("San Luis"). These comments are submitted jointly and severally by each of these entities, and each entity reserves the right to appear on its own behalf and to pursue its rights and remedies individually or collectively. For convenience, the four entities and the Exchange Contractors will be referred to hereafter collectively as the "Exchange Contractors."

In conjunction with the Scoping Meetings, you recently received a report prepared by the engineering firm of CH2MHill that was prepared for the San Joaquin River Resource Management Coalition ("RMC"), dated August 29, 2007, and entitled "Draft Initial Appraisal Report, San Joaquin River Settlement Agreement and Legislation." Since then the Appraisal Report was

finalized on September 20th, 2007 and in that report, the RMC identified a number of impacts that must be considered as part of the San Joaquin River Settlement Agreement and Legislation. The Exchange Contractors are a member of the RMC. As such, for purposes of this letter, we adopt and incorporate the above-referenced Appraisal Report dated September 20, 2007, and include it as an attachment to this letter.

The Appraisal Report sets forth our initial concerns that need to be taken into account during the scoping process. We further wish to inform you that we believe that, pursuant to the California Environmental Quality Act ("CEQA"), the Exchange Contractors, acting on behalf of its members, and specifically CCID, San Luis and Columbia are responsible agencies. CEQA Guidelines define a responsible agency as "a public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency which have discretionary approval power over the project." (see Guidelines Section 15381)

As detailed in the Appraisal Report, various approvals, actions or authorizations will be required from or by CCID, San Luis, Columbia and/or the Exchange Contractors. For example, the following actions will likely need to be undertaken:

- Columbia will have to take discretionary actions related to their Mail Intake Canal
- CCID will have to take discretionary actions related to Mendota Dam
- In Reach 3, Sack Dam is owned by San Luis. Sack Dam may need to be replaced or modified for fish passage. San Luis also operated Arroyo Canal which will need to be screened
- San Luis will have to take discretionary actions as to their irrigation canals and drainage facilities in reach 4

In conclusion, the Exchange Contractors are pleased to be able to submit these comments and the attached RMC Report for your consideration. We look forward to working with Reclamation and DWR in developing the measures necessary to mitigate the adverse effects of the actions necessary to be carried out as part of the San Joaquin River Restoration Program.

If you have any questions regarding any matters contained in this letter or the attached report, please do not hesitate to contact the undersigned.

Sincerely yours,

Steve Chedester,
Executive Director

cc: San Joaquin River Exchange Contractors Water Authority Board
San Joaquin River Resource Management Coalition

vmp

rcvd. at Tulare Scop. mtg

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name Patti Clinton

Organization and Address Bureau of Reclamation
1243 N Street
Fresno, CA 93721

Phone (559) 487-5127 FAX ( ) E-mail pclinton@mp.usbr.gov

Comment here: 8/28/07 *Date*

Because of potential genetic issues, using wild caught salmon would be best to use versus hatchery fish. However, the hatchery could be modified and funded to do a wild salmon program.

Hatcheries do a great job of rearing salmonids from eggs. Wild salmon eggs could be brought into a hatchery which would afford the eggs protection up through a release size. However, because of disease issues, the hatchery should be limited to how many wild fish they rear. Overcrowding of fish leads to disease.

As part of a wild salmon program, facilities should be clearly separate from hatchery fish. Size at release is going to be important: what native predators are there? What exotics would show up? Providing

All comments become part of the public record. cover.

ARVIN-EDISON WATER STORAGE DISTRICT

20401 BEAR MOUNTAIN BOULEVARD
MAILING ADDRESS: P.O. BOX 175
ARVIN, CALIFORNIA 93203-0175

TELEPHONE (661) 854-5573
FAX (661) 854-5213

EMAIL arvined@aewsd.org

September 24, 2007

Sent via U.S. Mail & Email

Kirk Rodgers
Jason Phillips
Margaret Gidding
U.S. Department of the Interior
Bureau of Reclamation
2800 Cottage Way MP-140
Sacramento, CA 95825-1898

Lester Snow
Mark Cowin
Department of Water Resources
P. O. Box 942836
Sacramento, CA 94236-0001

Paula Landis
Department of Water Resources
San Joaquin District
3374 E. Shields Ave.
Fresno, CA 93726-6913

Re: San Joaquin River Settlement Agreement

Dear Ladies and Gentlemen:

This letter responds to the Notice of Intent to Prepare an Environmental Impact Statement published by the Bureau of Reclamation in the Federal Register on August 2, 2007 and the Notice of Intent to Prepare an Environmental Impact Report issued by the Department of Water Resources on August 21, 2007. The Project that the federal and state agencies propose to implement is the San Joaquin River Settlement Agreement.

Arvin-Edison Water Storage District (District) is a water district organized and existing under California law. The District was a party to the *Natural Resources Defense Council v. Rodgers* litigation. The District's Board of Directors approved the San Joaquin River Settlement last August, and the District is one of the parties to the Settlement. Under the terms of the Settlement, the Friant contractors will contribute both a portion of their contractual water supplies and funding toward the implementation of the Settlement. Therefore, under the California Environmental Quality Act (CEQA) and its implementing guidelines, the District is a responsible agency for the project implementing the Settlement Agreement. (14 Cal. Code Regs. § 15381.) As such, the District may require changes in

the Project to lessen or avoid only the environmental effects of the parts of the Project that the District will be called upon to carry out or approve. (14 Cal. Code Regs. § 15041(b).) The District also qualifies as a Cooperating Agency under the National Environmental Policy Act.

As a Responsible Agency under CEQA, and a Cooperating Agency under NEPA, the District agrees with the comments on the NOI and NOP submitted by the Friant Water Users Authority in its letter to you dated August 28, 2007. The District incorporates the comments in Friant's August 28, 2007 letter by reference. Consistent with CEQA (14 Cal. Code Regs. § 15096(b)(2)), the District expects that the EIS/EIR will address the issues raised in Friant's letter.

The District designates Engineer-Manager Steve Collup as the contact person to attend meetings to discuss the scope and content of the EIS/EIR.

Sincerely,

Steve Collup
Engineer-Manager

cc: Board of Directors
Ernest Conant, Esq.
Ron Jacobsma, FWA/FWUA

SCC:EAC:sjCollup\CEQA.DWR.USBR.issues.09.04.07.doc

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

(Property)

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name Stanley Cotta

Organization and Address Stanley Cotta Farms
3221 Emory Rd
Dos Palos Ca 93620

Phone ( ) FAX (209) 3923229 E-mail

Comment here: 9-3-07
Date

I am in the YB section and i have major concerns of the seepage problem that will diffently occure, because i have had this problem in heavy runoff years, there is no question That there will be a seepage problem to Landowners ajacent to the river. I am a small farmer in the area and it would be absolutely detrimental to the livelihood of my family if we had to give up any farm ground.

Stanley Cotta J.

Faxed to Mary

All comments become part of the public record.

1/4

✓mp

Fresno

SAN JOAQUIN RIVER
RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program
Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name Lynn Defehr

Organization and Address 8911 N. 10th St

Fresno Ca

93720

Phone (559) 447-8911 FAX ( ) 447-8910 E-mail lynn@dafshr.ca

Comment here: 8-24-7
Date

My concern is enforcement issues. We currently have only one game Warden. That is not sufficient to control poaching and other illegal activites.

All comments become part of the public record.

From: "Ehrich, Thomas" <Thomas.Ehrich@hp.com>
To: <mgidding@mp.usbr.gov>
Date: 8/30/2007 9:12:55 PM
Subject: Input on San Joaquin River Restoration

Ms. Giddings,

Regrettably I will not be able to attend one of the public scoping meetings on the subject but I would like to voice my opinion on the matter.

I believe that the San Joaquin River does and will continue to provide (especially when restored) a valuable asset for waterfowl and waterfowl hunting. California has a rich tradition of waterfowl hunting, and hunters provide considerable funding and support for wetlands conservation, habitat restoration, and programs to increase duck populations despite continued loss of habitat to development. This restoration will help to offset some of that habitat loss and also could provide additional public hunting opportunities. I'd like to see as much public access and huntable areas as possible on the river.

Thanks,
Tom Ehrich
Concord, CA

From: "Jane Fortune" <janef@treefresno.org>
To: <mgidding@mp.usbr.gov>
Date: 9/21/2007 3:24:28 PM
Subject: San Joaquin River Restoration Program

T0: The Bureau of Reclamation

Attention: Margaret Gidding

RE: San Joaquin River Restoration Program

Thank you for holding a "scoping meeting" in Fresno, CA on August 29, 2007. We wish to thank the parties to the lawsuit for presenting a plan for the restoration of the San Joaquin River and inviting our comments.

There are huge recreation and education benefits to be derived from restoring the river: fishing, canoeing, hiking, bicycling, bird watching, exploring the horticulture, school field trips, painting, photography, scenic vistas, and a place for family gatherings, to name a few.

Tree Fresno was established in 1985 in an effort to improve the livability of the Fresno region and increase the value of living. Our mission is "to raise the quality of life in the Fresno region by promoting environmental stewardship through community involvement in the planting and maintenance of tree and the creation of trails and greenbelts." The proposed improvement will definitely be a giant step in this direction. Thank you for your consideration

Sincerely,

Jane Fortune
Executive Director
Tree Fresno
776 East Shaw Ave., Suite 102
Fresno,CA 93710
(559)221-5556 ext 101
FAX 559-226-0979
janef@treefresno.org
www.treefresno.org

CC: <LSAyres@aol.com>

✓mp

Fresno

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name DENNIS FOX

Organization and Address _____

Phone (661) 3664093 FAX ( ) _____ E-mail _____

Comment here: 8-29-07 (Date)

Why this project to divert anadromous fish from the Merced to the San Joaquin will surely threaten if not endanger them. The SJ is hot & has no spawning habitat.

- They can't section through around donor eliminate it from the main stem and tributaries before watering.
- Restore a riparian zone prior to watering
- Redds need gravel not sand - Consider a bypass around Friant to Finegold. Determine CFS water on this reach & without Finegold reservoir.
- Oxygenate the water @ the dams & weirs.
- Concentration should be less on aesthetic values than habitat values; perhaps gravel extraction can have respite or spawning values. perhaps

All comments become part of the public record.

/mp · Fresno

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

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Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name DENNIS FOX

Organization and Address _____

Phone ( ) _____ FAX ( ) _____ E-mail _____

Comment here: 8-29-07 *Date*

Ag water is a legitimate use under BOR's chartering but resale from ag to m+i may be questioned.

Temperance Flat proposal benefits BOR & its engineers job security being based on the squish theory of water production - bigger the dam more water squished from the earth. I have seen no determination of the watershed's justification of this dam.

Temperance Flat being on the main stem will employ lawyers for years.

I propose water from Kerchoff to Finegold concurrent with raising of Friant whose land is already owned.

Finegold water for restoration Millerton water for ag + local m+i possibly.

BOR objection to this was that the new power plants from Kerchoff to Finegold would necessitate cooperation with a power company. Duke. That's the idea.

Unless upper watershed receives post fire restoration reservoirs & habitat will silt up.

All comments become part of the public record.

vmp

Fresno

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

(Property)

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name DENNIS FOX

Organization and Address

Phone ( ) FAX ( ) E-mail

Comment here: 8-29-07
Date

Regardless of any future construction, which would take multiple decades, Friant can be raised and flood property already acquired.
In lieu fees should be paid by agencies so counties do not gone for dollars adjacent to rivers.
US Fish & Wildlife, which has a steady stamp & excise tax revenue stream, should be given property managers having biological expertise & evincing cost effective recreation & terms @ Los Banos Grasslands area.
California State Park & Recreation conversely should be excluded & land rich cash poor, land purchases through straw men and paid back by O & M funds; no in lieu payments, restricted public access, a general environmental disaster, weed reservoirs.
See Central Valley Vision by State Park system and weep.

All comments become part of the public record.

√mp

Fresno

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

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Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name: Dennis Fox

Organization and Address _____

Phone ( ) _____ FAX ( ) _____ E-mail _____

Comment here: 8-29-07.
Date

Habitat work should be prior to watering. As close to a CH stream as appropriate with pool riffle model a goal; shade structures installed. Riparian installation and filter strips done prior.

Terrestrial weeds killed prior by 3 years for watering ie Transline lifespan.

Cost share grants for no till ag, filter strips & other sediment/runoff BMPs adjacent to river.

Consider flood easement catchment areas with possibilities of release return to river during runs as an alternative to Friant reservoir.

There should be a riparian zone for terrestrial & avian avian habitat as well as providing shading & aquatic respite then a set back levee.

All comments become part of the public record.

Imp

SAN JOAQUIN RIVER
RESTORATION PROGRAM

Fresno

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

(Other) flooding + E.J.

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name DENNIS FOX

Organization and Address _____

Phone ( ) _____ FAX ( ) _____ E-mail _____

Comment here: 8-29-07
Date

Flood planning does not take in ephemeral streams which flood Valley's minority communities. If Sacto insists on development in flood prone areas, Sacto should bear the mitigation costs. Tulare Basin does flood over into S.J. system. introduces exotics like voracious white bass etc. Setback levees can provide respite and habitat values. The interior rip zone has some Mannings roughness value.

All comments become part of the public record.

September 26, 2007

Kirk Rodgers
Jason Phillips
Margaret Gidding
U. S. Department of the Interior
2800 Cottage Way MP-140
Sacramento, CA 95825-1898

Re: San Joaquin River Settlement Agreement

Dear Ladies and Gentlemen:

This letter responds to the Notice of Intent to Prepare an Environmental Impact Statement published by the Bureau of Reclamation in the Federal Register on August 2, 2007 and the Notice of Intent to Prepare an Environmental Impact Report issued by the Department of Water resources on August 21, 2007. The Project that the federal and state agencies propose to implement is the San Joaquin River Settlement Agreement.

Porterville Irrigation District (District) is a water district organized and existing under California law. The District was a party to the *Natural Resources Defense Council v. Rodgers* litigation. The District's Board of Directors approved the San Joaquin River Settlement last August, and the District is one of the parties to the Settlement. Under the terms of the Settlement, the Friant contractors will contribute both a portion of their contractual water supplies and funding toward the implementation of the Settlement. Therefore, under California Environmental Quality Act (CEQA) and its implementing guidelines, the District is a responsible agency for the project implementing the Settlement Agreement. (14 Cal. Code Regs. § 15381.) As such, the District may require changes in the Project to lessen or avoid only the environmental effects of the parts of the Project that the District will be called upon to carry out or approve. (14 Cal. Code Regs. § 15041 (b).) The District also qualifies as a Cooperating Agency under the National Environmental Policy Act.

P.O. Box 1248, Porterville CA 93258
Phone: (559) 784-0716 Fax: (559) 784-6733

As a Responsible Agency under CEQA, and a Cooperating Agency under NEPA, the District agrees with the comments on the NOI and NOP submitted by the Friant Water Users Authority in its letter to you dated August 28, 2007. The District incorporates the comments in Friant's August 28, 2007 letter by reference. Consistent with CEQA (14 Cal. Code Regs. § 15096 (b) (2).), the District expects that the EIS/EIR will address the issues raised in Friant's letter.

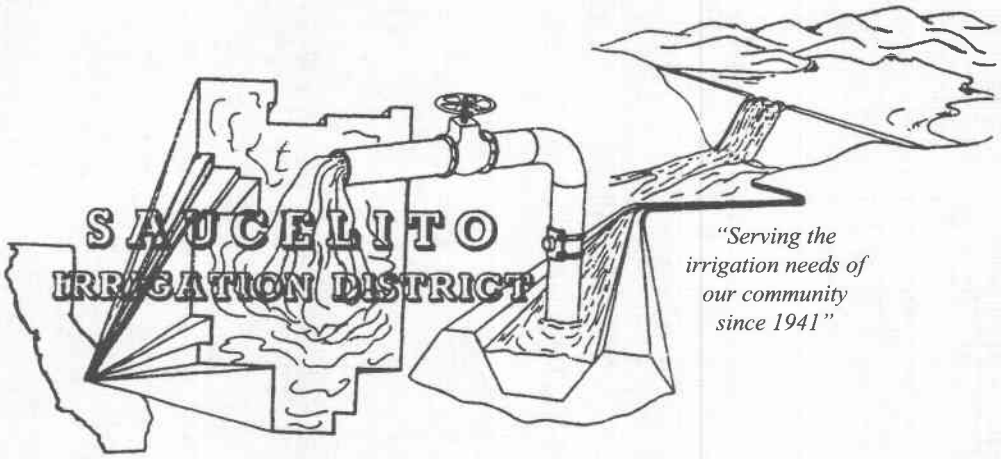
The District designates General Manager Sean Geivet as the contact person to attend meetings to discuss the scope and content of the EIS/EIR.

Sincerely,

Sean Geivet
General Manager

Cc: Board of Directors
Daniel M. Dooley, Legal Council

P.O. Box 1248, Porterville CA 93258
Phone: (559) 784-0716 Fax: (559) 784-6733



"Serving the irrigation needs of our community since 1941"

September 26, 2007

Kirk Rodgers
Jason Phillips
Margaret Giddings
U.S. Department of Interior
Bureau of Reclamation
2800 Cottage Way MP-140
Sacramento, CA 95825-1898

Lester Snow
Mark Cowin
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Paula Landis
Department of Water Resources
San Joaquin District
3374 E. Shields Avenue
Fresno, CA 93726-6913

Re: San Joaquin River Settlement Agreement

Dear Ladies and Gentlemen:

This letter responds to the Notice of Intent to Prepare an Environmental Impact Statement published by the Bureau of Reclamation in the Federal Register on August 2, 2007 and the Notice of Intent to Prepare an Environmental Impact Report issued by the Department of Water resources on August 21, 2007. The Project that the federal and state agencies propose to implement is the San Joaquin River Settlement Agreement.

Saucelito Irrigation District (District) is an irrigation district organized and existing under

* P.O. Box 3858 * Porterville, CA * 93258-3858 *
* (559) 784-1208 * Fax (559) 784-3116 * Emergency No. (559) 359-8975 * saucelito-id@ocsnet.net *

California law. The District was a party to the *Natural Resources Defense Council v. Rodgers* litigation. The District's Board of Directors approved the San Joaquin River Settlement last August, and the District is one of the parties to the Settlement. Under the terms of the Settlement, the Friant contractors will contribute both a portion of their contractual water supplies and funding toward the implementation of the Settlement. Therefore, under California Environmental Quality Act (CEQA) and its implementing guidelines, the District is a responsible agency for the project implementing the Settlement Agreement. (14 Cal. Code Regs. § 15381.) As such, the District may require changes in the Project to lessen or avoid only the environmental effects of the parts of the Project that the District will be called upon to carry out or approve. (14 Cal. Code Regs. § 15041 (b).) The District also qualifies as a Cooperating Agency under the National Environmental Policy Act.

As a Responsible Agency under CEQA, and a Cooperating Agency under NEPA, the District agrees with the comments on the NOI and NOP submitted by the Friant Water Users Authority in its letter to you dated August 28, 2007. The District incorporates the comments in Friant's August 28, 2007 letter by reference. Consistent with CEQA (14 Cal. Code Regs. § 15096 (b) (2).), the District expects that the EIS/EIR will address the issues raised in Friant's letter.

The District designates General Manager Sean Geivet as the contact person to attend meetings to discuss the scope and content of the EIS/EIR.

Sincerely,

Sean Geivet
General Manager

Cc: Board of Directors
Daniel M. Dooley, Legal Council
Ron Jacobsma, FWA-FWUA

TERRA BELLA IRRIGATION DISTRICT

24790 Avenue 95
Terra Bella CA 93270

Established 1915

559/535-4414
Fax 559/535-5168

September 26, 2007

Kirk Rodgers
Jason Phillips
Margaret Gidding
U.S. Department of the Interior
Bureau of Reclamation
2800 Cottage Way MP-140
Sacramento, CA 95825-1898

Lester Snow
Mark Cowin
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Paul Landis
Department of Water Resources
San Joaquin District
3374 E. Shields Ave.
Fresno, CA 93726-6913

RE: San Joaquin River Settlement Agreement

Dear Ladies and Gentlemen:

This letter responds to the Notice of Intent to Prepare an Environmental Impact Statement published by the Bureau of Reclamation in the Federal Register on August 2, 2007 and the Notice of Intent to Prepare an Environmental Impact Report issued by the Department of Water Resources on August 21, 2007. The Project that the federal and state agencies propose to implement is the San Joaquin River Settlement Agreement.

Terra Bella Irrigation District (District) is a water district organized and existing under California law. The District was a party to the *Natural Resources Defense Council v. Rodgers* litigation. The District's Board of Directors approved the San Joaquin River Settlement last August, and the District is one of the parties to the Settlement. Under the terms of the Settlement, the Friant contractors will contribute both a portion of their

contractual water supplies and funding toward the implementation of the Settlement. Therefore, under the California Environmental Quality Act (CEQA) and its implementing guidelines, the District is a responsible agency for the project implementing the Settlement Agreement. (14 Cal. Code Regs. § 15381.) As such, the District may require changes in the Project to lessen or avoid only the environmental effects of the parts of the Project that the District will be called upon to carry out or approve. (14 Cal. Code Regs. § 15041(b).) The District also qualifies as a Cooperating Agency under the National Environmental Policy Act.

As a Responsible Agency under CEQA, and a Cooperating Agency under NEPA, the District agrees with the comments on the NOI and NOP submitted by the Friant Water Users Authority in its letter to you dated August 28, 2007. The District incorporates the comments in Friant's August 28, 2007 letter by reference. Consistent with CEQA (14 Cal. Code Regs. § 15096(b)(2)), the District expects that the EIS/EIR will address the issues raised in Friant's letter.

The District designates General Manager Sean Geivet as the contact person to attend meetings to discuss the scope and content of the EIS/EIR.

Sincerely,

Sean P. Geivet
General Manager

SPG/kk
cc Board of Directors
Michael Sexton
Ron Jacobsma, FWA/FWUA

From: Tyler Gullick <tgullick@mail.csuchico.edu>
To: <mgidding@mp.usbr.gov>
Date: 8/30/2007 4:26:23 PM
Subject: SJ river Restore!

Ms. Gidding and whomever else it may concern,

Due to the fact that I am attending school in the North State, I regretfully can not attend the meetings on the restoration of the San Joaquin River. Although I can not make it, I feel my opinion should count. I feel that if and when this river gets restored, outdoorsman such as myself should be able to enjoy this river a much as the next passionate outdoorsmasn. That is why I feel it should be open to hunters and fisherman, as well as others interested in activities in the outdoors. The vast majoprity of rivers in the state of California are open to such outdoors activities, so why should the San Joaquin be any different? This river should be open to the public for all legal uses within their respective seasons for generations to come. Thank you for taking the time to read my opinion.

Tyler Gullick
Tyler Gullick
CSU Chico

Faxed to Margie 9/20/07

MASON, ROBBINS, BROWNING & GODWIN

MICHAEL L. MASON
KENNETH M. ROBBINS
CORBETT J. BROWNING
ARTHUR F. GODWIN

BETH BRUSH
PARALEGAL

ATTORNEYS AT LAW
A LIMITED LIABILITY PARTNERSHIP
700 LOUGHBOROUGH DR.
SUITE D
MERCED, CA 95348

(209) 383-9334

MAILING ADDRESS
P.O. BOX 2067
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FAX: (209) 383-9586
E-MAIL: mrgb@mrgb.org

September 14, 2007

U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP-140
Sacramento, CA 95825
Attn: Ms. Margaret Gidding

Re: Comments of the San Joaquin Tributaries Association on the San Joaquin River Restoration Program EIS/EIR

Dear Ms. Gidding:

These comments are being submitted on behalf of the San Joaquin Tributaries Association. The San Joaquin Tributaries Association (SJTA) is comprised of the five irrigation districts located on the eastside of the San Joaquin Valley—the South San Joaquin, Oakdale, Modesto, Turlock, and Merced irrigation districts. The SJTA members were not parties to NRDC v. Rogers nor were they parties to the settlement. The SJTA, in conjunction with other so-called "third parties", has provided extensive comments on the settlement agreement and the pending federal enabling legislation. We have also entered into a memorandum of understanding with the Bureau of Reclamation in order to more fully participate in the implementation of the settlement.

While many of these comments have been expressed on prior occasions, we feel they are important and bear repeating.

FINANCING

- The full cost of the implementation of the Settlement Agreement is not known. Cost estimates indicate that full costs including operation and maintenance of facilities are more than $1 billion. The EIS/EIR needs to evaluate alternatives that could implement scaled-down versions of the restoration goal and the water management goal if adequate funding is not provided.

evaluate the overall impact to the species and their recovery if these tributaries cannot be adequately screened.

- Adult Spring-run will easily stray into the Calaveras, Stanislaus, Tuolumne, and Merced Rivers where conditions, although optimal for Fall-run, may not provide adequate habitat for Spring-run, requiring significant changes in operations and facilities to accommodate them. While the federal implementing legislation contains some protection for lawful operations on the tributaries, there is no guarantee that the legislation will pass or that it will pass without amendment. Therefore, the EIS/EIR needs to evaluate the potential of spring-run straying into the other San Joaquin River tributaries, the impact on existing operations, and the impact on the existing fisheries in those tributaries.

- Extensive steps have been taken in recent years under the watchful eye of State and Federal fishery agencies to enhance and protect the Fall-run Chinook salmon in the San Joaquin River tributaries—the Merced, Tuolumne, and Stanislaus Rivers. These efforts may be severely jeopardized if water released from Friant in April and May exceeds the safe temperature limits for migrating Fall-run Chinook salmon fry when it reaches the Merced River. The EIS/EIR needs to evaluate the impacts to the existing Fall-run Chinook salmon fishery. The EIS/EIR also needs to evaluate alternatives or mitigation measures than can reduce or eliminate the impact to the existing Fall-run Chinook salmon fishery.

- The draft legislation now pending before Congress contains language that makes a finding that the settlement and the reintroduction of the Central Valley Spring Run Chinook Salmon is a unique and unprecedented circumstance requiring clear Congressional intent on the application of the Endangered Species Act to ensure that the goals of the settlement are accomplished. The legislation also requires that the reintroduction shall be pursuant to Section 10(j) of the Endangered Species Act provided that the Secretary of Commerce can make the requisite findings. The EIS/EIR needs to evaluate the re-introduction of Spring-run Chinook salmon into the San Joaquin River if this legislation is not adopted in its present form.

- H.R. 24 and S. 27 also provide protection to some SJTA members from having to mitigate impacts to the experimental population of Central Valley Spring Run Chinook Salmon prior to the date when their hydroelectric projects are relicensed by Federal Energy Regulatory Commission (FERC). The EIS/EIR should evaluate the environmental impacts in the event that the legislation is not approved or it is approved without these protections.

INFRASTRUCTURE

- The desire to create a "live" river cannot outpace infrastructure improvements. Water cannot be released or Spring-run introduced into the system until the necessary

- The identified funding sources are not sufficient to cover even the lowest cost estimates for infrastructure only and will require federal appropriations. The implementing federal legislation has stalled due to "pay-go" concerns. The EIS/EIR needs to address how the settlement will be implemented if adequate funding is not available.

- The EIS/EIR should address the annual operations and maintenance costs of the facilities and the implementation of the two goals of the settlement.

- The EIS/EIR should evaluate the added costs of potential unintended consequences. For example, re-watering the San Joaquin River can cause damage to crops from seepage and lead to increased salt loading from ground water accretions causing unknown crop damage. These costs and impacts need to be evaluated.

- All restoration activities should take place in an orderly manner, beginning at Reach 1 and moving downstream. Implementation of the Restoration Goal should not proceed until all work within that reach is completed and the facilities are in place. Introduction of water or fish could impact the SJTA members, if it is done before all work is completed. The ability to fund the entire project in an orderly and timely manner has not been confirmed, and therefore the river restoration must proceed in a logical and orderly fashion.

- Several known issues were not included in the Settlement Agreement engineering estimates, such as screening at the Delta-Mendota Pool and preventing salmon from straying into non-habitat areas such as Bear Creek and Salt and Mud Sloughs in Reach 5. The EIS/EIR needs to evaluate alternatives for screening the Delta-Mendota Pool and preventing straying into the non-habitat areas. The EIS/EIR should also include cost estimates of these alternatives.

ENDANGERED SPECIES

- The Central Valley Spring-run Chinook salmon is currently listed as a "threatened" species under both federal and state endangered species acts. The Settlement Agreement makes no provision for how third parties are to deal with the reintroduction of such species in the watershed. The EIS/EIR needs to fully evaluate how this will be accomplished and provide alternative methods for reintroducing salmonids and other native fishes into the upper San Joaquin River.

- Adult Spring-run will easily stray into Bear Creek and Salt and Mud Sloughs where temperature conditions are potentially lethal to salmon. The EIS/EIR needs to evaluate alternatives for screening these strays. Alternatively, the EIS/EIR should

infrastructure has been completed. The EIS/EIR needs to look at other alternatives to implementing the settlement if adequate funding is not available or if the necessary infrastructure cannot be built.

- Operation and maintenance of the infrastructure and improvements should not be the responsibility of the SJTA member or other third parties. The EIS/EIR needs to evaluate which parties will be responsible for operations and maintenance, how operations and maintenance will be accomplished, and an estimate of the annual costs.

- The EIS/EIR must adequately identify the mitigation for the infrastructure and improvements and evaluate the impacts of the mitigation. For example, monitoring wells need to be installed at key locations to adequately monitor groundwater and seepage conditions for mitigation and water recovery.

- The EIS/EIR needs to evaluate which lands are needed to implement the settlement agreement. The EIS/EIR needs to fully evaluate the environmental and social impacts of taking private, productive agricultural land out of production. The EIS/EIR should evaluate alternatives to using private land. Any impacts associated with the use of private land for implementation of the settlement agreement must be fully mitigated.

DOWNSTREAM AREAS

- Water rights and the water right priority system must be protected. The EIS/EIR should provide an evaluation of the water rights and how implementation of the settlement agreement will be accomplished without impacting those rights or water right priorities. For example, the Merced Irrigation District should not be required to make additional releases of cold water in the event that water from the upper San Joaquin River is too warm for downstream fisheries. Any impacts to the water rights must be fully mitigated.

Very Truly Yours,

MASON, ROBBINS, BROWNING & GODWIN

Arthur F. Godwin

AFG:bf

Cc: SJTA

Faxed to MP 9/24

KINGS RIVER WATER ASSOCIATION

4888 EAST JENSEN AVENUE
FRESNO, CALIFORNIA 93725
TELEPHONE (559) 266-0767
FAX (559) 266-3918

September 19, 2007

Margaret Gidding
Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP140
Sacramento, CA 95825

Karen Dulik
California Department of Water Resources
San Joaquin District
3374 E Shield Ave
Fresno, CA 93726

In response to your request for public scoping comments regarding the San Joaquin River Restoration Program, the Kings River Water Association is submitting the following:

1. The settlement provides for the restoration of a sustained salmon run on the main stem of the San Joaquin River. It does not provide for the introduction of species or sustained runs where they did not historically exist. All alternatives must be so focused, and must not expand the scope of the settlement or the restoration program beyond the restoration of a sustained salmon run on the main stem of the San Joaquin River.

2. A fundamental premise of the settlement and restoration program is to avoid impacts on parties uninvolved in the underlying litigation and water supplies other than those originating at Friant Dam. That guiding principle must be included in all aspects of the program and in all alternatives studied. For example, the program must include, and the environmental documents must evaluate, measures to preclude accidental migration of salmon or other species to rivers other than the main stem of the San Joaquin. Similarly, all alternatives must assume that all water supplies needed for the restoration will come from Friant Division Central Valley Project supplies, and no alternatives should assume water being made available from other sources unless those sources have been secured.

3. No alternatives should assume that water can be recovered for Friant Division use via exchanges or arrangements with other parties, or by utilizing other conveyance or river systems, unless those arrangements have been negotiated in advance. Assuming the availability of recovery strategies dependent on the cooperation of third parties is highly speculative, and any effort to impose those arrangements on third parties would be in violation of the fundamental principle of avoiding third party impacts.

4. No alternatives should be studied that increase costs to third parties.

5. No alternatives should be studied that increase flood control risks or other risks to property or human safety. Historically required and existing flood flow capacities must be maintained or enhanced, and the Corps of Engineers should be involved in the development of alternatives to ensure that no flood control impacts will occur.

Please include my contact information on all distribution lists regarding future meeting notices and documents relative to this program.

Sincerely,

Steven Haugen
Watermaster

emailed to Margaret 9/10/07

San Joaquin River Restoration Program

September 9, 2007

Margaret Giddings
U.S. Bureau of Reclamation
2800 Cottage Way, MP-180
Sacramento, CA 95825

Dear Ms. Giddings,

Thank you very much for the opportunity to submit comments as input from participating in the San Joaquin River Restoration Program (SJRRP) Public Scoping meetings of August 28 and 29, 2007. I found the sessions to be conducted in a highly professional way – and very informative in nature. The following are my comments:

1. It was conveyed that there is $100 million specifically allocated to the restoration program under State Proposition 84 – and an additional $100 million under State Proposition 1E. If this is indeed the case, then the $200 million as earmarked should be available to perform initial work that is estimated to possibly exceed $500 million dollars over the project life. Is this a correct assumption from a programmatic and funding perspective? Are these funds restricted towards restoration?

2. It was indicated that there are sources of user fees that are assigned to water users – as well as CVPIA-92 surcharges that are available to dedicate towards river restoration. As in the prior question, are these funds available to perform initial – as well as future work? Is this a correct assumption from a programmatic and funding perspective?

3. According to representatives from the U.S. Bureau of Reclamation, there are approximately 240 Holding Contracts that were established from Friant Dam to Gravelly Ford that guarantee the reasonable use of water from the San Joaquin River for agricultural and domestic use – exclusive of specific long term contracts established for agricultural as well as Municipal and Industrial (M&I)use. Will these contracts be reviewed to assure a reliable, measurable and managed water allocation program for river restoration?

4. It has been estimated that Millerton Lake has an estimated 135K acre feet of "dry storage" in which "dry storage" represents the amount of water that cannot be delivered to Friant Water Users via the Friant-Kern and Madera canals. Will this storage space behind Friant dam be available for downstream water use – as well as for additional flood control capacity?

5. What role will CALSIM 2 and more recently CALSIM 3 play in water balancing between supply, natural/man-made conveyance and demand (agricultural, M&I and environmental?

6. There was a study conducted by Huxley T. Madeheim on behalf of the U.S. Bureau of Reclamation that was published in 2000, in which to determine how much additional water may be utilized – as well as additional flood control capacity based upon Southern California Edison and Pacific Gas &

Electric's hydroelectric system operations. Will this study and the underlying concept be a part of the restoration program?

7. Are Cottonwood and Little Dry Creeks recognized for their upstream spawning potential as well as for water quality and quantity?

8. Will Cottonwood and Little Dry Creeks watersheds be researched for potential de-watering and water quality impacts?

9. What role will groundwater usage – current and projected play in determining available water resources within the restoration project site?

10. Studies have indicated a significant number of invasive species both flora and fauna that inhabit aquatic and terrestrial environments. Will the restoration program include the identification and impacts of these species of concern?

11. Will indicator species play a role in measuring progress for biodiversity and environmental conditions?

12. What role will the San Joaquin River Conservancy play in river restoration? Will they be a resource and point of coordination for non-profits/NGOs; the general public and other interested non-governmental parties to participate?

13. Programmatically, what role will the California Lands Commission play?

14. Will the project include a study being conducted based upon current and future land use activities?

Thank you for the opportunity to submit my questions in response to the San Joaquin River Public Scoping sessions. Please let me know if there are any questions that you may have regarding this submission.

Sincerely,

(signed)

_____

Steve Haze

34876 SJ&E Road
Auberry, CA 93602

H-(559) 855-8844
C-(559) 970-6320

SteveHaze@psnw.com

Margaret Gidding - River Restoration Program This email to Margaret

From: "Laura Heckman" <Laura4si@aol.com>
To: <mgidding@mp.usbr.gov>, <LSAyres@aol.com>
Date: 9/21/2007 1:39:50 PM
Subject: River Restoration Program

The Bureau of Reclamation

Attention: Margaret Gidding

RE: San Joaquin River Restoration Program

We wish to thank the parties to the lawsuit for presenting a plan for the restoration of the San Joaquin River. There are huge recreation benefits to be derived from restoring the river: fishing, canoeing, hiking, bicycling, bird watching, exploring the horticulture, painting, photography, scenic vistas, and a place for family gatherings, to name a few.

In addition as we contemplate the restoration of the San Joaquin River, let's remember our children and the kind of environment we want to create for them and their future. If we are to teach our children to appreciate and respect our natural resources, we need to lead by example and by showing them the benefits of thoughtful preservation. Outdoor activity has incredible value to children and adults alike and let's not underestimate the benefit of creating fond memories and a place we're proud to call home!

Laura Heckman and Family

Sequoia Investments, Inc.
516 W. Shaw Avenue, Suite 200
Fresno, California 93704
Tel: (559) 261-1551
Fax: (866) 429-8896
Email: Laura4si@aol.com

emailed Marcia 9/4

Print Form

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name J. Paul Hendrix

Organization and Address Tulare Irrigation District

1350 W. San Joaquin Ave. Tulare, CA 93274

Phone (559) 686-3425 FAX ( ) E-mail jph@tulareid.org

Comment here: 8/30/07 *Date*

The District is a long-term contractor for water from the Friant Unit of the CVP, importing water from this source for over 55 years. This water , averaging about 80,000/AF per year, is diverted for both irrigation use and for groundwater recharge into the Kaweah Basin, a basin subjected to ongoing overdraft of the underground supplies by both irrigation and municipal extractions. To wit, DWR Bulletin 118 lists the Tulare Lake Basin as critically overdrafted and DWR's Calif. Water Plan Updates describe the Tulare Lake Hydrologic Region as water deficient. Computer simulations of Friant operations indicate that the District's CVP diversions will be reduced by about 21% due to water to be released to the San Joaquin River for fishery restoration purposes. Such significant imported water losses will exacerbate the groundwater overdraft already occuring in this region. It is thus critical that the Water Management Goal of the Restoration Program be thoroughly articulated so that water shortages such as those which will occur in this region be fully mitigated. Projects such as expansion of the capacity of the Friant-Kern Canal will be essential in enabling Friant districts like Tulare to capture more water from the San Joaquin River during times when not needed for required fishery purposes. The District anticipates that the NEPA/CEQA process for the Restoration Program will fully and realistically evaluate all possible projects and programs as part of the Water Management Goal to fully mitigate for the environmental impacts of redirecting water to the San Joaquin River which has for over five decades been delivered to this water deficient region.

All comments become part of the public record.

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 942360001
(916) 653-5791

September 4, 2007

Karen Dulk
Department of Water Resources
3374 East Shields Avenue
Fresno, California 93726

San Joaquin River Restoration Program
State Clearinghouse (SCH) Number: 2007081125

The project corresponding to the subject SCH identification number has come to our attention. The limited project description suggests your project may be an encroachment on the State Adopted Plan of Flood Control. You may refer to the California Code of Regulations, Title 23 and Designated Floodway maps at http://recbd.ca.gov/. Please be advised that your county office also has copies of the Board's designated floodways for your review. If indeed your project encroaches on an adopted food control plan, you will need to obtain an encroachment permit from the Reclamation Board prior to initiating any activities. The attached Fact Sheet explains the permitting process. Please note that the permitting process may take as much as 45 to 60 days to process. Also note that a condition of the permit requires the securing all of the appropriate additional permits before initiating work. This information is provided so that you may plan accordingly.

If after careful evaluation, it is your assessment that your project is not within the authority of the Reclamation Board, you may disregard this notice. For further information, please contact me at (916) 574-1249.

Sincerely,

Christopher Huitt
Staff Environmental Scientist
Floodway Protection Section

Enclosure

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

Encroachment Permits Fact Sheet

Basis for Authority

State law (Water Code Sections 8534, 8608, 8609, and 8710 – 8723) tasks the Reclamation Board with enforcing appropriate standards for the construction, maintenance, and protection of adopted flood control plans. Regulations implementing these directives are found in California Code of Regulations (CCR) Title 23, Division 1.

Area of Reclamation Board Jurisdiction

The adopted plan of flood control under the jurisdiction and authority of the Reclamation Board includes the Sacramento and San Joaquin Rivers and their tributaries and distributaries and the designated floodways.

Streams regulated by the Reclamation Board can be found in Title 23 Section 112. Information on designated floodways can be found on the Reclamation Board's website at http://recbd.ca.gov/designated_floodway/ and CCR Title 23 Sections 101 - 107.

Regulatory Process

The Reclamation Board ensures the integrity of the flood control system through a permit process (Water Code Section 8710). A permit must be obtained prior to initiating any activity, including excavation and construction, removal or planting of landscaping within floodways, levees, and 10 feet landward of the landside levee toes. Additionally, activities located outside of the adopted plan of flood control but which may foreseeable interfere with the functioning or operation of the plan of flood control is also subject to a permit of the Reclamation Board.

Details regarding the permitting process and the regulations can be found on the Reclamation Board's website at http://recbd.ca.gov/ under "Frequently Asked Questions" and "Regulations," respectively. The application form and the accompanying environmental questionnaire can be found on the Reclamation Board's website at http://recbd.ca.gov/forms.cfm.

Application Review Process

Applications when deemed complete will undergo technical and environmental review by Reclamation Board and/or Department of Water Resources staff.

Technical Review

A technical review is conducted of the application to ensure consistency with the regulatory standards designed to ensure the function and structural integrity of the adopted plan of flood control for the protection of public welfare and safety. Standards and permitted uses of designated floodways are found in CCR Title 23 Sections 107 and Article 8 (Sections 111 to 137). The permit contains 12 standard conditions and additional special conditions may be placed on the permit as the situation warrants. Special conditions, for example, may include mitigation for the hydraulic impacts of the project by reducing or eliminating the additional flood risk to third parties that may caused by the project.

Additional information may be requested in support of the technical review of

your application pursuant to CCR Title 23 Section 8(b)(4). This information may include but not limited to geotechnical exploration, soil testing, hydraulic or sediment transport studies, and other analyses may be required at any time prior to a determination on the application.

Environmental Review

A determination on an encroachment application is a discretionary action by the Reclamation Board and its staff and subject to the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code 21000 et seq.). Additional environmental considerations are placed on the issuance of the encroachment permit by Water Code Section 8608 and the corresponding implementing regulations (California Code of Regulations – CCR Title 23 Sections 10 and 16).

In most cases, the Reclamation Board will be assuming the role of a "responsible agency" within the meaning of CEQA. In these situations, the application must include a certified CEQA document by the "lead agency" [CCR Title 23 Section 8(b)(2)]. We emphasize that such a document must include within its project description and environmental assessment of the activities for which are being considered under the permit.

Encroachment applications will also undergo a review by an interagency Environmental Review Committee (ERC) pursuant to CCR Title 23 Section 10. Review of your application will be facilitated by providing as much additional environmental information as pertinent and available to the applicant at the time of submission of the encroachment application.

These additional documentations may include the following documentation:

- California Department of Fish and Game Streambed Alteration Notification (http://www.dfg.ca.gov/1600/),
- Clean Water Act Section 404 applications, and Rivers and Harbors Section 10 application (US Army Corp of Engineers),
- Clean Water Act Section 401 Water Quality Certification, and
- corresponding determinations by the respective regulatory agencies to the aforementioned applications, including Biological Opinions, if available at the time of submission of your application.

The submission of this information, if pertinent to your application, will expedite review and prevent overlapping requirements. This information should be made available as a supplement to your application as it becomes available. Transmittal information should reference the application number provided by the Reclamation Board.

In some limited situations, such as for minor projects, there may be no other agency with approval authority over the project, other than the encroachment permit by Reclamation Board. In these limited instances, the Reclamation Board

8. Private property rights and protection of easements
9. Concerns with public access to the River including trespass and restrictions on chemical applications. Also, litter and theft.

Reach 5:

1. Unscreened diversions back into the River (Mud Slough, Salt Slough, etc.)

ESA liability: If the USBR or some other entity is going to own, operate, and maintain the facilities, they need to be responsible for ESA compliance. In addition, they need to indemnify the Company for any shortages caused by ESA. If the final legislation and regulations don't provide the protections that the Company sought, then impacts to the Company resulting from ESA restrictions need to be mitigated. The Company should not have to suffer water supply reductions if restoration project facilities, such as fish screens, do not work as designed..

All restoration activities should take place in an orderly manner, beginning at Stretch 1 (Friant Dam), and moving downstream. Water and Fish SHOULD NOT be introduced into any stretch of the system, until all work within that sub area is completed. Introduction of water or fish would jeopardize the Third Parties, if it is done prior to the completion of the restoration projects. The ability to fund the entire project in an orderly and timely manner is suspect at best, and therefore logical and orderly River Restoration must be a priority.

The EIS/EIR needs to consider restoration alternatives if the settling parties don't get full funding. The settling parties can partially build the project or build a scaled down version of the project that fits within their budget. A scaled-down restoration plan would have to evaluate cost and feasibility, provide a conceptual model of how the scaled-down version would function, and describe which species could or could not be maintained. The scaled-down version should also be designed so that it could be expanded if funds materialize.

The Company is also a member of the San Joaquin River Resource Management Coalition (RMC). The RMC will be providing a detailed schematic that will incorporate their comments and concerns. Many of those will cover the Company's comments documented in this letter along with others.

The Canal Company reserves the right to provide comments and input throughout the entire process of the River Restoration Program.

Please feel free to call with any questions you may have.

Sincerely,

Chase Hurley

Chase Hurley
General Manager

Faxed to Mgidding 9/20

SAN JOAQUIN RIVER
RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name Chase Hurley

Organization and Address San Luis Canal Company

11704 W. Henry Miller Ave.

Dos Palos, CA 93620

Phone (209) 826-5112 FAX (209) 387-4237 E-mail churley@slcc.net

Comment here: September 17, 2007
Date

See attached comments.

All comments become part of the public record.

SAN LUIS CANAL COMPANY

September 17, 2007

U. S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP-140
Sacramento, CA 95825

RE: San Joaquin River Restoration Program
Environmental Impact Statement/Environmental Impact Report

PUBLIC SCOPING COMMENTS

The San Luis Canal Company would like to formally provide these written comments during the public scoping comment period. As a Third Party to the negotiated settlement, many if not all of these comments have been brought up before as the Company has worked with other agencies to flush out the details of the negotiated settlement and the proposed legislation.

