# **Appendix D. Comments and Responses**

On September 25, 2017, the Natural Resources Defense Council (NRDC) submitted comments to Reclamation and the Service via email. On September 27, 2017, James Hay, Tom Cannon, and James Hobbs submitted comments individually. The State Water Contractors also submitted comments on September 27, 2017.

This appendix contains a copy of the comment letter below. Each comment in the comment letter was assigned a number, in sequential order. The associated responses correspond to the number designated to each comment.

Additionally, Appendix E addresses comments on the effects analysis from the Delta Smelt Scoping Team and NRDC in more detail.

#### Comments - Natural Resources Defense Council (NRDC)



Nelson, Benjamin <bcnelson@usbr.gov>

#### Comments on proposal to weaken and not fully implement Fall X2 action in 2017

1 message

Obegi, Doug <dobegi@nrdc.org>

Mon, Sep 25, 2017 at 2:32 PM

<rzwillinger@defenders.org>

Dear Regional Director Murillo and Regional Director Souza:

On behalf of the Natural Resources Defense Council, I am writing to provide comments regarding the Bureau of Reclamation's proposal to weaken environmental protections for critically endangered species by only partially implementing Fall X2 protections this year. This proposal fails to use the best available science, would cause significant adverse environmental impacts to Delta Smelt and other species, and is inconsistent with the agencies' obligations under the Endangered Species Act (ESA) and other state and federal laws. NRDC strongly opposes this proposal, and we urge the agencies to fully implement the Fall X2 action this year. We appreciated the opportunity to meet with FWS recently to discuss these concerns, which we reiterate below.

NRDC-1

1. The proposal and EA fail to use the best available science

The draft environmental assessment and Exhibit A (effects analysis prepared by ICF) fail to use the best available science. As a result, the documents underestimate the significant adverse environmental impacts caused by the project and fail to comply with the ESA and NEPA.

NRDC-2

First, the analysis compares the effects of implementing Fall X2 on Delta Smelt survival from the fall (as measured by the Fall Midwater Trawl, or FMWT) to the subsequent summer (as measured by the Summer Townet Survey, or TNS). However, as FWS and other agencies have recognized, the effects of implementing Fall X2 may not show up in the STN the following summer if there are significant environmental effects in the winter and spring months. A better approach is to analyze the effects of Fall X2 on survival from the FMWT to the 20 mm survey or the Spring Kodiak Trawl (SKT). The MAST Report (2015) included similar modeling that found that implementation of Fall X2 has a statistically significant relationship between survival from the fall to early in the subsequent year. The EA and proposal fail to consider any of this information. At a minimum, the analysis should also look at the relationship between FMWT and 20mm survey, and between FMWT and SKT. This would be similar to analyses performed in the MAST Report, and recognizes that there are significantly more years of data available than when the original Feyrer et al 2007 paper was published.

NRDC-3

Exhibit A admits that survival and recruitment of Delta Smelt is predicted to increase more when Fall X2 is at 74 km compared to when Fall X2 is located at 81 km ("For example, moving mean September-October X2 from 95 km to the RPA required location following an above normal water year (81 km) is predicted to increase recruitment to the STN by a factor of 1.24, and a factor of 1.39 if fall X2 is moved to the RPA-required location following a wet year (74 km)."). If FWS or USBR performed analyses like those in the 2015 MAST Report, we likewise expect it would show that a more westerly Fall X2 location is likely to result in higher survival and subsequent abundance. For instance, the graphic on page 157 of the MAST Report shows that a more westerly location of Fall X2 is likely to result in a higher 20mm abundance index the following year. See also MAST Report at 155 ("In summary, low values of prior fall X2, high prior FMWT abundance, and intermediate values of spring X2 have positive associations with the abundance of larval/postlarval Delta Smelt, but the effects of individual variables are mediated by the presence of the other variables."). We also note that FWS cannot rely

