

**Appendix K – Responses to Comments Received on the Draft
Supplemental WY 2012 Interim Flows EA**

1.0 Comments

This Appendix contains a copy of the comment letters received from Federal agencies, State agencies, local agencies, organizations, and individuals. Table 1 below indicates the commenting entity and abbreviation used to identify commentors. Individual comments within a comment letter are delineated by the abbreviation and sequential number (i.e., CVFPB-1). Responses to comments are provided in the following compilation of comments received. Modifications to the Draft Supplemental Water Year (WY) 2012 Interim Flows Environmental Assessment (Draft Supplemental WY 2012 Interim Flows EA) have been made and are incorporated within the text of the Final Supplemental WY 2012 Interim Flows Environmental Assessment (Final Supplemental WY 2012 Interim Flows EA).

Table 1.
Summary of Comment Letters Received and Abbreviations Used to Identify and Respond to Comments

Abbreviation	Agency	Affiliation
BCID	Banta-Carbona Irrigation District	Local Agency
CVFPB	Central Valley Flood Protection Board	State Agency
FWA	Friant Water Authority	Local Agency
LSJLD	Lower San Joaquin Levee District	Local Agency
Paramount	Paramount Farming Company	Individual
River Partners	River Partners	Organization
RMC-SJREC	San Joaquin River Resource Management Coalition and San Joaquin River Exchange Contractors	Organization and Local Agency
SLDMWA	San Luis & Delta-Mendota Water Authority	Local Agency
Wolfsen	Wolfsen Land Owner Group	Individual
WSID	West Stanislaus Irrigation District	Local Agency

1.1 Banta – Carbona Irrigation District

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ATTORNEYS

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CODE	ACTION	SUPNAME & DATE
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Jeanne M. Zolezzi		
jzolezzi@herumcrabtree.com		

VIA EMAIL

June 30, 2011

Ms. Michelle Banonis
Natural Resource Specialist
2800 Cottage Way, MP-170
Sacramento, CA 95825
mbanonis@usbr.gov

Re: San Joaquin River Restoration Program/Supplemental Environmental
Assessment – Interim Flows Project – Water Year 2012

Dear Ms. Banonis:

Banta-Carbona Irrigation District ("BCID") submits the following comments on the San Joaquin River Restoration Program Supplemental Environmental Assessment ("SEA") for implementation of the Water Year 2012 Interim Flows Project.

The SEA includes reference to BCID facilities as a potential point of recapture for Interim Flows, and notes that "Interim Flows recaptured along the San Joaquin River may provide deliveries in lieu of Delta-Mendota Canal (DMC) supplies". Specifically, the SEA states:

The proposed recapture at this facility would change the current operations in that BCID would divert some of the Project's flows at its facility in lieu of deliveries via the Delta-Mendota Canal.

BCID has met with representatives of Reclamation and expressed its interest in cooperating with recapture of interim and permanent flows in the future. Two things about the SEA are troubling, however.

BCID-1
First, there have been no discussions between BCID and Reclamation regarding use of BCID facilities for 2012 interim flows. BCID makes decisions about use of its

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Date Input & Initials	7/5/2011 J.S.

BCID- 1

facilities well in advance, and is already in discussions with numerous individuals for long-term arrangements.

BCID- 2

Second, BCID has explained to Reclamation numerous times that it is not possible for BCID to divert project flows at its facility on the San Joaquin River in lieu of deliveries via the DMC. BCID uses water from the DMC during the peak irrigation period. During that time, 100% of the capacity of BCID's San Joaquin River facilities is being used to provide irrigation water to its customers. Consequently, BCID has no additional capacity to divert water from the San Joaquin River "in lieu" of deliveries from the DMC.

Finally, we have the following general factual corrections for your document:

BCID- 3

- BCID serves approximately 15,000 acres within its boundaries, approximately 3,000 acres of Kasson contract land, and provides water to additional acreage outside the district for a total of approximately 19,000 acres.
- BCID's annual diversions from the San Joaquin River vary from 55,000 to 60,000 acre feet, depending on hydrologic year types.

Very truly yours,



JEANNE M. ZOLEZZI
Attorney-at-Law

JMZ:pg

1.1 Banta – Carbona Irrigation District

BCID 1: Reclamation recognizes that there have been no discussions with Banta-Carbona Irrigation District (BCID) for the possible use of BCID's facilities to recapture Interim Flows and that BCID is already in discussions with numerous individuals and organizations for long-term arrangements for its facilities. The future use of BCID facilities would require an agreement with BCID, and possibly other entities. If such use were pursued, Reclamation would facilitate any future discussions and agreements. Additionally, Reclamation would coordinate any future agreements needed as a result of this action. The use of BCID facilities was included in the Draft and Final Supplemental WY 2012 Interim Flows EAs to provide greater flexibility in the event that such a use were pursued in the future.

BCID-2: See response to comment BCID-1. If Reclamation were to pursue a diversion of flows at BCID facilities for WY 2012 Interim Flows, discussions would be undertaken in order to ensure that disruption to any existing operations would be avoided or minimized and ensure coordination with the appropriate agencies.

BCID – 3: The factual corrections have been included in Section 2.2.2 – Recapture and Recirculation, Screened Diversions.

1.2 Central Valley Flood Protection Board

CENTRAL VALLEY FLOOD PROTECTION BOARD

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SACRAMENTO, CA 95821
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July 21, 2011

Ms. Michelle Banonis
Natural Resources Specialist
U. S. Bureau of Reclamation
2800 Cottage Way, MP -170
Sacramento, California 95825-1898

Dear Ms. Banonis:

We have reviewed the Draft Supplemental Environmental Assessment for the San Joaquin River Restoration Program Water Year 2012 Interim Flows Project. These comments are being presented by staff of the Central Valley Flood Protection Board (Board) and do not reflect any decision which may be made by the Board regarding the proposed project in the future.

The Central Valley Flood Protection Board is responsible for flood safety within California's Central Valley and maintains the integrity of the existing flood control system and designated floodways through the Board's regulatory authority. The Board provides assurance to the U.S. Army Corps of Engineers (Corps) to operate and maintain the San Joaquin River and Tributaries Flood Control Project, which includes project levees along the San Joaquin River, the Chowchilla Bypass, Eastside Bypass, Mariposa Bypass, Sand Slough Control Structure and the appurtenant structures in these bypasses. In turn, the Board assigns the operations and maintenance responsibility of these facilities to the Lower San Joaquin Levee District. These flood control facilities are in the project area and could be impacted by this project.

CVFPB- 1

The draft document proposes interim flows that are below the design flow capacities of the river channel and bypasses. Even though these flows are below the design flow capacities, interim flows are in addition to what normally would be present without this project. The draft document should provide additional analysis and evaluation of the potential impacts and mitigation measures of these additional flows to the operations and maintenance of the flood control system and to the system's functioning. For example, the draft document should consider acceptable threshold limits for seepage and hydraulic impacts resulting from additional flows; the potential increased operations and maintenance costs associated with any additional flows; potential increase in vegetation growth in the flood control channels and bypasses; and impacts to existing uses in the flood control channels and bypasses.

CVFPB- 2

Hydraulic and Seepage Impacts – The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for flooding. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to Federal and State agency requirements for on-site mitigation within the floodway. Hydraulic impacts due to increased vegetation and sedimentation could impede flood flows or reroute flood flows. The project should include the establishment of acceptable threshold limits for hydraulic impacts and seepage in lands adjacent to the river channel for use

in the identification of potential sites to construct projects to mitigate seepage and potential hydraulic impacts.

Thank you for your consideration of these comments. If you have any questions regarding this matter, please call me at (916) 574-0609, or by e-mail at dfua@water.ca.gov, or you may contact James Herota, Staff Environmental Scientist, at (916) 574-0651, or by e-mail at jherota@water.ca.gov.

Sincerely,



Dan S. Fua
Supervising Engineer

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
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1.2 Central Valley Flood Protection Board

CVFPB – 1: The Proposed Action was developed using the best available information at the time the Draft Supplemental WY 2012 Interim Flows EA was prepared, which suggested that flows below 1,300 cubic feet per second (cfs) would not result in significant seepage-related or flooding impacts to land adjacent to the river. Additional analysis is included in the WY 2010 Interim Flows Final EA/IS as Attachment 6 to Appendix G, “Cursory Evaluation of Flood Impacts from Interim Flows,” which supports these findings. Landowner reports, in addition to numerical modeling tools, were the primary tools used to determine the flows that are not anticipated to cause significant seepage-related or flooding impacts. As described in the Draft Supplemental WY 2012 Interim Flows EA and consistent with the San Joaquin River Restoration Settlement Act (Act; Public Law 111-11), Interim Flows would be released up to then existing channel capacities, which is defined as the capacity that would not result in material adverse impacts due to groundwater seepage and not result in material adverse impacts to levee stability. As in previous years, in WY 2012, Interim Flows would be incrementally increased over time. Interim Flows would also be reduced to the extent necessary to address any material adverse impacts to third parties from groundwater seepage or to address any levee stability concerns. Impacts to flood control facilities are expected to be less than significant.

CVFPB – 2: The Lower San Joaquin River Flood Control Project (Flood Control Project), authorized by Congress in 1944 to protect irrigated agricultural lands and associated developments, is operated and maintained by the Lower San Joaquin Levee District (LSJLD) under the Flood Control Project’s Operation and Maintenance Manual for Levee, Irrigation and Drainage Structures, Channels and Miscellaneous Facilities (Flood Control Manual). Within much of the Flood Control Project, the LSJLD is responsible for the maintenance of the river and bypass channels, including keeping the channels clear of regrowth of vegetation as regrowth of vegetation will change the flood flow characteristics of the project channels. The Flood Control Manual states that “the purpose of channel maintenance is to insure that the channel is kept in as good a condition as when the channel was constructed” (Reclamation Board 1967). Consistent with the agreement and assurances provided by the State of California to the United States and the agreements between the State and the LSJLD, the LSJLD and the State of California are responsible for the operation and maintenance of the Flood Control Project including the management of vegetation and sediment. However, Reclamation recognizes that the WY 2012 Interim Flows would result in an increase in maintenance activities and would pursue a financial assistance agreement with the LSJLD to cover the additional efforts that are directly related to Interim Flows. Such an agreement would likely be similar to the agreement recently completed by Reclamation and the LSJLD for WY 2011 Interim Flows.