The Company will continue to work closely with the Bureau of Reclamation in all aspects of the River Restoration, and will need to be fully informed at all times during the restoration program due to our integrated nature with the River through reaches 3, 4, and 4B.

Reach 3:

1. San Joaquin River Levee System from Mendota Dam to Sack Dam: The levee system will have to be able to handle the agricultural demand of the Company at the Arroyo Canal Diversion in conjunction with the maximum flows needed for fish passage as stated in the negotiated settlement hydrographs. The system needs to be designed so that the Company can divert a maximum of 800 cfs daily at the Arroyo Canal. This flow requirement would remain priority one at all times.
2. Sack Dam: This facility is privately owned by the Company and will need to be modified or replaced in order to provide fish passage. Things to consider are:
   - Ownership
   - Operations
   - Funding of Construction and daily O&M
3. Arroyo Canal Fish Screen: The current diversion is unscreened. Things to consider are:
   - Ownership
   - Operations
   - Funding of Construction and daily O&M

11704 W. HENRY MILLER AVE.
DOS PALOS, CA 93620
(209) 826-5112 ** (209) 387-4305

"A MUTUAL WATER COMPANY SINCE 1913"

- Engineered to meet the daily flow requirements of the Company, in conjunction with the flow characteristics of the San Joaquin River Channel and the adjacent Sack Dam.
- Under both Sack Dam and the Arroyo Canal Fish Screen, there needs to be a discussion of premises liability including personal and property damage. This also applies to any other facilities built within the SLCC boundaries. This issue will depend in large part on who owns, operates, and maintains the facilities.
  The same applies to downstream flooding, not just immediately downstream of any new facilities, but also in downstream reaches.

Reach 4 at the Sand Slough Diversion:

1. Control structures would need to be modified to closely control flow characteristics downstream.

Reach 4B vs. the current Bypass System

1. All parties need to follow the current draft negotiated legislation pertaining to developing the best alternative for flow downstream of reach 4.

Reach 4B: Company lands run along the south boundary of the 4B channel. Things to consider are:

1. Protection of Company water rights, if and when land is purchased for "re-sizing" of the River.
2. In addition to the construction of new facilities that will be necessitated by moving the levees out, we will most likely have to re-level/redesign our fields to accommodate the changes.
3. Groundwater protection: both in terms of quality, and ability to retain groundwater pumping rights for local agricultural production.
4. Test holes (wells) will need to be installed in the 4B stretch prior to the interim flows to establish existing ground water conditions. These wells will need to be monitored as interim flows are introduced.
5. Interim Restoration Flows:
   A. There is very limited, if any, capacity at this time in the channel. Interim flows must be done properly, at the right time, and in very close cooperation with the landowners.
   B. The flows need to be run in the winter to minimize the damage to existing crop rotations. If crops/field damage does occur, landowners must be compensated for the losses.
   C. We need to agree on when it is decided that the maximum flow levels have been achieved during the interim flows.
6. Seepage mitigation – The seepage damage caused by the interim flows will not represent the damage that will be caused by the pulse flows of 4500 CFS nor the flows of 475 CFS. Modeling will be required to estimate the extent of the seepage damage/impacts caused by the higher flows.
7. Construction of new facilities:
   - Road crossings
   - Private irrigation ditches and drains

may choose to serve as the "lead agency" within the meaning of CEQA and in most cases the projects are of such a nature that a categorical or statutory exemption will apply. The Reclamation Board cannot invest staff resources to prepare complex environmental documentation.

Additional information may be requested in support of the environmental review of your application pursuant to CCR Title 23 Section 8(b)(4). This information may include biological surveys or other environmental surveys and may be required at anytime prior to a determination on the application.

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

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(Please print clearly)

Name Carl JANZEN – Board President

Organization and Address Madera Irrigation District

~~[redacted]~~ 17208 Rd 21

Madera, Calif 93637

Phone (559) 479-1070 FAX (559) 673-1504 E-mail

Comment here: 9-5-07
Date

is what Happen To current Fishery orLow Faint Dam.

2, where does impact to all Fraiuts Contractor at different Levels of water Losses figure in? espesily if Water Managemont goals fail do to court order on delta

3. there was comments as to Liking fishing Hikong etc. I Like There tae bo I Like Having food to eat that is safe + Local grown.

Faxed to mgidding

All comments become part of the public record.

Margaret Gidding - San Joaquin River Restoration Program email Morning 9/4

From: "Denise Jepson" <dennyloo@comcast.net>
To: <mgidding@mp.usbr.gov>
Date: 8/30/2007 8:51 PM
Subject: San Joaquin River Restoration Program

Dear Ms.Giddings,

Regretably I am unable to attend the area scoping meetings that are scheduled for this week. However, I thank you for allowing me to still have a voice concerning this program.

I live below the Friant Dam along the Hwy 41 corridor in Madera County, and the San Joaquin river is an important resource to this community and it's residents. I have fished along the head waters, rafted through the low areas, volunteered at the hatchery, trained bird dogs and hunted at various locations within the valley.

The educational and recreational value of this river is something that should be shared by everyone. California has a long history of natural resources that are slowly disappearing. Yes, conservation is essential to insuring the preservation of our water and lands, but it needs to be done in ways that allow ALL outdoor enthusiasts the privledge of use. As plans for this program continue I would like to see great thought go into providing more accessible public lands along the San Joaquin for hunting, fishing and other recreational activities.

I lived for awhile in the NW (WA state to be exact) and saw first hand how there can be a balance between conservation, and public use of rivers. Designating certain areas as specific spawning grounds for salmon were done through temporary closures, but not TOTAL closure as some have fought to do in California. Other times of the year those same areas were available for hunting, fishing, camping, etc. It can be done! Hunting and fishing does not destroy ecological balance, it maintains it!

So as you prepare for the impacts and changes this program will have I hope you will give strong consideration to opening up more public access along the river and allow California's heritage of fishing and hunting along the San Joaquin to continue for all generations to come.

Respectfully,
Denise Jepson
Madera, CA

emailed from Karen to MP & mds 9/25/07

Karen

LAW OFFICES OF
LINNEMAN, BURGESS, TELLES, VAN ATTA, VIERRA,
RATHMANN, WHITEHURST & KEENE

EUGENE J. VIERRA
DIANE V. RATHMANN
ALFRED L. WHITEHURST
THOMAS J. KEENE

JAMES E. LINNEMAN, OF COUNSEL

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JOSEPH B. BURGESS (1902-1990)
JAY H. WARD (1942-1995)
C. E. VAN ATTA (1919-1997)
JESS P. TELLES, JR. (1920-2004)

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September 20, 2007

Paula J. Landis, Chief, San Joaquin District
California Department of Water Resources
3374 East Shields Avenue
Fresno, California 93726

Re: Comments of the Lower San Joaquin Levee District on the Notice of Preparation of a Draft Program Environmental Impact Statement/Environmental Impact Report (PEIS/EIR) for the San Joaquin River Restoration Program

Dear Ms. Landis:

This letter is written on behalf of my client the Lower San Joaquin Levee District. Thank you for getting me a copy of the Notice of Preparation in this matter. After reviewing it I do have a few comments. It is my understanding from Reggie Hill that the District's comments with regard to the CEQA NOP will also be incorporated into the NEPA review as well so that we do not have to prepare parallel documents.

As you know, the Settlement Agreement sets forth work in two phases. The first phase includes most of the construction work and is to be completed no later than December 31, 2013. The improvements in this phase include: the construction of a bypass channel around the Mendota Pool to ensure the conveyance of at least 4,500 cfs at Reach 2 of the River; modification of reach 2B between the bifurcation structure at the head of the Chowchilla Bypass and Mendota Pool, to ensure the conveyance of at least 4,500 cfs; modification of the river's channel to ensure the conveyance of at least 475 cfs through Reach 4B; modification of the head gate on the river to ensure fish passage between 500 cfs and 4,500 cfs into Reach 4B; modification of the Sand Slough control structure to ensure diversion of at least 475 cfs into Reach 4B; screening the Arroyo Canal diversion immediately upstream of Sack Dam; modification of Sack Dam, modifications to structures in the Eastside and Mariposa Bypass channels to allow for the passage of fish on an interim basis until completion of Phase 2; modification of the Eastside and Mariposa Bypass channels to establish a low-flow channel; and modifications to enable the deployment of seasonal barriers to prevent salmon from entering false migration pathways in the area of Sal Slough and Mud Slough.

In fact the only construction projects in Phase 2 are: modification of the river's channel

capacity at Reach 4B to ensure conveyance of at 4,500 cfs unless the Secretary of the Interior determines that such modifications would "not substantially enhance achievement of the Restoration Goal"; modification of the bifurcation structure at the head of the Chowchilla Bypass to provide fish passage; filling or isolation of the highest priority gravel pits in Reach 1; and modification of the Sand Slough control structure to enable effective routing and conveyance of flows of up to 4,500 cfs into Reach 4B.

The Notice of Preparation (NOP) is divided into three stages. Your initial description of the first stage sounds as if it is entirely planning.[1] Stage 2 then starts with the release of interim flows. As I read the Settlement Agreement, Interim Flows begin on October 1, 2009, and salmon will be re-introduced to the river no later than December 31, 2012. The NOP provides that "Stage 2 shall conclude in December 2013 after all Phase 1 priority construction activities identified in Paragraph 11 (a) of the Settlement have been completed." The NOP then provides:

> "Stage 3, titled Initiation of Restoration Flows, and would begin with the full Restoration Flow releases from Friant Dam. This stage shall also include construction of the remaining Program features that were not Phase 1 priority actions, and the operation and maintenance of the project facilities."

1. My concern at this point is that, from the Levee District's perspective, the primary difference between Phase 1 and Phase 2 is that the final decision on how to leave Reach 4B will not be made until Phase 2. This decision is whether to keep the majority of the Restoration Flows going down the Eastside Bypass and the Mariposa Bypass with only a small amount of water going down Reach 4B of the river or to modify Reach 4B to allow it to take all of the Restoration Flows. While this decision is to be made by the Secretary of the Interior, he or she is to do so "in consultation with the Restoration Administrator and with the concurrence of the National Marine Fisheries Services. . . and the Fish and Wildlife Service. . " My interpretation of the stages described in the NOP is that Stage 1, for the most part, pre-dates Phase 1; and Stage 2 is, to a large extent, Phase 1; and Stage 3 is Phase 2. We would prefer it if your Stage 3 (or any of your stages for that matter,) addressed the decision which will have to be made with regard to Reach 4B and the need to increase the capacity of Reach 4B of the river so that the bypass system may be left in tact for the purpose for which it was designed: flood protection. The impact on flood control will be very significant if the bypass becomes a part of the river and, as a

---

[1] "Stage 1 focuses on a programmatic planning and environmental review process, which would include formulating and evaluation reasonable alternatives and identifying significant data needs and analyses required during Stage 2, as part of the site-specific NEPA/CEQA process." etc.

consequence, is wet all year. It will make it difficult, (we believe impossible) to keep vegetation down enough to retain adequate flood fighting capability while still allowing sufficient vegetation to provide a habitat for the Salmon. Additional negative environmental impacts can be anticipated in this situation in that the Levee District would have to use herbicides which may legally be used near water which flows into the river and those herbicides will, in fact, flow into the river. It can be anticipated that the challenge presented by substituting the upper end of the Eastside Bypass and the entire Mariposa Bypass as a substitute for Reach 4 B of the river will greatly increase the cost of flood control while simultaneously reducing the effectiveness of those efforts.

2. As you know, a large portion of the Eastside Bypass and all of the Mariposa Bypass were constructed entirely in easements, (unlike the Chowchilla Bypass which was constructed on land to which the State of California had acquired fee title). These easements were specifically for flood control purposes. A problem with the Settlement Agreement is that, even though it calls for using a portion of the Eastside Bypass and all of the Mariposa Bypass for interim restoration flows during the Phase 1, (your Stage 2), it does not provide for the acquisition of any property interests until Phase 2, (your Stage 3). Of course, the argument can be made that, until Phase 2 it is unclear exactly how much of a property interest needs to be acquired since, if the decision is made to widen Reach 4B of the river, then any additional easement rights along the Mariposa Bypass and the upper end of the Eastside Bypass would only have to be short term rights, but if the decision is to leave most of the reclamation flows in the bypass system, the property interests would have to be permanent. In any event, it can be anticipated that, in preparing the environmental documentation during Stage 1, some field work will have be done on the levee banks. Insofar as this work is for river reclamation purposes rather than flood control purposes, the people who go onto the levee banks in the areas where the project is in easements are committing a trespass unless they first obtain the prior consent of the property owners.

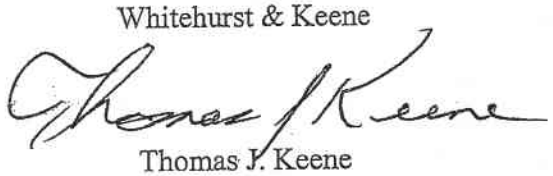
3. In reviewing a draft of this letter, Reggie Hill pointed out quite correctly that paragraph 12 of the Settlement Agreement provides that "there are likely additional channel or structural improvement" which would "further enhance the success of achieving the Restoration Goal." Obviously no environmental documentation can be generated on these other improvements unless and until the Restoration Administrator identifies them and makes a recommendation to the Secretary of the Interior.

There are other comments which the Lower San Joaquin Levee District has but we believe that it would make the most sense to hold those comments until later in the environmental review process. We are particularly eager to see how the environmental

documents address the question of who is going to maintain the new structures and how the cost of that maintenance is to be paid. This will materially affect how the Levee District approaches some of the additional costs which it reasonably anticipates incurring at least during Stage 2, when the interim flows are in the bypass system year round. Thank you for the opportunity to comment.

Very truly yours,

Linneman, Burgess, Telles,
Van Atta, Vierra, Rathmann,
Whitehurst & Keene



Thomas J. Keene

cc: Lower San Joaquin Levee District

vmp

Fresno

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name Reno & Suzanne Lanfranco

Organization and Address 5218 N. Humboldt (River Prop)

mail: P.O. Box 132

Kerman, Ca 93630

Phone (559) 846-9491 FAX (559) 846-8438 E-mail Renosuzy@AOL.com

Comment here: 8-29-07
Date

Concerns:

#1 widening of river

#2 Clearing of river (ie: Appliances, Tires)

#3 depth.

#4 Existing Home backed up to River / future impact to property being taken for restoration

All comments become part of the public record.

emailed to moran 9/19/07

Comments on the
Scope of the EIS/EIR for SJR Flow Restoration
& Its Impact on SJR Water Quality

Submitted by
G. Fred Lee PhD, PE, DEE and Anne Jones-Lee, PhD
G. Fred Lee & Associates
27298 E. El Macero Dr.
El Macero, California 95618-1005
Tel. (530) 753-9630
e-mail: gfredlee@aol.com
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September 18, 2007

These comments are submitted in response to a request for comments on the Scope of the EIS/EIR for the Restoration of the SJR flow downstream of Friant Dam. They focus on the impacts of restoration of SJR flow releases from Friant Dam on SJR water quality downstream of Lander Avenue (Highway 165).

Overall Comment

The SJR Restoration EIS/EIR should include a detailed evaluation of how changing the Friant Dam releases and manipulating other aspects of SJR flow associated with the SJR Restoration Program will impact water quality in the SJR and Delta. As discussed in the references cited below, the water quality in the SJR and Delta is impacted by SJR flow; thus, SJR water quality will be impacted by the SJR Restoration Program. These issues should be evaluated in the EIS/EIR.

Background to Comments

These comments are based on information and insight we obtained during the upstream studies conducted as part of investigating sources of pollutants that impact the SJR Deep Water Ship Channel low-DO problem that occurs just downstream of the Port of Stockton. We became involved in this issue in 1999 and were especially active in investigating this problem for the following five years when we served as the coordinating principal investigators for a $2-million CALFED-supported study of the SJR DWSC low-DO problem. Our work included the development of a comprehensive synthesis report,

> Lee, G. F. and Jones-Lee, A., "Synthesis and Discussion of Findings on the Causes and Factors Influencing Low DO in the San Joaquin River Deep Water Ship Channel Near Stockton, CA: Including 2002 Data," Report Submitted to SJR DO TMDL Steering Committee and CALFED Bay-Delta Program, G. Fred Lee & Associates, El Macero, CA, March (2003).
> http://www.gfredlee.com/SynthesisRpt3-21-03.pdf

Since completing that synthesis report we have prepared a series of supplemental reports including,

> Lee, G. F. and Jones-Lee, A., "Supplement to Synthesis Report on the Low-DO Problem in the SJR DWSC," Report of G. Fred Lee & Associates, El Macero, CA, June (2004). http://www.members.aol.com/duklee2307/SynthRptSupp.pdf

Our papers and reports are available on our website, www.gfredlee.com in the San Joaquin River Watershed Delta section at http://www.gfredlee.com/psjriv2.htm.

Also pertinent to review of how releases of water from Friant Dam could potentially impact water quality in the SJR, is our report,

> Lee, G. F. and Jones-Lee, A., "San Joaquin River Water Quality Issues," Report of G. Fred Lee & Associates, El Macero, CA, June (2006).
> http://www.members.aol.com/annejlee/sjr-WQIssues.pdf

and associated presentation,

> Lee, G. F. and Jones-Lee, A., "San Joaquin River Water Quality Issues," (PowerPoint Slides) Invited Paper Presented at Great Valley Conference, "At the Tipping Point," Sacramento, CA, Sponsored by Great Valley Center, Modesto, CA, May 11 (2006). http://www.members.aol.com/annejlee/SJR-April2006.pdf

We discussed the role of irrigated agricultural discharges in water quality problems in the San Joaquin River in the presentation,

> Lee, G. F. and Jones-Lee, A., "Agriculture-Related Water Quality Problems in the San Joaquin River," PowerPoint slides presented at 2006 International Conference on "The Future of Agriculture: Science, Stewardship, and Sustainability," Sacramento, CA, August 7-9 (2006).
> http://www.members.aol.com/annejlee/SJRAgAug06Paper.pdf

We will also be presenting a paper on these issues this fall,

> Lee, G. F., and Jones-Lee, A., "Water Quality Issues of Irrigated Agricultural Runoff/Discharges—San Joaquin River, Central Valley, California," Presented at *Agriculture and the Environment* - 2007 Conference, Central Coast Agricultural Water Quality Coalition, Monterey, CA, November (2007).
> http://www.members.aol.com/GFLEnviroQual/SJR-WQ-Ag-Monterey.pdf

Because Delta water quality is highly influenced by water quality in the San Joaquin River, our comprehensive review of Delta water quality,

> Lee, G. F. and Jones-Lee, A., "Overview of Sacramento-San Joaquin River Delta Water Quality Issues," Report of G. Fred Lee & Associates, El Macero, CA, June (2004). http://www.members.aol.com/apple27298/Delta-WQ-IssuesRpt.pdf

is of interest in evaluating the potential impacts of increased SJR flow from Friant Dam on Delta water quality.

Additional information on our experience in working on SJR and Delta water quality issues is available at http://www.members.aol.com/annejlee/Delta-SJR-exp.pdf.

Discussion

The reach of the SJR between Friant Dam and Lander Ave. is generally dry, except for wet years when the USBR spills excess water from Friant Dam. Beginning at Lander Ave. (Highway 165), groundwater discharge to the river and irrigation return water

provide flow to the SJR which continues through to the Delta. The east-side rivers, including the Merced River, Stanislaus River, and Tuolumne River, typically provide high quality Sierra water to the SJR. The west-side tributaries beginning at Mud and Salt Sloughs are dominated, especially during the summer, fall and winter, by agricultural tail water and subsurface drain flows that contain elevated concentrations of a variety of pollutants. Table 1 presents a summary of currently known and suspected contaminants of water quality concern in the SJR between Lander Ave. and the Delta.

Table 1. San Joaquin River Watershed TMDLs
Updated from Lee and Jones-Lee (2002)

Current (Active)
- Selenium
- Salinity at Vernalis, Total Dissolved Solids (TDS), Electrical Conductivity (EC)
- Boron
- Organophosphorus (OP) Pesticides (Diazinon, Chlorpyrifos)
- Oxygen-Demanding Substances (BOD/Algae, Ammonia, Organic N)

Pending (to be Developed)
- Organochlorine "Legacy" Pesticides (DDT, Chlordane, Dieldrin, Toxaphene, etc.)
- PCBs
- Dioxins/Furans
- Mercury
  - Sulfate (Bioaccumulation of Mercury)
- Pathogen-Indicator Organisms, *E. coli,* Fecal Coliforms
- Toxicity of Unknown Cause
- Salinity Upstream of Vernalis

Potential Future (to be Evaluated)
- Nutrients, Excessive Fertilization (Nitrogen and Phosphorus Compounds)
  - High pH, Low DO caused by Excessive Fertilization (Photosynthesis/Respiration)
- Alternative Pesticides to OP Pesticides including the Pyrethroid-Based Pesticides that are Causing Water Column and Sediment Toxicity
- PBDEs
- Total Organic Carbon, and other Chemicals such as Bromide that Develop into Disinfection Byproducts (Trihalomethanes) in Treated Domestic Water Supplies
- Excessive Sediment, Erosion, Turbidity
- Herbicides (toxicity to algae)
- Aquatic Sediment Toxicity (Pesticides, Nutrients/Algae/Sediment Ammonia, Heavy Metals, PAHs and other Chemicals)
- Unrecognized Pollutants
  - Pharmaceuticals and other Unregulated Chemicals Discharged by Confined Animal Facilities (dairies, feedlots, etc.) and Domestic Wastewaters

[updated from: Lee, G. F. and Jones-Lee, A., "An Integrated Approach for TMDL Development for Agricultural Stormwater Runoff, Tailwater Releases and Subsurface Drain Water," Proc. 2002 Water Management Conference, "Helping Irrigated Agriculture Adjust to TMDLs," pp. 161-172, US Committee on Irrigation and Drainage, Denver, CO, October (2002). http://www.gfredlee.com/tmdl_07.2002.pdf]

Increasing the flow of the SJR through Friant Dam releases as part of the SJR restoration will impact water quality in the SJR including the levels of the pollutants listed in Table 1. Lee and Jones-Lee (2006) reported,

> **"*Impact of Friant Dam Water Releases***
> *The Karlton (2004) court order states that the Department of Interior's failure to release sufficient water from Friant Dam to keep historic salmon fisheries in good condition violates California Fish and Game Code §5937. Judge Karlton established a February 2006 date for a hearing to consider the "remedy" for this violation, including the flows needed to restore the upper SJR fisheries and bring the operation of Friant Dam into compliance with the law. During the summer and early fall of most years, the SJR at the confluence with the Merced River largely consists of irrigation return (tailwater) flow. This results in the water in the SJR being of poor quality, with several known water quality objective (WQO) violations.*
>
> *"Since the magnitude of the corrective actions that will be needed to address these water quality problems will be dependent on the flow of the SJR, the releases of water from Friant Dam to restore fisheries will have ancillary effects on these water quality issues. Without increased flows from Friant Dam, a number of costly and arguably extreme control measures will be required to meet current and likely future WQOs. For the urban and agricultural interests affected by these measures, releases from Friant will be beneficial by helping to provide for less onerous pollutant control programs.*
>
> *"A key issue that will need to be addressed is the need, through permit conditions and/or other Water Rights mechanisms, for the Bureau of Reclamation to ensure that any new releases from Friant Dam to the SJR for the purpose of meeting instream flow needs for fisheries will be allowed to persist (i.e., not be diverted) throughout the SJR to at least Turner Cut in the Stockton Deep Water Ship Channel.*
>
> *"In accordance with Clean Water Act requirements, exceedance of a WQO means that action must be taken to eliminate the WQO violation. Since the quality of water in Millerton Lake is high, release of water from Friant Dam to the SJR channel that is allowed to pass all the way to the Delta and SJR Deep Water Ship Channel will dilute the concentrations of the pollutants in SJR water that are causing WQO violations. Reductions in the concentrations of pollutants by Friant releases to the SJR channel will reduce the cost of pollutant control programs that public agencies (including the USBR), municipalities and agricultural interests will have to fund to comply with Clean Water Act requirements. This is one of the substantial benefits of restoring releases of Friant Dam water to the SJR."*
>
> [Reference: Karlton, L. K., Order, No. Civ. S-88-1658 LKK, Natural Resources Defense Council, et al., Plaintiffs, vs. Roger Patterson, etc., et al., Defendants, US District Court, Eastern District of California, August 26 (2004).]

Scope of the SJR Restoration EIS/EIR

In previous writings,

> Lee, G., F., and Jones-Lee, A., "Need for Reliable Water Quality Monitoring/ Evaluation of the Impact of SWRCB Water Rights Decisions on Water Quality in the Delta and Its Tributaries," Submitted to CA Water Resources Control Board Workshop on D-1641 Water Rights, Sacramento, CA, March 22 (2005). http://www.members.aol.com/annejlee/DeltaWaterExportImpactsPaper.pdf
>
> Lee, G., F., and Jones-Lee, A., "Need for Reliable Water Quality Monitoring/Evaluation of the Impact of SWRCB Water Rights Decisions on Water Quality in the Delta & Its Tributaries," PowerPoint Slides Submitted to CA Water Resources Control Board Workshop on D-1641 Water Rights, Sacramento, CA, March 22, (2005). http://www.members.aol.com/annejlee/DeltaWaterExportImpactsPowerPoint.pdf

we have discussed the need for all water rights deliberations to include specific review of the impacts of altering water flow on water quality. The SJR Restoration Project EIS/EIR should include a comprehensive discussion of the impacts of Friant Dam releases that are made in accord with the Court order, as well as any other manipulations of flow in the SJR made as part of the Restoration Program, on water quality in the SJR and the Delta. Of particular concern will be any components of the SJR Restoration Program that would include or allow Friant Dam releases to be diverted from the SJR before they reach Turner Cut in the Delta Deep Water Ship Channel. Any such diversions would be adverse to improving the water quality in the SJR as a result of the restoration program releases of flows from Friant Dam.

The EIS/EIR should include an assessment of the impact of flow diversions that would be adverse to SJR water quality improvements that would otherwise occur if the diversions did not take place. Also needing discussion is the economic impact to SJR watershed NPDES dischargers, such as cities and industry as well as agricultural interests, that would be associated with diversions of Friant Dam released flow that would otherwise improve water quality in the SJR and thereby reduce the cost of wastewater treatment and stormwater runoff management. Further, the EIS/EIR should include a discussion of the follow-up monitoring/studies that will be needed to fully evaluate the impact of the Friant Dam flow releases and other flow alterations on all aspects of water quality, including the parameters listed in Table 1.

If there are questions about the background reports that we have developed or these comments please contact us.

G. Fred Lee
Anne Jones-Lee

To: Margaret Gidding
Bureau of Reclamation
2800 Cottage Way MP-140
Sacramento, CA 95825-1898

From: Jesse Limas Sr.
9090 Warren Rd
Valley Springs, CA 95252

Ms. Gidding, I am writing to comment in regards to the planning for the San Joaquin River Restoration. I am 59 years old and grew up accessing the river and the associated bottom lands hunting and fishing. I can remember as a boy seeing the banks of the river covered by anxious fisherman catching salmon and then a year or two latter going to the same location with no fisherman or salmon at the same fall time of the year. It has been a sad state of affairs with the rape of the San Joaquin and hopefully we will see her regain some of the beauty she used to have. I am an avid sportsman and have 4 sons and 2 daughters along with my wife who are all avid sportsman. We wish to see the San Joaquin be open with easy access points and open for multiple use including hunting and fishing. I and my boys are all waterfowlers and we often access the North Freitas Unit of the San Luis NWR Complex from the San Joaquin on down to Salt Slough and also access from the South Frietas Unit onto Salt Slough. This relatively small area still has some of the beauty of the old San Joaquin and we love it dearly and are very pleased that after years of litigation a change is on the way. Please do not lock hunters and fisherman who are extremely vested in the rebirth of this system out of this wonderful resource.

Sincerely,

Jesse Limas Sr.

faxed to Marvin
9/4

email from Karen to Morgan 9/24

State of California - The Resources Agency
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005

September 21, 2007

Karen Dulik
Department of Water Resources
San Joaquin District
3374 East Shields Avenue
Fresno, California 93726

Dear Ms. Dulik:

Notice of Preparation (NOP) of a Draft Program Environmental Impact Statement/Environmental Impact Report (PEIS/EIR) for the San Joaquin River Restoration Program (SCH No. 2007081125)

The California Department of Fish and Game (Department) has reviewed the NOP for the Project referenced above. The San Joaquin River Restoration Program (SJRRP) is a result of the lawsuit, known as Natural Resources Defense Council, et al., v. Kirk Rodgers, et al., for which a settlement was reached on September 13, 2006 (hereafter referred to as "Settlement"). The SJRRP has two parallel goals of restoring fish populations in "good condition" and the reducing or avoiding adverse water supply impacts to all the Friant Division long-term contractors, resulting from flows provided for in the Settlement. The goals include improvements providing for channel capacity, fish habitat, flood protection, fish passage, fish screening, flows conducive to restoration, restoration and maintenance of fish populations in "good condition" from Friant Dam to the confluence of the Merced River, implementation of a water recirculation, recapture, reuse, exchange or transfer plan, and the creation of a Recovered Water Account to make water available at a reduced rate for contractors that experience a reduction in water supplies as a result of the Settlement. The Project area is defined as approximately 150 miles of the San Joaquin River from Friant Dam, near the town of Friant, to the confluence with the Merced River through Fresno, Madera and Merced Counties and the Friant Service Area. Program activities will be carried out in three stages including: 1) planning and environmental review; 2) initiation of interim flows, salmon reintroduction and river improvements; and 3) initiation of restoration flows. Physical and biological impacts to the environment may include cumulative impacts and impacts to the following resources: hydrology, water quality, water supply, flood control, land use, agricultural resources, mineral resources, noise, public utilities, power consumption, wetlands, rare and sensitive plant and animal species, geology, soils, socioeconomics, population, housing, transportation, traffic, air quality, cultural resources, aesthetics, flood protection and recreation. Our specific comments on the NOP follow.

Trustee Agency Authority: The Department is a Trustee Agency with the responsibility under the California Environmental Quality Act (CEQA) for commenting on projects that could impact plant and wildlife resources. Pursuant to Fish and Game Code Section 1802, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. As a Trustee Agency for fish and wildlife resources, the Department is responsible for providing, as available, biological expertise to review and comment on environmental documents and impacts

arising from Project activities, as those terms are used under CEQA. The Department also has existing plans for restoring steelhead rainbow trout and salmon which are posted on our web page at www.dfg.ca.gov which may be useful in the preparation of the Draft PEIS/EIR.

Responsible Agency Authority: The Department has regulatory authority over projects that could result in the "take" of any species listed by the State as threatened or endangered, pursuant to Fish and Game Code Section 2081. If the Project could result in the "take" of any species listed as threatened or endangered under the California Endangered Species Act (CESA), the Department may need to issue an Incidental Take Permit for the Project. CEQA requires a Mandatory Finding of Significance, if a project is likely to substantially impact threatened or endangered species (Sections 21001{c}, 21083, Guidelines Sections 15380, 15064, 15065). Impacts must be avoided or mitigated to less than significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code Section 2080. State-listed species known to occur or potentially occur in the Project area vicinity include, but are not limited to, the State threatened and Federally threatened spring-run Chinook salmon (*Oncorhynchus tshawytscha*); the State and Federally endangered and fully protected blunt-nosed leopard lizard (*Gambelia sila*); the State and Federally threatened giant garter snake (*Thamnophis couchi gigas*); the State threatened bank swallow (*Riparia riparia*); the State endangered yellow-billed cuckoo (*Coccyzus americanus occidentalis*); the State threatened Swainson's hawk (*Buteo swainsoni*); the State endangered, Federally delisted, and fully protected bald eagle (*Haliaeetus leucocephalus*); the State and Federally endangered least Bell's vireo (*Vireo bellii pusillus*); the State threatened and Federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); the State and Federally endangered Fresno kangaroo rat (*Dipodomys nitratoides exilis*); the State and Federally endangered riparian brush rabbit (*Sylvilagus bachmani riparius*); and the State endangered Delta button-celery (*Eryngium racemosum*). Additional State-listed plants are known to occur in the vernal pool habitat, adjacent to the San Joaquin River near Friant but, absent detailed Project-specific information, the Department is assuming at this time, that these areas would not be disturbed by Project-related activities or that they would be included in focused CEQA documents. We have some general comments on the potential for Project-related "take" which follows in subsequent portions of this letter. More specific comments will be provided once Project-specific details and Project-specific CEQA documents are available for review.

If it is determined that implementation of the proposed Project would result in "take" of State-listed species, the Department needs the Lead Agency's CEQA document to identify the Department as a Responsible Agency in this capacity, as well as the potential impacts to listed species; otherwise, preparation of a supplemental CEQA document may be necessary prior to Incidental Take Permit issuance. It is important to note that for State-listed species that are not also listed under the Federal Endangered Species Act (FESA), the Department cannot issue a Consistency Determination, pursuant to Fish and Game Code Section 2080.1. In order to obtain an Incidental Take Permit, the applicant will need to: 1) provide an analysis of the impact of the proposed taking; 2) provide an analysis of whether issuance of an Incidental Take Permit would jeopardize the continued existence of the covered species; 3) propose measures that minimize and fully mitigate the impacts of the proposed taking; 4) provide a proposed plan to monitor compliance with the minimization and mitigation measures; and 5) provide a description

of the funding source and level of funding available for implementation of the minimization and mitigation measures. The Department can provide a complete list of required Incidental Take Permit application components upon request.

The Department also has regulatory authority with regard to activities occurring in streams and/or lakes that could adversely affect any fish or wildlife resource, pursuant to Fish and Game Code Section 1600 et seq. For future construction activities that would involve work within the bed, bank or channel or would substantially divert or obstruct the natural flow of the San Joaquin River, its tributaries, or other drainages, a Stream Alteration Agreement (SAA) would be necessary, and the Project proponent would be required to submit a Stream Alteration Notification to the Department for the Project. The Department is required to comply with CEQA in the issuance or the renewal of an SAA. Therefore, for efficiency in environmental compliance, we recommend that the stream disturbance be described, and mitigation for the disturbance be developed as part of the environmental review process. This will reduce the need for the Department to require extensive additional environmental review for an SAA for this Project in the future. For additional information on notification requirements, please contact our staff for the Stream Alteration Program at (559) 243-4593.

Fully Protected Species: The Department has jurisdiction over fully protected species of birds, mammals, amphibians and reptiles, and fish, pursuant to Fish and Game Code Sections 3511, 4700, 5050, and 5515. "Take" of any fully protected species is prohibited, and the Department cannot authorize their "take." Four fully protected species, the blunt-nosed leopard lizard, bald eagle, golden eagle (*Aquila chrysaetos*), and the white-tailed kite (*Elanus leucurus*), are known to occur within all or portions of the Project area. In order to conduct Project-specific CEQA analysis and also to insure complete avoidance prior to implementation of any Project-specific actions, focused biological surveys would be needed to evaluate potential impacts and to develop appropriate avoidance and minimization measures.

Bird Protection: The Department has jurisdiction over actions which may result in the disturbance or destruction of active nest sites or the unauthorized "take" of birds. Sections of the Fish and Game Code that protect birds, their eggs and nests include Sections 3503 (regarding unlawful "take", possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the "take", possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful "take" of any migratory non-game bird). This Fish and Game Code Section pertains to, but not exclusively, burrowing owls (*Athene cunicularia*), which are known to nest along various San Joaquin River system levees, such as, but not limited to, levees along the Eastside and Chowchilla Bypasses. In order to conduct Project-specific CEQA analysis and also to ensure complete avoidance of active nests and individuals, prior to implementation of any Project-specific actions, focused biological surveys would be needed to evaluate potential impacts and to develop appropriate avoidance and minimization measures.

Potential Project Impacts and Recommendations

Delta Button-Celery: This State endangered plant is known to be locally abundant in portions of the Eastside Bypass, and any major construction activities, as well as significantly modified hydrology within this area would likely result in "take." This species occurs in clay soils on sparsely vegetated margins of seasonally flooded floodplains and swales. About one-fourth of the approximately 27 historically known Delta button-celery occurrences have been extirpated

by flood control activities and conversion of lowlands to agriculture, and most of this species' remaining occurrences are in Merced County, along the historical floodplain of the San Joaquin River. Project-specific CEQA documents should evaluate the potential impacts to this species, not only direct impacts that could result from construction, but also from altered hydrology that could result in plant mortality or localized extirpation.

Fishery Resources: The Settlement specifically targets spring-run Chinook salmon (State threatened) and fall-run Chinook salmon for restoration. The Settlement also identifies other fish without specificity and states that the goal is to "restore and maintain fish populations in 'good condition'...including naturally-reproducing and self-sustaining populations of salmon and other fish." Presumably, this would include native anadromous and resident fish that may have occupied the Project area prior to construction of Friant Dam or may be expected to occupy the Project area as a result of Project restoration. Without more information, it is not possible to identify these "other fish." However, based upon limited information, other fish may include, but are not limited to, the State Species of Concern river lamprey (*Lampetra ayresii*), Kern brook lamprey (*Lampetra hubbsi*), green sturgeon (*Acipenser medirostris*), hardhead (*Mylopharodon conocephalus*), San Joaquin roach (*Lavinia symmetricus ssp.*), and Sacramento splittail (*Pogonichthys macrolepidotus*).

It will also be necessary to evaluate impacts to fishery resources outside the identified Project area. Potential Project-related impacts should be evaluated for, but not limited to, managed aquatic resources in the Lower San Joaquin River tributaries and the Sacramento-San Joaquin Delta, including fall/late-fall-run Chinook salmon (Central Valley ESU), a State and Federal Species of Concern. This includes current and ongoing Department management activities for fall-run Chinook salmon in the lower main stem San Joaquin River and its tributaries, Vernalis Adaptive Management Plan (VAMP) studies, and the broad array of mitigation efforts and studies in the lower San Joaquin River system. Furthermore, recreation impacts should be evaluated throughout the San Joaquin River system, including, but not limited to, potential impacts to the Millerton Lake fishery, which currently supports populations of fish popular with the sport fishing community, such as striped bass (*Morone saxatilis*), American shad (*Alosa sapidissima*) and spotted bass (*Micropterus punctulatus*).

Blunt-Nosed Leopard Lizard: This species is fully protected, and therefore, no "take," incidental or otherwise, can be authorized by the Department. There are upland habitat remnants scattered throughout the Project area that could support this species. While current observations of this species north of Fresno County are rare, there have been recent sightings of this species in remnant grasslands in Madera County, and potential habitat also exists in portions of the Chowchilla Bypass as well as the general vicinity of the proposed Mendota Pool Bypass. Protocol-level surveys should be conducted and results submitted to the Department, prior to any ground-disturbing activities in all areas of suitable habitat. Suitable habitat includes all grassland, shrub scrub, and potential riparian shrub scrub habitat that contains required habitat elements, such as small mammal burrows. This includes the area to be disturbed, as well as access points, travel routes, and an appropriate buffer. These surveys, the parameters of which were designed to optimize detectability, must be conducted to reasonably assure the Department that "take" of this fully protected species will not occur as a result of disturbance associated with Project implementation. In the event that this species is detected during protocol-level surveys, consultation with the Department is warranted to discuss how to implement the Project and avoid "take."

Swainson's Hawk: This State threatened species is known to nest in multiple locations throughout the Project area, and given the narrow strip of riparian habitat present along most of the San Joaquin River, it is likely that implementation of any Project-specific actions would result in impacts to known and/or potential nest trees. The Department considers removal of known raptor nest trees, even outside of the nesting season, to be a significant impact under CEQA and, in the case of Swainson's hawk, could also result in "take" under CESA. This is especially true with species such as Swainson's hawk that exhibit high site fidelity to their nest and nest trees year after year. If avoidance of a known nest tree is not feasible, consultation with the Department is warranted prior to taking any action, and a determination of "take" potential, under CESA or Fish and Game Code Sections 3503.5 and 3513, will be made.

To avoid or minimize impacts to Swainson's hawk, surveys for nesting raptors should be conducted following the survey methodology developed by the Swainson's Hawk Technical Advisory Committee (SWHA TAC, 2000) prior to any disturbance within 5 miles of a potential nest tree (DFG, 1994). These surveys, the parameters of which were designed to optimize detectability, should be conducted to reasonably assure the Department that "take" of this species will not occur as a result of disturbance associated with Project implementation. In the event that this species is detected during protocol-level surveys, consultation with the Department is warranted to discuss how to implement the Project and avoid "take."

Regardless of nesting status, trees that must be removed should be replaced with an appropriate native tree species planting at a ratio of 3:1 in an area that will be protected in perpetuity. This mitigation is needed to offset potential impacts to the loss of potential nesting habitat, which is a limited resource for this species throughout the Project area.

Should Project-related impacts to upland habitat within foraging distance (10 miles) of a nest occur, mitigation for upland habitat impacts is warranted. Mitigation should occur within 10 miles from nest trees. In addition to fee title acquisition of grassland habitat, mitigation could occur by the purchase of conservation or suitable agricultural easements. Suitable agricultural easements would include areas limited to production of crops such as alfalfa, dry land and irrigated pasture, and cereal grain crops. Vineyards, orchards, cotton fields, and other dense vegetation do not provide adequate foraging habitat.

Bald Eagle: This State endangered and fully protected species is known to nest along the Chowchilla Bypass and could nest at other locations within the Project area. It has also been routinely observed along the Merced River near Snelling, indicating that this species may also be present along the main stem of the San Joaquin River. It is important to note that the documented nest trees are not those "typically" used by this species. As noted above, in order to conduct Project-specific CEQA analysis and also to ensure complete avoidance prior to implementation of any Project-specific actions, focused biological surveys would be needed to evaluate potential impacts and to develop appropriate avoidance and minimization measures for this species.

Burrowing Owl: Burrowing owl burrows and burrowing owls are present in the Project area. The PEIR prepared for this Project should identify potential Project-specific actions that could impact burrowing owl populations, as well as portions of the Project area that are currently known to support burrowing owls. If any Project-specific ground-disturbing activities could occur

during the burrowing owl nesting season (approximately February 1 through August 31), implementation of avoidance measures would be required. The Department's Staff Report on Burrowing Owl Mitigation (CDFG 1995) recommends that impacts to occupied burrows be avoided by implementation of a no-construction buffer zone of a minimum distance of 250 feet, unless a qualified biologist, approved by the Department, verifies through noninvasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Failure to implement this buffer zone could cause adult burrowing owls to abandon the nest, cause eggs or young to be directly impacted (crushed), and/or result in reproductive failure. Impacts of this nature are violations of Fish and Game Code Sections 3503, 3503.5, 3513 and the Federal Migratory Bird Treaty Act (MBTA).

The Department's Staff Report on Burrowing Owl Mitigation (CDFG 1995) also recommends that a minimum of 6.4 acres of foraging habitat per pair or unpaired resident burrowing owl should be acquired and permanently protected to offset the loss of foraging and burrow habitat.

Fresno Kangaroo Rat: The Fresno kangaroo rat (*Dipodomys nitratoides exilis*) has not been observed since 1992, when a single male was captured at the Department's Alkali Sink Ecological Reserve (ASER). Habitat for this species is described as sands and saline sandy soils in chenopod scrub and annual grassland communities on the valley floor. There are upland habitat remnants scattered throughout the Project area that could potentially support this species, such as the area north of Highway 180 near ASER. This appears to be the area proposed for the potential Mendota Pool Bypass. Because this potentially extinct subspecies could occur in specific portions of the Project area, the Department recommends that protocol-level surveys with all night trapping (with trap checks every 3 hours) be conducted on portions of the Project in specific areas where the Project footprint (construction and flooding) would impact kangaroo rat burrows. The Department will assist in identifying habitat areas that could support this species once Project-specific information is available. If this species is detected during trapping surveys, consultation with the Department is warranted. Any occupied habitat should be completely avoided to avoid the potential for a Jeopardy determination, and the occupied habitat should be permanently protected with conservation easements or fee title acquisition.

San Joaquin Kit Fox (SJKF): SJKF are known to occur in the Project area, including, but not limited to, areas within the Chowchilla and Eastside Bypasses. Kit fox readily forage in areas under agricultural production, but do not generally persist in these areas unless denning habitat is present nearby. Upland Habitat Recovery Action (a)(ix) of the Recovery Plan for Upland Species of the San Joaquin Valley (1998) is to "maintain and enhance movement of kit foxes between the Mendota Area, Fresno County, natural lands in western Madera County, and natural lands along Sandy Mush Road and in the Wildlife Refuges and easement lands of Merced County." Kit foxes in the Eastside Bypass area have been identified by the United States Fish and Wildlife Service (USFWS) as an important component to the east-west corridor thought to be used by kit fox in the Sandy Mush Road area. Given the tenuous nature of kit fox populations in and north of western Merced County, potential impacts to kit fox in this area could have population-level implications. Should the PEIR or focused Project-specific CEQA

documents consider structural modifications to the Eastside Bypass or use of the Eastside Bypass for fish passage, this issue would need to be evaluated carefully, and measures commensurate with the level of impact would need to be developed for avoidance, minimization, and mitigation.

Prior to any ground-disturbing activities associated with Project implementation, the Department recommends that the USFWS's "Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance"(1999) be followed, prior to any ground-disturbing construction or maintenance activities occurring within the Project area, for the life of the Project. These surveys should also be conducted a maximum of 30 days prior to any ground-disturbing activities. In the event that active, known, or natal dens are detected during these or previous den surveys, consultation with the Department is warranted to discuss the potential for "take" under CESA. The Department also recommends that artificial dens be installed in areas that will be temporarily disturbed by construction and that would result in impacts to known kit fox dens and that periodic surveys are conducted for this species throughout the life of the Project.

In order to quantify potential impacts to SJKF under Project-specific CEQA analysis, there should be detailed surveys conducted in the Project area(s) to identify the number of natal, active, known, and potential kit fox dens that will be impacted as a result of Project implementation. Impacts to the kit fox prey base and movement corridors should also be quantified and disclosed.

