CHAPTER 4
COMMENTS AND RESPONSES

4.1 INTRODUCTION

This chapter contains the comment letters received on the Draft EIR/EIS followed by individual responses to those comments. Commentors, their associated agencies, and assigned letter identifications are listed in Section 4.3. Comments are grouped into the following categories: Federal Agencies (FA); State Agencies (SA); Local Agencies (LA), Non-profit Organizations (NP); Individuals (I); and Public Hearings (PH). Scanned copies of each comment letter received during the public review and comment period on the Draft EIR/EIS are presented in Section 4.4. The responses that have been prepared to address issues and concerns raised in the comments on the Draft EIR/EIS are presented immediately after each commentor's letter.

4.2 FORMAT OF COMMENTS AND RESPONSES

The lead agencies received thirteen comment letters, one written comment and three oral comments. Oral comments made at the public hearings on the Draft EIR/EIS were recorded, and a transcript of those comments as well as the written comment presented at the hearing are presented in this chapter.

The comment letters and the responses to comments are arranged in the following order:

- Section 4.4.1 - Responses to Federal Agency Comments
- Section 4.4.2 - Responses to State Agency Comments
- Section 4.4.3 - Responses to Local Agency Comments
- Section 4.4.4 - Responses to Special Interest Group Comments
- Section 4.4.5 - Responses to Individual Comments
- Section 4.4.6 - Responses to Comments Made During Public Hearings

Each letter or testimony is coded and each comment is numbered. For example, the first comment in the letter from the U.S. Department of Energy, Western Area Power Administration (Western) is labeled as FA2-1. Responses are numbered so that they correspond to the appropriate comment. Where a comment could be responded to with a response to another comment, reference to that response is provided. All comments on the content and adequacy of the Draft EIR/EIS have been responded to in full.

4.3 LIST OF COMMENTS RECEIVED

The agencies, organizations, and individuals that provided written and oral comments on the Proposed Yuba Accord Draft EIR/EIS are listed in **Table 4-1**.

Table 4-1. List of Commentors

Commentor	Agency/Organization	Comment Letter ID	Page Number
Federal Agencies			
Nova Blazej	U.S. Environmental Protection Agency (EPA)	FA1	4-3
Susan Sinclair	U.S. Department of Energy Western Area Power Administration (Western)	FA2	4-6
State Agencies			
Kent Smith	California Department of Fish and Game (CDFG)	SA1	4-9
Christopher Huitt	California Department of Water Resources (DWR)	SA2	4-19
Ernest Mona	State Water Resources Control Board (SWRCB)	SA3	4-26
Christopher Huitt	California Department of Water Resources (DWR)	SA4	4-69
Local Agencies			
Mark Atlas	Dry Creek Mutual Water Company (DCMWC)	LA1	4-73
Paul Minasian	Cordua Irrigation District (CID)	LA2	4-76
David Briggs	Contra Costa Water District (CCWD)	LA3	4-100
Non-Profit Organization			
Greg Crompton	Dobbins/Oregon House Action Committee (DOACT)	NP1	4-103
Chuck Bonham	The Bay Institute (TBI) and Trout Unlimited (TU)	NP2	4-104
Individuals			
Michael Sonnen	Self	I1	4-108
Commentor requested name be withheld	Self	I2	4-114
Public Hearings			
James Butler	Self	PH1	4-130
Freda Calvert	Self	PH2	4-134
Sig Boss	Self	PH3	4-135

Legend:
FA = Federal Agency SA = State Agency LA = Local Agency
NP = Non-profit Organization I = Individuals PH = Public Hearing

4.4 COMMENTS AND RESPONSES

4.4.1 RESPONSES TO FEDERAL AGENCY COMMENTS

FA1

SEP-07-2007 FRI 12:29 PM U.S.E.P.A. FAX NO. 4159478026 P. 02

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

September 7, 2007

Ms. Dianne Simodynes
HDR – Surface Water Resources, Inc.
1610 Arden Way, Suite 175
Sacramento, CA 95815

Subject: Draft Environmental Impact Statement (DEIS) for the Proposed Lower Yuba River Accord, Yuba County, California (CEQ# 20070269)

Dear Ms. Simodynes:

The U.S. Environmental Protection Agency (EPA) has reviewed the DEIS referenced above. Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our comments are provided in accordance with the EPA-specific extension to the comment deadline date from August 24, 2007 to September 7, 2007, granted by Tamara LaFramboise of the US Bureau of Reclamation on August 6, 2007.

Based upon our review and the identification of the Yuba Accord Alternative as the preferred alternative, we have rated this DEIS as Lack of Objections (LO) (see enclosed "Summary of the EPA Rating System"). We commend the signatories and participants of the Yuba Accord for the comprehensive program to provide increased instream flows to benefit fisheries in the Lower Yuba River. The three Yuba Accord components - Fisheries Agreement, Conjunctive Use Agreements, and Water Purchase Agreement - provide an elegant solution in providing increased instream flows, water for these flows, and revenues to implement the Accord and long-term monitoring. EPA also commends the provision for a long-term guaranteed water supply for the Environmental Water Account.

FA1-1

Of note is the thorough environmental documentation of existing conditions, legal and water supply context for the project area, analysis methodology and assumptions, detailed analysis of alternatives compared to different no action baselines, cumulative impact analysis, induced growth analysis, and description of climate change considerations.

FA1

SEP-07-2007 FRI 12:30 PM U.S.E.P.A. FAX NO. 4159478026 P. 03

We appreciate the opportunity to review this DEIS. When the FEIS is released for public review, please send one copy to the above address (mail code: CED-2). If you have any questions, please call me at 415-972-3846 or Laura Fujii, of my staff, at 415-972-3852 or fujii.laura@epa.gov.

Sincerely,

Nova Blazej, Manager
Environmental Review Office

Enclosures: Summary of EPA Rating Definitions

cc: Tamara LaFramboise, US Bureau of Reclamation
Curt Aikens, Yuba County Water Agency
Teresa Geimer, California Department of Water Resources
Regional Manager, Region 2, California Department of Fish and Game
Maria Rea, National Marine Fisheries Service
Susan Moore, US Fish and Wildlife Service
Executive Director, South Yuba River Citizens League
Conservation Director, Friends of the River
California Hydro Power Coordinator, Trout Unlimited
Program Director, The Bay Institute

FA1

SEP-07-2007 FRI 12:30 PM U.S.E.P.A. FAX NO. 4159478026 P. 04

SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

LETTER FA1: NOVA BLAZEJ, U.S. ENVIRONMENTAL PROTECTION AGENCY

Response to Comment FA1-1:

Comment noted. The lead agencies appreciate the EPA's determinations regarding the adequacy of the Draft EIR/EIS and the rating assigned to it.

FA2

Brown, Carol

From: Simodynes, Dianne
Sent: Thursday, July 19, 2007 9:25 AM
To: O'Connell, Amanda; Brown, Carol
Subject: FW: Proposed Lower Yuba River Accord Draft EIR/EIS

Attachments: GUIDES.COT-RSV.doc

GUIDES.COT-RSV.doc (28 KB)

-----Original Message-----
From: Susan Sinclair [mailto:SINCLAIR@wapa.gov]
Sent: Thursday, July 19, 2007 8:41 AM
To: Simodynes, Dianne
Subject: Proposed Lower Yuba River Accord Draft EIR/EIS

Ms. Simodynes:

Thank you for the opportunity to comment on the Proposed Lower Yuba River Accord Draft EIR/EIS. The United States Department of Energy, Western Area Power Administration (Western), does not have any objections to the proposed project where it crosses Western*s Cottonwood-Roseville 230-kilovolt transmission line easement, but Western will need to review and approve any infrastructure improvements to the 100-foot right-of-way easement and for the issuance of a license agreement prior to any construction activities.

Enclosed is a copy of Western*s general guidelines for the use of the easement area. Please let me know if you need any other information.

Thank you,

Susan Sinclair
Realty Specialist
U.S. Department of Energy
Western Area Power Administration
114 Parkshore Drive
Folsom, California 95630
(916) 353-4600
(916) 985-1935 fax
sinclair@wapa.gov

1

FA2

WESTERN AREA POWER ADMINISTRATION
GENERAL GUIDELINES CONCERNING THE USE OF
ELECTRIC TRANSMISSION LINE RIGHTS-OF-WAY

RE: Cottonwood-Roseville 230-kV Transmission Line

Western Area Power Administration (Western) owns a 100-foot easement along the length of the referenced transmission line. Western's rights within the easement include the right to construct, reconstruct, operate, maintain, and patrol the transmission line.

Rights usually reserved to the landowner include the right to cultivate, occupy, and use the land for any purpose that does not conflict with Western's use of its easement. To avoid potential conflicts, it is Western's policy to review all proposed uses within the transmission line easement. We consider (1) Safety of the public, (2) Safety of our Employees, (3) Restrictions covered in the easement, (4) Western's maintenance requirements, and (5) Protection of the transmission line structures and (6) Road or street crossings.

The outline below lists the considerations covered in the review. Please note that some items may overlap. This outline has been prepared only as a guide; each right-of-way encroachment is evaluated on an individual basis.

1. Safety Of The Public

   A. Approval depends, to a large extent, on the type and purpose of the development. Western takes our obligation to public safety very seriously. To insure our obligation, any use of the easement that will endanger the public will not be allowed or strongly discouraged (e.g., kite flying is prohibited).

   B. Metal fences must be grounded in accordance with applicable safety codes.

   C. Lighting standards shall not exceed a maximum height of 15 feet and not placed directly under the conductors (wires). All lighting standards must be grounded.

   D. All vegetation on the easement shall not exceed a maximum height of 12 feet at maturity.

   E. Structures are not allowed on the easement. Structures include, but are not limited to, buildings, sheds, swimming pools, basketball courts, tennis courts, gazebos, etc.

   F. No ground elevation changes are allowed which would reduce the ground to conductor clearance below 30 feet.

FA2-1

FA2

2. Safety Of Our Employees

Vegetation and encroachments into our right-of-way requires our crews to take action, which places them at risk. Therefore, any vegetation or encroachments that present a risk to our employees will not be allowed.

3. Restrictions Covered In The Easement

The easement prohibits the following: (1) any use that will interfere with or damage the equipment of the United States, (2) digging or drilling of a well, (3) erecting buildings or structures, (4) placing or piling up material within the easement boundaries. The easement gives Western the right to remove trees, brush or other objects interfering with the safe operation and maintenance of the line.

4. Maintenance Requirements

A. Berms shall not be placed next to the base of the transmission line tower.

B. Any proposed improvements to the easement (including grading, parking lot, lighting, landscaping, fences, etc.), must be reviewed by Western to assure that they will not interfere with the safe operation and maintenance of the transmission line.

C. A 14-foot gate is required in any fences that cut off access along our easement.

D. Thirty (30) feet of unobstructed access is to be maintained around towers.

FA2-1 cont.

5. Protection Of The Transmission Line Structure (Towers, Guy Wires, etc.)

A. If the proposed use increases the possibility of a motor vehicle hitting the transmission line structure, an appropriate guard rail shall be installed to protect the structure (e.g., parking lots or roads).

B. Trench digging, which would weaken or damage the structure, is prohibited.

C. No ground elevation changes are allowed within 20 feet of the structure, and in no case shall the conductor to ground clearance be reduced below code limitation.

6. Roads Or Street Crossings

Western's policy is to have roads or streets cross the easement at right angles, or as nearly at right angles as possible, so that a minimum area of the road or street lies within the transmission line easement.

Requests for permission to use the transmission line right-of-way should be submitted to: Western Area Power Administration, Sierra Nevada Regional Office, Attn: Realty Officer, 114 Parkshore Drive, Folsom, CA 95630.

LETTER FA2: SUSAN SINCLAIR, WESTERN AREA POWER ADMINISTRATION

Response to Comment FA2-1:

The Proposed Lower Yuba River Accord would not involve any construction activities and, thus, would not result in any right-of-way encroachment or otherwise affect Western's rights to its easement for the Cottonwood-Roseville 230-kilovolt Transmission Line.

4.4.2 RESPONSES TO STATE AGENCY COMMENTS

SA1

State of California – The Resources Agency ARNOLD SCHWARZENEGGER, Governor
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
(916) 358-2900

August 24, 2007

Ms. Dianne Simodynes
HDR / Surface Water Resources, Inc.
1610 Arden Way, Suite 175
Sacramento, CA 95815
Fax: (916) 569-1001

Dear Ms. Simodynes:

The Department of Fish and Game (Department) received the Draft Environmental Impact Report / Environmental Impact Statement (DEIR/DEIS) for the proposed Lower Yuba River Accord (Accord). The Draft DEIR/DEIS was developed pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) by the Yuba County Water Agency (YCWA), Bureau of Reclamation (Reclamation), and the California Department of Water Resources (DWR). The purpose of the Accord is to resolve instream flow issues associated with operation of the Yuba River Development Project in a way that protects and enhances lower-Yuba River fisheries and local water supply reliability. The Department has the following comments on the DEIR/DEIS:

1. Section 1.5.1.3 of should be corrected to state "The Department is a CEQA Responsible Agency and Trustee Agency involved in the Fisheries Agreement process. The Department would have the decision-making responsibility of approving and implementing the Fisheries Agreement, and would participate on the River Management Team (RMT). The Department would also be acting as a CEQA Responsible Agency when issuing any permit under the California Endangered Species Act (CESA)." SA1-1

2. The current Federal Regulatory Commission (FERC) license for the Yuba Project expires in 2016. Section 3.1 of the Accord specifies that the term of the Agreement will be from its effective date until FERC issues a new long term license for the Yuba River Development Project, unless the Agreement is terminated earlier, as provided in the Accord. YCWA has applied to the State Water Resources Control Board (SWRCB) for a long term water transfer for the period beginning January 1, 2008, and concluding on December 31, 2025. The DEIR/DEIS does not fully describe and analyze the background conditions and impacts of: (1) termination of the Accord before 2016 or (2) conditions in the SA1-2

Conserving California's Wildlife Since 1870

SA1

Yuba River after 2016 and before December 31, 2025. In order to more fully understand the potential impacts associated with these potential scenarios, the document should provide a more detailed analysis of these conditions. SA1-2 cont.

3. Section 5.2.1(3) of the Accord provides that instream flow requirements at the Marysville Gage may be adjusted downward in a Schedule 5 year to 400 cfs during all or part of the period from October 1 until the February 120 Bulletin forecasts are available, if the parties agree to this change. The DEIR/DEIS does not seem to analyze this potential deviation from the Schedule 5 Accord flows. In order to more fully understand the potential impacts of such a deviation, the DEIR/DEIS should analyze that allowable deviation from the Schedule 5 Accord flows. SA1-3

4. Section 5.1.4 of the Accord allows for flow decreases of up to 20% during March through October if agreed to by YCWA and the RMT. The DEIR/DEIS analyzes the Accord flow schedule but does not seem to analyze the impacts on the fishery resource of a possible 20% decrease in flows if the RMT agrees to decrease the flow pursuant to this section. In order to fully understand the impact of such a decision, the Draft EIR/EIS should analyze any impact of a 20% decrease as provided for in this section. SA1-4

5. Section 6.1.1 of the Accord defines a "Material Violation of Agreement Flow Schedules" as any failure of YCWA to meet specified applicable instream flow requirements for a period of 10 consecutive calendar days, except under certain enumerated situations. The potential therefore exists for Accord flow schedules to not be met for nine days, met for one day, and then not met for nine days in a repeated pattern. The DEIR/DEIS does not analyze this potential deviation from the Accord flows. In order to more fully understand the impacts of any such pattern, should it occur, the DEIR/DEIS should analyze such an allowable flow deviation as specified within the Accord. SA1-5

6. Section 10.1.6.2 should be corrected to state "The California Endangered Species Act (CESA, Fish and Game Code Sections 2050 to 2089) prohibits the taking of any threatened, endangered or candidate species unless allowed by permit where the take is minimized and fully mitigated; the applicant has ensured there is adequate funding to implement the minimization and mitigation measures (including compliance monitoring); and, the Department has determined the permitted take will not jeopardize the continued existence of a species (Fish and Game Code Section 2081(b)). 'Take' under California law means to '…hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill…' (Fish and Game Code Section 86). Where there is an SA1-6

SA1

approved Natural Community Conservation Plan (NCCP), take may also be authorized pursuant to Fish and Game Code Section 2835. California's Fish and Game Commission is responsible for establishing the lists of threatened and endangered species under CESA and for adding or removing species."

SA1-6 cont.

7. The Department disagrees with the conclusion at Section 10.3.1.7-3 (page 10-409, second paragraph) that it is *"not possible to quantitatively ascertain the specific causality or magnitude of cumulative potentially significant impacts, or specific mitigation measures to avoid or minimize these impacts. Therefore, it is concluded that implementation of the Yuba Accord Alternative in combination with other reasonably foreseeable projects could result in potentially significant and unavoidable cumulative impacts to fisheries and aquatic resources in the Delta Region."*

   There is broad recognition that changes must occur in how the Delta is managed in part to address the poor condition of the ecosystem and Delta-dependent fish populations. Past water project operations were a part of the Delta's problems and modifications are being implemented to reduce adverse effects of export pumping. Water transfers to the export service area are a piece of the overall Delta water management picture. Future water project operations, including transfers, must be carried out in a way that is compatible with the conservation of aquatic resource in the Delta. While it is not clear today what future water operations will look like, we do not agree that continued and increased incremental impacts in the Delta will be accepted in the planning and operation of water management systems in the future. With regard to implementation of the proposed Lower Yuba River Accord, careful selection of the times for re-diversion of water from the Yuba River will be critical to minimizing incremental impacts to fish in the Delta.

SA1-7

8. The DEIR/DEIS, Section 23.2.3, contains an incorrect articulation of CESA (instead of stating State policy, it repeats Federal Endangered Species Act (ESA) standards) and does not explain the Department's CEQA Responsible agency role. The following is a suggested correction:

   The California Endangered Species Act (Fish and Game Code Section 2050 et. seq.) establishes state policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The Act prohibits the taking of any threatened, endangered or candidate species unless allowed by permit where the take is minimized and fully mitigated; the applicant has ensured there is adequate funding to implement the minimization and mitigation measures (including compliance monitoring); and, the

SA1-8

SA1

Ms. Dianne Simodynes
August 24, 2007
Page Four

Department has determined the permitted take will not jeopardize the continued existence of a species (Fish and Game Code Section 2081(b)). For projects that would affect a species that is both federally and state-listed, compliance with ESA satisfies CESA if the Department determines that the federal incidental take authorization (Biological Opinion) is also consistent with the above requirements of CESA Section 2080.1(b). Otherwise, the project proponent must apply for a take permit under Fish and Game Code Section 2081(b) or receive a permit pursuant to an approved Natural Community Conservation Plan (Fish and Game Code Section 2835).

Unlike the federal ESA, under CESA there are no mandated state agency consultation procedures. However, CEQA requires notice to responsible and trustee agencies regarding the preparation of EIRs and allows for meetings to expedite consultation (Cal. Code Regs., tit. 14, Section 15082). YCWA and Reclamation have had numerous meetings with the Department (see Section 23.2.7), where discussions focused on determining the scope of work, identifying listed and proposed species potentially affected by the Proposed Project/Action, as well as developing a suitable approach for assessing the potential effects of the action on listed and proposed species and their habitat. If the Department issues a permit under CESA for the Proposed Project/Action, it will act as a CEQA Responsible Agency and independently consider the EIR prepared by YCWA. (Cal. Code Regs., tit.14, Section 15096).

SA1-8 cont.

The Department welcomes the opportunity to review and comment on any related or upcoming documentation concerning the proposed project, and encourages the project proponent to meet with the Department and other resource agencies during the development of any such documents. If you have any questions or need further assistance, please contact Mr. Ian Drury, Environmental Scientist, at (916) 358-2030 (idrury@dfg.ca.gov), and/or Mr. Jeff Drongesen, at (916) 358-2919 (jdrongesen@dfg.ca.gov).

Sincerely,

Kent Smith
Acting Regional Manager

SA1

Ms. Dianne Simodynes
August 24, 2007
Page Five

Cc: Mr. Mike Tucker
National Marine Fisheries Service
650 Capitol Mall, Rm 8-300
Sacramento, CA 95814

Mr. David Hu
Habitat Restoration Coordinator
Anadromous Fish Restoration Program
U.S. Fish and Wildlife Service
Stockton, CA 95205

Mr. Jason Rainey
South Yuba River Citizens League
216 Main Street
Nevada City, CA 95959

Mr. Gary Reedy
South Yuba River Citizens League
407 Winter Street
Nevada City, CA 95959

Mr. Curt Aikens
General Manager
Yuba County Water Agency
1220 S Street
Marysville, CA 95901

Mr. Jeff Drongesen
Mr. Ian Drury
Mr. James Navicky
Department of Fish and Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670

Ms. Nancee Murray
Ms. Tina Cannon Leahy
Office of the General Counsel
Department of Fish and Game
1416 9th Street, Suite 1341
Sacramento, CA 95814

SA1

Ms. Dianne Simodynes
August 24, 2007
Page Six

Cc: Mr. Scott Flint
Department of Fish and Game
1416 9th Street
Sacramento, CA 95814

Mr. Jim White
Department of Fish and Game
830 S Street
Sacramento, CA 95811-7023

LETTER SA1: KENT SMITH, CALIFORNIA DEPARTMENT OF FISH AND GAME

Response to Comment SA1-1:

The referenced text has been edited. See Chapter 5 of the Final EIR/EIS for the revisions to the Draft EIR/EIS text.