NRDC-4

NRDC-5

Second, the analysis uses a Ricker stock-recruit model to assess the effects of Fall X2 on Delta Smelt abundance and survival. However, Exhibit A admit that Delta Smelt likely are not limited by density dependence at current, near record low levels of abundance. As a result, use of the Ricker model is inconsistent with the best available science and will not accurately assess potential impacts of this action. A linear model, consistent with the analyses in the MAST Report (2015) and earlier studies is equally appropriate given the density independence for these life stages. As noted above, we expect that such analyses would likewise show that maintaining X2 at 81 km would result in lower survival and abundance of Delta Smelt than maintaining X2 at 74 km.

NRDC-6

Third, Exhibit A presents modeling information using data from 1987-2004 and from 1987-2014, but it fails to analyze data from the post-POD period. In contrast, they provide post-POD data for certain food web analyses, but not for the stock-recruit model. This is inappropriate, as noted by CAMT scientists, and the analysis should use post-POD data and consistent data sets, rather than cherry picking data.

NRDC-7

Fourth, the analysis ignores existing scientific information which demonstrates that Delta Smelt have higher fecundity and higher growth rates when X2 is as 74 km. The EA and Exhibit A wholly ignores the attached report by James Hobbs for the Interagency Ecological Program, which concluded that delta smelt growth rates and fecundity were higher in the fall of 2011 than in the other years that were analyzed. There is no reason to exclude this important data and analysis, which undermines the conclusions in Exhibit A.

**NRDC-8** 

 The proposal is likely to cause significant adverse environmental effects on Delta Smelt, which the EA fails to disclose

The 2008 biological opinion established the minimum protections necessary to prevent the extinction of Delta Smelt. In the past several years, the agencies authorized operations of the CVP and SWP that significantly reduced environmental protections for Delta Smelt as analyzed and required in the 2008 biological opinion. This included waiving spring Delta outflow requirements and San Joaquin inflow requirements in 2014 through 2016, in order to increase water supply by 1.5 million acre feet. However, this had devastating impacts on Delta Smelt populations, driving the species to the very brink of extinction, with near record low levels of abundance in recent years. As a result, the agencies reinitiated consultation under section 7 of the ESA, recognizing that current implementation of the biological opinion was jeopardizing the continued existence and recovery of the species and that there was new scientific information demonstrating the importance of Delta outflow for the survival of the species. Proposing to worsen environmental conditions for Delta Smelt given the dire status of the population, as proposed in the action, is incomprehensible and unlawful.

NRDC-9

In 2011, the agencies largely implemented the Fall X2 action at 74 km, and the agencies observed a nearly 10 fold increase in the FMWT survey of the abundance of Delta Smelt from the prior year. Several analyses conclude that fully implementing Fall X2 is likely to significantly increase the abundance and survival of Delta Smelt, including MAST 2015, the 2013 analysis by Wim Kimmerer, Feyrer et al 2007 and 2011, and the WaterFix biological opinions and ITP. This proposal ignores those analyses and relies on a new, significantly flawed analysis that has not been peer reviewed and which has obvious flaws. As noted above, the analysis by ICF concludes that Delta Smelt recruitment and survival is likely to be higher if X2 is maintained at 74 km than if X2 is located at 81 km.

Fully implementing the Fall X2 action at 74 km allows the species to access important, highly productive habitat in Suisun March and Suisun Bay. For instance, Bever et al 2016 emphasized that, "Two key regions for Delta Smelt are Grizzly Bay and Honker Bay, where shallow and flat shoals promote wind-driven resuspension of sediment that increases turbidity." When X2 is at 74 km, the low salinity zone overlaps with both Honker Bay and Grizzly Bay, as the graphic below shows:

NRDC-10

https://mail.google.com/mail/u/0/?ui=2&ik=bc316854f4&jsver=O2TpN6W1LdQ.en.&view=pt&search=inbox&th=15ebaf66257f2209&siml=15ebaf66257f... 2/4

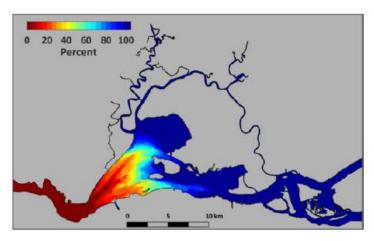


Figure 22. The Percentage of Time With Salinity < 6 for X2 = 74 km, As Used in the Hydrodynamics-Based Station Index Analysis.

