



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W-2605  
Sacramento, California 95825-1846



In Reply Refer To:  
81420-2008-I-1481-2

June 27, 2008

## Memorandum

**To:** Operations Manager, Central Valley Operations Office, Bureau of Reclamation, Sacramento, California  
*Gay C. Mowder*

**From:** *JK* Field Supervisor, Sacramento Fish and Wildlife Office, Sacramento, California

**Subject:** Additional Information Required for the Review of the Operation Criteria and Plan (OCAP) for the coordinated operation of the Central Valley Project, and the State Water Project

I am writing in response to your memorandum of May 16, 2008, to the U.S. Fish and Wildlife Service (Service) transmitting the biological assessment (BA) for the Operation Criteria and Plan (OCAP) for the coordinated operation of the Central Valley Project (CVP) and the State Water Project (SWP). It requested the start of formal consultation for ongoing and future operations of the CVP and SWP under OCAP. At issue are the potential effects of this project on the threatened delta smelt (*Hypomesus transpacificus*) and its designated critical habitat. This memorandum is issued pursuant to the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*)(Act) and the regulations governing interagency consultation (50 C.F.R. § 402).

Subsequent to receipt of your May 16, 2008 memorandum, we received a number of revisions and addenda to the document. In a memorandum dated May 29, 2008 (Service file 81420-2008-TA-1481), we advised the Bureau of Reclamation (Reclamation) that we had begun our review of the BA and the request for formal consultation, as provided at 50 C.F.R. 402.14(c), to determine whether there was sufficient information presented with which to conduct an adequate review of the effects that the action could have on listed species and critical habitat. Originally, Reclamation's timeline had our review to commence on April 29, 2008. Since May 16, 2008, we have had continuing dialogue and meetings at least twice a month with Reclamation to discuss the revisions of the BA. In addition, we submitted written comments on June 6, 2008, June 11, 2008, and June 18, 2008 (attachment). As of this date, we have not received a written response to these early comments.

Based on our Court-ordered deadline of September 15, 2008, we will draft a BO based on the



information you have provided as of July 7, 2008. A July 7, 2008 deadline will mean that the Service has only 69 days, not the 135-days provided by Regulation, to produce a final BO based on the Court-ordered deadline of September 15, 2008. If Reclamation requests a draft BO, this would further shorten the time the Service has to complete the final BO. If Reclamation cannot meet the July 7 deadline, please inform the Service by July 3, 2008.

The BA contains deficiencies, incomplete analysis, inaccuracies, and omissions of necessary information. Pursuant to 50 CFR § 402.14, this memorandum transmits the additional scientific information and analysis that must be provided by Reclamation to the Service in order for us to adequately evaluate the potential effects to listed species and critical habitat as a result of the proposed action.

We are formally providing the contents of those early submissions as well as additional information deficiencies in this memorandum. The comments are organized by chapter and we did not review the chapters that pertain to anadromous fish:

CHAPTER 1 – Summary of legal and statutory authorities, water rights, and other obligations related to the proposed action.

1. There is no description of the nature of the Federal relationship to Department of Water Resources (DWR) through the Coordinated Operating Agreement (COA), i.e., is it funding, regulatory, or some other approval? There is only a one-sentence statement that the COA is the nexus for purposes of section 7 of the Act. This is relevant in terms of evaluating enforceability of reasonable and prudent measures that may be applied to purely SWP actions within the project description (PD), within the context of evaluating the effects of the proposed action on listed species.
2. There is no description on what the legal boundaries are on the “obligation to deliver water to the CVP contractors.” The information provided should clarify the legal authorities that require Reclamation to implement and carry out the proposed action.
3. The language on Four Pumps states that “Details of the Agreement and proposed mitigation projects are provided in Chapter 18 of the PD.” No substantive information on the Agreement or any proposed mitigation projects is provided within this Chapter. The only information provided is a description of the process by which DWR and Department of Fish and Game (DFG) are developing the Agreement. The only information provided on restoration projects is to identify by name potential projects, some of which are already underway and/or may be questionable in their ability to offset adverse affects of the proposed action. We note that some of the same projects have been proposed to be accomplished by other entities, who have received funding for their undertaking. DWR would need to be able to demonstrate the extent to which their contribution to such projects is above the baseline that would be established by the other parties’ actions.

## CHAPTER 2 – Project description for the Central Valley Project and State Water Project.

1. Many of the changes and issues previously provided by the Service, National Marine Fisheries Service (NMFS), and the DFG (collectively, the Fishery Agencies) on the PD have not been incorporated in the BA. Significant effort was made during the early consultation period by staff to review and provide feedback on the administrative drafts of the PD that were provided by the Reclamation. Our review indicates that only minor edits were made to the PD by Reclamation and DWR in response to our timely and extensive comments. For example, most of the comments and edits on pages 2-39 through 2-45 of the April 21, 2008, that were provided by the Fishery Agencies in May 2008, have not been incorporated into this section (now pages 2-61 through 2-66) of the BA. It is important that Reclamation modifies this language in the current version of the OCAP PD, to accurately describe New Melones operations and CVPIA Section 3406(b)(2). The Fishery Agencies previously commented that the PD cannot rely on the NMFS 2004 OCAP BO. Therefore, the PD must affirmatively state that the actions that were in the NMFS 2004 BO would be part of this PD.
2. The project analysis is through 2030, however, some of the actions end before this date. These include Vernalis Adaptive Management Plan (VAMP) and the "limited EWA". If these measures are to continue Reclamation needs to identify affirmative and assured means by which these will be carried forward until 2030. If such means are not identified, then Reclamation should provide a separate effects analysis based on model runs that depict termination of these programs when current authorizations expire.