Response to Comment SA1-2:

If the Yuba Accord were to terminate before 2016, or before the Federal Energy Regulatory Commission (FERC) issues a new long-term Federal Power Act (FPA) license, then the Yuba Accord flow schedules (which are described in Chapter 3 on page 3-8 of the Draft EIR/EIS, and in Table 1 on page B-55 of Appendix B of the Draft EIR/EIS) would become the required minimum flows for the lower Yuba River in YCWA's water right permits (see Appendix B, page B-74). No additional analyses are required for this scenario, because the lower Yuba River minimum flows would not change.

The term of the Water Purchase Agreement is proposed to extend to 2025. The initial term of the Water Purchase Agreement is anticipated to extend until issuance of a new long-term FERC license to YCWA, which it is anticipated will occur in 2016. The Water Purchase Agreement includes provisions for some continued YCWA deliveries of water, and DWR and possibly Reclamation purchase of such water, through 2025. From 2016 through 2025, the Water Purchase Agreement would allow YCWA to deliver Component 1 (up to 60 TAF/year) and Component 2 through 4 water (up to 140 TAF/year) to DWR (and possibly Reclamation) if the terms of the new FERC long-term license do not affect YCWA's ability make these water supplies available. At a minimum, the Water Purchase Agreement would provide only a guaranteed supply of 20 TAF/year after 2015. If YCWA would be able to make additional supplies of water available consistent with its FERC long-term license and the water supply needs in Yuba County, then YCWA may be able to provide additional Components 1 through 4 water to Reclamation and DWR. Recognizing the range of conditions and constraints that could be in place after 2015, it is assumed in this EIR/EIS that Component 1, 2, 3 and 4 water deliveries to the CVP/SWP potentially could range from a "lower boundary" of 20 TAF/year

up to an "upper boundary" that would include full Yuba Accord deliveries (see Draft EIR/EIS, Chapter 5, page 5-40). For analytical purposes, this approach was taken, so that the entire spectrum of potential hydrologic changes that could occur as a result of water deliveries after 2015 would be analyzed. However, only 20 TAF/year would be guaranteed after 2015.

The lower Yuba River instream-flow regime after 2016 will be determined by the FERC and the SWRCB (through its Clean Water Act (CWA) Section 401 certification process) during the Yuba Project relicensing process. Section 5.4.9 of the Fisheries Agreement provides that all of the Parties to the Agreement would work cooperatively and in good faith, using the agreement's flow schedules and associated rules as a starting point, to try to develop a consensus proposal for the lower Yuba River instream-flow requirements for YCWA's long-term FERC license, and, if consensus is reached, to submit the consensus proposal to the SWRCB and FERC and to ask the SWRCB to include it in its CWA Section 401 water-quality certification and to ask FERC to include it in the new FPA license (see Draft EIR/EIS, Appendix B, page B-35). Accordingly, while there ultimately may be some changes in these flow schedules, the best prediction that can be made today of the instream flow requirements that will be in YCWA's new long-term FERC license if the Yuba Accord goes into effect is that these requirements will be the flow schedules in Exhibit 1 of the Fisheries Agreement. These requirements therefore were used in the evaluations described in the Draft EIR/EIS under the CEQA and NEPA Yuba Accord Alternatives (see Chapters 3, 5, 10 and 21).

Response to Comment SA1-3:

Section 5.2.1(3) was included in the Fisheries Agreement upon recommendation of the Technical Team (which included biologist representatives of the CDFG, NMFS, and USFWS) to provide management flexibility to the River Management Team (RMT) during dry year conditions. Under Exhibits 1 through 5 to the Fisheries Agreement (see Draft EIR/EIS, Appendix B, pages 55-63), the flow schedule that would be used during any particular water year type would be set based on New Bullards Bar Reservoir storage and the predicted inflow to New Bullards Bar Reservoir. The flow schedule that would be set in May of any given year would typically remain in place until February of the following year, when the predicted inflow to New Bullards Bar Reservoir is available from the first DWR Bulletin 120 of the year. In a Schedule 5 year, minimum flows at the Marysville Gage during the November through February timeframe would be 500 cubic feet per second (cfs), as compared to 350 cfs during the same time period in a Schedule 6 year. The Technical Team realized that it would be possible during the course of consecutive dry years to encounter a situation where a Schedule 5 year would be followed by a Schedule 6 year. In that circumstance, two potentially detrimental conditions could occur. First, upon receipt of the first Bulletin 120 forecast in February, calculation of the North Yuba Index would require a drop in flow from 500 cfs to 350 cfs commensurate with a Schedule 6 year. Second, the additional water expended to maintain higher flows of 500 cfs might be sorely missed during the remainder of the Schedule 6 year.

To address these concerns, Exhibit 3 to the Fisheries Agreement provides that during Schedule 5 years when September 30 New Bullards Bar Reservoir storage is less than 400 TAF, the Marysville Gage instream-flow requirement will be 400 cfs from October 1 until the next February Bulletin 120 forecasts are available (see Draft EIR, Appendix B, page B-57). This adjustment is included as an assumption in the hydrological modeling of the Yuba Accord Alternative for the Draft EIR/EIS (see Draft EIR/EIS, Appendix D, page A-20, Table A-8, Footnote e), and is fully analyzed in the Draft EIR/EIS.

For Schedule 5 years with September 30 New Bullards Bar Reservoir storage between 400 and 450 TAF, the Technical Team desired the ability to decide whether or not to make the flow reduction to conserve water for the subsequent spring and summer. In such years, the flow modification therefore would be at the discretion of the biologist representatives of the resource agencies (CDFG, NMFS, and USFWS), and would not occur unless those representatives concluded that this modification would be necessary and beneficial for protection of the fisheries resources of the lower Yuba River (see Draft EIR/EIS, Appendix B, page B-57). Any such modification also would be subject to review by the Chief of the SWRCB's Division of Water Rights under Section 5.2.1 of the Fisheries Agreement (see Draft EIR/EIS, Appendix B, page B-29). Because this flow modification would be a discretionary decision, and might or might not occur, the hydrological modeling for the Draft EIR/EIS does not contain this modification (see Draft EIR, Appendix D, page A-20, Table A-8, Footnote e). Nevertheless, it is reasonable to assume that these resource agency representatives and the Chief of the Division of Water Rights would not allow any such modification if it would have any significant environmental impacts.

Response to Comment SA1-4:

Although this comment refers to a flow "decrease," Section 5.1.4 of the Fisheries Agreement actually provides for a potential 20-percent flow shift of not more than six weeks, which might be allowed sometime during the March through October period. Any flow reduction under this section would have to be offset with a commensurate increase during a six-week period before or after the reduction. Thus, the total instream-flow volume that would occur with the modification would be the same volume as the total instream-flow volume that would have occurred without the modification.

During the development of the Fisheries Agreement, CDFG's biologist asked that this provision be included in the Fisheries Agreement to provide management flexibility to the RMT to allow such a flow shift in response to specific environmental conditions that may occur on the river. The flow shifting could be utilized to make additional water available during a time when it would be necessary to respond to some critical need in the lower Yuba River. Such critical needs could occur because of extended periods of high ambient air temperatures, during periods of unusual immigration or outmigration that might benefit from the availability of additional water flows, or because of conditions relative to redds or juvenile fisheries that would benefit from the availability of additional water flows. Because of these limitations and goals, because all of the biologist representatives of CDFG, NMFS, USFWS would have to agree to any such flow shift (see Draft EIR/EIS, Appendix B, page B-24), and because any such modification also would be subject to review by the Chief of the SWRCB's Division of Water Rights under Sections 5.2.1 and 5.2.2 of the Fisheries Agreement (see Draft EIR/EIS, Appendix B, page B-29), it is reasonable to assume that any such flow shift would not have any significant environmental impacts.

Response to Comment SA1-5:

While Section 6.1.1 of the Fisheries Agreement would provide a definition of a Material Violation, which would then trigger imposition of substantial monetary penalties, Section 6.1.1 would not be the operating standard for flow schedules. Rather, Section 5.1.1 of the Fisheries Agreement would provide the operating standard: "*The instream flow requirements in these schedules will be maintained as measured by a five-day running average of the mean daily stream flows with instantaneous flows never less than 90 percent of the applicable flow requirements specified in the*

schedules. In addition, instantaneous flows will not be less than the applicable flow requirements specified in the schedules for more than 48 consecutive hours unless CDFG concurs to a longer period of time, which may not exceed 5 days" that would control implementation of the instream flow schedules (see Draft EIR/EIS, Appendix B, page B-23). Section 5.1.1 would require consistent and controlled instream flow releases, subject only to minor variations that real world operations may encounter. The operational requirements of Section 5.1.1 of the Fisheries Agreement would be further enforced by Sections 6.2.1 through 6.2.4 of the Fisheries Agreement, which would provide for monetary penalties if the operational requirements were not met, but if flow deviations were not a Material Violation (see Draft EIR/EIS, Appendix B, pages B-38 to B-40). Depending on the extent of the Non-Material Violation, the penalty for each such violation would range up to $1,000 per day, which equals the maximum penalty under Water Code Section 1845 for a violation of a cease and desist order that has been issued for violation of a term or condition of a water-right permit, and the process for assessing these penalties under the Fisheries Agreement would be much faster than the cease-and-desist-order process in Water Code Sections 1825-1845. In addition, Section 5.1.2 of the Fisheries Agreement would authorize CDFG or any of the NGO parties to ask a court to order specific performance to implement the agreement's flow schedules (see Draft EIR/EIS, Appendix B, page B-23). Because of all of these remedies, it is reasonable for the Draft EIR/EIS to assume that the Fisheries Agreement's instream-flow schedules will be implemented without the deviations that are described in this comment.

Response to Comment SA1-6:

The referenced text has been edited. See Chapter 5 of the Final EIR/EIS for the revisions to the Draft EIR/EIS text.

Response to Comment SA1-7:

As discussed in Section 10.1.4.1 of the Draft EIR/EIS, the Draft EIR/EIS acknowledges that there are numerous issues surrounding the pelagic organism decline (POD) and the Draft EIR/EIS recognizes that future Delta operations and management will differ from the operations and management that have been in place under the CEQA Existing Condition and the NEPA Affected Environment. The most recent example of the types of ongoing changes that are affecting conditions in the Delta occurred on August 31, 2007, when the court issued its interim remedies order in *NRDC v. Kempthorne*. This order directed DWR and Reclamation to make several modifications in CVP/SWP operations to protect delta smelt. This order applies only until the pending OCAP ESA re-consultation is completed, and it is likely that additional changes in CVP/SWP operations in the Delta will occur in the future.

Because of the large uncertainty regarding what future long-term CVP/SWP operations in the Delta may be, the cumulative impact analyses for fisheries and aquatic resources in the Draft EIR/EIS concluded that there is a potential for the Yuba Accord Alternative, in combination with other reasonably foreseeable projects, to result in potentially significant and unavoidable cumulative impacts to fisheries and aquatic resources in the Delta Region. While the current and ongoing efforts to address Delta issues indicate that progress is being made toward ensuring that CVP and SWP operations will be managed so that they will be compatible with the conservation of aquatic resources in the Delta as this comment suggests, the ultimate effects on delta smelt of CVP, SWP and other projects' operations cannot be determined at this time. Therefore, to ensure that the potential cumulative impacts of the Yuba Accord Alternative are adequately identified and disclosed in the Draft EIR/EIS, the conclusion of potentially

significant impacts is appropriate given the current uncertainties about the population status of delta smelt as well as other uncertainties regarding factors that may be contributing to the POD in the Delta.

Response to Comment SA1-8:

The referenced text has been edited. See Chapter 5 of the Final EIR/EIS for the revisions to the Draft EIR/EIS text.

SA2

STATE OF CALIFORNIA -- THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

August 24, 2007

Ms. Dianne Simodynes
HDR/SWRI
1610 Arden Way, Suite 175
Sacramento, CA 95815

SUBJECT: Proposed Lower Yuba River Accord Draft EIR/EIS Project
State Clearinghouse (SCH) Number: 2005062111

Dear: Ms. Simodynes:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (EIR)/ Environmental Impact Statement (EIS) for the subject project. California Department of Water Resources (DWR) staff has reviewed the environmental document and provide the following comments.

General Comments

The area described in the Project Description is protected by federal levees that have been incorporated into the state plan of flood control. The effective operation of federal flood control levees along the Feather, Yuba, and Sacramento River systems as well as the Sacramento-San Joaquin Delta system is essential for the protection of public safety and property located in the floodplain protected by those levees. In California, The Reclamation Board is responsible for operations and maintenance of the Federal Flood Control Project Levees in the Central Valley. DWR is the floodplain manager for the State and also coordinate its activities with the Federal Emergency Management Agency (FEMA) in administrating the federal Flood Insurance Program.

SA2-1

A Reclamation Board permit will be required for any plan of work that encroaches on an adopted plan of flood control. Your project may be encroaching on an adopted plan of flood control and thus, an encroachment permit may be required for your project. A permit will also be required for activities outside of the adopted flood control plan if those activities could be injurious to or interfere with the successful execution, functioning or operation of any facilities of an adopted plan of flood control. The attached Fact Sheet provides information on the permitting process. As your draft document states, no project will be created of levees modified.

The EIR should describe in appropriate detail how the regulatory concerns of the Reclamation Board will be addressed. The regulations of the Reclamation Board are found in the California Code of Regulations (CCR) Title 23, Division 1. These

SA2

regulations are designed to protect the integrity and function of the flood control system. Any activity that interferes with the operation, integrity, and function of the adopted plan of flood control is of concern to the Reclamation Board.

State officials, more than ever, are emphasizing public safety and in particular the flood hazard in California. The conditions of the levees that protect many areas are a major concern. Existing levees were constructed decades ago; most of these levees were intended primarily to maintain river flow for navigation and to reclaim overflow land for agricultural production. Non-residential land uses such as agricultural production are compatible with the state plan of flood control for which the levees were constructed.

Detailed knowledge of the physical condition of a given reach of levees is limited. Although the state performs levee inspections, those inspections are conducted to ascertain whether maintenance is being performed according to certain minimum standards and not to evaluate the structural integrity of the levee. Unless obvious, problems with levee integrity may not be identified during the course of state inspections.

SA2-1 cont.

In many cases, the lack of information regarding the integrity of the levee system does not allow the Reclamation Board and/or DWR to assure the communities that there is an adequate level of protection for additional urbanization. Levees sufficient to protect urbanization should be certified as having the minimum protection required for FEMA certification.

The consequences of urban development in a floodplain protected by levees can be significant in terms of not only public safety and protection of property but to the State in terms of financial resources. When it accepts a federal flood control project, the State agrees to indemnify the federal government. Flooding that result from a failure of a portion of the State plan of flood control exposes both the state and the local maintaining agency to significant liability.

Recently, local and national media outlets have been presenting claims the world scientific community recognizes global warming and the effects of these phenomenon. Scientific studies have confirmed the average high tide levels are increasing throughout the world. As concerns of levee stability and safety comes to light after the disastrous effects of hurricane Katrina and the levee failures in New Orleans public safety is an immediate concern.

SA2

Development in areas within a federal and state recognized floodplain should be strongly discouraged. Recent climate change reports have stated the increases in storm intensity and average high tide levels which can be problematic for unforeseen future levee maintenance and improvements. The Reclamation Board recognizes the scientific community concerns and the urgent need to improve and maintain the 100-year flood control levee system. As the world seas increase in height, the average high-tide levels will rise as well. Future plans to address these concerns are a vital component that has been previously overlooked but has been brought to light after the recent disastrous events in New Orleans. Future development should strongly consider the consequences of building in areas with potentially disastrous effects of levee failure compounded by the rising seas and effects of the high tides on these levees.

The Reclamation Board recommends the established design flow criteria throughout the Accord is not exceeded, available seasonal flood storage is maintained, and levee integrity is maintained.

Specific Comments

Levels of flood protection adequate to protect human habitation as project levees are effected by flow variations during normal operations and high water events.

SA2-1 cont.

The Reclamation recommends the following:

- Provide project status of FEMA and the US Army Corps of Engineers certifications of proposed effected levees with regard to the desired project alternatives.
- Discuss the re-evaluation of the Federal and State adopted flood control project levees within the 100-year floodplain/floodway based on the 1997 storms or other 100-year storm event after the construction of the project.
- Discuss re-certification of levees by FEMA and the US Army Corps of Engineers after the proposed project alternative has been selected as the project in light of the current levee safety concerns. The levees affected by the work performed by the Three Rivers Levee Improvement Authority (TRLIA).
- Discuss the treatment of addressing the levee seepage and stability concerns with modification to flow regimes.
- Discuss the affect of potential modifications of flood control structures within the Accord with specific concerns to criteria for high flows and temperature of water releases.

SA2

Ms. Dianne Simodynes
August 24, 2007
Page Four

Thank you once again for the opportunity to comment on the Draft EIR/EIS. If you have any questions or need additional information, please contact Stephen Bradley, Chief Engineer for the Reclamation Board at (916) 574-0680.

Sincerely,

Christopher Huitt
Staff Environmental Scientist

Attachment

Cc: Governors Office of Planning and Research
State Clearinghouse
1400 Tenth Street
Sacramento, California 95814

Nadell Gayou, Senior Environmental Scientist
Department of Water Resources
901 P Street
Sacramento, California 95814

Mark Herald, Chief
Floodway Protection Section
3310 El Camino Avenue
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Stephen Bradley, Chief Engineer
The Reclamation Board
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SA2

Fact Sheet

Reclamation Board Encroachment Permit Application Process

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

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

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

Regulatory Process
The Reclamation Board ensures the integrity of the flood control system through a permit process (Water Code Section 8710). A permit must be obtained prior to initiating any activity, including excavation and construction, removal or planting of landscaping within floodways, levees, and 10 feet landward of the landside levee toes. Additionally, activities located outside of the adopted plan of flood control but which may foreseeable interfere with the functioning or operation of the plan of flood control is also subject to a permit of the Reclamation Board [CCR Title 23 Section 6(c)].

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

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

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

SA2

additional flood risk to third parties that may caused by the project.

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

Environmental Review

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

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

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

These additional documentations may include the following documentation:

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

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

August 25, 2006

SA2

In some limited situations, such as for minor projects, there may be no other agency with approval authority over the project, other than the encroachment permit by Reclamation Board. In these limited instances, the Reclamation Board may choose to serve as the "lead agency" within the meaning of CEQA and in most cases the projects are of such a nature that a categorical or statutory exemption will apply. The Reclamation Board cannot invest staff resources to prepare complex environmental documentation.

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

LETTER SA2: CHRISTOPHER HUITT, CALIFORNIA DEPARTMENT OF WATER RESOURCES

Response to Comment SA2-1:

The Proposed Project/Action would not involve any construction activities, would not encroach on any adopted flood control plan, and would not interfere with execution of any adopted flood control plans. Therefore, a Reclamation Board permit does not need to be obtained for implementation of the Proposed Project/Action.

SA3

State Water Resources Control Board

Division of Water Rights
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Linda S. Adams
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

August 24, 2007

Ms. Dianne Simodynes
HDR-Surface Water Resources, Inc.
1610 Arden Way, Suite 175
Sacramento, CA 95815
Dianne.Simodynes@hdrinc.com

Dear Ms. Simodynes:

PUBLIC COMMENTS REGARDING THE LOWER YUBA RIVER ACCORD DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT (DEIR/DEIS)

The State Water Resources Control Board (State Water Board) is a responsible agency under the California Environmental Quality Act (CEQA) and a regulatory agency with authority over several aspects of the proposed Lower Yuba River Accord (Accord), including the approval authority over changes to Yuba County Water Agency's (YCWA) water rights, and YCWA's proposed transfer of water to benefit the Department of Water Resources's (DWR) State Water Project (SWP) and the Bureau of Reclamation's (BOR) Central Valley Project (CVP). State Water Board staff submits the following comments on the DEIR/DEIS for the proposed Accord.

I. Fisheries and Fisheries Agreement (FA) Issues

Please note that many of the following issues affect the State Water Board's ability to make a finding that the Fisheries Agreement will provide "a level of protection for fishery resources in the Lower Yuba River during the term of [the] Agreement that is equivalent to or better than that which Revised Decision 1644 (RD-1644) would provide." (FA section 4.1.1.) In addition, many of these issues affect the State Water Board's ability to make the required findings under the Water Code, section 1736, and under the reasonable and beneficial use and public trust doctrines.