As described in Chapter 2 of both the Draft and Final Supplemental WY 2012 EAs, Reclamation will continue to implement the Seepage Monitoring and Management Plan to reduce material adverse impacts from groundwater seepage that may result from the Interim Flows. In late 2010, Reclamation began holding Seepage and Conveyance Technical Feedback Group meetings. These meetings are open to the public and are intended to address seepage and conveyance concerns. Reclamation developed groundwater thresholds for each well considering local topography, adjacent crops, drainage, and soil conditions in coordination with the Seepage and Conveyance Technical Feedback Group. Reclamation is committed to releasing Interim Flows

such that groundwater thresholds are not exceeded, resulting in no material adverse impacts to adjacent agricultural lands.

1.3 Friant Water Authority

FWA Comments on Supplemental Environmental Assessment - Interim Flows Project – Water Year 2012

Chapter	Page	Line Number	Comment	Comment Identifier
1	1-2	29-30	Is this a FONNSI or a FONSI? The descriptive phrase doesn't contain "New"	FWA- 1
1	1-6	2	It is not clear why the remainder of the 2010 flow changes from May through September were not described. (This is exactly the same language from the Draft 2011 Supplemental EA that was drafted prior to the end of May)	FWA- 2
2	2-2	13-15	The Document states the temporal and longitudinal magnitude and timing of flow releases will be in accordance with Exhibit B of the Settlement and based on recommendations from the Restoration Administrator (RA). This implies the Secretary is deferring to the RA's recommendation. However, the Settlement calls for the RA to make recommendations to the Secretary. It does not require the Secretary to base the flows on the RA's recommendation.	FWA- 3
2	2-5	1-3	The document states the actual daily WY 2012 Interim Flow releases (the resulting hydrograph) would be subject to the application of flexible flow provisions described in Exhibit B and other ramping and flow scheduling changes, as recommended by the RA. Again, this implies the Secretary is deferring to the RA's recommendation, and also implies that flexible flow provisions apply to Interim Flow releases, a matter that has not been fully resolved, but has been handled by interim agreement. However, the Settlement calls for the RA to make recommendations to the Secretary. It does not require the Secretary to base the flows on the RA's recommendation. If the Secretary is now making the decision to implement the RA's recommendation it should be highlighted in this document.	FWA- 4
2	2-5	5-7	The document states "As described in Paragraph 15 of the Settlement, the RA makes recommendations to assist Reclamation in implementing Interim Flows." This is not what is stated in Paragraph 15 of the Settlement. Among other things, Paragraph 15 states the "Restoration Administrator, in consultation with the Technical Advisory Committee, the Secretary, and other appropriate federal, State and local agencies, shall develop and recommend to the Secretary implementation of a program of Interim Flows in order to collect relevant data concerning flows, temperatures, fish needs, seepage losses, recirculation, recapture and reuse." The language of this section of the SEA should be revised.	FWA- 5
2	2-8	4-9	The document states "Under the Proposed Action, recaptured water would be exchanged for a like amount of CVP water and/or would be recirculated and held in storage in San Luis Reservoir. Reclamation is working with the Friant Division long-term water contractors to prepare a separate Environmental Assessment to determine possible mechanisms to either exchange or deliver to the Friant Division long-term contractors recaptured water stored in San Luis Reservoir." It is possible that recaptured water may be directly recirculated without being temporarily stored in San Luis Reservoir. That possibility should be clearly included in this description.	FWA- 6
2	2-13	4-5	The document states that the quantity of water to be released from Friant Dam as WY 2012 Interim Flows under the Proposed Action is defined by the hydrologic year type classifications provided in Exhibit B, consistent with the Restoration Flow Guidelines (included in Appendix C of the Final EA/IS for the WY 2010 Interim Flows Project). The Restoration Flow Guidelines are not in Appendix C of the Final EA/IS for the WY 2010 Interim Flows Project. In addition, the draft RFG has changed considerably since both the 2010 and 2011 Interim Flow environmental assessments.	FWA- 7
2	2-14	7	Change 2005 to 2004 (see Settlement Exhibit B, paragraph 2, last sentence).	FWA- 8
2	2-14	19-20	The document states Reclamation makes an initial water year determination on or before February 20 each year. The Friant Division contracts state the determination is made "on or about February 20..."	FWA- 9
2	2-17	7-8	The document states that flow changes will be made "...consistent with recommendations of the RA, and based on best-available data." This would appear to bind the Secretary to follow the RA recommendation. Suggested language: "with due consideration given to recommendations of the RA and best-available data."	FWA- 10
2	2-20	42	The document states that recapture at Delta pumps would "comply with current NMFS and USFWS operations BOs." Since it is possible the current BOs could be revised either by the responsible agencies or a court, the text should be revised to say "comply with <u>then</u> current NMFS and USFWS operations BOs or any applicable court order."	FWA- 11
2	2-28 to 2-29	40-46 and 1-7	The document states that a possible response action (if there is a problem with the contribution of Interim Flows to high salinity conditions in the DMC, Mendota Pool, and Fresno Slough) involves supplying Exchange Contractor water deliveries through Interim Flows diverted to avoid material adverse flooding or seepage impacts, and supplying downstream Interim Flow targets and/or San Luis Canal Company (SLCO) deliveries through the Firebaugh Wasteway. Reclamation's DMC Recirculation Project Feasibility Study, Initial Alternatives Information Report (March 2008), in describing use of the Firebaugh Wasteway, states "Other DMC wasteways downstream of Newman (Firebaugh and Volta) were not included for further consideration due to concerns that increased flow in these wasteways might increase transport of selenium and salt, which are known to be elevated in the shallow groundwater in the vicinity of the wasteways and are already a concern in the SJR. Additional concerns with the hydrologic connectivity of these wasteways to the SJR further lowered the desirability of using these wasteways." This document should analyze the potential impacts of this potential response action in light of Reclamation's conclusions in March 2008.	FWA- 12
2	2-43	29	Change "BA" to "SEA"	FWA- 13
2	2-42 to 2-43	31 to 41 and 1 to 35	The document states "No decisions on the future of a VAMP-like action have been made at the time of preparation of this BA (sic). Reclamation is continuing negotiations for the near-term with the SJRGA. However, because of the requirements in the NMFS Operations BO and because of the reasonably foreseeable modifications proposed by the SWRCB on the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, it is reasonable to assume that a VAMP-like action would occur in the future. Reclamation would operate within all existing regulatory requirements related to future VAMP-like actions." There are a couple of problems with these statements. First, the requirement of the NMFS Operations BO for a VAMP-like program is predicated on flows being provided by willing sellers of water. Therefore there is no guarantee whatsoever that such a program will be in place in 2012. Second, any "reasonably foreseeable modifications proposed by the SWRCB on the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary" are years away and will not be in place in 2012. This entire section should be rewritten and the associated impacts analysis should be revised accordingly.	FWA- 14
3	3-4	n/a	In Table 3-1, under "Environmental Consequences Analysis" the description for "Hydrology and Water Quality" is very confusing. It should be rewritten.	FWA- 15

[illegible]

The Draft SEA for the 2012 Interim Flows discusses “Cumulative Impacts” (beginning at page 3-18) and states:

“b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

CEQ regulations that implement NEPA provisions define “cumulative effects” as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative effects can result from individually minor, but collectively significant, actions over time, and can differ from indirect impacts (40 CFR 1508.8). Cumulative effects are caused by the incremental increase in total environmental effects when an evaluated project is added to other past, present, and reasonably foreseeable future actions. Cumulative effects can thus arise from causes that are totally unrelated to the project being evaluated, and the analysis of cumulative effects considers the life cycle of the effects, not the project at issue. These effects can be either adverse or beneficial. Cumulative impacts are defined in the State CEQA Guidelines (14 CCR Section 15355) as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact occurs from “the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (14 CCR Section 15355(b)).

No past, current, or probable future projects were identified in the project vicinity that, when added to project-related impacts, would result in a significant cumulative impact, and that would be cumulatively considerable. Projects considered in the cumulative analysis include: WY 2010 and 2011 Interim Flows Project, SJRRP, and the Friant-Kern and Madera Canals Capacity Correction Project. Although land development activities are occurring adjacent to the San Joaquin River, these activities would be conducted outside of the river corridor

and would not be affected by Interim Flow releases. Implementation of releases during WY 2012 would not result in any net increase in water allocations to federal or state water contractors such that no land-based cumulative effects would be anticipated to occur.

Although the WY 2010 and 2011 Interim Flows Project and SJRRP are related to implementation of the WY 2012 Interim Flows, they would not overlap with the Proposed Action. As discussed in the Final EA/IS for the WY 2010 Interim Flows Project and the Draft and Final Supplemental EAs for the WY 2011 Interim Flows Project, the only potential for cumulative effects between the WY 2010 and 2011 (and similarly, WY 2012) Interim Flows releases and the SJRRP PEIS/R would be Friant Division water supplies. Under the WY 2012 Interim Flows, recirculation of recaptured water to the Friant Division could require mutual agreements between Reclamation, DWR, Friant Division long-term contractors, and other south-of-Delta CVP/SWP contractors. Reclamation is working with the Friant Division long-term water contractors to prepare a separate Environmental Assessment to determine possible mechanisms to either exchange or deliver to the Friant Division long-term contractors recaptured water stored in San Luis Reservoir. Potential reductions in the amount of water delivered to agricultural users resulting from the ability to recapture water (e.g., if capacity in CVP/SWP storage conveyance facilities is limited) could occur under the Proposed Action. Although reductions in agricultural water deliveries are possible, occurrence of delivery reductions under the Proposed Action would be reduced or avoided through recapture, recirculation, and other means consistent with and as described in the Settlement to limit adverse water supply impacts on the Friant Division long-term contractors.