Bats: Potential Project-related impacts to tree-roosting species of bats should be evaluated in the CEQA document prepared for this Project.

Special Status Habitat Types: There are several rare and declining habitat types within the Project area, including, but not limited to, wetlands, seasonal wetlands, vernal pools and associated uplands, elderberry savannah, riparian and riparian scrub habitat, non-native grassland (locally rare in Project area), Atriplex shrub scrub habitat, and alkali playa and grasslands. Potential Project-related impacts to these habitat types should be given special consideration in the CEQA document prepared for this Project.

Unlisted Species: Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened (E, R, or T) on any State or Federal list to be considered E, R, or T under CEQA. If a species can be shown to meet the criteria for E, R, or T, as specified in the CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15380), it should be fully considered in the environmental analysis for the Project. Potential Project-related impacts to special status species potentially occurring in the Project area should be evaluated and discussed in the focused CEQA documents prepared for this Project.

Special Plants: In addition to plants listed as State and/or Federally threatened and endangered, the CEQA document prepared for this Project should evaluate and disclose the potential impacts to "special plant species," which include: plant species listed as candidates for State or Federal listing; taxa which meet the criteria for listing, even if not included on any list as

described in CEQA Guidelines Section 15380; taxa listed in the California Native Plant Society's *Inventory of Rare and Endangered Plants of California*; taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation; and taxa associated with a habitat that is declining in California at a significant rate.

If you have any questions on these issues, please contact Julie Vance, Senior Environmental Scientist, at the address provided on this letterhead or by telephone at (559) 243-4014, extension 222.

Sincerely,

for

W. E. Loudermilk
Regional Manager

cc: See Page Nine

cc: Susan Jones
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ec: Department of Fish and Game
Dale Mitchell, Gerald Hatler, John Battestoni

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_____. 1999. *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance.* United States Fish and Wildlife Service.

SAN JOAQUIN RIVER CONSERVANCY
STATE OF CALIFORNIA

5469 E. Olive Avenue
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September 10, 2007

Ms. Karen Dulik, Sr. Environmental Scientist
California Department of Water Resources
San Joaquin District
3374 E. Shields Ave.
Fresno, CA 93726

Dear Ms. Dulik:

Scoping Comments, San Joaquin River Restoration Program EIR/EIS

The San Joaquin River Conservancy and Department of Water Resources are involved in on-going activities to coordinate programs on the San Joaquin River to achieve mutually beneficial goals. This letter briefly summarizes opportunities for the Restoration Program to collaborate with the Conservancy, in order that those possibilities can be considered in the programmatic environmental document.

The San Joaquin River Conservancy is a regionally governed state agency formed to implement and manage the San Joaquin River Parkway, a planned 22-mile regional natural and recreation area in the river-bottom extending from Friant Dam to Highway 99. The Conservancy's mission includes acquiring approximately 5,900 acres from willing sellers, operating and managing those lands for public recreation and education, and protecting, enhancing, and restoring riparian and floodplain habitat.

The Conservancy governing board adopted the San Joaquin River Parkway Master Plan and certified its programmatic Environmental Impact Report in 1997. The Parkway Master Plan provides goals, objectives, and design standards for appropriate public recreational uses, trail corridors, buffers, fishing and boating access, etc. on public Parkway lands. The Recompiled San Joaquin River Parkway Master Plan, and the source documents if desired, will be provided to the Department under a separate cover.

The Parkway reach coincides with Reach 1 of the San Joaquin River Restoration Program. The Conservancy is the primary landowner within Reach 1 with fee title ownership of approximately 2,200 acres, and is actively negotiating to buy additional conservation lands. The Conservancy has provided maps of its lands to the Department. Many of these properties were acquired after they were mined for gravel, and therefore are targeted for channel restoration and gravel pond isolation.

The programmatic document should generally describe the areas within Conservancy and other Parkway lands that will be affected by significant restoration projects. It is understood that the projects and locations will be refined over time.

Restoration improvements in the Parkway reach, and in particular on Conservancy lands, should be designed to set the foundation for future Parkway projects consistent with the Parkway Master Plan. For example, the final configuration of restored lands should to the extent possible provide appropriate alignments, sites, and grades for future Parkway trails, fishing and boating access, and ancillary facilities such as staging areas and restrooms.

There might be channel reaches within the Parkway where the Restoration Program will plan to limit public access and/or recreational fishing. Similarly, additional fishing regulations might be planned. The Fisheries Management Plan element of the Restoration Program should evaluate how to effectively provide, control, and manage public access and recreational fishing on the river, while meeting Restoration Program objectives, so that the Parkway can support, and not interfere with fishery objectives.

Some Conservancy lands may contain gravel reserves important to the Restoration Program. The environmental documents should evaluate, on a programmatic level, the potential need for gravel and potential sources.

If habitat conservation or enhancement is required as mitigation for any Restoration Program projects, there may be opportunities to meet the requirements by supporting Conservancy habitat enhancement and restoration projects or contributing toward Conservancy conservation land acquisitions. These partnerships could meet regulatory mitigation obligations cost-effectively, directly benefit the community, maximize habitat improvements by creating larger scale protected areas, and help to accomplish regional resource conservation and management objectives.

We truly appreciate the Department's participation in the Conservancy's Jensen River Ranch Habitat Enhancement and Public Access Project. The Department and other Restoration Program representatives are encouraged to participate in an advisory capacity in the following Parkway projects currently underway:

- The Lost Lake Master Plan will be completed by the County of Fresno from summer 2007 through the end of 2008. The process will involve a great deal of interagency coordination, planning, advisory, and stakeholder involvement.
- Over 1,000 acres are owned by the Conservancy on both sides of the river immediately downstream of Highway 41. This Parkway area is called River West. The river channel in this reach is highly impacted by gravel mining. Reduced flows into the North Channel on the Conservancy's Sycamore Island property are affecting riparian habitat and ponds, and should be addressed along with channel restoration in the immediate area. A public access, recreation, and upland habitat enhancement project for River West will soon be in review pursuant to CEQA.

- Volunteer tree planting for educational and stewardship purposes is occurring throughout the Parkway. With guidance from the Department, the Conservancy can direct volunteer tree planting activities to areas outside those lands that will be graded or disturbed for river restoration. Close coordination can help ensure that the Restoration Program does not experience unnecessary mitigation requirements or costs to remove recently planted vegetation. Once restoration plans are completed, the Restoration Program can capitalize on volunteer efforts to assist with revegetation.

The Restoration Program in Reach 1 can be planned, designed, and implemented in cooperation with the Conservancy, its member agencies, and nonprofit partners in a manner that will enhance the benefits and reduce the costs that would be experienced if river restoration and the Parkway were developed in isolation of each other. We look forward to the opportunity to advance the San Joaquin River Parkway through partnership with the Restoration Program.

Please contact me at (559) 253-7324 or email Melinda.Marks@sjrc.ca.gov if you need additional information, maps, plans, or documents.

Respectfully,

Melinda S. Marks
Executive Officer

SAN JOAQUIN RIVER
RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

(Water)
Fish
Property
Environmental Issues
Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name Gary Martin

Organization and Address Pikaloki Farming
PO Box 549
Firebaugh Ca 93622

Phone ( ) _____ FAX ( ) _____ E-mail _____

Comment here: 8-30 07
Date

① Hopefully these studies can support the need for water storage. Storage funded early can be useful to fish & users of the water.

② As other landowners and farmers in these areas we can appreciate the publics desire to access river property. However keep in mind that this is still private property.

All comments become part of the public record.

RMC
San Joaquin River
Resource Management Coalition

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September 21, 2007

Ms. Margaret Gidding
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Ms. Karen Dulik
Senior Environmental Scientist
DWR-San Joaquin District
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RE: ***San Joaquin River Restoration Program***

Dear Ms. Gidding and Ms. Dulik:

The San Joaquin River Resource Management Coalition ("RMC") submits this letter in response to the Notice of Preparation (NOP) of a Draft Program Environmental Impact Statement/Environmental Impact Report (PEIS/EIR) for the San Joaquin River Restoration Program and the Notice of Intent to Prepare a Program Environmental Impact Statement/Environmental Impact Report and Notice of Scoping Meetings. We understand that comments on the scope of the PEIS/EIR are due September 21, 2007.

The RMC is a non-profit association whose members include landowners and farmers along the San Joaquin River and the San Joaquin River Exchange Contractors Water Authority ("Exchange Contractors"). Recently you were provided with a report prepared by the engineering firm of CH2M Hill that was prepared for the RMC, entitled "Draft Initial Appraisal Report, San Joaquin River Settlement Agreement and Legislation." The Appraisal Report is now finalized and is dated September 20, 2007 and in that report, the RMC identified a number of impacts that must be considered as part of the San Joaquin River Settlement Agreement and Legislation. The purpose of this letter is to submit the September 20, 2007 Appraisal Report as a formal comment to the PEIS/EIR

The NOP/NOI notes the following potential impacts: "Potential environmental impacts could affect the following resources: hydrology and water quality and water supply, flood control, land use and agricultural resources, mineral resources, noise, public utilities and power consumption,

biological resources including wetlands and rare and sensitive plant and animal species, geology and soils, socioeconomics and population and housing, transportation and traffic, air quality, cultural resources, aesthetics, flood protection, and recreation." Many of these impacts will effect members of the RMC. As such, the RMC has a direct and substantial interest in the development of the Restoration Program and the measures to mitigate the adverse impacts of the program. The Appraisal Report sets forth our initial concerns that need to be taken into account during the scoping process for the PEIS/EIR.

In conclusion, the RMC is pleased to be able to submit these comments and the attached Appraisal Report for your consideration.

Sincerely yours,

Mari Martin,
Chairperson

cc: RMC Board Members
San Joaquin River Exchange Contractors Water Authority
San Joaquin River Task Force

Appraisal Report

San Joaquin River Settlement Agreement and Legislation

Prepared for

San Joaquin River Resource Management Coalition

September 20, 2007

CH2MHILL

Contents

Appendixes

Tables

Figures

Acronyms

CAA	Clean Air Act
CDFG	California Department of Fish and Game
cfs	cubic feet per second
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CWA	Clean Water Act
DWR	California Department of Water Resources
ESA	Endangered Species Act
HEC	Hydrologic Engineering Center
LSJLD	Lower San Joaquin Levee District
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NRDC	Natural Resources Defense Council
O&M	operations and maintenance
RMC	San Joaquin River Resource Management Coalition
SJRECWA	San Joaquin River Exchange Contractors Water Authority
USACE	U.S. Army Corps of Engineers

SECTION 1

Background and Purpose

This appraisal report was prepared by the San Joaquin River Resource Management Coalition (RMC) and is intended to provide an appraisal of the critical issues associated with the planned implementation of the San Joaquin River Settlement Agreement dated October 2006 (Settlement). Implementation of the Settlement has the potential to cause significant impacts to individuals and entities along the San Joaquin River that were not party to the Settlement (third parties) including RMC members. These potential impacts involve a wide range of issues related to:

- Water supply operations
- Land use
- Flood control operations/protection
- Agricultural crop production
- Seepage and shallow groundwater impacts
- Environmental and quality of life changes

The RMC members have the potential to bear substantial economic and environmental costs that could result from direct and indirect impacts if proposed restoration actions are not thoroughly evaluated, carefully implemented, and properly mitigated.

As described throughout this report, a comprehensive planning process must be undertaken to ensure successful implementation of the Settlement and to avoid or minimize direct and indirect impacts to third parties. To ensure that actions in one reach of the river do not create unintended impacts in other areas, this comprehensive planning process should consider all the restoration actions as part of a complete implementation effort, and avoid implementation or construction of partial actions before the comprehensive planning process is complete. Likewise, comprehensive funding for the restoration program is needed to ensure that implementation of all actions is fully funded prior to initiating any project construction activities.

This appraisal report provides a brief assessment of the issues associated with the potential restoration actions and physical system improvements described in the Settlement. This includes identification of potential impacts that could result from implementation of these actions, description of the evaluations needed, listing of approvals and permits needed, and description of any additional considerations that should be addressed. The proposed restoration actions and associated evaluations are grouped by those that are applicable to all or the majority of the river reaches (Section 2.1, River-wide Actions) and those that are specific to certain reaches (Section 2.2, Reach-specific Actions). This report also identifies an approach for landowner involvement and priorities for further technical analysis (Section 3, Conclusions and Recommendations).

While the RMC is not a party to the Settlement, it does support the legislation that was negotiated to address impacts to third parties and would like to work collaboratively with the U.S. Bureau of Reclamation (Reclamation), California Department of Resources (DWR),

and others in the planning process to allow for the successful implementation of the Settlement. The RMC brings local knowledge and understanding to the process, which can contribute substantially to the successful restoration of the San Joaquin River.

1.1 Background

1.1.1 San Joaquin River Resource Management Coalition

The RMC is an organization whose voting members include landowners, water and irrigation districts, the San Joaquin River Exchange Contractors Water Authority (SJRECWA), local government agencies, and farm bureaus within the RMC boundaries of Merced, Madera, Fresno, and a small portion of Stanislaus counties. Nonvoting members of the RMC include the Lower San Joaquin Levee District (LSJLD), various federal and state resource and regulatory agencies, local environmental interests, and interested members of the general public. Collectively, the RMC represents the interests of agencies and landowners along the San Joaquin River from Friant Dam to the confluence with the Merced River. The purpose of the RMC is to proactively address resource management challenges on the San Joaquin River, and to provide a voice in the planning process for all entities concerned with the river's future.

1.1.2 San Joaquin River Settlement Agreement

In 1988, a coalition of environmental groups, led by the Natural Resources Defense Council (NRDC), filed a lawsuit against Reclamation challenging the renewal of the long-term water service contracts for the Friant Division Contractors of Central Valley Project (NRDC, et al., v. Kirk Rodgers, et al., 1988). After more than 18 years of litigation, the parties to the lawsuit reached agreement on the terms and conditions of a Settlement and executed the Settlement in September 2006. The Settlement was approved by the U.S. District Court in October 2006. The Settlement is based on two parallel goals:

1. The Restoration Goal—To restore and maintain fish populations in "good condition" in the mainstem of the San Joaquin River below Friant Dam to the confluence of the Merced River, including naturally reproducing and self-sustaining populations of salmon and other fish.

2. The Water Management Goal—To reduce or avoid adverse water supply impacts to all of the Friant Division long-term Contractors that may result from the Interim Flows and Restoration Flows provided for in the Settlement.

To accomplish these goals, the Settlement calls for a combination of channel and structural improvements along the San Joaquin River below Friant Dam and releases of additional water from Friant Dam to the confluence of the Merced River. Federal legislation has been introduced that includes specific language relative to some of the proposed improvements and if passed will supersede the existing language contained in the Settlement. The Settlement also calls for planning, implementation, mitigation, and funding measures to meet the goals. The improvements identified in the Settlement include the following (taken from paragraph 11 of the Settlement):

- Phase 1 Improvements (to be completed no later than December 31, 2013):

  - Creation of a bypass channel around Mendota Pool to convey at least 4,500 cubic feet per second (cfs) from Reach 2B to Reach 3 and construction of a structure capable of directing flow down the bypass and allowing the Secretary of the Interior (Secretary) to make deliveries of San Joaquin River water to the Mendota Pool.
  - Modifications in channel capacity (incorporating new floodplain and related riparian habitat) to ensure conveyance of at least 4,500 cfs in Reach 2B between the Chowchilla Bifurcation Structure and the new Mendota Pool Bypass.
  - Modifications in channel capacity to the extent necessary to ensure conveyance of 475 cfs through Reach 4B. See the following discussion regarding Reach 4B and proposed federal legislation Section 9(g).
  - Modifications at the Reach 4B headgate to ensure fish passage and enable flow routing of between 500 cfs and 4,500 cfs in Reach 4B.
  - Modification of the Sand Slough Control Structure to ensure fish passage.
  - Screening the Arroyo Canal diversion structure to prevent entrainment.
  - Modifications to Sack Dam to ensure fish passage.
  - Modification of structures in the Eastside and Mariposa Bypass channels to the extent needed to provide fish passage on an interim basis until completion of Phase 2 improvements.
  - Modifications in the Eastside and Mariposa Bypass to establish a suitable low-flow channel.
  - Modifications to enable deployment of seasonal barriers to prevent adult fish from entering false migration pathways in the area of Salt and Mud sloughs.

- Phase 2 Improvements (to be completed no later than December 31, 2016):
  - Modifications in channel capacity (incorporating new floodplain and related riparian habitat) to ensure conveyance of at least 4,500 cfs in Reach 4B unless such modifications would not substantially enhance achievement of the Restoration Goal.
  - Modification of the Chowchilla Bifurcation Structure to provide fish passage and prevent entrainment.
  - Filling and/or isolating the highest-priority gravel pits in Reach 1.
  - Modification of the Sand Slough Control Structure to enable routing and conveyance of Restoration Flows of up to 4,500 cfs into Reach 4B.

Paragraph 12 of the Settlement further acknowledges that "there are likely additional channel or structural improvements... that may further enhance the success of achieving the Restoration Goal."

1.1.3 Federal Legislation

Federal legislation has been introduced in both the House of Representatives and the Senate that would provide the authorization necessary to implement the Settlement. The legislation generally parallels the Settlement, but includes a number of sections that supersede the Settlement and provide further clarification regarding implementation of the proposed actions and project phasing. As currently written, the legislation includes many protections and provisions supported by the various agencies and downstream landowners that have the potential to be significantly impacted by the Settlement. Among other things, the legislation provides authorization to conduct the following actions:

- Modify Friant Dam operations necessary to release Restoration and Interim Flows
- Enter into agreements with the state to facilitate or expedite implementation of the Settlement
- Enter into other appropriate agreements with state, tribal, local government agencies, and private parties, including agreements related to the construction, improvement, and operation and maintenance of facilities to achieve the purposes of the Settlement
- Conduct design or engineering studies necessary to implement the Settlement
- Initiate and expeditiously complete applicable environmental reviews and consultations as necessary to implement the Settlement
- Acquire property, interests in property, or options to acquire real property needed to implement the Settlement from willing sellers

Under the legislation, the Secretary is to identity the impacts associated with implementation of decisions or agreements to construct, improve, operate, or maintain facilities that are needed to implement the Settlement, and identify the measures that shall be implemented to mitigate impacts on adjacent and downstream water users and landowners. The impacts and mitigation measures are to be identified prior to the construction, improvement, operation, or maintenance of facilities that are needed to implement the Settlement. The legislation also specifies that "to the extent that costs incurred solely to implement this Settlement would not otherwise have been incurred by any entity or public or local agency or subdivision of the State of California, such costs shall not be borne by such entity, agency, or subdivision of the State of California, unless such costs are incurred on a voluntary basis."

Section 9(g) Reach 4B of the legislation requires that the Secretary conduct a study that specifies:

(i) the costs of undertaking any work required under paragraph 11(a)(3) of the Settlement to increase the capacity of Reach 4B prior to the reinitiation of Restoration Flows;

(ii) the impacts associated with the reinitiation of such flows; and

(iii) measures that shall be implemented to mitigate impacts.

The legislation states that the study shall be completed prior to restoration of any flows other than Interim Flows. Interim Flows must not exceed **existing** channel capacities and are defined in the Settlement as flows that will include releases of additional water from Friant Dam commencing no later than October 1, 2009, and continuing until full Restoration Flows begin. Interim Flow releases, per Paragraph 15 of the Settlement, have a specified timing and magnitude as defined in the appropriate year type hydrograph listed in Exhibit B of the Settlement. The requirements of this study supersede the Settlement paragraph 11 Phase 1 implementation improvements listed previously for Reach 4B.

Section 9(g) Reach 4B of the legislation also requires that the Secretary file a report with congress not later than 90 days after issuing a determination, as required in the Settlement, on whether to expand channel conveyance capacity to 4,500 cfs in Reach 4B; or use an alternate route for flows. This determination is to be made, **to the extent feasible**, before undertaking any **substantial** construction work to increase the capacity of Reach 4B.

The report shall identify the basis for the Secretary's determination and identify how different factors were assessed, such as comparative biological and habitat benefits, comparative costs and relative available state cost-sharing funds, and the comparative benefits and impacts on water temperature, water supply, private property, and local and downstream flood control. The report shall also include the Secretary's final cost estimate for expanding the capacity of Reach 4B to 4,500 cfs or any alternative route selected, as well as other alternative cost estimates provided by the state, the Restoration Administrator, and by other parties to the Settlement.

If the Secretary's estimated federal cost for expanding Reach 4B exceeds the remaining federal funding authorized by the legislation, then congress must increase the applicable authorization ceiling to at least cover the higher estimated federal costs before the Secretary commences actual construction work in Reach 4B to expand the capacity to 4,500 cfs to implement the Settlement.

1.2 Purpose of this Appraisal Report

The purpose of this appraisal report is as follows:

- Identify the critical issues associated with the planned implementation of the Settlement and associated legislation
- Provide a brief assessment of the potential issues and constraints associated with the proposed channel and structural improvements necessary to implement the Settlement
- Suggest priorities for conducting technical analyses to assess the constraints and impacts associated with the Settlement including:
  - Identify required future technical analyses
  - Identify priorities and process for conducting future analysis

1.3 Source Information

Technical information for this appraisal report has been gathered from existing documents, published studies, and court documents from NRDC, et al., v. Kirk Rodgers, et al., 1988. Additionally, information has been collected through personal communications with various RMC members and the LSJLD.

1.4 Project Area

The project area includes the Upper San Joaquin River from Friant Dam to the confluence of the Merced River. As shown in Figure 1-1, this area is divided into five reaches and seven subreaches. Detailed reach-by-reach maps are provided in Appendix A.

Maximum Flow Capacity
26,000 cfs

Salt and Mud
Slough Outlets

Maximum Flow Capacity
10,000 cfs

Maximum Flow Capacity
0 to 400 cfs

Maximum Flow Capacity
4,500 cfs

Maximum Flow Capacity
4,500 cfs

Maximum Flow Capacity
1,300 cfs

Maximum Flow Capacity
8,000 cfs

Maximum Flow Capacity
4,750 cfs

MERCED RIVER
MERCED
MERCED COUNTY
MARIPOSA COUNTY
MADERA COUNTY
FRESNO COUNTY
CHOWCHILLA
MADERA
FRESNO
LOS BANOS
FIREBAUGH
MENDOTA
FRIANT DAM
EASTMAN LAKE
HENSLEY LAKE
MADERA LAKE
MILLERTON LAKE
LOS BANOS RESERVOIR
LITTLE PANOCHE RESERVOIR
EAST SIDE CANAL
BEAR CREEK
OWENS CREEK
DUCK SLOUGH
MUD SLOUGH
SALT SLOUGH
LOS BANOS CREEK
MARIPOSA BYPASS
MARIPOSA BIFURCATION STRUCTURE
EAST SIDE BYPASS
4B Lower
4B Upper
4A
3
2B
2A
1
PICH ANDERSON BYPASS
SAND SLOUGH CONTROL STRUCTURE
SACK DAM
MENDOTA DIVERSION DAM
MENDOTA POOL
CHOWCHILLA BIFURCATION STRUCTURE
CHOWCHILLA RIVER
CHOWCHILLA BYPASS
ASH SLOUGH
BERENDA SLOUGH
DRY CREEK
FRESNO RIVER
COTTONWOOD CREEK
LONE WILLOW SLOUGH
GRAVELLY FORD CANAL
SAN JOAQUIN RIVER
FRESNO SLOUGH
ARROYO CANAL
MAIN CANAL
OUTSIDE CANAL
DELTA-MENDOTA CANAL
CALIFORNIA AQUEDUCT
MADERA CANAL
FRIANT-KERN CANAL
99
140
165
152
33
5
59
41
145
168
180

LEGEND
- BARRIERS TO MIGRATION
- DAMS
- ROAD CROSSINGS AND CULVERTS
- NON-PROJECT LEVEES
- PROJECT LEVEES
- REACH DIVISION
- SAN JOAQUIN RIVER
- INTERSTATE HIGHWAY
- STATE-HIGHWAY
- US-HIGHWAY
- RAILROAD
- COUNTY BOUNDARY
- CITY
- REFUGES, WILDLIFE AREAS AND GRASSLAND
- CANALS

0 5 Miles

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FIGURE 1-1
PROJECT AREA

CH2MHILL

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SECTION 2

Appraisal of Proposed Restoration Actions

This section provides an overview of the proposed restoration actions, critical issues, and associated evaluations that need to be conducted as part of the planning process to implement the Settlement as specified in the associated federal legislation. The proposed restoration actions are based on the channel and structural improvements identified in paragraph 11 of the Settlement, and additional actions that may be necessary to further enhance the success of achieving the Restoration Goal, as described in paragraph 12 of the Settlement. The appraisal of the restoration actions and discussion of required evaluations are organized by those actions that are applicable to all or the majority of the river reaches (Section 2.1, River-wide Actions) and those that are specific to certain reaches (Section 2.2, Reach-specific Actions). For each proposed restoration action, the following are identified: potential impacts as a result of the action, evaluations needed, approvals and permits needed, and any additional considerations that should be addressed. Table 2-1 provides a summary of the proposed restoration actions.

2.1 River-wide Actions

This section addresses the following proposed restoration actions and evaluations that are applicable to all or the majority of the Upper San Joaquin River reaches:

- Levee and channel improvements
- Water supply operations
- Flood control operations
- Screen diversions
- Riparian habitat restoration

2.1.1 Levee and Channel Improvements

To achieve the Restoration Goal, the Settlement proposes to increase the frequency and magnitude of flows in the San Joaquin River below Friant Dam. Portions of the San Joaquin River are bounded by project levees, or levees constructed by the State of California as part of the Lower San Joaquin River Flood Control Project, and non-project levees, or levees constructed by local landowners. Under existing conditions, significant structural stability and seepage problems occur during flood-flow events in many areas throughout the existing project and non-project levee system. These structural stability and seepage problems will be exacerbated by the increased frequency and magnitude of flows in the San Joaquin River under the Settlement.

TABLE 2-1
Restoration Actions Proposed by Reach

Reach	Proposed Restoration Actions[a]
1	• Reconstruct channel/side channels and add gravel for spawning habitat • Fill and isolate gravel pits • Screen diversions • Remove or reconstruct barriers to migration (road crossings) • Restore riparian habitat • Gravelly Ford diversion protection[b]
2A	• Construct levee and channel improvements • Restore riparian habitat • Redesign or modify Chowchilla Bifurcation Structure for fish passage and prevent entrainment • Screen diversions
2B	• Construct levee and channel improvements • Restore riparian habitat • Remove or reconstruct San Mateo Road crossing • Screen diversions
Mendota Pool Bypass	• New bifurcation structure • Construct bypass channel • Fish screens and related fish bypass facilities • Create riparian habitat
3	• Construct levee and channel improvements • Replace or modify Sack Dam for fish passage • Screen Arroyo Canal • Screen other diversions • Restore riparian habitat
4A	• Construct levee and channel improvements • Screen diversions • Screen and modify Sand Slough Control Structure for fish passage
4B Upper	• Conduct Section 9(g) study and report required by federal legislation to assess potential costs, impacts, and mitigation before determining phasing and flow routing for Reach 4B (flows routed down the Mainstem or through the Flood Bypass System) Flows Routed Through Mainstem: • Construct levee improvements and associated river channel and floodplain • Restore riparian habitat • Reconstruct road crossings • Screen diversions • Screen and modify Mariposa Bifurcation Structure for fish passage Flows Routed Through Bypass System: • Construct levee and channel improvements • Create riparian habitat • Screen diversions • Screen and modify Mariposa Bifurcation Structure for fish passage

TABLE 2-1
Restoration Actions Proposed by Reach

Reach	Proposed Restoration Actions[a]
4B Lower	• Construct levee improvements • Restore riparian habitat
5	• Screen diversions • Screen Mud and Salt sloughs

[a] Proposed restoration actions are based on the channel and structural improvements identified in paragraph 11 of the Settlement as specified in the associated federal legislation. Additional actions may be necessary to further enhance the success of achieving the Restoration Goal, as described in paragraph 12 of the Settlement. Discussion of land acquisition needs is included in Section 2.2 Reach-specific Actions.

[b] Actions not called for in paragraph 11 but required as part of restoration program.

The structural stability of the existing levees must be improved first to safely pass the Restoration Flows. In addition, channel improvements, including the construction of a low-flow channel in reaches where a channel does not currently exist and construction of a new floodplain may be necessary to address the biological requirements of key stages of the salmonid life cycle. Some areas of the mainstem are not protected by project or non-project levees (primarily in Reach 4B Upper), and levees, floodplain, and a low-flow channel will be needed if this flow route is selected as part of the restoration program. Existing channel flow capacities must be assessed to determine appropriate Interim Flow release levels per federal legislation requirements. Existing levee constraints, proposed improvements, and associated evaluations are described below and summarized in Table 2-2.

2.1.1.1 Potential Impacts

Restoration Flows will increase the magnitude and frequency of flows in the San Joaquin River system, and possibly, in the bypass system. Some reaches do not have sufficient capacity to convey the Restoration Flows and new levees or setback levees will be needed. Additionally, increasing the magnitude and frequency of flows has the potential to increase the amount of time and height of water on the toe of the existing levees, which will result in additional seepage and piping. This seepage and piping may cause crop damage, exacerbate high groundwater levels in some reaches of the river, and increase the potential for levee failure. Increasing the frequency, amount of time, and height of water on the toe of the levees may also cause additional erosion of the levee banks, requiring additional measures to prevent degradation of the levee slope.

The potential impacts of the increased magnitude and frequency of flows in the San Joaquin River under the Settlement on the existing levee and channel system can be mitigated using various methods, including the following.

- Rebuild existing levees to improve structural stability
- Redesign existing channel to increase capacity
- Install slurry walls to reduce seepage and improve structural stability
- Construct setback levees for areas with limited capacity
- Construct a low-flow channel in reaches where a channel does not currently exist
- Construct new floodplains to provide for flood flow routing

TABLE 2-2
Existing Levee and Channel Constraints and Potential System Improvements by Reach

Reach	Levee	Approx Current Maximum Capacity	Minimum Restoration and Water Right Flow	Existing Levee Stability or Piping Problems	Potential Impacts	Potential River System Improvements
1	None	8,000 cfs	7,000 cfs	Not Applicable	None identified	No improvements needed
2A	Project	8,000 cfs	7,000 cfs	Piping and seepage observed well below flow capacity and historical levee failure	Increased frequency and magnitude of flows can increase the amount of seepage, resulting in crop damage and exacerbating levee stability problems	Rebuild levees and install slurry walls; construct setback levees and new floodplain; construct low-flow channel
2B	Non-project	1,300 cfs	7,000 cfs	Significant seepage and stability problems with higher flows (greater than 1,300 cfs)	Inadequate capacity for Restoration Flows; increased frequency and magnitude flows will increase the amount of seepage, resulting in crop damage and levee stability problems	Rebuild levees and install slurry walls; construct setback levees and new floodplain; construct low-flow channel
3	Non-project	4,500 cfs	5,300 cfs	Seepage problems with higher flows	Increased frequency and magnitude of flows will increase the amount of seepage, resulting in crop damage and levee stability problems; potential flooding of urban areas with levee failure	Rebuild levees and install slurry walls
4A	Non-project	4,500 cfs	4,500 cfs	Seepage and levee stability problems	Increased frequency and magnitude of flows will increase the amount of seepage, resulting in crop damage and levee stability problems	Rebuild levees and install slurry walls
4B Upper Mainstem	None / Non-project	0 cfs	4,500 cfs	Lack of levees throughout much of the reach; lack of defined river channel	Inadequate capacity for Restoration Flows; lack of comprehensive levee system, low-flow channel, and floodplain; potential seepage-induced high groundwater and resulting crop damage	Construct levees with slurry walls; construct setback levees and new floodplain; construct low-flow channel
4B Upper Bypass System	Project	13,500 cfs	4,500 cfs	Piping and seepage observed at flows well below design capacity	Increased frequency and magnitude of flows will increase the amount of seepage, resulting in crop damage and levee stability problems	Rebuild levees and install slurry walls in some areas; construct low-flow channel
4B Lower	Project	10,000 cfs	4,500 cfs	Seepage and high groundwater results in crop damage during high flows	Increased frequency and magnitude of flows will increase the amount of seepage, resulting in crop damage and levee stability problems	Install slurry walls
5	Project	26,000 cfs	4,500 cfs	None identified at this time	None identified at this time	None identified at this time

- Install subsurface drainage systems to reduce seepage impacts and mitigate for interruption of drainage from adjacent lands

Mitigation measures will vary by reach with a combination of measures possibly occurring in each reach.

2.1.1.2 Evaluation Needed

Because of the high costs of levee and channel improvements and the potential for property damage and loss of life, an extensive evaluation of the existing project and non-project levees and associated channel capacity constraints should be conducted as part of the restoration planning process. This evaluation should include the following:

- Engineering analysis and design including:
  - Topographic and channel surveys
  - Hydrologic Engineering Center (HEC) computer modeling
  - Final channel design and land acquisition plan
  - Sediment management plan and long-term monitoring
  - Groundwater surveys and long-term monitoring
  - Geotechnical studies to determine structural stability of existing levees
- Mitigation and monitoring program

These evaluations are described in more detail as follows.

Engineering Analysis and Design. Engineering analyses should be conducted for all proposed levee and channel improvements. The analyses should consist of two major components: (1) determine the existing levee and channel constraints within each reach; and (2) conduct an analysis of possible alternatives for levee and channel improvements. Alternatives should consider various methods to improve problem levees and channel areas including structural improvements, such as rebuilding levees, installing slurry walls, installing tile drains, and different construction methods. The alternatives analysis should also incorporate historical knowledge and local understanding and be coordinated closely with local agencies and landowner representatives. Additionally, agreement on the appropriate assumptions for the analyses should be obtained early in the process with local agencies and landowners. These analyses should be based on the best available information, include field studies and data collection as needed, and be conducted to professional standards using established engineering practices. All engineering design should be conducted to Reclamation, California DWR, and/or U.S. Army Corps of Engineers (USACE) design standards and guidelines, as appropriate.

Topographic and Channel Surveys. A common set of topographic and channel survey information for the entire Upper San Joaquin River should be established and serve as the basis for future analysis. Detailed topographic and channel surveys were previously prepared for the San Joaquin River by Ayres Associates and Mussetter Engineering, Inc., respectively. The survey results should be reviewed for technical accuracy, completeness, and area of coverage to determine their applicability for future analysis.

Topographic surveys should include aerial photography, ground control, and extend a sufficient width to include areas of potential setback levees. Topographic data should be

sufficient for all anticipated engineering and design analysis and should be conducted, at a minimum, to the nearest foot with an accuracy of plus or minus 6 inches. To the extent possible, this effort could build upon the topographic survey effort previously completed by Ayres Associates.

Channel surveys should include sufficient cross section lengths to include areas of potential setback levees. Survey data should be sufficient for all anticipated engineering and design analysis and cross sections should be conducted, at a minimum, at 1,000-foot intervals along the river with shorter intervals where structures are located or where focused studies are proposed. To the extent possible, this effort should build upon the previous channel survey effort conducted by Mussetter Engineering, Inc.

HEC Computer Modeling. A HEC-RAS analysis for predicting water surface elevations downstream should be conducted with the model calibrated using historical high-flow and water level data. The analysis should be conducted using appropriate roughness coefficients based on established engineering practice to accurately model water surface elevations. The overall ultimate growth landscape design for riparian habitat should be considered in the roughness coefficient assumptions to better characterize roughness and determine future channel characteristics (see discussion under Section 2.1.5).

Final Channel Design and Land Acquisition Plan. All levee and channel improvements must be designed for ultimate future riparian habitat conditions to ensure that adequate design flood flow capacity is maintained and there is no increase in the water surface elevation, as compared to the existing "baseline conditions" (see discussion under Section 2.1.5).

Levee and channel improvements must be designed per U.S Army Corps of Engineers (USACE) and state levee standards. USACE standards are specified in Levee Design Manual, EM 1110-2-1913 and Design Guidance for Levee Underseepage, ETL 1110-2-569. State design criteria are specified in the California Code of Regulations, Title 23 Waters, Div. 1 Reclamation Board. These documents are currently under review and important design criteria revisions are anticipated that will be critical to the planning and design of levee and channel improvements along the San Joaquin River.

Channel reconstruction must be designed to safely convey the estimated 4,500 cfs Restoration Flows plus water right flows in Reaches 2B and 3. In Reach 2B, a total capacity of at least 7,000 cfs is needed (4,500 cfs Restoration Flow and 2,500 cfs for water right flows). In Reach 3, total capacity of at least 5,300 cfs is needed (4,500 cfs Restoration Flow and 800 cfs for water right flows). For additional information on reach-specific improvements and evaluations, refer to the reach-by-reach discussions in Section 2.2.

A comprehensive land acquisition plan must be developed that specifically identifies, on a parcel-by-parcel basis, all the acreage that will need to be purchased from **willing sellers** or for which easements will be required for facilities construction, channel improvements and levee setbacks, and full restoration project implementation. The plan must clearly describe all valuation procedures and conform with Uniform Appraisal Standards for Federal Land Acquisitions and the Uniform Standards of Professional Appraisal Practice.

Sediment Management Plan and Long-term Monitoring. A sediment transport monitoring and management plan should be developed for all reaches of the San Joaquin River. The

sediment management plan should be developed based on analyses of sediment transport characteristics in the project area and field surveys of channel and floodplain conditions. The management plan should identify reaches with the potential for significant aggradation or degradation, and the likely processes (e.g., bank erosion, bed scour, backwater deposition, etc.) contributing to aggradation or degradation in each reach. The management plan should also identify appropriate frequencies of sediment transport monitoring (ideally tied to existing data on sediment incipient motion and sediment transport) for each reach. Finally, the plan should describe methods for sediment transport monitoring appropriate for expected conditions in each reach. Monitoring will depend on reach-specific conditions but should include some combination of permanently monumented monitoring cross sections, erosion pins, scour chains, bedload transport monitoring, and suspended load transport monitoring. Specific monitoring methods must be conducted prior to release of Interim or Restoration Flows to establish baseline conditions, and on a regular basis after implementation, to detect ongoing change. The management plan should also describe permit requirements and best management practices to apply if and when changes are detected.

Groundwater Surveys and Long-term Monitoring. Groundwater surveys and monitoring should be conducted for areas of the San Joaquin River with known seepage problems and areas of high groundwater. The survey and monitoring effort should be initiated prior to any levee improvements or Interim or Restoration Flow releases to determine baseline conditions. Groundwater monitoring wells with data loggers to continuously record water levels should be appropriately placed to record shallow groundwater levels and potential effects on groundwater from increased Restoration Flows in the river. Groundwater quality monitoring should be regularly conducted at selected wells where known poor groundwater conditions exist, including the lower reaches of the river. Piezometers and shallow groundwater monitoring wells should be installed in adjacent agricultural lands to monitor salts in the root zone as increases in groundwater elevations can bring leached salts into the root zone and affect the long-term productivity of agricultural lands.

Geotechnical Studies to Determine Structural Stability of Existing Levees. An extensive evaluation should be conducted to determine the structural stability of the existing levee system and assess the potential impacts of releasing Restoration Flows. This effort should be conducted on a subreach basis as factors that can affect levee stability (such as native soils and materials used in constructing the levees) can vary substantially over relatively small sections of the project and non-project levees. This evaluation should be conducted throughout the mainstem and for reaches of the bypass system where Restoration Flows may be routed. This evaluation should consist of the following:

- Conduct geotechnical borings at least every mile on both sides of the river both through the project or non-project levee and outside the levee in the adjacent agricultural lands to evaluate subsurface conditions.
- Conduct field tests in borings for permeability, density, and to obtain samples for lab tests of compaction, permeability, strength, and grain size. Utilize the field and lab data to establish seepage and strength parameters for design.
- Determine the potential for seepage through the levees under Restoration Flows using the material properties from the geotechnical investigation and laboratory testing.

Permeability values for vertical and horizontal directions should be used, along with two-dimensional cross sections to estimate seepage rates and exit gradients under a variety of flows and durations.

- Determine slope stability under short-term rapid drawdown from peak flows and long-term steady-state seepage using conventional two-dimensional stability computer methods. This should be completed for both sides of the river at all sections where borings have been made. Determine the likely levee stability between boring locations using established engineering practices.
- Where exit gradients may cause erosion or low slope stability factors of safety, rerun the analysis utilizing slurry cutoff walls or sheetpiling set to a range of depths below the crest of the levees. Perform cost analysis to estimate what depth and type of seepage cutoff method is most cost effective. Perform this analysis along the entire reach where poor slope stability or seepage conditions exist.
- Evaluate liquefaction potential under design earthquake shaking with and without flow in the river. Estimate amount of seismically induced Settlement.
- Conduct a sensitivity analysis, to ensure adequate protection, using a range of permeability values to estimate the effect of seepage with and without a slurry cutoff wall made to different depths.
- Evaluate the feasibility of using setback levees with and without slurry walls and with imported embankment material to determine if seepage into the agricultural fields can be reduced under ultimate restoration conditions.
- Estimate potential water surface elevations within the levees and adjacent fields under ultimate (full riparian growth) restoration conditions along all reaches studied.
- Determine the need for levees to be set back to accommodate Restoration Flows, water-right flows, and an increment of flood flows using appropriate roughness coefficients to account for additional future riparian vegetation.
- Determine appropriate construction materials and techniques for rebuilt levees.
- Determine appropriate construction materials and techniques for slurry wall installation.
- Identify potential borrow material sources.

The geotechnical studies should determine the need for slurry walls to mitigate seepage-induced impacts to agricultural lands and improve levee stability. Slurry walls are needed if the stability analysis indicates that seepage through the embankment or the foundation under the embankment results in: (1) a low safety factor, (2) exit gradients outside the levee that have the potential to cause sand boils, or (3) water table rise that could cause crop damage. Sheet pile walls may also be used to prevent seepage under and through levees and embankments. If the embankment is made out of sand but the foundation under the embankment is silty or silty sand, the embankment may be rebuilt or a very short slurry wall can be used. If the foundation is sand but the embankment is silt, a slurry wall down into the foundation is needed for seepage reduction.

Mitigation and Monitoring Program. Construction of levee and channel improvements will cause a variety of construction and operations-related environmental impacts. Impacts would be expected to a variety of resource areas including air quality, biological resources, cultural resources, traffic and transportation, and water resources. Although many of these impacts would be expected to be temporary, some long-term impacts may occur. Many of the impacts have the potential to be significant. In addition, because of the aggressive schedule outlined in the Settlement, it is likely that numerous Settlement-related construction projects would occur at the same time, potentially resulting in significant cumulative impacts. A comprehensive analysis of potential environmental impacts should be conducted. This analysis should include a comprehensive mitigation and monitoring program to reduce or eliminate, to the extent feasible, construction and operational impacts.

2.1.1.3 Approvals and Permits Needed

A variety of approvals and permits would be needed for levee and channel improvement activities including the following:

- Land acquisition (because of the nature of this action, easements do not appear viable)
- Access agreements from adjacent landowners
- Compliance with the following federal and state laws: National Environmental Policy Act (NEPA); California Environmental Quality Act (CEQA); Endangered Species Act (ESA); California Endangered Species Act (CESA); Clean Water Act (CWA); Clean Air Act (CAA); CDFG Code Section 1600; DWR floodway permits; and a variety of federal and state laws, policies, and regulations and federal Executive Orders
- Reclamation Board and LSJLD Encroachment Permit(s)
- Operations and maintenance permits/agreements with a local maintaining agency that has yet to be determined
- State Lands Lease and Land Transfer

2.1.1.4 Additional Considerations

Any proposed levee improvements would need to consider the extent of future riparian vegetation and include setback levees or other measures to increase channel capacity as needed to maintain design flow capacities (see discussion under Section 2.1.5, Riparian Habitat Restoration).

It is assumed that re-built or otherwise improved levees would be owned by the state. Operations and maintenance (O&M) of these structures and associated flood channel would be conducted by a local maintaining agency that has yet to be determined, under agreement with the state. Funding for the O&M activities would be needed. Additionally, long-term assurances and ESA and CESA compliance for O&M activities, including assurances and compliance for take of salmon after the ESA Section 10(j) experimental population status is no longer in effect, would be necessary. This long-term ESA and CESA compliance for O&M activities must be completed concurrent with ESA and CESA compliance for construction activities. Long-term O&M activities would include vegetation maintenance and removal

and sediment removal (including dredging) in portions of the mainstem San Joaquin River to maintain channel capacity.

Long-term establishment of a low-flow channel may not be possible in some reaches because of the sand-bedded character of these reaches. As flows increase, the sand-bedded channel will likely mobilize and become unstable.

2.1.2 Water Supply Operations

Reaches 2B and 3 of the San Joaquin River provide critical water supply conveyance for delivery of water under existing water rights. Water delivered via the Delta-Mendota Canal is diverted by agricultural users at Mendota Pool, along Fresno Slough, and downstream on the San Joaquin River at Sack Dam. Implementation of the Settlement has the potential to significantly impact the operational flexibility needed to provide water to agricultural diverters along Fresno Slough and at the Columbia Canal headworks in Reach 2B. Water supply operations associated with Mendota Pool, including potential impacts, evaluations, approvals and permits, and additional considerations, are described in Section 2.2.4.

2.1.3 Flood Control Operations

Flood control operations on the San Joaquin River include conveyance of flood flows from the Kings River and operation of the Lower San Joaquin River Flood Control Project, described as follows.

2.1.3.1 Coordination with Kings River Flood Flows

Currently, per the flood control manual operations, flood flows from the Kings River are diverted into the San Joaquin River via the Fresno Slough at Mendota Pool during flood flow releases from Pine Flat Reservoir The Kings River conveys up to the first 4,750 cfs of flow into the San Joaquin River and then up to the next 4,750 cfs is diverted to the Tulare Lake Bed. Above a Kings River flood flow of 9,500 cfs, the remaining flow is split 50/50 between the San Joaquin River and the Tulare Lake Bed. Kings River flood flows have priority over Restoration Flows released from Friant Dam into the San Joaquin River. The operation of the Chowchilla Bifurcation Structure is coordinated with the amount of Kings River flood flows entering the San Joaquin River system via Fresno Slough, if San Joaquin River flood flows are being released from Friant Dam. The volume of San Joaquin River flow routed into the bypass system is increased as the amount of Kings River flood flows entering the San Joaquin River increases. Under high Kings River flow conditions, all flows in the San Joaquin River may be routed into the bypass system at the Chowchilla Bifurcation Structure.

