June 21, 2018

RE: REQUEST FOR MODIFICATION OR RECONSIDERATION OF RULING REGARDING REBUTTAL TESTIMONY DUE DATES

Dear Hearing Officers and Staff:

This letter is submitted on behalf of Local Agencies of the North Delta, Friends of Stone Lakes National Wildlife Refuge, and San Joaquin County et al. (Groups 19, 24, 46, 47 and 48). We have reviewed the Hearing Officer’s June 18, 2018 Ruling (“Part 2 Rebuttal Ruling”) and have the following concerns.

A. The Schedule Provided in the Ruling Is Unworkable and Unfair

The Administrative Draft Supplemental Environmental Impact Report/Statement (“ADSEIR/S”) was released on the evening of June 12, 2018. As explained on the California WaterFix (“CWF”) website for the ADSEIR/S, “This administrative review draft document is being released prior to the public draft version that will be released after review and approval by the lead agencies for formal public review and comment, expected July 2018. The administrative draft incorporates comments by the Lead Agencies on prior versions but has not been reviewed or approved by the Lead Agencies for adequacy in meeting the requirements of CEQA or NEPA.” (See Exhibit A attached hereto.)

In addition to the lead agencies, numerous responsible agencies presumably will review the ADSEIR/S during the responsible agency consultation process and provide comments to the lead agencies for inclusion in the public review draft supplemental environmental document prior to its release for formal public comments. (See CEQA Guidelines, § 15096 [Responsible Agency Process].) The public review process will then lead to further refinements and changes in response to public comments (CEQA Guidelines, § 15086, 15087, 15088), prior to issuance of the Final Supplemental EIR/S (CEQA Guidelines, § 15089). Finally, the Department of Water Resources (“DWR”)
would certify the Final Supplemental EIR/S and approve the revised project.¹ (See CEQA Guidelines, §§ 15090, 15092.)

1. The ADSEIR/S Is Merely an Administrative Draft and Does Not Reflect a Final Version of the Changes It Describes

According to the Part 2 Rebuttal Ruling, “the parties may submit evidence that is responsive to DWR’s EIR Supplement.” (p. 2.) As described above, however, the information in the ADSEIR/S is a preliminary draft that is subject to change and has not yet been adopted by DWR or the Bureau of Reclamation (“Reclamation”). Though the bar for admissibility of evidence is somewhat low in adjudicative proceedings, evidence should be the “sort of evidence on which reasonable persons are accustomed to rely in the conduct of serious affairs.” (Gov. Code, § 11513.) Here, an administrative draft document, subject to change, is not a reliable description for purposes of preparing Rebuttal testimony. It is only evidence that the physical footprint of the project is being changed, and does not comply with the requirements of Title 23 of the California Code of Regulations, section 794.

In addition, the Part 2 Rebuttal Ruling does not address the evidentiary status of the ADSEIR/S. Ostensibly, Protestants would be required to submit the ADSEIR/S as evidence in their Rebuttal cases in order to respond to it, as suggested in the Part 2 Rebuttal Ruling. (p. 2.) To the extent the ADEIR/S constitutes evidence, it is DWR and Reclamation’s evidence, not ours. To comply with due process, Petitioners need to provide testimony about the changes to the project, and allow their witnesses to be cross-examined on it. The February 21, 2018 ruling to proceed with Part 2 hearing stated the Hearing Officers would hold “Part 3 of this hearing to consider Part 1 and Part 2 key hearing issues only to the extent of any alleged differences from the analysis applicable to Petitioners’ current proposal.” (p. 5.) The procedure of allowing protestants to submit Rebuttal testimony on an administrative draft is not an adequate substitute for Part 3 of the hearing because it does not provide for submittal of the actual proposed changes to the project for the record by the petitioners, or testimony, and cross-examination on the changes.

2. The ADSEIR/S Does Not Describe How Impacts to Users of Water, Fish and Wildlife, the Public Interest and Public Trust Resources Would Be Different If the Changes Described in the ADSEIR/S Were Ultimately Adopted

In addition to making an unsupported assumption that the ADSEIR/S constitutes acceptable evidence of changes to the project, the Part 2 Rebuttal Ruling erroneously concludes that the “type and level of detail” in the ADEIR/S is “adequate for proceeding with Part 2 rebuttal.” (p. 1.) According to the DWR cover memorandum for the

¹ The federal lead agency process would be similar under the National Environmental Policy Act; for the sake of simplicity, this letter focuses on the state environmental review process.
ADSEIR/S, “The conveyance facility modifications have been proposed to improve facility design and further reduce impacts of facility construction on the Delta environment.” (See Exhibit B attached hereto.) Likewise, the March 2018 Notice regarding the so-called “Optimization” states: “Design improvements are being proposed to minimize impacts of the WaterFix project on local communities and the environment.