The SJRRP was developed to reduce resource conflicts and to aid in fish and wildlife protection. Although the individual resource discussions consider the impacts of implementing the WY 2012 Interim Flows (e.g., one year of Interim Flow releases), the SJRRP PEIS/R will evaluate the program-level and cumulative effects of the future potential implementation of the SJRRP, including the project-level and cumulative effects of both Interim Flows and Restoration Flows.

Additionally, consideration of the potential cumulative effects of the WY 2010 and 2011 Interim Flows Project with Friant-Kern and Madera Canals Capacity Correction Project was addressed in the Final EA/IS for the WY 2010 Interim Flows Project and the Draft and Final Supplemental EAs for the WY 2011 Interim Flows Project. The continued release of Interim Flows during WY 2012 would not

overlap with the Friant-Kern and Madera Canals Capacity Correction Project spatially or temporally. Because the Friant- Kern and Madera Canals Capacity Correction Project would not be completed until after the Proposed Action is implemented, and the Proposed Action would result in no net change in Millerton Lake water storage, there would be no cumulative effects between the Proposed Action and the Friant-Kern and Madera Canals Capacity Correction Project. If permitting and environmental work for the Friant-Kern and Madera Canals Capacity Correction Project were accelerated to include a construction and completion timeframe that overlaps with WY 2012 Interim Flows, then the cumulative impacts of implementing the canal project(s) with releases of WY 2012 Interim Flows at the same time would be assessed in further environmental documentation.

Therefore, as discussed in Final EA/IS for the WY 2010 Interim Flows Project and the described above, the Proposed Action would result in less than significant cumulative effects.”

This very confusing discussion refers to several actions and their NEPA compliance documents, but there is still no analysis, in this or any of the referenced documents, that discloses the cumulative effects of the loss of water to the Friant Division from the proposed action and the Interim Flows from the previous years. This is clearly a deficiency in the SEA that must be rectified.

1.3 Friant Water Authority

Comments from spreadsheet:

FWA – 1: The document is a Finding of No Significant Impact (FONSI) as stated in the document.

FWA – 2: Language has been changed to the following: *“On March 21, 2011 Interim Flow releases from Friant Dam ceased when reservoir storage and inflow predictions resulted in the need to release flood flows from Millerton Lake Reservoir. On July 16, 2011 Interim Flow releases from Friant Dam began at 350 cfs. As of the date of the release of this Supplemental EA for the WY 2012 Interim Flows Project, Interim Flows remain at 350 cfs.”*

FWA – 3: The comment refers only to text changes that do not substantially alter the project description, provide new information, or provide clarifying text. Recommendations are made by the Restoration Administrator, as stipulated in the Settlement, and as described on page 1-3, lines 21 through 24, of the Draft Supplemental WY 2012 Interim Flows EA. This is reflected in the existing text and no changes are proposed to the document.

FWA – 4: As stated in FWA-3, the text in the Draft Supplemental WY 2012 Interim Flows EA clearly calls out this hierarchy and there is no text change proposed.

FWA – 5: The text has been changed as follows: *“As described in Paragraph 15 of the Settlement, the RA, along with a technical advisory committee, makes recommendations to the Secretary to help meet the Restoration Goal. The WY 2012 Interim Flows ramping rate and stable flow durations may depend on RA recommendations and real-time flow management decisions, as adopted by the Secretary, and based on monitoring information.”*

FWA – 6: The text has been revised to state, *“Under the Proposed Action, recaptured water would be exchanged for a like amount of CVP water and/or would be recirculated and held in storage in San Luis Reservoir. Additionally, water may be directly recirculated to water service contractors as conditions and agreements allow. Reclamation is working with the Friant Division long-term water contractors to prepare a separate Environmental Assessment to determine possible mechanisms to either exchange or deliver to the Friant Division long-term contractors recaptured water stored in San Luis Reservoir or water directly delivered from diversion points along the San Joaquin River.”*

FWA-7: The most recent Draft Restoration Flow Guidelines from February 2011 are included as Appendix J to the Final Supplemental WY 2012 Interim Flows EA.

FWA – 8: The text has been revised as suggested as well as being revised in Table 2-7.

FWA – 9: The February 2011 Draft Restoration Flow Guidelines state that Reclamation shall make an initial water year determination on or before January 20 each year. The Final Supplemental WY 2012 Interim Flows EA reflects this revision.

FWA – 10: See responses to FWA – 3 and FWA – 4. This sentence does not bind Reclamation to follow the RA recommendations, but it allows the Secretary to consider RA recommendations when making decisions. The text has been revised to read, *“Flows would gradually and incrementally be increased about 350 cfs according to the Exhibit B flows schedules, with consideration of the RA recommendations, and based on best-available data.”*

FWA – 11: The text has been revised to read, *“Recapture of WY 2012 Interim Flows at the Jones and Banks pumping plants would be subject to existing or future regulatory requirements and would comply with then-current NMFS and USFWS BOs or any applicable court order.”*

FWA – 12: The following text is added to Section 2.2.6, Environmental Commitments - Mendota Pool Water Quality Response Plan: *“The utilization of the Firebaugh Wasteway is proposed as a possible response action in the Water Quality Response Plan for possible increased salinity conditions in the Mendota Pool that are a result of the Interim Flows. Reclamation implemented this response plan in April 2010. Water quality conditions were monitored in both the Mendota Pool and within the Firebaugh Wasteway during this response. The response plan that was implemented greatly reduced the electrical conductivity in Mendota Pool and created a dilution with water in the San Joaquin River, as indicated in Table 1, below.*

Table 1: Mendota Pool Electrical Conductivity – $\mu\text{S}/\text{cm}$

Date	Delta Mendota Canal / Mendota Pool at Check 21 ($\mu\text{S}/\text{cm}$)	CCID Outside Canal Intake ($\mu\text{S}/\text{cm}$)	San Joaquin River at Mendota Dam ($\mu\text{S}/\text{cm}$)	San Joaquin River at Sack Dam ($\mu\text{S}/\text{cm}$)
4/18/2010	990	1089	238	242
4/19/2010	998	1095	296	250
4/20/2010	913	997	257	290
4/21/2010	847	925	175	251
4/22/2010	761	876	119	182
4/23/2010	470	917	86	176
4/24/2010	535	573	84	213
4/25/2010	688	255	84	326
4/26/2010	311	166	77	368
4/27/2010	215	176	76	285
4/28/2010	165	164	75	257
4/29/2010	623	572	186	316

In implementing the SJRRP, Reclamation would continue to utilize this plan in order to avoid or minimize potential water quality impacts in Mendota Pool if concerning water quality conditions appeared. The utilization of Firebaugh Wasteway would only be short-term and temporary. It would only continue until such time as salinity concentrations would decrease sufficiently as to allow Interim Flows to continue down the San Joaquin River channel to Mendota Pool recapture. Additionally, any water diverted through Firebaugh Wasteway would meet high-

quality water releases from Millerton Lake in the San Joaquin River channel which would dilute the Delta-Mendota Canal water being temporarily routed through the wasteway.”

FWA – 13: Text revised to read *“No decisions on the future of a VAMP-like action have been made at the time of preparation of this EA.”*

FWA – 14: A VAMP-like action is a reasonably foreseeable future action under the National Environmental Policy Act (NEPA). Reclamation has been diligently negotiating with the agencies on the tributaries of the lower San Joaquin River to assure a spring pulse to satisfy VAMP-like targets at Vernalis. While negotiations with some of the agencies on the tributaries have stopped, Reclamation continues to negotiate and is near agreement with Merced Irrigation District on an agreement that would provide a spring pulse that would meet a VAMP-like condition. While the future of VAMP is not clear, it is anticipated that a VAMP-like action will be implemented during the release of WY 2012 Interim Flows and is adequately addressed in the Draft and Final Supplemental WY 2012 Interim Flows EAs. If a VAMP-like action is not implemented, the flows requirements called for by the Revised State Water Resources Control Board Decision 1641 would apply. No text revisions are proposed.

It is reasonably foreseeable that flow objectives at Vernalis that are called for in the Bay 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary may change during WY 2012. However, it is not reasonably foreseeable that the implementation of the plan or changed water rights would occur during WY 2012. Therefore, references to the State Water Resources Control Board’s Notice of Preparation for the review of the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary are removed from the text of the Draft Supplemental WY 2012 EA.

FWA – 15: The text in the environmental consequence analysis column has been revised to read, *“WY 2012 Interim Flows would involve 350 cfs releases from Friant Dam between November 11, 2011 and January 31, 2012. This is consistent with Exhibit B of the Settlement and would not result in new or more severe impacts than those analyzed in the Final EA/IS for the WY 2011 Interim Flows Project and the Draft and Final Supplemental EAs for the WY 2011 Interim Flows Project. For the same reasons as discussed in the Final EA/IS for the WY 2010 Interim Flows Project and the Draft and Final Supplemental EAs for the WY 2011 Interim Flows Project, the Proposed Action would not result in substantial alteration to hydrology and water quality conditions in the Restoration Area. Therefore, the Proposed Action would result in less than significant impacts to Hydrology and Water Quality. See Section 3.2.2 below for additional details and analysis.”*

FWA – 16: Text has been added to Table 3-1 under Biological Resources – Fish, Environmental Consequences Analysis and in Section 3.2.2 – Resource Topics Potentially Affected by the Proposed Action, Biological Resources – Fish that addresses impacts to fish as a result of implementation of the Steelhead Monitoring Plan (SMP). Further, the SMP has been updated and is attached in place of the former SMP as Appendix D in this Final Supplemental WY 2012 Interim Flows EA. The text in this section now states, *“The SMP shall be utilized to detect the presence or absence of steelhead that may enter the Restoration Area. Effects to steelhead will be addressed through the 4(d) and/or 10(a)(1)(A) permit application process with NMFS. These*

impacts are anticipated to be extremely minimal as historical data from the California Department of Fish and Game at the Hills Ferry Barrier for the monitoring of fish at the barrier have yet to record Central Valley Steelhead at the facility. Effects to the species in relation to the implementation of the SMP are expected to be less than significant.