2.1.3.2 Lower San Joaquin River Flood Control Project

The Lower San Joaquin River Flood Control Project consists of project levees and a number of bifurcation structures, control structures, and bypass channels that route high flows out of the San Joaquin River into the bypass system, moderating flows in Reaches 2B, 3, 4, and 5. Major facilities in the San Joaquin River Flood Control Project include the Chowchilla Bifurcation Structure, Chowchilla Bypass, Eastside Bypass Control Structure, Eastside Bypass, Mariposa Bypass Structure, and Mariposa Bypass.

The LSJLD was created in 1955 and is responsible for the maintenance and operation of the project flood control facilities. LSJLD, in accordance with its agreement with the state

Reclamation Board, is obligated to maintain not only the bypasses, but the channel of the San Joaquin River in the project area, in a condition where the channel will carry specified flood flows in accordance with the maximum benefits for flood protection. This obligation may be in direct conflict with some of the proposed restoration actions, including those that encourage vegetation growth in and along the river or bypass channels.

2.1.3.3 Potential Impacts

Conveyance of Kings River Flood Flows. Restoration actions including riparian vegetation enhancement, levee and channel, improvements, the Mendota Pool Bypass, and revised operating criteria for the Chowchilla Bifurcation Structure, have the potential to conflict with the routing of Kings River flood flows.

Lower San Joaquin River Flood Control Project. Existing channel capacity in the bypass system is sufficient to handle the Interim and Restoration Flows, however, these flows do not comply with the original mandated purpose of the bypass system and do not comply with the conditions of the flood easements for the bypass system (i.e., Interim and Restoration Flows are not flood flows). Expanded easements, land acquisition, and new legislation will be needed to route non-flood flows through the bypass system. In addition, new O&M agreements and increased funding for maintenance operations will be required.

The LSJLD is funded by property tax assessments on lands within the LSJLD boundaries that receive flood control benefits. As a result of conversion of lands to state and federal ownership (primarily for wildlife areas), the LSJLD is facing a disappearing tax base at a time when O&M costs are rising. The additional costs to maintain the channel, levee, and related flood control facilities that would be constructed under the Settlement will far exceed the LSJLD's current operating budget. These additional costs would result from additional vegetation management activities, additional sediment management and removal activities, cleaning of screens and trash racks on facilities, staff time to open and close gates and flap gates (in the bypass system), and staff time for flood watch (24-hour staffing needed when flows abut the toe of the levees). Additionally, the presence of water in the river channel year-round or for extended times during the year will change the LSJLD maintenance activities including the timing, tools, and techniques used. Under existing conditions, most maintenance activities are conducted when the river is dry, allowing for easy access to the river, reducing the potential for safety hazards, and allowing for the use of tools (including certain herbicides) and techniques that cannot be used in wet conditions. A local maintaining agency would need to be identified, and funds will be needed to cover O&M cost and maintain the channels, levees, and related flood control facilities that would be constructed under the Settlement. It is assumed that these funds would come from the state or federal government rather than from local funding sources, as these costs are a direct result of the restoration program.

As described previously, the LSJLD is obligated to maintain the bypasses and the channel of the San Joaquin River in a condition where the channel will carry flood flows in accordance with the maximum benefits for flood protection. This obligation may be in direct conflict with some of the proposed restoration actions, including those that encourage vegetation growth in and along the river or bypass channels. The Settlement should not conflict with or reduce the channel capacity or its overall ability to convey flood flows in any way. Existing channel capacities must be maintained or enhanced.

2.1.3.4 Evaluation Needed

Conveyance of Kings River Flood Flows. Routing of Kings River flood flows should be considered in the evaluation of levee, channel, and vegetation improvements and the Mendota Pool Bypass. Facilities and operating criteria, including new operating criteria for the Chowchilla Bifurcation Structure must be developed to allow for continued routing (including priority) of Kings River flood flows.

Lower San Joaquin River Flood Control Project. As part of the Reach 4B study, an evaluation should be conducted to determine the feasibility and cost of expanded easements or land acquisition in the bypass system to allow construction of a larger/wider channel to account for riparian vegetation growth and allow for routing of non-flood flows.

A process must be developed to work with a local maintaining agency to determine O&M costs and determine future funding sources.

2.1.3.5 Approvals and Permits Needed

Legislation and/or LSJLD authorization to route flows other than flood flows through the bypass system.

2.1.3.6 Additional Considerations

Changes in the current flood control operations will require development of an updated flood control plan for the Upper San Joaquin River and Kings River.

2.1.4 Screen Diversions

Based on an inventory conducted by the CDFG in 2001, there are more than 150 diversions along the San Joaquin River between Friant Dam and the confluence with the Merced River. Table 2-3 lists the number of diversions inventoried by reach and Appendix B provides a listing of the diversions by River Mile. While some of the inventoried diversions are not currently in use and some may already be screened, it is believed that the vast majority of these diversions are unscreened. Unscreened diversions can result in entrainment of juvenile salmon leading to direct mortality or stranding of juveniles in canals and related irrigation facilities. These diversions would need to be screened prior to reintroduction of salmon to the San Joaquin River system. Responsibility and funding for future operations and maintenance of the screens and associated facilities will need to be determined and necessary agreements achieved.

2.1.4.1 Potential Impacts

Screening diversions could cause changes in diversion hydraulics and increase required maintenance activities.

2.1.4.2 Evaluation Needed

Screens must be designed in accordance with National Marine Fisheries Service (NMFS) Fish Screening Criteria for Anadromous Salmonids (NMFS, 1997), criteria established by the CDFG, or other applicable criteria at the time of construction. Engineering analyses and design should be conducted for each diversion to reduce the potential for changes in diversion hydraulics, determine fish behavior response to hydraulic conditions, identify and

address potential sediment and debris problems, and identify the potential for creating predation opportunities. For larger diversions, engineering analyses and design should include computer modeling to determine appropriate hydraulics and screen design, and should consider ways to minimize maintenance activities. Depending on screen size and location, a thorough analysis of environmental impacts from construction and operation of the screen may also be needed. All screens should be designed assuming fry-sized spring and fall run salmonids could be present at the diversion.

TABLE 2-3
Number of Diversions on the Mainstem San Joaquin River by Reach

Reach	Number of Diversions
1	117
2A	5
2B	15
3	3
4A	2
4B Upper	8
4B Lower	2
5	2
Total	**154**

Source: CDFG, 2001

Note: Does not include diversions in the Mendota Pool area or in the bypass system. Bypass system includes 380 local drainage flap gates, 20 which are located in the Reach 4B area being considered as an alternative flow route. See Appendix B for a listing of diversions by river mile.

2.1.4.3 Approvals and Permits Needed

The following approvals and permits would likely be needed:

- Cooperation from the owner/operator of the diversion structure or pump
- Environmental compliance (likely NEPA, CEQA, ESA, CESA, CWA, and CAA)
- O&M agreements

The level of effort for environmental analysis would depend on the size and location of the diversion. Larger screens may necessitate a much more extensive environmental review and compliance with state, federal, and local laws in addition to those listed previously.

2.1.4.4 Additional Considerations

As noted previously, environmental review and compliance will depend on the size and location of the diversion.

2.1.5 Riparian Habitat

Riparian habitat is proposed in all reaches of the San Joaquin River to provide cover for rearing and outmigrating juvenile salmon, provide habitat diversity and complexity for prey sources for juvenile salmon, to shade the channel and reduce overall water temperatures, and provide cover for juvenile salmon and reduce opportunities for predation by avian species.

2.1.5.1 Potential Impacts

Growth of riparian habitat will increase the "roughness coefficient" or amount of friction (drag) on flows in the river corridor and result in additional debris being trapped along the river or at structures or road crossings (between bridge pillars). This increase in roughness raises the water surface elevation of the river as flows are slowed by vegetation. Depending on the area and design channel capacity, an increase in the water surface elevation of the river will increase the frequency of flows at the levee toe, causing additional seepage and levee stability problems. Planning for the restoration of riparian habitat must account for these potential consequences and newly constructed or redesigned channel configurations (setback levees, and so forth) should allow for additional vegetation (increased roughness) in the river channel to maintain design flood flow capacity and maintain original design water surface elevations (stage).

2.1.5.2 Evaluation Needed

An overall "landscape" design is needed to determine the long-term extent, composition, and structure (size, location, and related criteria) of riparian vegetation restoration. This design should be conducted on a reach-by-reach basis and should include detailed information, including the vegetation composition (including desirable and undesirable species) and specific locations/areas for large woody riparian vegetation. Agreement with local agencies and landowners on critical assumptions for the analyses should be sought early in the process. This detailed design information should be used in the engineering and hydraulic analysis conducted for levee and channel improvements (see Section 2.1.1) to determine appropriate channel characteristics (such as widths, depths, and locations of setback levees). This detailed design information should be used as a guide for long-term management and increased maintenance of riparian vegetation by a local maintaining agency.

2.1.5.3 Approvals and Permits Needed

The extent of approvals and permits needed would depend on the actions taken. Larger planting efforts may require NEPA, CEQA, ESA, CESA, CWA, and CAA compliance. Natural revegetation may not require federal, state, or local approvals or permits. Under all circumstances, coordination with the LSJLD and the Reclamation Board would be needed, and depending on the extent of activities, an Encroachment Permit from the Reclamation Board may be needed.

2.1.5.4 Additional Considerations

A clearly defined set of goals for vegetation area and structure is needed to manage potential conflicts with channel capacities and flood operations. Additionally, revegetated areas would need to be managed for exotic species.

As described in Section 2.1.3, the LSJLD maintains the majority of the Upper San Joaquin River channel and the bypass system for flood conveyance. Additional vegetation in the channel would necessitate additional management activities by LSJLD or a local maintaining agency. An O&M agreement and funding for these activities would be needed. Additionally, long-term assurances and ESA and CESA compliance for O&M activities,

including assurances and compliance for take of salmon after the ESA Section 10(j) experimental population status is no longer in effect, would be necessary.

2.2 Reach-specific Actions

This section addresses proposed restoration actions, critical issues, and technical evaluations needed by reach. A tabular summary of the following information is provided in Appendix C. See Table 2-1 for a summary of the restoration actions proposed by reach.

2.2.1 Reach 1

Reach 1 is approximately 38.5 miles long. It begins at Friant Dam, where the San Joaquin River exits the Sierra Nevada foothills, and ends at Gravelly Ford, where the River transitions from a predominantly gravel-bed system to a predominantly sand-bed system. In this reach, the river is confined within natural terraces and bluffs. Water is present year-round in Reach 1, and the river is flanked by riparian vegetation through most of the reach. Adjacent land uses include gravel mining, rural residential areas, and agricultural lands. Reach 1 is anticipated to serve as the primary holding and spawning habitat for salmon because of its proximity to Friant Dam and availability of cold water, availability of larger pools, and gravel-to-cobble bedded channel. A variety of channel improvements are needed in Reach 1 to address the biological requirements of key stages of the salmonid life cycle. The following restoration actions are proposed for Reach 1:

- Reconstruct channel/side channels and add gravel for spawning habitat
- Fill and isolate gravel pits
- Reconstruct barriers to migration (road crossings)

Following is a more detailed description of each of these actions, along with a discussion of improvements needed to maintain adequate water levels at diversions near the Gravelly Ford Gaging Station. In addition to these actions, existing diversions in Reach 1 would need to be screened and riparian habitat restoration would be needed as described in Section 2.1.

2.2.1.1 Reconstruct Channel/Side Channels and Add Gravel for Spawning Habitat

Gravel augmentation is needed in Reach 1 because the construction of Friant Dam effectively cut off the main sediment supply for the San Joaquin River. The quantity and quality of suitable spawning habitat is insufficient to support the biological requirements of salmon, and the addition of gravel to specific areas of the river is needed to improve spawning habitat and the likelihood of successful fry emergence. Reconstruction of the side channels in Reach 1 is important, as these side channels could provide additional juvenile rearing habitat. These channel improvements in Reach 1 are necessary to establish the biological requirements for key stages of the salmonid life cycle.

Potential Impacts. Reconstruction of the mainstem and side channels and the addition of gravel for spawning habitat would result in changes in localized river hydraulics.

Evaluation Needed. Detailed engineering designs would be needed for reconstruction of the mainstem and side channels and more generalized designs would be needed for gravel addition areas. As part of this analysis and design effort, pre- and post-channel surveys, flow and sediment transport monitoring and studies, and computer modeling should be

conducted to estimate and monitor changes in localized river hydraulics and sediment transport. If sensitive biological or cultural resources may be located in the project area, pre-construction surveys should be conducted and sensitive resources should be avoided or mitigated. Mitigation measures should be developed to minimize impacts to water quality and air quality.

Approvals and Permits Needed. The following approvals and permits would likely be needed:

- Land easements or acquisition
- Access agreements from adjacent landowners
- Environmental compliance (likely NEPA, CEQA, ESA, CESA, CWA, CAA, and CDFG Code Section 1600 Agreement)
- State Lands Lease and possible land transfer

Additional Considerations. Need agreement with existing local responsible agencies for long-term maintenance of gravel beds.

2.2.1.2 Fill and Isolate Gravel Pits

Historical sand and gravel mining activities immediately adjacent to the river have resulted in large remnant gravel pits within the floodplain. During high flows, the river has "captured" or flowed into some of these pits, and many of the gravel pits are now connected to the river. These captured pits hinder the natural downstream transport of sediment from upstream areas and adversely affect the quantity of appropriately sized spawning gravels. In addition, water temperatures in captured pits are generally higher than in the mainstem, and thus, the pits provide warm-water habitat for non-native predators that prey on juvenile salmon. Many of the captured pits should be isolated from the mainstem or filled to improve sediment transport and reduce habitat for non-native predators.

The potential impacts, evaluations, approvals and permits, and additional considerations for filling and isolating gravel pits are the same as those identified in Section 2.2.1 for reconstructing channel/side channels and adding gravel for spawning habitat.

2.2.1.3 Reconstruct Barriers to Migration

Barriers to migration in Reach 1 consist of the Vulcan culverts located at River Mile 258.5 and the Stuart/Nuss Road culverts located at River Mile 229.0. The Vulcan culverts consist of 10 round culverts that span the width of the San Joaquin River. The Stuart/Ness Road culverts consist of two round culverts that also span the width of the San Joaquin River. Both culverts present barriers to migration at different flows and would need to be removed or reconstructed. Potential impacts, evaluations, and approvals and permits would differ, depending on whether or not the road crossings are only removed or removed and reconstructed.

Potential Impacts. If the road crossings are removed, the potential impacts to hydrology and flooding would likely be minimal and would generally improve (lessen) flow constructions within the channel.

If the road crossings are reconstructed, new road crossings or possibly bridges have the potential to cause changes in localized river hydraulics. These changes include additional structures in the channel that have the potential to: (1) redirect flows resulting in additional erosion or sedimentation and (2) increase the potential for flooding due to increased roughness (including the potential to serve as a debris trap).

Evaluation Needed. If the road crossings are removed, localized topographic and channel surveys would be needed to determine locations and amount of sediment removal. Pre-construction biological surveys should be conducted and mitigation measures should be developed to minimize impacts to water quality, air quality, and biological resources.

If the road crossings are reconstructed, detailed engineering designs would be needed. The analysis and design effort should include pre- and post-channel surveys, flow and sediment transport monitoring and studies, and computer modeling to estimate and monitor changes in localized river hydraulics and sediment transport. If sensitive biological resources may be located in the project area, pre-construction surveys should be conducted and take of sensitive species should be avoided or mitigated. Mitigation measures should be developed to minimize impacts to water quality, air quality, cultural resources, and biological resources.

Approvals and Permits Needed. The following approvals and permits would likely be needed.

- Cooperative agreement with owners (for private roads) or counties (for public roads)
- Access agreements from adjacent landowners
- Environmental compliance (likely NEPA, CEQA, ESA, CESA, CAA, CDFG Code Section 1600 Agreement, and CWA including a dredging permit from the USACE)
- State Lands Lease

Additional Considerations. As described previously, impacts and associated evaluations and mitigations would be reduced if the road crossings are not reconstructed. However, this could impact local gravel mining operations that frequently use these crossings.

2.2.1.4 Pump Diversion at Gravelly Ford

The Gravelly Ford Gaging Station is located at the downstream end of Reach 1. Reclamation generally targets a flow of approximately 5 cfs past Gravelly Ford to maintain upstream water levels for riparian diversions. Channel scour and channel incision in the area near the gaging station have reduced the accuracy of the gaging station and the ability to reliably pump water from the river for irrigation purposes

Potential Impacts. Channel scour upstream of the Gravelly Ford Gaging Station has affected the ability of some water right holders to divert water in this reach of the river. A small sand barrier is periodically constructed upstream of the Gravelly Ford Gaging Station to back water up for diversion at local pumping facilities. Increasing the frequency and magnitude of flows in this area under the Settlement would cause additional scour, channel incision, and further exacerbate pumping problems.

Evaluation Needed. Engineering analysis and design for changes to the river channel and gaging station will be needed. Channel improvements, including the construction of a small diversion weir with fish passage capability, may be necessary for continued operations of these diversion facilities. This effort should include pre- and post-channel surveys, flow and sediment transport monitoring and studies, and computer modeling to estimate and monitor changes in localized sediment transport and river hydraulics. If sensitive biological resources may be located in the project area, pre-construction surveys should be conducted and sensitive areas should be avoided or mitigated.

Approvals and Permits Needed. The following approvals and permits would likely be needed:

- Coordination with the U.S. Geological Survey
- Access agreements from adjacent landowners
- Environmental compliance (likely NEPA, CEQA, ESA, CESA, CWA, CAA, and CDFG Code Section 1600 Agreement)
- State Lands Lease
- Future O&M agreements

Additional Considerations. None identified at this time.

2.2.2 Reach 2A

Reach 2A is approximately 13 miles long. It begins at Gravelly Ford and extends downstream to the Chowchilla Bifurcation Structure. The river in this reach is entirely sand-bedded and maintained for flood control purposes by the LSJLD. No low-flow channel exists throughout much of the reach and lower flows tend to spread out over large areas, resulting in shallow water depths and high water temperatures. These water depths and high water temperatures are likely to be lethal to upmigrating adult salmon and outmigrating juvenile salmon. Typically, there are no flows in Reach 2A except under flood flow conditions. Adjacent land uses are primarily agricultural. Current published channel design capacity for Reach 2A is approximately 8,000 cfs.

Reach 2A would provide habitat for upmigrating adult salmon and outmigrating juvenile salmon. However, both levee and fish passage improvements are needed to pass the Restoration Flows, promote riparian vegetation, allow for fish passage through the reach, and prevent fish stranding in the bypass system. The proposed restoration actions in Reach 2A are as follows:

- Improve levees and enlarge channels
- Restore riparian habitat
- Redesign or modify Chowchilla Bifurcation Structure for fish passage
- Screen diversions

A summary of some of these actions including levee and channel improvements, riparian habitat creation, and screening diversions is provided in Section 2.1. Levee and channel improvements specific to Reach 2A and the modification of the Chowchilla Bifurcation Structure for fish passage and to prevent entrainment are described as follows.

2.2.2.1 Levee and Channel Improvements

Most of Reach 2A is bounded by project levees and piping and seepage have been observed at flows well below the maximum capacity. Historically, levee failures have occurred during high-flow events. These problems will be exacerbated by the growth of new riparian vegetation and the increased frequency of peak flows that would occur under the Settlement, causing increased water surface elevations, additional seepage, and potential levee failures. The structural stability of the existing levees must be improved to safely pass Restoration Flows. In addition, slurry walls may be needed to reduce seepage and seepage-induced crop damage, and to improve levee structural stability. Setback levees and a new floodplain may also be needed in Reach 2A to provide additional capacity necessary to restore riparian vegetation in this reach.

A low-flow channel may be needed to provide depths necessary for fish passage and reduce water temperatures. It has been suggested that restoration of riparian vegetation alone will result in a defined low-flow channel. However, this action is unproven on the sand-bedded San Joaquin River and should be tested extensively under a variety of flow conditions (including high-flow conditions) before being seriously considered as a method to establish a low-flow channel.

A summary of the potential impacts, evaluations, approvals and permits, and additional considerations associated with river-wide levee and channel improvements is provided in Section 2.1.1.

2.2.2.2 Redesign or Modify Chowchilla Bifurcation Structure for Fish Passage and Prevent Entrainment

In addition to the levee improvements identified previously, modifications would need to be made to the Chowchilla Bifurcation Structure to allow for fish passage into Reach 2B. An evaluation is needed to determine whether or not the Chowchilla Bifurcation Structure should be screened to prevent outmigrating juvenile salmon from entering the bypass system or if individual flap gates and turnouts within the bypass system could be screened. In the event that the Chowchilla Bifurcation Structure is screened at the head of the bypass system, then the potential backwater effects that could cause trash and debris build-up during high-flow events would need to be evaluated. In the event that the Chowchilla Bifurcation Structure is not screened at the head of the bypass system and juvenile salmon are allowed to enter the bypass system, then the individual flap gates and turnouts within the bypass system would need to be screened to prevent fish entrainment.

Potential Impacts. Modifications to the Chowchilla Bifurcation Structure would cause changes in localized river hydraulics and flood flow characteristics. Additionally, modifications may cause excessive sand deposition in the area, necessitating additional sand removal (dredging) activities. Screening of the individual flap gates and turnouts within the bypass system has the potential to substantially increase O&M costs.

Evaluation Needed. Detailed engineering design of the modified Chowchilla Bifurcation Structure would be needed. The analysis and design should include pre- and post-topographic and channel surveys, long-term flow and sediment transport monitoring and studies, and computer modeling to estimate and monitor changes in localized river hydraulics and sediment transport. Impacts on adjacent levees, such as increased backwater

effect during high-flow events, should be considered during design. A sediment management plan should be prepared and long-term sediment monitoring should be conducted (see Section 2.1.1).

If sensitive biological resources may be located in the project area, pre-construction surveys should be conducted and take of sensitive species should be avoided or mitigated. Mitigation measures should be developed to minimize impacts to water quality and air quality.

Fish passage facilities should be designed in coordination with NMFS and CDFG and applicable engineering design criteria at the time of construction. Analyses should be conducted to reduce the potential for changes in river hydraulics, determine fish behavior response to hydraulic conditions, identify and address potential sediment and debris problems, and identify the potential for creating predation opportunities. These analyses should also include technical analyses to determine appropriate hydraulics and passage design, and should consider ways to minimize maintenance activities. An analysis of environmental impacts from construction and operation of the passage facilities would be needed.

Approvals and Permits Needed. The following approvals and permits would likely be needed:

- Environmental compliance (likely NEPA, CEQA, ESA, CESA, CWA, CAA, and CDFG Code Section 1600 Agreement)
- Reclamation Board and LSJLD Encroachment Permit

Additional Considerations. New fish screen and passage facilities should be under federal or state ownership with O&M conducted by a local maintaining agency. An O&M agreement and funding to cover O&M costs would be needed. Additionally, long-term assurance and ESA and CESA compliance, including assurances and compliance for take of salmon after the ESA Section 10(j) experimental population status is no longer in effect, are needed for O&M activities. This long-term ESA and CESA compliance for O&M activities should be completed concurrent with ESA and CESA compliance for construction activities.

As described in Section 2.1.3, an updated flood control plan, which includes changes to the operation of the Chowchilla Bifurcation Structure, may be needed. Any modifications to the Chowchilla Bifurcation Structure must maintain or improve the upstream and downstream design flow capacities.

2.2.3 Reach 2B

Reach 2B is approximately 11 miles long. It begins at the Chowchilla Bifurcation Structure and ends at Mendota Dam. No river flows exist in Reach 2B Upper, above the Mendota Pool backwater formed by Mendota Dam, except under flood flow conditions. However, some riparian vegetation occurs in Reach 2B, likely due to localized high groundwater conditions as a result of the Mendota Pool. Similar to Reach 2A, Reach 2B is entirely sand-bedded and there is no low-flow channel throughout much of the reach. Lower flows tend to spread out over large areas, resulting in shallow water depths and high water temperatures. Adjacent land uses are primarily agricultural and most of Reach 2B is bounded by non-project levees.

Reach 2B would provide habitat for upmigrating adult salmon and outmigrating juvenile salmon. However, both levee and fish passage improvements are needed to pass the Restoration Flows and allow for fish passage through the reach. The proposed restoration actions for Reach 2B are as follows:

- Construct levee and channel improvements
- Restore riparian habitat
- Reconstruct San Mateo Road crossing
- Screen diversions

A summary of some of the river-wide issues associated with these actions is provided in Section 2.1. Issues associated with levee and channel improvements specific to Reach 2B are described as follows.

2.2.3.1 Levee and Channel Improvements

Reach 2B does not have sufficient capacity to convey the Restoration Flows, and the structural stability of the existing private levees would need to be improved. Improvements could include setting back and rebuilding existing levees and potentially installing slurry walls to reduce seepage and improve the structural stability. Similar to Reach 2A, Reach 2B is entirely sand-bedded and there is no low-flow channel throughout much of the reach. Shallow water depths and high water temperatures are likely to be lethal to upmigrating adult salmon and outmigrating juvenile salmon. A low-flow channel would be needed to provide depths necessary for fish passage and reduce water temperatures.

Mendota Dam, at the downstream end of Reach 2B, raises the water surface level in the Mendota Pool and backs water up the San Joaquin River and Fresno Slough. When there are flood flows at the Chowchilla Bifurcation Structure, only 1,300 cfs are routed through Reach 2B and flows in excess of this amount are routed into the Chowchilla Bypass. Flows higher than 1,300 cfs result in significant seepage and levee stability problems. This condition only occurs if there are no Kings River flows entering the San Joaquin River through Fresno Slough. As identified in Section 2.1.2, Reach 2B provides critical water supply conveyance for delivery of water under existing water rights. The ability to convey flows for delivery under existing water rights must be maintained. A total capacity of up to 7,000 cfs is needed in this reach to convey up to 4,500 cfs of Restoration Flow and up to 2,500 cfs of water right flows.

2.2.3.2 Reconstruct San Mateo Road Crossing

The San Mateo Road Crossing is located upstream of Mendota Pool at River Mile 211.8. The road crossing consists of a round, corrugated metal pipe with an unpaved, low-water crossing, and provides access across the river for existing agricultural operations. The road crossing is believed to be a barrier to migration and must be reconstructed.

Potential impacts, evaluations needed, approvals and permits needed, and additional considerations are the same as those described for removal or reconstruction of road crossings in Reach 1 (see Section 2.2.1).

2.2.4 Mendota Pool Bypass

The Settlement proposes the construction of a bypass to route upmigrating adults and outmigrating juvenile salmon around the Mendota Pool. Construction of the Mendota Pool Bypass would eliminate a number of concerns with routing fish though Mendota Pool, including the need to provide fish passage at Mendota Dam, screening of the numerous diversions in the pool, and reducing the potential for warm-water predation in the pool. Any San Joaquin River flow that is in excess of the specified restoration flow through the bypass must be allowed flow into Mendota Pool to meet water rights demands. Figure 2-1 provides a schematic plan view of the proposed bypass channel, related facilities, and design flow rates. The proposed restoration actions for the new Mendota Pool Bypass are as follows.

- Construct bypass channel
- Construct upstream bifurcation structure
- Install fish screens and passage facilities

Riparian habitat restoration will also be needed in the new bypass channel to reduce water temperatures and provide cover for upmigrating and outmigrating salmon. This action is described in Section 2.1.5.

In addition to the actions identified previously, the Columbia Canal Company's water intake and related facilities must be reconfigured as a result of the construction of the Mendota Pool Bypass; this action is described as follows.

2.2.4.1 Construct Bypass Channel

The Mendota Pool Bypass will require the construction of a new channel with setback levees and a low-flow channel. As proposed in the expert report of Dr. Michael D. Harvey (2005), the new channel would be approximately 9,800 feet long, with a low-flow channel that would convey 200 cfs, a main channel that would convey up to 4,000 cfs, and an overbank area to convey an additional 500 cfs. The overall channel capacity would be designed to convey up to the Restoration Flow of 4,500 cfs. A series of drop structures may be needed in the downstream extent of the bypass channel to maintain design slopes.

Potential Impacts. The Mendota Pool Bypass would cause substantial changes to the geomorphology of the river. These changes could alter sediment transport and river hydraulics, potentially changing erosion and sedimentation characteristics, changing flow routing and 'stress' points on adjacent levees and other infrastructure, and changing overall flooding characteristics. The bypass could also cause increased seepage in the area, exacerbating already high groundwater levels around the Mendota Pool. Long-term impacts to agricultural lands are expected as a result of high groundwater levels that are likely to affect production on adjacent agricultural lands. Substantial flood easements, mitigation, or acquisition of these lands will be necessary.

Evaluation Needed. Evaluations needed are the same as those identified in Section 2.1.1 for levee and channel improvements.

Approvals and Permits Needed. Approvals and permits needed are the same as those identified in Section 2.1.1 for levee and channel improvements.

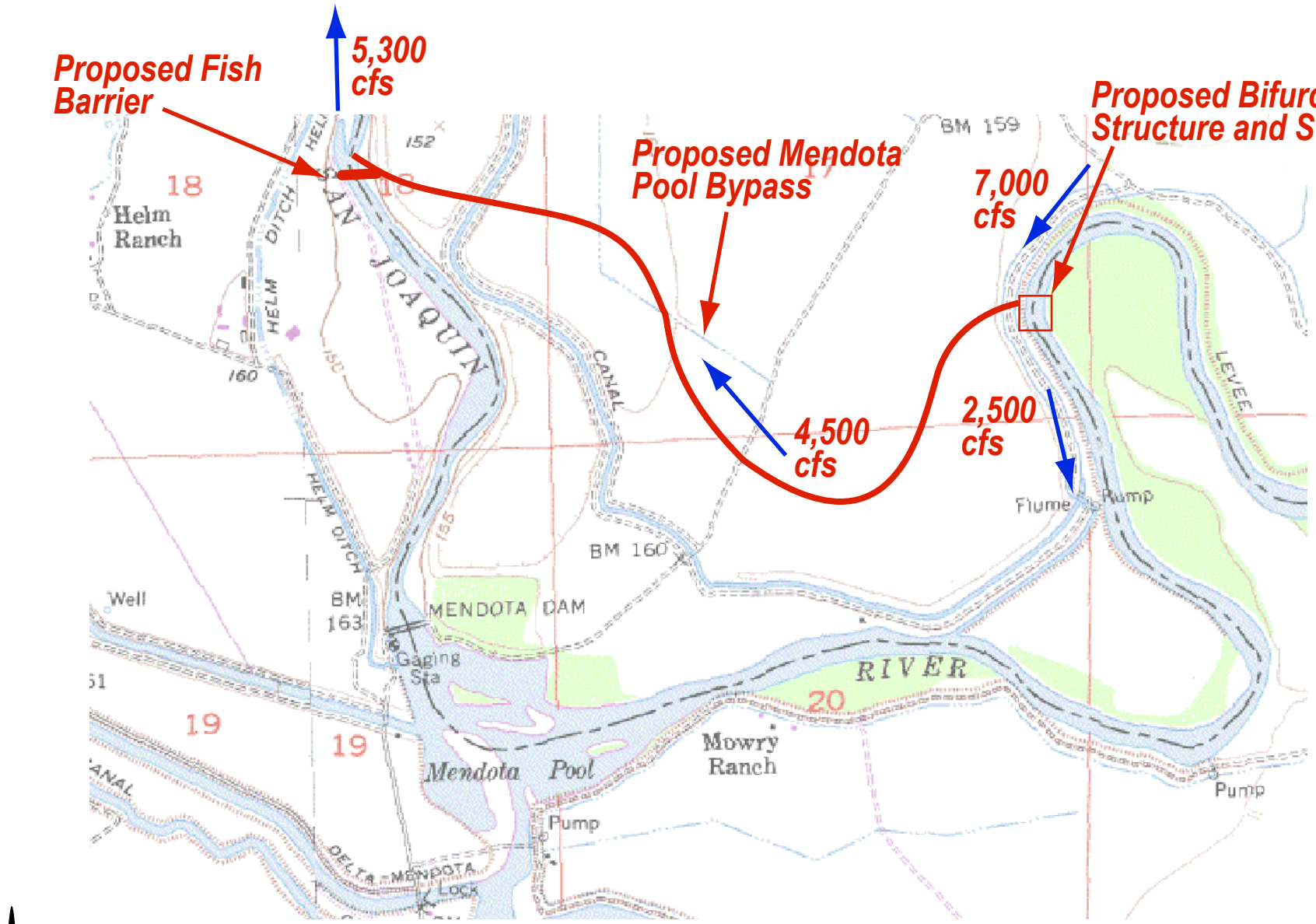

FIGURE 2-1
PROPOSED MENDOTA POOL BYPASS
REQUIRED DESIGN FLOWS

Additional Considerations. Conveyance of flows in the San Joaquin River above 2,500 cfs downstream of the Chowchilla Bifurcation Structure will require changes to the flood bypass operating criteria.

Similar to levee and channel improvements identified in Section 2.1.1, it is assumed that Mendota Pool Bypass facilities would be owned by the state and/or Reclamation and O&M activities would be conducted by a local maintaining agency that has yet to be determined. An O&M agreement and funding for O&M activities would be needed. Additionally, long-term assurances and ESA and CESA compliance for O&M activities, including assurances and compliance for take of salmon after the ESA Section 10(j) experimental population status is no longer in effect, would be necessary.

2.2.4.2 Construct New Bifurcation Structure

The new bifurcation structure will be located just downstream of the head of the proposed Mendota Pool Bypass Channel and control the amount of flow entering Mendota Pool, diverting remaining flows into the bypass channel. The structure must have variable gate position controls and be sized to allow a maximum flow of 2,500 cfs to reach the pool. The structure and gates must be designed to provide control for multiple flow split scenarios between the pool and the bypass channel.

Under irrigation season operations, the backwater behind Mendota Dam extends up Fresno Slough (flows south) and conveys Delta-Mendota Canal water 12 miles upstream to irrigators located along the slough including Tranquility, James Irrigation District, Westlands Water District, and the Mendota State Wildlife Area. This backwater behind Mendota Dam will extend up the San Joaquin River to the new bifurcation structure. Therefore, the design must account for back pressure on the downstream side of the structure caused by this backwater, thus preventing flows from the Mendota Pool from entering the Mendota Pool Bypass Channel.

Potential Impacts. Construction of the new bifurcation structure may cause changes in localized river hydraulics and flood flow characteristics causing excessive sand deposition in the area, necessitating additional sand removal (dredging) activities.

Evaluation Needed. Detailed engineering design of the proposed bifurcation structure will be needed. The analysis and design should include pre- and post-topographic and channel surveys, long-term flow and sediment transport monitoring and studies, and computer modeling to estimate and monitor changes in localized river hydraulics and sediment transport. Impacts on adjacent levees, such as increased backwater effect during high-flow events, should be considered during design. A sediment management plan should be prepared and long-term sediment monitoring should be conducted (see Section 2.1.1).

If sensitive biological resources may be located in the project area, pre-construction surveys should be conducted and take of sensitive species should be avoided or mitigated. Mitigation measures should be developed to minimize impacts to water quality and air quality.

Analyses should be conducted to reduce the potential for changes in river hydraulics, determine fish behavior response to hydraulic conditions, identify and address potential

sediment and debris problems, and identify the potential for creating predation opportunities. These analyses should also include technical analyses to determine appropriate hydraulics and passage design, and should consider ways to minimize maintenance activities. An analysis of environmental impacts from construction and operation of the passage facilities would be needed.

Approvals and Permits Needed. The following approvals and permits would likely be needed:

- Environmental compliance (likely NEPA, CEQA, ESA, CESA, CWA, CAA, and CDFG Code Section 1600 Agreement)
- Reclamation Board and LSJLD Encroachment Permit

Additional Considerations. The new bifurcation facility should be under federal or state ownership with O&M conducted by the existing local responsible agencies. An O&M agreement and funding to cover O&M costs would be needed. Additionally, long-term assurance and ESA and CESA compliance, including assurances and compliance for take of salmon after the ESA Section 10(j) experimental population status is no longer in effect, are needed for O&M activities. This long-term ESA and CESA compliance for O&M activities should be completed concurrent with ESA and CESA compliance for construction activities.

As described in Section 2.1.3, an updated flood control plan, which includes operation of the new bifurcation structure, will be needed. The new structure must maintain or improve upstream and downstream design flow capacities and not cause any increase in flood flow water surface elevations.

2.2.4.3 Fish Screens and Passage Facilities

Fish screens and passage facilities would be needed for the new Mendota Pool Bypass. These facilities are expected to consist of a fish screen at the new bifurcation structure at the upstream end of the bypass channel and a barrier to migration for upmigrating adult salmon between the downstream end of the bypass channel and Mendota Dam. The bypass drop structures will also require fish passage facilities.

Potential Impacts. Potential impacts are generally the same as those identified previously for constructing the Mendota Pool Bypass Channel.

Evaluation Needed. The evaluations needed for screen design and installation are described in Section 2.1.4.

Approvals and Permits Needed. Approvals and permits needed are the same as those identified in Section 2.1.4.

Additional Considerations. Any new fish screen and bypass facilities should be under federal or state ownership with O&M conducted by a local maintaining agency that has yet to be determined. An O&M agreement and funding to cover increased O&M costs would be needed. Additionally, long-term assurance and ESA and CESA compliance, including assurances and compliance for take of salmon after the ESA Section 10(j) experimental population status is no longer in effect, are needed for O&M activities. This long-term ESA and CESA compliance for O&M activities should be completed concurrent with ESA and CESA compliance for construction activities.

2.2.4.4 Reconfigure the Columbia Canal Company's Water Intake and Related Facilities

The Columbia Canal Company diversion headworks is located on the mainstem of the San Joaquin River upstream of Mendota Dam, but downstream of the proposed Mendota Pool Bypass Bifurcation Structure.

Potential Impacts. The Mendota Pool Bypass Channel will need to cross the Columbia Canal. If the Columbia Canal headworks are to remain in place, the construction of a siphon and related facilities on the canal would be required. The Columbia Canal Company would need to be compensated for any additional O&M activities that result from new facilities and any additional pumping. If the canal headworks are to be moved, new diversion facilities would be needed. Depending on the location of the new diversion facilities, the majority of the Canal Company's delivery system may need to be reconstructed to allow for continued gravity-flow water delivery.

Evaluation Needed. To ensure the continued water supply operations of the Mendota Pool, an alternatives analysis should be conducted to determine engineering designs and locations of structures for the Mendota Pool Bypass and related facilities. The alternatives analysis should incorporate local knowledge and be coordinated closely with local agencies, including the Central California Irrigation District owner and operator of Mendota Dam and the Columbia Canal Company owner and operator of the Columbia Canal. Overall, these analyses should be conducted in a similar manner as the engineering analysis and design for levee and channel improvements described in Section 2.1.1. As part of this analysis and design effort, pre- and post-channel surveys, flow and sediment transport monitoring and studies, and computer modeling should be conducted to estimate and monitor changes in localized river hydraulics and sediment transport. The analyses should be based on the most recently available information, include field studies and data collection as needed, and be conducted to professional standards using established engineering practices. All engineering design should be conducted to Reclamation, DWR, and/or USACE design standards and guidelines, as appropriate.

Approvals and Permits Needed. Depending on the action taken, a variety of approvals and permits may be needed including the following.

- Land acquisition and/or easements
- Access agreements from adjacent landowners
- Environmental compliance (likely NEPA, CEQA, ESA, CESA, CWA, CAA, and CDFG Code Section 1600 Agreement)
- Reclamation Board and LSJLD Encroachment Permit(s)
- State Lands Lease and Land Transfer

Additional Considerations. None identified at this time.

2.2.5 Reach 3

Reach 3 is approximately 23 miles long and conveys up to 800 cfs of water from the Mendota Pool to Sack Dam for irrigation diversion into the Arroyo Canal. The river in this reach is flanked by large woody riparian vegetation. Adjacent land uses consist of urban

lands in the City of Firebaugh and agricultural lands throughout the remainder of the reach. The current published channel design flood flow capacity for Reach 3 is 4,500 cfs.

Reach 3 would provide passage for upmigrating adult salmon and outmigrating juvenile salmon. However, both levee and fish passage improvements are needed to pass the Restoration Flows, allow for fish passage past Sack Dam, and prevent fish stranding and entrainment in the Arroyo Canal. The proposed restoration actions for Reach 3 are as follows.

- Levee and channel improvements
- Replace or modify Sack Dam for fish passage
- Screen Arroyo Canal
- Screen other diversions
- Restore riparian habitat

A summary of the common river-wide issues associated with these proposed actions is provided in Section 2.1. The following describes the levee and channel improvements specific to Reach 3, modification of Sack Dam for fish passage, and the screening of the Arroyo Canal.

2.2.5.1 Levee and Channel Improvements

Most of Reach 3 is bounded by non-project levees and irrigation canals. The existing channel capacity is approximately 4,500 cfs, but flows of less than this magnitude can cause seepage and levee stability problems. Irrigation canals closest to the river are typically filled with water during high-flow events to improve canal wall stability and prevent collapse. Seepage and stability problems in Reach 3 are of concern because levee failure would likely cause flooding of both agricultural lands and urban areas in the City of Firebaugh. The effects of conveying the Restoration Flows through Reach 3 are uncertain at this time, however, seepage problems have been identified with past high flows. Levee stability studies should be conducted to determine whether improvements are needed.

Reach 3 provides critical water supply conveyance for delivery of water under existing water rights. The ability to convey flows for delivery under existing water rights must be maintained. A total flow capacity of up to 5,300 cfs is needed in this reach to convey a combination of up to 4,500 cfs of Restoration Flow and up to 800 cfs of water right flows. Hydraulic analyses must be conducted to determine the combination of levee setbacks, levee reconstruction, or slurry walls needed to provide an increase in flow capacity while still maintaining existing water surface elevations under future conditions with a mature growth of riparian vegetation and necessary seepage protection.

A summary of the potential impacts, evaluations, approvals and permits, and additional considerations associated with levee and channel improvements is provided in Section 2.1.1.

2.2.5.2 Replace or Modify Sack Dam for Fish Passage

A portion of the flows from the Delta-Mendota Canal are allowed to continue down the San Joaquin River to Sack Dam for diversion at the Arroyo Canal. Sack Dam is owned and operated by the San Luis Canal Company and backs up water for diversion into the Arroyo Canal. Sack Dam spans only a portion of the San Joaquin River, and increasing the frequency and magnitude of flows in the San Joaquin River at Sack Dam may affect the

structural stability of the dam. Additionally, Sack Dam would need to be modified to allow for fish passage around the structure.

Potential Impacts. Replacement or modification to Sack Dam has the potential to cause localized changes to sediment transport and river hydraulics due to modifications to the river channel.

Evaluation Needed. Engineering analyses of changes to the river channel would be needed. The analysis and design effort should include pre- and post-channel surveys, flow and sediment transport monitoring and studies, and computer modeling to estimate and monitor changes in localized sediment transport and river hydraulics. If sensitive biological resources may be located in the project area, pre-construction surveys should be conducted and sensitive areas should be avoided or mitigated.

Fish passage facilities should be designed in coordination with NMFS and CDFG and applicable engineering design criteria at the time of construction. Analyses should be conducted to reduce the potential for changes in river hydraulics, determine fish behavior response to hydraulic conditions, identify and address potential sediment and debris problems, and identify the potential for creating predation opportunities. These analyses should also consider ways to minimize maintenance activities. An analysis of environmental impacts from construction and operation of the passage facilities would be needed.

Approvals and Permits Needed. The following approvals and permits would likely be needed:

- Approval from San Luis Canal Company and access agreements from adjacent landowners
- Environmental compliance (likely NEPA, CEQA, ESA, CESA, CDFG Code Section 1600 Agreement, CWA, and CAA)
- Reclamation Board and LSJLD Encroachment Permit
- State Lands Lease

Additional Considerations. A newly constructed diversion facility would be under federal or state ownership with O&M conducted by the San Luis Canal Company. An O&M agreement and funding to cover increased O&M costs would be needed. Additionally, long-term assurance and ESA and CESA compliance, including assurances and compliance for take of salmon after the ESA Section 10(j) experimental population status is no longer in effect, are needed for O&M activities. This long-term ESA and CESA compliance for O&M activities should be completed concurrent with ESA and CESA compliance for construction activities.

Construction scheduling of channel and dam improvements will be critical, as Reach 3 is used year-round for conveyance of various flows including irrigation, refuge, and flood flows. Alternative means to convey and divert water at the San Luis Canal Company headworks will be needed during periods of restoration construction.

2.2.5.3 Screen Arroyo Canal

Flows diverted into the Arroyo Canal are used for irrigation and wildlife refuge areas. A screen would be needed on the Arroyo Canal to prevent entrainment of upmigrating adult

salmon and outmigrating juvenile and direct mortality or stranding of spring and fall run salmon in the canal and related irrigation facilities.

Potential Impacts. Screening the Arroyo Canal may cause localized changes in sediment transport and river hydraulics and may also change diversion hydraulics. Screening the Arroyo Canal may increase required maintenance activities and increase overall O&M costs.

Evaluation Needed. The evaluations needed for screen design and installation are described in Section 2.1.4.

Approvals and Permits Needed. Approvals and permits needed are the same as those identified in Section 2.1.4. In addition, cooperation and coordination with the San Luis Canal Company would be needed.

Additional Considerations. Any new fish screen should be under federal or state ownership with O&M conducted by the San Luis Canal Company. An O&M agreement and funding to cover increased O&M costs would be needed. Additionally, long-term assurance and ESA and CESA compliance, including assurances and compliance for take of salmon after the ESA Section 10(j) experimental population status is no longer in effect, are needed for O&M activities. This long-term ESA and CESA compliance for O&M activities should be completed concurrent with ESA and CESA compliance for construction activities.