Yet, as explained below, the ADSEIR fails to include the necessary details to back up these claims in the context of the key Hearing issues. As one example, the effects on groundwater wells, as well as groundwater resources more generally has been an important focus area for our clients and other Protestants. (See, e.g., SJC-70 through 75; SJC-222 through 286; LAND-35 through 41; LAND-58 and 59; LAND-124; ECOS-1 errata, ECOS-7; SCWA-1, SCWA-4 through 9; SCWA-19, SCWA-34, SCWA-40.) The ADSEIR/S makes the claim that the proposed project’s refinements to the footprint of the water conveyance facilities will cause the tunnel to “avoid crossing under the community and to avoid affecting municipal water wells.” (ADSEIR/S, Project Description, p. 3-7:24.) The ADSEIR/S then explains that “[s]ome impact topics addressed in the Final EIR/EIS are not addressed herein because the change in the footprint of the water conveyance facilities would not result in a change in those impact determinations. This chapter does not address . . . alteration of groundwater supplies, degradation of groundwater quality, or land subsidence from the changes disclosed for the approved project within the State Water Project (SWP)/Central Valley Project (CVP) Export Service Area.” (ADSEIR/S Groundwater Chapter, p. 7-1:14, attached as Exhibit C.) These statements appear to refer to both Part 1 issues (effects on water users) as well as Part 2 issues (effects on fish and wildlife, the public interest and public trust resources).

The ADSEIR/S summarily concludes that the proposed project will not result in impacts on groundwater supplies, or groundwater quality, yet fails to provide a basis for that determination in the ADSEIR/S or elsewhere. The Groundwater chapter of the ADSEIR/S is just over two pages long. (See Exhibit C.) Neither the ADSEIR/S nor the figures in the mapbook included with it includes any information about groundwater wells affected by the new tunnel alignment and other footprint changes. Similarly, there is no specific information in the ADSEIR/S regarding impacts to water diversions, agriculture or wildlife from changes in muck placement and changes to the configuration of Clifton Court Forebay.

Without such information, Protestants must base their analysis on information outside of the ADSEIR/S, including their own efforts to map groundwater wells, diversions and other resources in the vicinity of the proposed Tunnels and associated infrastructure. With respect to groundwater, the revised project would move the tunnels farther from Hood because of potential effects on the municipal wells, and instead moves them closer to individual wells. This begs the question: if the approved project could potentially affect the municipal wells as a result of being in close proximity, it is reasonable to conclude that the same issue could arise with the individual wells located near the proposed project (see SAC 32, SAC 34, and SAC 36 shown in SJC-72R and
SJC-73). As legal users of water, the individuals who own these wells may be injured but would not be afforded sufficient time to offer Rebuttal. In fact, those newly affected water users were not provided proper notice in the original Petition filed in 2015, and it is not altogether clear that they have been given reasonable notice to date.

In addition to different impacts on groundwater wells, the revised project would also have different surface impacts. For instance, the new locations for placement of tunnel muck are included in the ADSEIR/S, including a large area within the southern portion of the Stone Lakes National Wildlife Refuge (“Refuge”) boundary. This and other new muck placement locations may injure different water users, and land uses, as well as wildlife including the fully protected Greater Sandhill Crane. These differences are not described in the ADSEIR/S. Moreover, the mapbook figures fail to even include the Refuge boundary and misleadingly only depicts lands actually owned by the Refuge.²

In sum, while the ADSEIR/S may generally describe the revised project, it fails to relate those changes to the specific issues in this Hearing. Without that connection, the information in the ADSEIR/S is not adequate for proceeding with Part 2 Rebuttal. Protestants have spent the last several days reviewing the ADSEIR/S for pertinent information and cannot engage witnesses to testify regarding the implications of that new information in the time allotted. To require Protestants to sort through the information in the ADSEIR, and make independent determinations as to the relevance to the Hearing issues within the space of just 27 days from release of the ADSEIR/S and 21 days from the Part 2 Rebuttal Ruling is unreasonable and unfair. Under section 1701.2 of the Water Code, it is the Petitioners who have the burden of proof to show that the project will not impact legal users of water, not Protestants. Furthermore, to the extent the changes described in the ADSEIR/S actually would address issues raised in this Hearing, the Petitioners are under no duty to adopt those changes, and Protestants cannot assume that the changes described in this administrative draft document will in fact be adopted by DWR and Reclamation.