The SMP includes activities such as the utilization of nets, traps, and a raft electroshocker to monitor aquatic species on a monthly basis. While the intent is to look for Central Valley steelhead, other fish such as bass, carp, sucker, crappie, perch, and other species could be encountered in association with investigative techniques in the Restoration Area. Nets and traps will be checked regularly by trained fisheries professionals and any fish caught will be released. While electroshocking does have a possibility to result in lethal impacts to fish species, Reclamation is intending to reduce these impacts by only monitoring in locations on a monthly basis, in order to avoid repeatedly electroshocking the same individuals. Due care will be taken in proceeding with these monitoring activities and all activities will be undertaken by experienced and qualified fisheries biologists, whose qualifications will be on-file with NMFS. Because professional care will be exercised in the monitoring of fish species in the Restoration Area and because traps will be checked regularly and fish will be released upon their capture, impacts to existing fish species in the San Joaquin River are anticipated to be less than significant.”

FWA – 17: While the draining of Mendota Pool is a reasonably foreseeable future action, the Draft and Final Supplemental WY 2012 Interim Flows EAs are intended to discuss the range of possible impacts associated with the project. If Mendota Pool were to not be drained by the Central California Irrigation District (CCID), Interim Flow releases would continue to be made down the San Joaquin River, consistent with the Settlement and the commitments made in the Draft and Final Supplemental WY 2012 Interim Flows EA. Further, these implementation considerations are discussed in Section 2.2.5 of the Draft and Final Supplemental WY 2012 Interim Flows EAs.

FWA – 18: The following text is added to Section 3.2.2 - Resources Topics Potentially Affected by the Proposed Action, Biological Resources – Fish: “*When issuing a 4(d) or 10(a)(1)(A) permit for implementation of the SMP, NMFS will perform an effects determination on the action of electroshocking, monitoring, and tagging Central Valley steelhead within the lower Restoration Area. If Interim Flows are not able to be released past Sack Dam at the volumes specified in the Settlement, and flow constraints such as seepage, the maintenance of Mendota Pool, or other non-discretionary actions such as flood flows were to occur, then the SMP would not be implemented. If Interim Flows are able to be released up to the amounts analyzed in the document, then the SMP would need to be implemented to monitor for potential impacts to steelhead. If the permit is not issued by the time Hills Ferry Barrier is removed, Reclamation would monitor flow releases to assess if flows make it to the confluence of the Merced River. If flows do not create a continuous connection between the Restoration Area and the lower San Joaquin River, steelhead would not be able to stray into the Project Area and the SMP would not need to be implemented.*”

FWA – 19: The sentence is revised as follows: *“Implementation of releases during WY 2012 would not result in any net increase in water allocations to federal or state water contractors and land-based cumulative impacts are not anticipated to occur.”*

FWA – 20: The analysis provided in the analysis for WY 2010 Interim Flows provides for the release of Interim Flows and a range of recapture and recirculation volumes, from 0 to 250,000 acre-feet (AF). Reclamation continues to coordinate with the Settling Parties on a method to determine reductions in water deliveries

In early 2011, and as a result of the wet hydrologic conditions at that time, Reclamation credited an additional 460,000 AF to the Friant Division long-term contractors Recovered Water Accounts (RWA). This amount was based on a projected average water supply impact of 115,000 AF per year for the next four years (2012 to 2015). This impact is assessed under a different methodology than that calculated for the 78 AF average reduction, discussed in FWA-22. The 115,000 AF of water supply impact does not account for flood, operations, Delta exports, or other conditions that are expected to reduce water supply impacts. The 460,000 AF of credits was allocated to Class 1 and Class 2 contractors in proportion to anticipated impacts and contract amounts. With credits from WY 2010 and WY 2011, Reclamation has credited 580,000 AF to the Friant Division long-term contractors RWA. Reclamation made RWA water available in quantities equal to the amount in the Friant Division long-term contractors RWA accounts in early 2011. As of July 31, 2011, the Friant Division long-term contractors have used 356,203 AF from their RWA accounts.

Various methods for determining the water delivery reductions occurring as a result of the Settlement have been discussed with the parties to the Settlement. However, the parties have not been able to agree upon a methodology. Reclamation will calculate actual impacts and reconcile the RWA accounts once a method for determining impacts has been finalized.

Although the methods for determining the water delivery reductions occurring as a result of the Settlement have not been determined at this time, Friant has previously indicated that they believe the water supply impact was 262,350 AF in WY 2010. Reclamation was able to recirculate 42,000 AF in WY 2010, reducing the overall water supply impact under Friant Water Authority’s method of calculation in WY 2010 to 220,350 AF. Assuming for simplicity that all flows past Gravelly Ford minus 5 cubic feet per second (cfs) was the water supply impact in WY 2011, then approximately 95,800 AF is estimated to be the water supply impact in WY 2011. Reclamation is working to recapture and recirculate approximately 24,000 AF of this amount, reducing the overall water supply impact to 71,800 AF. With the 356,203 AF that the Friant Division long-term contractors have used from their RWA accounts and with the assumptions stated above, Reclamation has mitigated the water supply impact in WY 2010, WY 2011, and avoided 64,503 AF of future water supply impacts (this amount is the different in the overall water supply impacts in WY 2010 plus those in WY 2011 from the 356,203 AF that the Friant Division long-term contractors have used from their RWA accounts). The document is correct in implying a possibility, if not a likelihood that the water supply reductions may be significantly reduced or avoided due to recapture and recirculated water and other water management goal actions.

FWA – 21: This statement has been revised to read, “*The SJRRP was developed to implement the Settlement.*”

Additional comments from Friant Water Authority:

FWA – 22: WY 2012 is a temporary, one-year action with a specific time from October 1, 2011 to September 30, 2012. This is a specific and distinct time frame from both WY 2011 Interim Flows or the overall implementation of the SJRRP, which is covered in a separate programmatic environmental document.

Potential direct impacts associated delivery decreases to Friant Division long-term contractors are discussed in the Final WY 2010 Interim Flows EA, which is supplemented by the Final WY 2012 Supplemental Interim Flows EA. The information related to the reductions in deliveries is incorporated by reference into this document. Specifically, the following excerpt is relevant: “*Modeling results are based on 82 years of historical hydrology, and indicate that total annual deliveries to the Friant Division water service area would be reduced by 78 TAF on average, which corresponds to an approximate 9 percent reduction in annual deliveries. The maximum reduction estimated for 1 year in the 82-year simulation period is 234 TAF, which corresponds to a reduction of 28 percent. These results demonstrate that during wetter years (Wet and Normal-Wet), reductions in deliveries would result in changes in delivery of Section 215 water supplies, of which only a portion have historically been available to long-term contractors. These results support a finding that reductions in water deliveries due to WY 2010 Interim Flows would result in less-than-significant impacts.*”

Further, recaptured water associated with WY 2012 Interim Flows would be available to the Friant Division long-term contractors and would range from zero to the total amount recaptured. This assists in offsetting impacts associated with the temporary one-year action of WY 2012 Interim Flows. Based on the numbers provided in response to comment FWA – 20, Reclamation has credited 580,000 AF of RWA water to the Friant Division long-term contractors. As of July 31, 2011, the Friant Division long-term contractors have used 356,203 AF from their RWA accounts. During the release of WY 2012 Interim Flows, RWA credits will continue to be accrued and debited. With this delivery of RWA water, impacts to potential reductions in water deliveries to the Friant Division from the release of WY 2012 Interim Flows would be less than significant.

1.4 Lower San Joaquin Levee District

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July 21, 2011

Michelle Banonis
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Re: The Lower San Joaquin Levee District's comments on the "Supplemental
Environmental Assessment – Interim Flows Project – Water Year 2012"

Dear Mr. Banonis:

Please accept this letter as the Lower San Joaquin Levee District's comments in its review of the above-referenced document. The District commented by letter dated July 8, 2009, on the "Water Year 2010 Interim Flows Project – Draft Environmental Assessment and Finding of No Significant Impact / Initial Study and Mitigated Negative Declaration", (see the final WY 2010 environmental document, Appendix I, pages 3-27 to 3-40). The "Final Environmental Assessment / Initial Study – Water Year 2010 Interim Flows Project" (the "final WY 2010 environmental document") contained responses to the District's comments and those comments resulted in some editing of the draft. The Levee District commented by letter dated July 23, 2010, on the, "Supplemental Environmental Assessment – Interim Flows Project – Water Year 2011". Since the "Supplemental Environmental Assessment – Interim Flows Project – Water Year 2012", incorporates by reference the final version of the 2010 and 2011 environmental documents, the District hereby incorporates by reference its comments to both sets of documents.

Once again, the District has chosen to go back to the numbers assigned by the responses to the District's comments on the 2010 document in order to bring forward those same concerns raised in each of the prior years.

LSJLD- 1

1. The prior years' environmental documents relied heavily on there being a financial assistance agreement with the District as a means of finding that there will be no significant impact on flood protection by the project. While there is no such representation set forth in this

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year's environmental document, as noted above, the Bureau has chosen to incorporate by reference the prior two years' documents and has heavily relied upon them in reaching the conclusion that there will be no significant impact from the 2012 project. There are still no financial or operational agreements with the Levee District. Some months ago, the Levee District reluctantly dropped its request for an indemnification provision in any such agreement. In a letter dated April 28, 2011, the District agreed to drop from the negotiations for the 2011 water year the District's request for language addressing the potential problems associated with the Bureau of Reclamation constructing some or all of the improvements called for in the Settlement Agreement on the understanding that the District could take these matters up again when the Bureau of Reclamation was planning on engaging in construction activities.¹ In that same letter, the District proposed a minor change to the language offered by the Bureau of Reclamation in a hold harmless clause.