The various groups identified under the heading "Groups Involved in Real Time Decision-Making to Assist Fishery Management and Information Sharing" either may not be currently meeting, are inactive, or the description of their roles and/or function is inaccurate. The Fishery Agencies previously provided comments and edits on this section that have not been made. In addition, because there is no Environmental Water Account (EWA), as described in the CALFED Record of Decision (ROD), there is no need for adaptive management or a substantial role for the identified groups in the allocation of the "limited EWA's" assets. Additionally, in the absence of regulatory sideboards on the adaptive management process, implementation of the recommendations made in such process would be speculative and, as such, may not be considered in the analysis of the effects of the proposed action upon listed species. Note that this concept was reinforced by the Court in *NRDC v. Kempthorne*, as one of the bases upon which it found the 2005 Biological Opinion to be unlawful. The adaptive management process must identify regulatory sideboards which can be enforced by the Service.

3. The BA refers to the EWA or limited EWA interchangeably throughout the document. Limited EWA is defined as the Yuba water transfer, approximately 60,000 acre-feet annually. However, the CALFED ROD defines EWA as a water account with 380,000 acre-feet of water at its disposal. Because the only asset identified to be used for environmental purposes is the Yuba water transfer, we do not believe it is appropriate to refer to this water in such a way as to create an inference that the full EWA, as set out in the CALFED ROD, is available or likely to become available for implementation. In addition, the 500 cfs SWP

pumping increase in July, August and September was presented within the CALFED ROD as part of the EWA Operating Principles Agreement. The 500 cfs SWP pumping was part of the EWA package, not a separate item as currently proposed in the BA to make up water for the SWP. In fact, in the Operating Principles it states "This 500 cfs will be dedicated in its entirety to pumping for the EWA." Because EWA is no longer part of the PD, the stated relationship for the 500 cfs SWP to EWA is not valid.

4. The Section on Trinity River Mainstream Fishery Restoration Program (TRRP) describes an adjustment to flow allocation occurring, based on revisions to the forecasts that occur subsequent to the April 1 forecast. This is inconsistent with the ROD for Trinity and the TRRP. This must be corrected and the modeling assumptions must reflect what is used in the Trinity ROD.
5. It is unclear how often Article 21 would be offered to SWP contractors because of the ambiguous statement that Article 21 would not be provided until San Luis is "projected to be full in the near future." To analyze the effects of Article 21 into the future, this must be defined. In addition, it is unclear the extent to which the model runs included this assumption as part of the overall analysis, since model results indicate the use of Article 21 is at a much higher level than was analyzed in the 2005 OCAP BO.
6. The following items are provided due to discrepancies between the modeling assumptions and the PD. In addition, there are incorrect characterizations of CVPIA §3406(b)(2) (referred to as "(b)(2)", below). These discrepancies, if not corrected, could impact the effects analysis:
  - a. Page 2-60, first paragraph, third sentence: The "not part of the proposed action" does not appear to comport with the modeling. Simulation 7.1 uses 200 cfs minimum flows in Aug and Sep as a surrogate for complying with the dissolved oxygen standard at Ripon, instead of 267 cfs and 240 cfs, respectively, as has been used in the past, including simulation 6.0.
  - b. Page 2-62, last full paragraph: The language in this paragraph is technically wrong. Only if the need to satisfy Vernalis water quality requirements and/or Ripon dissolved oxygen requirements requires water above the DFG requirement, will there be any charge to (b)(2) for the fishery release. The model accounts for (b)(2) correctly; as opposed to the characterization stated in this one sentence paragraph.
  - c. Page 2-64, Table 2-11: – The table suggests this new approach, developed by Reclamation, will be used in the future. Yet, table 2-1 and the assumptions used in modeling suggest that this approach is in place now.
  - d. Page 2-60, last line: The word "anticipated" should be replaced with "allocated", since the State Water Regional Control Board flow requirements at Vernalis were anticipated to be greater at times than the provided in the Interim Plan of Operation.