A. Fisheries Agreement Flows v. RD 1644 Long-Term Flows

The DEIR/DEIS should include a clearer analysis of the difference between the flows that would be provided under the Fisheries Agreement of the Accord (Accord flows) and the RD-1644 long-term flows. Specifically, the DEIR/DEIS needs to explain more clearly the scientific and biological basis for the Accord flows, on a month-by-month and species-by-species basis, including the justification for decreasing May-June flows in nearly all years and months (except in May and June of Schedule 1 years) and for increasing July-September flows. We suggest that the DEIR/DEIS include a month-by-month, species-by-species chart that provides an overview of the life stages of each fish species of concern; the preferred, minimum, and

SA3-1a.

SA3

maximum flows for each species at each of those life stages; and a quantitative comparison of the RD 1644 interim, RD 1644 long-term, and Accord flows. SA3-1a. cont.

The DEIR/DEIS should address the consequences of this shift from spring to summer flows on all fish species of concern in the Bay-Delta, and on Bay-Delta outflows, including the location of X2. (See also Pelagic Organism Decline section, below.) We are particularly concerned with the potential impacts of a reduction in spring flows on the longfin smelt because they are a Class 1 species of special concern in California (meaning that they qualify for listing as endangered or threatened under the California Endangered Species Act), state and federal listing petitions were recently filed, and their abundance is strongly correlated with spring outflows. The DEIR/DEIS fails to adequately address potential impacts to longfin smelt. (See Moyle 2002, Inland Fishes of California, p. 237.) The DEIR/DEIS should also discuss the ability of BOR and DWR to mitigate for any effects on Bay-Delta resulting from the shift in timing Bay-Delta outflows. SA3-1b.

Additionally, the DEIR/DEIS notes that the comparison of the Accord flows with RD-1644 long term flows (the CEQA "no project" alternative) claims to apply Water Code Section 1736's requirement that the actions "not unreasonably affect fish, wildlife, or other instream beneficial uses," as opposed to comparing whether either option would have a significant impact compared to the other. (See, e.g. DEIR/DEIS p. 4-14.) The DEIR/DEIS does not describe how it determines whether there is an "unreasonable effect," in contrast to the extensive explanation of what impacts are considered significant. The DEIR/DEIS should describe the differences between the two bases of comparison. SA3-1c.

It is important to note that the State Water Board will make its own determination of the standards for determining standards for "unreasonable effect" and of whether the Accord flows and the transfer agreement meet the requirements.

B. Pelagic Organism Decline (POD)

The DEIR/DEIS should include a more comprehensive discussion of the POD issue, including a discussion of the most recent scientific data and analysis of the issue and species-specific levels of significance for all four key indicator species identified in the Pelagic Fish Action Management Plan: longfin smelt, delta smelt, striped bass, and American shad. Because the DEIR/DEIS relies on dated science concerning the POD and on a dated methodology for identifying and assessing the significance of impacts to pelagic organisms (the same as was used in the now-invalidated 2005 OCAP BiOp), the DEIR/DEIS's conclusions regarding the significance of impacts to these species are flawed. SA3-2a.

Throughout the DEIR/DEIS process, YCWA and BOR should incorporate and consider emerging information regarding the Pelagic Organism Decline, including any progress made towards a court-ordered interim remedy proposal and a biological opinion. SA3-2b.

The DEIR/DEIS's discussion of POD mitigation measures likewise is flawed. In order for the State Water Board to be able to rely on the DEIR/DEIS to meet its public trust obligations, the document should include a reasonable range of mitigation measures to address the impacts of the Accord on the POD, such as holding any additional dry-year southern Delta pumping in abeyance until the cause of the POD is identified in the POD Synthesis Report, and making future pumping subject to the Fish Response Plan which is currently under development. The DEIR/DEIS also should assess any impacts of those mitigation measures; so that the SA3-2c.

SA3

DEIR/DEIS will provide sufficient information should the State Water Board find it necessary to impose transfer conditions. SA3-2c. cont.

Finally, the POD discussion should recognize that any conclusions about whether the Accord will have a significant impact are limited by the uncertainty in the science regarding the interplay of biological, ecological and hydrological forces in the Delta. The DEIR/DEIS, for example, claims that the Accord would not have a significant impact on a range of species on the Delta (DEIR/DEIS, pp. 10-149 – 10-150). Such assertions should contain a disclaimer that they are highly uncertain. SA3-2d.

C. Permit vs. Contract Flows

The DEIR/DEIS does not acknowledge or address a fundamental premise of the Accord, namely that, during the term of the Fisheries Agreement, the only flows mandated by permit essentially will be the sharply reduced flows requested in the change petition, including the clearly insufficient 1965 DFG Agreement flows in conference years. (See FA, Ex. 7, p. 4; Change Petition.) The Accord anticipates that the flows will only be implemented by contract. This would mean that the State Water Board would not be in a position to enforce any violations of the Accord flows. Therefore, the DEIR/DEIS should discuss the potential environmental consequences of the lack of any enforcement mechanism to address any failures to comply with the Accord flows. We recommend that this be done through the addition of a "permit flow" alternative, which should be compared to the CEQA No-Project Alternative, as well as to the baseline condition. SA3-3

The fact that the Accord flows would only be implemented by contract also means that significant reductions in Accord flows could occur upon termination of the Fisheries Agreement, or if any of the "off ramps" to the Fisheries Agreement are invoked (see Nos. D and E below). These issues should be analyzed in the DEIR/DEIS, including a comparative analysis of the RD-1644 long-term flows with the adjusted flows that are in YCWA's change petition.

D. Fisheries Agreement Back-Up Flows

D.1. The DEIR/DEIS should clearly state that the Accord flows would become the back-up permit flows if the Fisheries Agreement is terminated early (FA section 6.1.5 and Ex. 7, p. 5, "c"). Presumably, these flows would not be subject to the various "off-ramps" in the Fisheries Agreement (see below), since that agreement would have terminated, but the DEIR/DEIS should confirm whether this is the case. SA3-4a.

D.2. The DEIR/DEIS inaccurately indicates that the Fisheries Agreement will expire in 2016. The Fisheries Agreement states that it will expire when the new long-term Federal Energy Regulatory Commission (FERC) license is issued to YCWA, which could be later than 2016. (FA section 3.1.) The DEIR/DEIS should correct this statement throughout the document, and re-analyze any conclusions that depend on 2016 as a firm date for expiration. SA3-4b.

D.3. In addition, the DEIR/DEIS should analyze what may occur when the Fisheries Agreement expires upon issuance of the new FERC license to YCWA sometime on or after 2016. The Accord appears to contemplate that the baseline permit flows and Accord flows will be replaced by the FERC license flows (FA, Ex. 7, p. 7, "d"), and contains no provision to ensure an equivalent level of protection after issuance of the SA3-4c.

SA3

new FERC license. However, FERC may or may not impose restrictions on irrigation rediversions downstream of Englebright Reservoir, as its authority is over power production. Additionally, even if FERC were to take irrigation into account in its relicensing process, there is no guarantee that it would require the same level of protection. The DEIR/DEIS should analyze the environmental consequences of the FERC license flows, in the event that they end up being lower than the Accord flows and RD-1644 interim or long-term flows. SA3-4c. cont.

The State Water Board may be unable to make an equivalency finding based on unknown future flows, the impact of which is unevaluated in the environmental review document. (See, e.g., *Central Delta Water Agency v. State Water Resources Control Board* (2004) 124 Cal.App.4th 245, 253, 261, 265; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309.)

D.4. The DEIR/DEIS should clarify what minimum flows will be required in a conference year. The documents are inconsistent on this point. For example, Fisheries Agreement section 5.1.5 states that in conference years, YCWA will operate the project in compliance with YCWA's current FERC license, while Exhibit 7 to the agreement states on page 4 that the project will be operated consistent with the 1965 DFG agreement. It is unclear whether or how the FERC license flows differ from the 1965 DFG agreement flows. Fisheries Agreement section 5.2.1, on the other hand, implies that the Planning Group will determine appropriate flows in a conference year. The DEIR/DEIS should analyze the impacts of a failure to agree on conference year flows, including analysis of "worst case scenarios" from a variety of perspectives (e.g. fisheries, irrigation districts that contract with YCWA, SWP/CVP water users), and should also discuss potential mitigation measures which could minimize impacts in conference years. SA3-4d.

D.5. Finally, the DEIR/DEIS should discuss the environmental consequences of having the severely reduced flows proposed in the YCWA's change petition as the only back-up flows in the event of a Force Majeure or Regulatory Change Event that triggers the need for an alternative flow schedule (FA sections 6.4.3 and 6.4.4). SA3-4e.

E. Fisheries Agreement "Off Ramps"

The DEIR/DEIS should analyze what environmental consequences will result if: (a) the various *conditions precedent* listed in the Fisheries Agreement are not met (see FA section 4), and (b) any of the various *conditions subsequent* in the Fisheries Agreement are not met. The DEIR/DEIS erroneously assumes that the Fisheries Agreement flows specified in Exhibit 1 to the agreement and Table 3-3 of the DEIR/DEIS will constantly be in effect during the term of the Fisheries Agreement. However, this assumption is potentially undermined by many terms of the Fisheries Agreement itself. SA3-5

The DEIR/DEIS should address whether each of the conditions precedent has occurred, and, if it has not, should disclose any remaining steps necessary to fulfill the condition. The DEIR/DEIS should also discuss the environmental consequences of the failure to meet any of the conditions listed below. In doing so, it should assess the likelihood that one or more such events will occur and describe the flows that will be in effect if such event occurs.

SA3

E.1. Feather River Point of Diversion/Rediversion

The Fisheries Agreement will not go into effect "unless and until the SWRCB adopts … YCWA's petition … to amend YCWA's water rights Permits … to add an authorized point of diversion/rediversion on the Lower Yuba River near its confluence with the Feather River… or on the Feather River downstream of this confluence…" (FA, § 4.1.3) The State Water Board has received no such petition. Furthermore, the DEIR/DEIS does not address the potential impacts of this diversion, and a project-level CEQA review for the diversion/rediversion has not begun. Thus, the likelihood of this condition precedent for implementation of the Fisheries Agreement occurring in the near future appears slim. SA3-5a.

E.2. Temporary Alterations

Temporary alterations of the Accord flow schedules may be agreed to in the future by the Planning Group of the River Management Team (FA sections 5.1.4 and 5.2.1). These provisions authorize the Planning Group to decrease the Accord flows by up to 20 percent for up to six weeks at a time between March and October. This could result in major alterations of the Accord flow schedules. SA3-5b.

E.3. Significant Regulatory Changes

The Fisheries Agreement ends its flow requirements if there is a "Significant Change due to a Regulatory Change Event," which is "a new court order or regulatory action (including but not limited to, a regulatory action under the federal Endangered Species Act or the California Endangered Species Act) that requires YCWA to make a Significant Change in YCWA's operations of the Yuba Project." (FA sections 5.1.6 and 6.4.2 and Exhibit 10, pp. 5-6.) A "Significant Change" is defined, *inter alia*, as "[a]n ESA, CESA, or other regulatory action that would result in a change in flow Schedules 1-6 and that would result in either a: a) decrease in total Transfer Agreement payment amounts for Components 2-4 water of 5 percent per year or more in any water year, or b) decrease in the amount of flow that can be delivered to YCWA's consumptive users of 5 percent or more in any water year." (FA, Ex. 10, p. 6.) The DEIR/DEIS should evaluate the likelihood of such an event, its potential environmental consequences, and potential mitigation measures. SA3-5c.

E.4. Material and Non-Material Violations

The DEIR/DEIS should address the effects of a Material or Non-Material Violation or Technical Variation of the flow schedules (FA sections 6.1.1, 6.2.1, 6.2.5). In particular, the DEIR/DEIS should include a discussion of the effects that will occur if: (a) there is a Non-Material Violation that results in a *significant change* to the flows, even though it may last less than 10 days; (b) there are repeated Non-Material Violations of less than ten days, interspersed with a few days of compliance; (c) the instream flows vary up to 50 cubic feet per second (cfs) at any given time as authorized under the Technical Variations provision; and (d) there are multiple periods in any given year type in which the Accord flows are not met due to any Material or Non-Material Violation(s) or Technical Variation(s). The document should also assess the potential impacts of successive violations. For example, under the Fisheries Agreement's definition of non-material violation, YCWA could violate the flow schedules for three separate nine day periods during the month, for a total of 27 out of 30 days. The DEIR/DEIS should clarify whether SA3-5d.

SA3

YCWA would still be in compliance with the Accord should this happen. The DEIR/DEIS should evaluate the impact of such variations in different water year types. SA3-5d. cont.

E.5. Dry year storage adjustment

The DEIR/DEIS should analyze the environmental consequences of the provisions entitled "Dry Year Storage Adjustments to Instream Flow Requirements" in Exhibits 3 and 7 to the Fisheries Agreement. These dry year storage adjustment provisions would be amended into YCWA's water right permits. (See FA, Ex. 3 and Ex. 7, p. 7, also attached to the petition for modification of YCWA's water right permits.) The provisions specify that if storage in New Bullard's Bar reservoir on September 30 of a Schedule 5 year is less than 400,000 acre feet, then the Marysville Gage instream flow requirement must be 400 cubic feet per second (cfs) from October 1 until the next February Bulletin 120 forecasts are released (i.e. possibly until March). This is an automatic reduction of 20 percent in the Accord flows to an amount close to the Schedule 6 flows for a 5-6 month period.[1] If New Bullard's Bar storage is between 400,000 and less than 450,000 acre feet on September 30 of any given year, then the Planning Group has the discretion to adjust the Marysville Gage instream flow requirements to 400 cfs during the same time period (i.e. October 1 - February or March).

Thus, the dry year storage adjustment provisions are yet another significant off ramp from the Accord's instream flows which has not been accurately or adequately discussed and analyzed in the DEIR/DEIS. Although page 3-9 of the DEIR/DEIS does reference these provisions in part, the discussion is inaccurate and misleading in that it only mentions the *discretionary* adjustment to instream flows that the Planning Group may decide to make if New Bullards Bar storage is between 400 and 450 thousand acre-feet (TAF), and does not mention the mandatory adjustment in flows if New Bullards Bar storage is less than 400 TAF. SA3-5e.

Moreover, like the other Fisheries Agreement off ramps, the DEIR/DEIS does not appear to discuss or analyze the effect of this reduction in flows on lower Yuba River and Delta fisheries. It also is not clear whether this off ramp has been included in the DEIR/DEIS's modeling results. Did the DEIR/DEIS consider the potential effect on fisheries of this off ramp in its modeling or through some other analytical tool? If not, why not? Finally, how frequently is New Bullard's Bar expected to reach the dry year storage adjustment triggers, given that the amount of storage under the Accord will not only be a function of watershed hydrology but also of the transferring parties' water needs in any given year?

F. Ramping Rates

The DEIR/DEIS should clarify that the ramping rates required in FA sections 4.1.2 and 4.5, in the Accord, and in RD-1644 are all the same. (See DEIR/DEIS p. 5-26 to 5-27.) The DEIR/DEIS should also clarify whether NOAA's approval thus far of the ramping conditions specified in the September 2003 Draft Biological Assessment for the Yuba Project (FERC 2246), which require YCWA to complete several years worth of studies regarding ramping criteria, are sufficient to allow the FA to go into effect. (See FA section 4.5.) SA3-6

[1] The Accord flows, set forth in Exhibit 1 to the Fisheries Agreement and Table 3-3 of the DEIR/DEIS, specify that the normal Schedule 5 flows at Marysville will be 500 cfs for the months of November through March.

SA3

G. Levels of Significance

The DEIR/DEIS should fully document and clearly explain the reasons behind choosing specific levels of significance for fisheries impacts, whether that reason be biological or simply an agreed-upon measure in the face of uncertainty.

For example, the DEIR/DEIS should document the sources for its statement that specific habitat flow relationships are not limiting for juvenile fish rearing under the proposed scenarios. (See DEIR/DEIS p. 10-110.) We assume that this information comes from studies performed for RD-1644, but the DEIR/DEIS should clarify this. It should also state the basis for using a 10 percent reduction in flow as a level of significance, and how different water-year types were accounted for in this decision. The DEIR/DEIS should provide us with the newest available information to support the contention that delta smelt and habitat will not be affected by changes in the location of X2 that are less than those specified in the levels of significance. (See DEIR/DEIS p. 10-104.) SA3-7

Additionally, as noted above, the document should set and clearly explain the reasons behind specific levels of significance for impacts on all four POD indicator species. This should include addressing data presented in the longfin smelt listing petitions which indicates that any shift in the location of X2 in March through June is a significant impact (Stevens and Miller1983; Jassby et al. 1995; Meng and Matern 2001; Kimmerer 2002, 2004; Rosenfield and Baxter, in press).

II. Transfer Agreement Issues

The DEIR/DEIS should analyze the environmental implications of specific provisions of the Transfer Agreement, particularly the provision that Component 1 water need not be used to augment the "regulatory baseline level of protection in place at the time of the EWA action" if the EWA is terminated or if pumping at the Banks Pumping Plant is not approved to be 8500 cfs by December 31, 2008. (See Transfer Agreement sections 5.A.1 and 23.D.) At least one, if not both, of these conditions appears likely to occur. Because these provisions of the Transfer Agreement reveal that it is possible Component 1 water will be used for water supply reliability purposes instead of fisheries protection, the DEIR/DEIS should discuss the environmental consequences of such an occurrence, including the environmental effects of any related water supply reliability projects. SA3-8

III. Conjunctive Use Agreement Issues

The DEIR/DEIS's discussion of water conservation measures is incomplete. The DEIR/DEIS should clarify whether all YCWA member units, including the Wheatland Water District, are currently using applicable agricultural best management practices and CUWA/AG conservation measures. If not, it should clarify which ones are not currently utilizing all available conservation measures and their potential for additional conservation. The DEIR/DEIS should describe the Conjunctive Use Agreement's effect on dry-year conservation. The DEIR/DEIS should include a chart describing existing and potential conservation measures for each type of water use in each member unit. Also, for any YCWA member units which deliver water for M&I purposes, the DEIR/DEIS should discuss whether these member units are fully committed to each of the best management practices identified and recommended in the California Urban Conservation Council's 2007 Memorandum of Understanding regarding urban water conservation in California. SA3-9

SA3

IV. Issues Relevant to Accord as a Whole

A. The DEIR/DEIS should include a clear, readable overview of the agreements that make up the Accord. This overview should include not only the actions that the Accord intends to induce, but also the limits to the agreements, including the conditions upon which they would terminate, the conditions required for them to go into effect, the conditions required for the agreements to stay in effect, lower levels of performance anticipated within the agreements and what would happen if the agreements did end early. In other words, it should describe both the agreement's intended actions and its limits.

Additionally, the overview should include a series of easy-to-read graphs comparing both the minimum and the anticipated Accord flows throughout the year for the different water year types, with the Baseline, No-Project, Modified Flow, and Accord permit flows. The graphs should account for the different water year indexes. For example, the graphs should make clear whether a "dry" year under the Yuba Index correlates with, for example, Schedule 4 flows. When categories do not exactly overlap, the graphs should represent all of the potential options, and explain briefly the circumstances under which these would occur.

SA3-10

B. The DEIR/DEIS states: "because the Proposed Project/Action ... would have a duration of approximately eight years, it would not be in place for a sufficient amount of time to contribute to climate change impacts, or to be potentially influenced by a CVP/SWP system operations resulting from future climate change impacts." (DEIR/DEIS, p 22-1.) However, the DEIR/DEIS does not support the statement that there will be no anticipated climate change impacts in the next eight years that would affect the project. Furthermore, the conjunctive use and transfer agreements will be in effect until 2025, seventeen years after the proposed effective date of 2008, and, as discussed above, the Fisheries Agreement may also be in effect beyond 2016. The DEIR/DEIS fails to address climate change issues over this longer period.

Thus, the DEIR/DEIS does not adequately address the potential impacts of climate change on the assumptions and conclusions regarding project operations under the Accord, such as temperatures in the Lower Yuba River, historical inflow into New Bullard's Bar reservoir (which was used to develop the North Yuba Index), and the 1 percent conference year assumption. The Final EIR/EIS also should incorporate the new Bureau of Reclamation climate protection data, which the DEIR/DEIS notes is due to be released in mid-2007.

SA3-11

C. The DEIR/DEIS improperly describes the New Bullards Bar Dam/Reservoir as a fisheries enhancement project, which is separate from and independent of the Englebright and Daguerre Point Dams. In reality, however, the Yuba River Development Project's operations depend upon these downstream dams and as such they are inter-connected and inter-related projects. The DEIR/DEIS should describe the way in which the Daguerre Point and Englebright dams are linked to New Bullards Bar Dam/Reservoir operations, and the related environmental effects.