Clearly the assumptions set forth in each of the two prior years' environmental document that an agreement with the District was eminent and would reduce the impact on flood protection to being less than significant should be re-examined at this point. This environmental document must at least consider the environmental consequences if there is no agreement before the 2012 water year begins. This means that the issues which, in the prior years' environmental studies, were said to be mitigated to the point of insignificance by virtue of a financial assistance agreement must be re-examined in this year's environmental analysis. This document fails to do so. Instead it simply incorporates by reference the other two years' environmental documents.

LSJLD- 2

2. As noted in the District's comments on each of the two prior environmental documents, the Bureau of Reclamation needs to enter into agreements with landowners both for encroachment into the easements in which the Eastside Bypass was constructed and on issues such as the consequential reduction in the landowner's ability to mine sand on their own land in the bypass. In the response to the District's comments in the final version of the 2011 environmental document, the Bureau of Reclamation said that it is in the process of identifying lands that "may be subject to agreements with landowners." There is no indication in this year's environmental document that any progress has been made in identifying such properties, let alone in negotiating such agreements. Since the prior years' documents relied upon there being such agreements, these issues should be re-examined in this year's document. They are not.

¹The District is still of the opinion that these issues should be negotiated an agreement signed *before* construction begins. The Bureau of Reclamation's track record in negotiating even annual agreements with the District is the best indication possible that beginning to discuss these issues one the eve of construction will not result an agreement being reached in a timely manner – if at all.

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3. In each of the prior years' environmental documents, the Bureau of Reclamation has made the statement that the project would be managed in such a way as to avoid interfering with the flood control project. In each case, the documents went on to say that the Levee District's operations and maintenance activities would continue during the new project year and "could occur more frequently." The District has, in response, each year explained how the project will and has interfered with the District's operation and maintenance activities and that the project in no way would allow the District's activities to occur more frequently.

This year's environmental document acknowledges that "[r]outine maintenance activities, such as vegetation removal, sand removal, levee reinforcement and other activities may occur in WY 2012." (Page 2-20). However, this year's project will include releases of water into the system during the last twenty days of November, all of December and all of January, so that there is absolutely no chance of the Levee District being able to perform even minimal vegetation management using any of the methods it has used historically, even if the weather in these months is relatively dry. As a consequence, if vegetation removal is to take place, it will have to be with either hand tools, (which is cumbersome and not very efficient) or, for the first time, by using herbicides which can legally be used around water which flows into a river or estuary. This is a significant change from the District's "routine maintenance activities". This year's environmental document finds that the Proposed Action could involve application of herbicidal chemicals to control and manage *nonnative* invasive plant species, but that, "for the same reasons as described in the WY 2010 and WY 2011 environmental documents, this would not create a significant hazard to the public or the environment." (Page 3-10 "Hazards and Hazardous Materials"). Nothing is said about the consequences of the District being forced now to use these same chemicals either as to the impact on the physical environment downstream nor in regard to the impact on flood protection due to the use of methods of vegetation removal which are less effective and more costly than those used by the District historically.

LSJLD- 4

4. The District has consistently maintained that there will be impacts from each year's project which are not ascertainable until after that project year is over. The impacts of this type which concern the District include the establishment of vegetation – particularly trees – in the river and bypass system (and the mobilization of sand and gravel which is discussed elsewhere in this letter of comment). Plants that were recruited during WY 2010 and WY 2011, may not show up until WY 2012, and plants recruited in WY 2012, may not make themselves known until after September 30, 2012. The financial assistance agreements which have been drafted by the Bureau of Reclamation have consistently been written in such a way that expenses incurred after the water year in question cannot be paid under the contract. This means that, unless the District moves to eradicate vegetation recruited during WY 2012, before October 1, 2012, the District's cost will not be reimbursed and, presumably, the District's cost to remove vegetation

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recruited in the previous two years might not be reimbursed in any case, even if the District's work is completed before the end of WY 2012. The reality is that many of the trees which were planted during WY 2012, will not grow above the level of the water for many months after the end of WY 2012. Since this environmental document, once again, only looks at one water year, it can be assumed that the only reimbursement agreement offered to the District by the Bureau of Reclamation for WY 2011 will fail to address this issue. Therefore, there will be a significant cumulative impact on the environment which has not been addressed, just as there has been in WY 2010 and WY 2011.

5. There are issues surrounding the diversion of the Interim Flows at the Sand Slough Control Structure into the Eastside Bypass²:

LSJLD- 5

b. Recirculation of Water to the Friant Division. WY 2011 draft environmental document repeated the statement in the final WY 2010 document that the water which had historically been delivered to the wildlife refuges along the Eastside Bypass could be replaced with some of the water from the Interim Flows, thus freeing water for recapture by the Friant Division. The District's comments pointed out that, since the water delivered to the refuges came from the Merced Irrigation District it was unclear how some sort of trade might take place to allow this water to be diverted back to the Friant Division. The District's concern was that the use of the Eastside Bypass as a means for the delivery of water to the refuges could have some impact on the District's operation and maintenance of the Eastside Bypass as a means of flood protection. The Bureau of Reclamation's response to the District's comment in the final environmental document for WY 2011 was that Interim Flows will be recaptured for exchange and recirculation mechanisms "will be developed", (page 74, LSJLD-5b). In other words, no specifics were provided.

The current document says that Reclamation is working with the Friant Division contractors to prepare a separate Environmental Assessment to determine possible mechanisms to exchange or deliver to the Friant Division water stored in the San Luis Reservoir, (Page 3-19). Whether this Environmental Assessment will be completed prior to the beginning of WY 2012 is not addressed. No clarification is given as to whether the alternatives being considered still include the potential for an exchange of the water delivered by Merced Irrigation District to the refuges in return for the refuges being able to use the Interim Flows and so the Eastside Bypass

²Matters identified in the District's letter commenting on the WY2010 environmental document which were in the sections identified as 5 a., 5 c. and 7, were combined with the Bureau of Reclamation's response to comments on section 1. In order to avoid any misunderstandings, there are no sections 5 a. or 5 c. or 7 in this letter.

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becoming a means of water delivery. The consequences to flood control from changing this flood protection structure into a water delivery structure are not considered, (such as the inability for at least part of the year to divert the water from the Eastside Bypass into the Mariposa Bypass) nor is the need for expanding the scope of the easements in which the Eastside Bypass was constructed discussed.

LSJLD- 6

d. Traffic Detour Plan: Historically, during flood events, McNamara Road is inundated and so impassable. Merced County has, (with the consent of the District), diverted traffic onto the right levee of the Eastside Bypass from Sandy Much Road to the northern portion of McNamara Road, after crossing the Bypass. The District has consented to the County's diversion of traffic onto the levee because Merced County has performed the maintenance of this levee during the time it is used as a detour. Unfortunately, County funds are not available to maintain the levee for longer periods of time.

Since Reach 4 B of the River is impassable throughout the year, interim flows have to be diverted into the Eastside Bypass at the Sand Slough Control structure. This water has, as a rule, gone all the way down the Eastside Bypass to its confluence with the San Joaquin River. In order to maintain the Eastside Bypass from its confluence with the Mariposa Bypass to the River, the district needs to divert interim flows into the Mariposa Bypass for part of the year. One of the consequences of putting the water into the Mariposa Bypass would be the further inundation of Dan McNamara Road. The County of Merced does not have funds available to maintain the levee used as the detour for these additional periods of time. If the detour is used, the District will be burdened with the additional cost of maintaining the levee.

In response to the District's comment on the WY 2010 project, the Bureau of Reclamation said that a detour plan would be formulated and implemented before inundation, (Final WY 2010 environmental document, Section 2.2.4 at Page 2-33). The draft WY 2011 environmental document said that, while a traffic detour plan had been written, it was still under review by local traffic agencies and that it would be implemented upon approval. In response to the District's comments on the WY 2011 draft environmental document the Bureau of Reclamation said that the traffic detour plan was still not approved by the local agencies but that the Bureau of Reclamation intended to submit the revised traffic plans with permit applications to the appropriate agencies for approval in late 2010, (pages 74 - 75, LSJLD 5d).

The WY 2012 draft environmental document provides that a detour plan has been prepared and approved by Fresno and Madera Counties and is in the final stages of approval for Merced County, (Section 2.2.6, page 2-21). It goes on to say that the Proposed Action includes preparation and implementation of a detour plan and, therefore, for the same reasons set out in

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the WY 2010 and WY 2011 documents, the proposed action would have less than significant impacts to Land Use and Planning, (page 3-12, "Transportation/Traffic"). Nothing is said in this year's document about the impact to the Levee District's maintenance of the levee bank historically used as a detour nor is it explained why, three years into this project, there is still no detour plan which has been approved by Merced County. Because the system will be wet all year, (and from now until the end of the project), the District's need to redirect interim flows into the Mariposa Bypass for at least some period of time during the water year is greater and, as a consequence, Dan McNamara Road will be inundated at times when there is no flood event. This issue is not examined in the WY 2011 environmental document in any way.

As with the lack of a financial assistance agreement discussed above, the environmental document needs to at least consider the impact that of there being no detour plan upon which the Bureau of Reclamation and the County of Merced can agree before the beginning of WY 2012.