2.2.6 Reach 4A

Reach 4A is approximately 13.5 miles long. It begins at Sack Dam and ends at the Sand Slough Control Structure. Flows in this reach are usually negligible except for flood flows. Adjacent land uses are primarily agricultural.

Similar to Reach 3, Reach 4A would provide passage for upmigrating adult salmon and outmigrating juvenile salmon. Levee and fish passage improvements are also needed on Reach 4A to pass the Restoration Flows, allow for fish passage through the reach, and prevent fish stranding and entrainment. The proposed restoration actions for Reach 4A are as follows:

- Construct levee and channel improvements
- Screen diversions
- Screen and modify Sand Slough Control Structure for fish passage

A summary of the issues associated with levee and channel improvements and screening diversions is provided in Section 2.1. Issues associated with levee and channel improvements and the Sand Slough Control Structure specific to Reach 4A are described as follows.

2.2.6.1 Levee and Channel Improvements

Most of Reach 4A is bounded by non-project levees and canals. The existing design channel capacity is 4,500 cfs, but flows of this magnitude cause significant seepage and levee stability problems. To safely convey the Restoration Flows and prevent seepage damage to adjacent crops, the structural stability of the existing levees would need to be improved. These improvements could include rebuilding the existing levees and/or installing slurry walls to prevent seepage and improve structural stability.

A summary of the potential impacts, evaluations, approvals and permits, and additional considerations associated with levee and channel improvements is provided in Section 2.1.1.

2.2.6.2 Screen and Modify Sand Slough Control Structure

The Sand Slough Control Structure is located at the downstream end of Reach 4A. The structure was constructed as part of the Lower San Joaquin River Flood Control Project, and currently diverts all flows from the San Joaquin River into the Eastside Bypass. Improvements to the structure for fish passage would depend on the routing of Restoration Flows (i.e., through the mainstem San Joaquin or the bypass system). Use of the mainstem San Joaquin River in Reach 4B for Restoration Flows would require the construction of fish passage facilities on the portion of the Sand Slough Control Structure on the mainstem San Joaquin River and a fish screen on the headworks for the Eastside Bypass. Conversely, bypassing Reach 4B of the mainstem San Joaquin River and using the bypass system for Restoration Flows would require the construction of fish passage facilities on the headworks for the Eastside Bypass and a fish screen on the portion of the structure on the mainstem San Joaquin River.

Potential Impacts. Similar to screening and fish passage activities in other reaches, modifications to the Sand Slough Control Structure could cause localized changes in sediment transport and river hydrology, changes in diversion hydraulics, and increase maintenance activities.

Evaluation Needed. The evaluations needed for screen and fish passage design and installation are described in Section 2.1.4 and Section 2.2.2, respectively.

Approvals and Permits Needed. The following approvals and permits would likely be needed:

- Environmental compliance (likely NEPA, CEQA, ESA, CESA, CDFG Code Section 1600 Agreement, CWA, and CAA)
- Reclamation Board and LSJLD Encroachment Permit (will necessitate access agreements from adjacent landowners)

Additional Considerations. New fish screen and passage facilities should be under federal or state ownership with O&M conducted by a local maintaining agency that has yet to be determined. An O&M agreement and funding to cover increased O&M costs would be needed. Additionally, long-term assurance and ESA and CESA compliance, including assurances and compliance for take of salmon after the ESA Section 10(j) experimental population status is no longer in effect, are needed for O&M activities. This long-term ESA and CESA compliance for O&M activities should be completed concurrent with ESA and CESA compliance for construction activities.

2.2.7 Reach 4B (Upper)

Reach 4B Upper is approximately 21.3 miles long and extends from the Sand Slough Control Structure to the Mariposa Bifurcation Structure. Because of the very limited channel capacity in Reach 4B Upper, all flood flows in Reach 3 are currently diverted into the bypass system at the Sand Slough Control Structure. The channel in Reach 4B is filled with dense vegetation, clogged with sediment, and poorly defined. However, portions of the Reach 4B

channel are used for local water supply operations, including surface water storage and conveyance. Adjacent land uses are primarily agricultural and rely on a complex irrigation and drainage network to provide water supply, control shallow groundwater levels, and provide drainage.

The Settlement calls for modifications to Reach 4B to convey Interim Flows of 475 cfs and ultimately Restoration Flows of at least 4,500 cfs. Interim Flows must not exceed existing channel capacity and, as defined in the Settlement, are restoration releases of water from Friant Dam commencing no later than October 1, 2009, and continuing until full Restoration Flows begin. Interim Flow releases, per Paragraph 15 of the Settlement, have a specified timing and magnitude as defined in the appropriate year type hydrograph listed in Exhibit B of the Settlement.

The federal legislation states that a study shall be completed prior to restoration of any flows other than Interim Flows. The requirements of the legislation supersede the Settlement paragraph 11 Phase 1 implementation improvements, including the modification of Reach 4B to convey Interim Flows of 475 cfs.

The federal Legislation, as currently proposed, directs the Secretary to conduct a study that evaluates the following items:

- The costs of undertaking any work required under paragraph 11(a)(3) of the Settlement to increase the capacity of Reach 4B prior to the reinitiation of Restoration Flows;
- Impacts associated with the reinitiation of such flows; and
- Measures that shall be implemented to mitigate any impacts.

This study will require extensive surveying, field work, and hydraulic analyses to establish the existing channel capacity, potential impacts of the reinitiation of flows, monitoring requirements, and potential mitigation measures. This field work and analyses must be conducted prior to the release of any Interim Flows into Reach 4B Upper.

The legislation also requires that the Secretary file a report with Congress not later than 90 days after issuing a determination, as required in the Settlement, on whether to expand channel conveyance capacity to 4,500 cfs in Reach 4B; or use an alternate route for pulse flows. This determination is to be made, **to the extent feasible**, before undertaking any **substantial** construction work to increase the capacity of Reach 4B.

The report shall identify the basis for the Secretary's determination and identify how different factors were assessed such as comparative biological and habitat benefits, comparative costs and relative available state cost-sharing funds, and the comparative benefits and impacts on water temperature, water supply, private property, and local and downstream flood control. The report shall also include the Secretary's final cost estimate for expanding the capacity of Reach 4B to 4,500 cfs or any alternative route selected, as well as other alternative cost estimates provided by the state, the Restoration Administrator, and by other parties to the Settlement.

The two flow routes being considered are the mainstem San Joaquin River and the use of the bypass system. Either flow routing scenario would need to provide passage for upmigrating adult salmon and outmigrating juvenile salmon. Additionally, modifications would need to be made to the Mariposa Bifurcation Structure.

2.2.7.1 Screen and Modify Mariposa Bifurcation Structure

The Mariposa Bifurcation Structure is located at the downstream end of Reach 4B Upper. The structure was constructed as part of the Lower San Joaquin River Flood Control Project, and diverts flows from the bypass system back into the San Joaquin River. Improvements to the structure for fish passage would depend on the routing of Restoration Flows (i.e., through the mainstem San Joaquin or the bypass system). Use of the mainstem San Joaquin River for Restoration Flows would require the construction of fish passage facilities on the Mariposa Bifurcation Structure and a fish screen on the headworks for the Eastside Bypass to prevent stranding of upmigrating adult in the bypass system. Conversely, using the bypass system for Restoration Flows would require the construction of fish passage facilities on the bypass headworks and a fish screen on the headworks for the mainstem San Joaquin River.

The potential impacts, evaluations, approvals and permits, and additional considerations for screening and modifying the Mariposa Bifurcation Structure for fish passage are the same as those identified in Section 2.2.6 for screening and modifying the Sand Slough Control Structure.

2.2.7.2 Flows Routed Through Mainstem

In the event that flows are routed through the mainstem, the following improvements are proposed:

- Construct levees and associated river channel and floodplain
- Restore riparian habitat
- Reconstruct road crossings
- Screen diversions
- Reconstruct adjacent irrigation and drainage network
- Implement monitoring and mitigation program

A summary of the issues associated with levees and river channel construction, riparian habitat restoration, and screening diversions is provided in Section 2.1.1. A description of the actions specific to Reach 4B are described as follows.

Construct Levees and Associated River Channel and Floodplain. Reach 4B Upper is bounded in some areas by non-project levees. The existing channel capacity is likely less than 200 cfs, with the capacity in some areas near zero. Substantial levee and channel improvements are needed to convey the Interim and Restoration Flows through this reach. These improvements would probably include the construction of setback levees on both banks, installation of slurry walls to reduce seepage and improve levee stability, and installation of tile drain systems. The entire existing channel would need to be excavated to construct a new continuous river channel, adjacent floodplain, and low-flow channel. This extensive construction would result in the destruction of existing riparian habitat and potential endangered species issues along the Reach 4B corridor.

A summary of the potential impacts, evaluations, approvals and permits, and additional considerations associated with levee and channel improvements is provided in Section 2.1.1. In addition to the considerations identified in Section 2.1.1, the following must be addressed:

- The long-term establishment of a low-flow channel may be challenging in Reach 4B because of high groundwater levels and possible infill during flood events

- Use of Reach 4B for water supply operations must be maintained or mitigated
- A substantial amount of land acquisition will be required along the mainstem corridor of the river.

A variety of infrastructure exists within the area of the Reach 4B mainstem river channel, including homes, farm buildings, groundwater wells, tile drains, and other agricultural-related infrastructure. These structures would need to be moved, reconstructed, redesigned, or protected, as appropriate, and the owners would need to be compensated accordingly. Landowners along Reach 4B have carefully reviewed the restoration plan actions within this reach and the RMC supports a process to ensure that landowner-proposed mitigation measures are fully considered in the implementation process, such that landowner issues are satisfactorily addressed or mitigated.

Additionally, portions of the existing Reach 4B channel are used for local water supply operations, including surface water storage and conveyance. These operations would be impacted by the new channel under the Settlement. Coordination with the landowners is needed to determine appropriate mitigation measures.

Reconstruct Road Crossings. Four road crossings that would be barriers to migration are located on the San Joaquin River in Reach 4B Upper. The road crossings consist of three private roads and the Turner Island Road crossing. The crossings provide access across the river for existing agricultural operations and would need to be reconstructed as part of the channel improvements.

The potential impacts, evaluations, approvals and permits, and additional considerations associated with reconstructing these road crossings are the same as those identified in Section 2.2.1 for reconstructing road crossings in Reach 1.

Reconstruct Adjacent Irrigation and Drainage Network. Reach 4B Upper includes an extensive water distribution and drainage network that supports agricultural operations in the area. Dredging and construction of a new river channel to convey Restoration Flows will significantly affect these operations and require major reconfiguration of the distribution and drainage network. This reconstruction will require extensive surveying and mapping, field work, monitoring, and hydraulic analyses to ensure that the irrigation and drainage network is reconstructed to maintain its original function and allows continued agriculture operation in the area.

Implement Monitoring and Mitigation Program. A monitoring and mitigating program must be designed to identify and eliminate potential impacts to agricultural lands for both Interim and full Restoration Flow conditions. A shallow groundwater investigation and monitoring will be required prior to the release of Restoration Flows to establish "baseline" conditions for assessment of potential impacts. A near-term monitoring and mitigation plan must be developed in coordination with local landowners to address potential mitigation issues and identify appropriate mitigation responses to impacts caused by Interim Flows. Adequate funding and resources for long-term groundwater monitoring of adjacent agricultural lands must be included in the Secretary's report on expanding the capacity of Reach 4B to 4,500 cfs.

2.2.7.3 Flows Routed Through Bypass System

In the event that Restoration Flows are routed through the bypass system the following restoration actions are proposed.

- Construct levee and channel improvements
- Restore riparian habitat
- Screen diversions
- Modify drop structures for fish passage
- Provide drainage for adjacent agricultural lands

A summary of the issues associated with levee and channel improvements, riparian habitat restoration, and screening diversions is provided in Section 2.1. A description of the actions specific to the bypass system follows.

Construct Levee and Channel Improvements. The bypass system is bounded by project levees and has a published channel design capacity of approximately 13,500 cfs, but flood flows of this magnitude cause significant seepage and levee stability problems. To maintain the existing design flow capacity of the bypass under restoration conditions, the bypass must be enlarged to account for growth of riparian vegetation in the channel. O&M costs will increase as vegetation becomes established in the channel and requires more intensive and costly maintenance.

To safely convey the Restoration Flows and prevent seepage damage to adjacent crops, the structural stability of the existing levees must be improved in some areas. These improvements could include rebuilding portions of the existing levees and installing slurry walls to reduce seepage and improve levee structural stability.

In addition, as described in Section 2.1.3, the bypass system was constructed to convey flood flows. Routing Restoration Flows through the bypass system does not comply with the purpose of the bypass system and does not comply with the conditions of the flood easements for the bypass system (i.e., Interim and Restoration Flows are not flood flows). Expanded easements or land acquisition would be needed to route non-flood flows down the bypass system. As described in the discussion of additional considerations in Section 2.1.1, the LSJLD is responsible for both the levees and the channel bottom in the bypass system. Regular Restoration Flows in the bypass would increase the LSJLD's overall O&M efforts and should be considered in the design of future facilities. In addition, flows in the bypass system may create localized high groundwater effects and prevent adjacent agricultural lands from draining properly. While slurry walls may reduce seepage impacts to adjacent agricultural lands, they may trap water in the bypass, delaying efforts to drain adjacent agricultural lands into the bypass through flap gates throughout the system.

Modify Drop Structures for Fish Passage. Three drop structures exist in the Eastside Bypass system; one is located at the confluence of the Eastside Bypass and the San Joaquin River near Salt Slough and the other two are located upstream of Road 9. All three structures are barriers to fish migration, and would need to be modified for fish passage. Two additional structures used for water supply operations at the Merced Wildlife Refuge are also located in this area of the bypass system (personal communication, R. Hill, 2007). Whether or not these structures are barriers to migration is unknown and additional analysis is needed.

The potential impacts, evaluations, approvals and permits, and additional considerations associated with the modifications to drop structures in the bypass system are the same as those identified in Section 2.2.6. Additional analysis is needed to determine if the two structures used for water deliveries to the Merced Wildlife Refuge are barriers to migration.

Drainage of Adjacent Agricultural Lands. Approximately 20 flap gates are located in this area of the bypass system (personal communication, R. Hill, 2007). These flap gates are used to drain adjacent agricultural lands. The gates are checked by November 1 and after each flood-flow event. The gates are closed during flood-flow events to prevent flows in the bypass from flooding adjacent lands. Extended flows in the bypass system would make these flap gates inoperable for an extended time during the year, preventing drainage from adjacent agricultural lands. Pumps or other means of draining these lands may be needed.

The potential impacts, evaluations, approvals and permits, and additional considerations for installation of pumps or other means to drain adjacent agricultural lands would be minimal. If pumps are used, they should be electrical, and depending on pump locations, new power lines may be needed. Cooperation of the adjacent landowner would also be needed.

2.2.8 Reach 4B (Lower)

The lower portion of Reach 4B is 11.4 miles long and extends from the Mariposa Bifurcation structure to the confluence with the Bear Creek/Eastside Bypass. Reach 4B Lower receives periodic flood flows from the Eastside Bypass, but has limited riparian vegetation. Adjacent land use is primarily agricultural.

Reach 4B Lower would provide passage for upmigrating adult salmon and outmigrating juvenile salmon. Levee improvements may be needed to mitigate seepage problems. Additionally, riparian restoration actions will be needed to reduce water temperatures and provide cover for upmigrating and outmigrating salmon. This action is described in Section 2.1. No other actions are currently proposed for this reach.

Construct Levee and Channel Improvements. Reach 4B Lower is bounded by project levees and has a published channel design capacity of 10,000 cfs. However, levee seepage in combination with high groundwater and poor groundwater quality results in crop damage during high flows. These problems will be exacerbated by the increased magnitude and frequency of flows that would occur under the Settlement, increasing both the amount of seepage, resulting crop damage, and the potential for levee failure. The structural stability of the existing levees must be improved in some areas to safely pass the Restoration Flows.

A summary of the potential impacts, evaluations, approvals and permits, and additional considerations associated with levee and channel improvements is provided in Section 2.1.1.

2.2.9 Reach 5

Reach 5 is 17.8 miles long and extends from the confluence with Bear Creek/Eastside Bypass to the confluence with the Merced River. The river flows year-round in this reach because of agricultural return flows. Adjacent land uses consist of agricultural and refuge lands.

Reach 5 is bounded by project levees, and the published channel design capacity is approximately 26,000 cfs, which is sufficient to convey the Restoration Flows with no

channel or levee improvements. However, fish screens will be needed on currently unscreened diversions and migration barriers will be needed on Mud and Salt sloughs.

2.2.9.1 Screen Mud and Salt Sloughs

Mud and Salt sloughs convey agricultural return flows to the mainstem San Joaquin River. These flows may attract adult and juvenile salmon into false migration pathways. Modifications to deploy seasonal barriers to prevent adult fish from entering Salt and Mud sloughs are identified as a Phase 1 improvement in the Settlement (to be completed no later than December 31, 2013). To reduce O&M costs and maintenance requirements, permanent barriers to migration should be considered rather than seasonal barriers.

Potential impacts, evaluations needed, approvals and permits needed, and additional considerations are the same as those described for screening diversions in Section 2.1.4.

2.3 Landowner and Facility Owner Interaction

Requirements under this section are currently under negotiation between the RMC, Reclamation, DWR, and will be finalized and submitted under separate cover.

SECTION 3

Conclusions and Recommendations

While the RMC is not a party to the Settlement, it does support the legislation that was negotiated to address impacts to third parties and would like to work collaboratively with Reclamation, DWR, and others in the planning process to allow for the successful implementation of the Settlement. The RMC brings local knowledge and understanding to the process, which can contribute substantially to this process. Collectively, the RMC represents the interests of local agencies and landowners along the San Joaquin River in the planned restoration area from Friant Dam to the confluence with the Merced River. Thus, the RMC members have the potential to bear substantial economic and environmental costs that could result from direct and indirect impacts if Settlement actions are not thoroughly evaluated and carefully implemented.

3.1 Conclusions

The following summarizes the major conclusions and recommendations of this appraisal report.

- A comprehensive planning process must be undertaken to prevent and mitigate direct and indirect impacts of the Settlement to third parties. To ensure that actions in one reach of the river do not create unintended impacts in other areas, this comprehensive planning process should consider all the restoration actions as part of a complete implementation effort and avoid taking half measures. Likewise, comprehensive funding for the restoration program is required to ensure that all required restoration and mitigation actions are funded and implemented. The RMC members have a significant stake in the Settlement implementation and need a significant role in the Settlement planning and implementation process.

- The Settlement proposes to increase the frequency and magnitude of flows in the San Joaquin River below Friant Dam. This increase in flows will exacerbate existing levee stability and seepage problems and may exceed channel flow capacities in some reaches. Levee and channel improvements are needed in Reaches 2A, 2B, 3, 4A, 4B Upper (either the mainstem or the bypass), and 4B Lower to safely convey the Restoration Flows. Improvements to reduce or eliminate impacts to levee stability and adjacent lands from increased seepage must be coordinated throughout all reaches, with other improvements such as riparian habitat restoration, water supply, and flood control operations. Detailed engineering analysis and design must be conducted for all proposed levee and channel improvements.

- Reaches 2B and 3 of the San Joaquin River provide critical water supply conveyance for the delivery of water under existing water rights. Implementation of the Settlement has the potential to impact these water supply operations through insufficient channel capacities and operations of new structures, including the proposed Mendota Pool

Bypass. Settlement actions must be carefully planned and designed to maintain flexibility in water supply operations throughout the river system.

- Flood control operations on the San Joaquin River include conveyance of flood flows from the Kings River and operation of the Lower San Joaquin River Flood Control Project. Settlement actions, including levee and channel improvements, the Mendota Pool Bypass, and revised operating criteria for the Chowchilla Bifurcation Structure have the potential to conflict with the routing of flood flows. Proposed restoration actions should not reduce the channel design capacity or the system's overall ability to convey flood flows. Existing channel design capacities and flood operations must be the first priority and maintained or enhanced to protect public safety.

- Fish passage and screening facilities are needed in all river reaches. This includes facilities to allow fish passage around or over existing or proposed structures, screens on diversions to prevent entrainment, reconstruction of road crossings, and permanent barriers on sloughs. These facilities should be designed in accordance with NMFS Fish Screening Criteria for Anadromous Salmonids (NMFS, 1997), criteria established by the CDFG, other applicable criteria at the time of construction, and in accordance with established professional engineering practices. Fish passage and screening facilities will require additional O&M to maintain, increasing O&M costs for the owner or operator. O&M agreements and funding to cover increased O&M costs would be needed.

- Creation of riparian habitat restoration is needed in all reaches of the San Joaquin River. However, this action may be in direct conflict with the LSJLD's channel and flood control obligations. An overall "landscape" design should be used in the engineering and hydraulic analysis conducted for levee and channel improvements, and agreement with local agencies and landowners on critical assumptions for the analyses should be sought early in the process. This landscape design should include sufficient detail to be used as a guide for long-term management of riparian vegetation by a local maintaining agency, and be the basis for the redesign of flood control channel cross sections to account for the establishment of future mature vegetation in the channel.

- Existing channel capacity in Reach 4B is extremely limited. Flows of any amount down this reach are likely to cause localized flooding and seepage impacts to adjacent agricultural lands. An extensive evaluation of the existing channel capacity, including topographic surveys, channel cross sections, and HEC-RAS computer modeling should be conducted to determine channel capacity and potential impacts before any flows are introduced to this reach. This information will also be critical to the planning and design of the new channel if Reach 4B is selected. Additionally, a thorough mitigation and monitoring plan should be developed to identify, evaluate, and mitigate all direct and indirect impacts.

- The additional O&M associated with channel, levee, and related flood control facilities improvements under the restoration program are likely to far exceed the operating budget of the LSJLD. These additional costs should be assumed by the Settlement parties or state or federal sources rather than local sources. A process should be developed to determine a local maintaining agency, identify additional maintenance costs, and establish a secure funding source.

- Long-term assurances and ESA and CESA compliance for O&M activities at new or expanded facilities are needed. This ESA and CESA compliance must include the potential for take of salmon after the ESA Section 10(j) experimental population status is no longer in effect and should be completed concurrent with ESA and CESA compliance for construction activities.
- A comprehensive land acquisition plan must be developed that specifically identifies, on a parcel-by-parcel basis, all the acreage that will need to be purchased from **willing sellers** or for which easements will be required for facilities construction, channel improvements and levee setbacks, and full restoration project implementation. The plan must clearly describe all valuation procedures and conform with Uniform Appraisal Standards for Federal Land Acquisitions and the Uniform Standards of Professional Appraisal Practice.

3.2 Recommendations

3.2.1 RMC Involvement

The RMC is unique in that it represents the interest of landowners, agencies and other stakeholders throughout the entire project area, all of which have the potential to bear substantial economic and environmental costs that could result from direct and indirect impacts from the implementation of the Settlement. Local landowner involvement brings local knowledge and historical understanding to the restoration planning process. This can contribute substantially to the successful implementation of the Settlement and enable legislation by identifying opportunities and constraints early in the process, and providing initial "on-the-ground" or "field expertise" with little time spent in the field. Additionally, local support and involvement will facilitate local acceptance of the project and will help to facilitate obtaining access agreements, and other similar documents.

3.2.1.1 Alternatives Development/Program Alternatives Report

The RMC should be involved in all aspects of development of the Program Alternatives. As described in the Program Management Plan (Reclamation, 2007), the Program Alternatives Report shall "identify the study area, describe existing conditions, compile existing data, identify data gaps, develop a problem statement, develop a purpose and needs statement, identify problems, needs, and opportunities, define planning objectives and constraints, and define evaluation criteria and performance measures." The RMC's local knowledge can contribute substantially to these efforts. Early stakeholder input, including input on analysis assumptions, engineering criteria, and facility operations, will be critical for the successful implementation of the Settlement by Reclamation and the Five Agency Team.

3.2.1.2 Technical Work Groups

The RMC should play a technical role in the planning, review, and implementation of the Settlement by Reclamation and the Five Agency Team, and should be a contributing member of the four Technical Work Groups. This will facilitate input of local knowledge early in the process for a more efficient process and contribute to the successful implementation of the Settlement. Input by the RMC at the Technical Work Group level will

also facilitate input by landowners and other third parties through the stakeholder subgroup process identified in the Program Management Plan (Reclamation, 2007).

3.2.1.3 Facilitation of Public Input

The RMC is willing to work with Reclamation to help facilitate the Technical Sub-group Participant process and input from other local landowners and the general public.

3.2.2 Priorities for Technical Analyses

The following actions and priorities are recommended for near-term technical analyses.

3.2.2.1 Priority Evaluations

Restoration actions in Reach 4B, Reach 2B, and the Mendota Pool Bypass constitute a substantial portion of infrastructure improvements necessary to safely convey Interim and Restoration Flows. These improvements will take many years to plan, design, permit, and construct. Thus, Reclamation should prioritize these actions and initiate the engineering analysis and design for these reaches as soon as possible. As described in Section 2.1.1, the engineering analysis and design should consist of two major components: (1) determine the existing levee and channel constraints by reach, and (2) conduct an analysis of possible alternatives for levee and channel improvements. Alternatives should consider various methods to improve problem levees and channel areas including structural improvements, such as rebuilding levees and installing slurry walls, and different construction methods. The alternatives analysis should also incorporate historical knowledge and local understanding and be coordinated closely with local agencies and landowner representatives. Additionally, agreement on the appropriate assumptions for the analyses with local agencies and landowners should be obtained early in the process. These analyses should be based on the best available information, include field studies and data collection as needed, and be conducted to professional standards using established engineering practices. All engineering design should be conducted to Reclamation, DWR, and/or USACE design standards and guidelines, as appropriate.

These focused efforts can be conducted concurrently with the Programmatic NEPA process currently underway by Reclamation.

3.2.2.2 Required Data Collection and Analysis

To support the priority analyses identified previously, the following data collection and analyses are needed.

1. **Detailed Topographic and Channel Surveys.** Existing topographic and channel survey information should be reviewed to determine if it meets the needs of the Settlement efforts. Additional data should be collected as needed. These data should be shared with all interested parties and should serve as a single common basis for topographic and channel information for all future Settlement actions.

2. **Groundwater Monitoring.** Install groundwater monitoring wells in areas of the San Joaquin River and bypass system with known seepage problems and areas of known high groundwater to establish "baseline" pre-project conditions. Groundwater monitoring wells should include data loggers to continuously record water levels and

should be appropriately placed to determine shallow regional groundwater flows and potential effects on groundwater from increased flow in the river.

3. **Levee and Channel Improvements-Work Plan and Data Collection.** Begin overall data collection and analysis efforts necessary to determine the extent and type of required levee and channel improvements. A Work Plan should be developed for this effort to outline: (1) data needs, (2) a process for reviewing existing data for adequacy, and (3) a process for filling data gaps, including conducting field and laboratory testing. Efforts on the Work Plan should begin as soon as possible, as the scale of the overall data collection and analysis effort is likely to be substantial.

4. **Levee and Channel Improvements—Technical Approach Development.** A process should be developed to identify and agree upon the overall technical approach for the analysis of levee and channel improvements, including the key engineering assumptions. This process should: (1) seek to identify the analysis tools (such as modeling tools) that would be used, data needs for these tools, and agreement on key engineering assumptions necessary to complete the analysis; and (2) include local input.

3.2.3 Implementation Phasing of Restoration Actions

- The comprehensive planning and design process must consider all the restoration actions as part of a complete implementation effort and ensure that the construction phasing of actions in one reach of the river does not create unintended impacts in other downstream areas.

- Construction activities should start upstream in Reach 1 and progress downstream on a reach-by-reach basis. Upstream restoration improvements to reconstruct the channel in Reaches 1 and 2A to safely convey restoration flows should be completed before initiating construction in the lower reaches that involve substantially increasing the capacity of the existing river channel. This approach will ensure that salmon are not introduced into the system from downstream prematurely before necessary restoration actions are achieved.

- Comprehensive funding for construction and future operation for any reach must be in place prior to initiating any project construction activities within that reach.

- All restoration improvements, O&M agreements, and mitigation measures must be constructed and fully functional before salmonids are re-introduced to the Upper San Joaquin River to ensure successful implementation of the settlement and to prevent unintended impacts to third parties.

SECTION 4

References

CDFG (California Department of Fish and Game). 2001. San Joaquin River Fish Screens and Fish Passage Project.

Harvey, Michael D. 2005. Expert Report of Dr. Michael D. Harvey Regarding Geomorphic Requirements for Restoration of an Anadromous Fishery in the Upper San Joaquin River, California. August.

NMFS (National Marine Fisheries Service). 1997. Fish Screening Criteria for Anadromous Salmonids. January.

Reclamation (U.S. Bureau of Reclamation). 2007. Program Management Plan for the San Joaquin River Restoration Program, Implementing the Stipulation of Settlement in Natural Resources Defense Council, et al., v. Kirk Rodgers, United States Bureau of Reclamation, et al. May.

APPENDIX A

Reach-by-Reach Maps

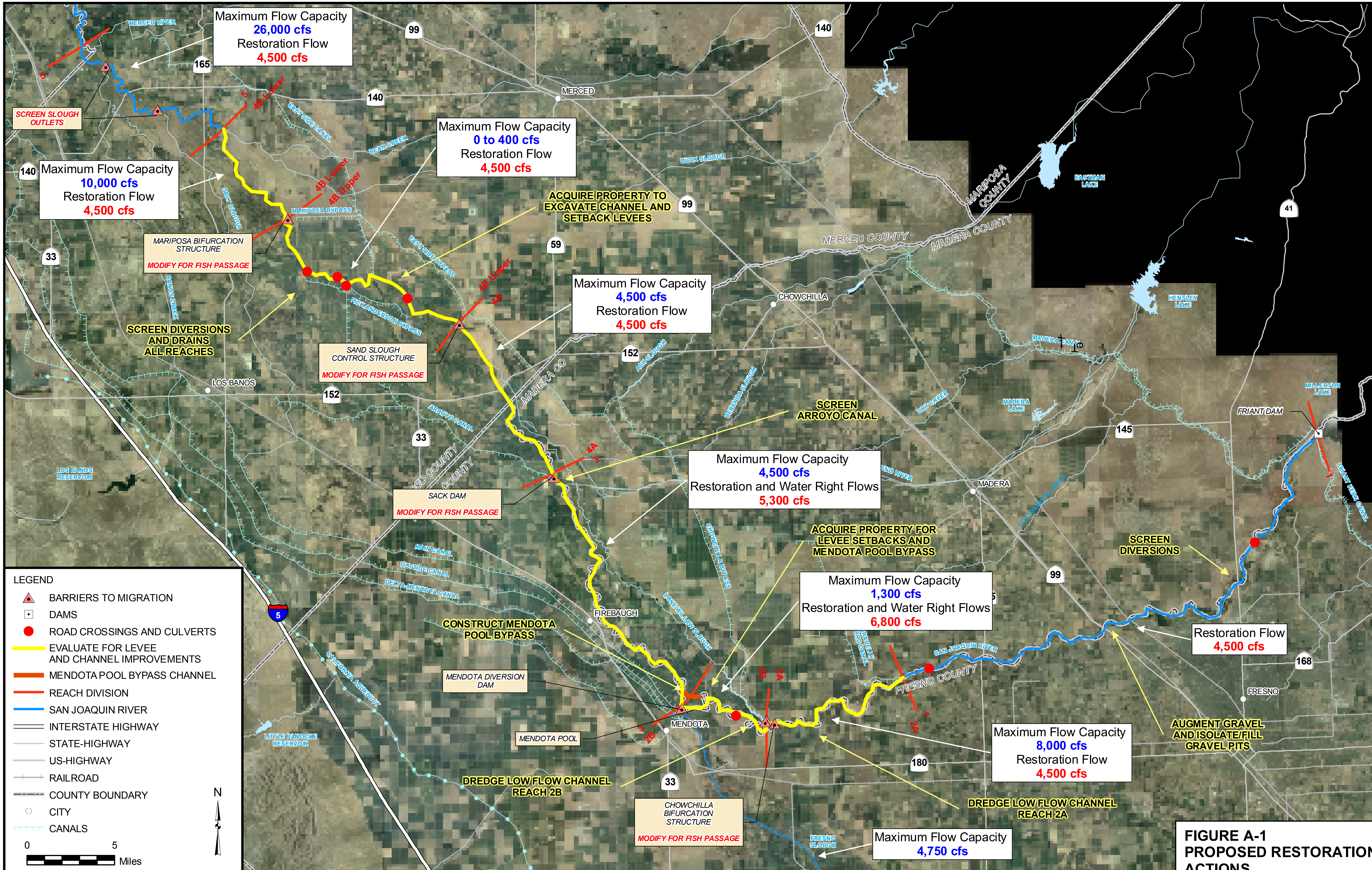

FIGURE A-1
PROPOSED RESTORATION ACTIONS

CH2MHILL

\\GLACIER\PROJ\159813_SANJOAQUIN_RIVER\MAPFILES\FIGURES\FIGUREA_1.MXD FIGURE A-1.PDF 7/23/2007 14:17:35

FIGURE A-2
REACH 1 PROPOSED RESTORATION ACTIONS

CH2MHILL

Maximum Flow Capacity
1,300 cfs
Restoration Flow
4,500 cfs
Water Right Flows
2,300 cfs
Total Capacity Needed
6,800 cfs

2B

2A

GRAVELLY FORD CANAL

Maximum Flow Capacity
8,000 cfs
Restoration Flow
4,500 cfs

CHOWCHILLA BIFURCATION STRUCTURE
MODIFY FOR FISH PASSAGE

DREDGE LOW FLOW CHANNEL REACH 2A

LEGEND
- ROAD CROSSINGS AND CULVERTS
- BARRIERS TO MIGRATION
- EVALUATE FOR LEVEE AND CHANNEL IMPROVEMENTS
- SAN JOAQUIN RIVER
- REACH DIVISION
- CITY
- INTERSTATE HIGHWAY
- STATE-HIGHWAY
- US-HIGHWAY
- RAILROAD
- CANALS
- COUNTY BOUNDARY

0 0.75 Miles

N

FIGURE A-3
REACH 2A PROPOSED RESTORATION ACTIONS

CH2MHILL

\\GLACIER\PROJ\159813_SANJOAQUIN_RIVER\MAPFILES\FIGURES\FIGUREA_3.MXD FIGUREA-3.PDF 7/23/2007 15:25:57

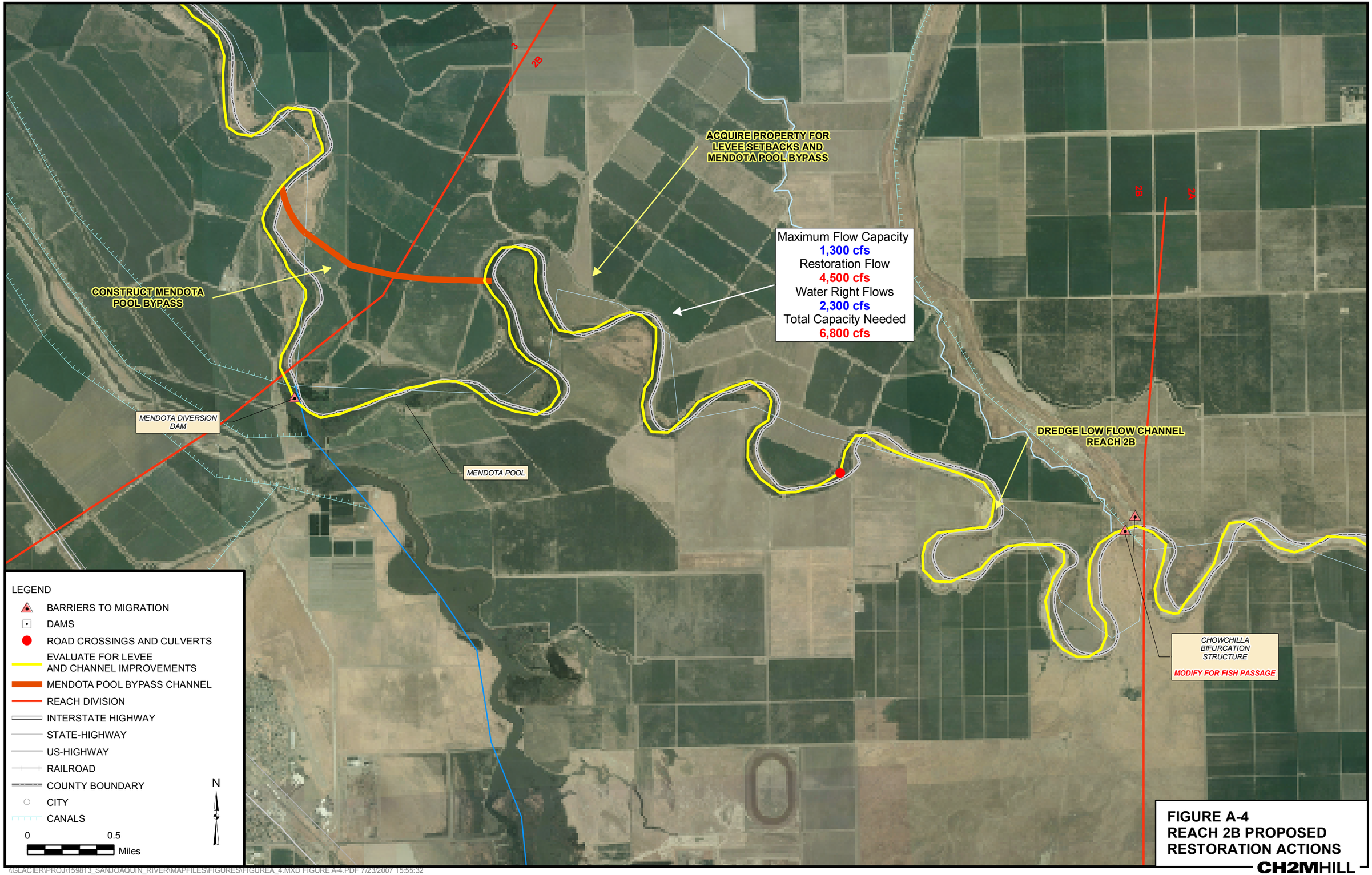

FIGURE A-4
REACH 2B PROPOSED RESTORATION ACTIONS

CH2MHILL

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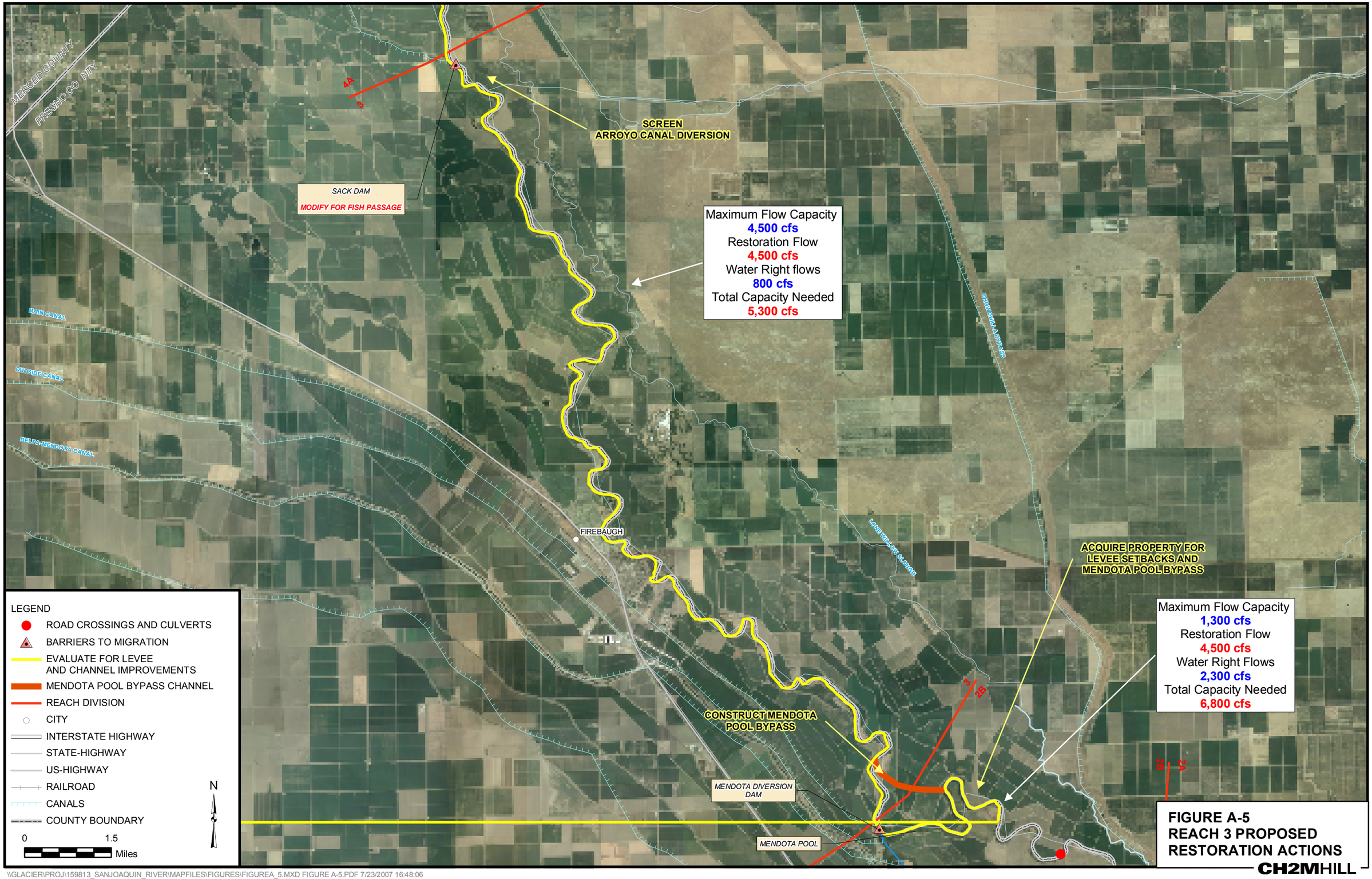

FIGURE A-5
REACH 3 PROPOSED
RESTORATION ACTIONS

CH2MHILL

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FIGURE A-6
REACH 4A PROPOSED RESTORATION ACTIONS

CH2MHILL

\\GLACIER\PROJ\159813_SANJOAQUIN_RIVER\MAPFILES\FIGURES\FIGUREA_6.MXD FIGURE A-6.PDF 7/24/2007 08:40:41

4B Lower

4B Upper

MARIPOSA BIFURCATION STRUCTURE

MODIFY FOR FISH PASSAGE

MARIPOSA BYPASS

Maximum Flow Capacity
0 to 400 cfs
Restoration Flow
4,500 cfs

EAST SIDE BYPASS

ACQUIRE PROPERTY TO EXCAVATE CHANNEL AND SETBACK LEVEES

SCREEN DIVERSIONS AND DRAINS ALL REACHES

FISHERMAN'S BYPASS

SAND SLOUGH CONTROL STRUCTURE

MODIFY FOR FISH PASSAGE

4B Upper

4A

LEGEND

- ROAD CROSSINGS AND CULVERTS
- BARRIERS TO MIGRATION
- FLOW ROUTING THROUGH BYPASS SYSTEM
- EVALUATE FOR LEVEE AND CHANNEL IMPROVEMENTS
- SAN JOAQUIN RIVER
- REACH DIVISION
- CITY
- INTERSTATE HIGHWAY
- STATE-HIGHWAY
- US-HIGHWAY
- RAILROAD
- CANALS
- COUNTY BOUNDARY

0 1 Miles

N

FIGURE A-7
REACH 4B UPPER
PROPOSED RESTORATION ACTIONS

CH2MHILL

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SCREEN SLOUGH OUTLETS

4B Lower

Maximum Flow Capacity
10,000 cfs
Restoration Flow
4,500 cfs

EAST SIDE CANAL

MUD SLOUGH

SALT SLOUGH

MARIPOSA BIFURCATION STRUCTURE

MODIFY FOR FISH PASSAGE

4B Lower

4B Upper

MARIPOSA BYPASS

LEGEND

- BARRIERS TO MIGRATION
- EVALUATE FOR LEVEE AND CHANNEL IMPROVEMENTS
- SAN JOAQUIN RIVER
- REACH DIVISION
- INTERSTATE HIGHWAY
- STATE-HIGHWAY
- US-HIGHWAY
- RAILROAD
- COUNTY BOUNDARY
- CITY
- CANALS

0 0.75 Miles

N

FIGURE A-8
REACH 4B LOWER PROPOSED RESTORATION ACTIONS

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MERCED RIVER

SCREEN SLOUGH OUTLETS

Maximum Flow Capacity
26,000 cfs
Restoration Flow
4,500 cfs

165

MUD SLOUGH

SALT SLOUGH

5
43 Lower

LEGEND

- BARRIERS TO MIGRATION
- DAMS
- ROAD CROSSINGS AND CULVERTS
- EVALUATE FOR LEVEE AND CHANNEL IMPROVEMENTS
- REACH DIVISION
- SAN JOAQUIN RIVER
- INTERSTATE HIGHWAY
- STATE-HIGHWAY
- US-HIGHWAY
- RAILROAD
- COUNTY BOUNDARY
- CITY
- CANALS

N

0 0.75 Miles

FIGURE A-9
REACH 5 PROPOSED RESTORATION ACTIONS

CH2MHILL

APPENDIX B

Diversions by River Mile

TABLE B-1
Summary of Diversions along the San Joaquin River From Friant Dam to the Merced River