SA3-12

D. The DEIR/DEIS should evaluate the risks to instream resources and consumptive uses of the proposed lower carryover storage requirement (650 TAF). In doing so, it should

SA3-13

address the potential for increased frequency of presently unusual weather patterns, due to climate change, and also the potential consequences of lower carryover storage in a period of extended drought. SA3-13 cont.

E. The DEIR/DEIS fails to include the Narrows II Powerhouse Intake Extension Project at Englebright Dam in its Cumulative Impacts section. The State Water Board is concerned that this failure to include the positive temperature impacts aimed for in the project may overstate the temperature benefits of the Accord or may indicate a lack of diligence in pursuit of the project, as is required by RD-1644. The DEIR/DEIS should address the impact of this project in the cumulative impacts section, or provide a more robust explanation for its exclusion. SA3-14

F. The DEIR/DEIS should evaluate the potential effects on whether and when Term 91 is triggered for Delta water users, because of the shift in Accord releases from Spring to Summer flows, and because of the Accord's proposed shift from required instream flows to transfer and contract flows. If any change is found, the DEIR/DEIS should evaluate the environmental impacts of such a change. SA3-15

State Water Board staff thank you for the opportunity to review and comment on the DEIR/DEIS for the proposed Accord.

Sincerely,

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LETTER SA3: ERNEST MONA, STATE WATER RESOURCES CONTROL BOARD

Response to Comment SA3-1a:

The Draft EIR/EIS provides a thorough, quantitative analysis of how instream flows, water temperatures and Delta water quality parameters that are predicted to occur under the Yuba Accord Alternative would compare to instream flows, water temperatures and Delta water-quality parameters that are predicted to occur under RD-1644 interim instream-flow requirements (the CEQA Existing Condition) and under the RD-1644 long-term instream-flow requirements (the CEQA No Project Alternative). Exceedance curves, replacement plots and other figures and tables showing the quantitative, monthly differences between Yuba River flows and water temperatures and Delta water-quality parameters under the Yuba Accord Alternative and under these two basis of comparison are provided in Appendices F4 and F5. The page numbers for each type of quantitative model output used to analyze potential flow- and water temperature-related differences in the Yuba River for these two comparisons are listed here:

Appendix F4: Folder for Yuba Accord Alternative compared to the CEQA Existing Condition (Scenario 3 vs. Scenario 1)

- Yuba River Flow – Smartville
  - Monthly Mean Flow Tables – Pages 101-112
  - Flow Replacement Graphs – Pages 113-124
  - Flow Exceedance Tables – Pages 125-136
  - Flow Exceedance Graphs – Pages 137-148
- Yuba River Flow – Marysville
  - Monthly Mean Flow Tables – Pages 273-284
  - Flow Replacement Graphs – Pages 285-296
  - Flow Exceedance Tables – Pages 297-308
  - Flow Exceedance Graphs – Pages 309-320
- Yuba River Water Temperatures – Smartville
  - Monthly Mean Water Temperature Tables – Pages 175-186
  - Water Temperature Replacement Graphs – Pages 187-198
  - Water Temperature Exceedance Tables – Pages 199-210
  - Water Temperature Exceedance Graphs – Pages 211-222
- Yuba River Water Temperatures – Marysville
  - Monthly Mean Water Temperature Tables – Pages 347-358
  - Water Temperature Replacement Graphs – Pages 359-370
  - Water Temperature Exceedance Tables – Pages 371-382
  - Water Temperature Exceedance Graphs – Pages 383-394

Appendix F4: Folder for Yuba Accord Alternative compared to the CEQA No Project Alternative (Scenario 3 vs. Scenario 2)

- Yuba River Flow – Smartville
  - Monthly Mean Flow Tables – Pages 101-112
  - Flow Replacement Graphs – Pages 113-124
  - Flow Exceedance Tables – Pages 125-136
  - Flow Exceedance Graphs – Pages 137-148
- Yuba River Flow – Marysville
  - Monthly Mean Flow Tables – Pages 273-284
  - Flow Replacement Graphs – Pages 285-296
  - Flow Exceedance Tables – Pages 297-308
  - Flow Exceedance Graphs – Pages 309-320
- Yuba River Water Temperatures – Smartville
  - Monthly Mean Water Temperature Tables – Pages 175-186
  - Water Temperature Replacement Graphs – Pages 187-198
  - Water Temperature Exceedance Tables – Pages 199-210
  - Water Temperature Exceedance Graphs – Pages 211-222
- Yuba River Water Temperatures – Marysville
  - Monthly Mean Water Temperature Tables – Pages 347-358
  - Water Temperature Replacement Graphs – Pages 359-370
  - Water Temperature Exceedance Tables – Pages 371-382
  - Water Temperature Exceedance Graphs – Pages 383-394

For each fish species evaluated in the Draft EIR/EIS, species-specific life stages and timings are described in Draft EIR/EIS, Section 10.1.1.1, Overview of Fish Species, and Table 10-2 on page 10-3 of the Draft EIR/EIS provide a summary of the life history timing of Central Valley Chinook salmon runs. Additional graphics showing the species-specific monthly Yuba River flow and water temperature differences between the Yuba Accord Alternative and the two bases of comparison are provided in Appendix G. The page numbers of the summary diagram maps containing species-specific information for fisheries resources in the lower Yuba River for these two comparisons are listed here:

Appendix G3: Folder for Yuba Accord Alternative compared to the CEQA Existing Condition (Scenario 3 vs. Scenario 1)

- Lower Yuba River Spring-run Chinook Salmon
  - Flow Summary Diagrams and Map – Page G-101
  - Water Temperature Summary Diagrams and Map – Pages G-102 to G-104
- Lower Yuba River Fall-run Chinook Salmon
  - Flow Summary Diagrams and Map – Page G-105
  - Water Temperature Summary Diagrams and Map – Pages G-106 to G-107
- Lower Yuba River Steelhead
  - Flow Summary Diagrams and Map – Page G-108
  - Water Temperature Summary Diagrams and Map – Pages G-109 to G-111
- Lower Yuba River Green Sturgeon
  - Flow Summary Diagrams and Map – Page G-108
  - Water Temperature Summary Diagrams and Map – Pages G-109 to G-111

Appendix G1: Folder for Yuba Accord Alternative compared to the CEQA No Project Alternative (Scenario 3 vs. Scenario 2)

- Lower Yuba River Spring-run Chinook Salmon
  - Flow Summary Diagrams and Map – Page G-1
  - Water Temperature Summary Diagrams and Map – Pages G-2 to G-4
- Lower Yuba River Fall-run Chinook Salmon
  - Flow Summary Diagrams and Map – Page G-5
  - Water Temperature Summary Diagrams and Map – Pages G-6 to G-7
- Lower Yuba River Steelhead
  - Flow Summary Diagrams and Map – Page G-8
  - Water Temperature Summary Diagrams and Map – Pages G-9 to G-11
- Lower Yuba River Green Sturgeon
  - Flow Summary Diagrams and Map – Page G-12
  - Water Temperature Summary Diagrams and Map – Page G-13

This comment also asks for "the justification for decreasing May-June flows in nearly all years and months and for increasing the July-September flows." Although this comment does not state which comparison it is asking about, it appears that this comment is asking about the comparison between the Yuba Accord Alternative and the CEQA No Project Alternative (i.e., Yuba Accord Alternative compared to the CEQA No Project Alternative, Scenario 3 vs. Scenario 2).

Response to Comment SA3-1b:

Although during some months the minimum flow requirements under the Yuba Accord Alternative would be less than the corresponding RD-1644 long-term instream-flow requirements, the actual flows in the river often will be higher than the minimum required flows because YCWA often operates and will operate the Yuba Project to make releases that result in downstream flows that are well above the minimum requirements (see Draft EIR/EIS, Appendix F4, folder for Yuba Accord Alternative compared to the CEQA No Project Alternative, Scenario 3 vs. Scenario 2, pages 100-173 and 272-345). A simple comparison of minimum required flows therefore does not provide a complete analysis of the differences in the effects of the different sets of flow requirements.

To the extent that the Yuba Accord Alternative actually would result in higher July through September flows and lower May through June flows than would occur under the CEQA No Project Alternative, the different flows for the Yuba Accord Alternative were developed after a detailed evaluation of, and prioritization of, the primary stressors on fish in the lower Yuba River. This evaluation and prioritization concluded that water temperatures are a primary concern during July through September (see Draft EIR/EIS, Appendix C for additional details regarding this evaluation and prioritization process). Because of the inverse flow/water temperature relationship during these months, higher flows normally will result in lower water temperatures during these months, when water temperatures can be most stressful to rearing juvenile salmonids.

In addition, monitoring data for outmigrating juvenile salmon in the lower Yuba River demonstrate that "*the vast majority (93.6 percent) of spring-run Chinook salmon emigrate as post-emergent fry during November and December, with a relatively small percentage (6.3 percent) of individuals remaining in the lower Yuba River and emigrating as YOY from January through March. Only 0.6 percent of the juvenile Chinook salmon identified as spring-run was captured during April, 0.1 percent during May, and none were captured during June.*" (see Draft EIR/EIS, page 10-73). Flows during May and June therefore provide little benefit to outmigrating spring-run Chinook salmon, because the vast majority of them outmigrate before May.

The Technical Team also purposefully set the peak spring instream flows earlier in drier years. The reason for this is explained in the Draft EIR, on page 10-111: "*During relatively low to intermediate flow conditions, which generally occur during the drier water year types, the CEQA Yuba Accord Alternative would result in substantively higher flows during early spring (April) and lower flows during later spring (May and June) (Appendix F4, 3 vs. 2, pages 125 through 136 and 297 through 308). This pattern during drier years would occur due to an intentional operational shift in spring peak flows from late-spring to early-spring (e.g., late-May to April). The temporal shift in drier year flows was designed to mimic Yuba River unimpaired flow patterns that would occur during drier year classes. This flow pattern was designed to facilitate the emigration of juvenile spring-run Chinook salmon before warm water temperatures occur during late spring in drier water years in the lower portion of the lower Yuba River, the Feather River, and the Sacramento River as illustrated in Table 10-6.*"

Considering all of these factors, the Technical Team carefully developed the Yuba Accord Alternative's schedules of minimum instream flows for spring and summer months to maximize the benefits to and to minimize impacts on salmonids in the lower Yuba River. Pages 10-108 through 10-121 discuss in detail the effects of the differences in flows between the Yuba Accord Alternative and the CEQA No Project Alternative on spring-run Chinook salmon, fall-run Chinook salmon and steelhead.

As discussed on page 10-146 of the Draft EIR/EIS, the evaluation of potential biological impacts on Delta fisheries resources and their habitats used evaluation parameters established by the USFWS, CDFG, NMFS and others, including X2 (2 parts per thousand (ppt) salinity unit isohaline at one meter above the bottom of the Sacramento River Channel) locations, Delta outflows and E/I ratios. For each alternative evaluated, the analysis presented in the Draft EIR/EIS used model output results for several Delta parameters, including: (1) X2 location; (2) Delta outflow; (3) E/I ratio; (4) export pumping; and (5) fish salvage at the CVP/SWP facilities (see discussions of methodology in the Draft EIR/EIS, at pages 10-56 to 10-65, discussions of impact indicators, at pages 10-104 to 10-105, discussions of analyses at pages 10-146 to 10-150, 10-190 to 10-194, 10-234 to 10-238, 10-276 to 10-280, 10-321 to 10-325, and 10-395 to 10-399).

For each alternatives comparison, including the Yuba Accord Alternative compared to the CEQA Existing Condition, and the Yuba Accord Alternative compared to the CEQA No Project Alternative, the quantitative model outputs used to support the analysis, which show the monthly differences in each of these Delta parameters, are presented in Appendix F4. From these model outputs, the monthly differences in X2 location, Delta outflow, export pumping and fish salvage that would occur during the May through June and the July through September periods under the Yuba Accord Alternative, relative to the bases of comparison, were compared to determine the potential resultant effects of the seasonal shifts in Yuba River flow patterns on in-Delta conditions. The page numbers for each type of quantitative model output used to analyze potential fisheries impacts in the Delta for these comparisons are listed here:

Appendix F4: Folder for Yuba Accord Alternative compared to the CEQA Existing Condition (Scenario 3 vs. Scenario 1)

- X2 Location
    - Monthly Mean X2 Location Tables – Pages 1190-1201
    - X2 Location Replacement Graphs – Pages 1202-1213
    - X2 Location Exceedance Tables – Pages 1214-1225
    - X2 Location Exceedance Graphs – Pages 1226-1237
- Delta Outflow
    - Monthly Mean Delta Outflow Tables – Pages 1141-1152
    - Delta Outflow Replacement Graphs – Pages 1153-1164
    - Delta Outflow Exceedance Tables – Pages 1165-1176
    - Delta Outflow Exceedance Graphs – Pages 1177-1188
- Delta E/I Ratio
    - Monthly Mean Delta E/I Ratio Tables – Pages 1239-1250
    - Delta E/I Ratio Replacement Graphs – Pages 1251-1262
    - Delta E/I Ratio Exceedance Tables – Pages 1263-1274
    - Delta E/I Ratio Exceedance Graphs – Pages 1275-1286
- Total Delta Exports
    - Monthly Mean Total Delta Exports Tables – Pages 1228-1299
    - Total Delta Exports Replacement Graphs – Pages 1300-1311
    - Total Delta Exports Exceedance Graphs – Pages 1312-1323

- Delta Fish Salvage at the CVP/SWP Facilities
    - Winter-run Chinook Salmon Tables – Pages 1325-1327
    - Spring-run Chinook Salmon Tables – Pages 1328-1330
    - Steelhead Tables – Pages 1331-1333
    - Striped Bass Tables – Pages 1334-1335
    - Delta Smelt Tables – Pages 1337-1338

Appendix F4: Folder for Yuba Accord Alternative compared to the CEQA No Project Alternative (Scenario 3 vs. Scenario 2)

- X2 Location
    - Monthly Mean X2 Location Tables – Pages 1190-1201
    - X2 Location Replacement Graphs – Pages 1202-1213
    - X2 Location Exceedance Tables – Pages 1214-1225
    - X2 Location Exceedance Graphs – Pages 1226-1237
- Delta Outflow
    - Monthly Mean Delta Outflow Tables – Pages 1141-1152
    - Delta Outflow Replacement Graphs – Pages 1153-1164
    - Delta Outflow Exceedance Tables – Pages 1165-1176
    - Delta Outflow Exceedance Graphs – Pages 1177-1188
- Delta E/I Ratio
    - Monthly Mean Delta E/I Ratio Tables – Pages 1239-1250
    - Delta E/I Ratio Replacement Graphs – Pages 1251-1262
    - Delta E/I Ratio Exceedance Tables – Pages 1263-1274
    - Delta E/I Ratio Exceedance Graphs – Pages 1275-1286
- Total Delta Exports
    - Monthly Mean Total Delta Exports Tables – Pages 1228-1299
    - Total Delta Exports Replacement Graphs – Pages 1300-1311
    - Total Delta Exports Exceedance Graphs – Pages 1312-1323
- Delta Fish Salvage at the CVP/SWP Facilities
    - Winter-run Chinook Salmon Tables – Pages 1325-1327
    - Spring-run Chinook Salmon Tables – Pages 1328-1330
    - Steelhead Tables – Pages 1331-1333
    - Striped Bass Tables – Pages 1334-1335
- Delta Smelt Tables – Pages 1337-1338

This comment also expresses concern that changes in lower Yuba River flows during the spring and summer could adversely affect longfin smelt. This concern is not valid. Although the Yuba Accord Alternative is intended to cause a shift of peak flows from the late spring (May and June) to early spring (April) in drier water years, to facilitate the emigration of juvenile salmonids before the warm water conditions that occur in the Feather and Sacramento rivers during late spring and summer months of dry years, this shift in lower Yuba River flows would not cause a significant reduction in Delta inflows during the spring. The resultant effects of lower Yuba River flow changes on Delta conditions during the May through June and the July through September periods can be determined for each of the alternative comparisons evaluated in the Draft EIR/EIS by reviewing the model output in Appendix F4. Results of the comparisons of the Yuba Accord Alternative to the CEQA Existing Condition and to the CEQA No Project Alternative are provided here:

Yuba Accord Alternative Compared to the CEQA Existing Condition (Scenario 3 vs. Scenario 1)

Long-term average flows in the lower Yuba River at Marysville under the Yuba Accord Alternative would be reduced by 116 cfs (3.5 percent) during March, relative to the CEQA Existing Condition (Draft EIR/EIS, Appendix F4, Folder for Scenario 3 vs. Scenario 1, page 272). Under this comparison, the long-term average Sacramento River inflow into the Delta during March would be reduced from 39,658 cfs under the CEQA Existing Condition to 39,535 cfs under the Yuba Accord Alternative, resulting in a flow reduction of 123 cfs, which would be a 0.0 percent change (see Draft EIR/EIS, Appendix F4, Folder for Scenario 3 vs. Scenario 1, page 1103). The long-term average X2 location during March would not change under the Yuba Accord Alternative, relative to the CEQA Existing Condition (see Draft EIR/EIS, Appendix F4, Folder for Scenario 3 vs. Scenario 1, page 1189).

Comparisons by water year type indicate that the average monthly flows in the lower Yuba River flow at Marysville under the Yuba Accord Alternative would be 275.4 cfs (13.6 percent) lower during March in dry years, relative to the CEQA Existing Condition (see Appendix F4, Folder for Scenario 3 vs. Scenario 1, page 272). The average monthly Sacramento River inflow into the Delta during March in dry years would be 22,337 cfs under the CEQA Existing Condition and 22,006 cfs under the Yuba Accord Alternative, a flow that would be 331 cfs, or a 1.5 percent, lower (see Draft EIR/EIS, Appendix F4, Folder for Scenario 3 vs. Scenario 1, page 1103). The average monthly X2 location during March in dry years would be the same for the Yuba Accord Alternative and the CEQA Existing Condition (see Draft EIR/EIS, Appendix F4, Folder for Scenario 3 vs. Scenario 1, page 1189).

Yuba Accord Alternative Compared to the CEQA No Project Alternative (Scenario 3 vs. Scenario 2)

Long-term average flows in the lower Yuba River at Marysville under the Yuba Accord Alternative would be 264 cfs (28.2 percent) higher during July, relative to the CEQA No Project Alternative (see Draft EIR/EIS, Appendix F4, Folder for Scenario 3 vs. Scenario 2, page 272). Long-term average Sacramento River inflow into the Delta during July would be 18,507 cfs under the CEQA No Project Alternative and 18,724 cfs, which is 217 cfs, or 1.0 percent, higher under the Yuba Accord Alternative (see Draft EIR/EIS, Appendix F4, Folder for Scenario 3 vs. Scenario 2, page 1103). Long-term average X2 location during July would be the same under the Yuba Accord Alternative and the CEQA No Project Alternative (see Draft EIR/EIS, Appendix F4, Folder for Scenario 3 vs. Scenario 2, page 1189).

Comparisons by water year type indicate that the average monthly flows in the lower Yuba River flow at Marysville under the Yuba Accord Alternative would be 320.8 cfs (47.1 percent) higher during July in dry years, relative to the CEQA No Project Alternative (see Draft EIR/EIS, Appendix F4, Folder for Scenario 3 vs. Scenario 2, page 272). The average monthly Sacramento River inflow into the Delta during July in dry years would be 17,803 cfs under the CEQA No Project Alternative and 18,114 cfs, which is 311 cfs, or 2.0 percent, higher under the Yuba Accord Alternative (see Draft EIR/EIS, Appendix F4, Folder for Scenario 3 vs. Scenario 2, page 1103). The average monthly X2 location during July in dry years would be 0.2 km higher under the Yuba Accord Alternative, relative to the CEQA No Project Alternative (see Draft EIR,EIS, Appendix F4, Folder for Scenario 3 vs. Scenario 2, page 1189).

As these two examples illustrate, the differences in flow that would occur in the lower Yuba River under these different scenarios would have little to no downstream effects on Delta

conditions (e.g., Sacramento River inflow, X2) because the increment of change resulting from the Yuba Accord Alternative, relative to the total flow of water into the Delta, would be minimal.

Contrary to this comment, the Draft EIR/EIS does address longfin smelt and analyzes the potential impacts on this species that would be expected to occur from changes in Delta habitat parameters resulting from the Proposed Project/Action and alternatives. The analysis of longfin smelt in Chapter 10 is addressed in the following sections:

- Section 10.1.1.1 Overview of Fish Species, page 10-1
- Section 10.1.1.1 Overview of Fish Species, pages 10-13 – 10-14 (species account information)
- Section 10.1.4.1 Recent Decline of Pelagic Fish Species in the Delta, pages 10-31 – 10-36 (see also responses to Comments SA3-2 and SA3-7)
- Section 10.1.4.2 Analytical Components Evaluated to Address Potential Impacts on Delta Fisheries Resources, pages 10-36 to 10-37

This comment suggests that longfin smelt abundance is strongly correlated with spring outflows, and the longfin smelt listing petition submitted to the USFWS states: "*In years with high spring flows to the Estuary, longfin smelt abundance is higher than in years with lower spring flows.*" However, the regression equation for longfin smelt abundance and spring flows for 1988-2006 has an r^2 value of only 0.487 (see *Petition to List the San Francisco Bay-Delta Population of Longfin Smelt (Spirinchus thalechthys) as Endangered under the Endangered Species Act*, pages 14-15). This comment also cites page 237 of Moyle (2002). Also, while Moyle (2002) suggests that a regression equation has been calculated relating [longfin] smelt numbers to Delta outflow, Moyle (2002) does not reference the actual regression equation, indicate a level of significance, or indicate whether the variables are strongly or weakly correlated.