B. **Operations of Petitioned Project Still Unclear and Modeling Studies are Not Representative of Most Likely Version of CWF Project**

Clear uncertainties about the CWF operational scenario for these proceedings and future operation of the CWF makes proceeding with Rebuttal testimony on the schedule included in the Part 2 Rebuttal Order impractical and unfair. The Hearing Officer’s June 1, 2018 evidentiary ruling erroneously refers to the “project that had been approved and adopted by DWR: CWF H3+.” (p. 1.) In fact, the project referenced in the Notice of Determination was Alternative 4A, not modeling scenario CWF H3+ (SWRCB-112), which was described as subject to change in the FEIR/S (SWRCB-102, ² Another problem with the ADSEIR/S mapbook figures is that they are not readable by those who are colorblind. The figures should be modified to use colors most likely to be discernable to the largest number of people, including those that cannot differentiate between red and green.)
Protestants had to rely on the modeling scenarios presented in Part 1 (and in some case the Biological Assessment version BA H3+) when preparing their Part 2 testimony.

Yet on November 30, 2017 when DWR submitted its Part 2 Case in Chief testimony, Protestants learned for the first time that the modeling scenario had been changed to CWF H3+, raising issues of the relevance of their analyses and testimony regarding Alternative 4A, Scenarios H3 and H4. Given the changing modeling assumptions over the course of this Hearing (see, e.g. Modeling Table, attached as Exhibit D), it is dangerous for Protestants to assume anything prior to seeing how the Petitioners plan to describe their ever-changing project.

Now, there is further concern that the project could be changing yet again. CWF H3+ assumes the CVP will have an up to 4,600 cfs share of the 9,000 cfs capacity (51 percent) of the Twin Tunnels. It is clear from the action taken by the Metropolitan Water District (“MWD”) on April 10, 2018, that MWD, a State Water Project (“SWP”) contractor, intends to advance funding for the second tunnel and that funding from the federal water contractors, if any, will be minimal. The actual CVP share of tunnel exports will likely be much smaller, possibly zero, and the operation of Shasta and Folsom and the SWP’s Oroville Reservoir would be very different than modeled in CWF H3+. A May 2018 CWF Fact Sheet indicates that there may be a 33 percent CVP share acquired from MWD, though no CVP participation has been finalized. (See Exhibit E attached hereto.) In any case, that would be an 18 percent smaller CVP share than assumed in CWF H3+.

![Image of funding participation and capacity allocation diagram]

The MWD slides in RTD-315, slide 9 shows the change in funding and capacity allocation:
As a result of these shifts in the funding participation and capacity allocation, any environmental review or Rebuttal testimony in this water rights proceeding based on CWF H3+ would not represent the environmental effects (fish flows below these dams) and impacts on legal users of water (senior water rights holders below these dams and in the Delta) of the latest version of the CWF.

During cross examination of DWR’s operations modeling expert on February 27, 2018, DWR acknowledged that the CWF H3+ modeling assumed minimum flows of 3,000 cubic feet per second for the Sacramento River at Rio Vista, from January through August, even though DWR does not intend to operate the project to meet these minimum flow requirements. (See February 27, 2018 Hearing Transcript, pp. 195–199.)

The operations and water quality modeling of CWF will need to be redone to properly simulate and disclose the environmental impacts and water rights injuries of the CWF with significantly reduced CVP access to tunnel exports and with the correct future operations with respect to Rio Vista minimum flows, among other changes. The new modeling and corrected Draft SEIR/S must then be released for public review and comment prior to being adopted as part of the project.

Should simultaneous submittal of Rebuttal testimony be required again, Petitioners may yet again change the project and/or the initial operating scenario under which the project would be operated, rendering hundreds of hours of Protestants’ witnesses’ time a waste, and contributing to further delays in the Hearing.

The Hearing Officers should not allow such an abuse of process, and a ready solution is at hand.

C. **A Staggered Rebuttal Schedule Would Address Some of the Issues Raised Herein**

To address the lack of pertinent and final information in the ADSEIR/S, Petitioners should present their Rebuttal case first, similar to what occurred in the Part 1
Case in Chief evidence. Protestants’ Rebuttal cases should be due at least 30 days after that. This would allow Petitioners to present responsive Rebuttal evidence to Protestants’ Part 2 Cases in Chief using relevant information from its ADSEIR/S. In addition, to the extent different modeling scenarios may be relied on to show a larger share of SWP water, for instance, Protestants would have an opportunity to respond to that new information in their Rebuttal cases, rather than being blindsided as occurred at the beginning of Part 2 and previously.

D. **Sur-Rebuttal Will Be Necessary**

The Ruling states that “At this point, it is unclear whether Sur-Rebuttal will be warranted.” (p. 4.) Please note that Protestants expect that Sur-Rebuttal will be necessary. DWR failed to provide detailed Part 2 Case in Chief evidence regarding a broad range of Part 2 issues. DWR is now likely preparing extensive Rebuttal to respond to the extensive Case in Chief evidence on these issues presented by Protestants. Protestants will require the opportunity to respond to this evidence in Sur-Rebuttal.