River Mile	Primary Use	Bank Location	Diversion Type	Intake Size (inches)	Maximum Diversion (cfs)
266.76	Agricultural	Right	Pump	6	1
266.57	Agricultural	Left	Pump	8	2
265.73	Recreation	Left	Pump	12	4
265.2	Recreation	Left	Pump	7	1
265.19	Agricultural	Right	Pump	15	6
265.13	Agricultural	Right	Pump	12	4
265.13	Agricultural	Right	Pump	12	4
265.13	Agricultural	Right	Pump	12	4
264.75	Recreation	Left	Pump	7	1
263.45	Agricultural	Right	Pump	12	4
263.45	Agricultural	Right	Pump	12	4
262.9	Agricultural	Left	Pump	12	4
262.72	Agricultural	Right	Pump	6	1
262.46	Agricultural	Left	Pump	6	1
262.46	Agricultural	Left	Pump	10	3
262.31	Agricultural	Left	Pump	10	3
262.16	Agricultural	Right	Pump	36	35
262.15	Agricultural	Right	Pump	8	2
261.65	Unknown	Left	Pump	Unknown	1
261.65	Unknown	Left	Pump	8	2
261.65	Unknown	Left	Pump	Unknown	1
261.55	Not in use	Left	Pump	8	2
261.3	Hatchery	Left	Weir	Unknown	5
261.25	Agricultural	Left	Pump	3	1
261.21	Agricultural	Right	Pump	12	4
261.05	Agricultural	Right	Pump	24	16
261	Industrial	Left	Pump	8	2
261	Industrial	Left	Pump	8	2
260.25	Agricultural	Right	Pump	7	1
260.25	Agricultural	Right	Pump	7	1
260	Agricultural	Right	Weir	Unknown	5
259.95	Agricultural	Left	Pump	3	1

TABLE B-1
Summary of Diversions along the San Joaquin River From Friant Dam to the Merced River

River Mile	Primary Use	Bank Location	Diversion Type	Intake Size (inches)	Maximum Diversion (cfs)
259.84	Unknown	Right	Pump	10	3
259.77	Agricultural	Left	Pump	9	2
259.67	Agricultural	Left	Pump	10	3
259.48	Agricultural	Left	Pump	6	1
259.48	Agricultural	Left	Pump	10	3
259.48	Recreation	Right	Pump	6	1
259.47	Agricultural	Left	Pump	10	3
259.47	Not in use	Left	Pump	6	1
259.2	Recreation	Right	Pump	4	1
259	Agricultural	Left	Pump	7	1
259	Recreation	Right	Pump	4	1
258.7	Agricultural	Left	Pump	12	4
266.76	Agricultural	Right	Pump	6	1
266.57	Agricultural	Left	Pump	8	2
265.73	Recreation	Left	Pump	12	4
265.2	Recreation	Left	Pump	7	1
265.19	Agricultural	Right	Pump	15	6
265.13	Agricultural	Right	Pump	12	4
265.13	Agricultural	Right	Pump	12	4
265.13	Agricultural	Right	Pump	12	4
264.75	Recreation	Left	Pump	7	1
263.45	Agricultural	Right	Pump	12	4
263.45	Agricultural	Right	Pump	12	4
262.9	Agricultural	Left	Pump	12	4
262.72	Agricultural	Right	Pump	6	1
262.46	Agricultural	Left	Pump	6	1
262.46	Agricultural	Left	Pump	10	3
262.31	Agricultural	Left	Pump	10	3
262.16	Agricultural	Right	Pump	36	35
262.15	Agricultural	Right	Pump	8	2
261.65	Unknown	Left	Pump	Unknown	1
261.65	Unknown	Left	Pump	8	2

TABLE B-1
Summary of Diversions along the San Joaquin River From Friant Dam to the Merced River

River Mile	Primary Use	Bank Location	Diversion Type	Intake Size (inches)	Maximum Diversion (cfs)
261.65	Unknown	Left	Pump	Unknown	1
261.55	Not in use	Left	Pump	8	2
261.3	Hatchery	Left	Weir	Unknown	5
261.25	Agricultural	Left	Pump	3	1
261.21	Agricultural	Right	Pump	12	4
261.05	Agricultural	Right	Pump	24	16
261	Industrial	Left	Pump	8	2
261	Industrial	Left	Pump	8	2
260.25	Agricultural	Right	Pump	7	1
260.25	Agricultural	Right	Pump	7	1
260	Agricultural	Right	Weir	Unknown	5
259.95	Agricultural	Left	Pump	3	1
259.84	Unknown	Right	Pump	10	3
259.77	Agricultural	Left	Pump	9	2
259.67	Agricultural	Left	Pump	10	3
259.48	Agricultural	Left	Pump	6	1
259.48	Agricultural	Left	Pump	10	3
259.48	Recreation	Right	Pump	6	1
259.47	Agricultural	Left	Pump	10	3
259.47	Not in use	Left	Pump	6	1
259.2	Recreation	Right	Pump	4	1
259	Agricultural	Left	Pump	7	1
259	Recreation	Right	Pump	4	1
258.7	Agricultural	Left	Pump	1	24
257.49	Agricultural	Right	Pump	30	25
256.77	Agricultural	Right	Pump	7	1
256.32	Agricultural	Right	Pump	10	3
256.31	Domestic	Left	Pump	3	1
255.84	Agricultural	Left	Pump	Unknown	0
254.9	Agricultural	Right	Pump	7	1
254.9	Agricultural	Right	Pump	7	1
253.95	Agricultural	Left	Pump	13	5

TABLE B-1
Summary of Diversions along the San Joaquin River From Friant Dam to the Merced River

River Mile	Primary Use	Bank Location	Diversion Type	Intake Size (inches)	Maximum Diversion (cfs)
253.4	Agricultural	Left	Pump	16	7
252.28	Industrial	Right	Pump	8	2
251.6	Industrial	Right	Pump	7	1
251.57	Agricultural	Right	Pump	15	6
251.37	Agricultural	Right	Pump	8	2
251.16	Agricultural	Right	Pump	7	1
249.66	Agricultural	Right	Pump	7	1
248	Agricultural	Right	Pump	36	35
247.2	Agricultural	Unknown	Weir	Unknown	5
246.88	Agricultural	Right	Pump	48	63
245.41	Agricultural	Right	Pump	36	35
241.62	Not in use	Left	Pump	6	1
240.56	Agricultural	Left	Pump	12	4
230.89	Unknown	Left	Pipe	5	1
230.13	Agricultural	Right	Pump	5	1
230.06	Agricultural	Right	Pump	10	3
230.06	Agricultural	Right	Pipe	10	3
229.85	Not in use	Right	Pump	10	3
229.56	Agricultural	Right	Pump	4	1
229.35	Agricultural	Left	Pump	8	2
229.35	Agricultural	Left	Pump	8	2
228.89	Agricultural	Right	Pump	12	4
228.78	Agricultural	Right	Pump	24	16
228.78	Agricultural	Right	Pump	24	16
227.72	Agricultural	Right	Pump	10	3
222.75	Agricultural	Right	Pump	12	4
215.5	Agricultural	Right	Pump	Unknown	1
210.89	Agricultural	Left	Pipe	19	10
210.7	Agricultural	Left	Pipe	11	3
210.43	Agricultural	Left	Pipe	10	3
209.61	Agricultural	Left	Pipe	20	11
209.61	Agricultural	Left	Pipe	16	7

TABLE B-1
Summary of Diversions along the San Joaquin River From Friant Dam to the Merced River

River Mile	Primary Use	Bank Location	Diversion Type	Intake Size (inches)	Maximum Diversion (cfs)
209.61	Agricultural	Left	Pipe	16	7
209.61	Agricultural	Left	Pipe	11	3
209.61	Agricultural	Left	Pipe	11	3
208.83	Agricultural	Right	Pump	24	16
207.73	Agricultural	Right	Pump	12	4
207.06	Agricultural	Right	Pump	Unknown	1
206.5	Agricultural	Left	Pump	12	4
206.5	Agricultural	Left	Pump	12	4
206	Agricultural	Right	Pump	10	3
202.07	Agricultural	Left	Pump	3	1
202	Domestic	Right	Pump	3	1
195.38	Municipal	Right	Pump	8	2
180.6	Agricultural	Right	Pump	5	1
170.75	Agricultural	Right	Pump	10	3
159.9	Agricultural	Right	Pump	10	3
159.6	Agricultural	Right	Pump	12	4
156.92	Domestic	Right	Pump	6	1
156.87	Agricultural	Right	Flashboard Riser	18	9
156.67	Unknown	Right	Flashboard Riser	18	9
156*	Agricultural	Right	Weir	24	16
155.3	Agricultural	Left	Pump	10	3
154.7	Agricultural	Left	Pump	9	2
154.7	Agricultural	Left	Pump	9	2
147.2	Recreation	Right	Pump	16	7
144	Wildlife Refuge Enhance	Right	Pump	36	35
130.3	Agricultural	Right	Pump	18	9
125	Agricultural	Right	Pump	16	7

Source: CDFG (California Department of Fish and Game). 2001. San Joaquin River Fish Screens and Fish Passage Project.

Note: Does not include diversions in the Mendota Pool or in the bypass system. Additional diversions may have been constructed since this inventory was conducted in 2001.

* Location, intake size, and maximum diversion are approximate.

APPENDIX C

Summary of Proposed Restoration Actions and Required Evaluations

TABLE C-1
Summary of Proposed Restoration Actions and Needed Evaluations

Reach or Area	Restoration Action Proposed	Potential Impacts	Evaluation Needed	Approvals and Permits Needed	Additional Considerations
1	Reconstruct channel/side channels and add gravel for spawning habitat	Hydrology and flooding (changes in the shape of the river channel, possible erosion and sedimentation impacts); water quality; air quality; biology; cultural	Channel surveys; HEC computer modeling; biological and cultural surveys; engineering design	Land easements or acquisition; access agreements; NEPA; CEQA; ESA; CESA; CWA; CAA; CCAA; State Lands Lease; Fish and Game Code Section 1600 Agreement	None identified at this time
	Fill and isolate gravel pits	Same as above	Same as above	Same as above	Same as above
	Screen diversions	Possible changes in pump hydraulics and increase in maintenance activities	Possible computer modeling and hydraulics modeling depending on pump size; engineering design	Cooperation and access from owner; NEPA; CEQA; ESA; CESA; CWA	Environmental compliance may be minimal for smaller diversions
	Remove or reconstruct barriers to migration (road crossings)	Hydrology and flooding (changes in the shape of the river channel due to removal or addition of structures in the channel); water quality; air quality; biology; cultural	Channel surveys; HEC computer modeling; biological and cultural surveys	Cooperation and access from owner; NEPA; CEQA; ESA; CESA; CWA; CAA; State Lands Lease	Assumes that some or all road crossings would be reconstructed; impacts and analysis would be less if no or less reconstruction
	Diversion pump facility near Gravelly Ford	Hydrology and sediment transport (changes in the shape of the river channel caused by scour and incision); water quality; air quality; biology	Channel surveys; possible HEC computer modeling; biological surveys; engineering design	Access agreements; NEPA; CEQA; ESA; CESA; CWA; CAA; State Lands Lease	Need to stabilize channel, provide fish passage, and screening
	Riparian habitat	Potential to conflict with flood management actions; other environmental impacts likely minor	Landscape design; engineering analysis to ensure sufficient channel capacity would exist with mature habitat	NEPA; CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit	Environmental impacts likely to be minor and streamlined analysis and permitting possible; need clearly defined set of goals for vegetation area and structure to manage conflicts with flood operations/capacities

TABLE C-1
Summary of Proposed Restoration Actions and Needed Evaluations

Reach or Area	Restoration Action Proposed	Potential Impacts	Evaluation Needed	Approvals and Permits Needed	Additional Considerations
2A	Construct levee and channel improvements	Hydrology and flooding (changes in river channel and flood characteristics); water quality; air quality; biology; cultural; groundwater; impacts to adjacent agricultural lands and resources as a result of increased seepage	Engineering design to determine need for levee improvements, slurry walls, setback levees, new floodplain, and low-flow channel including: geotechnical studies to determine depth and area of slurry walls; topographic and channel surveys; HEC computer modeling; groundwater surveys and monitoring; and an overall mitigation and monitoring program	Land easements or acquisition; access agreements; NEPA; CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit; State Lands Lease and Land Transfer	All infrastructure is assumed to be owned by state with O&M by a local maintaining agency; O&M agreement and funding needed; long-term establishment of a low-flow channel may not be possible due to soft channel substrate and possible damage during flood events; need to maintain original design flood water surface elevation
	Riparian habitat	Potential to conflict with flood management actions; other environmental impacts likely minor	Landscape design; engineering analysis to ensure sufficient channel capacity would exist with mature habitat	NEPA; CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit	Environmental impacts likely to be minor and streamlined analysis and permitting possible; need clearly defined set of goals for vegetation area and structure to manage conflicts with flood operations/capacities
	Redesign or modify Chowchilla Bifurcation Structure for fish passage and prevent entrainment	Hydrology and flooding (changes in river channel and flood characteristics); hydrologic study; water quality; air quality; biology	Topographic and channel surveys; computer modeling; biological surveys; engineering design	NEPA, CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit	Redesign will increase O&M costs, agreement and funding needed; long-term O&M ESA and CESA compliance needed
	Screen diversions	Same as described for Reach 1	Same as described for Reach 1	Same as described for Reach 1	None identified at this time

TABLE C-1
Summary of Proposed Restoration Actions and Needed Evaluations

Reach or Area	Restoration Action Proposed	Potential Impacts	Evaluation Needed	Approvals and Permits Needed	Additional Considerations
2B	Construct levee and channel improvements	Same as for levee and channel improvements described for Reach 2A	Same as for levee and channel improvements described for Reach 2A	Same as for levee and channel improvements described for Reach 2A	Same as for levee and channel improvements described for Reach 2A; additional capacity to convey water right flows needed beyond restoration flow capacity; total capacity of 7,000 cfs needed (4,500 cfs Restoration Flow and about 2,500 cfs for water right flows)
	Riparian habitat	Same as described for Reach 2A	Same as described for Reach 2A	Same as described for Reach 2A	Same as described for Reach 2A
	Reconstruct San Mateo Road crossing	Hydrology and flooding (changes in the shape of the river channel); water quality; air quality; biology; cultural	Topographic and channel surveys; HEC computer modeling; biological and cultural surveys; engineering design	Cooperation and access from owners/county; NEPA, CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit; State Lands Lease	Assumes that some or all facilities would be reconstructed; impacts and analysis would be less if reconstruction not necessary
	Screen diversions	Same as described for Reach 1	Same as described for Reach 1	Same as described for Reach 1	None identified at this time
Mendota Pool Bypass	Construct bypass channel	Hydrology and flooding (changes in river channel and flood characteristics); water quality; air quality; biology; cultural; groundwater; agricultural resources (seepage and construction-related)	Topographic and channel surveys; HEC computer modeling; biological and cultural surveys; groundwater surveys and monitoring; engineering design	Land acquisition; access agreements; NEPA, CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit; State Lands Lease and Land Transfer	Assumed to be federal or state ownership and O&M by a local maintaining agency; O&M agreement and funding needed; long-term O&M ESA and CESA compliance needed; changes to current bypass system operating rules necessary; land acquisition or easements for lands between bypass and San Joaquin River needed
	Construct new upstream, bifurcation structure	Hydrology and flooding (changes in river channel and flood characteristics); Mendota Pool water operations; water; quality; air quality; biology.	Topographic and channel surveys; hydraulic computer modeling; biological surveys; engineering design for variable flow scenario operations	Generally the same as above	Assumed to be federal or state ownership and O&M by a local maintaining agency; O&M agreements and funding needed; long-term O&M ESA and CESA compliance needed; design must consider pool backwater effects

TABLE C-1
Summary of Proposed Restoration Actions and Needed Evaluations

Reach or Area	Restoration Action Proposed	Potential Impacts	Evaluation Needed	Approvals and Permits Needed	Additional Considerations
Mendota Pool Bypass (cont'd)	Fish screens and related fish bypass facilities	Generally the same as above; groundwater impacts unlikely from fish facilities	Generally the same as above; groundwater surveys and monitoring likely not necessary for fish facilities	Generally the same as above	Assumed to be federal or state ownership and O&M by a local maintaining agency; O&M agreement and funding needed; long-term O&M ESA and CESA compliance needed
	Reconfigure the Columbia Canal Company's water intake and related facilities	Hydrology and hydraulics; water quality; air quality; biology; cultural; agricultural resources (possible loss of agricultural lands for new or relocated facilities)	Topographic and channel surveys; biological and cultural surveys; engineering design	Land easements or acquisition; access agreements; NEPA, CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit; State Lands Lease and Land Transfer (for new intake facilities)	Assumes a new river intake structure would be needed
	Riparian habitat	Same as described for Reach 2A	Same as described for Reach 2A	Same as described for Reach 2A	Same as described for Reach 2A
3	Construct levee and channel improvements	Same as for levee and channel improvements described for Reach 2A	Same as for levee and channel improvements described for Reach 2A	Same as for levee and channel improvements described for Reach 2A	Same as for levee and channel improvements described for Reach 2A; additional capacity to convey water right flows needed beyond restoration flow capacity; total capacity of 5,300 cfs needed (4,500 cfs Restoration Flow and about 800 cfs for water right flows)
	Replace or modify Sack Dam for fish passage	Localized changes in river hydrology; possible changes in diversion hydraulics	Channel surveys; possible computer modeling and hydraulics modeling; biological and cultural surveys; engineering design	Approval from San Luis Canal Company and access agreements; NEPA, CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit may be needed; State Lands Lease	Fish facilities and/or new dam is assumed to be under federal or state ownership with O&M by San Luis Canal Company; O&M agreement and funding needed; long-term O&M ESA and CESA compliance needed
	Screen Arroyo Canal	Localized changes in river hydrology; possible changes in diversion hydraulics	Channel surveys; possible computer modeling and hydraulics modeling; biological and cultural surveys; engineering design	Approval from San Luis Canal Company and access agreements; NEPA, CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit may be needed; State Lands Lease	Assumed to be under federal or state ownership with O&M by San Luis Canal Company; O&M agreement and funding needed; long-term O&M ESA and CESA compliance needed

TABLE C-1
Summary of Proposed Restoration Actions and Needed Evaluations

Reach or Area	Restoration Action Proposed	Potential Impacts	Evaluation Needed	Approvals and Permits Needed	Additional Considerations
3 (cont'd)	Screen other diversions	Same as described for Reach 1	Same as described for Reach 1	Same as described for Reach 1	None identified at this time
	Riparian habitat	Same as described for Reach 2A	Same as described for Reach 2A	Same as described for Reach 2A	Same as described for Reach 2A
4A	Construct levee and channel improvements	Same as for levee and channel improvements described for Reach 2A	Same as for levee and channel improvements described for Reach 2A	Same as for levee and channel improvements described for Reach 2A	Same as for levee and channel improvements described for Reach 2A
	Screen diversions	Same as described for Reach 1	Same as described for Reach 1	Same as described for Reach 1	Same as described for Reach 1
	Screen and modify Sand Slough Control Structure for fish passage	Localized changes in river hydrology; possible changes in diversion hydraulics	Channel surveys; possible computer modeling and hydraulics modeling; biological surveys; engineering design	Access agreements; NEPA, CEQA; ESA; CESA; CWA; CAA; possible Reclamation Board and LSJLD Encroachment Permit	Assumed to be owned by state and operated by a local maintaining agency; O&M agreement and funding needed
4B (Upper) Flow Routing	Decision on flow routing for Reach 4B (flows routed down the Mainstem or through the Bypass System)	Varies, see discussion for flow routes below	Compliance with paragraph 11 in the Settlement and related legislative requirements; study of alternative routes, costs, benefits, and impacts	Decision to be submitted to Congress prior to the restoration of any flows other than Interim Flows based on existing conditions	Stakeholder and local agency involvement needed in decision-making process; see discussion in Section 4
4B (Upper) Flows Routed Through Mainstem	Construct levees and associated river channel and floodplain	Hydrology and flooding (changes in river channel and flood characteristics); water quality; air quality; biology; cultural; groundwater; impacts to adjacent agricultural lands and resources as a result of increased seepage; impacts to residences and agricultural infrastructure	Engineering design to determine need for levee improvements, slurry walls, setback levees, new floodplain, and low-flow channel including: geotechnical studies to determine depth and area of slurry walls; topographic and channel surveys; HEC computer modeling; groundwater surveys and monitoring; and an overall mitigation and monitoring program	Land easements or acquisition; access agreements; NEPA; CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit; State Lands Lease and Land Transfer	All infrastructure is assumed to be owned by state with O&M by a local maintaining agency; O&M agreement and funding needed; long-term establishment of a low-flow channel may be challenging due to high groundwater levels and possible damage during flood events; landowner issues must be addressed and mitigated

TABLE C-1
Summary of Proposed Restoration Actions and Needed Evaluations

Reach or Area	Restoration Action Proposed	Potential Impacts	Evaluation Needed	Approvals and Permits Needed	Additional Considerations
4B (Upper) Flows Routed Through Mainstem (cont'd)	Riparian habitat	Potential to conflict with flood management actions; other environmental impacts likely minor	Landscape design; engineering analysis to ensure sufficient channel capacity would exist with mature habitat	NEPA; CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit	Environmental impacts likely to be minor and streamlined analysis and permitting possible; need clearly defined set of goals for vegetation area and structure to managed conflicts with flood operations/capacities
	Reconstruct road crossings	Hydrology and flooding (changes in the shape of the river channel); water quality; air quality; biology; cultural	Topographic and channel surveys; HEC computer modeling; biological and cultural surveys; engineering design	Cooperation and access from owners/county; NEPA, CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit; State Lands Lease	Assumes that road crossings would be reconstructed
	Screen diversions	Possible changes in pump hydraulics	Possible computer modeling and hydraulics modeling depending on pump size; engineering design	Cooperation and access from owner; NEPA; CEQA; ESA; CESA; CWA	Environmental compliance may be minimal for smaller diversions
	Screen and modify Mariposa Bifurcation Structure for fish passage	Localized changes in river hydrology; possible changes in diversion hydraulics	Channel surveys; possible computer modeling and hydraulics modeling; biological surveys; engineering design	Cooperation and access; NEPA, CEQA; ESA; CESA; CWA; CAA; possible Reclamation Board and LSJLD Encroachment Permit	O&M agreement and funding needed; long-term O&M ESA and CESA compliance needed
4B (Upper) Flows Routed Through Bypass System	Construct levee and channel improvements	Same as for levee and channel improvements described for Reach 2A; increase channel width to compensate for riparian vegetation growth	Same as for levee and channel improvements described for Reach 2A	Same as for levee and channel improvements described for Reach 2A	Use of bypass system will increase O&M costs, agreement and funding needed; long-term O&M ESA and CESA compliance needed; may conflict with current authorization and purpose of the Bypass System; expanded authorization and purpose needed; long-term establishment of a low-flow channel may not be possible due to soft channel substrate and possible damage during flood events

TABLE C-1
Summary of Proposed Restoration Actions and Needed Evaluations

Reach or Area	Restoration Action Proposed	Potential Impacts	Evaluation Needed	Approvals and Permits Needed	Additional Considerations
4B (Upper) Flows Routed Through Bypass System (cont'd)	Riparian habitat	Potential to conflict with flood management actions; other environmental impacts likely minor	Landscape design; engineering analysis to ensure sufficient channel capacity would exist with mature habitat	NEPA; CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit	Environmental impacts likely to be minor and streamlined analysis and permitting possible; need clearly defined set of goals for vegetation area and structure to managed conflicts with flood operations/ capacities
	Screen diversions	Possible changes in pump hydraulics	Possible computer modeling and hydraulics modeling depending on pump/diversion size; engineering design	Cooperation and access from owner; NEPA; CEQA; ESA; CESA; CWA	Environmental compliance may be minimal for smaller diversions
	Screen and modify Mariposa Bifurcation Structure for fish passage	Localized changes in river hydrology; possible changes in diversion hydraulics	Channel surveys; possible computer modeling and hydraulics modeling; biological surveys; engineering design	Cooperation and access; NEPA, CEQA; ESA; CESA; CWA; CAA; possible Reclamation Board and LSJLD Encroachment Permit	O&M agreement and funding needed; long-term O&M ESA and CESA compliance needed
	Modifications to drop structures for fish passage	Localized changes in river hydrology; possible changes in diversion hydraulics	Channel surveys; possible computer modeling and hydraulics modeling; biological surveys; engineering design	Access agreements; NEPA, CEQA; ESA; CESA; CWA; CAA; possible Reclamation Board and LSJLD Encroachment Permit	None identified at this time
	Pumps to drain adjacent agricultural lands	Would need electrical supply	Minor engineering design and evaluation	Cooperation of landowner	None identified at this time
4B (Lower)	Construct levee improvements	Air quality; biology; cultural; groundwater; impacts to adjacent agricultural lands and resources as a result of increased seepage	Engineering design to determine areas where levee improvements may be needed and determine the need for slurry walls; geotechnical studies to determine depth and area of slurry walls; topographic and channel surveys; groundwater surveys and monitoring; and an overall mitigation and monitoring program	Access agreements; NEPA; CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit	None identified at this time

TABLE C-1
Summary of Proposed Restoration Actions and Needed Evaluations

Reach or Area	Restoration Action Proposed	Potential Impacts	Evaluation Needed	Approvals and Permits Needed	Additional Considerations
4B (Lower) (cont'd)	Riparian habitat	Potential to conflict with flood management actions; other environmental impacts likely minor	Landscape design; engineering analysis to ensure sufficient channel capacity would exist with mature habitat	NEPA; CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit	Environmental impacts likely to be minor and streamlined analysis and permitting possible; need clearly defined set of goals for vegetation area and structure to managed conflicts with flood operations/capacities
5	Screen diversions	Possible changes in pump hydraulics	Possible computer modeling and hydraulics modeling depending on pump size; engineering design	Cooperation and access from owner; NEPA; CEQA; ESA; CESA; CWA	Environmental compliance may be minimal for smaller diversions
	Screen Mud and Salt sloughs	Localized changes in river and slough hydrology	Channel surveys; possible computer modeling; biological surveys; engineering design	Access agreements; NEPA, CEQA; ESA; CESA; CWA; CAA; Reclamation Board and LSJLD Encroachment Permit; State Lands Lease	None identified at this time

Abbreviations:

CAA = Clean Air Act

CEQA = California Environmental Quality Act

CESA = California Endangered Species Act

CWA = Clean Water Act

ESA = Endangered Species Act

NEPA = National Environmental Policy Act

Note: Only primary environmental regulations listed. Compliance with a variety of federal, state, and local regulations would be required.

emailed to Marcia 9/14

Statement on San Joaquin River Restoration Program (SJRRP), August 2007 Scoping Meetings by Michael Martin, Ph.D., Resident, P.O. Box 2216, Mariposa, CA 95338; September 14, 2007.

I am a California native, a lifelong flyfisher; environmental scientist; Adjunct Professor, Environmental Toxicology, Department of Biology and Chemistry, City University of Hong Kong; American Fisheries Society, Professional Fisheries Scientist; Chairman, Fisheries Committee, Upper Merced River Watershed Council; and member, Merced Flyfishing Club. I have fished in the San Joaquin River, as well its major tributaries. I am familiar with the history of the demise of its salmonid fisheries (along with many others in California), and am encouraged that SJRRP seeks to mitigate some of the injuries and damages to those salmonid fisheries caused by water diversions. I am particularly interested in the activities of SJRRP, with respect to its potential impacts and benefits to the restoration of the San Joaquin River AS WELL AS SIDE BENEFITs TO its key tributaries, including the Merced River. My comments are directed to the following two items that the SJRRP requested by this Public Scoping session. I apologize for not being present at the meeting but was out of the country at the time of the meeting. Before I address issues within your requested comments, I have two issues to bring to the attention of the Program.

Public Notification. One issue that I would like to highlight specifically is the need for SJRRP to seek public input, recommendations, comments, and advice from the interested public. Personally, I only found out about this Scoping Meeting by a haphazard search of the Restoration Planning effort on the Web, early this week. I recommend that your notification process include a wider array of media for advertising your activities (newspapers, public radio and TV announcements, and direct mailings) to residents of all counties with San Joaquin River tributaries, including the Mokelumne, Stanislaus, Tuolumne, and Merced Rivers' watersheds, as restoration activities may have an influential bearing on these tributaries and their anadromous fish populations.

Funding Diversion. A second overarching issue that is of concern to me is the perceived impression that fisheries agencies (especially those funded by federal Water Development Agencies) are diverting all of their anadromous fisheries management staff to the San Joaquin River project, because "that is where all of the money is". I learned of this item, while attending a NMFS Salmonid Restoration meeting in Sacramento earlier this year. I urge those agencies to continue to strive to restore those rivers that they have started on (particularly, the Merced River), and not abandon them simplybecause apparently there is more (or all of the money for staff?) money diverted to this new effort.

Now to the items that were requested by SJRRP in the Scoping Meeting:

Item 1. Implementing SJRRP agencies ask to hear on these issues:

1) What environmental issues and impacts should be evaluated in the environmental review?

Comment: Issues and impacts that should be evaluated in the environmental review are the effects of restoration plans and associated

activities on the 3 historical salmonid species in the San Joaquin Drainage and tributaries (spring-run Chinook salmon, fall-run Chinook salmon, and steelhead or rainbow). Planning and evaluation efforts should consider ways of optimizing habitat [spawning, summer holding, other season holding, riparian habit, cover (boulders and flow relief), and temperature]; evaluations of adverse water quality impacts (chemical and physical),and probably the most important factor water flows and flow timing. With only an average of 341 cfs/day/for a yearly cycle under dry weather, and 766 cfs/day for a yearly cycle under wet weather, water will arguably be the critical issue. Recycling of agricultural and domestic waste waters should be evaluated or considered ONLY with the precautionary principal as guidance. The project should seek more water for the fish.

2) What local knowledge or information can you provide to assist in the environmental review?

Comment: I can assist the project by providing anecdotal fishing information on San Joaquin River tributary waters. I can also provide volunteer professional recommendations on ideas/plans for salmonid restoration as a fisheries scientist. I have an extensive knowledge of environmental contaminants, and environmental toxicology with respect to aquatic life, and can provide assistance and consultation on issues with respect to the San Joaquin River. Also the "third party input" and "other stakeholder input" looks very poorly organized, and might benefit by a "third party litigant" subcommittee and an "other stakeholder" subcommittee. It is is possible that that might provide a forum and focus for such parties to discuss and resolve minor issues (similar to recently organized FERC process for application and permit relicensing).

3) What options and alternatives should be considered and evaluated?
   a) Fish Restoration (physical changes, flows, etc.)

Comment: An option to include 3 species of salmon (spring-run Chinook, fall-run Chinook, and steelhead) should be considered. Final restoration plan should include restoration of steelhead, along with other salmon species (spring-run and fall-run Chinook salmon), as they were historic components of the San Joaquin River fish fauna, and thus maintain consistency with the settlement agreement stipulation among the litigating parties. The environmental document should discuss all aspects of restoration planning, implementation, and monitoring of these 3 species. Currently, in watered reaches of the San Joaquin and its tributaries, steelhead and fall-run Chinook salmon occur in decimated historic populations, but marginally survive. NMFS has designated those ESA as threatened, and the plan and restoration activities should include actions to assist in restoration of those species, at the minimum.

Pacific salmon and steelhead are **salmonids**, of the scientific family **Salmonidae**.They are anadromous fish, which means that they migrate up rivers from the ocean to breed in fresh water. Pacific salmon are in the scientific genus *Oncorhynchus,* which includes pink, sockeye, chum, Chinook and coho salmon, steelhead and rainbow trout.

The settlement agreement stipulation says "...natural reproducing and self sustaining populations of salmon and other fish (the restoration goal)". In the Public Scoping Meeting Materials presentation, it states "to accomplish the goal, restoration flows to begin experimentally in Fall 2009 and "restoration of spring-run and fall-run Chinook salmon between Friant Dam and confluence with the Merced..." Comment: the element of restoration of fish populations should include all historic natural populations of salmonids, genus Oncorhynchus, which include steelhead trout (*O. mykiss*). The settlement agreement stipulation includes "other fish" as well, should someone question the inclusion of *O.mykiss* in the process.

See details of historic distribution of *O. mykiss* in the 2003. San Joaquin River Restoration Study Final Background Report APPENDIX B, Pages B40-B51 Friant Water Users Authority December 2002 Natural Resources Defense Council B-40 FINAL REPORT
Common Name Scientific Name (family) (Salmonidae)
Steelhead *Oncorhynchus mykiss*.

b) Water Management (water recovery, recirculation, etc)

Comment: All water usage from Friant Dam storage water should be predicated upon "type of season" availability. During dry years, less water should be made available to all users, including stream flows, irrigation, and domestic uses. If there are legal or jurisdictional issues regarding those deliveries, the plan and programs should address and resolve those issues.

c) Flood Management (protection of land uses and natural resources)

Comment: One option to consider is to raise the level of Friant Dam to store more water, thus providing more water to stream flows in water shorted years. This in turn might provide greater flood protection. The impacts of flooding on natural resources (stream scouring, etc.) should be evaluated under different planning options.

4) When and how would you like to be informed about and involved in the Program?

Comment: I would like to see all decision making be transparent/matter of public record. SJRRP should consider quarterly or triannual (scheduled) meetings to inform the public of project progress. Milestones should be

established and consultation occur as the milestones are reached. There should be open PUBLIC negotiation for changes in law (c.f., 2007, S27 and HR24 San Joaquin River Restoration Settlement Acts and related legislation for water distribution in the San Joaquin River valley that influences fisheries resources.

Item 2. Implementing SJRRP agencies also ask the Public for comments on:

Comment: These items have been generally addressed above.

a. Options
b. Alternatives
c. Environmental issues
d. Local conditions, issues and concerns

Margaret Gidding - San Joaquin River Restoration 9/4 email Morgan

From: <shmarvier@comcast.net>
To: <mgidding@mp.usbr.gov.>
Date: 8/26/2007 11:33 PM
Subject: San Joaquin River Restoration

Ms. Gidding ,

I'm writing to you on behalf of my Family . We would like to see a hunting and fishing program , with public access points , incorporated into the final plans for the river .

Thank You ,

Steve Marvier
Novato Ca.

faxed to Morgan 9/19/07

D. McNamara
P.O. Box 2985
Merced, CA 95344

September 17, 2007

Margaret Gidding
Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP-140
Sacramento, CA 95825

RE: San Joaquin River Restoration Program - Formal Comments

Ms. Gidding,

My home and farm are located in Reach 4B. To my knowledge, we are the only family whose principal residence may be destroyed as a result of the Restoration Project. That is, if the chosen Restoration Flow route is down the old river channel (main stem) and not through the Eastside and Mariposa Bypasses. There are several employee homes, shops and structures owned by two other families in 4B that may also be destroyed. The design for Restoration Flows through 4B calls for levees to be approximately 2,300 feet apart. My home-site is along the bank of the river. My house is constructed partially with steel beams buried seven feet deep in the ground surrounded by concrete and sits on a slab floor, so it cannot be moved. The landscaping cannot be duplicated; it follows the natural contours of the river so it wouldn't be the same being relocated to a flat field and next to a levee. The impact for us will be the loss of our home, a couple hundred acres of our farm, and a devastating life change for our family's future.

A typical person today is more transient than are farmers. People relocate depending on changing jobs, obtaining larger houses with increases in income or the number of children at home, or move into smaller residences upon retirement. Most people don't think it is a big deal to loose one's house if compensated; they can buy one just like it down the street. Farmers have a mindset of permanence. Our family has owned our farm for over 70 years. I started having our home built in 1978. It has been my life's work. I have taken on a project a year as I could afford it. So I have been enhancing it a little each year for the past 29 years, over half of my life. I plan to never sell the farm or the house and to pass it on to my son. Losing it dashes all my hopes, dreams and efforts. No amount of money can compensate for that. This is a serious third party impact.

Reach 4 is located in Merced County, running northwest between Highway 152 and Highway 165. A section in the middle of Reach 4 is known as Turner Island comprising approximately 15,500 acres of prime farmland. At this point the San Joaquin River (SJR) splits into two directions. The old river channel borders the south and west sides of Turner Island and the Eastside and Mariposa Bypasses boarder the east and north sides of Turner Island. Enclosed is a map, which shows the two different routes. The letter "A"

shows the beginning of the split and the letter "B" shows where the two channels merge back together.

The Natural Resource Defense Council (NRDC) in proposing this Restoration idea wants the restoration project and therefore the flows, to travel down the old river channel apparently for purely nostalgic reasons. Depicted in red on the enclosed map is the levee system maintained by the Lower San Joaquin Levee District (LSJLD). The yellow lines are old inferior private levees. As you can see, most of the southern boarder of Turner Island is unprotected. The yellow levees are predominately on one side of the old channel or there are not any levees at all! When I asked Hal Candee, NRDC's chief negotiator, why they want the restoration flows to travel down the old river channel, he made it clear to me that they had not thought past their initial desire and their only reason was because that was the historic route. They do not care that directing the flows down the old river channel instead of continuing to use the existing Bypasses will nearly double the cost of the entire project, or that it will take thousands of acres of prime farmland out of production, or that it will take innocent bystander's private property including their homes, or whether it disrupts peoples lives and businesses.

The Mariposa and Eastside Bypasses started to be constructed in the late 1950's. The San Joaquin River flows have traveled down this route since then. The section of the red levee starting at "A" is 1500 feet wide; it carried 23,000 cubic feet per second (cfs) during the 1997 floods. The old river channel, when it was studied in the 1950's, was designated to carry 1,500 cfs. I doubt it ever could have handled that much, since there aren't any levees on portions of it. And since then, the old river channel has silted up and can handle only about 25cfs. The only time water from the SJR has been diverted down it since the late 1950's was during the flood event of 1969. After the Lower San Joaquin Levee District released flows through the old channel in 1969, they discovered it floods and have not directed any water that way since then.

As described in the definitive book about the SJR entitled Streams of the San Joaquin by Robert Edminster, the SJR is actually a drainage system. During flood events, especially across flat floodplains like in Reach 4, a wide network of sloughs were created and secondary channels developed that ran parallel with the main channel leaving some primary channels abandoned. The old river channel on the south side of the Turner Island area has essentially become an abandoned channel do to man-made decisions. A much wider, higher levee system was paid for and constructed to adequately handle major flood events like the biggest one in 1997 and has been used exclusively, except where noted above, since the late 1950's. It has successfully protected the many thousands of acres of prime farmland it was designed to protect. Building a second bypass doubles the chances for a levee breaking that would cause extensive flooding, diminishing the protection the original Bypass was enacted to provide, and thus opening the State of California up to liability worth millions of dollars. Putting this land at risk would surely bring legal challenges.

If the old river channel is designated as the route to be used, in order to match the Bypass's capacity, the plans specify that the levees be 2,300 feet apart. The existing

width of the old river channel averages about 75 feet wide, so all structures and agriculturally developed land within the 2,300-foot area would need to be destroyed. Widening and building levees would eliminate the aesthetic beauty along this natural channel. An aerial image of an eighty-six acre undisturbed parcel along the river is attached. The existing riparian vegetation and the wildlife habitat would be destroyed and the wildlife itself would be killed or displaced. The nature of Valley Oaks that currently line the river is that if the amount of water that they grew up in dramatically changes, they die. This would eliminate all the nesting for egrets and great blue herons in this area of the county. And there is a California law that prohibits killing Valley Oaks. The SJR Restoration Settlement Act (Act) provides that the flows will not exceed channel capacities. However, the 4,500 cfs, even without the extra pulse flows, is three times more water than ever flowed through this channel. Therefore, they are not restoring a river, they will be destroying one and creating a channel that is as artificial as the existing Bypasses. Taxpayers will be forced to pay for duplicating what already exists in the Eastside and Mariposa Bypasses. This would also remove three farming operation's homes and buildings, and will cause many thousands of acres of prime farmland to be condemned and permanently taken out of production. The constantly flowing water from 4,500 cfs percolating into the already high water-table soil will cause vast areas emanating from the river to be saturated and unfarmable by inhibiting crops from growing. This will greatly devalue the land. This will result in inverse condemnation. This would be an absurd, unnecessary, and extremely costly action, but it is precisely what the NRDC wants to have happen.

The fish are not going to know the difference between the Bypass route and what would be an artificially widened old river channel route. A fish ladder will need to be constructed regardless of which route is chosen. Those who will know the difference are the families that have farmed and lived here since the mid-1930's. Their homes will be destroyed, their buildings demolished, part of their land condemned and confiscated leaving less land to farm thus throwing off their economies of scale, and their business and lives disrupted. Not to mention the cost, time and effort to rebuild. There would also be a financial impact felt in the County as less money is multiplied through the economy.

The Federal Flood Control Act of 1936 declared a national interest in the prevention of flood damage. The Lower San Joaquin River Flood Control Project authorized by the Congress in 1944 was approved by the California Legislature in 1946. In 1952 the Reclamation Board started holding public hearings lasting into the early 1960's with landowners adjacent to the SJR. It was decided that "control of floods within confined channels would meet with the approval of a majority of the interested parties and the Federal Government." The old river channel through Reach 4B was purposely left out of the main flow design. A gate was placed at Sand Slough where the Bypass and the old channel split, in order to prevent flood stage flows from traveling down the unprotected old river channel.

To not abide by what was decided, implemented, and practiced over these many decades is not wise. If the NRDC gets their way and Interim Flows are allowed through the old channel, without proper planning there could be serious consequences. If the plan is to

regulate a prescribed flow through the old river channel, the possibility of human error would make that policy too risky for the landowners. Just one miscalculation could permanently wipe out homes, businesses and lives.

There are inherent flaws with the Interim Flows Program through Reach 4B. Our home being located on the bank of the river is why we are deeply concerned that the Interim Flows Program be carried out with a great deal of careful planning. It seems to me that this is the one aspect of the Restoration Project that has not had much forethought at all.

As stated in the Stipulation of Settlement "11(a)(3) Modifications in San Joaquin River channel capacity to the extent necessary to ensure conveyance of at least 475 cfs through Reach 4B." The basic problem is that the old river channel cannot handle anywhere near that much water. The 475 cfs figure must have come out of thin air and it is a problem that it is a stipulation of the Settlement. It is estimated that the old river channel currently can handle only 25-100 cfs. The Act in Sec.9. (g)(1)(B) Determination Required, allows for work to increase capacity in Reach 4B that is not "substantial" construction. And Interim Flows are excluded from the study. (Sec.9.(g)(1)(B) Deadline.) This highest priority program of Interim Flows is to commence no later than October 1, 2009 in Phase 1. (Stipulation 15.) In order for the old channel to safely accept 475 cfs, the river bottom would need to be dredged out. There is approximately 10 to15 feet of silt that has accumulated in the channel over time. If dredged, the sludge would need to go somewhere. Will it be deposited along the riverbanks in an effort to create temporary levees? Remember, if this is chosen as the route of the Restoration Flows, the levees are to be 2,300 feet apart therefore, all of the cost to construct temporary levees will be a complete waste of time and money. There have never been any levees in the middle section of Reach 4B, including where our home is located. Our landscaped yard and the road to our barn go right to the edge of the river channel. Our home and other structures start from between 18 to 66 feet from the edge of the river channel. There just isn't any space for a levee without destroying structures and blocking access. The mud would also cover and destroy the riparian habitat along the river and farm roads along the banks. I was told that the NRDC does not plan to mitigate for damage incurred from the Interim Flow Project. The Settlement and the Act exclude Interim Flows from having a required study, mitigation or specific funding. The Settlement regarding Interim Flows only addresses deliveries to meet contractual obligations in relation to Interim Flows. The Interim Flow program has not been thought through and there are not any safeguards for landowners. The Restoration Administrators both Federal and State or whoever will oversee the Interim Flows program needs to avoid damage from occurring to private property by first allowing landowners to have input before implementing the program, just like the process that is required for the Restoration Flow phase. Our home-site could be damaged or partially destroyed from the Interim Flows the way the program is written. There should not be any releases until all necessary studies and planning have been completed and funding has been appropriated.

The Settlement states "The Parties neither intend nor believe that the implementation of this Settlement will have a material adverse effect on any third parties..."(Stipulation 7) However, there is not a provision requiring that the implementation not have any material

adverse impacts on any third parties, and there are not any assurances of that in the Act. Sending any flows above the small amount that the old river channel in Reach 4B can currently safely handle would adversely impact the landowners there. The very least damage from the Interim Flows would be seepage, which causes crop loss, which results in lost revenue. The most damage would be from Restoration Flows, which would take all of the land and structures within the 2,300-foot wide levees. I would loose hundreds of acres of prime farmland, which is my livelihood. But more than anything, we do not want to loose our home. We want our home protected. If it is determined that the Restoration Flows are to use the old river channel route, then the mitigation needs to include funding to create an island for our home-site with a bridge connecting it to an outside levee. It would be prudent if I work out the details with those in charge before a design and cost estimate are submitted.

The NRDC wants to "experiment" with Interim Flows in Reach 4B. The landowners know that extra water will seep through sandy soil and cause crop loss and therefore reduced revenue. I suppose if someone isn't affected and is callous to other people's plight, it is easy to require experiments. If they have to pay for our losses out of their own pockets they wouldn't be so cavalier.

What makes this so gut wrenching is knowing that the losses will be pointless. Trying to reintroduce Spring Run Chinook Salmon, in my opinion, will not work. After reading the Amicus Brief by the Tributaries Group that sited information about the Sacramento River's program and experts that studied this, I am convinced how futile the reintroduction will be for the San Joaquin River. Why is taking thousands of acres of prime farmland permanently out of production out-weighed by this impractical attempt to reintroduce 500 fish? The number of people that could be fed from this fertile land is immeasurable. And it will cost over 370 million dollars to destroy it.

Regarding the Restoration Flows, the better route is through the Bypass system. The best design would be to dredge the scoured out path in the center of the Bypass to the optimal depth and width in order to help control the water temperature for the fish. There would be two systems within one location, a channel for the fish and flood protecting levees bordering it. This would be much cheaper than duplicating the Bypass system on the old river channel. This also would eliminate the seepage concerns, not to mention how disruptive, risky and costly it would be to adjacent landowners along the old river channel.