The longfin smelt listing petition indicates that freshwater (or Delta) outflow is measured indirectly in terms of X2. The listing petition also states that "*Many of the threats to the longfin smelt are identical to those known to threaten the delta smelt (Hypomesus transpacificus), a closely related and ecologically similar species that is sympatric to the longfin smelt for much of its life span*." As discussed on page 10-146 of the Draft EIR/EIS, the evaluation of biological impacts on Delta fisheries resources, including delta smelt and longfin smelt, and their habitats used evaluation parameters established by the USFWS, CDFG, NMFS and others, including X2 locations, Delta outflows and E/I ratios. For each alternative evaluated, the analysis presented in the Draft EIR/EIS used model output results for several Delta parameters, including: (1) X2 location; (2) Delta outflow; (3) E/I ratio; (4) export pumping; and (5) fish salvage at the CVP/SWP facilities (see discussion of methodology in Draft EIR/EIS, at pages 10-56 to 10-65, discussion of impact indicators at pages 10-104 to 10-105, analyses at pages 10-146 to 10-150, 10-190 to 10-194, 10-234 to 10-238, 10-276 to 10-280, 10-321 to 10-325, and 10-395 to 10-399). For this Draft EIR/EIS, a detailed evaluation was conducted for potential effects on delta smelt from changes in X2 location during February through June, and a year-round analysis was conducted for all Delta fisheries resources. Using these analyses, potential impacts to longfin smelt associated with changes in Delta outflow and indirectly related to changes in X2 location due to implementation of the Yuba Accord Alternative are thoroughly and adequately addressed in the Draft EIR/EIS.

Response to Comment SA3-1c:

The standards that are used to determine that levels of significance under CEQA and NEPA and the standards that are used to determine whether or not an action would result in an "unreasonable effect" on a particular resource under the Water Code are discussed in Section 4.6 on page 4-14 of the Draft EIR/EIS. These different legal standards also are discussed in each of the resource chapters in the section that describes the impact indicators and significance criteria that were used to evaluate that resource (see, e.g., Draft EIR/EIS, Section 10.2.2, page 10-106). The resource-specific impact indicators and the corresponding evaluation thresholds (e.g., frequency and magnitude of change) that are presented in these sections of each resource chapter were used for the dual purposes of determining the levels of significance for CEQA/NEPA purposes and determining whether or not there would be any unreasonable effects on fish, wildlife or other beneficial uses, as required by the Water Code. For evaluation purposes related to CEQA/NEPA and the Water Code, the impact indicators identified in the Draft EIR/EIS were applied in the same manner in both of these analyses.

Response to Comment SA3-2a:

The Pelagic Fish Action Plan, including a summary of the actions proposed to improve conditions for the POD indicator species, is discussed on pages 10-32 through 10-33 of the Draft EIR/EIS. As the Draft EIR/EIS states on page 10-33: "*Several actions are currently being implemented and others are being evaluated for future implementation. The next "synthesis" report is scheduled for December 2007. Information and new findings will be made available to agency directors as they become available over the next two years*." (2007). The next paragraph on page 10-33 of the Draft EIR/EIS discusses and cites the meeting notes of the Delta Smelt Working Group (DSWG) that describe how the participating agencies reached the decision to modify Old River and Middle River flow regimes during early 2007. To date, other than the experimental Old and Middle river flow management actions that occurred during early 2007, no new actions from the Pelagic Fish Action Plan have been implemented since release of the Draft EIR/EIS. The experimental actions that were implemented in Old and Middle rivers are discussed on page 10-33 of the Draft EIR/EIS. For additional discussions about the impact assessment methodologies, evaluation parameters and impact indicators that were used in the Draft EIR/EIS to assess potential impacts to Delta fisheries resources resulting from the Proposed Project/Action and alternatives, see the responses to Comments SA3-1b and SA3-7.

To verify that no new information on the POD has become available since the Draft EIR/EIS was released on June 25, 2007, a subsequent review of the declarations that were submitted to the court in the *NRDC v. Kempthorne* litigation was conducted. The results of this review are summarized here:

Declaration of Christina Swanson Ph.D. in Support of Plaintiff's Proposed Interim Remedies (Swanson 2007)

- Page 27: "*…All of the plaintiffs' proposed interim remedy recommendations for changes in water management operations described here are the same as, or very similar to, those already identified by CDWR in their March 2007 Pelagic Fish Action Plan (Exhibit Q; "Water Project Operations Actions" summarized on pages 5-6 of this report), or to specific analysis and/or recommendations made by the DSWG during the past year (see e.g., Exhibits C, D, S, T, V, W, Y (2/9/07 Meeting Notes, and Z (10/30/06 Meeting Notes).*"

Declaration of Jerry Johns in Support of the California Department of Water Resources Interim Remedy Proposal (Johns 2007)

- Fisheries surveys and monitoring data cited in Mr. Johns' declaration include: (1) the Spring Kodiac Trawl; (2) the 20-mm Survey; (3) the Summer Tow Net Survey; (4) the Fall Mid-Water Trawl; and (5) delta smelt salvage at SWP and CVP fish facilities. Much of this data is publicly available on the Interagency Ecological Program's (IEP) website: http://bdat.ca.gov/Php/Data_Retrieval/data_retrieval_by_category_Species.php?category_code=12&category_name=Fisheries, and was reviewed during preparation of the Draft EIR/EIS. On page 10-31 of the Draft EIR/EIS, the first paragraph under Section 10.1.4.1 also discusses IEP monitoring results from 2002 through 2007.

Declaration of Cay Collette Goode (Goude 2007)

- Pages 10 through 14: Attachments to Exhibit 2 include DSWG Meeting Notes from March 26, 2007 and March 27, 2007. This information was available on the USFWS website (http://www.fws.gov/sacramento/es/delta_smelt.htm), and used during preparation of the Draft EIR/EIS to provide background information regarding the decision-making history leading to the experimental actions taken to manage flows in the Old and Middle rivers to protect delta smelt in early 2007.

Because the POD scientific investigations and the litigation on CVP/SWP OCAP operations are ongoing, new research findings will continue to become available over time and management actions related to CVP/SWP operations in the Delta are likely to be continuously evolving. Nevertheless, based on the above summaries of the declarations that were submitted to the court in the *NRDC v. Kempthorne* litigation (which are the latest technical information regarding delta smelt), demonstrate that the Draft EIR/EIS did in fact utilize the best scientific and commercial information that is currently available to evaluate the potential impacts of the Proposed Project/Action and alternatives on the POD indicator species in the Delta Region.

Response to Comment SA3-2b:

Chapter 3 of the Final EIR/EIS describes the project updates that have occurred since publication of the Draft EIR/EIS, including information related to the interim remedies order in *NRDC v. Kempthorne,* which the court issued on August 31, 2007. See also the responses to Comments NP2-2 and NP2-3.

Response to Comment SA3-2c:

The analysis presented in the Draft EIR/EIS shows that the Proposed Project/Action, relative to the bases of comparison, would not result in any significant impacts to Delta fisheries resources and, thus, that mitigation measures for these resources are not required.

Because the draft interim remedies order in *NRDC v. Kempthorne* was issued on August 31, 2007 and almost certainly will be finalized before the Proposed Yuba Accord would be implemented in April 2008, the Proposed Project/Action would be required to comply with all protective measures and operational constraints that the court imposes on CVP/SWP operations. The Proposed Project/Action also would be required to comply with all protective measures and operational constraints that are developed in the pending OCAP ESA re-consultations. Additional mitigation measures for the Yuba Accord Alternative for Delta fisheries resources are not necessary.

Response to Comment SA3-2d:

See the responses to Comments SA1-7, SA3-2c and SA3-7.

Response to Comment SA3-3:

Contrary to the first sentence of this comment, during the term of the Fisheries Agreement the instream-flow requirements in YCWA's water-right permits normally would be the RD-1644 interim instream-flow requirements, which are the requirements presently in effect. These requirements are not "sharply reduced," but have been in effect since 2001. There would be some minor modifications during April 21 through June 30 of below-normal years, and reversion to the 1965 YCWA/CDFG agreement flows, without the reductions authorized by Section 1.6 of that agreement, during conference years, which have only a 1-percent probability of occurrence (see Draft EIR/EIS, Appendix B, page B-68). The conference-year requirements are discussed in response to Comment SA3-4d.

Although the higher instream flows specified in the Fisheries Agreement would not be included in YCWA's water-right permits, YCWA would be contractually obligated to maintain these flows, and it is reasonable for the Draft EIR/EIS to assume that the other parties to this agreement (the California Department of Fish and Game, South Yuba River Citizens League, Friends of the River, Trout Unlimited and the Bay Institute) would take any appropriate actions to ensure that YCWA maintains these flows. For this reason, and because the "permit flow" alternative that is proposed in this comment would be essentially the same as the CEQA Existing Condition scenario that is analyzed in detail in the Draft EIR/EIS, there is no need to add an additional alternative to the EIR/EIS.

This comment incorrectly states that "significant reductions in Accord flows could occur upon termination of the Fisheries Agreement." If the Fisheries Agreement were terminated early (before FERC issues a new long-term FPA license for the Yuba Project), then the Yuba Accord instream flows would go into effect as requirements in YCWA's water-right permits (see Draft EIR/EIS, Appendix B, page B-74). If the Fisheries Agreement were not terminated early, then it would remain in effect until FERC issues a new long-term license for this project (see Draft EIR/EIS, Appendix B, page B-20), and this new long-term license will contain the instream-flow requirements ordered by FERC and any additional requirements in the SWRCB's CWA Section 401 certification. It is very unlikely that these requirements will authorize any significant reductions in Accord flows. See responses to Comment SA1-2.

Response to Comment SA3-4a:

As discussed in response to Comment SA3-3, and as confirmed in the Draft EIR/EIS, in Appendix B, page B-74, if the Fisheries Agreement were to terminate early, then the Yuba Accord instream flows would go into effect as requirements in YCWA's water-right permits. Any such requirements would not be subject to any "off ramps" in the Fisheries Agreement.

Response to Comment SA3-4b:

This comment correctly states that the Fisheries Agreement would terminate when FERC issues a new long-term FPA license for the Yuba Project. While this is predicted to occur in 2016, it could occur later. For a discussion of the instream-flow requirements that are likely to be included in the new long-term FPA license, see responses to Comments SA1-2 and SA3-4c.

Response to Comment SA3-4c:

Under the Yuba Accord Fisheries Agreement, YCWA would commit to maintain the agreement's flows in the lower Yuba River until FERC issues a new long-term FPA license for the Yuba Project (see Draft EIR/EIS, page 3-10, Appendix B, page B-20). When FERC issues a new long-term FPA license for the Yuba Project, then the instream-flow requirements in it will supersede and replace the instream-flow requirements in YCWA's water-right permits (see Draft EIR/EIS, Appendix B, page B-76) and the instream flows in the Fisheries Agreement. Under Section 401 of the CWA, the new long-term FPA license that FERC issues for the Yuba Project will include any instream-flow requirements specified by the SWRCB in its CWA Section 401 water-quality certification for the Project.

Section 5.4.9 of the Fisheries Agreement provides that all of the Parties to the agreement will work cooperatively and in good faith, using the agreement's flow schedules and associated rules as a starting point, to try to develop a consensus proposal for the lower Yuba River instream-flow requirements for YCWA's long-term FPA license, and, if consensus is reached, to submit the consensus proposal to the SWRCB and FERC and ask the SWRCB to include it in its CWA Section 401 water-quality certification and to ask FERC to include it in the new FPA license (see Draft EIR/EIS, Appendix B, page B-35). Accordingly, while there ultimately may be some changes in these flow schedules, the best prediction that can be made today of the instream-flow requirements that will be in YCWA's new long-term FPA license is that these requirements will be the flow schedules and related provisions in Exhibits 1-5 of the Fisheries Agreement. These flows are analyzed in detail in the Draft EIR/EIS, under the CEQA Yuba Accord Alternative.

Although this comment suggests that the instream-flow requirements in YCWA's new FPA license may not require the same level of protection of fisheries resources in the lower Yuba River as will be provided by the Fisheries Agreement, such a result appears to be very unlikely, considering both FERC's obligations and authority under Section 10 of the FPA and the SWRCB's obligations and authority under Section 401 of the CWA.

This comment assumes that the SWRCB is required to find that the instream-flow requirements in YCWA's new long-term FPA license will provide a level of protection for fisheries resources in the lower Yuba River that is equivalent to the level of protection that would be provided by the long-term requirements in RD-1644. This assumption is incorrect. Section 4.1.1 of the Fisheries Agreement provides that the agreement will not go into effect unless the SWRCB finds that the agreement will provide a level of protection for these fishery resources "during the term of this Agreement" that is equivalent to or better than that which RD-1644 would provide (see Draft EIR/EIS, Appendix B, page B-21). This agreement does not require any similar finding for the period after FERC issues a new long-term FPA license for the Yuba Project.

CEQA also does not require any such finding. Instead, under CEQA, the required impact analysis compares the proposed project with the Existing Condition, which contains the RD-1644 interim instream-flow requirements (see California Code of Regulations, Title 14, Sections 15125(a), 15126.2(a)). California water-rights law also does not require any such finding. Instead, under the public-trust doctrine, the SWRCB must balance the needs of lower Yuba River fisheries for water against competing demands for this water, and this balancing can produce different results at different times (see *National Audubon Society v. Superior Court* (1982) 33 Cal. 419, 447-448).

Response to Comment SA3-4d:

The instream-flow requirements that are specified in Sections 1.5 and 2.2 of the September 2, 1965 agreement between CDFG and YCWA are the same as the instream-flow requirements that are specified in Article 33 of the May 6, 1966 Federal Power Commission Order Amending License for Project No. 2246 (the Yuba Project). Both of these documents have been included in the references listed in Chapter 7 of the Final EIR/EIS.

This comment suggests that the River Management Team's Planning Group would determine all "appropriate flows" in the lower Yuba River during Conference Years. This suggestion is incorrect. Section 5.1.5 of the Fisheries Agreement provides that, during Conference Years, YCWA would operate the Yuba Project to maintain the lower Yuba River flows specified in YCWA's FERC License (without any of the flow reductions authorized by Article 33(c) of that license), plus any additional instream flows agreed to by the RMT's Planning Group (see Draft EIR/EIS, Appendix B, page B-24). The Planning Group therefore would decide only about additional instream flows, not the base flows required by YCWA's FERC license. For this reason, Section 5.2.1 of the Fisheries Agreement, which is cited in this comment, specifically applies only to "additional instream flows" (see Draft EIR/EIS, Appendix B, page B-28).

During conference years, YCWA would operate the Yuba Project to meet the flow requirements in YCWA's FERC License, which are the same as the flows specified in the 1965 CDFG/YCWA Agreement. Additionally, as described in Section 5.1.5 of the Fisheries Agreement, YCWA would ensure that diversions at Daguerre Point Dam are limited to 250 TAF. Beyond those provisions, the RMT would confer on an appropriate release schedule for potential additional lower Yuba River flows, depending on reservoir storage and projected inflows.

The hydrological analyses in the Draft EIR/EIS for the Yuba Accord Alternative assume that in Conference Years lower Yuba River flows would be the flows specified in the 1965 CDFG/YCWA Agreement, without any additional flows. The Draft EIR/EIS therefore already analyzes the "worst case" scenario for such years.

The Conference Year provisions provide discretion to the RMT to provide for additional Conference Year flows above the minimum levels in the 1965 CDFG/YCWA Agreement, because the Technical Team that developed the Yuba Accord Alternative's instream flow schedules concluded that providing such discretion would be the best way to plan for Conference Years. Under the North Yuba Index, Conference Years will be extremely rare events, anticipated to have a 1 percent (1 in 100) chance of occurrence in any given year. Conference Year conditions could occur under various possible hydrological conditions. For example, a Conference Year could occur because of a single extremely dry year following a moderately dry year, or after a series of several very dry years. Because of these potential differences in hydrology, different amounts of additional lower Yuba River flows above the 1965 CDFG/YCWA Agreement's requirements could be appropriate, depending on the recent river flow history, the amounts of water available, and the conditions of the fisheries. In such years, the RMT would have discretion to focus any water that is available for additional flows towards outmigration (spring flows), temperature control (summer or fall flows), or fall spawning flows, depending on the previous year's or years' conditions, the amounts of additional water available, and the current needs of the fisheries. Giving the RMT this discretion is better than adopting rigid mitigation measures that may not turn out to most effectively use any available water for additional flows.

Response to Comment SA3-4e:

This comment states that the instream flows in YCWA's change petition are "severely reduced." This characterization of these instream flows is incorrect. See response to Comment SA3-3. Also, the statement in this comment that the requirements in YCWA's water-right permits would be "back-up" flow requirements ignores that the fact that, if a Force Majeure or Regulatory Change Event were to occur, then it might be physically impossible for YCWA to maintain lower Yuba River flows at the levels specified in its water-right permits. Instead, under such circumstances, YCWA would petition the SWRCB for any necessary temporary urgency changes in such requirements.

Because it is impossible to predict the extent to which any Force Majeure or Regulatory Change event would affect YCWA's ability to comply with the Fisheries Agreement's instream-flow schedules, it also is impossible to provide the discussion requested by this comment. Moreover, if a Force Majeure or Regulatory Change Event were to occur, then YCWA almost certainly would have the same level of difficulty complying with any instream-flow requirements in YCWA's water-right permits as it would with complying with the instream-flow schedules in the Fisheries Agreement. Therefore, this comment is incorrect to the extent that it suggests that the Fisheries Agreement would provide a lower level of protection for lower Yuba River instream flows and fisheries resources than the level of protection that would be provided by instream-flow requirements in YCWA's water-right permits if any such event were to occur.

Response to Comment SA3-5:

Besides the SWRCB actions listed in Section 4.1 of the Fisheries Agreement (see Draft EIR/EIS, Appendix B, pages B-20 to B-22), the Fisheries Agreement contains four other conditions precedent.

Section 4.2 provides that the Fisheries Agreement will not become effective unless and until the Transfer Agreement (now called the "Water Purchase Agreement") is executed and goes into effect (see Draft EIR/EIS, Appendix B, page B-22). If YCWA decides to approve the Yuba Accord Alternative, then YCWA anticipates that the Water Purchase Agreement will be executed before the December 5, 2007 SWRCB hearing on YCWA's petitions to change its water-right permits to implement the Yuba Accord, and certainly before the SWRCB issues any orders on these petitions.

Section 4.3 provides that the Fisheries Agreement will not become effective unless and until YCWA executes Conjunctive Use Agreements with a sufficient number of YCWA's Member Units so that YCWA can meet its obligations under the Fisheries and Transfer Agreements (see Draft EIR/EIS, Appendix B, page B-22). If YCWA decides to approve the Yuba Accord Alternative, then YCWA anticipates that this condition precedent will be satisfied before the December 5, 2007 SWRCB hearing on YCWA's petitions to change its water-right permits to implement the Yuba Accord, and certainly before the SWRCB issues any orders on these petitions.

Section 4.4 provides that the Fisheries Agreement will not become effective unless and until YCWA executes an agreement, MOU or similar document with Pacific Gas and Electric Company (PG&E) to make the necessary amendments to the 1966 YCWA/PG&E Power Purchase Contract so that YCWA can implement this Agreement (see Draft EIR/EIS, Appendix B, page B-22). PG&E is in the process of preparing an advice letter, which PG&E then will send to the California Public Utilities Commission. If YCWA decides to approve the Yuba Accord

Alternative, then YCWA anticipates that this transmittal and the process to satisfy this condition precedent will be completed before the SWRCB issues any orders on these petitions. YCWA then will advise the SWRCB when this process has been completed.

Section 4.5 of the draft Fisheries Agreement that is in Appendix B of the Draft EIR/EIS provides that the Fisheries Agreement will not become effective unless and until NMFS has issued the incidental-take authorization for the operations and flow-ramping criteria that are described in the September 2003 Draft Biological Assessment for the Yuba Project. NMFS issued this authorization in its November 4, 2005 letter confirming its preliminary biological opinion for the project described in the September 2003 Draft Biological Assessment, so this condition precedent has been met. The NMFS' November 4, 2005 letter and the November 22, 2005 FERC order approving this project are included in the references listed in Chapter 7 of the Final EIR/EIS. If YCWA decides to pursue the Yuba Accord Alternative, then, before the final Fisheries Agreement is executed, Section 4.5 of the Fisheries Agreement will be amended to confirm that this condition precedent has been satisfied (see Final EIR/EIS, Appendix M1).