In contrast, maintaining X2 at 81 km eliminates much of the low salinity habitat in Grizzly Bay and other parts of Suisun March and Bay, preventing Delta Smelt from effectively using this portion of designated critical habitat:

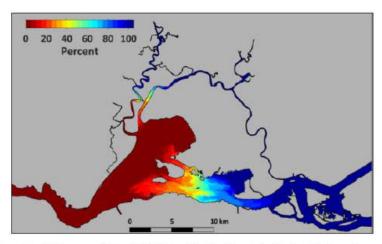


Figure 29. The Percentage of Time With Salinity < 6 for X2 = 81 km, As Used in the Hydrodynamics-Based Station Index Analysis.

USBR has admitted that the action will adversely modify critical habitat for Delta Smelt, which is further demonstrated by these analyses. Given the dire status of the species, the lack of scientific evidence that implementing Fall X2 at 81 km will provide as much or greater protection to the species than locating X2 at 74 km, and the agencies' legal obligation to avoid making any irretrievable commitments of resources during the pendency of the reinitiation of consultation, implementing this action would violate the ESA

3. The agencies have not complied with state and federal law

NRDC-11

NRDC-10

NRDC-12

NRDC-13

https://mail.google.com/mail/u/0/?ui=2&ik=bc316854f4&jsver=O2TpN6/V1LdQ.en.&view=pt&search=inbox&th=15ebaf66257f2209&siml=15ebaf66257f... 3/4

9/25/2017 DEPARTMENT OF THE INTERIOR Mail - Comments on proposal to weaken and not fully implement Fall X2 action in 2017 NRDC-13 In addition to compliance with the ESA, this is a major federal and state action that is likely to significantly affect the environment requiring compliance with NEPA and CEQA. The Bureau of Reclamation has proposed to allow only 5 days NRDC-14 for public comment on the draft EA, which is wholly inconsistent with their obligations under NEPA. There is no basis for shortening this time period, as the agencies have known that implementing Fall X2 was required for many months. NRDC-15 Similarly, DWR has failed to comply with CEQA with respect to this proposal, and there is a fair argument that this project would cause significant adverse effects on Delta Smelt. In addition, we note that the proposed action is inconsistent with the purpose and need statement, as the proposal would worsen conditions for Delta Smelt and would not affect upstream NRDC-16 reservoir storage (any may not result in any water supply benefits, given that state storage in San Luis Reservoir is nearly full and federal contractors have estimated that the federal storage in San Luis Reservoir will fill in early 2018 under both average (50% exceedance) and dry (90% exceedance) hydrologic conditions, see http://www.sldmwa.org/OHTDocs/ NRDC-17 pdf\_documents/Meetings/Board/Prepacket/2017\_0914\_Board\_PrePacket\_Post.pdf)). Conclusion: Implementing this action would harm Delta Smelt, adversely modify its critical habitat, and is likely to jeopardize its NRDC-18 continued existence and recovery. We therefore urge you to reject this proposal and fully implement the Fall X2 action. Sincerely, Doug DOUG OBEGI Senior Attorney\* Water Program NATURAL RESOURCES **DEFENSE COUNCIL** 111 SUTTER ST., 21ST FLOOR SAN FRANCISCO, CA 94104 T 415.875.6100 DOBEGI@NRDC.ORG NRDC.ORG Please save paper. Think before printing.