- e. Page 2-63,2-64, Table 2-11: D-1641 Vernalis Flow objectives should be listed before CVP Water Service Contracts and should not be tied to (b)(2). Operations in 2004 and 2008 have shown that Reclamation fulfills its obligation to meet this requirement regardless of (b)(2).
  - f. Page 2-64, Table 2-11: The last three boxes are missing a reference to the Vernalis flow requirement. It is independent of the (b)(2) allocation.
7. Modifications of the barrier weir heights and various experiments for "water quality" improvement have not been analyzed or authorized and thus it is not appropriate to include them in the PD. These actions would be subject to a separate consultation.
  8. As discussed in the BA, Phase 8 is not included as part of the PD and should not be discussed in this consultation. It is inappropriate to consider the use of transfers that may occur through the Phase 8 process in the effects analysis for the BA.
  9. A brief mention is made of the purpose of the Tracy Fish Collection Facility to "intercept fish." While a more robust description starts lower on page 2-49, going through page 2-51, there is only a disclaimer on not being able to determine the survival rate of salvaged fish being successfully transported and released, and no information on the efficiency rate of the louver/bypass system itself. There is information that has previously been generated on the subjects of both survival of salvaged fish and the efficiency of the salvage facilities at both the CVP and SWP and be discussed in the effects analysis.
  10. The chapter identifies the possibility of the agricultural barriers being operated in the December – March time frame (with permission of the Fishery Agencies). However, there is no description of the operations of the barriers during this time frame and the Service has previously expressed concerns regarding these operations.

CHAPTER 7 – Basic biology and life history of the delta smelt and factors that may influence their distribution and abundance.

1. All years up to 2007 need to be analyzed to have a complete effects analysis. This includes, but is not limited to, discussion of the relationship between X2 and outflow (Fig. 7-1 and text page 7-3), abundance trends (Fig. 7-2 and 7-3, and text pages 7-4 through 7-6), stock-recruitment relationship over different time periods (Figures 7-4 through 7-6, text on pages 7-7 through 7-11), changes in X2 (pages 7-12 and 7-13), entrainment (Fig. 7-11, text on pages 7-22 through 7-27), and discussion of food (Fig. 7-20). This is important because the BA identifies a substantial decrease in abundance during the period between 2002 and until the current year which are the Pelagic Organism Decline years.
2. The second paragraph on page 7-23 makes the following statements:

“They [Manly and Chotkowski 2006] found that monthly or semi-monthly measures of

exports or Old and Middle rivers flow had a statistically significant effect on delta smelt abundance; however, individually they explained a small portion (no more than a few percent) of the variability in the fall abundance index of delta smelt across the entire survey area and time period. Hence, there are other factors that dominate the relationship between exports and delta smelt fall abundance.”

This acknowledges some relationship to exports and delta smelt abundance, which should be addressed in the effects section. There should be a detailed discussion of what the other “factors that dominate the relationship” are, which would also need to be addressed in the effects section.

3. While this section makes the statement that there is no ability to evaluate the effects upon delta smelt associated with the historic losses of larvae, it does not change the opportunity to address an evaluation of such effects now or into the future. This should be addressed in the effects section; through Particle Tracking Model runs that show the fate of particles in the late March – early May period under various water year types and proposed CVP/SWP operations.

#### CHAPTER 9 – Modeling and assumptions

1. Many of the modeling assumption again do not seem to match the PD and the intent of the effects analysis. These issues are critical to properly assess the level of effects of the CVP/SWP:
  - a. Page 9-32: Study 6.0 is described as the study that corresponds to the “today” condition. However, Study 7.0 is also described as the “today” condition. Which Calsim run is considered the base “today” case?
  - b. Study 6.0 was supposed to include the 2004 OCAP BA assumptions and conditions, but this run does not include any EWA. This run should include the EWA to match what was modeled for the 2004 OCAP BA.
  - c. Study 7.0 -This run is supposed to represent the "today" case of project elements and pumping rates. This run appears to include project elements that are not built yet or are operating to lower pumping rates than the model. Some examples include the South Bay Aqueduct improvements and increases to the Contra Costa water diversions and the North Bay Aqueduct diversions. These future project elements need to be included in Study 7.1 and 8.0, not in Study 7.0.
  - d. Page 9-39: The City of Stockton Water Supply Project is included in Study 7.0 as a "today" project element though the water treatment plant is set as 0 mgd. Is it correct that study 7.0 does not include any pumping at the City of Stockton’s water diversion?
  - e. Page 9-36: American River Water Rights diversions increase from study 6.0 to study

7.0, during the period from 2001 to 2005. This is stated in the notes to be based on the new Placer County Water Agency pump station which, while recently completed, is not diverting to future demand yet, and should not be considered the "today" case. This increase should not be included in study 7.0, and should be introduced in Study 7.1.

- f. Page 9-37: An explanation is needed to clarify Contra Costa Water District pumping increases from 124 TAF in Study 6.0 to 135 TAF in Study 7.0 and 195 TAF in Study 8.0. The amounts that are proposed in the BA may not be consistent with the Alternate Intake Project; the two sets of modeling assumptions should be the same.
  - g. Page 9-37: An explanation is needed to clarify North Bay Aqueduct Pumping increases from 48 TAF in Study 6.0 to 71 TAF in Study 7.0 to 77 TAF in Study 8.0.
2. Neither this chapter, nor Appendix D provides details on the changes in allocation methods to SWP contractors associated with the Monterey Agreement. There is insufficient information to determine if these changes will result in changes in the timing of SWP export operations, associated with potential reclassification of water from Table A to Article 21, from the baseline condition.
  3. On page 9-52, Footnote j lists the assumptions for Article 21 deliveries:

MWD:	"100 TAF (Dec-Mar)"
Kern:	"180 TAF (Jan-Dec)"
Other:	"34 TAF (Jan-Dec)"

As written, the footnote is ambiguous. If the amounts shown are maximum annual quantities for each identified entity, assumed Article 21 water totals up to 314 TAF. This seems low for Metropolitan Water District; a more realistic number would seem to be 100 TAF/month for December through March, totaling 400 TAF. However, the same interpretation would result in Kern 2.16 MAF since the potential delivery period is written in such a way as to provide delivery of Article 21 water all year long. The table on page 9-59 makes it appear that the 314 TAF is the correct interpretation. However, that table shows long-term average Article 21 as being 363 TAF in 2030, still resulting in a discrepancy that should be resolved. There also needs to be a detailed discussion of the basis for using these quantities as modeling assumptions.

## CHAPTER 12 – CVP and SWP Delta operations

1. The document refers to analyses for Delta flows and the effects of the operable gates that were conducted as part of the South Delta Implementation Project EIR/EIS process. These analyses should be included in the BA, and could be included as an appendix. These analyses are needed to help determine the effects of the operable gates on delta smelt.

## CHAPTER 13 – CVP and SWP Delta effects on species.

1. The effects analysis for delta smelt does not include individual actions of the CVP/SWP, including the following: temporary and permanent South Delta barriers, Montezuma Control Structure, North Bay Aqueduct, Komen treatment in Clifton Court forebay, Contra Costa intakes, water transfers, Cross Channel operation, and the intertie between the California aqueduct and the Delta-Mendota Canal. This is necessary for a complete analysis of the effects of the CVP/SWP.
2. There is virtually no analysis within Chapter 13 on Climate Change, although, it was central to the Court's finding that the 2005 BO was unlawful. The discussion regarding climate change contains a number of assertions and conclusions, making reference as it does to the studies and models conducted on this subject. However, there is an apparent inconsistency between the language in Chapter 7 regarding the inability of Reclamation to provide this information, with statements in Appendix R that this information could be, and to a certain extent has been, generated. There should be some quantification of the anticipated effects of climate change on CVP and SWP operations and, in turn, on delta smelt and its critical habitat.
3. As stated previously, the effects analysis for delta smelt does not include the aquatic environment effects of water transfers. In addition, the BA states that the terrestrial effects would be analyzed under a separate consultation. The PD identifies that water transfers can range from 0 to 1,000,000 af in certain water years. Because of the large range of transfers based on various water year types and the actual infrequency of some of the larger transfers, the PD should only propose what Reclamation anticipates as an average range of transfers. The exceptionally high amount of transfers should not be what is analyzed in the BA; if for example it is only expected to occur once every 40 years. An extreme condition, such as transfers that exceed, in aggregate, the amounts modeled for the OCAP BA, should be subject to reinitiation for that year, or the effects of those transfers should be modeled and fully analyzed in the OCAP BA. The proposed method of evaluating such transfers described in the BA, through meetings of the Fishery Agencies, is not consistent with Judge Wanger's recent decision on the 2005 OCAP opinion. If Reclamation does not model and analyze the effects in the OCAP BA then a new BA should be completed with both the terrestrial and aquatic effects for each transfer that exceeds the transfer amounts analyzed in the OCAP BA. Reclamation would need to track and analyze the aggregate effects in years when transfers occur, so that a new BA can be developed if the annual volume of transfers that would occur would exceed what is covered by the new BO, capturing the aggregate effects on the aquatic environment associated with each transfer above the authorized level.
4. The X2 analysis (Appendix T) does not include every month, as previously requested by the Fishery Agencies. The Service needs this information to assist in our review of effects to delta smelt and delta smelt critical habitat.
5. The effects analysis for salmon only looked at model run 7.0 in comparison to run 8.0,

which does not match the delta smelt analysis which looks at the comparison of run 6.0 to run 8.0 and run 7.0 to run 8.0. We understand the confusion of determining the baseline condition because the 2005 BO analysis is most aligned to run 6.0. However, how the CVP and SWP were operated under the 2005 BO was actually operated was similar to model run 7.0. Therefore, the Fishery Agencies need both runs 6.0 and 7.0 compared to the future condition.