For these reasons, the Draft EIR/EIS correctly assumes that the Fisheries Agreement will become effective when the SWRCB approves YCWA's petitions to change its water-right permits to implement the Yuba Accord Alternative.

See responses to Comments SA3-5a through SA3-5e for discussions of the Fisheries Agreement provisions that are discussed in these comments.

Response to Comment SA3-5a:

A YCWA petition for a Feather River Point of Diversion/Rediversion near the confluence of the lower Yuba River and the Feather River is described in Section 4.1.3 of the draft Fisheries Agreement that is included in Appendix B to the Draft EIR/EIS (see Draft EIR/EIS, Appendix B, page B-21). However, after preparation of this draft agreement YCWA, Reclamation and DWR decided not to pursue this facility as part of the Yuba Accord Alternative. Therefore, if YCWA approves the Yuba Accord Alternative, then, before the Fisheries Agreement is executed, Section 4.1.3 will be amended to confirm that this in not a condition precedent for the Fisheries Agreement (see Final EIR/EIS, Appendix M1).

In the Draft EIR/EIS, the point of diversion/re-diversion on the Feather River was not described in the project description for the Yuba Accord Alternative. This facility also is not evaluated in the Draft EIR/EIS. To confirm this point, additional text has been added to Section 3.2.1.1 on page 3-6 of the Draft EIR/EIS stating that this facility is not part of the Yuba Accord Alternative (see Final EIR/EIS, Chapter 5).

Response to Comment SA3-5b:

See response to Comment SA1-4.

Response to Comment SA3-5c:

This comment does not accurately describe what would occur under the Fisheries Agreement if there were a "Force Majeure Event" or a "Regulatory Change Event." If such an event were to occur, then the parties to the Fisheries Agreement were be required to work together to try to reach consensus on an acceptable alternative flow schedule for the relevant time period (see Sections 6.4.3 and 6.4.4 of the Fisheries Agreement; Draft EIR/EIS, Appendix B, pages B-43 to B-44). If such an event were to occur and the parties to the Fisheries Agreement were not able

to reach consensus on an alternative flow schedule, then the alternative dispute resolution provisions of Section 6.4.5 of the Fisheries Agreement would apply (see Draft EIR/EIS, Appendix B, pages B-43 to B-44). If the parties still could not reach consensus on the alternative flow schedule, then any party to the agreement could ask a court of competent jurisdiction to specify the appropriate relief. If the event were expected to last for more than 365 days, or did in fact last for more than 365 days, then the court still would have authority to specify the appropriate interim relief, and the SWRCB would issue an order specifying the appropriate long-term relief (see Draft EIR/EIS, Appendix B, pages B-43 to B-44).

Force Majeure Events and Regulatory Change Events do not include events regarding the Delta that do not also directly affect Yuba Project operations and instead are limited to events that directly affect YCWA's operations of the Yuba Project (see Fisheries Agreement, Sections 6.4.1, 6.4.2; Draft EIR/EIS, pages B-42 to B-43). It is very unlikely that any such event would occur during the term of the Fisheries Agreement. Moreover, because it is impossible to predict what such an event would be or what its effects on Yuba Project operations would be, it also is impossible to analyze the potential environmental consequences of such an event or to provide mitigation measures for such events. Instead, the processes described above are the appropriate processes for addressing any such events.

Response to Comment SA3-5d:

For a discussion of Non-Material Violations of Agreement Flow Schedules, see response to Comment SA1-5. The provisions of the draft Fisheries Agreement regarding Technical Variations of Agreement Flow Schedules would have applied only until the Narrows II Powerhouse Full Flow Bypass was completed (see Fisheries Agreement, Sections 6.2.5-6.2.8; Draft EIR/EIS, Appendix B, pages B-40 to B-41). Because the Narrows II Powerhouse Full Flow Bypass now is complete, if YCWA approves the Yuba Accord Alternative, then, before the Fisheries Agreement is executed, these provisions will be deleted (see Final EIR/EIS, Appendix M1).

Response to Comment SA3-5e:

For a discussion of the dry-year storage adjustments to the Fisheries Agreement's instream-flow schedules, see response to Comment SA1-3. Also, the dry-year storage adjustment would be added only to the provisions in YCWA's water-right permits that would apply if the Fisheries Agreement were to terminate early (see Draft EIR/EIS, Appendix B, pages B-74 to B-76).

Response to Comment SA3-6:

As discussed in response to Comment SA3-5, on November 4, 2005, NMFS issued the incidental-take authorization for the operations and flow-ramping criteria that are described in the September 2003 Draft Biological Assessment for the Yuba Project, and on November 22, 2005 FERC issued its order approving these new criteria. Thus, if YCWA decides to approve the Yuba Accord Alternative, then, before the final Fisheries Agreement is executed, Sections 4.1.2 and 4.5 of the Fisheries Agreement will be amended to confirm that these conditions precedent have been satisfied (see Final EIR/EIS, Appendix M1). The flow-reduction requirements in the November 22, 2005 FERC order are quantitatively the same as those in RD-1644, although there are some differences in language between the two orders.

Response to Comment SA3-7:

The rationales and cited literature that are relied upon to support the impact indicators and the technical evaluation guidelines used to assess potential impacts to fisheries and aquatic resources are presented in Chapter 10 and in Appendix E of the Draft EIR/EIS. The following discussion summarizes the information regarding these topics that is in various sections of the Draft EIR/EIS:

Flow

The rationale for using a criterion of a 10 percent change to evaluate potential flow-related impacts is based on standards described in the United States Geological Survey (USGS) publication, *Handbook of Hydrology* (Maidment 1993) and previously established significance criteria that have been used in other approved environmental documents (e.g., Freeport Regional Water Project EIR/EIS, Trinity River Mainstem Fisheries Restoration EIR/EIS, San Joaquin River Agreement EIR/EIS). A complete description of this rationale is in the text on pages 10-49 to 10-50 of the Draft EIR/EIS.

As described in Section 10.2.1.2 of the Draft EIR/EIS, "*…Although the environmental documents listed above have been legally certified (i.e., Trinity River Mainstem Fishery Restoration Record of Decision December 19, 2000; San Joaquin River Agreement Record of Decision in March 1999; Freeport Regional Water Project Record of Decision January 4, 2005), biological justifications specific to using a 10 percent change as a criterion for a meaningful change in habitat affecting fisheries resources in a particular river have not been provided. Nevertheless, these documents apparently have resulted in consensus in the use of 10 percent when evaluating flow changes. Accordingly, this fisheries impact assessment relies on previously established information and, therefore, evaluates changes of 10 percent or greater in monthly mean flows under the Proposed Project/Action and alternatives, and the bases of comparison.*"

Water Temperature

As described on page 10-88 of the Draft EIR/EIS, the biological justification and rationale for using the water temperature index values specified in Table 10-5 of the Draft EIR/EIS is provided in Appendix E2 of the Draft EIR/EIS.

The discussion in Chapter 10 further explains that the water temperature index values represent a gradation of potential effects, from reported optimal water temperatures increasing through the range of represented index values for each life stage of a fish species. The introductory text in Appendix E2 states that "*…Water temperature index values were established from a comprehensive literature review to reflect an evenly spaced range of water temperatures, from reported "optimal" to "lethal" water temperatures, for each life stage of Chinook salmon and steelhead. Types of literature examined include scientific journals, Master's theses and Ph.D. dissertations, literature reviews, and agency publications (see Section 4.0, References). …For Chinook salmon, water temperature index values were developed to separately evaluate the following life stages or, where appropriate, combinations of life stages: (1) adult immigration and holding; (2) adult spawning and embryo incubation; and (3) juvenile rearing and smolt emigration. For steelhead, water temperature index values were developed to separately evaluate the following life stages, or where appropriate, combinations of life stages: (1) adult immigration and holding; (2) adult spawning and embryo incubation; (3) juvenile rearing; and (4) smolt emigration*."

As indicated in the preceding paragraph, a complete explanation of the water temperature index value selection rationale for species and lifestages evaluated in the Draft EIR/EIS is

provided in Appendix E2, Water Temperature Index Values for Technical Evaluation Guidelines.

Flow Dependent Habitat Availability

This comment asks that the Draft EIR/EIS document the sources for its statement that specific habitat flow relationships are not limiting for juvenile fish rearing under the proposed scenarios (see Draft EIR/EIS page 10-110) and clarify whether or not this information was derived from studies performed for RD-1644.

Contrary to this comment, the Draft EIR/EIS does not state that "specific habitat flow relationships are not limiting for juvenile fish rearing under the proposed scenarios." Instead, the Draft EIR/EIS states that "physical habitat for this life stage would not be limited under the flow regimes anticipated for either operational scenario." Also, the Draft EIR/EIS goes on to say that "instead, relatively warm water temperatures from spring through fall are typically considered a primary stressor to spring-run Chinook salmon juveniles" (page 10-110 of the Draft EIR/EIS).

The following information regarding weighted usable area calculations for chinook salmon is excerpted from the "Expert Testimony on Yuba River Fisheries Issues by Surface Water Resources, Inc., Jones & Stokes Associates, and Bookman-Edmonston Engineering, Inc., Aquatic and Engineering Specialists For Yuba County Water Agency" from the 2000 SWRCB Water Rights Hearing on Lower Yuba River (YCWA Exhibit 19, 2000 SWRCB Hearing):

> *Beak conducted an extensive fisheries investigation on the lower Yuba River for the CDFG during the period 1986-1988 (Beak 1989). Data produced from this study (including PHABSIM weighted usable area (WUA) calculations for chinook salmon and steelhead) served as the technical basis for the CDFG's 1991 Lower Yuba River Fisheries Management Plan. Jones and Stokes Associates (JSA) (1992) expanded the Beak (1989) chinook salmon WUA-discharge database by relating the WUA calculated for specific instream flows to Englebright release rates.*
>
> *The relationships between the amounts of usable fry rearing habitat for chinook salmon (as defined by WUA) and instream flows during the primary fry-rearing period of February through April show that the flows that maximize WUA for chinook salmon fry rearing vary by both month and river reach. Instream flows ranging from approximately 50 to 200 cfs provide ≥90 percent of the maximum fry rearing WUA, depending on the specific month and stretch of river (above vs. below Daguerre Point Dam) in question. The range of flows that provides ≥90 percent of the maximum WUA for fry rearing during this period are similar above (100-200 cfs) and below (50-175 cfs) Daguerre Point Dam. Flows of 100-150 cfs maximize fry-rearing WUA during the February-April period throughout the lower Yuba River.*
>
> *The relationships between the amount of usable juvenile rearing habitat for chinook salmon (as defined by WUA) and instream flow rates for the months of April through June show that the flows that maximize WUA for juvenile chinook salmon vary by both month and river reach. Instream flows ranging from 100 to 425 cfs can provide ≥90 percent of the maximum juvenile rearing WUA, depending on the specific month and stretch of river. The range of flows that provide ≥90 percent of the maximum WUA for juvenile rearing during the period April-June above and below Daguerre Point Dam are*

100-425 cfs and 100-300 cfs, respectively, with the maximum juvenile-rearing WUA for the entire river provided at flows of 150-250 cfs.

While habitat-flow relationships are used to assess spawning habitat availability for some fisheries resources of primary management concern (see Draft EIR/EIS, pages 10-48 to 10-49) and are based on studies utilizing the Instream Flow Incremental Methodology on the lower Yuba and Feather Rivers (see Appendix E1, Anadromous Salmonid Spawning Habitat – Flow Analyses), they are not applied to the juvenile rearing lifestage. As described in the sentence immediately preceding the statement on page 10-110 of the Draft EIR/EIS that is cited by this comment, specific habitat-discharge relationships for juvenile rearing have not been developed for the lower Yuba River. Therefore, the information used to support the statement in the text was not derived from studies performed for RD-1644. Rather, the model output in Appendix F4 of the Draft EIR/EIS served as the basis for the conclusion presented in the document. Model output showing the long-term average and the monthly mean changes in flow over the 72-year simulation period under the Yuba Accord Alternative and the CEQA No Project Alternative is located in Appendix F4, in the folder for Scenario 3 vs. Scenario 2, at pages 100 to 112 and 272 to 284. Review of the data presented in Appendix F4 indicates that although there would be a few individual months out of the 864 months in the 72-year simulation period when flows under the Yuba Accord Alternative would be less than flows under the bases of comparison, the overall changes in flow would not be expected to limit physical habitat availability for juvenile rearing in the lower Yuba River.

Newest Available Information Regarding Delta Conditions

The fisheries analyses in the Draft EIR/EIS was based on the analytical approach that was used in the USFWS and the NMFS 2005 BOs for the CVP/SWP OCAP. Although both of these documents are currently involved in litigation and may be subject to revision in the future, the August 31, 2007 ruling in *NRDC v. Kempthorne* states that the court did not vacate the 2005 USFWS OCAP BO and, this BO therefore remains valid. Moreover, the court's criticisms of this BO focused on its impact and jeopardy findings and mitigation measures, and not on its biological analyses. Although a hearing in the litigation on the 2004 NMFS OCAP BO is scheduled for later this year, there have been no orders in that litigation to date. Therefore, the 2004 NMFS OCAP BO also remains in effect. The 2005 USFWS and the 2004 NMFS OCAP BOs still contain the best available information and analyses regarding CVP/SWP system-wide operations.

To the extent feasible with the hydrologic modeling tools that are currently available, the analyses in the Draft EIR/EIS evaluated the same Delta habitat parameters and changes in fish salvage that were evaluated in Reclamation's 2004 OCAP BA (Reclamation 2004), the 2005 USFWS OCAP BO (USFWS 2005) and the 2004 NMFS OCAP BO (NMFS 2004). Evaluated Delta parameters included: (1) X2 location; (2) Delta outflow; (3) E/I ratio; and (4) export pumping and fish salvage at CVP and SWP Delta facilities.[1] Significance levels identified for each of these evaluation parameters were the same as those that were used to assess potential effects on listed species in Reclamation's 2004 OCAP BA and in the 2005 USFWS and 2004 NMFS OCAP BOs, as

[1] Estimated amounts of fish salvage at the CVP and SWP export pumping facilities, as functions of changes in the seasonal volumes of water diverted, are used as indicators of potential impacts resulting from changes in water project operations. Currently, the impacts of export pumping on fish populations are difficult to quantify and estimated fish salvage at the export facilities therefore is used as a substitute parameter to estimate these impacts (Reclamation *et al.* 2004).

described on pages 10-56 through 10-65 and pages 10-104 to 10-105 of the Draft EIR/EIS. Excluding green sturgeon, longfin smelt and American shad salvage estimates (see discussion below), the same impact indicators and technical evaluation guidelines (e.g., movement of X2 by 1.0 km or more) also were used to determine levels of significance for other fish species not evaluated in the OCAP BA/BOs. Salvage estimates used in the Draft EIR/EIS are consistent with the methodology used in Reclamation's 2004 OCAP BA. For each alternatives comparison in the Draft EIR/EIS, fish salvage estimates for delta smelt and striped bass were evaluated (see Appendix F4, folder for Scenario 3 vs. Scenario 1, pages 1334-1338, folder for Scenario 3 vs. Scenario 2, pages 1334-1338, folder for Scenario 4 vs. Scenario 1, pages 1334-1338, folder for Scenario 4 vs. Scenario 2, pages 1334-1338, folder for Scenario 2 vs. Scenario 1, pages 1334-1338, folder for Scenario 6 vs. Scenario 5, pages 1334-1338, folder for Scenario 7 vs. Scenario 5, pages 1334-1338). However, as stated on page 10-58 of the Draft EIR/EIS, potential impacts of the Proposed Project/Action and alternatives due to export pumping were not evaluated for green sturgeon, longfin smelt and American shad because salvage/density relationships are not available for these species.

The longfin smelt listing petition (at pages 33, 39, and 43) also discusses recent research by scientists at USGS that showed relationships between export pumping and Old and Middle river flows (Ruhl *et al.* 2006; Simi and Ruhl 2005). In consideration of the importance of the POD and Delta conditions overall, the actions on combined Old and Middle rivers flows were recognized as a current management tool in the Draft EIR/EIS. As discussed on pages 10-33 to 10-34 of the Draft EIR/EIS, an additional sensitivity analysis was conducted to address concerns regarding potential changes in Old and Middle river flows, based on this research and other information that became available immediately prior to release of the Draft EIR/EIS. The text is provided here for reference:

> *Because the Old and Middle river actions that were implemented in 2007 are still preliminary and experimental, they are not used as an impact indicator or significance criterion in this EIR/EIS. Depending on the outcome of other POD studies, these actions may be further refined or replaced if new information becomes available that indicates significant relationships between POD and these, or other explanatory variables. Nonetheless, for this EIR/EIS a sensitivity analysis was conducted to compare combined Old and Middle River flows during January through June, consistent with the Pelagic Fish Action Plan and current existing condition considerations. Combined Old and Middle River flows by long-term average and average by water year type for these months were used in the sensitivity analysis for the CEQA Yuba Accord Alternative relative to the CEQA Existing Condition. The equation used to perform these calculations is a linear regression based on CALSIM inputs of combined exports at Banks and Jones pumping plants and San Joaquin River flow at Vernalis. Model results for all months are presented in* ***Appendix F6****.*
>
> *Sensitivity analyses results indicate that long-term average reverse flows slightly (0.2 percent) increase during January and February, do not change during April, and decrease by 0.9 percent, 2.5 percent, and 1.1 percent during March, May and June, respectively. During January, slight (0.1 percent, 0.5 percent, and 0.4 percent) increases in reverse flows occur under wet, dry and critical water years, respectively, and do not change during above normal and below normal water years. February exhibits a similar pattern, with no change in the magnitude of reverse flows during wet, above normal and*

below normal water years, with slight (0.3 and 0.4 percent) increases in reverse flows during dry and critical water years.

From March through May, reverse flows either do not change or are reduced in magnitude under all water year types under the CEQA Yuba Accord Alternative relative to the CEQA Existing Condition. During March, reverse flows decrease (1.5 percent and 1.9 percent) under wet and dry water years, and do not change in above normal, below normal and critical water years. During April, reverse flows do not change under the CEQA Yuba Accord Alternative relative to the CEQA Existing Condition under any water year type. During May, reverse flows decrease 5.8 percent during dry water years, and do not change during other water year types. During June, reverse flows decrease in magnitude during all water year types, ranging from a 0.5 percent decrease during critical water years to a 1.9 percent decrease during above normal water years.

To date, the 2007 20-mm survey for juvenile delta smelt has collected record low numbers of juvenile delta smelt. After the fifth of eight surveys, only 25 individuals had been collected, about 7.7 percent of the 326 taken to this point in 2006, and only 7.1 percent of the 2000-2006 average of 353 (DSWG 2007). Coupled with these survey results, the first salvage of delta smelt juveniles were observed at the federal water export facility on May 11, 2007. Similarly, entrainment of juvenile delta smelt was observed at the state water export facility between May 25, 2007 and May 31, 2007. The detection of delta smelt at the CVP/SWP salvage facilities created a very high degree of concern because, for an annual species such as delta smelt, failure to recruit a new year-class is an urgent indicator that the species has become critically imperiled and an emergency response is warranted (DSWG 2007). The combination of these findings prompted DWR to temporarily stop pumping at the SWP Banks Pumping Plant and Reclamation to maintain pumping at the CVP Jones Pumping Plant at a rate of 850 cfs for health and safety purposes rather than increasing pumping to base operations after the VAMP/post-VAMP period to provide maximum protection for delta smelt. Although the exact duration of this action is unknown, it is believed that pumping may be able to resume when water temperatures in the south Delta reach 25°C, which is considered lethal for delta smelt and would indicate that most delta smelt would have moved into the cooler waters of the central Delta.

As discussed in the preceding paragraphs, information pertaining to species status and recent management actions in the Delta, some of which only became available about one month before the release of the Draft EIR/EIS, is described in the Draft EIR/EIS.

Regarding this comment's request that the Draft EIR/EIS address data presented in the longfin smelt listing petitions, the listing petitions were submitted to the USFWS and the California Fish and Game Commission on August 8, 2007, which occurred after the Draft EIR/EIS was released for public review on June 25, 2007. The USFWS has 90 days to determine whether the petition presents substantial information indicating that the listing is warranted (USFWS and Department of the Interior 2007). Although the petitions are being considered by the respective agencies, no decision has yet been issued on whether or not to grant federal or state ESA protections to longfin smelt. Thus, the listing petitions do not have any jurisdictional standing that would require new or additional analyses at this time.