2015\_delta\_smelt\_growth\_and\_life\_history\_synthesis.pdf 3723K

\* Admitted to practice in California

## Responses to Natural Resources Defense Council (NRDC)

- **NRDC-1:** As introductory remarks, NRDC-1 is addressed below throughout the comment responses and addressed specifically in responses to NRDC-2, NRDC-13, and Appendix E.
- **NRDC-2:** New scientific information has been developed since the 2008 BO. Results from recent studies and other new scientific information are included in the analyses. These studies include the Interagency Ecological Program (IEP) Management, Analysis, and Synthesis Team (MAST) released the Final MAST Report in 2015, described in the comment.
- **NRDC-3:** Analyses were performed similar to those in the MAST Report on 20-mm and SKT indices in in Appendix E (pages 24-27).
- **NRDC-4:** Additional information can be found in Appendix E (page 27-28).
- **NRDC-5:** Reclamation, under the Proposed Action, would operate to meet an X2 location of no more eastward than 80 km for the month of October in 2017. The Service can be certain that Reclamation will operate to meet this target. Additionally, hydrological forecasts by DWR are the best available information.
- **NRDC-6:** Analyses with both a linear model and a Beverton-Holt model were included. See Appendix E (page 28).
- **NRDC-7:** In response to Delta Smelt Scoping Team comments, additional exploration of data focused on the POD era found a weak correlation with Fall X2.
- **NRDC-8:** The analysis provided compares 2011 to several years without implementation of Action 4 in the 2008 BO, where X2 was located farther east/upstream. The study provides limited insight to the potential effects between 81 km and 74 km.
- **NRDC-9:** The analysis sought to update the analysis in Feyrer et al. 2007. Additional information can be found in Appendix E (page 29).
- **NRDC-10:** The Proposed Action has been modified to 80 km to maintain favorable salinities in Grizzly Bay for Delta Smelt in October (page 21-22). Text has been updated.
- **NRDC-11:** The analyses concluded that the Proposed Action may adversely affect critical habitat but did not conclude that it would adversely modify critical habitat (Appendix A page 129). This is an important distinction as adverse effects to critical habitat are not expected to rise to the level of adverse modification.
- **NRDC-12:** Reclamation must evaluate whether the Proposed Action would significantly affect the quality of the human environment under NEPA or would the action adversely affect listed species or critical habitat. The Proposed Action does not constitute an irretrievable commitment of resources under ESA because the Proposed Action is part of adaptive management for Action 4 in the 2008 BO and would not preclude the development of alternatives and actions in the Reinitation of Consultation for the Long-term Operation of the CVP and SWP, a separate process.

- **NRDC-13:** Reclamation has found that the Proposed Action is not a major Federal action that would significantly affect the quality of the human environment. Under NEPA the Proposed Action would not create "substantial changes in the proposed action that are relevant to environmental concerns" or "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts" that were not fully discussed or did not exists at the time of the LTO EIS (40 CFR 1502.9). Under ESA, Reclamation reinitiated consultation with the Service on September 7, 2017.
- **NRDC-14:** Reclamation acknowledges the draft EA was available for a shorter period of time than other EAs, however publishing a draft EA is not required under NEPA (43 CFR 46.305(b)). Given the circumstances for operation in October and the size and tiered nature of the document, Reclamation feels 5 days is sufficient time for review. We appreciate the comments received, especially ahead of the deadline.
- **NRDC-15:** California Department of Water Resources is responsible for the application and determination of CEQA. Reclamation does not have CEQA responsibilities.
- **NRDC-16:** The purpose and need in the EA identifies improving fall habitat for Delta Smelt while acknowledging the limitations created by the damage that occurred at Oroville Dam. The Proposed Action improves fall habitat similar to an Above Normal water year in the 2008 BO. Text has been added to clarify this in the document (pages 14 and 20).
- **NRDC-17:** As described in Tables 3 and 4 of the EA, the Proposed Action could provide a benefit for state storage in San Luis. Storage would ultimately depend on hydrologic conditions.
- **NRDC-18:** Reclamation and the Service have determined that the Proposed Action would not jeopardize Delta Smelt or adversely modify its critical habitat. Additionally, Reclamation has determined that the Proposed Action would not create substantial changes to the alternatives discussed in the LTO EIS or result significant new impacts.