LSJLD- 7

e. Sediment Mobilization: In the District's comments on the draft WY 2010 environmental document, it was pointed out that at least one farmer, downstream of the Sand Slough control structure, mined sand from the Eastside Bypass. The response to this comment included the statement that, "Flows would not inundate the channel year round under the Proposed Action. Sediment mobilization due to less than 1 year of flow is anticipated to be *de minimus*." (Final WY 2010 environmental document, Appendix I, page 3-77). In the District's comments on the draft WY 2011 environmental document, the District raised the fact that the sediment mobilization will occur for one more year and the environmental document failed to consider this cumulative impact. In the response to the District's comments, the Bureau of Reclamation again stated that, "During the release of Interim Flows during WY 2011, sediment mobilization due to less than one year of flow is anticipated to be *de minimus*, Therefore, no cumulative impacts are anticipated due to implementation of Interim Flows during WY 2011." (P 75, LSJLD-5e).

The effects of a third year of sediment mobilization are not even acknowledged in the WY 2012 document as a potential cumulative impact even though, for the first time, the system will be wet all of the time which will further reduce the likelihood that sand will be removed from the system by either adjacent land owners or the District.

LSJLD- 8

6. The Settlement Agreement calls for the construction of certain improvements no later than December 31, 2013, (paragraph 11 (a)), and the reintroduction of fall run Chinook salmon no later than December 31, 2012, (paragraph 14). The District understands that there were some salmon released during WY 2011. The WY 2012 environmental document does not consider the environmental consequences of the construction of any of these facilities and so, either the

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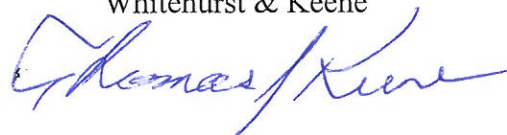
LSJLD- 8

Bureau of Reclamation does not intend to begin to construct any of them before September 30, 2012, or the WY 2012 environmental document is woefully inadequate. Assuming that the Bureau does not intend to begin construction during WY 2012, the parties should, as the District suggested in its comments on the WY 2011 environmental document, return to court and modify the dates on the timetable because it is inhumane to reintroduce salmon knowing full well that they will not survive to spawn because the needed improvements will not have been completed in time. In developing a more realistic time table, perhaps more consideration can be given to the need to avoid impacts on the District's flood protection activities.

As you are undoubtedly aware, we are in the public comment time period for the Program Environmental Impact Statement / Environmental Impact Report. It is difficult during this time period to refocus on another annual environmental document. However, it does appear to the District that this document has even less analysis of the potential environmental impact on flood protection than either of its predecessors. Because the environmental work on this program has been "piece meal" over three annual studies, special attention should be paid to potential cumulative impacts. This document pays little or no attention to the cumulative impacts on flood protection. It is a disappointing effort at best. We sincerely hope that the Program Environmental Impact Statement / Environmental Impact Report includes a more careful analysis of the consequences to flood protection issues.

Very truly yours,

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



Thomas J. Keene

cc: Reggie Hill, Secretary-Manager
Lower San Joaquin Levee District

Jay Punia, Executive Directors
Central Valley Flood Protection Board

1.4 Lower San Joaquin Levee District

LSJLD – 1: See response to comment CVFPB-2. A financial assistance agreement with the LSJLD for increased maintenance activities that resulted from the WY 2011 Interim Flows was recently completed. Based on requirements set forth in the existing Flood Control Manual and as described in the agreements between the Reclamation Board, now Central Valley Flood Protection Board, and the LSJLD, the LSJLD is responsible for maintaining the Flood Control Project (Reclamation Board 1967). This responsibility exists regardless of the implementation of the Interim Flows and regardless of a financial assistance agreement with Reclamation. This responsibility includes vegetation management, flood system maintenance, and flood system operations in the portions of the river that are part of the Flood Control Project and in the entire bypass system. The LSJLD has a contractual obligation to operate and maintain the Flood Control Project consistent with the Flood Control Manual regardless of a financial assistance agreement with Reclamation and impacts would not occur or would be less than significant.

Reclamation recognizes that the WY 2012 Interim Flows would result in an increase in maintenance activities that the LSJLD may not be able to fund. Although the LSJLD is contractually responsible for these activities, Reclamation would pursue a financial assistance agreement with the LSJLD to cover the additional efforts that are directly related to Interim Flows. Such an agreement would likely be similar to the agreement recently completed by Reclamation and the LSJLD for WY 2011 Interim Flows.

LSJLD – 2: Reclamation is continuing to investigate the potential need for agreements with landowners in and along the Eastside Bypass. However, Reclamation believes that we have the right to use the Eastside Bypass to route Interim Flows while there is no channel capacity available to route flows down the Reach 4B channel. The lands held in the Eastside and Mariposa bypasses are subject to easements generally executed in the early 1960s between the landowner and the Sacramento and San Joaquin Drainage District. These easements generally allow for flowing “any and all waters which may, as a result of any present or future flood control project of the State of California, from time to time inundate the said real property.” The Flood Control Manual specifies a design capacity of 1,500 cfs in the Reach 4B channel. The manual requires that the LSJLD maintain the Reach 4B channel to insure that the channel is kept in as good a condition as constructed. The LSJLD’s current and historical practice to not maintain the Reach 4B channel deviates from the manual. The LSJLD’s closure of the headgates to the Reach 4B channel has resulted in these gates functionally becoming a permanent diversion point, and all river flows now pass into the Eastside Bypass. All flows routed at this point into the bypass system are a result of the Flood Control Project and thus, routing these flows into the bypass system is consistent with the current flowage easements.

Reclamation understands that the LSJLD does not agree with our use of the easements to route Interim Flows into the Eastside Bypass.

LSJLD – 3: WY 2012 Interim Flow releases from Friant Dam during November, December, and January would be no greater than 350 cfs, as described in the Draft Supplemental WY 2012 Interim Flows EA. Based on Exhibit B of the Settlement, this equates to approximately 155 cfs to 175 cfs in Reaches 4 and 5 of the San Joaquin River for a Normal-Wet Year type. Further, the

historical mean monthly flows, run for a period of record from 1980-2007, for the Eastside Bypass near El Nido in a Normal-Wet Year is 656 cfs in November; 1,191cfs for December; and 1,477 cfs for January (Table 3-46 of the Final WY 2010 Interim Flows EA). The WY 2012 Interim Flows of 155 to 175 cfs of additional maximum flows in the Eastside Bypass will be significantly below the historical mean. As a result, this would not result in flows beyond those which the LSJLD is accustomed to working during the months of November through the end of January. See also response to comment LSJLD-1.

LSJLD – 4: See response to comment LSJLD-1. The LSJLD has a contractual obligation to operate and maintain the Flood Control Project consistent with the Flood Control Manual, which includes vegetation and sediment removal to insure that the channel is kept in as good a condition as when the channel was constructed (Reclamation Board 1967). Reclamation recognizes that the WY 2012 Interim Flows would result in an increase in maintenance activities that the LSJLD may not currently be able to fund and would pursue a financial assistance agreement with the LSJLD to cover the additional efforts that are directly related to Interim Flows. Such an agreement would likely be similar to the agreement recently completed by Reclamation and the LSJLD for WY 2011 Interim Flows. Reclamation is willing to consider a multi-year agreement that could address the concerns expressed in this comment.

LSJLD – 5: The refuges are considered possible locations for recapture of Interim Flows. In the event that this were to be implemented, Interim Flows would be conveyed down the bypass system, consistent with the Project Description in the Draft and Final Supplemental WY 2012 Interim Flows EAs, and diverted at the refuge to contribute to refuge water supply in lieu of other supplies. The flows would remain Interim Flows until recaptured and would not in addition to or beyond those flows described in the Supplemental EAs.

LSJLD – 6: As of the date of preparation of this Final Supplemental WY 2012 Interim Flows EA, a final traffic detour plan has been approved through Merced County. Reclamation is currently working to have traffic detours, which will be in-place permanently and can be operated seasonally, installed within the upcoming water year. The traffic detour plan relies on the use of paved roads and does not seek to re-route traffic onto the levee road.

The commentor's statement related to providing a traffic detour on a levee road is not clear. Reclamation is unaware of any specific requirement imposed by Merced County on the LSJLD that requires access to the levee road, or if this access is typically performed as a courtesy by the LSJLD for Merced County.

LSLD – 7: The proposed action allows for the suspension of Interim Flows for maintenance. Reclamation suspended release below Sack Dam in 2010 to allow for the excavation of sand by the landowner in the vicinity of El Nido Road. Additionally, evaluations of the release of Interim Flows was considered in the Hydrology and Water Quality analysis (Section 3.11 and 4.10 of the Final WY 2010 Interim Flows Project EA/IS and Section 3.2.3 of the Draft Supplemental WY 2011 Interim Flows Project EA. Analysis for the 2012 Interim Flows shows minor sand mobilization as *de minimus*. Therefore, no cumulative impacts are anticipated due to the implementation of WY 2012 Interim Flows.

The project description in the Draft and Final Supplemental EAs assume year-round flows. However, in both WY 2010 and WY 2011, this has not been the case. In WY 2010, Reclamation recaptured all Interim Flows at Sack Dam, releasing no flows in the Eastside Bypass from September 3, 2010 to October 18, 2010. This action was taken to allow the local landowner to remove sand accumulated in the Eastside Bypass upstream of El Nido Road. In WY 2011, Reclamation recaptured all Interim Flows at Sack Dam, releasing no flows in the Eastside Bypass from July 16, 2011 to September, 2011. This action was taken as groundwater elevations were above the thresholds in portions of the Eastside Bypass. This has allowed the bypass to dry out for 2 months to date. Although the project description assumes year-round flows, a variety of conditions, such as dewatering Mendota Pool may reduce flows and allow for the bypass system to be dry for a portion of the year. In addition, Reclamation would also consider stopping Interim Flow releases past Sack Dam for a period of time in the event that the LSJLD or individual landowners need to conduct maintenance in the bypass channels requiring drychannels. We would want to work with the LSJLD and/or individual landowners to understand this need better and to schedule these activities, if they were to be necessary, at a time that would have the least effect on the SJRRP's planned monitoring and study activities.

LSJLD – 8: The release of fall-run Chinook salmon is experimental in nature and used, as stipulated as one of the purposes of Interim Flows, to enable collection of relevant data related to fish needs.