Moreover, additional clarification is required regarding this comment's statement that "…*this should include addressing data presented in the longfin smelt listing petitions which indicates that any shift in the location of X2 in March through June is a significant impact (Stevens and Miller 1983; Jassby*

et al. 1995; Meng and Matern 2001; Kimmerer 2002, 2004; Rosenfield and Baxter, in press)." On page 14 of the longfin smelt listing petition, the text actually states, "…*The San Francisco Bay-Delta population of longfin smelt exhibits a strong positive correlation between abundance (measured as the CDFG FMWT abundance index*[2]*) and the amount of freshwater outflow*[3] *from the Delta during the spring (Stevens and Miller 1983; Jassby et al. 1995; Meng and Matern 2001; Kimmerer 2002, 2004; Rosenfield and Baxter, in press).*"

Clarification also is required regarding the timing discussed in this section of the listing petition. The regression equations showing the relationship between longfin smelt abundance and spring freshwater outflow to the San Francisco Bay-Delta Estuary on page 15 measured outflows in terms of X2 and calculated outflow as the average X2 for the February-May period during 1967-1987 and 1988-2006. Thus, although the petition does report that there is a strong correlation[4] between longfin smelt abundance and Delta outflow, the listing petition does not state that any shift in X2 from March through June will be a significant impact. A summary of the information on X2 that is stated in the source documents that are referenced in the longfin smelt listing petition is provided here:

- **Stevens, D. E. and L. W. Miller. 1983. Effects of river flow on abundance of young chinook salmon, American shad, longfin smelt, and Delta smelt in the Sacramento-San Joaquin river system.** ***North American Journal of Fisheries Management.*** **3:425-437 (Stevens and Miller 1983).**
    - Our annual measurements of longfin smelt abundance varied substantially (page 431).
    - Correlations between longfin smelt abundance and flow were statistically significant ($p<0.05$) for 43 of the 45 combinations of months from December to the following August... Looking at individual months, correlation coefficients for April, May, June and July were somewhat greater than for August and those for the months before April. These results, then, suggest that longfin smelt survival has been controlled primarily by spring and early-summer flows… The abundance of young Chinook salmon, American shad and longfin smelt increased with river flow during the spawning and/or nursery months (pages 432-433).
    - Longfin smelt abundance increased by increments of 38 percent for each 100 m^3/second of daily mean December – August flow (page 435).

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[2] CDFG Fall Midwater Trawl (FMWT) abundance indices for longfin smelt are calculated using combined data for juvenile (age-1) fish and adult (age-2) fish. Annual abundance indices for longfin smelt and several other fish species are available at: http://www.delta.dfg.ca.gov/data/mwt/charts.asp.

[3] Freshwater outflow is usually referred to as "Delta outflow" and measured indirectly in terms of "X2", the location of the 2 psu isohaline in km from the Golden Gate.

[4] For the 1967-1987 time period, n=19, $p<0.001$, $r^2=0.729$ (The Bay Institute *et al.* 2007). The listing petition also reports that, "In the late 1980s, the alien clam *Corbula amurensis* became established in the Estuary and has had severe effects on the planktonic food web (Kimmerer and Orsi 1996). For the years since the establishment of the clam (1988-2006), it is reported that the relationship between spring flows and longfin smelt abundance is still highly significant, although the intercept and the slope of the regression are somewhat lower (n=19, $p<0.001$, $r^2=0.487$)" (The Bay Institute *et al.* 2007).

- Regressions provide estimates of how much the abundance of each species is affected by river flow, but the various factors affecting the precision of the data, our inability to detect specific critical periods due to the interrelation of monthly flows and other factors that probably create bounds to fish production all affect this quantification. Nevertheless, we present these estimates to provide a general sense of the flow effects within the limits of our data (page 435).

- **Jassby, A.D., W. J. Kimmerer, S. G. Monismith, C. Armour, J. E. Cloern, T. M. Powell, J. R. Schubel and T. J. Vendlinski. 1995. Isohaline position as a habitat indicator for estuarine populations.** ***Ecological Applications 5:272-289*** **. (Jassby *et al.* 1995)**

  - As is widely understood, statistical relationships are not proof of causal connections, and it is not the intention of this report to suggest that X2 itself or, more generally, the salinity field controls biological resources in the estuary. Rather, the particular hypothesis investigated here is that X2 can serve as an index of those habitat characteristics that do underlie the variability in biological resources (page B-2).

  - In the case of longfin smelt, for example, the average of X2 for the period February – May was used …The variables used, observations available and sources for the data are summarized in Table 1 (longfin smelt annual abundance index, January-June, 1968-1973, 1975-1978, 1980-1991, CDFG) (page B-3 and B-4).

  - The data demonstrate that simple and statistically significant relationships exist between X2 and biological populations at many trophic levels [e.g., longfin smelt: n = 21, df 1, r=0.86; striped bass: n=22, df=2, r=0.84] (page B-5).

  - Although detailed analytical results for longfin smelt were not included in the report, the modeling analysis for striped bass suggests that 73 km is an appropriate threshold value for attaining median survival. The report also concluded that 73 km would have been too stringent a requirement in 12 of the years and *no requirement* would have been effective in the remaining years except insofar as it forced DIVER (the fraction of total inflow diverted) to have been lower (page B-8).

  - X2 has many properties that render it a suitable habitat indicator… Temporal (and spatial) gradients are unusually intense in estuaries compared to other ecosystems and interannual variability in the seasonal pattern is also high (page B-8).

- **Meng, L. and S.A. Matern. 2001. Native and introduced larval fishes of Suisun Marsh, California: the effects of freshwater flow.** ***Transactions of the American Fisheries Society*** **130:750-765. (Meng and Matern 2001)**

  - A group of native fishes (…longfin smelt..) was associated with low temperatures and high outflows, characteristic of early-season conditions in Suisun Marsh (page 759).

  - Native fishes, and many species that use the marsh for spawning, benefited during periods of high outflow if the flows coincided with their spawning times… Catches of longfin smelt were greatest in 1997, one of the driest years in the study, and were probably the result of the high flows in January and February when longfin smelt spawning peaks (page 762).

- We conclude that freshwater flow and mimicking natural flow regimes in terms of quantity, timing, and positioning of the mixing zone are important for determining estuarine habitat quality for ichthyoplankton and native fishes (page 763).

- **Kimmerer, W. 2002. Effects of freshwater flow on estuarine organisms: physical effects or trophic linkages?** ***Marine Ecology Progressive Series*** **243:39-55. (Kimmerer 2002)**
  - The variation with freshwater flow of abundance or survival of organisms in higher trophic levels apparently did not occur through upward trophic transfer, since a similar relationship was lacking in most of the data on lower trophic levels. Rather, this variation may occur through attributes of physical habitat that vary with flow (page 39).
  - …longfin smelt abundance index had the strongest relationship with X2 and a 4-fold decline after 1987, with no significant change in slope (interaction term 0.018 ±0.022, p>0.1) (page 47).

- **Kimmerer, W. 2004. Open water processes of the San Francisco Estuary: from physical forcing to biological response.** ***San Francisco Estuary and Watershed Science*** **(online serial) Volume 2, Issue 1, Article 1. (Kimmerer 2004)**

  Longfin smelt have the strongest of the fish-X2 relationships, although that relationship has had a lower mean abundance since 1987 (page 84).
  - Monotonic relationships between X2 and abundance have been developed, and found significant at least some of the time, for estuarine-dependent copepods, mysids, bay shrimp (*Crangon franciscorum*), and several fish including longfin smelt, Pacific herring, starry flounder, splittail, American shad, and striped bass (page 88).
  - Regardless of the details of the individual relationships, there is a general trend for abundances of fish and macroinvertebrates to be higher under high-flow conditions than low-flow conditions (Kimmerer 2002a) (page 88).
  - According to the fish-X2 relationships, more flow generally produces more of a certain species… the relative impact of …proposed flow changes could be quite small and should be analyzed; one analysis showed that further movement of X2 using purchased water would be very expensive (Kimmerer 2002b). For example, the entire allocation of the Environmental Water Program (300 TAF or 0.4 km^3), if applied over the 5-month period of the X2 standards (~30 m^3s^{-1}), would result in a movement of X2 about 1 kilometer in a dry year.

- **Rosenfield, J. A. and R. D. Baxter. 2007. Population dynamics and distribution patterns of longfin smelt in the San Francisco Estuary.** ***Transactions of the American Fisheries Society*** **(in press). (Rosenfield and Baxter 2007)**
  - To account for the documented relationship between abundance and freshwater outflow (Stevens and Miller; Jassby *et al*. 1995; Kimmerer 2002b), we conducted an Analysis-of-coveriance (ANCOVA) with Age Class 1 abundance indices (or CPM for the Suisun Marsh Survey) as the dependent variable, a categorical variable representing three time periods (pre-drought, drought (1987-1994), and post-

drought), and an estimate of freshwater outflow (calculated after Jassby *et al*. 1995) as a covariate (page 9).

- The relationship between Delta outflow and FMWT longfin smelt abundance indices is well-established in this Estuary (Stevens and Miller 1983; Kimmerer 2002b) and we found that freshwater outflow was a significant covariate in Bay Study and Suisun March data as well (page 19).

In summary, while the information presented in each of the studies discussed above indicates that there is evidence that longfin smelt abundance is strongly correlated to Delta outflow, none of these studies concluded that any shift in X2 from March through June would result in a significant impact to longfin smelt, as this comment states.

The listing petition (page 57) does identify several proposed activities that would protective of longfin smelt, including the following statements. Our responses to these statements appear after each statement.

- **Increase freshwater flows through the Delta during the spring (February-June) beyond minimum levels currently required by the SWRCB's 1995 Water Quality Control Plan to improve estuarine habitat. Delta outflows should, at a minimum, maintain springtime X2 downstream of 70 kilometers (km).**

  The model output in Appendix F4 of the Draft EIR/EIS indicates that, over the 72-year simulation period, there would no additional increases or decreases in the number of times that the monthly mean X2 location during the February through June period under the Yuba Accord Alternative would move upstream of 70 km, relative to the CEQA Existing Condition or the CEQA No Project Alternative (Draft EIR/EIS, Appendix F4, pages 1189-1198).

- **Increase freshwater outflows during the fall (October-December) to maintain low salinity habitat (as defined by X2) no more than 80 km from the Golden Gate to improve estuarine habitat, and to restrict the invasive clam *Corbula amurensis*.**

  The model output in Appendix F4 of the Draft EIR/EIS indicates that, over the 72-year simulation period, there would no additional increases or decreases in the number of times that the monthly mean X2 location during the February through June period under the Yuba Accord Alternative would move past 80 km, relative to the CEQA Existing Condition or the CEQA No Project Alternative (Draft EIR/EIS, Appendix F4, pages 1189-1198).

These model output results in Appendix F4 of the Draft EIR/EIS, for the Yuba Accord Alternative relative to the bases of comparison, indicate that the Yuba Accord Alternative would not hinder or reduce the operational abilities of Reclamation and DWR to manage the CVP/SWP system in a flexible manner that could be more protective of longfin smelt, if this species is ultimately listed under either the federal or state Endangered Species Acts, and if the thresholds proposed in the listing petition are determined to be protective of longfin smelt in the final ESA documentation issued by USFWS and CDFG. For additional information about how longfin smelt and delta smelt were evaluated in the Draft EIR/EIS, see the response to Comment SA3-1b.

Response to Comment SA3-8:

This comment does not correctly describe Sections 5.1.A and 23.D.1 of the draft of the Water Purchase Agreement that is in Appendix B of the Draft EIR/EIS (see Draft EIR/EIS, Appendix B, pages B-162, B-181 to B-182). Under this draft, even if the EWA were to terminate or the Banks Pumping Plant capacity were not increased to 8,500 cfs by December 31, 2008, the Component 1 water still was to be used "to fulfill fishery obligations necessary to maintain and enhance water supply reliability of the Delta export facilities" or for other purposes consistent with the funding source from which this water was purchased (see Draft EIR/EIS, Appendix B, page B-182).

In any event, these provisions of the Water Purchase Agreement have been amended to delete the provisions regarding the increase in Banks Pumping Plant capacity to 8,500 cfs and to make it clear that the water will be used for "fishery obligations that supplement regulatory obligations existing in 2006 and are necessary to maintain and enhance water supply reliability of the Delta export facilities" (see Final EIR/EIS, Appendix M2). The Draft EIR/EIS fully analyzes the use of Component 1 water for these purposes.

Response to Comment SA3-9:

All of the YCWA Member Units utilize agricultural best management practices (BMPs) to a large degree, including drip irrigation for orchards, laser leveling of rice fields and re-using runoff from rice fields for additional irrigation, although no formal inventory of BMPs either by Member Unit or by individual farmer has been completed. Testimony presented during the 2000 SWRCB hearing that led to RD-1644 (RT, vol. 7, 3/9/00, page 1667, line 13 to page 1670, line 3; page 1686, line 15 to page 1688, line 5; vol. 8, 4/3/00, page 1813, line 25 to page 1815, line 22; page 1817, line 21 to page 1818, line 15; page 3011, line 23 to page 3012, line 19) provides details on some of the BMPs that were underway at that time.

Under either the CEQA No Project Alternative or the Yuba Accord Alternative, roughly equivalent levels of deficiency pumping will be required of the Member Units. (Deficiency pumping is the use of groundwater to make up for deficiencies in surface water deliveries.) The anticipated economic costs of such deficiency pumping will provide incentives for continued and additional water conservation in dry years.

While YCWA and the Member Units will continue to evaluate and implement additional water conservation measures, such measures will not be part of the project that is analyzed in the Draft EIR/EIS. The detailed information that is requested by this comment therefore is not necessary for this EIR/EIS.

None of the Member Units delivers water for municipal or industrial (M&I) purposes and it is not contemplated that any of the Member Units will deliver water for M&I purposes during the terms of the proposed Conjunctive Use Agreements.

Response to Comment SA3-10:

A clear, readable overview of the proposed Yuba Accord agreements is provided in Chapter 3 of the Draft EIR/EIS, at pages 3-5 through 3-20, copies of all of the proposed agreements are included in Appendix B of the Draft EIR/EIS, and copies of the revised Fisheries and Water Purchase Agreements are included in Appendix M of the Final EIR/EIS. Limits on and conditions of the agreements are contained in both the texts of the agreements and responses to Comments SA3-4a through SA3-5e. Easy-to-read tables and graphs of anticipated lower Yuba

River flows at the Smartville and Marysville Gages for all of the comparisons listed in Table 4-3 of the Draft EIR/EIS are contained in Appendix F4 of the Draft EIR/EIS. The exceedance tables and figures in this appendix show these comparisons for all water-year types. Because the Draft EIR/EIS already contains several thousand pages, and because hundreds of tables and graphs are necessary to provide the information regarding modeled lower Yuba River flows at two locations and modeled water temperatures at three locations, these tables and graphs are presented in Appendix F4.

The differences between the Yuba River Index and the North Yuba Index are described in Section A.3.2 of Attachment A to the Modeling Technical Appendix (see Draft EIR/EIS, Appendix D, page A-17). Because the Yuba River Index is based solely on unimpaired flows, the various water-year types that would have occurred under this index during the years of the historical period of hydrological record, 1922 to 1994, can be determined by making calculations based on the unimpaired flows that occurred during this period. On the other hand, because, the North Yuba Index is a function of both unimpaired flows and September 30 storage in New Bullards Bar Reservoir, determination of the water-year types under North Yuba Index for each year of the historical period of hydrological record requires simulation of New Bullards Bar Reservoir operations for a repeat of the hydrology, that is, a repeat of precipitation, runoff and snowmelt conditions, that occurred during this period.

To respond to this comment, these determinations have been made and the following Figure SA3-10.1 was prepared, using the information in the tables in Appendix F of the Draft EIR/EIS. This figure compares the North Yuba Index to the Yuba River Index for each year of the hydrological record. For example, during the hydrologic period there are 8 years that are classified as "dry" under the Yuba River Index. Simulated results for Yuba Project operations under the proposed lower Yuba River Accord show that, for these years, the North Yuba Index would have been classified as a "Schedule 2" year once, as a "Schedule 3" year five times, and as "Schedule 4" year twice.

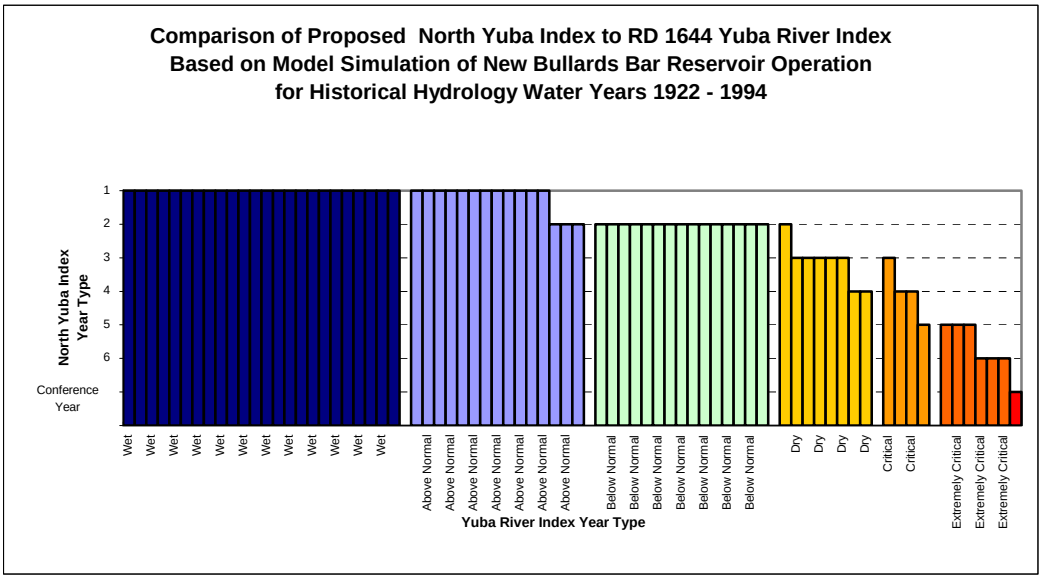

Figure SA3-10.1. Comparison of Proposed North Yuba Index to RD-1644 Yuba River Index Based on Model Simulation of New Bullards Bar Reservoir Operation for Historical Water Years 1922-1994

Response to Comment SA3-11:

California water resources are expected to be affected by climate change. There is evidence that some changes already have occurred. For example, higher temperatures have changed the runoff patterns in several watersheds of the Sierra Nevada. The trend is toward higher runoff during the winter season and lower runoff during the spring and summer seasons. There have been several investigations of California hydrological responses that have focused on changes in stream flows because of climate change. These studies suggest that Sierra Nevada snowmelt-driven stream flows are likely to peak earlier in the season than they have in the past, as a result of global warming caused by increased atmospheric greenhouse gas concentrations.

DWR recently published a report on its progress on incorporating climate change effects into its water resources planning models for California (DWR 2006). To conduct water resources impact analyses for climate change scenarios, the coarse spatial representation of the global climate model data from Global Circulation Models (GCMs) must be refined through a process called downscaling. DWR used a macro-scale hydrological model called the "Variable Infiltration Capacity Model" (VIC) to convert GCM precipitation data into rainfall and snowmelt runoff. The model was developed by Ed Maurer of the University of Santa Clara. The runoff data was further processed by Scripps Institution of Oceanography to produce regional-scale stream flows for the major river of the Central Valley, including the Yuba River.

Perturbation ratios are a method of transferring regional-scale climate change behaviors into local-scale historical data. DWR used this technique to translate average climate change effects observed in VIC regional runoff into historical reservoir inflows. The following **Table SA3-11.1** shows the resulting streamflow perturbations for the Yuba River for 2050 conditions determined for the 4 climate change scenarios selected by the Governor's Climate Action Team. The values show the projected streamflows for 2050 conditions relative to 1976 baseline conditions. For example, the June perturbation ratio for the GFDL A2 results listed in Table 1 for the Yuba River region is 0.49. This shows that, on average, 2050 June streamflows in the Yuba Region are projected to be 51 percent less (0.49 – 1 = -0.51) than the historical 1976 stream flows.

Table SA3-11.1 Streamflow Perturbation Ratios for the Yuba River

Scenario	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
GFDL A2	1.16	0.8	1.37	1.16	1.2	1.24	0.86	0.62	0.49	0.47	0.64	0.77
PCM A2	0.69	1.1	0.82	0.95	1.25	1.14	0.95	0.74	0.67	0.67	0.91	0.91
GFDL B1	0.77	2.04	1.05	1.33	0.81	1.15	0.87	0.64	0.49	0.50	0.70	0.80
PCM B1	0.92	1.09	0.69	1.26	1.1	1.38	1.19	0.94	0.82	0.85	0.97	0.97

Source: DWR (2006)
Note: The four climate change scenarios selected by the CAT consist of two greenhouse gas (GHG) emissions scenarios, A2 and B1, each represented by two different Global Climate Models (GCMs), the Geophysical Fluid Dynamic Lab model (GFDL) and the Parallel Climate Model (PCM).

For the Yuba Region, global climate change scenario PCM A2 would be the most severe, reducing the average annual unimpaired flow at Smartville by approximately ten percent.