#### **Comments - James Hays (HAYS)**



Nelson, Benjamin <bcnelson@usbr.gov>

#### Change X2 Positon to 84km

1 message

Hay, James B <james.hay@farmcreditwest.com>
To: "bcnelson@usbr.gov" <bcnelson@usbr.gov>

Wed, Sep 27, 2017 at 10:57 AM

Dear USBR:

I support moving the salt line from 74 km to 84 km east of the Golden Gate Bridge. I live in Kern County and work in agriculture. We are trying to recover from the recent drought, where surface water deliveries were drastically curtailed to save the smelt, and we had to drastically overdraft groundwater to compensate. During that time smelt populations declined despite my region's sacrifice of Delta Water that we desperately need.

HAY-1

For ten years now pumping has been curtailed because it supposedly was the cause of the smelt's decline. We sacrificed water and the smelt population continued to drop. Perhaps pumping water is not the cause. Now we are subject to groundwater pumping restrictions because delta water deliveries, that prevented groundwater overdraft, were taken away from us in the name of protecting the Delta – but that appears to have failed.

HAY-2

I am in favor of protecting the Delta but would like it done with logic, reason, and with consideration on how people might be affected. I would also like it done in a way that will achieve results. If a restrictive regulation, such as on pumping, does not work then relax it so farmers' sacrifice of water does not continue in vain.

HAY-3

- JB Hay

James B. (J.B.) Hay Vice President-Key Relationship Mgr

19628 Industry Parkway Drive Bakersfield, CA 93308 661.399.7360 james.hay@farmcreditwest.com





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Delta Smelt Fall Outflow Appendix C – Response to Comments

## **Responses to James Hays (HAYS)**

**HAYS-1:** Comment noted.

**HAYS-2:** Comment noted. Groundwater impacts are addressed in the Consultation on the Long-term Operation (LTO) of the Central Valley Project (CVP) and State Water Project (SWP) Environmental Impact Statement to which this Environmental Assessment is tiered.

**HAYS-3:** Text has been added to describe actions that will help provide scientific information for use in the recovery of Delta Smelt (page 9).

## **Comments - James Hobbs (HOBBS)**



Nelson, Benjamin <bcnelson@usbr.gov>

#### Comment regarding Request to Reinitiate 2008 BiOP

1 message

James Hobbs <jahobbs@ucdavis.edu>

To: bcnelson@usbr.gov, Paul Souza <paul souza@fws.gov>

Wed, Sep 27, 2017 at 10:58 AM

I'd like to provide some comments regarding the arguments laid out in the effects analysis as well as provide my report on growth effects of the Fall X2 action, which was mistakenly reported as not complete as of 2017.

First, the effects analysis clearly demonstrate an effect on habitat for Delta Smelt in the fall, however recruitment success the following spring did not have a demonstrable effect. The report uses this result to argue that the Fall X2 standards could be relaxed from 74km to 81km stating the lack of a biological response. Given the uncertainty of sampling a species in low abundance, it is not surprising that Fall X2 and spawning stock abundance does not have a strong persistent effect. There are many other factors that can cause recruitment failure that have little to do with the preceding fall conditions, thus I find this argument to be weak and somewhat misguided. Moreover the 2008 BiOp RPA 4 was intended to provide high quality habitat for Delta Smelt in the fall regardless of the measurable benefit to the population, thus on a legal basis, this additional analysis of data does not warrant a reinitiation of the biological opinion.