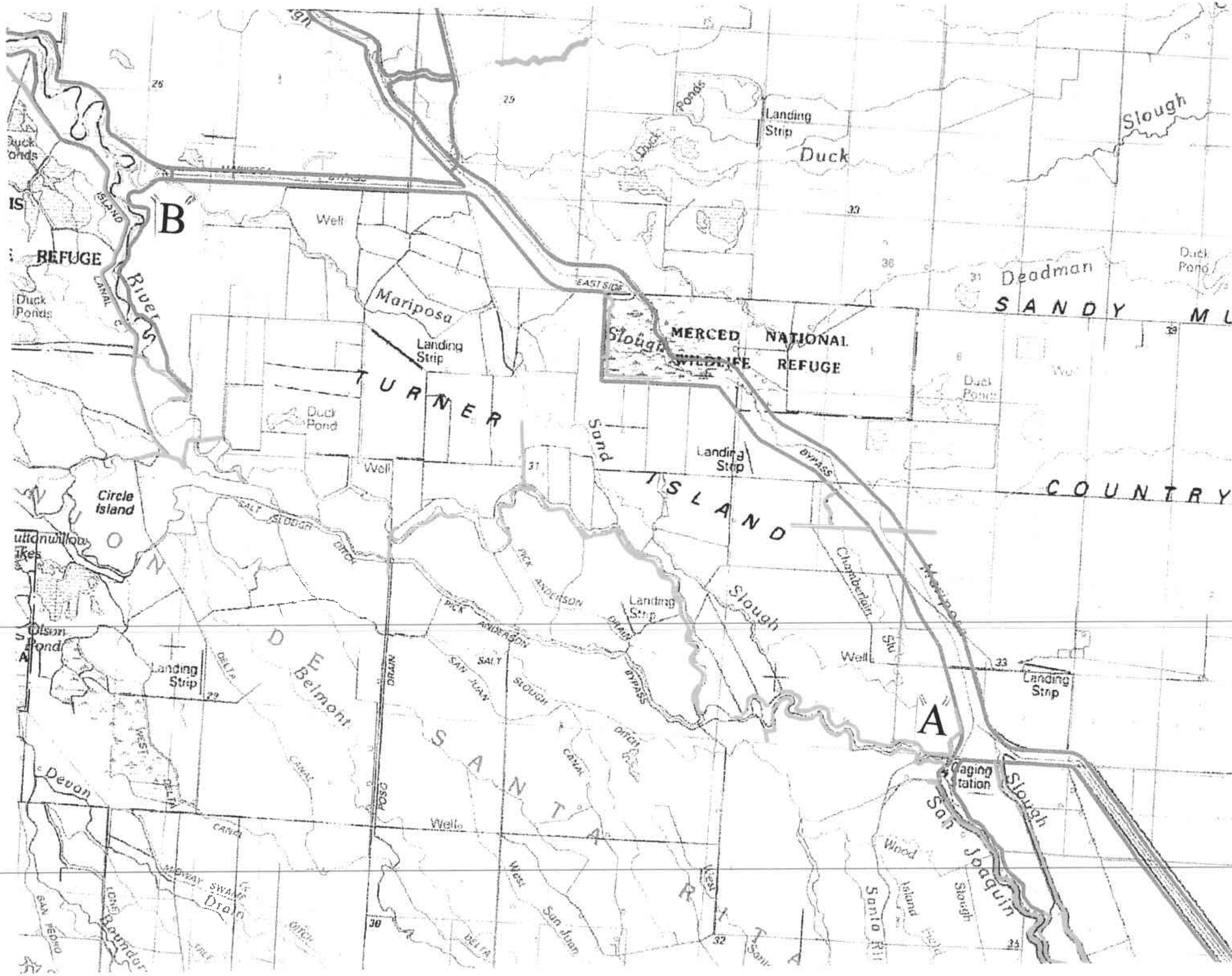
If the Bypass is the chosen route and it is determined that the levees need to be further apart, dirt from the levee to be moved can be used to reconstruct it in a new location. If the old river channel is the chosen route, even more farmland will need to be condemned to provide a source of dirt for two new levees. The soil to the east and north of the Bypasses is much less fertile and is used for duck clubs. Therefore, the cost to acquire the land would be much less by choosing the Bypass route. The old river channel is over 21 miles long; the Bypass is approximately 12 miles long. The shear magnitude of constructing a duplicate bypass on the old river channel dwarfs changes that may be needed to the exiting Bypass system. New levees will be needed for both sides of a new

bypass on the old river channel, whereas the dirt for the levees already exists on the original Bypass.

Duplicating what already exists will be seen as a boondoggle to taxpayers and should not be allowed to happen! It is plain to see on the attached map that water is being conveyed safely from point "A" to point "B". To create a duplicate Bypass is absurd and the public will ask how such a thing could have happened.

The Settlement and Act call for starting the Project by doing work in Reach 4B. It calls for skipping around and doing work in different Reaches at different times. The smart approach would be to start at Friant Dam and complete a section at a time as money is available, then it is functioning to where ever construction is completed. This entire Project is woefully under funded. The estimated cost for just Reach 4B is over 370 million dollars. The Federal government's share for the entire project is just 250 million dollars. California's proposition's bonds do not allow spending for private levees or where no levees exist, which is what Reach 4B is comprised of. Therefore, there are no available state cost-sharing funds. The Act in Sec. 9(g)(3) states that if the Secretary's estimated federal cost for expanding Reach 4B exceeds the remaining federal funds authorized by the Act, then congress must increase the applicable authorization ceiling to at least sufficiently cover the higher cost before the Secretary commences actual construction work in Reach 4B to expand capacity to 4,500 cfs to implement the Settlement. Therefore, this Project is a non-starter if the old river channel is the chosen route. However, there would be California state funds available if the Bypass is the chosen route. So on a comparative cost basis, considering every category: funding, land acquisition cost, environmental loss, food supply loss, economic crop loss, job loss, mitigation, etc., using the existing Bypass system is clearly the better choice.

Sincerely,
D. McNamara


"B"
"A"
REFUGE
River
Duck Ponds
Well
Mariposa
Landing Strip
TURNER
Duck Pond
MERCED NATIONAL WILDLIFE REFUGE
Slough
Sand
ISLAND
COUNTRY
SANDY ML
Deadman
Duck
Slough
Circle Island
Olson Pond
Belmont
SANTA RITA
Chamberlain
Gaging station
San Joaquin
Slough
Santa Rita
Wood
Island
Devon
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PICK ANDERSON
SALT SLOUGH
SAN JUAN
EAST SIDE
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San Juan
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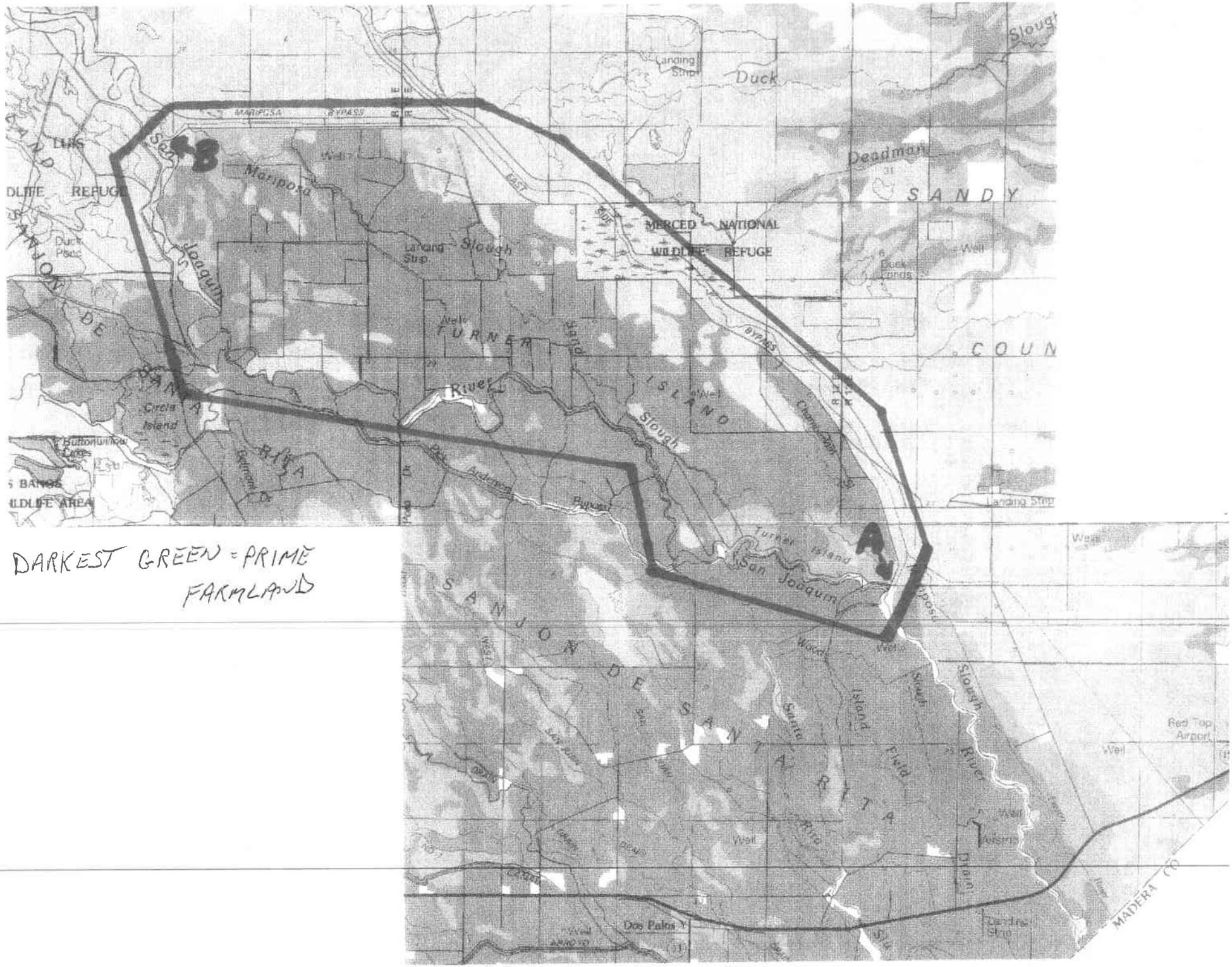


DARKEST GREEN = PRIME FARMLAND

THERE ARE NOT ANY LEVEES ALONG SECTIONS OF THE RIVER IN THE MIDDLE OF REACH 4B.

San Joaquin River

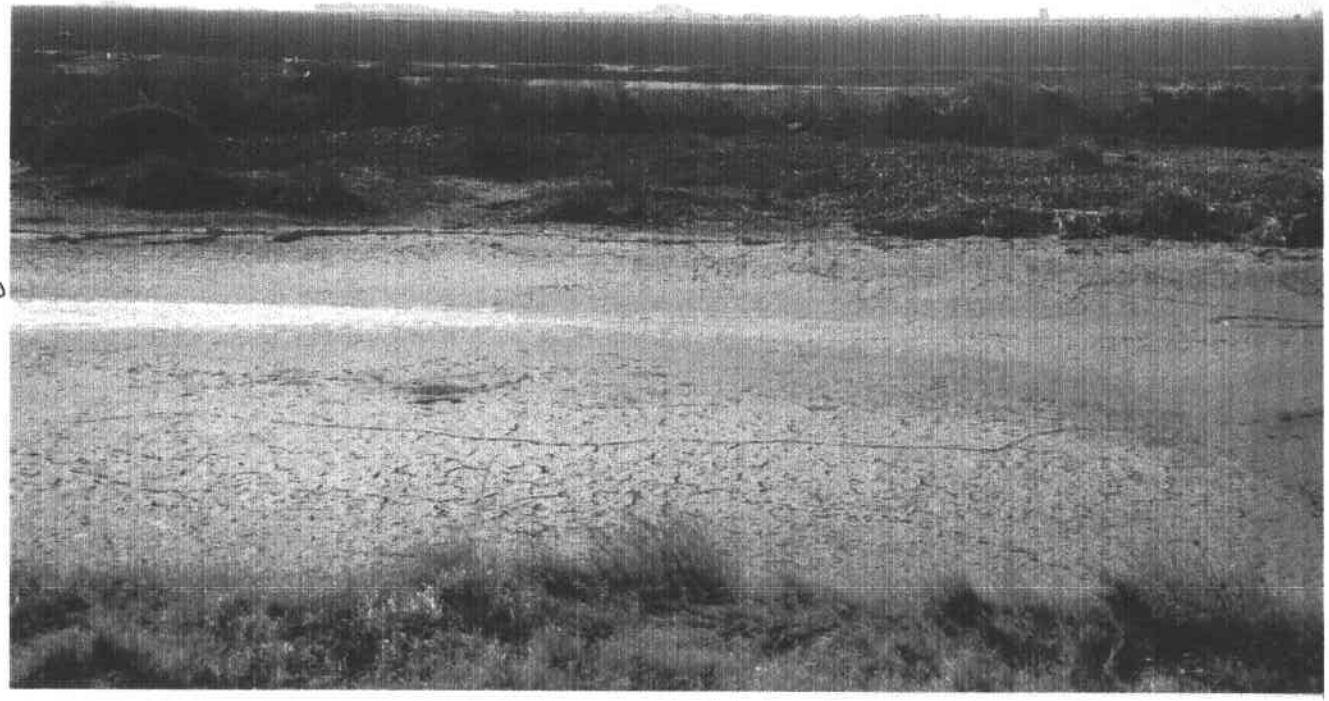
Reach 4B January 2007

approx. 10-15 ft. of silt build up

" 75-100 ft. wide

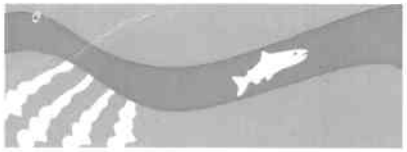
" 3 ft. deep now

Reach 4B current capacity is approx. 25-100 CFS



faxed to me 9/24

SAN JOAQUIN RIVER
RESTORATION PROGRAM



PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card),* faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name Tony Melillo

Organization and Address Palazzo Farms, Inc.

13355 W. Bisignani Road

Los Banos, CA 93635

Phone (209) 826-2666 FAX ( ) E-mail

Comment here: September 12, 2007
Date

See attached comments.

All comments become part of the public record.

September 12, 2007

I am a retried farmer who has lived my entire life in Los Banos, and mostly in the Reach 4b and 5 sections of the proposed San Joaquin River Restoration project.

As a young child in the 1930's I remember going fishing with my relatives in these two reaches of the river. At that time there was no river channel to be seen due to the natural flooding of the area. Friant and Pine Flat dams were not yet built. I saw a lot of dead salmon on sand bars which could not make it upstream. If the river was to be restored, it should have been done at the time of the dam construction. It would have been much more cost effective than doing it now.

I recommend that the existing Flood Bypass Channel be used instead of Reach 4B. It should be analyzed very extensively during the Bureau's process. The current Bypass Channel already has some trees within its boundaries and it looks as if it's wide enough to handle the stated flows.

As these Federal and State judges keep cutting the water supply, we humans are the endangered species.

Thanks for the opportunity to provide input.

Sincerely,

Tony Mellilo

Tony Mellilo
Landowner/Farmer

Bureau of Reclamation
Sacramento Ca 95825

18381 Laurel Drive
Los Gatos CA 95030

Ms. Margaret Gidding:

I do not have the luxury of attending your Public Scoping Meetings, but have acquainted myself with your plans from your 'San Joaquin River Restoration Program" website. I have some questions, which derive from an investigation by myself and a friend into the water quality and fish kill conditions brought on by CVP at Clifton Court in the Delta. I have included back-up information in a report we wrote on the data gathering visit we made to Clifton Court in 1996. The attachment is for your perusal if you have any query on the source of my questions. The questions are as follows:

1.Since the intent of your program is to restore the San Joaquin fishery, including anadromous fishes such as Salmon, the striped bass, shad, and sturgeon which once swam the San Joaquin, how will they reach the idyllic, "Restored" San Joaquin upstream of the Merced? This question derives from the simple fact that your program apparently addresses the San Joaquin only between Friant Dam and the mouth of the Merced. However, the San Joaquin does flow to the Delta beyond the mouth of the Merced. In 1996 (and now), the Old River arm flowed with farm effluent, producing 80 degree F. water temperatures (Summer conditions) at the Delta Mendota pumping station. Do you think you can dilute the farm effluent flow and produce a pure, pristine river all the way to Clifton Court?

2. Where will the farm effluents from the Westlands and the South San Joaquin farmlands flow, if not in the San Joaquin? Does your program include the installation of a pseudo-sanitary sewer which will somehow dispose of the fish-killing flows, and make the San Joaquin a clean river all the way to the Delta? Do you use Kesterson?

3. If your program includes a waste-water removal plan, why do our Governor and his minions talk of a Peripheral Canal to improve "Water Quality" in the Delta? How could your program restore the fishery in the San Joaquin to the Merced mouth and bring anadromous fish there without also restoring the San Joaquin to the Delta?

4. Does your Restoration program, in any way address the terrible effects which the CVP system, (and the Friant Dam) have created within the entire San Joaquin River? How can you ignore the waters from the Merced to the old river at Clifton Court?

5. One of the recently touted operating comments on recent governmental projects is the statement, "Beware the law of unintended consequences". The CVP tried to respond to dying and distorted waterfowl at Kesterson Reservoir, and as a result produced the disaster which DWR, and the Bureau of Rec. seem to be trying to fix with a new Bandaid. Has anyone thought through the entire problem of the San Joaquin River System, as well as the impacts on Bandaids when the Governor pushes through the Peripheral Canal with more flow to Westland farms and much more waste-water flow which must again pour into the San Joaquin?

I hope that someone, will address the problem of the entire San Joaquin, and I am firmly convinced that the problem started with CVP in the Westlands and has not improved since the CVP debacle. Thank You, E Merlic 18381 Laurel Drive Los Gatos

Faxed to Marcia 9/4

REPORT TO CONCERNED FLY FISHERMEN(1996 TRIP TO CLIFTON CT.)

Gentlemen:
This is the result of a trip to Clifton Court and the adjoining Delta Mendota pumping stations. The trip was initiated as a result of the presentation to us by a California Fish and Game (F.&G.) spokesman on the disastrous disappearance of Salmon from the Delta, and the reduction /disappearance of all anadromous fish from the San Joaquin River. There is also data quoted here from a 1978 CVP progress report perused earlier. That report included disastrous results in the F.&G. enclosure within the report relative to Salmon fry losses at Clifton Court. Here are the facts as we saw them there at Clifton Court, and the facts from F.& G. What can be done to fix the problem is mixed with politics, economics, and the burgeoning farm industry which has moved into the Westlands District. Let me say that we place the blame squarely on CVP for this disaster, first for setting up Kesterson and then ignoring the waste water explosion which made both the San Joaquin river and CVP "Water Quality"disaster.

The CVP program to divert river water from the Delta has been a disaster for the anadromous fishery in both the Sacramento and San Joaquin Rivers. The placement of the CVP pumping station and the Delta-Mendota pumping system on the "Old River" has created a pseudo closed cycle sewer/fresh water mixing system that has the CVP operators scurrying to minimize effects of the effluent flow from the Old River in order to increase "Water Quality". The 1978 report from CVP is loaded with a wish list to Santa for a Peripheral Canal to improve the water quality. Typical bureaucratic blundering, "Don't fix it, Bandaid it".
The "Screens" at both the Delta Mendota and the CVP pumping stations will keep out the trash in the river, but not the striper eggs, small stripers, and the Salmon fry. These all were being entrained into Clifton Court pumping station as well as the Delta Mendota Canal. The 1978 progress report by CVP has a section from F.&G. stating that they discovered that 88% of the Salmon fry released into the Upper Sacramento "disappeared" at Clifton Court. Ostensibly, the reservoir there contained a cadre of large striped bass that decimated the fry, and the "screens" allowed the remainder into the pumps. The F. & G. solution for Salmon is the trucking of all Salmon fry South, where the live fry are dumped into the Sacramento River near Antioch. This nicely obviates the Clifton Court killings of hatchery fry. The hydrodynamics for intake screens are such that any thinking engineer would not have put the existing systems in operation at Clifton Court and Delta Mendota and called them fish screens. It may have been 1962, but the designs there are more typical of pre-1900. The systems there do not even slow the pump consumption of large fish. We probably should not say pre-1900, since the system depends on capturing some large fish, dumping them into large tank trucks and then dumping them somewhere in the Delta. Talk about ridiculous designs, the whole system stinks.

The water quality disaster has occurred because a voluminous, tainted farm effluent return was not envisioned by the CVP designers, since their original design was for Westlands farm effluent to be deposited in the Kesterson Reservoir. The opening of the Westlands created an overwhelmingly large and poisonous effluent flow required to make a desert into green farmlands. Kesterson was removed from the equation, and the

effluents were dumped into the San Joaquin, and everyone went blithely along until the water quality and anadromous fish disappearance problems showed up.

The 1978 CVP report cited the enhancement of water quality that should be expected when the Peripheral Canal was built. It prided itself on providing a "new"24 inch (vice16 inch) bypass pipe design which would allow fish to return to the river system. A simple calculation by me assuming water flow in the bypass at a maximum velocity of 10 feet per second suggests that the peripheral Canal designers would allow 31 cubic feet per second (cfs) for the fish while 23,800 cfs would go into the Peripheral Canal. Do we see pre-1900 thinking again here? As a fisherman, I see any Peripheral Canal designed by governmental agencies so politically controlled that there is no hope for California in the future, to have any fresh waters flowing in the rivers. There is no-one in government who has the foresight to envision what the large population invited to the State, and the powerful farm lobby (which will prevent any options for limit or control of farm effluent) can do and will do to California river waters.

In conclusion, the CVP disaster was a horrible mistake for both the fish, and for the citizenry, in that the idea of carrying fresh water into the Westlands to make the "Cadillac Desert" of the West San Joaquin green had more implications than the bureaucracy in both Washington and Sacramento could ever envision. The Kesterson fiasco was blithely ignored, and the San Joaquin made the receptacle for all that bad return water. They could not envision the impact on the San Joaquin River System, much less, could they recognize the effects of a closed cycle circulation system at Clifton Court. All this, while clean water was needed at all times for the cities who were sold CVP water to allow their unlimited growth, plus the voluminous flow required to cleanse the Cadillac Desert.

We predict that Government will not come up with any miracle solutions, but will probably obfuscate the "Water Quality" situation with large and expensive Bandaids that will cost billions, but will still ignore the critical problem. It was on the order of 70 years ago when municipalities along the Sacramento and San Joaquin used their rivers as a sanitary sewer. The rivers also got a large human waste input from the tributaries flowing past smaller municipalities that used their creeks as sanitary sewers. Today, there are tertiary-level water-treatment plants that assure the water dumped from sewer district plants can meet even drinking quality outflow requirements. It will take almost a miracle for any requirement on outflow to be placed on the farm community, but until some original thinking is done for the environment and for the limited fresh water supply, nothing but Bandaids will be used on the problems at CVP.

TOUGH LUCK FISHERMEN AND CITIZENS OF CALIFORNIA

forwarded to Margaret 9/20

Margaret Gidding - San Joaquin River Restoration Program Notice of Intent - Scope Comments

From: <PTMILLER@aol.com>
To: <mgidding@mp.usbr.gov>
Date: 9/20/2007 12:07:18 PM
Subject: San Joaquin River Restoration Program Notice of Intent - Scope Comments
CC: <dkoehler@riverparkway.org>, <melinda.marks@sjrc.ca.gov>, <CJaniel@co.fresno.ca.us>

9/20/07

To: Ms. Margaret Gidding , Bureau of Reclamation
From: Patrick T. Miller

I attended the scoping session conducted in Fresno and based on the presentations made I request that the following considerations be included in the Project Description for the program:

- A clear discription/delineation of Salmon spawning habitat areas to be enhanced/created.

- A clear description/delineation of the potential sources of gravel to be used in the enhancement/creation of spawning habitat, and, if those sources involve mining, the areas that may be involved.

- A typical annual release program from Friant Dam that presents the cumulative flows anticipated for both fisheries and flood control functions. I believe to many property owners this will be a very important consideration so that they may understand the physical implications of how the river will affect existing uses located near the river's banks.

Thank you.

Patrick Miller
P.O. Box 7036
Landscape Station
Berkeley California 94707

From the studio desk of:
Patrick T. Miller
2M Associates
Landscape Architecture â€¢ Planning â€¢ Horticulture
Phone:
510-524-8132 (Berkeley)
707-895-2597 (Philo Gardens)

ptmiller@aol.com

PUBLIC SCOPING COMMENTS

Jim & Betty Morehead
Morehead Farms

(559)757-3259 FAX (559)757-3244 mhfarms@sbcglobal.net

W attended the Scoping Meeting in Tulare on August 28, 2007

- The economic impacts of the restoration plan are real and have extreme consequences. Water is the essence and livelihood of agriculture as we know it in the San Joaquin Valley.

- The economic impact is far reaching and would affect other regions as our state as well. A consistent loss of water would diminish the ability to sustain today's ag economy.

- Farmers have not ever taken water for granted. Even prior to this proposed settlement growers have implemented water conservation methods. Most of these methods such as drip irrigation, rotating energy sources with down-time to help the state power grid as well as others.

- If crops do not go to market there will a need for fewer transporters, dock workers, equipments sales and repair, and the list goes on.

- The current plan is based upon a model that has not proven itself and has no guarantees.

- To equally represent both sides there needs to be a standard of success established for both groups and time limitations. If the original restoration plan does not work it would be a gross error to keep throwing good money and water after a failed concept.

- Just as the "fish" have benchmarks, the farmer deserves at the least an equal equation.

- We saw a very intricate, organized and developed plan for the fish restoration at the agency board at the scoping meeting. To guarantee a true success, there must be the same detail and plan for the water delivery in place before any water diversions can begin. This cannot be an aftermath project. Everyone must have all of their cards on the table face up.

- Since attending the meeting there is new concern with the delta pumps and now fearing their water shortage they want to access some of the Friant water. This needs to be addressed publicly and everyone know what the policy is and who it will affect.

- We've had two years of abundant water and with just this one current dry year. In that short amount of time wells are failing, the water table is dropping and there is no additional water source. The water diverted for the restoration is in essence non-replaceable.

- Urban growth in the San Joaquin Valley without question affects the availability and stability of our ground water supply

- There are irrigation districts that do not have the privilege of a contract are at extreme risk because the water diverted (what is commonly referred to by some as the "excess") is the very water available for them to purchase.

- **No water deliveries should be diverted until a canal system is in place to return the downstream water using the California Aqueduct to then move the water to the cross valley canal to reenter the Friant water system.**

  This is an essential component of leveling the playing field in this plan. The Temperance Flat proposals need to be become a reality in a very short timeline to protect both fish and agriculture.

faxed to Mgidding 9/11 Rcvd via mail 09/11/07

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name James L. Nickel

Organization and Address Nickel Family LLC

PO Box 60679

Bakersfield CA 93386-0679

Phone (661) 872-5050 FAX (661) 872-7141 E-mail jlnickel@nfllc.net

Comment here: September 4, 2007
Date

1) Increased consistent flows in Reaches 3 and 4 will cause increased seepage that will be detrimental to soils and crops. Adequate mitigation of these impacts must be installed.

2) Public access will encourage trespassing, litter and theft. This impact must be mitigated

3) Moving levees out will cause disruption of ditches, drains and other facilities. These impacts must be mitigated.

4) Interim flows at any level will cause seepage damage to crops and the soil. This must be mitigated.

5) Monitoring wells should be installed prior to interim flows to determine seepage impacts.

All comments become part of the public record.

email-d to MP 9/24/07

DOWNEY | BRAND
ATTORNEYS LLP

555 Capitol Mall, 10th Floor
Sacramento, CA 95814

P: 916/444-1000
F: 916/444-2100
downeybrand.com

Kevin M. O'Brien
kobrien@downeybrand.com

September 21, 2007

VIA E-MAIL

Ms. Margaret Gidding
Bureau of Reclamation
2800 Cottage Way, MP-140
Sacramento, CA 95825
e-mail: *mgidding@mp.usbr.gov*

Ms. Karen Dulik
Senior Environmental Scientist
DWR-San Joaquin District
3374 E. Shields Ave.,
Fresno, CA 93726
e-mail: *kdulik@water.ca.gov*

Re: San Joaquin River Restoration Program

Dear Ms. Gidding and Ms. Dulik:

On behalf of Columbia Canal Company ("CCC"), the purpose of this letter is to comment on the proposed Notice of Preparation (NOP) of a Draft Program Environmental Impact Statement/Environmental Impact Report (PEIS/EIR) for the San Joaquin River Restoration Program and the Notice of Intent to Prepare a Program Environmental Impact Statement/Environmental Impact Report and Notice of Scoping Meetings. We understand that comments on the scope of the PEIS/EIR are due September 21, 2007.

CCC hereby incorporates by reference the attached comments of the San Joaquin Exchange Contractors Water Authority, as though fully set forth herein.

CCC reserves the right to participate in all proceedings relating to the San Joaquin River Restoration Program. If you have any questions regarding any matters contained in this letter, please do not hesitate to contact the undersigned.

Very truly yours,

DOWNEY BRAND LLP

Kevin M. O'Brien

KMO:cnb

cc: Randy Houk

878506.1

fax'd to me 9/25

KRCD
Kings River Conservation District

4886 East Jensen Avenue
Fresno, California 93725

Tel: 559-237-5567
Fax: 559-237-5560

www.krcd.org

September 21, 2007

Ms. Margaret Gidding
Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP140
Sacramento, CA 95825

Dear Ms. Gidding:

Re: San Joaquin River Restoration Scoping Comments

Kings River Conservation District submits the following comments on the San Joaquin River Restoration Scoping process.

1. Any and all considered alternatives must not impact any third party in any way. Third party impacts that must be avoided include, without limitation those that affect flood control, water quality, environmental conditions, or water supply.

2. Any and all considered alternatives must provide sufficient maintenance and design to sustain maximum flood releases from the primary, and any contributing watersheds in accordance with existing project criteria.

3. Channel/stream capacities must be sufficient as to allow for additional restoration flows, as well as historical and anticipated flood flows.

4. Any channel/stream modifications must consider existing flood control criteria established by the US Army Corps of Engineers for the San Joaquin and Kings River watersheds.

5. No alternatives should be studied that increase flood flow risks or other risks that may impact property or safety within or upstream of the restoration area.

Please include my contact information on all distribution lists regarding future meeting notices and documents relating to these issues.

Sincerely,

David Orth
FOR General Manager

DO/RH/dr

Cc: Karen Duilk, CA Dept. of Water Resources
Edwin S. Townsley, US Army Corps. Of Engineers

File: 700.01.02
L07-0274

faxed to me 9/24

SAN JOAQUIN RIVER
RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name Pat Palazzo

Organization and Address Palazzo Farms, Inc.

13355 W. Bisignani Road

Los Banos, CA 93625

Phone (209) 826-4632 FAX (209) 826-5809 E-mail

Comment here: September 12, 2007
Date

See attached comments.

All comments become part of the public record.

September 12, 2007

PUBLIC SCOPING COMMENTS for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

As landowners within San Luis Canal Company we would like to make the following comments on the San Joaquin River Restoration Program. Although they will be brief, we think they are very important to the successful implementation of the program. The Canal Company will be making additional comments on behalf of all landowners within its boundaries.

Our comments will be focused on the 4B reach of the River from the Sand Slough Diversion structure to the Mariposa Bypass.

This reach of the River is currently an environmentalist dream that is lined with thousands of trees, many of which are large oak trees that are over 150 years old. Along with the trees are a variety of bushes and plants that have created a natural habitat for a large variety of animal species.

South of Turner Island Road, there is a designated area where over 1,000 cranes and egrets roost within the vegetation of the River Channel. Joining them is a wide variety of birds such as quail, hawks, etc. that nest in the spring and call this habitat home. If the River Restoration program goes forward as planned in this reach, all this habitat would be destroyed in order to build the levees and fortify the surrounding land for the maximum flows as stated in the settlement.

We recommend that the existing Flood Bypass Channel be used instead of Reach 4B. It should be analyzed very extensively during the Bureau's process. The current Bypass Channel already has some trees within its boundaries and it looks as if it's wide enough to handle the stated flows.

Thanks for the opportunity to provide our comments.

Sincerely,

Pat Palazzo
Landowner/Farmer

Faxed to Marin 9/20

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

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(Please print clearly)

Name Fred Petroni

Organization and Address Delta Farms

12730 S. Hereford Road

Los Banos, CA 93635

Phone (209) 826-0863 FAX ( ) E-mail

Comment here: September 12,
Date

See attached comments.

All comments become part of the public record.

September 12, 2007

PUBLIC SCOPING COMMENTS for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

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Thanks for the opportunity to provide our comments.

Sincerely,

Fred Petroni

Fred Petroni
Landowner/Farmer

SAN JOAQUIN RIVER
RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

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(Please print clearly)

Name Jose Antonio Ramirez

Organization and Address City OF Firebaugh

1575 11th STREET

Firebaugh, CA 93622

Phone (559) 659-2043 FAX (559) 659-3412 E-mail

Comment here: 08-30-07
Date

— See Attached —

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All comments become part of the public record.

CITY OF FIREBAUGH

FRESNO COUNTY, CALIFORNIA

1575 ELEVENTH STREET
FIREBAUGH, CALIFORNIA 93622-2547
(559) 659-2043
FAX (559) 659-3412

August 30, 2007

Mrs. Karen Dulik
Senior Environmental Scientist
California Department of Water Resources
San Joaquin District
3374 E. Shields Ave
Fresno, Ca 93726

Re: San Joaquin River Restoration Program

Dear Mrs. Dulik:

The City of Firebaugh's existence started back in 1854 and it has nestled the San Joaquin River even since. Our residents value and cherish the river for its splendor and the life it brings to our area. We consider it as the jewel of the San Joaquin Valley. Much history is preserved in this rural community that intertwines awesome episodes of this river and the lifestyle of early settlers. The backbone of this community started as Ag and continues to be Ag and therefore our future depends on the reliable water supply of the San Joaquin River.

In recent years we have also felt and seen the fury of mother nature as unpredictable storm events have caused our residents to rest uneasy because of the threat of the river toppling its banks. The most recent event takes us back to 1997 and we can all remember the loses that this event caused.

In April 2006 we experienced a similar storm event where the amount c acre feet of snow melt was very great. The river flooded low lying areas up to about 3 feet of water and the flooding lasted approximately two months. The San Joaquin River and the Chowchilla Bypass was channeling vast amounts of water that was being released from Pine Flat and Friant Dam. The Bypass was operating at 25% above its designed capacity and the San Joaquin River was at maximum capacity with very little free board left.

The resources that were spent in preparation and in the flood fighting along with the uncertainty of the welfare of the community was scary. We endured several months of uneasiness and after the water

resided we were left to clean up the mess and address the damage. The most significant damage occurred along our bluffs/levee that are adjacent to Q street and the A.E Mills School. The damage was noticed two months after the water receded back to normal flows. There was evidence of slope instability in the form of small tension cracks that parallel the river. It was at this time that the city hired a geotechnical firm to assess the situation and provide recommendations.

We have notified the State Office of Emergency Services, the Department of Water Resources and the Governors Office and have been working on mitigation solutions. The City of Firebaugh would like to work with the San Joaquin River Restoration Program to identify environmentally friendly solutions to resolve the problem.

Finally, another issue of importance is the capacity of the river as it continues to decrease overtime because of the build up of debris in the river after every storm event. We should look at addressing this issue as well because its my understanding that nothing has been done since the early 1960's.

Thank you for the opportunity to address this body with our comments and concerns and we look forward to working with you. Should you need additional information we are more than happy to provide.

Sincerely,

Jose Antonio Ramirez
City Manager

comments on the scope of the PEIS/EIR must be sent at the earliest possible date but no later than 30 days after receipt of this NOP.

Please send comments to:

Karen Dulik, Senior Environmental Scientist
California Department of Water Resources
San Joaquin District
3374 E. Shields Ave.
Fresno, California 93726

Scoping Meetings:
A series of scoping meetings have been scheduled to solicit agency and public input on the scope of the Program, proposed alternatives, and to ensure incorporation of any issues and concerns that should be addressed in the PEIS/EIR. Meeting dates, times and locations are as follows:

DATES and ADDRESSES:

- Tuesday, August 28, 2007, 6:00 p.m. to 8:30 p.m., Tulare, CA
  - International Agri-Center, Banquet Hall, 4450 S. Laspina St., Tulare, CA 93274
- Wednesday, August 29, 2007, 6:00 p.m. to 8:30 p.m., Fresno, CA
  - Piccadilly Inn, University, Ballroom, 4961 North Cedar Ave., Fresno, CA 93726
- Thursday, August 30, 2007, 6:00 p.m. to 8:30 p.m., Los Banos, CA
  - Merced County Fairgrounds, Germino Room, 403 F St., Los Banos, CA 93635
- Monday, September 10, 2007, 1:30 p.m. to 4:00 p.m., Sacramento, CA
  - Library Galleria, 828 I St., Sacramento, CA 95814

FOR FURTHER INFORMATION CONTACT: Please see the website at http://www.restoresjr.com or contact: Ms. Margaret Gidding, Bureau of Reclamation, 2800 Cottage Way MP-140, Sacramento, CA 95825, by telephone at 916-978-5104, TDD 916-978-5608 or via fax at 916-978-5114 or Karen Dulik, California Department of Water Resources, San Joaquin District, 3374 E Shields Ave. Fresno, California 93726: telephone (559) 230-3361, e-mail: kdulik@water.ca.gov.

If special assistance is required at one of the scoping meetings, please contact Ms. Margaret Gidding via the phone number or e-mail listed above prior to the meetings.

Paula J. Landis
Chief, San Joaquin District
California Department of Water Resources

8-22-2007
Date

State of California • The Resources Agency
Arnold Schwarzenegger, *Governor*

DEPARTMENT OF PARKS AND RECREATION • P.O. Box 942896 • Sacramento, CA 94296-0001
(916) 653-9901
Ruth Coleman, *Director*

October 3, 2007

Ms. Margaret Gidding
Bureau of Reclamation
2800 Cottage Way MP-140
Sacramento, CA 95825

Dear Ms. Gidding,

Thank you for the opportunity to comment on the Notice of Preparation (NOP) for the San Joaquin River Restoration Program. Please forgive our delay in responding to your NOP.

Restoration of fish habitat and water quality to the San Joaquin River (SJR) can produce positive environmental improvements, but it will take a long time to implement and may impact the ability of the California State Parks and other recreation providers to meet recreation needs of Valley residents that were recently documented in our *California State Parks and The Great Central Valley* report. The Environmental Impact Statement/ Environmental Impact Report (EIS/EIR) for the project should address both the opportunities and risks that restoring the river will pose for recreation in the region. Some of the specific concerns that we would like to see addressed are as follows:

Millerton Lake State Recreation Area (MLSRA) is a destination for bass anglers and campers alike. The changing water levels that the lake already experiences create a struggle to maintain suitable habitat for the fishery and provide premium campsites (e.g., those at the waters edge). Restoring river flows below the lake will likely impact the quantity and quality of recreational use at Millerton Lake SRA due to earlier draw down, especially in dry years. Lower lake levels will be expected earlier in the year, resulting in highly concentrated use of the open water for the boating public. The higher concentration of boats on the water will result in lowering the value of the recreational experience for the boaters and may result in the need for more law enforcement presence to maintain order. As the lake level drops, campsites that were once located near to the shore are much further away and are much less attractive to the campers. This can result in less camping and therefore reduced revenue for the department.

The project's EIR/EIS should assess these effects. Among the information that would be especially useful in this assessment are forecasts of lake levels and lake surface area for each month during the recreation season during both normal and dry years. These forecasts should consider the cumulative effects of the river restoration project, potential additional storage upstream of Millerton Lake, and climate change.

More access to water, group picnicking, and day use opportunities are among the recreation demands that Central Valley residents identified in their comments on the Department's *Central Valley Strategy*. The desire for these recreation opportunities will only increase as the population of the Central Valley continues to grow. The project's

EIR/EIS should assess affects on Millerton Lake SRA's ability to meet these demands. Mitigation of adverse effects, including improvements both at Millerton Lake SRA and along the restored river downstream of the reservoir, should be proposed.

Traffic impacts from restoration activities, including restoration-related construction projects, need to be addressed as they relate to Millerton Lake SRA and the San Joaquin River Parkway, considering the cumulative effects of both the river restoration efforts and planned developments. Identification of the traffic impacts to the MLSRA entrance roads from displaced fishermen and hikers on the river should be addressed. The impact of the traffic generated by incoming traffic to MLSRA and to the lines of visitor cars, boats and motor homes waiting to enter MLSRA north shore on any given day could be significant. On holiday weekends these lines can be substantial, and with the growth in MLSRA visitation from planned Rio Mesa developments (cumulative impacts), could become day long waiting lines. In addition, CALTRANS has been working on a Blue Print Planning process for eight San Joaquin Valley counties that could be affected by this project in the form of road and levee relocations or limitations.

Additional Recreational Opportunities and Facilities in the San Joaquin Valley will be needed to meet the needs of the Valley's growing population, a portion of which will be accommodated by development in the project area. As the river restoration proceeds, increased water flows and the improvement to water quality could increase recreational opportunities along the restored river in ways that were not anticipated in the *Central Valley Vision*. The aforementioned *California State Parks and The Great Central Valley* report identified several recreation needs for which new opportunities might become available along the restored river:

- Expanding recreational facilities for camping, day use, fishing, boating, and trails to accommodate larger families and groups along river corridors, at Valley reservoirs and in the Delta.

- Expanding landholdings at existing parks and acquiring new parklands along major river corridors such as the Sacramento, Tuolumne, Stanislaus, San Joaquin and Merced Rivers, particularly where an opportunity exists to link state parks and other lands in public ownership.

- Acquiring lands that preserve and protect vanishing natural resources once more abundantly evident in the Central Valley, such as blue oak and sycamore woodlands, and native grasslands.

- Better preserving and interpreting the rich history associated with the Valley's past, such as agricultural history; Native American past and continuing life ways; and Highway 99.

Opportunities to meet these needs along the restored river should be assessed. This should include assessment of whether flows, temperatures, adjacent land use, and other conditions in the restored river will be suitable for boating, angling, swimming, and

other kinds of recreation. Ways in which exploitation of these new opportunities could assist in mitigating impacts at Millerton Lake SRA should be considered.

Cottonwood Creek (which is adjacent to Millerton Lake and flows into the San Joaquin River just below Friant Dam) may be an important asset to the river restoration efforts as there apparently is documented potential for salmon runs from the San Joaquin River into Cottonwood Creek. Dr. Peter Moyle, Fishery Biologist at UC Davis, has produced some documentation regarding salmon and Cottonwood Creek. The role of Cottonwood Creek in attaining the project's fishery restoration objectives should be considered. This should include an assessment of how the restoration may be affected by development being considered near the creek.

Dumna Tribe members around Millerton Lake have expressed an interest in having some dialogue regarding their ongoing needs in retaining their cultural values by making sure traditional roots, red bud and other natural resources are considered in the restoration efforts. They are hoping the final plans will allow for some well placed thought, and perhaps planting to help meet their ongoing needs. You may wish to contact the following: Dumna Contacts -- Sharyn Miller-Jones, Traditional Mono Basket, 559-240-4394; Laura Wass, American Indian Movement, 559-225-2990.

As the project description develops and the different alternatives are assessed, we are hopeful that you will consider California State Parks as a potential partner in holding lands for mitigation and providing increased recreational opportunities. We would appreciate an opportunity to meet with you to discuss how we might be involved in elements of the project's planning that affect parks and recreation issues.

If you have questions concerning any of the issues I have mentioned above, please don't hesitate to contact me.

Dan Ray
Chief, Planning Division
California State Parks
916-651-0305

GRAVELLY FORD WATER DISTRICT

1836 West Fifth Street, Madera, CA 93637 (559)674-5581

September 17, 2007

Margaret Gidding
Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP-140
Sacramento, CA 95825

Karen Dulik, Sr. Environmental Spec.
Calif. Dept. of Water Resources
San Joaquin District
3374 E. Shields Ave.
Fresno, CA 93726

Re:San Joaquin River Restoration Program

Dear Ms. Gidding and Ms. Dulik:

A major concern of the Gravelly Ford Water District regarding the San Joaquin River Restoration project is the continued integrity and viability of the District's pumping facilities at the head of the Gravelly Ford Canal. We were previously assured by representatives of the negotiating parties of the Settlement Agreement that fish screens would be installed as part of the Restoration Project and would not be the liability of the pumper. We assume that this position is still valid. Currently the District's pumps are set up so that no sand is pumped. We would expect that any modifications required to the channel would not cause changed conditions to the District's pumping capabilities. We would expect that the cost of installation and maintenance of any fish screens would be a cost of the restoration project. Additionally, any screens and/or intake channel modifications need to take into account the variation in channel water levels from normal flows to flood flows. Pumping takes place during all conditions.

Under proposed program funding, it was stated that the Friant Capital Repayment is approximately $9 million per year. Is this amount over and above the current capital repayment commitment required by our contracts? And if so, why?

The statement was made that interim restoration flows would begin in the fall of 2009. What happens if the 2009 water year is a repeat of 2007? Will Reclamation manipulate the Friant water supply declaration to assure that water would be available in the fall? Or would releases be made to go below the minimum pool at Friant?

How will the Restoration releases affect Bass Lake storage and have the Bass Lake people been advised that holding water until Labor Day may no longer be a reality?

Based on statements made at the scoping session, it is obvious that (1) portions of the San Joaquin River have not received any water since the Bypass was constructed and (2) flows in the Bypass have often exceeded the design capacity of the channel which

placed an undue financial burden on the Levee District as well as Madera County (for main finance of the road bridges.) If the Bypass channel is to become the "new river," then the cost of upgrading and maintaining the levees and bridges should be part of the annual ongoing costs of the Restoration Project and not something forced back onto local taxpayers.

We will be available to discuss any of the above items with you at your convenience.

Sincerely,

Don Roberts/es/

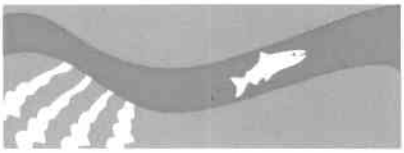
Don Roberts
Manager

DR:es

√mp

Fresno

SAN JOAQUIN RIVER
RESTORATION PROGRAM



PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

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Other

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(Please print clearly)

Name Jeffrey T. Roberts

Organization and Address Millerton Lake Area Chamber of Commerce P.O. Box 483, Friant, Calif. 93626

Phone (559) 288-0688 FAX (559) 436-1659 E-mail jroberts@gvhomes.com

Comment here: 8/29/2007 Date

As a representative of the local Chamber of Commerce, I am concerned about the potential negative impact that the implementation of the settlement could have on Lost Lake Park. Lost Lake Park is a 'Regional Park', located in Friant and owned by Fresno County and the State of California. Lost Lake Park has a substantial amount of SJ River frontage and areas now devoted to recreation may be reduced / lost if and when flows increase. The maintenance of the Parks 'viability' is of vital importance to the residents of the area and surrounding region. We need a 'clear' picture of the impacts on Lost Lake Park and it existing and proposed recreational facilities. Thank you.