The monthly perturbation ratios for the PCM A2 climate change scenario were used to develop the following revised timeseries inflow data for the Yuba Project Model: inflows to New Bullards Bar Reservoir; inflows to Englebright Reservoir, and inflows from Deer Creek into the

lower Yuba River. This calculation ignores the ability of upstream storage regulation to mitigate some of the effects of climate change and therefore may overestimate the impacts that actually will occur. Also, no attempt was made to adjust model reservoir operating rules to mitigate for climate change effects, which would reduce actual impacts.

The following **Figure SA3-11.1** compares simulated average monthly storage in New Bullards Bar Reservoir under the Proposed Yuba Accord, with and without the climate change scenario described above. The results are presented by North Yuba Index water-year type. The results show that carryover storage in New Bullards Bar Reservoir may be between 13 TAF to 44 TAF lower by 2050 if there are no changes in reservoir management. For 2025 it would be reasonable to assume that these impacts would be about one third of those projected for 2050 (a 17-year time horizon compared to a 42-year time horizon). A change in New Bullards Bar Reservoir carryover storage of between 4 TAF to 15 TAF would be well within the range of operations modeled for the Yuba Accord Alternative and other alternatives based on the historical period 1922 to 1994.

The following **Figure SA3-11.2** compares simulated average flows in the lower Yuba River at the Marysville Gage under the Proposed Yuba Accord, with and without the climate change scenario described above. These results are presented by North Yuba Index water-year type. The results show that, in the wetter years, lower Yuba River flows under the climate change scenario would be higher in the winter and early spring and lower in the late spring and summer. In all cases, minimum flows in the Accord flow schedules would be met. Deliveries to Yuba Member Units would average 8 TAF/year, which is about 2 percent, lower. Possible changes in flows in the lower Yuba River and changes in deliveries under climate change are within the range of hydrologic conditions modeled for the Yuba Accord Alternative and other alternatives based on the historical period 1922 to 1994.

Because the projected changes in New Bullards Bar Reservoir storage, lower Yuba River flows and deliveries to Member Units under this climate change scenario are within the ranges of storage, flow and delivery values that were modeled for the Yuba Accord Alternative and other alternatives in the Draft EIR/EIS, no further analyses of the potential effects of climate change is necessary.

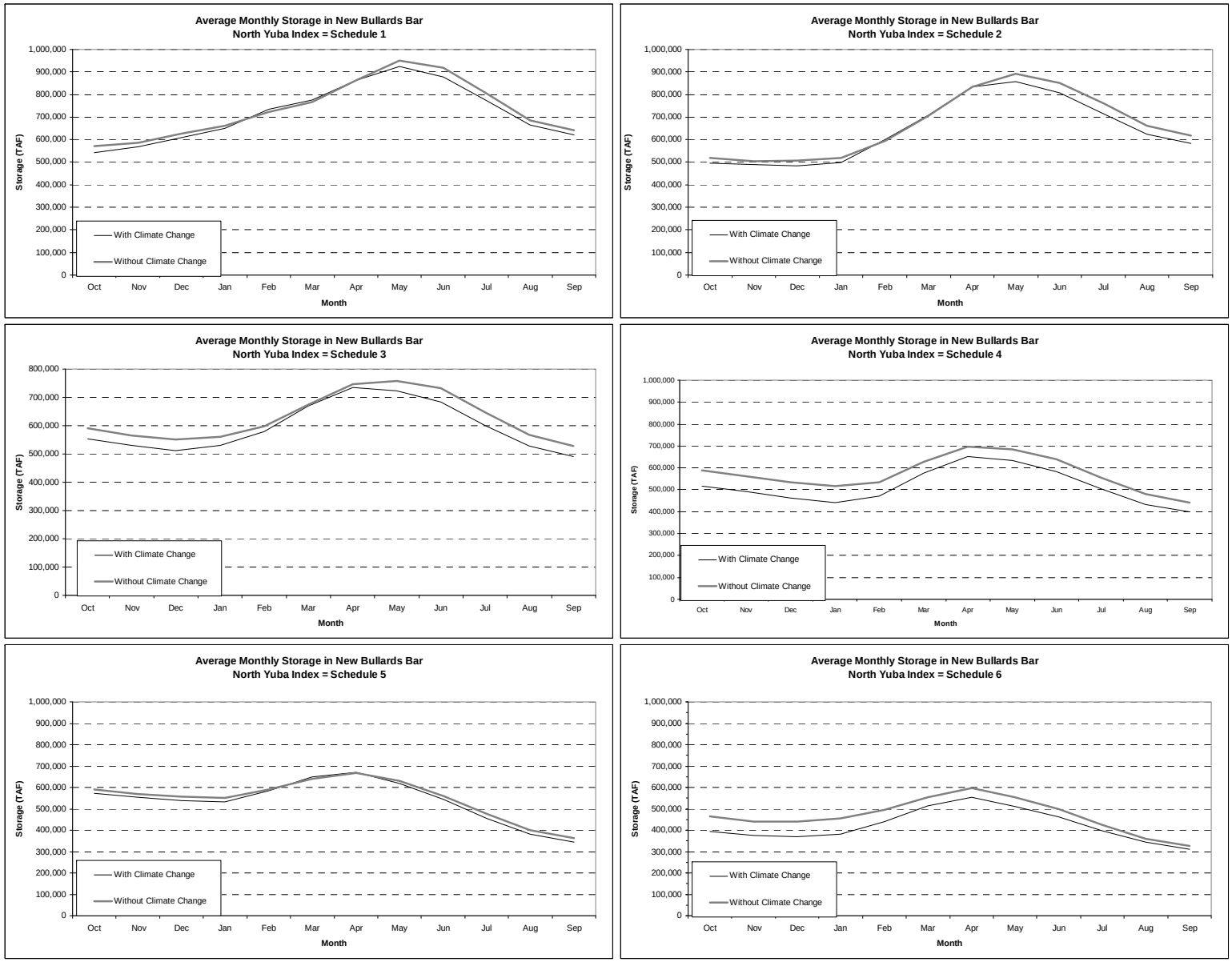

Figure SA3-11.1. Simulated Average Monthly New Bullards Bar Reservoir Storage under a Climate Change Scenario

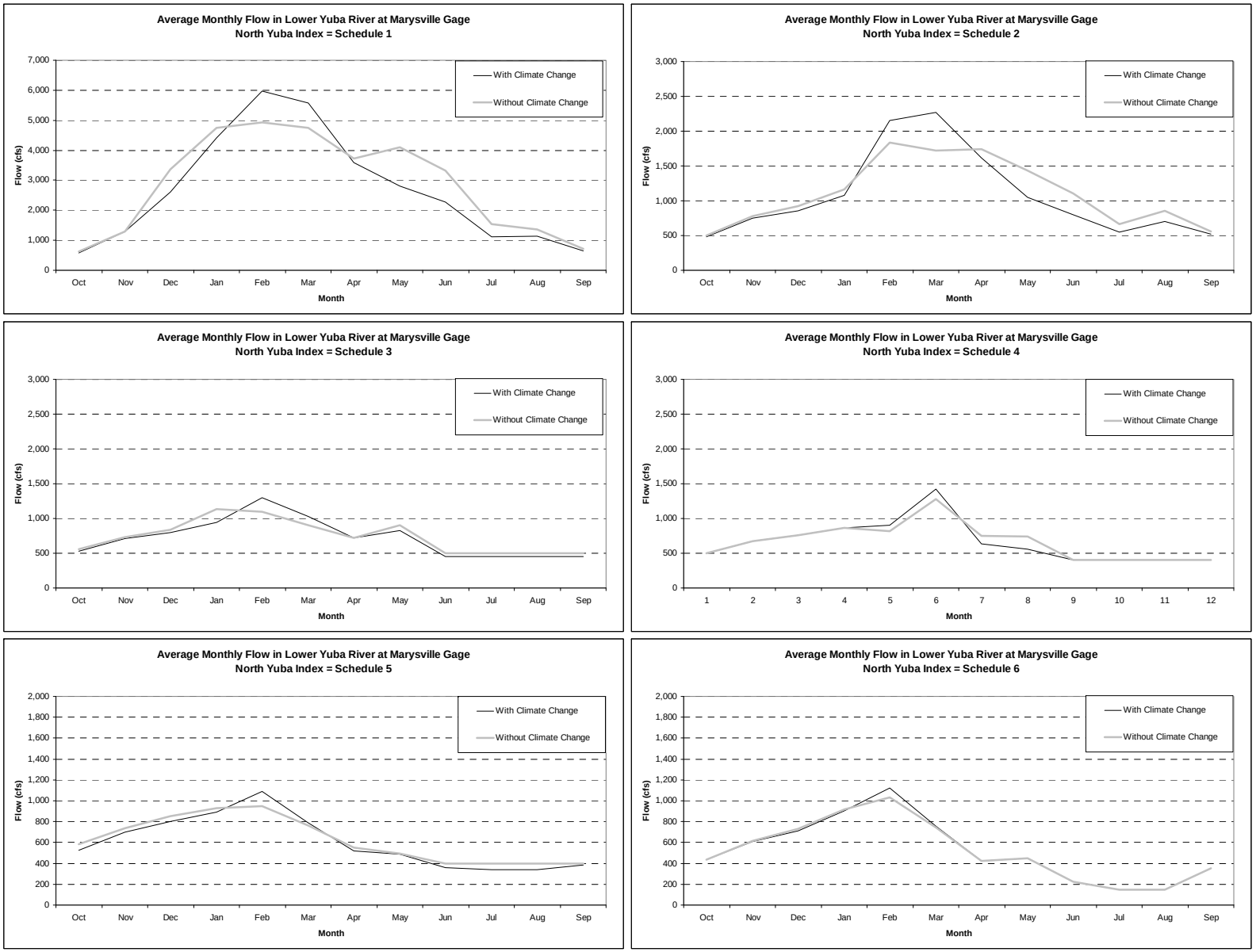

Figure SA3-11.2. Simulated Average Monthly Flow in the Lower Yuba River at the Marysville Gage under a Climate Change Scenario

Response to Comment SA3-12:

This comment does not cite the page of the Draft EIR/EIS that "describes the New Bullards Bar Dam/Reservoir as a fisheries enhancement project," and we are not aware of any such description in the Draft EIR/EIS. The Draft EIR/EIS describes New Bullards Bar and Englebright Reservoirs on pages 2-4 and 5-3 to 5-4. Figure 5-3 of the Draft EIR/EIS shows the configurations of New Bullards Bar, Englebright and Daguerre Point Dams, and the Modeling Technical Memorandum (Appendix D of the Draft EIR/EIS) describes in detail how these facilities are operated and how their operations are modeled. Appendix F of the Draft EIR/EIS contains numerous detailed tables and figures showing how storage in New Bullards Bar Reservoir and diversions at Daguerre Point Dam would vary between the various modeled scenarios. The Draft EIR/EIS uses this model output to describe the environmental effects of the different scenarios.

Although water flows from New Bullards Bar Reservoir to Englebright Reservoir, and from Englebright Reservoir to Daguerre Point Dam, these facilities were constructed by different entities at different times as parts of different projects, and are not "linked." Daguerre Point Dam and Englebright Reservoir were constructed by the California Debris Commission, a unit of the Corps, in 1905 and 1941, respectively, to control sediments in the Yuba River that resulted from upstream mining operations. While some water is diverted at Englebright Dam for hydroelectric power generation, and while some water is diverted at Daguerre Point Dam for irrigation, these dams still are operated by the Corps for primary purpose of control mining debris and sediments in the Yuba River. The amounts of water stored behind each of these dams normally do not vary from month to month, and these storage amounts would not be affected by the Yuba Accord Alternative or any of the alternatives that are analyzed in the Draft EIR/EIS.

New Bullards Bar Dam and Reservoir were constructed by YCWA in 1966-1969 as part of the Yuba River Project, a multi-purpose water and hydroelectric project. This project is operated for flood control, hydroelectric power generation, recreation, and fisheries protection and enhancement, and to supply water for irrigation. The amounts of water stored in New Bullards Bar Reservoir vary substantially from month to month.

Response to Comment SA3-13:

Detailed modeling of YCWA facilities in the Yuba Basin was undertaken for the Draft EIR/EIS using the Yuba Project Model (YPM). This model is described in detail in Attachment A of the Modeling Technical Memorandum, Appendix D of the Draft EIR/EIS. This model simulates operations of New Bullards Bar Dam and Reservoir, New Colgate Powerhouse, Narrows I and Narrows II powerhouses, and the lower Yuba River.

The YPM simulates operations for a multi-year period using a monthly time-stepage The model assumes that facilities, land use, water supply contracts, and regulatory requirements are constant over the simulation period, representing a fixed level of development (e.g., 2001 or 2020). The historical flow record from October 1921 to September 1994, adjusted for the influence of land use changes and upstream flow regulation, is used to represent the possible range of water supply conditions. For example, model results for 1976 to 1977 do not try to represent the historical flow conditions that actually occurred in 1976 to 1977, but rather represent the flow conditions that would occur with operation of the current (or future) facilities under current (or future) regulatory conditions during a repeat of the 1976 to 1977 two-year drought.

YPM output for the simulation of the Yuba Accord Alternative is presented in Appendix F4 of the Draft EIR/EIS. This output shows the consequences of operating New Bullards Bar Reservoir to the proposed lower carryover storage requirement of 650 TAF under a wide range of hydrologic conditions. These hydrologic conditions include the six-year drought of 1929 to 1934, and the six-year drought of 1987 to 1992, and the two-year drought of 1976 to 1977.

The annual and multi-year inflows and associated exceedance probabilities, and the minimum observed inflow during the historical period 1922 to 1994 are presented in Table A-3 of Attachment A of the Modeling Technical Appendix (see Draft EIR/EIS, Appendix D, page A-10). Exceedance probabilities are based on an assumed log-Pearson distribution of flows. The 1977 unimpaired flow corresponds approximately to a 1 in 167 year drought event. The 1976 to 1977 2-year unimpaired flow corresponds to a 1 in 300 year drought event. The 1987 to 1992 6-year unimpaired flow corresponds approximately to a 1 in 100 year drought event. Inclusion of these historical events in the period of analysis addresses the possibility of unusual weather patterns or a period of extended drought occurring during the term of the Proposed Yuba Accord.

Detailed model results presented in Appendix F4 of the Draft EIR/EIS show the impacts of extremely dry events on New Bullards Bar Reservoir storage. For example, page 49 of Scenario 3 v Scenario 2 folder of Appendix F4 is an exceedance plot of "New Bullards Bar Reservoir End of Month Storage During September Under CEQA No Project Alternative and CEQA Yuba Accord Alternative Conditions."

Similarly, model results in Appendix F4 show the impacts of extremely dry events on flows in the lower Yuba River. For example, pages 309 to 320 of Scenario 3 v Scenario 2 folder of Appendix F4 are exceedance plots of "Lower Yuba River Flow at Marysville Under CEQA No Project Alternative and CEQA Yuba Accord Alternative Conditions" by month.

The projected YCWA allocations to its Member Units are used as the metric for assessing water supply impacts in the Draft EIR/EIS (see Section 5.2.3.1). These allocations are reported in Appendix F1.

For these reasons, the Draft EIR/EIS already contains the evaluations that are requested in this comment.

Response to Comment SA3-14:

The Narrows II Powerhouse Intake Extension Project at Englebright Dam was not included in the cumulative impacts analysis because it did not meet the three components of the screening criteria that were established for determining whether a project was reasonably foreseeable and, thus, included in the cumulative impact assessment (see page 21-4 of the Draft EIR/EIS). As discussed on page 21-34 of the Draft EIR/EIS, this potential project has only a conceptual-level design, and no current source of funding for continued design work, permitting or construction.

The Narrows II Powerhouse Intake Extension Project would not change the flow regimes in the lower Yuba River and would be expected to provide slightly cooler water temperatures downstream of Englebright Dam. Although it is unlikely that this project would be constructed before 2016, which is when the Fisheries Agreement would expire, it would provide additional operational flexibility to allow for improved management of water temperature regimes in the lower Yuba River. Thus, if the Narrows II Powerhouse Intake Extension Project were to be implemented some time during the period of implementation of the Yuba Accord Alternative, then improved management of Englebright Dam releases, coupled with the improved in-river water temperature conditions resulting from the Proposed Yuba Accord, would result in overall

beneficial cumulative effects, and no cumulative impacts, on fisheries resources in the lower Yuba River.

Under Section 5.4.4 of the Fisheries Agreement, YCWA would continue to diligently pursue grant funding for this project (see Draft EIR/EIS, Appendix B, page B-34).

Response to Comment SA3-15:

SWRCB Standard Term 91 prohibits permittees and licensees subject to Term 91 from diverting water in the Sacramento-San Joaquin River Delta (Delta) watershed when specified conditions are present. These conditions occur when water is being released from Central Valley Project (CVP) and State Water Project (SWP) reservoirs (supplemental project water) to meet water quality standards and inbasin entitlements in the Delta. The purpose of Term 91 is to ensure that supplemental project water remains available to meet Delta water quality standards.

SWRCB states that as of 2006, the Division of Water Rights has issued 129 water right permits or licenses that include Term 91. Of these permits and licenses about 90 have an authorized diversion season that covers all or a portion of June, July, or August. This smaller group is regularly affected by Term 91 diversion curtailments.

The method for calculating when supplemental water exists was developed in Order 81-15 (SWRCB, 1981) and D-1594 (SWRCB, 1999):

$$SW = SR - (EX + CW)$$

"SR" is the net storage release from Shasta, Oroville, and Folsom Reservoirs plus imports to the Sacramento Valley from the Trinity River CVP facilities, minus exports from the Folsom South Canal. "EX" is the sum of CVP and SWP export diversions at Clifton Court Forebay, Jones Pumping Plant, North Bay Aqueduct, and Contra Costa Canal Intake. "CW" is the project carriage water (i.e., the additional outflow required to maintain water quality standards in the Delta while project exports are occurring). The carriage water term is zero when flow objectives, rather than salinity objectives, control CVP and SWP Delta operations. Reclamation's Central Valley Operations Office (CVOO) publishes daily accounts of project supplemental water (http://www.usbr.gov/mp/cvo). Transfer water is not explicitly included in the formula for Term 91.

Term 91 diversion curtailments are ordered on real-time basis by reviewing calculations of the supplemental project water releases that are presented on Reclamation's web site. Generally, Term 91 is in effect during June through August, although there are significant year-to-year variations. In 1992, Term 91 was in effect from mid-May through mid-November. However, the default end-date for Term 91 is August 31.

As analyzed in the Draft EIR/EIS, the Yuba Accord Alternative could affect the timing of Term 91 through lower Yuba River outflows because of lower instream flow requirements. In wet, above normal, and below normal years, any decrease in Yuba River outflow under the Yuba Accord Alternative during Delta balanced conditions would be offset by increased releases from Oroville Reservoir compared to the CEQA No Project Alternative, allowing CVP and SWP exports to be maintained at the same levels. In dry and critical years, any decrease in Yuba River outflow under the Yuba Accord Alternative during Delta balanced conditions would be offset by a reduction in CVP and SWP exports compared to the CEQA No Project Alternative; Oroville Reservoir releases would be maintained at the same rates.

Under either of these scenarios, there could be a change in the timing of when Term 91 would go into effect. During April through June (when Term 91 normally is implemented), simulated river flows at Marysville would be lower under the Yuba Accord Alternative than under the CEQA Existing Condition in 1 percent of the months of April, 19 percent of the months in May, and 18 percent of the months of June. Similarly, simulated Yuba Accord Alternative flows would be lower than the corresponding CEQA No Project Alternative flows in 5 percent of the months of April, 44 percent of the months of May, and 37 percent of the months of June. The average reduction in flow due to changing from the CEQA Existing Condition to the Proposed Lower Yuba River Accord would be 58 cfs in April, 437 cfs in May, and 79 cfs in May, with maximum reductions of flow of 58 cfs in April 1984, 500 cfs in May of several years, and 158 cfs in June of several years. Changing from the CEQA No Project Alternative to the Yuba Accord Alternative would result in an average reduction in flow of 19 cfs in April, 411 cfs in May, and 133 cfs in June. The maximum changes in these flows would be 50 cfs in April 1994, 755 cfs in May 1939, and 308 cfs in June 1959.

Over the 73-year period of simulation, Term 91 would be in effect in 11 percent of the months of April, 22 percent of the months of May, and 67 percent of the months of June under the CEQA Existing Condition. For Term 91 to be triggered in months when it is not in effect would require an average flow change of 17,000 cfs in April, 9,000 cfs flow change in May, and 6,000 cfs flow change in June.

The decreases in Yuba River outflows under the Yuba Accord Alternative compared to the CEQA Existing Condition or the CEQA No Project Alternative are much smaller than the changes in flows required to trigger Term 91. The potential changes in Yuba River outflows under the Yuba Accord Alternative never would be sufficiently large to significantly change the timing of when Term 91 would go into effect.