HOBBS-2

**HOBBS-1** 

HOBBS-3

Second my report on growth of Delta Smelt which is publicly available here: http://www.westcoast.fisheries.noaa.gov/publications/Central\_Valley/BDCP/2015\_delta\_smelt\_growth\_and\_life\_history\_synthesis.pdf

does show that during the 2011 fall, growth was higher than the following year and the years 2005 and 2006, known as the FLaSH study years. This report is in draft form as the analyses have not been peer reviewed because the study is ongoing. In summary, my analyses suggest flows in the spring are also important for growth and recruitment of Delta Smelt, freshwater habitat and resident freshwater Delta Smelt are important for supporting Delta Smelt and fall habitat conditions are important drivers of Delta Smelt condition and health, thus I urge the USFWS and USBR to assess this effect analysis critically before considering reinitiation of RPA 4.

**HOBBS-4** 

Lastly, in my opinion if reinitation is implemented, a whole life-cycle approach to evaluating RPA actions on Delta Smelt be considered rather than season/life stage specific actions that can easily be taken out of ecological context, where no measurable effects can be portrayed as not being important for protection of this endangered species.

**HOBBS-5** 

Jim

--James A Hobbs PhD Associate Research Scientist I Treasurer California-Nevada Chapter of the American Fisheries Society Wildlife, Fish and Conservation Biology 1 Shields Ave Davis Ca. 95616 707-480-0188

Delta Smelt Fall Outflow Appendix C – Response to Comments

#### Responses to James Hobbs (HOBBS)

**HOBBS-1:** The comment that Delta Smelt growth rate comparisons are ongoing as opposed to incomplete is noted.

**HOBBS-2:** Many factors that affect recruitment, as described in the analysis and the Service memo. Additional information can be found in Appendix E.

**HOBBS-3:** Action 4 of the RPA expressly required that Fall X2 action be adaptively managed to ensure that the implementation of the action address the uncertainties of its effectiveness. Additionally, the Proposed Action does provide for fall habitat downstream of the Action 4 prescriptions for an Above Normal Water Year.

**HOBBS-4:** The analysis focused on updating conceptual models underlying the 2008 BO. Additional information can be found in Appendix E.

**HOBBS-5:** Comment is noted and a life-cycle approach will be considered among other solutions as part of the Reinitiation of Consultation (ROC) on the Long-term Operation (LTO) of the CVP and SWP that began August 2, 2016.

#### **Comments Tom Cannon (CANNON)**

## Comments on Reclamation Letter and EA

#### Letter dated 9/7/17

#### Special Circumstances

The damage that occurred at Oroville Dam in early 2017 requires operations that differ significantly from a normal wet year. Reservoir levels were lowered in the interest of public safety. The Federal Energy Regulatory Commission has required that DWR keep levels as low as feasible through November 1, 2017. This has impacted the water supply in Oroville to the point that the current and projected levels of water in storage nearly mimic those of drought years (Figure 77 in enclosed effects analysis). Additionally, recent hydrologic conditions are drier than in 2011, the only previous year in which X2 averaged near 74 km for September and October. p3.

<u>Comment:</u> end of summer storage levels and water supply are not at drought levels (Figures 1-3). Shasta and Folsom remain at wet year levels. Oroville is at dry to below normal levels. Maintaining X2 near 74km will require a Delta outflow of approximately 10,000 cfs (Figures 4 and 5). That would require about 4000 cfs or about 250TAF during October from Folsom and Shasta above that requested in the letter. The three reservoirs have sufficient storage to maintain X2 near km74. Furthermore maintaining inflow is necessary to keep net flow positive at Jersey Point in the lower San Joaquin River channel of the west Delta (Figure 6). Negative flow conditions have been excessive through the summer.

the proposed Fall X2 action for 2017 would not adversely affect Delta Smelt. P5. Comment: there is no basis for this conclusion. Reductions in Delta outflow, upstream movement of X2 into the western Delta, and negative net flows at Jersey Point are a direct and real threat to Delta smelt and their habitat. With the species on the brink of extinction, such "adaptive" negative management actions are not the logical approach to be taken in the present situation.