Historically, flood flows from Friant Dam have occurred, on average, about every two in five years. To make meaningful determinations about system-wide conditions for long-term efforts, we must make repeated observations under various flow conditions, including those that will occur under the Settlement and those that will occur under flood conditions. For this reason, the juvenile monitoring study conducted in 2011 is the first year of a multiyear study. The results of the 2011 study year will not facilitate meaningful conclusions across all the anticipated future flow conditions, but will provide detailed information about a specific flow condition. When this information is combined with subsequent studies under different flow conditions, we can provide meaningful determinations about system-wide conditions, including predation, entrainment, and physical habitat.

Separate environmental documentation for these studies would be performed under NEPA and/or CEQA , as appropriate.

Reclamation has initiated discussions with the parties to the Settlement to review the existing schedule based upon the Draft Program Environmental Impact Statement/Environmental Impact Report (Draft PEIS/R). These discussions are focusing on a commitment to a schedule that will ensure implementation of the SJRRP in a manner that addresses the requirements of the Settlement for expeditious action while meeting the requirements of the legislation to minimize impacts on third-party interests.

1.5 Paramount Farming Company



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July 7, 2011

VIA U.S. MAIL AND E-MAIL

Michelle Banonis
U.S. Bureau of Reclamation
San Joaquin River Restoration Program Office, MP-170
2800 Cottage Way, Room W-1727
Sacramento, CA 95825-1898
InterimFlows@restoresjr.net

Re: Comments on San Joaquin River Restoration Program, Supplemental Environmental Assessment for Water Year 2012

Dear Ms. Banonis:

Paramount Land Company, LLC, and Paramount Pomegranate Orchards ("Paramount") own New Columbia Ranch on the San Joaquin River, just upstream from the Mendota Pool and downstream from the historic Whitehouse Gauging Station near the head of Lone Willow Slough, which is within the project area described in the San Joaquin River Restoration Project, Supplemental Environmental Assessment for Water Year 2012 ("Supplemental EA"). Paramount appreciates the opportunity to submit these comments on the Supplemental EA. Please note that Paramount is concurrently preparing comments on the Draft Program Environmental Impact Statement/Report for the San Joaquin River Restoration Program, which will further address the potential for impacts on Paramount's property and water rights.

1. NEPA Does Not Allow Segmented Review of Projects.

Paramount- 1

As an initial matter, Paramount notes that the Supplemental EA addresses the continuation of the Bureau of Reclamation's ("Reclamation") San Joaquin River operations that were in place during Water Year 2010 and 2011. To the extent that Reclamation intends to extend these operations each year until full restoration flows are released in 2014, the National Environmental Policy Act ("NEPA") requires Reclamation to address the effects of these extended operations in a comprehensive environmental document and not on a segmented annual basis. 40 C.F.R. 1508.25(a).

2. The Proposed Restoration Program Could Impact Paramount's Water Rights.

Paramount- 2

Paramount has explained to Reclamation in various communications that it has prior existing water rights at New Columbia Ranch, and that Reclamation is contractually

obligated to supply water for diversion in Reach 2B. Reclamation must protect and uphold these rights and obligations, and the San Joaquin River Restoration Program may not create additional restrictions or costs on Paramount's ability to exercise its rights.

The discussion of water deliveries in the Supplemental EA suggests that Reclamation's proposed project could interfere with these rights. For example, the Supplemental EA suggests that Reclamation has no responsibility to make water available below Gravelly Ford and that, upon implementation of the San Joaquin River Restoration Program, only "restoration flows" would sustain the River in Reach 2. Given that New Columbia Ranch is located downstream of Gravelly Ford, this obviously disturbs Paramount.

Likewise, Reclamation's proposed treatment of flood flow releases could impact Paramount because Paramount has historically diverted flood flows for irrigation use and groundwater recharge at New Columbia Ranch. Under the proposed project, however, Reclamation would not release interim flows in addition to flood flows in periods when flood flows would satisfy all or part of the targets identified in Exhibit B of the Settlement. In essence, Reclamation would recharacterize flood flows as interim flows, which would be outside the reach of downstream water users. The ultimate effect of this recharacterization would be to reduce Paramount's available water supply.

Although the proposed project and Paramount's water rights are in apparent conflict, the Supplemental EA does not even mention the issue. Paramount reminds Reclamation that the State Water Resources Control Board conditioned Reclamation's Interim Flow regime as subject to prior rights. Order WR 2009-0058-DWR, pp. 5, 10 (Oct. 1, 2009); Order WR 2010-0029-DWR, pp. 6, 17. Reclamation may not cut off or improperly limit Paramount's access to water through the proposed project or the final implementation of the San Joaquin River Restoration Program. So far the Interim Flow regime has not interfered with Paramount's rights because Paramount did not divert in 2009 and has successfully diverted in the usual manner in 2010-2011, but Paramount submits this comment to reiterate that the proposed project may not interfere with Paramount's rights.

3. *The Supplemental EA Does Not Address Groundwater Rights.*

Paramount- 3

The Supplemental EA discloses that the proposed project could affect groundwater levels in and around the project area, but does not address the rights to such groundwater. Paramount is an overlying landowner, and much of its property lies within the alluvial cone of the San Joaquin River (which was historically replenished by, but not directly connected to, river flows). Paramount asserts that it has the right to any increased groundwater under its property for use at New Columbia Ranch.

4. *Reclamation Must Protect Property Owners from Seepage and Project Flow Impacts.*

Paramount 4

The Supplemental EA acknowledges that the proposed project could result in elevated seepage in the project area and that such seepage has the potential to impact crops, water salinity, and levee stability. Although the Supplemental EA indicates that Reclamation will monitor groundwater levels to reduce seepage impacts, it does not state how

Reclamation will protect property owners or mitigate damages if these impacts do occur. Paramount asserts that Reclamation is responsible for any seepage impacts to its crops, private levees, groundwater wells, or other structures on its property that the proposed project flows may cause. In addition Interim Flows that exceed current channel capacity and result in impacts to crops, private levees, groundwater wells, or other structures must also be mitigated by Reclamation should they occur.

5. *The Proposed Project Would Result in Agricultural Impacts at New Columbia Ranch.*

The Supplemental EA states that the proposed project will not result in agricultural impacts, either on a project level or cumulative level. *See, e.g.,* Supplemental EA at p. 3-2. These statements completely ignore the impacts on Paramount's agricultural operations caused by the take of prime agricultural land and water resources.

Paramount appreciates the opportunity to submit these comments and would be willing to discuss options for Reclamation to pursue the San Joaquin River Restoration Program without interfering with Paramount's rights and interests. By reference, Paramount also hereby joins in the comments submitted by the San Joaquin River Resource Management Coalition (RMC).

Sincerely,

A handwritten signature in black ink, appearing to read 'William D. Phillimore', with a stylized flourish at the end.

William D. Phillimore
Executive Vice President

1.5 Paramount Farming Company

Paramount – 1: The release of WY 2012 Interim Flows constitutes a complete project under NEPA because it is a project that has independent utility and provides useful information on flows, temperatures, fish needs, seepage losses, shallow groundwater conditions, recirculation, recapture and reuse conditions, channel capacity (high and low flows), and levee stability regardless of the future implementation of the Settlement. These data are useful independent of the SJRRP, particularly with respect to understanding the flood management system and seepage. While the Proposed Action is one of the first several steps in implementing the SJRRP, the Proposed Action can be implemented successfully in meeting its purpose and need and objectives without any prior (e.g., WY 2011 Interim Flows) or subsequent SJRRP activities.

Paramount -2: Reclamation has been working with Paramount Farms outside of the scope of the Draft Supplemental WY 2012 Interim Flows EA to determine the nature and extent of Paramount Farm’s water rights. These discussions are on-going. However, regardless of the discussions, no significant impacts to Paramount Farms water supply are anticipated due to the short-term and temporary nature of the WY 2012 Interim Flows Project. Interim Flows released from Friant Dam would be a redirection of water released from the reservoir that was previously held in storage. Both the storage of this water and the redirection of this water would be conducted under Reclamation’s appropriate water rights. While Interim Flows could reduce the potential for flood releases by “creating” more space in Millerton Reservoir due to increased releases downstream, this would not result in a significant impact to Paramount Farm’s water rights due to the short-term and temporary nature of the Proposed Action.

The State Water Resources Control Board Order (Order) WR 2010-0029-DWR states in response to Paramount’s request for clarity on the petition that *“the water proposed for transfer pursuant to this order would be consumptively used or stored in the absence of the proposed temporary change, and includes a term prohibiting the transfer from injuring legal users of water.”* Reclamation will comply with all relevant sections of the State Water Resources Control Board Order for WY 2012 Interim Flows.

Paramount – 3: Comment noted. Groundwater rights are outside of the scope of the Draft and Final Supplemental WY 2012 Interim Flows EAs and are not evaluated as part of the Proposed Action.

Paramount – 4: As described in the Draft Supplemental WY 2012 Interim Flows EA, flows under the Proposed Action would be limited to volumes that do not cause substantial seepage effects on adjacent land. Reclamation would continue to implement the Draft Seepage Monitoring and Management Plan, which is intended to avoid or reduce seepage as a result of the Proposed Action. As described in the Draft Seepage Monitoring and Management Plan, Interim Flow releases would begin at low amounts and be incrementally increased based on monitoring information. The Draft Seepage Monitoring and Management Plan also describes the actions to be taken if unanticipated seepage were to occur as a result of the Proposed Action. It is important to note however that effective implementation of the Draft Seepage Monitoring and Management Plan relies on Reclamation’s ability to monitor and thus, be able to response to changes in shallow groundwater conditions by changing flows or holding flows constant. This

monitoring is conducted through a series of seepage wells installed by Reclamation and through communications with local landowners. At this time, it is Reclamation's understanding that Paramount Farms is not allowing access to its property to install seepage monitoring wells. Reclamation has a monitoring transect within the public right-of-way at San Mateo Road, just upstream from Paramount Farms, along with wells on the north side of the Mendota Pool near Paramount Farms. Thus, Reclamation's monitoring and evaluation of seepage conditions in the area would be based on these existing wells.