6. The effects chapter should link a discussion of effects to the threats discussed in the delta smelt biology chapter. For instance, the delta smelt biology chapter discusses how a difference in early and late larvae/juvenile survival reduces the size and fecundity of adult female delta smelt. However, the effects section does not include a corresponding evaluation on whether and how the operation of the projects affect the survival of early versus late produced delta smelt offspring. Similarly, the relationship between the location of X2, available habitat for delta smelt, and delta smelt abundance is extensively presented in Chapter 7. However, Chapter 13 only presents the project related changes in the X2 location without discussing what this would mean to delta smelt in terms of abundance, survival, reproduction or distribution of delta smelt or its effects on delta smelt critical habitat.
7. The DSM2 model did not evaluate run 6.0, which is actually what was analyzed in the 2005 BO. The Fishery Agencies requested this run previously to be part of an adequate effects analysis.
8. As Reclamation is aware, work by Pete Smith of the U.S. Geological Survey examining Old and Middle River flows and fish facility salvage records identified an approximately linear relationship between the magnitude of negative flows on OMR and the number of delta smelt entrained at the CVP and SWP export facilities. The effects chapter does not discuss the how changes in Old and Middle River flows would affect delta smelt survival, reproduction or dispersal and delta smelt critical habitat and this analysis is imperative.
9. Although the effects chapter does discuss the entrainment of delta smelt at the SWP and CVP it does so only in terms of total export pumping. It is very qualitative and does not state how these changes may affect delta smelt abundance and distribution and potential indirect and direct effects that might result. In Chapter 7, there is a discussion about how entrainment may adversely affect the food source but again there is no discussion of the magnitude and significance of effects on delta smelt abundance, reproduction, and distribution within Chapter 13. In addition, there is no discussion on the salvage of delta smelt and the effectiveness of any salvage efforts. The evaluation is also lacking in evaluating the indirect effects of operations to food web or nutrients, as they impact primary and secondary productivity.
10. The cumulative effects section of Chapter 13 needs to describe and, to the extent possible, quantify the effects of future State, Tribal, local, or private actions. The biological opinion will base its conclusions on the current status of the species and baseline, the effects of the proposed project and its interrelated and interdependent actions, and the

effects of future State, Tribal, local, or private actions that are reasonably certain to occur. To complete such an analysis, it is necessary to know not only what future projects may affect the delta smelt but also how those actions will affect this listed species.

11. In addition, the cumulative effects section of Chapter 13 also needs to identify the non-Federal projects that are analyzed and not only describe them in general terms. For instance, future non-Federal diversions should be identified; number and concentration of existing water diversions that will continue in the future should be described; location and extent of levee maintenance needs to be identified and described, etc. It is important to hold to the standard of "reasonably certain to occur." Levee maintenance may not be an action that should be included since most levee work will require a permit from the U.S. Army Corps of Engineers and a completed section 7 consultation. If levee maintenance will occur that will not have a section 7 and that are reasonably certain to occur in the near future, then these needs to be identified.
12. Discussion of the proposed project's effects on critical habitat should be discussed in terms of the potential for modification or elimination of Primary Constituent Elements (PCEs). In this case it should be identified if the proposed project would affect larval and juvenile transport, not entrainment per se. The actual entrainment is not an effect to critical habitat. The BA states that studies 6.0, 7.0, and 7.1 are evaluated for critical habitat. However, Study 8.0 needs to be included in this list which includes future projects.

#### CHAPTER 15 - Summary of effects analysis and effects determination

1. In the summary of effects, it mentions DSRAM and EWA-based actions that would curtail the exports and flows. This statement is not accurate since there is not an EWA that will reduce exports. Also it is stated that DSRAM and EWA curtailments will reduce the potential effects of increases in Old and Middle River reversed flows. Again, there will not be EWA curtailments, so such effects on OMR flows will not occur and effects will not be reduced.

Pursuant to 50 CFR § 402.14, the formal consultation process for the coordinated operation of the Central Valley Project and the State Water Project should begin once we receive the necessary information. As stated previously stated, a July 7, 2008 deadline will mean that the Service has only 69 days, not the 135-days provided by Regulation, to produce a final BO based on the Court-ordered deadline of September 15, 2008. This BO is an extremely complex consultation with major ramification for the State of California and the delta ecosystem. Therefore, we look forward to working with Reclamation to address these issues in a timely fashion.

Please contact Ryan Olah, Coast Bay-Delta Branch Chief, or Cay C. Goude, Assistant Field Supervisor for Endangered Species, at the letterhead address or at telephone 916/414-6600 if you have any questions regarding this response.

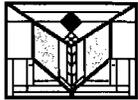
Attachment

cc:

National Marine Fisheries Service, Sacramento, California

California Department of Fish and Game, Sacramento, California

California Department of Water Resources, Sacramento, California



Cay Goude/SAC/R1/FWS/DOI

06/06/2008 02:44 PM

To rmilligan@mp.usbr.gov, alubaswilliams@mp.usbr.gov

cc Peter Johnsen/SAC/R1/FWS/DOI@FWS, Ryan  
Olah/SAC/R1/FWS/DOI

bcc

Subject comments to date on the OCAP BA

Please pass this on to your contact in DWR. thanks Cay.

As we have discussed, in order to facilitate your revisions to the BA, we are forwarding the information gaps we find in the BA as we review it, rather than waiting until the end of our 30-day review period. We want Reclamation to know as soon as possible when we find gaps in the information that we need to do a complete analysis of the proposed action so that we can begin to work quickly to fill them. This information is a reiteration of our discussions we had at our June 5th meeting and because there are detailed notes from this meeting we are just providing the overall issues we discussed. It was also discussed that these are only our preliminary issues to date. Also, we provide you 6 scenerios to run through CalLite and you will provide this information to us June 17th. However, we understand there is now some errors in the CalLite runs that are in Appendix V and that Reclamation will provide the fishery agencies this updated information on June 17th as well.