**CANNON-1** 

**CANNON-2** 

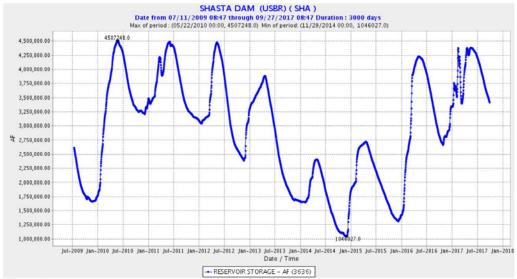


Figure 1.

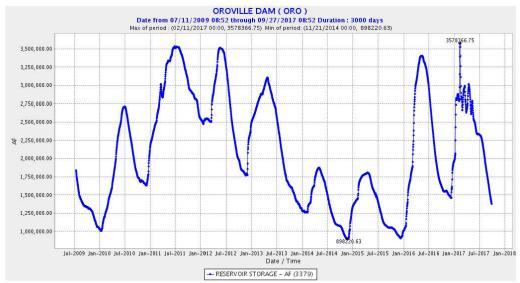


Figure 2.

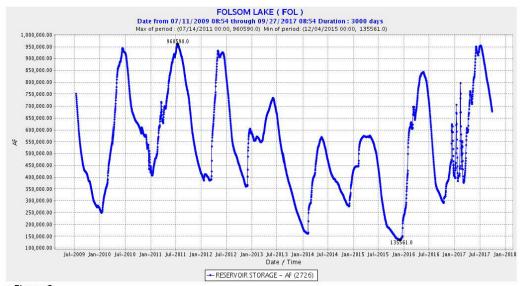


Figure 3.

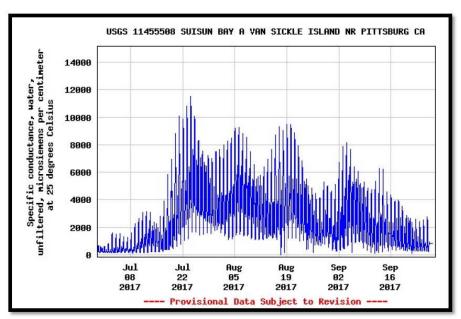


Figure 4.

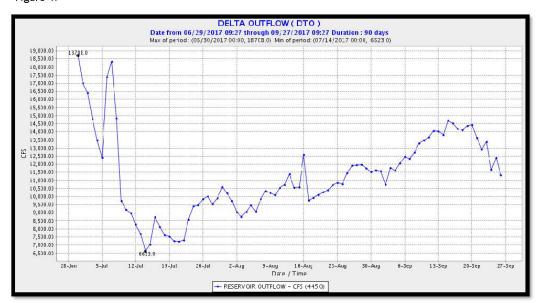


Figure 5.

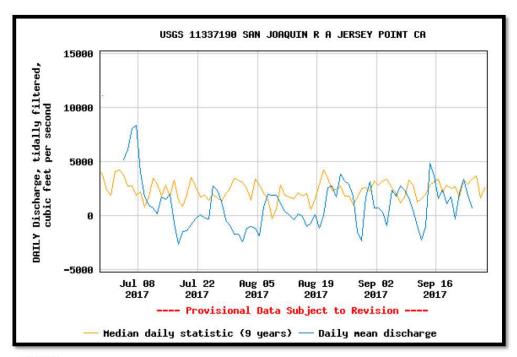


Figure 6.

#### Responses to Tom Cannon (CANNON)

**CANNON-1:** Text has been updated to reflect storage at Oroville (page 9). Upstream storage and releases would not change between the Proposed Action and the No Action Alternative.

**CANNON-2:** The Proposed Action has been updated based on consultation with the Service. Text has been added and updated to reflect the Service's determination and the change to 80 km (page 6, 26).