Additionally, Section 10004(h)(3) of the Act states:

(3) SEEPAGE IMPACTS.—The Secretary shall reduce Interim Flows to the extent necessary to address any material adverse impacts to third parties from groundwater seepage caused by such flows that the Secretary identifies based on the monitoring program of the Secretary.

Implementation of the Seepage Monitoring and Management Plan, and specifically, the short-term response action to reduce Interim Flows to the extent necessary to address any material adverse impacts to third parties will fulfill Reclamation's obligations under this section of the Act.

Paramount 5: The Draft Supplemental WY 2012 Interim Flows EA included an analysis of the impacts of the Proposed Action on Agricultural Resources and Hydrology and Water Quality in Sections 3.2.3. Additional information can also be found in the WY 2010 Interim Flows EA/IS, which is incorporated by reference, in Sections 4.3 and 4.10, respectively. As described in both documents, impacts to agricultural resources and hydrology and water quality are less than significant.

1.6 River Partners

Banonis, Michelle

From: Julie Rentner [jrentner@riverpartners.org]
Sent: Friday, July 08, 2011 7:14 PM
To: InterimFlows@restoresjr.net
Subject: comments: WY12 Draft EA

I'm not sure if all of these comments belong to the draft EA for Interim Flows WY12 or not, so I've inserted them all just in case. I tried to describe my context for these comments in the first two sections, then present the comments directly in the final section.

Thanks!
Julie Rentner
River Partners

Floodplain Foraging Habitat:

River Partners- 1

The science is well developed describing floodplain foraging habitats as vitally important to the maintenance of sustainable salmonid fisheries. In the Central Valley, juvenile fish forage on shallowly flooded areas, growing substantially prior to their outmigration to the sea. Juvenile salmonid floodplain foraging habitat value is linked to vegetative characteristics on floodplains. It has been widely documented that predation of juvenile salmonids within the river channel, adjacent gravel pits and the Sacramento/San Joaquin Delta is a limiting factor for salmonid populations in the entire San Joaquin River system. Outmigrating juveniles that have had the opportunity to forage on suitably vegetated floodplains are generally larger than juveniles without access to the rich food resources of an active floodplain, thus are more likely to survive the predation pressures they will face within and downstream of the Program reaches.

The lack of suitable foraging habitat along the San Joaquin River has been suggested as a major limitation to the success of the anadromous fishery here. Since the construction of Friant Dam, land conversion and flow restrictions have reduced suitable floodplain habitat within the Program reaches almost entirely. Scientists suggest that restoration of over 8,000 acres of floodplain foraging habitat will likely be required to sustain a Chinook salmon fishery in the mainstem of the San Joaquin River per the requirements of the Settlement. Clearly, the restoration of floodplain habitats for juvenile salmonids within the restoration reaches is an action that must be undertaken to accomplish the Restoration Goal of the Program. The proposed Interim Flows studies presented in the Draft EA for WY12 provide no mechanism to monitor floodplain habitat impacts related to Interim Flows (i.e. are the flows stimulating growth of desirable floodplain vegetation, undesirable floodplain vegetation, variable vegetative growth across different reaches, development of ephemeral or small-scale fish entrainment obstacles on the floodplain, input of large woody debris that would alter bed mobility and spawning gravel suitability in the upper reaches, etc), nor to provide planning information that would assist the Program in developing an acreage and distribution target for floodplain restoration, a critical component of accomplishing the Restoration Goal.

The seepage monitoring studies which will continue to be conducted during WY12 provide our first glimpse of potential areas suitable for floodplain foraging habitat restoration. Locations of known shallow groundwater are the most reasonable locations to plan and implement floodplain habitat restoration supporting anadromous fish as they are the locations within the system that would require the least investment to derive the greatest habitat benefit. Areas which support shallow groundwater at appropriate times of year need only

minimal input of surface flows to achieve saturation and inundation for foraging fish. Additionally, shallow groundwater supports wetland plant communities adapted to floodplain inundation, providing a reduced vegetation management cost in the long term: well-adapted diverse floodplain plant communities are resistant to weed infestations, resilient to disturbances such as fires and droughts, and have greatly reduced weed treatment/removal costs relative to mal-adapted or non-native plant communities. Shallow groundwater and seepage monitoring plans, as well as plans to reduce potential seepage impacts to adjacent landowners should also include an evaluation of the potential use of the seepage-affected lands for habitat restoration supporting foraging fish and their related vegetative communities.

Riparian Habitat

It has been widely documented that shaded riverine aquatic habitat (and more generally riparian habitat) is a required habitat component for healthy aquatic ecosystems which support Chinook salmon. The timing and duration of river flows plays a very important role in determining the extent, distribution and composition of riparian and shaded riverine aquatic habitat. The effects of Interim and Restoration Flows on riparian habitat within the Program reaches may include:

- stimulating or reducing vegetative growth which influences abundance and distribution of food sources and predators for fish;
- scouring away large trees and shrubs which provide important in-stream habitat and cover for fish;
- distributing seeds and vegetative material which influences the availability of shade, food and large woody cover for fish;
- drowning species intolerant of flooding or promoting species stimulated by flooding which influences habitat quality for fish through predator/prey interactions;
- encouraging localized bank erosion or sediment deposition which influences in-stream habitat quality for fish;
- forcing migration of riparian wildlife to the benefit or detriment of riparian plant communities which influences in-stream and floodplain habitat quality for fish (for example, increased flows can stimulate migration of voles away from inundated areas. Large vole populations can girdle riparian saplings on the floodplain's edge, exposing the river to increased temperatures during summer months; or increased flows can stimulate beaver populations who remove and move large quantities of riparian vegetation); and
- producing increased herbaceous material accumulation (thatch) along the river's edge which influences riparian community succession and fire return intervals, which influences the availability of shade, food, and cover for fish.

The effects of Interim Flows on riparian and shaded riverine aquatic habitat should be studied closely to determine if and how Interim and Restoration Flows will influence the riparian habitat characteristics of the San Joaquin River, both as a protected habitat type in the State of California, and as a critical habitat component for Chinook salmon.

Suggestions

The Program should use the seepage monitoring data to evaluate the floodplain habitat restoration potential of riverside lands within the Program reaches as part of the WY12 Interim Flows studies and analyses. This "floodplain habitat restoration potential evaluation" will be critical to the development of floodplain foraging acreage targets, as well as target floodplain restoration distributions across the Program reaches. Characteristics to consider in the evaluation of floodplain habitat restoration potential can be found in many publications and texts.

The Program should develop a plan to evaluate the historic extent of frequently inundated floodplains (floodplains which historically remained inundated for a target duration and frequency, at a time of year when juvenile salmon would be at a peak of outmigration) within the restoration reaches. Such an evaluation would support development of a scientifically robust target acreage and distribution (by reach) for floodplain foraging habitat restoration. While restoration flows account for 20% of the historic or unimpaired flows by volume, the existing floodplain foraging habitat accounts for a much smaller fraction of historic amounts, and the condition of existing floodplain habitat within the Program reaches is highly degraded. While the historic alignment, hydrology, geomorphology, water quality, vegetation and other natural characteristics of the San Joaquin River have been degraded beyond any hope of restoring historic conditions, the assessment of historic or unimpaired floodplain extent could provide a baseline against which restoration targets could be developed. Interim Flows provide a valuable opportunity to identify suitable floodplain foraging habitat restoration opportunities, and comparison to historical extent of floodplain is essential in developing the scale of the need for foraging habitat as well as the assessment of floodplain habitat restoration priorities.

The Program should develop a Floodplain Vegetation Monitoring Program to determine the effects of Interim and Restoration Flows on riparian habitat (a protected habitat type under CDFG Code Section 1600) and floodplain vegetation composition (including growth and input of large woody debris) as it relates to salmonid habitat requirements during all life stages, aquatic food webs, input of large woody debris, stream bed mobility and geometry, suitability of spawning gravels and spawning gravel restoration activities, and water temperatures.

The Program should devise a set of studies to determine a target average size of outmigrating juveniles required to assume a minimal survival through the lower San Joaquin River and Delta to ensure sustainability of restored populations, and use the Interim Flows to calibrate models or predictions. The reintroduction of juvenile salmon during WY11 provided an incredible opportunity to monitor juvenile movement through the river and flood bypasses, but also to monitor juvenile growth from release to recapture downstream. The development of restoration goals for floodplain foraging habitat will require growth monitoring and baseline studies to determine the acreage and distribution of foraging habitat necessary to achieve a desired growth rate for juveniles during each water year type. Such studies could be piloted during the Interim Flows period.

1.6 River Partners

River Partners – 1: Reclamation is currently in the process of collecting and analyzing data to determine the lateral gradient of the water table and mapping potential floodplain inundation (Draft Supplemental WY 2012 Interim Flows EA, Section 2.2.8 – WY 2011 Interim Flows Monitoring Activities and Studies). Additionally, Reclamation is working on a vegetation monitoring plan that will provide mapping for baseline riparian vegetation data. Much of the commentor's suggestions are outside of the scope of this temporary, one-year action for WY 2012 Interim Flows.

River Partners – 2: See response to comment River Partners – 1.

River Partners – 3: See response to comment River Partners – 1.

River Partners – 4: See response to comment River Partners – 1.

River Partners – 5: See response to comment River Partners – 1. Additionally, monitoring for WY 2011 Interim Flows included studies on migration cues, monitoring of egg survival, temperature analysis, benthic macroinvertebrate studies, and intragravel oxygen concentration monitoring – all of which assist in providing data needed for analysis of fish survival. An experimental release of fall-run Chinook salmon was also performed in November 2010 in order to monitor outmigration times and behavior. This information will help to inform future actions.