Please let us know how long it will take you to provide the information requested in each item below. We anticipate continuing our ongoing discussions of our questions, information needs, and portions of the BA that need revision, including discussions in our every two week OCAP meeting, to facilitate the process.

Issue 1 - We discussed that the effects analysis for delta smelt (Chapter 13) does not include individual actions of the CVP/SWP which include the following: temporary and permanent South Delta barriers, Montezuma Control Structure, North Bay Aqueduct, Komen treatment in Clifton Court forebay, Contra Costa intakes, water transfers, and Cross Channel operation.

Issue 2- There are no effects discussion regarding climate change although it was modeled and is in Appendix R. As you are aware this was an issue in the litigation.

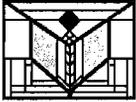
Issue 3- Many of the changes and issues previously provided by the fishery agencies on the project description have not been included or made.

Issue 4- The project description analysis is to go through 2030, however, some of the actions end before this date. These include VAMP and the "limited EWA". If these measures are to continue Reclamation needs to identify affirmative and assured means these will be carried forward into the future. If not then the effects analysis will need to identify this discrepancy. If the assurances cannot be made to continue VAMP and the "limited EWA" then either Reclamation should run a seperate effects analysis as if they did not continue into the future and also model this issue accordingly. The alternative approach would be to have a definitive action that they will continue into the future and how this would be accomplished.

Issue 5 - The X2 analysis (Appendix T) does not include every month as we previously requested and we need this to assist us in our review of effects to delta smelt and delta smelt critical habitat.

Issue 6 - The effects analysis for salmon only looked at model run 7 to run 8 which does not match the delta smelt analysis which looks at run 6 to run 8 and run 7 to run 8. We understand the confusion of determining the baseline condition because the 2004 biological opinion analysis is most aligned to run 6. However, the operations did not match what was analyzed in the BO and was actually similar to model run 7. Therefore, the fishery agencies need both runs compared to the future condition.

Issue 7- The DSM2 model did not evaluate run 6 which is actually what was analyzed in the 2004 BO. We requested this run previously to adequately review the effects analysis.



Cay Goude/SAC/R1/FWS/DOI

06/11/2008 05:18 PM

To rmilligan@mp.usbr.gov, alubaswilliams@mp.usbr.gov

cc

bcc

Subject second set of comments on OCAP BA

Please pass this on to your contact in DWR. Thanks Cay

As we have discussed, in order to facilitate your revisions to the BA, we are forwarding the information gaps as we review the document. These comments present our second set of comments on the BA. The first set of comments were provided on June 6 th. As we discussed, we will have our next OCAP meeting on June 19th where we can discuss CalLite runs as well as your progress on addressing the issues presented.

Please let us know how long it will take you to provide the information requested in each item below. We anticipate continuing our ongoing discussions of our questions, information needs, and portions of the BA that need revision, including discussion in our OCAP meeting, to facilitate the process.

Issue 8 - Chapter 2 page 16 (Groups Involved in Real Time Decision-Making to Assist Fishery Management and Information Sharing) The various groups that are identified in this section may not be currently meeting or the description of their roles seem inaccurate. The fishery agencies previously provided comments and edits on this section that have not been made. In addition, because there is no EWA there is no need for adaptive management. Regardless, based on the court case, any Adaptive Management Process must clearly articulate that the Fish and Wildlife Service makes the final determination.

Issue 9 - Chapter 2 pages 21-22 - The BA refers to the EWA or limited EWA throughout the document (which in the BA is limited to the Yuba water transfer, approximately 60 TAF). However, the CALFED ROD defines the EWA as a water account with 380,000 acre-feet of water at its disposal. Because the only asset remaining to be used is the Yuba water transfer we do not believe it is appropriate refer to this water as the EWA or limited EWA. In addition, the 500 cfs SWP pumping increase in July, August and September was presented within the CALFED ROD as part of the EWA Operating Principles Agreement. The 500 cfs SWP pumping was part of the EWA package not a separate item as currently proposed in the BA to make up water for the SWP. In fact, in the Operating Principles it states "This 500 cfs will be dedicated in its entirety to pumping for the EWA." Because EWA is no longer part of the project description the basis for the 500 cfs SWP is not valid.

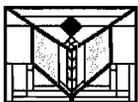
Issue 10 - Chapter 2-25 - The Section on Trinity River Mainstem Fishery Restoration Program (TRRP) describes an adjustment to flow allocation occurring, based on revisions to the forecasts that occur subsequent to the April 1 forecast. This is inconsistent with the ROD for Trinity and the TRRP. This must be corrected and the modeling assumptions should use what is in the Trinity ROD.

Issue 11 - Chapter 12/13 - The relationship between X2 location, available habitat for delta smelt and delta smelt abundance is extensively presented in Chapter 12. However, Chapter 13 only presents the project related changes in the X2 location without discussing what this would mean to delta smelt in terms of abundance, survival, reproduction or distribution of delta smelt or its effects on delta smelt critical habitat.