#### **Comments - State Water Contractors (SWC)**

September 27, 2017

Delivered via email: bcnelson@usbr.gov

Mr. Ben Nelson Bay-Delta Office, Reclamation Mid-Pacific Region 801 I Street, Suite 140 Sacramento, CA 95814-2536



DIRECTORS

Mark Gilkey President Tulare Lake Basin Water Storage District

Stephen Arakawa Vice President

Metropolitan Water District of Southern California

Matthew Stone Secretary-Treasurer Castaic Lake Water Agency

Robert Cheng Coachella Valley Water District

Curtis Creel Kern County Water Agency

Cindy Kao Santa Clara Valley Water District

Douglas Headrick San Bernardino Valley MWD

Roland Sanford Solano County Water Agency

Ray Stokes Central Coast Water Authority

General Manager Jennifer Pierre

SWC-3

SWC-2

SWC-1

SWC-4

Dear Mr. Nelson,

The State Water Contractors (SWC) appreciate the Bureau of Reclamation's (Reclamation) commitment to the 2017 Fall X2 action and environmental assessment (EA). The SWC believe that the Fall X2 adaptive management program is important and support the 2017 action and study. In an effort to ensure that the appropriate range of monitoring and testing is undertaken to support the Fall X2 action, the SWC have committed approximately \$380,000 for water quality monitoring, the State and Federal Contractors Water Authority committed approximately \$240,000 to water quality monitoring and toxicity testing, and Metropolitan Water District of Southern California committed approximately \$142,000 to toxicity testing.

The SWC, their members, and partners believe that water year 2017 provides a valuable learning opportunity and thus are committing resources. We are encouraged by these joint efforts and look forward to working with the state and federal agencies next year to implement the adaptive management actions identified in the 2017 Fall X2 effects analysis (EA, Appendix A, pp.18-19).

In support of the 2017 Fall X2 action and EA, the SWC provide the following comments:

- The EA acknowledged that there was some uncertainty as to whether the
  Delta Smelt population distributes themselves in relation to the low salinity
  zone. The following citations further explain the uncertainty: Manly et al.
  2014, Polansky et al. 2017, Latour 2012.
- The EA states that Appendix A and the work of Mac Nally et al. 2010, Thomson et al. 2010, Miller et al. 2012 did not find a significant population-level response to changes in habitat associated with Fall X2 (EA at pp.20-21). The model published in Deriso and Maunder (2011) was also used to evaluate Fall X2 and their conclusion was consistent with the studies cited in the EA.

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The description of the Coordinated Operations Agreement ("COA") (EA at pp. 6-7) raises
issues not directly relevant to the proposed fall action. Of course the COA has been described
many times in varying levels of detail over several decades but the SWC recommend that
Reclamation simply cover the most relevant points and use the language from past planning
documents to describe the COA.

SWC-5

The SWC support the process undertaken by state and federal agencies in developing the Fall X2 action. The SWC support the use of the Collaborative Science and Adaptive Management Program ("CSAMP") Delta Smelt scoping team as a forum to discuss the Fall X2 proposal with experts from the water users, state and federal agencies, and environmental community. We look forward to continued collaboration through this process. The SWC further appreciate the written response to the Delta Smelt SST members' comments that is provided in the 2017 effects analysis that Reclamation transmitted to the fishery agencies. (See e.g., EA, Appendix A, pp. 40-42.)

SWC-6

Sincerely,

Jennifer Pierre General Manager

## **Responses to State Water Contractors (SWC)**

**SWC-1:** Comment noted.

**SWC-2:** Comment noted.

**SWC-3:** As mentioned in the comment, the uncertainty has been described. Manly et al. 2014 was included in the LTO EIS analysis in Chapter 9.

**SWC-4:** Maunder and Deriso 2011 was included in Appendix A. Text has been added to the EA.

SWC-5: Text has been updated to more succinctly describe coordinated operation of the CVP and SWP.

**SWC-6:** Text has been updated to reflect CSAMP and DSST discussions and review of the proposal.