All comments become part of the public record.

From: eugene rose <eugene.rose@yahoo.com>
To: <mgidding@mp.usbr.gov>
Date: 9/13/2007 5:36:38 PM
Subject: San Joaquin River Restoration

The proposed restoration of the lower San Joaquin River will challenge the stewardship for all Californians--like never before.

In addition to requiring massive funding, restoration of America's most abused river will demand a paradgym shift in strategy, political will, but particulary of individual and collective commitment. The 20th Century model of "building to demand" with new water project is not longer a viable alternative. That dinosaur approach has created the very problem we are now trying to fix.

Over the past 150 years, Californians have built over 1,600 reservoirs and untold miles of canals, aqueducts and water conveyances. Despite the resulting successes, we never have had enough of that quintessential ingredient of life. Whether it is a water project or a freeway, we build up to the available capacity and then expect more. Ever more....

For too long, we have focused on the supply side of the equation rather than looking in concert at the demand side. That was the dinosaur age. Now, Californians in particular need to recognize that there is no "new water." We can talk about new dams, water exchanges and recirculation projects but that is only part of the larger equation. Forget about the Columbia River pipeline. Forget desalinization, the costs are prohibitive.

Yes, bring on the water meters, zeriscape landscaping and drip irrigation. Most of all, we need to bring on a new era of stewardship--a recommitment to the commons--and look at every innovative and viable approach to this daunting challenge, recognizing the finite nature of water.

For starters,. California needs to address the population bomb. Most of all, we need to stop subsidizing population growth. Yes, as distasteful as the approach sounds, we need a relocation or immigration tax for those moving into the nation's most populous state--where one out of nine Americans is already a Califorinian. There is no way in the world that California can accommodate the projected 60 million population and still remain the nation's food and fiber producer.

Even now, our present growth mode in not sustainable. An increasing number of state leaders

recognizes that state government is becoming unmanageable. Unfettered growth and development is cancer of genocidal proportions. We can have quality growth or quantity growth, but we cannot have both.

Without some serious effort to limit our numbers any effort to increase or maintain the present water distribution system is doomed to failure. Restoring the beleaguered San Joaquin River will be impossible without recognizing the demand side of the equation. Whether we like it or not, population and water are inseparable.

Resuscitating the river will require a broad, multi-faceted comprehensive approach that will test our resolve and stewardship. For 21st Century Californians it will be the ultimate test.

from: Gene Rose, Fresno, author, San Joaquin--A River Betrayed

---

Margaret Gidding - San Joaquin River Restoration 9/4 email Motion

From: John Roselli <rose_sm_2000@yahoo.com>
To: <mgidding@mp.usbr.gov>
Date: 8/31/2007 5:33 AM
Subject: San Joaquin River Restoration

I am not able to attend the public meetings but being a lifelong resident and registered voter of California I would like to have these comments considered regarding the San Joaquin River Restoration Program. I have attended meetings regarding waterfowl habitat restoration and hunting opportunities for the south end of San Francisco Bay. Interested parties have covered a very broad spectrum of different points of view, including both pro and anti hunting; even with these different attitudes we have been able to put together very a reasonable hunting program (which of course includes reasonable access) right here in the middle of a huge urban area. As an avid waterfowl hunter I feel the project on the river should open up more areas for hunting (at least not loose any) while keeping the waterfowl habitat in good shape. If we are able to open-up hunter access in an urban area, I would think that in a rural setting it would also be very possible.

The San Joaquin river is a key area for local and migrating ducks; the opportunity for the public to have good hunting access is very important, it is historically an area that has been used by hunters for many many years. Not all people of California can pay to join expensive hunting clubs therefore traditional hunting areas like the SJ river should have reasonable access for that use.

Sincerely,
John Roselli
628 Ventura Ave
San Mateo, CA 94403

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

Property

Environmental Issues

Other

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

(Please print clearly)

Name Lauren Singleton

Organization and Address River Partners S.J.V. Project
806 14th St.
Modesto CA 95354

Phone (209) 521-1700 ext 3 FAX ( ) _____ E-mail lsingleton@riverpartners.org

Comment here: 8/30/07
Date

I would like to stress the importance of riparian vegetation for maintaining self sustaining salmon populations in the San Joaquin River. Native vegetation provides much needed shade for temperature control, litter, insects for food, and woody debris for the salmon to rest behind in the current. Revegetation in the flood plain will also provide erosion control along the banks, sediment trapping and will recharge the groundwater.

Thank You.
L

All comments become part of the public record.

Vmp

Fresno

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:

Water

Fish

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Environmental Issues

Other

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(Please print clearly)

Name Richard F. Sloan

Organization and Address RiverTree Volunteers, Inc

1509 E. Fallbrook Ave

Fresno, CA 93720

Phone (559) 696-2971 FAX ( ) _____ E-mail riverrich1509@aol.com

Comment here: 29 Aug 07 ***Date***

Problem: Local agencies do not take responsibility for removal of trash and debris from San Joaquin River. Where SJR is county line, each county states the other is responsible. The Bureau of Reclamation states that because the SJR is considered a navigable river that land owners adjacent to the river can be held liable. This law-if it exists - is not enforced.

Trash and debris in the river affects the health and well being of fish, animals, and humans.

Problem: Invasive weed removal - Who is responsible?

All comments become part of the public record.

Forwarded email to Marion 1/24

RIVER PARTNERS

806 14th St.
Modesto, California 95354
info@riverpartners.org

Phone: (209) 521-1700
Fax: (209) 521-7327
www.riverpartners.org

September 20, 2007

U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP-140
Sacramento, CA 95825

To Whom It May Concern:

Riparian vegetation is a critical habitat feature for self-sustaining salmon populations because it:

-provides shade for water temperature regulation,
-provides woody debris for shelter,
-hosts food for salmonids (terrestrial insects and vegetation that aquatic insects feed on),
-provides erosion control on streambanks and thereby reduces sedimentation of spawning beds.

Therefore, we strongly encourage the committee to incorporate revegetation of the floodplains and riverbanks into the restoration plan for San Joaquin River salmon populations.

Sincerely,

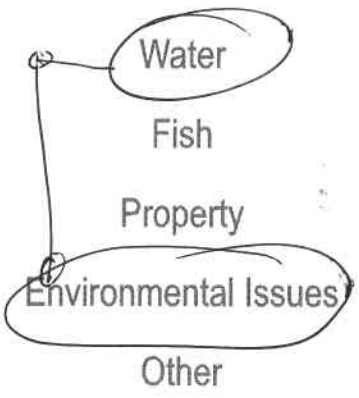
Stacy L. Small, Ph.D.
Restoration Ecologist
San Joaquin Valley Project

Public comment

SAN JOAQUIN RIVER
RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Please circle topic your comment relates to:



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(Please print clearly)

Name Gary Temple, President

Organization and Address Sierra and Foothill Citizens Alliance
P.O. Box 405
Prather, CA 93651

Phone (559) 855-5653 FAX ( ) _____ E-mail mtntop@netptc.net

Comment here: August 29, 2007 Fresno Scoping Meeting
Date

See the attached letter.

All comments become part of the public record.

SIERRA and FOOTHILL CITIZENS·ALLIANCE

P.O.BOX 405
PRATHER
CALIFORNIA
93651-0405
559-855-5653

August 29, 2007

U.S. Department of the Interior
Bureau of Reclamation
Mid Pacific Region
2800 Cottage Way, MP-140
Sacramento, CA 95825

Attn: Ms. Margaret Gidding

Re: San Joaquin River Restoration Program
Public Scoping Comments
Fresno Scoping Meeting of Aug. 29, 2007

Ms. Gidding,

We understand that the San Joaquin River Restoration Program is limited to the length of the river from Friant Dam to the confluence of the Merced River. However, we strongly recommend "recognition" of the strategic importance of the San Joaquin River source watershed above Friant Dam.

This source watershed provides virtually all of the water that flows into the San Joaquin River and the quantity and quality of water depends on the future viability of the watershed area and hence the ultimate environmental success of the restoration program. The foothill and mountain areas that comprise this source watershed are under tremendous pressure for rural/urban development. Should these development pressures be realized, the negative impact to the quantity and particularly the quality of the river water would be virtually irreversible.

In short, the long term environmental viability of the upper San Joaquin River will wholly determine the ultimate environmental efficacy of the lower San Joaquin Restoration Program. It is therefore vitally important to recognize, and not take for granted, the future well being of the upper San Joaquin River watershed.

Sincerely,

Gary Temple, President
Sierra and Foothill Citizens Alliance

Cc: SAFCA Bd. of Directors

FRIANT
WATER USERS AUTHORITY

August 28, 2007

John Davis
Jason Phillips
Margaret Gidding
Bureau of Reclamation
2800 Cottage Way MP-140
Sacramento, CA 95825

Lester Snow
Mark Cowin
Department of Water Resources
P. O. Box 942836
Sacramento, CA 94236

Paula Landis
Department of Water Resources
3374 E. Shields Ave.
Fresno, California 93726

BY FAX OR E-MAIL AND MAIL

Re: EIS/EIR for the Implementation of San Joaquin River Settlement Agreement

To Whom It May Concern:

This letter responds to the Notice of Intent to Prepare an Environmental Impact Statement published by the Bureau of Reclamation (BOR) in the Federal Register on August 2, 2007 and the Notice of Intent to Prepare an Environmental Impact Report issued by the Department of Water Resources (DWR) on August 22, 2007. The Project that BOR and DWR now propose to undertake is the implementation of the San Joaquin River Settlement. Friant Water Users Authority (FWUA) is pleased to see the federal and state cooperation on this important Project. However, FWUA has a number of concerns about how the state and federal agencies are proposing to proceed.

854 N. Harvard Ave. • Lindsay, CA 93247-1715
(559) 562-6305 • Fax (559) 562-3496

As you already know, FWUA and nearly all of its member districts were parties to the *Natural Resources Defense Council v. Rodgers* litigation since a few months after the case was filed. Although one of the issues in the lawsuit was the potential application of a state law to the federal reclamation project, the State steadfastly rejected (on the basis of the 11th Amendment) attempts to bring it in the lawsuit as a party. From 1989 through the conclusion of the litigation in 2006, the State's participation was limited to filing amicus briefs and declarations from State officials in support of plaintiffs' motions for summary judgment and making Court appearances urging the Court to rule for the environmental plaintiffs and reallocate the project's water supplies from their current beneficial uses to fish flows.

When Congressional leaders asked the parties to *NRDC v. Rodgers* to re-open settlement discussions in fall 2005, FWUA's members agreed that the negotiations on behalf of FWUA members would be coordinated through FWUA. NRDC staff represented the 14 environmental plaintiffs, and staff from the Department of Justice, the Regional Solicitor's Office, and the Regional Director's office represented the federal parties. The State took no part in these negotiations, which were intense and lasted for months.

During those negotiations, the Settling Parties painstakingly hammered out a deal that carefully balanced the restoration of the river, which undeniably will have large costs in terms of both water and dollars, with the economy that the water currently supports. It was understood and agreed by the Settling Parties that the Restoration and Water Management goals of the Settlement will be given equal importance and will have to move in tandem, on parallel tracks. (This is why the Settling Parties' press releases on the Settlement indicate that the two goals are "co-equal" and "parallel.") Simply put, it would be devastating to the economy of the San Joaquin Valley to restore the river without replenishing the water supply that supports the local economy. The Settling Parties understood this, and the result of their long negotiating efforts was the San Joaquin River Settlement.

The Settling Parties also understood that the environmental impacts associated with the implementation of the Settlement were to be analyzed in an EIR/EIS. During the Settlement negotiations, both FWUA representatives made it clear that the Water Management Goal projects would be developed during the environmental review process.

By June 19, 2006, the Settling Parties had reached agreement amongst themselves. However, as the representatives of all three Settling Parties represented to the Court on that date, the Settling Parties recognized that the Settlement would not be effective unless it had the support and cooperation of the State. For that reason, after the Settling Parties struck their deal, they turned their attention to negotiating the Memorandum of Understanding (MOU) with the State. By June 30, 2006, the Settling Parties reported to the Court that they had reached agreement on an MOU with the State. Among other things, the MOU provides that "The State Agencies intend to *assist the Settling Parties* in implementation of the Settlement consistent with the State Agencies' authorities, resources, and broader regional resource strategies," the State Agencies will make "efforts to *support the implementation* of the Settlement," and, perhaps most importantly, "The State Agencies and the Settling Parties intend to *work together collaboratively in the planning, design, funding, and implementation* of appropriate aspects of the Settlement." (MOU, § C.1 (emphases added).)

Between June 30 and September 13, 2006, the Settling Parties held off on executing the Settlement while they addressed concerns raised by the State and other potentially affected "third parties" who had not participated in either the litigation or the settlement negotiations. The Settling Parties spent countless hours discussing the Settlement with third parties and attempting to resolve their concerns. At the conclusion of this process, the Settlement was executed in the early morning of September 13, 2006, and the MOU was executed shortly thereafter.

For some months now, FWUA representatives have been engaged in discussions with representatives of the Department regarding which agency should assume the lead agency role under CEQA for purposes of the environmental review of this Project. CEQA defines "lead agency" as "the public agency [that] has the principal responsibility for carrying out or approving a project [that] may have a significant effect upon the environment." (Pub. Res. Code § 21067.) "So significant is the role of the lead agency that CEQA proscribes delegation. This prohibition was articulated in *Kleist v. City of Glendale* (1976) 56 Cal. App. 3d 770, 779." *Planning & Conservation League v. Dep't of Water Res.*, 83 Cal. App. 4th 892, 907 (2000).

FWUA believes it would be appropriate for it to act as the lead agency for the environmental review of the San Joaquin River Settlement. There are several reasons for this. First, DWR was not a party to either the underlying litigation or the Settlement itself. Its participation in this Project is to "assist the Settling Parties" and "support the implementation of the Settlement." FWUA, in contrast, participated in both the underlying litigation and the Settlement negotiations and is a signatory to the Settlement. The terms of the Settlement can be enforced against FWUA and the other Settling Parties; the same is not true for DWR or any other State agency. Second, FWUA's members are contributing funding and a portion of their contractual water supplies toward the implementation of the Settlement. We recognize that DWR is also contributing funding toward this Project, but we believe that the contribution of the FWUA parties is greater as we are also giving up water supplies. Third, as described above, FWUA was the agency that "acted first" on this Project. Indeed, without FWUA's approval of the Settlement, there would be nothing for DWR to assist us with or support. Fourth, DWR does not own or operate any of the Friant Division facilities. Thus, under the criteria of State CEQA Guidelines section 15051, FWUA strongly believes it should be the lead agency for the San Joaquin River Settlement Project. FWUA also qualifies as a Cooperating Agency under NEPA.

We understand that DWR feels it must be the lead agency for this Project. We also understand that DWR is intending to invest a significant amount of money in the Project. We appreciate DWR's support of the Settlement.

However, we do have some concerns about having an agency that was not involved in any of the Settlement negotiations assume the lead for implementing the Settlement. Primary among these is that DWR does not necessarily know the Settling Parties' intent and agreement on some of these issues. For example, as indicated above, the Settling Parties understood and agreed that the Water Management projects would be developed during the environmental review process and that the Restoration and Water Management goals would have equal priority and would proceed on parallel tracks.

The NOP issued by DWR does not reflect this understanding of the Settlement. First, in its discussion of how the environmental review will proceed, the NOP indicates that both Water

Management and Restoration Goal projects will be analyzed in "Phase 1," but "Phase 2" will be limited to implementing the Restoration Goal projects. There is no mention whatsoever of the Water Management Goal projects, even though the Settling Parties identified the two goals as "parallel" and "co-equal." If DWR and BOR implement the environmental review and the Project as indicated in the NOP, they will effectively be prioritizing the Restoration Goal projects over the Water Management Goal. This prioritization is not consistent with the Settlement. The FWUA parties did not agree that the Restoration Goal could proceed in advance of the Water Management projects. "Implementing" the Settlement in this way would change the fundamental nature of the Settlement; the deal that you propose to implement is simply not the deal we struck.

The FWUA parties are willing to entertain further discussions regarding DWR's and FWUA's respective roles in the CEQA process. However, please note that we will not be able to agree to any proposal that would change the basic nature of the Settlement agreement. Those provisions were hard-fought over many months and are simply not open for further discussion and revision. That is why the language of the NOP generates so much concern for FWUA.

With this background, FWUA has the following substantive concerns about the scope and content of the environmental information that is germane to FWUA's responsibilities for implementing this Project:

(1) FWUA is concerned that DWR and BOR are improperly piecemealing the Project. As indicated above, the Project is appropriately defined as implementation of the San Joaquin River Settlement Agreement. However, the NOP's discussion of the environmental review process fails to include any plan to incorporate the Settlement's Water Management Goal projects into the environmental analysis. The Water Management Goal is an integral component of the Settlement Agreement. The Water Management Goal projects must be analyzed in the EIS/EIR and implemented as the Settling Parties agreed. It is not acceptable to the FWUA parties for BOR and DWR to rewrite these provisions of the Settlement Agreement as the NOP implies. By not adequately accounting for the Water Management Goal in the NOP, DWR is omitting an important and major aspect of the project and therefore is not providing the accurate, stable and finite project description required by CEQA. *See County of Inyo v. City of Los Angeles*, 71 Cal. App. 3d 185, 192 (1977); *Endangered Habitats League v. State Water Res. Control Bd.*, 63 Cal. App. 4th 227, 242 (1997); *San Joaquin Raptor/Wildlife Reserve Center v. County of Salinas*, 27 Cal. App. 4th 713, 729-730 (1994); *National Parks & Conservation Ass'n v. County of Riverside*, 42 Cal. App. 4th 1505, 1514 (1996).

(2) The NOP indicates that BOR and DWR will prepare a Programmatic EIS/EIR in "Phase 1" and then will develop site-specific Restoration projects in "Phase 2" and "Phase 3." FWUA objects to the implication that no Water Management projects will be analyzed at a project-specific level in the first-tier of environmental review for this Project. As you know, at the request of Congress, FWUA submitted a lengthy list of projects to implement the Water Management Goal. Some of these, like the proposal to restore the Friant-Kern and Madera canals to their original design capacity, are ready to be analyzed at a project-specific level in the first-tier environmental document. There is no legitimate reason why these projects should be put on hold while the Restoration projects proceed. The EIS/EIR must evaluate at a project level the environmental impacts associated with the establishment of the Restored Water Account, the

work necessary to restore the Friant-Kern and Madera canals to their original capacities, and any other Water Management projects that are ready to be covered at a project level before the EIR/EIS is released for public review.

(3) It is not entirely clear to us what BOR and DWR consider to be the potential impacts of the Project. (*See* State CEQA Guidelines § 15082(a)(1)(C).) FWUA notes that the environmental documents must examine the impacts associated with implementing all aspects of this Project, including both the Restoration Goal and the Water Management Goal. To the extent that the environmental documents determine that the FWUA districts will not obtain new supplies to replace water dedicated to the river restoration, the environmental impacts associated with that water loss, including the socioeconomic impacts, must be analyzed and disclosed in the EIS/EIR.

(4) BOR's and DWR's notices are inconsistent with the Settlement Agreement in at least three fundamental ways.

(a) First, as indicated above, the NOP gives priority to the Restoration Goal over the Settlement's Water Management Goal.

(b) Second, the NOP and the NOI both state that the Settlement will be implemented by the five identified state and federal agencies, but the Settlement and the MOU both provide otherwise. For example, Paragraph 16 of the Settlement explicitly states that, to implement the Water Management Goal, "the Secretary [of Interior] shall commence activities" "in consultation with Plaintiffs and the Friant Parties." FWUA parties have never delegated their rights under the Settlement to the five identified state and federal agencies and the FWUA parties strenuously object to this usurpation of their authority to participate in the implementation of the Settlement. Similarly, the MOU expressly provides that "the State Agencies and the Settling Parties intend to work together collaboratively in the planning, design, funding and implementation of appropriate aspects of the Settlement." (MOU, § C.1.c.) FWUA does not believe the environmental review and implementation process proposed by BOR and DWR meets the understanding agreed to by the Settling Parties or the terms of the Settlement and the MOU.

(c) Finally, the NOP seems to indicate that, during "Phase 3," BOR and DWR *will* implement the "Phase 2" improvements identified in Paragraph 11(b) of the Settlement. However, some provisions of the Settlement, including the concept in Paragraph 11(b)(1) of running the Restoration Flows through the old San Joaquin River channel, were superseded by the proposed Settlement's implementing legislation. Consequently, there is no legal authority to implement Paragraph 11(b)(1) of the Settlement in the manner described in the Settlement agreement. Rather, the procedures set forth in the proposed implementing legislation must be followed. The NOP does not acknowledge this fact and implies by omission that the Settlement may be implemented without regard to the carefully negotiated legislative compromise that was designed to protect the interests of third party landowners in Reach 4B of the river.

In addition to the substantive comments given above, FWUA believes that DWR's NOP suffers from the following technical defects:

- It fails to include a map as required by State CEQA Guidelines section 15082(a)(1)(B);

- It fails to include sufficient information explaining the probable environmental impacts of the project as required by State CEQA Guidelines section 15082(a)(1)(C); and

- It fails to indicate whether any part of the project is within a hazardous waste site as required by Public Resources Code sections 21092.6(a) and 21080.4(a).

FWUA reiterates its appreciation for the efforts of the State and the Federal Government to implement the Settlement. We believe this can be a tremendously productive process, and the lofty goals of the Settlement can be attained, if all the Settling Parties and the State work together cooperatively to implement the Settlement. We remain hopeful that this can be achieved, and we look forward to discussing the environmental review and Project implementation process with the federal and state decisionmakers so we can collaborate on getting this Project off to the right start.

Consistent with CEQA, FWUA expects that the information included in this letter will be addressed in the EIS/EIR. FWUA designates Ron Jacobsma as its contact person for this Project. Please do not hesitate to contact Ron or me if you have any questions about the issues raised in this letter.

Sincerely,

Kole M. Upton
Chair
Friant Water Users Authority

emailed from Karen to MP 9/24

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

September 20, 2007

Karen Dulik
California Department of Water Resources
San Joaquin District
3374 E. Shields Ave.
Fresno, CA 93726

Project: San Joaquin River Restoration Program

Subject: CEQA comments regarding the Notice of Preparation for the San Joaquin River Restoration Program

District Reference No: 200701384

Dear Ms. Dulik:

The District recommends that the air quality section of the EIR have four main components:

1. **A description of the regulatory environment and existing air quality conditions impacting the area.** This section should be concise and contain information that is pertinent to analysis of the project. The District has several sources of information available to assist with the existing air quality and regulatory environment section of the EIR. The District's "*Guide for Assessing and Mitigating Air Quality Impacts, 2002 Revision*" (GAMAQI) contains discussions regarding the existing air quality conditions and trends of the San Joaquin Valley Air Basin (SJVAB), including those pollutants of particular concern: ozone, PM10, and carbon monoxide. In addition, it provides an overview of the regulatory environment governing air quality at the federal, state, and regional levels. The GAMAQI provides air monitoring data and other relevant information for PM-10 and other pollutants. The current GAMAQI can be found at www.valleyair.org/transportation/ceqa_guidance_documents.htm. The most recent air quality data for the District is Available on the California Air Resources Board (ARB) website at http://www.arb.ca.gov/html/aqe&m.htm. The air quality section of EPA's Region 9 (which includes information on the SJVAB) can be found at http://www.epa.gov/_region09/air/index.html. Lastly, this section should

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061
www.valleyair.org

Southern Region
2700 M Street, Suite 275
Bakersfield, CA 93301-2373
Tel: (661) 326-6900 FAX: (661) 326-6985

clearly describe the air pollution regulatory authority of the District and ARB for the various emission sources from the San Joaquin River Restoration Program project.

2. **Estimates of existing emissions and projected pollutant emissions related to the increase in project source emissions and vehicle use, along with an analysis of the effects of these increases.** The EIR should include the methodology, model assumptions, inputs and results for pollutant emissions. The cumulative impact analyses should consider current existing and planned development both within the project area and in surrounding areas. The EIR needs to address the short term and long term local and regional adverse air quality impacts associated with the operation of construction equipment (ROG, NOx, carbon monoxide [CO], and PM10) and emission generated from stationary and mobile sources. The EIR should identify the components and phases of the project. The EIR should provide emissions projections for the project at the build out of each phase (including ongoing emissions from each previous phase). The most current URBEMIS program may be used to quantify these emissions.

   Ozone Precursors – The District recommends using the regional transportation model to quantify mobile source emissions, but in some cases it may be possible to use the most current URBEMIS program to calculate project area and operational emissions. The District recommends using the most current URBEMIS program to calculate project area and operational emissions and to identify mitigation measures that reduce impacts. URBEMIS can be downloaded from http://www.urbemis.com/ or the South Coast Air Quality Management District's website at http://www.aqmd.gov/ceqa/urbemis.html. If the analysis reveals that the emissions generated by this project will exceed the District's thresholds, this project may significantly impact the ambient air quality if not sufficiently mitigated. The project applicant or consultant is encouraged to consult with District staff for assistance in determining appropriate methodology and model inputs.

   Toxic Air Pollutants – The air analysis should discuss any District or State regulations for identifying and reducing toxic pollutants. Potential sources that emit toxic pollutants include project operations, and vehicles (the ARB has designated diesel particulate emissions as a toxic air contaminant). If the project is near sensitive receptors, or if existing sources are near the project area, the District should be contacted to determine if the project developer should perform a Health Risk Assessment (HRA). An HRA should include a discussion of the toxic risk associated with the proposed project, including project equipment, operations, and vehicles. The GAMAQI defines the significance levels for toxic impacts as a cancer risk greater than 10 in a million and/or a hazard index (HI) of 1.0 or greater for chronic non-carcinogenic or acute risks.

   HRA guidelines promulgated by the California Office of Environmental Health Hazard Assessment (OEHHA) and OEHHA toxicity criteria must be used. In addition, the applicant should also refer to the "*Guidance for Air Dispersion Modeling*" document found on the District's web page for additional guidance. This

document can be found at http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

The District recommends use of the latest version of the Hot Spots Analysis and Reporting Program (HARP) released by ARB for an HRA because it is the only software that is compliant with the OEHHA guidelines.

The project consultant should contact the District to review the proposed modeling approach before modeling begins. For more information on HAPs analyses, please contact Mr. Leland Villalvazo, Supervising Air Quality Specialist, at (559) 230-6000 or hramodeler@valleyair.org.

Carbon Monoxide Hotspot Analysis – Results of the traffic study should be used to identify intersections and corridors with high levels of congestion that may result in a CO hot spot. CO hot spots should be screened using a protocol developed by the Institute of Transportation Studies at University of California Davis entitled Transportation Project-Level Carbon Monoxide Protocol. Locations that are predicted by the CO Protocol to experience high levels of CO should be modeled using the most current CALINE dispersion model. The procedure for using the current EMFAC model to calculate emission factors to be used in the CALINE modeling can be downloaded at the Caltrans Division of Environmental Analysis site http://www.dot.ca.gov/hq/env/air/pages/calinesw.htm.

Odor Analysis – The proposed project should be analyzed to see if it is considered near a location of sensitive receptors (including residences) and if odor is a concern. The procedure outlined in the GAMAQI includes the following:

- Identify the location of sensitive receptors (including residences).
- Compare the distance to the nearest sensitive receptor to the distances in Table 4.2 of the GAMAQI. If the sensitive receptors are further away than the distances given in Table 4.2, no further analysis is required. The results should be documented in the EIR.
- Obtain any odor complaints against the facility or similar facilities from the local District office and the county's environmental health department.
- Review the complaints to determine the location of complainants relative to the facility.
- Identify any sensitive receptors at similar distances.
- Determine if emissions of odoriferous compounds will increase or decrease with implementation of the project.
- Draw any reasonable conclusions as to the probability that the project will generate odor complaints based on this analysis of complaint history.

Note that the emission of odiferous compounds should be mitigated as much as feasible if it is anticipated that the project will have a significant impact. For more information on odor impact analyses, please contact Mr. Leland Villalvazo, Supervising Air Quality Specialist, at (559) 230-6000, or hramodeler@valleyair.org.

3. **Identify and discuss all existing District regulations that apply to the project.** The EIR should identify and discuss all existing District regulations that apply to the project. It would be appropriate to discuss proposed rules that are being developed that would apply to the proposed project. Current rules and regulations are available on the District's website at http://www.valleyair.org/rules/1ruleslist.htm. District rules and regulations are periodically revised, and new regulations are promulgated. The District strongly advises the California Department of Water Resources to contact the District for any rule updates and new rules when the project development begins. Current District rules and regulations applicable to the proposed project are requirements.

4. **Identify and discuss all feasible measures that will reduce air quality impacts generated by the project.** "Feasible" means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors: (California Code of Regulations (CCR § 15364)). CEQA requires that EIRs "describe measures which could minimize significant adverse impacts" (CCR §15126(c)). Additionally, the CCR requires that "a public agency should not approve a project as proposed if there are feasible alternatives or mitigation measures that would substantially lessen any significant effects that the project would have on the environment " (CCR § 15021(a)(2)). For each potential adverse impact, mitigation measures should be identified to reduce impacts below air quality threshold levels of significance. Therefore, the EIR should identify which mitigation measures will be included in the project, and how each mitigation measure will be implemented. The reduction of air quality impacts from implementation of mitigation measures should be quantified to the extent possible. If a measure cannot be quantified a qualitative discussion should be provided explaining the benefits of the proposed mitigation measure. The EIR should discuss how project design modifications could reduce project impacts

   This section should provide an analysis of existing mass transit/bicycle access to or near the site, and discuss if additional infrastructure will be needed. The section should identify which mitigation measures will be included in the project, and how each mitigation measure will be implemented. Site design, equipment alternatives, construction and operational measures that would reduce emissions should be identified. It should also analyze opportunities to mitigate urban heat island effects. The reduction of air quality impacts from implementation of mitigation measures should be quantified when possible. The EIR should discuss how the project design would encourage alternative transportation (including car pool parking), pedestrian and bicycle access/infrastructure, smart growth design, energy efficient project and building design, reduce urban heat island impacts, and include business programs that further reduce air pollution in the valley (such as carpooling). Mitigation measures must be included in the EIR that reduce the emissions of reactive organic gases, nitrogen oxides, and PM10 to the fullest extent possible. Site design and building construction measures that would reduce air quality impacts should be included. The Districts GAMAQI describes these features. The Local Government Commission (LGC) website, found at www.lgc.org/, contains valuable information

and resources on subjects from street design to energy efficiency. The use of the principles of the document Landscape of Choice is encouraged to reduce air quality impacts.

District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this project. If you have any questions or require further information, please call Jon Klassen at (559) 230-5843 and provide the reference number at the top of this letter.

Sincerely,

David Warner
Director of Permits Services

for

Arnaud Marjollet
Permit Services Manager

DW: jk

cc: File

forwarded email to Morgan 9/21

San Joaquin River
Parkway and
Conservation Trust, Inc.

September 20, 2007

Margaret Gidding
Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP-140
Sacramento, CA 95825

RE: San Joaquin River Restoration Program Environmental Scoping Process

Dear Ms. Gidding:

The San Joaquin River Parkway and Conservation Trust (Trust) appreciates the opportunity to provide comments on the Notice of Intent to prepare environmental documents for the San Joaquin River Restoration Program.

The Trust's mission is to preserve and restore San Joaquin River lands of ecological, scenic or historic significance; to educate the public on the need for stewardship; to research issues affecting the river; and to promote educational, recreational and agricultural uses of the river bottom consistent with protection of the river's resources.

The Trust is very supportive of both of the goals of the San Joaquin River Restoration Program, and eager to work with the implementing agencies to bring those goals to life.
We urge you to evaluate the following items in the EIR/EIS:

1. Impacts of streamside/upland habitat restoration on water temperature, water quality, and fish survival.

We recognize that there will be significant emphasis on the geomorphic changes necessary to provide fish passage and survival during migration; we want to ensure that the important benefits provided by an increase in streamside vegetation to provide shade, runoff pollutant filtration, and woody debris necessary for instream cover are also evaluated.

2. Evaluate underground water storage and groundwater recharge in addition to water transfers and surface storage in meeting the water management goal

Numerous opportunities exist for improving water supply certainty in the Central Valley, for both domestic and agricultural users. Evaluation of underground storage opportunities and impacts to groundwater should be included as alternatives or additions to other water management options.

3. Provide cost-benefit analysis of levy removal and floodplain expansion or wetland creation in areas impacted by poorly maintained or permeable levies

Levy repairs have been identified as the most expensive aspect of the restoration program. Agricultural land that has experienced flooding in previous high flow events due to permeable substrate or levy failure may be appropriate for acquisition and restoration as floodplain or wetland habitat. Re-creation of natural flood processes in a river system often provides downstream flood control benefits as well as increasing freshwater wetland habitats. California has lost an estimated 95% of wetland habitat, and the long-term water quality and flood control benefits of wetland creation should not be underestimated. The Trust has a policy of acquiring land only through willing-buyer, willing-seller transactions, and encourages the implementing agencies to operate with the same guidelines rather than utilizing eminent domain for any land or easement acquisition.

4. Consider beneficial impacts of levy removal and floodplain creation or expansion on long-term flood management

Levy removal and floodplain expansion may be employed for gravel pit filling or isolation in reach 1. Expansion of the floodplain to allow natural expansion and slowing of flood flows will provide downstream flood benefits and should be evaluated as a flood control measure.

5. Prioritize projects on land that is in public ownership and where willing partners exist, rather than rigidly adhering to the phasing schedule described in the settlement

Reach 1 gravel pit isolation has been identified as a phase two task; however, the Trust and the San Joaquin River Conservancy have acquired most of the subject lands in the past two years. The affected lands are the focus of ongoing San Joaquin River Parkway trail planning, and all of the public and private partners involved in the project are supportive of the River Restoration Program goals. Due to the accessibility of the land and the willingness of landowners and other partners, we suggest implementation of Reach 1 modifications in the first phase of implementation on public lands within the Parkway.

In addition to the recommendations above, we want to reiterate the Trust's desire to work cooperatively with the implementing agencies on the River Restoration Program. Specific areas where the Trust possesses expertise that may be useful during program implementation include:

Outreach & Education

- The Trust has implemented two phases of a public education and outreach program called *This River Is Our River* in coordination with the agencies and organizations involved in the restoration program. We hope to continue providing opportunities for education about the restoration program through activities such as public forums, guided walks, and hosted meetings.
- The Trust intends to actively provide river restoration news and information via Trust publications and at outreach events, information booths, and during public presentations.
- The Coke Hallowell Center for River Studies can function as a repository of information on restoration progress as it takes place for historical purposes and public information.
- The Trust's education program reaches approximately 11,000 children every year through field trips, classroom presentations, and River Camp. Activities designed to educate children about river restoration have already been designed and included in River Camp and classroom presentations; we expect to continue providing restoration information throughout program implementation.

Land Acquisition and Habitat Restoration Projects

Friant Dam to Highway 145

- The Trust has completed numerous land acquisition and conservation easement projects in this reach, and can coordinate work to protect and restore river lands in this section with the river restoration program.
- In the Parkway section (Friant Dam to Highway 99), the Trust will work with the implementing agencies to coordinate the design of Parkway facilities with restoration program plans and activities.

Below Highway 145

- The Trust is interested in project opportunities downstream of Highway 145, and will monitor restoration activities and consider potential projects as they arise.

Resource Development

- The Trust has significant experience developing funding from public and private sources, and will endeavor to leverage the state's committed

restoration dollars with other funding to accomplish the goals listed above.

We appreciate the opportunity to comment on the scope of the EIR/EIS, and look forward to working productively with the Restoration Program throughout implementation. If you have questions or need additional information, please contact me at (559) 248-8480 or sweaver@riverparkway.org.

Sincerely,

Sharon Weaver
Watershed Program Director

cc: Karen Dulik, California Department of Water Resources

Margaret Gidding - Restoration of the San Joaquin River forwarded email to Marcia 9/20

From: "Peter Weber" <peterweber@sbcglobal.net>
To: <mgidding@mp.usbr.gov>
Date: 9/20/2007 12:40:11 PM
Subject: Restoration of the San Joaquin River

Dear Ms. Gidding,

I am writing to urge support for the negotiated plan to restore and improve the San Joaquin River, a vital element in the economic wellbeing of the San Joaquin Valley. The parties to the lawsuit have negotiated a settlement that protects the water available for agriculture, population growth, and fish and wildlife habitats, while reducing the loss of water and top soil from flooding. We need to create an amenity which will enhance the quality of life for our residents, thereby enabling us to attract and retain the professional and skilled workforce needed by our economy.

For too long this valuable asset has been abused and neglected. Legal maneuverings and political power-plays need to be replaced by a collaborative effort to restore and improve our river. The San Joaquin River Conservancy and the San Joaquin River Parkway and Conservation Trust are demonstrating the value of restoring the San Joaquin River for the 22 miles from Friant Dam to US 99. The thoughtful plan negotiated by the parties will serves the interests of all stakeholders, for the entire 123 miles of the river.

I respectfully urge your support for implementation of this plan.

Peter E. Weber
320 West Bluff Ave. # 103
Fresno, CA 93711

(559) 431-7170

faxed to mann 9/20/07

Chowchilla Water District

POST OFFICE BOX 905 - 327 S. CHOWCHILLA BLVD.
CHOWCHILLA, CALIFORNIA 93610

TELEPHONE (559) 665-3747
FACSIMILE (559) 665-3740
E-MAIL dwelch@cwdwater.com

September 12, 2007

John Davis
Jason Phillips
Margaret Gidding
Bureau of Reclamation
2800 Cottage Way MP-140
Sacramento, CA 95825

Lester Snow
Mark Cowin
Department of Water Resources
P. O. Box 942836
Sacramento, CA 94236

Paula Landis
Department of Water Resources
3374 E. Shields Ave.
Fresno, California 93726

Re: San Joaquin River Settlement Agreement

To Whom It May Concern:

This letter responds to the Notice of Intent to Prepare an Environmental Impact Statement published by the Bureau of Reclamation in the Federal Register on August 2, 2007 and the Notice of Intent to Prepare an Environmental Impact Report issued by the Department of Water Resources on August 21, 2007. The Project that the federal and state agencies propose to implement is the San Joaquin River Settlement Agreement.

Chowchilla Water District is a water district organized and existing under California law. The District was a party to the *Natural Resources Defense Council v. Rodgers* litigation. The District's Board of Directors approved the San Joaquin River Settlement last August, and the District is one of the parties to the Settlement. Under the terms of the Settlement, the Friant contractors will contribute both a portion of their contractual water supplies and funding toward the implementation of the Settlement. Therefore, under the California Environmental Quality

Act and its implementing guidelines, the District is a responsible agency for the project implementing the Settlement Agreement. (14 Cal. Code Regs. § 15381.) As such, the District may require changes in the Project to lessen or avoid only the environmental effects of the parts of the Project that the District will be called upon to carry out or approve. (14 Cal. Code Regs. § 15041(b).) The District also qualifies as a Cooperating Agency under the National Environmental Policy Act.

As a Responsible Agency under CEQA and a Cooperating Agency under NEPA, the District agrees with the comments on the NOI and NOP submitted by the Friant Water Users Authority in its letter to you dated August 28, 2007. The District incorporates the comments in Friant's August 28, 2007 letter by reference. Consistent with CEQA (14 Cal. Code Regs. § 15096(b)(2)), the District expects that the EIS/EIR will address the issues raised in Friant's letter.

The District designates Douglas Welch as the contact person to attend meetings to discuss the scope and content of the EIS/EIR.

Sincerely,

Douglas Welch

General Manager

C:\ USBR and DWR CEQA 2007 09 12.DOC

faxed to me 9/24

SAN JOAQUIN RIVER RESTORATION PROGRAM

PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program Environmental Impact Statement/Environmental Impact Report

Written comments can be submitted at the scoping meetings, mailed to the Bureau of Reclamation *(mailing address is on the back of this card)*, faxed 916-978-5114, emailed to mgidding@mp.usbr.gov or provided online at www.restoresjr.com by close of business on Friday, September 21, 2007. Thank you.

Please circle topic your comment relates to:

(Water)
Fish
Property
Environmental Issues
Other

(Please print clearly)

Name Dennis Westcot

Organization and Address 716 Valencia Ave
Davis, CA 95616-0153

Phone ( ) _____ FAX ( ) _____ E-mail dwestcot@sbcglobal.net

Comment here: 11/13/07
Date

The San Joaquin River Restoration Program is set to restore fisheries and flow on the River with this program. The increased River flow should also make a major improvement in River water quality, especially with regard to the existing salinity problem. However, this improvement will not be sustainable long-term unless the Restoration Program puts pressure on the Central Valley Water Quality Control Board to implement and enforce the State's Non-degradation plan by putting restrictions in place that cap the salt load entering the River at today's levels. Without these caps, the River will again become the salt drain for the basin as loads increase. These additional salt loads will impact the very fishery resource that you are attempting to restore and protect. There is no reason to begin the restoration effort unless salinity protection standards are in place. Protection standards need to be load caps, not water quality objectives. Water quality objectives would allow additional discharges as the Restoration flow are used to dilute additional waste loads.

All comments become part of the public record.

The Nature Conservancy
SAVING THE LAST GREAT PLACES ON EARTH

California Regional Office
201 Mission Street, Fourth Floor
San Francisco, CA 94105

Received from Peter Yolles
tel [415] 777-0487
fax [415] 777-0244

nature.org
nature.org/california

September 20, 2007

Scoping Comments for the San Joaquin River Restoration Program – Phase I

The Nature Conservancy (the Conservancy) appreciates the opportunity to comment on Phase I of the San Joaquin River Restoration Program. The Nature Conservancy's mission is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. The Habitat Restoration Goal is "to restore and maintain fish populations in "good condition" in the main stem of the San Joaquin River below Friant Dam to the confluence of the Merced River, including naturally reproducing and self-sustaining populations of salmon and other fish." Accordingly, The Conservancy fully supports the Habitat Restoration Goal, and our comments primarily are directed toward this goal by emphasizing the importance of integrating riparian and floodplain habitat more closely into the Program plan in order to benefit not only salmon and other native fish but the suite of species that rely on the San Joaquin River and its adjacent habitats.

Importantly, expanding riparian and wetland habitats that are hydraulically connected to the river will benefit salmonids, which have higher growth rates and survival when rearing on inundated floodplains compared to in the main channel (Sommer et al. 2001, Limm and Marchetti 2003). Other native fishes (e.g., Sacramento splittail) benefit from increased access to inundated floodplains by having greater opportunities for reproduction. Restoring riparian and wetland habitats is also beneficial to native fishes in that it provides inputs of large woody debris and helps generate diverse channel features and robust food webs (Cosumnes report reference).

In addition to benefiting salmon and other native fish species, the San Joaquin River Restoration Program has tremendous potential to aid the recovery of a broad suite of other important taxa in the region. Consequently, program managers should make every effort to evaluate how alternative implementation scenarios will affect not only salmon, but also the wider range of species and natural communities that represent the tremendous range of biodiversity in the area.

In particular, there are opportunities to expand floodplain riparian habitats which will help recover a suite of important community types including willow scrub, cottonwood forest, mixed riparian forest, sycamore alluvial woodland, elderberry savanna and valley oak woodland. These habitats have the potential to support many valuable and rare species including birds (e.g., least bell's vireo, yellow-billed cuckoo, Swainsons hawk), mammals (e.g., San Joaquin pocket mouse) and amphibians (e.g., California tiger salamander, western spadefoot toad).

Restoring floodplain riparian areas that adjoin the river will also benefit wildlife species that inhabit a suite of surrounding habitat types including wetlands and alkali scrub, a habitat type that is situated on the rim of wetland basins in the area. Wetland species likely to benefit from these actions include giant garter snake, western pond turtle and tricolored blackbird. Although alkali scrub associated species (e.g., blunt-nosed leopard lizards, kangaroo rats and San Joaquin kit fox) are not typically found in low lying riparian zones, they benefit when their habitats are embedded in a large landscape matrix of interconnected natural habitats. Such connections are entirely possible within the context of San Joaquin River restoration, and if made they would promote the revitalization of natural processes which are essential for maintaining habitat quality.

In summary, we encourage the San Joaquin River Restoration Program managers to evaluate the anticipated impacts of the different implementation scenarios on the full range of natural

species and communities in the Project Area. As is detailed in the Restoration Strategies Report (Stillwater Sciences 2003), there are many opportunities to revitalize the San Joaquin River that will provide benefits to not only salmon and other fishes, but also the larger riparian and wetland complex in the area. Our experiences on the Sacramento River have shown us that floodplain restoration efforts can successfully promote the recovery of a wide range of wildlife species (Golet et al. *in review*). On the San Joaquin River, the biodiversity and number of special status species are among the highest in the Central Valley; thus every effort should be made to adopt restoration scenarios that, while benefiting salmon and other native fish, can also benefit the broadest range of species.

References

Golet G.H., T. Gardali, C. Howell, J. Hunt, R. Luster, B. Rainey, M. Roberts, H. Swagerty, N. Williams. Wildlife Response to Restoration on the Sacramento River. San Francisco Estuary and Watershed Science. *Revision in review.*

Limm, M.P. and M.P. Marchetti. 2003. Contrasting patterns of juvenile chinook salmon (Oncorhynchus tshawytschaw) growth, diet, and prey densities in off-channel and main stem habitats on the Sacramento River. Report to The Nature Conservancy.

Sommer, T.R., M.L. Nobriga, W.C. Harrell, W. Batham, and W.J. Kimmerer. 2001. Floodplain rearing of juvenile chinook salmon: evidence of enhanced growth and survival. Canadian Journal of Fisheries and Aquatic Sciences 58:325-333.

Stillwater Sciences. 2003. Draft restoration strategies for the San Joaquin River. Report to Friant Water Users Authority and Natural Resources Defense Council.