Issue 12 - Chapter 13 - The effects chapter discussion does not discuss the how changes in Old and Middle River flows would affect delta smelt survival, reproduction or dispersal and delta smelt critical habitat.

Issue 13 - Chapter 13 - Although the effects chapter does discuss the entrainment of delta smelt at the SWP and CVP projects it does so only in terms of total export pumping. It is very qualitative and does not

state how these changes may affect delta smelt abundance and distribution and potential indirect and direct effects that might result. In Chapter 12, there is a discussion how entrainment may adversely affect the food source but again there is no discussion of the magnitude and significance of effects on delta smelt abundance, reproduction, and distribution within Chapter 13. In addition, there is no discussion on the salvage of delta smelt and the effectiveness of any salvage efforts.



Cay Goude/SAC/R1/FWS/DOI

06/18/2008 05:03 PM

To rmilligan@mp.usbr.gov, alubaswilliams@mp.usbr.gov

cc

bcc

Subject third set of comments on OCAP BA

Please pass this on to your contact in DWR. Thanks, Cay

As we have discussed, in order to facilitate your revision to the BA, we are forwarding the information gaps as we review the document. These comments present our third set of comments on the BA. The previous comments on the BA were provided on June 6 and June 11. We understand how hard Reclamation has worked to address this complicated issue and appreciate your continued cooperation. We do want to emphasize the information on the decline and needs of the delta smelt provided in Chapter 12 and elsewhere throughout the BA provides valuable information. We are hopeful, if we are provided adequate time, that we could work together to address the issues we have presented to date. We look forward to our meetings on every other Thursday to facilitate our efforts.

Issue 14 - The effects analysis for delta smelt (Chapter 13) does not include the aquatic environment effects of water transfers. In addition, the BA states that the terrestrial effects would be analyzed under a separate consultation. The project description identifies that water transfers can range from 0 to 1,000,000 af in certain water years. Because of the large range of transfers based on various water year types and the actual infrequency of some of the larger transfers, the project description should only propose what Reclamation anticipates as an average range of transfers. The exception should not be what is analyzed in the BA; it is only expected to occur once every 40 years. An extreme condition, such as transfers that exceed, in aggregate, the amounts modeled for the OCAP BA, should be subject to reinitiation for that year, or the effects of those transfers should be modeled and analyzed in the OCAP BA. The proposed method of evaluating such transfers described in the BA, through meetings of the fisheries agencies, is not consistent with Judge Wanger's recent decision on the 2004 OCAP opinion. If you do not model and analyze the effects in the OCAP BA then Reclamation will need to provide a new BA with both the terrestrial and aquatic effects for each transfer that exceeds the transfer amounts analyzed in the OCAP BA. Reclamation would need to track and analyze the aggregate effects in years when transfers occur, so that a new BA can be developed if the annual volume of transfers that would occur would exceed what is covered by the new BO, capturing the aggregate effects on the aquatic environment associated with each transfer above the authorized level.

Issue 15 - Most of the comments and edits on pages 2-39 through 2-45 of the April 21, 2008, draft BA Chapter 2 that were provided to Reclamation in May, 2008, by the Fish Agencies have not been incorporated into pages 2-61 through 2-66 of the May 22, 2008, BA. It is important that Reclamation modifies this language in the current version of the OCAP PD, Chapter 2, to accurately describe New Melones operations and CVPIA Section 3406(b)(2).

Issue 16 - Chapter 2 page 22 - It is unclear how often Article 21 would be offered to SWP contractors because of the ambiguous statement that Article 21 would be provided until San Luis is "projected to be full in the near future." To better analyze the effects of Article 21 into the future this must be defined. In addition, it is unclear the extent to which the model runs included this assumption as part of the overall analysis since it appears the use of Article 21 is at a much higher level than was ever analyzed in the 2004 OCAP BO.

Issue 17 - Chapter 2 pages 81, 86 and 93 - The fishery agencies previously commented that the Project Description cannot rely on the NMFS 2004 OCAP BO. Therefore, the project description must affirmatively state that the actions that were in the 2004 BO would be part of this project description,

Issue 18 - Chapter 2 - The following items are provided because there is a discrepancy between the modeling assumptions and the project description. In addition there are incorrect characterizations of (b) (2). These discrepancies, if not corrected, could impact the effects analysis.

p. 2-60, first paragraph, third sentence – The "not part of the proposed action" does not appear to comport with the modeling. Simulation 7.1 uses 200 cfs minimum flows in Aug and Sep as a surrogate for complying with the dissolved oxygen standard at Ripon, instead of 267 cfs and 240 cfs, respectively, as has been used in the past, including simulation 6.0.

p. 2-62, last full paragraph – The language in this paragraph is technically wrong. Only if satisfying Vernalis water quality requirements and/or Ripon dissolved oxygen requirements requires water above the DFG requirement, will there be any charge to (b)(2) for the fishery release. The model accounts for (b)(2) correctly; as opposed to the characterization stated in this one sentence paragraph.

p. 2-64, Table 2-11 – The table suggests this new, unilaterally developed approach is for the future. Yet table 2-1 and the modeling suggests it's in place now. The court-order driven operations this year have been such that implementation of the new approach has not occurred, so to say it is in effect, without having been reviewed by DOI management, does not seem appropriate.

p. 2-60, last line - "anticipated" should be replaced with "allocated", since the SWRCB flow requirements at Vernalis were anticipated to be greater at times than the IPO provided for.

pp. 2-63,2-64, Table 2-11 – D-1641 Vernalis Flow objectives should be listed before CVP Water Service Contracts and should not be tied to (b)(2). Operations in 2004 and 2008 have shown that Reclamation fulfills its obligation to meet this requirement regardless of (b)(2).

p. 2-64, Table 2-11 – The last three boxes are missing a reference to the Vernalis flow requirement. It is independent of (b)(2) allocation.

Issue 19 - Page 111 - The modifications of the barrier weir heights and various experiments for "water quality" improvement are not authorized and therefore should not be included in the project description. These would be subject to a separate consultation and would not be covered by this consultation.

Issue 20 - Page 118 - As discussed in the BA, Phase 8 is not included as part of the project description and should not be discussed. However, it is equally inappropriate to use the transfers that would occur through the Phase 8 process in the effects analysis for the BA.

Issue 21 - The following comments relate to the modeling assumptions provided in Chapter 9. Many of the modeling assumption again do not seem to match the project description and the intent of the effects analysis. These issues are critical to properly assess the level of effects of the CVP/SWP.

a. Page 9-32: Study 6.0 is described as the study that corresponds to the today condition. However, Study 7.0 is also described as the today condition. Which Calsim run is considered the base (today) case?

b. Study 6 was supposed to include the 2004 OCAP BA assumptions and conditions, but this run does not include any EWA. This run should include the EWA to match what was modeled for the 2004 OCAP BA.

c. Study 7.0 -This run is supposed to represent the "today" case of project elements and pumping rates. This run appears to include project elements that are not built yet or are operating to lower pumping rates than the model. Some examples include the South Bay Aqueduct improvements and increases to the Contra Costa water diversions and the North Bay Aqueduct diversions. These future project elements need to be included in Study 7.1 and 8.0, not in Study 7.0.

d. Page 9-39: The City of Stockton Water Supply Project is included in Study 7.0 as a "today" project element though the WTP is set as 0 mgd. Is it correct that study 7.0 does not include any pumping at the SWSP?

e. Page 9-36: American River Water Rights increase from study 6.0 to study 7.0, during the period from 2001 to 2005. This is stated in the notes to be based on the new Placer County Water Agency pump station which, while recently completed, is not diverting to future demand yet, and should not be considered the "today" case. This increase should not be included in study 7.0, and should be introduced in Study 7.1.

f. Page 9-37: Explain why Contra Costa Water District pumping increases from 124 TAF in Study 6.0 to 135 TAF in Study 7.0 and 195 TAF in Study 8.0. These amounts that are proposed in the OCAP BA may not be consistent with the Alternate Intake Project and these two modeling assumptions should be the same.

g. Page 9-37: Explain why North Bay Aqueduct Pumping increases from 48 TAF in Study 6.0 to 71 TAF in Study 7.0 to 77 TAF in Study 8.0.

Issue 22 - Chapter 13. CVP and SWP Delta Effects on Species: The effect chapter should link discussion of effects to the threats discussed in the delta smelt biology chapter. For instance, the delta smelt species chapter discusses how a difference in early and late larvae/juvenile survival reduces the size and fecundity of adult female delta smelt. However, the effect section does not discuss how the operation of the projects will affect the survival of early versus late produced delta smelt offspring.

Issue 23 - The cumulative effects section of Chapter 13 needs to describe and, to the extent possible, quantify the effects of future State, Tribal, local, or private actions. The biological opinion will base its analysis on the current status of the species and baseline, the effects of the proposed project and its interrelated and interdependent actions, and the effects of future State, Tribal, local, or private actions that are reasonably certain to occur. To do such an analysis, it is not only necessary to know what future projects may affect the delta smelt but also how those actions will affect the species.

Issue 24 - The cumulative effects section of Chapter 13 also needs to identify the non-federal projects that are analyzed and not only describe them in general terms. For instance, future non-Federal diversions should be identified; number and concentration of existing water diversions that will continue in the future should be described; location and extent of levee maintenance needs to be identified and described, etc. It is important to hold to the standard of "reasonably certain to occur" Levee maintenance may not be an action that should be included since most levee work will require a Corps permit and section 7 consultation. If levee maintenance will occur that will not have a section 7 and that are reasonably certain to occur in the near future, then these needs to be identified.

Issue 25 - Effects on Critical Habitat: Page 13-38, first paragraph, last sentence: The paragraph only lists studies 6.0, 7.0, and 7.1 as evaluated for critical habitat. Study 8.0 needs to be included in this list.

Issue 26 - Larval and Juvenile Transport: Discussion of the proposed project's effects on critical habitat should be discussed in terms of the potential for modification or elimination of PCEs. In this case it should be identified if the proposed project would affect larval and juvenile transport, not entrainment per se. The actual entrainment is not an effect to critical habitat.