E. **Conclusion**

Thank you for considering the information in this letter/request for modification/reconsideration of the Part 2 Rebuttal schedule. For the reasons described above, Protestants should not be required to respond to inadequate modeling of the current project and incomplete and vague information in the ADSEIR/S, and Rebuttal should not be due until after the Supplemental EIR/S is certified and a revised project is actually adopted. Should Rebuttal be due prior to these actions, Petitioners should at least be required to present their Rebuttal testimony first, so that Protestants can review and respond to information regarding the project Petitioners actually intend to pursue.

Very truly yours,

SOLURI MESERVE,
A LAW CORPORATION

By: _______________________

Osha R. Meserve
Attorneys for Protestants
Local Agencies of the North Delta,
and Friends of Stone Lakes National
Wildlife Refuge
ORM/mre

Attachments:

Exhibit A, Notice re: Release of the ADSEIR/S
Exhibit B, June 12, 2018 Release of California WaterFix ADSEIR/S
Exhibit C, ADSEIR/S Groundwater Chapter, p. 7-1:14
Exhibit D, Modeling Table
Exhibit E, May 2018 CWF Fact Sheet

Statement of Service
STATEMENT OF SERVICE

I hereby certify that I have this day, June 21, 2018, submitted to the State Water Resources Control Board and caused a true and correct copy of the following document:

JUNE 21, 2018 LETTER/REQUEST FOR MODIFICATION OR RECONSIDERATION OF RULING REGARDING REBUTTAL TESTIMONY DUE DATES

to be served by Electronic Mail (email) upon the parties listed in Table 1 of the Current Service List for the California WaterFix Petition Hearing, dated June 8, 2018, posted by the State Water Resources Control Board at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/service_list.shtml

I certify that the foregoing is true and correct and that this document was executed on June 21, 2018.

Signature: __________________________
Name: Mae Ryan Empleo
Title: Legal Assistant for Osha R. Meserve
       Soluri Meserve, A Law Corporation

Party/Affiliation:
Local Agencies of the North Delta,
and Friends of Stone Lakes National Wildlife

Address:
Soluri Meserve, A Law Corporation
510 8th Street, Sacramento, CA 95814
The California WaterFix Administrative Draft Supplemental EIR/EIS was prepared for the Department of Water Resources and the U.S. Bureau of Reclamation in accordance with the California Environmental Quality Act and National Environmental Policy Act. The updated environmental analysis covers footprint changes resulting from proposed design modifications that further minimize impacts of the project on local communities and the environment.
DESIGN REFINEMENTS FACT SHEET (HTTPS://WWW.CALIFORNIAWATERFIX.COM/WP-CONTENT/UPLOADS/2018/03/CWF_FS_OPTIMIZATION-REFINED_FINAL.PDF)

ADMINISTRATIVE DRAFT SUPPLEMENTAL EIR/EIS COVER MEMO (HTTPS://WWW.CALIFORNIAWATERFIX.COM/WP-CONTENT/UPLOADS/2018/06/COVER_MEMO_ADMIN_DRAFT.PDF)

DOWNLOAD THE ADMINISTRATIVE DRAFT SUPPLEMENTAL EIR/EIS* (HTTP://FILES.CALIFORNIAWATERFIX.COM/2018_06-12_ADMIN_DRAFT_PUBLIC.ZIP)

*Note to Reader: This administrative review draft document is being released prior to the public draft version that will be released after review and approval by the lead agencies for formal public review and comment, expected July 2018. The administrative draft incorporates comments by the Lead Agencies on prior versions but has not been reviewed or approved by the Lead Agencies for adequacy in meeting the requirements of CEQA or NEPA. All members of the public will have an opportunity to provide comments on the public draft. Responses will be prepared only on comments submitted during the formal public review and comment period on the Supplemental EIR/EIS information.
EXHIBIT B
The California Department of Water Resources (DWR) and U.S. Bureau of Reclamation (Reclamation), as lead agencies for compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) are distributing to responsible and cooperating agencies the California WaterFix Administrative Draft Supplemental Environmental Impact Report/Environmental Impact Statement (EIR/EIS) to disclose the potential impacts associated with a number of proposed water conveyance facility modifications to the project approved by DWR in the Final EIR/EIS certified on July 17, 2017. The conveyance facility modifications have been proposed to improve facility design and further reduce impacts of facility construction on the Delta environment. No operational modifications are proposed as part of these facility modifications and, therefore, operation of the conveyance facilities is not addressed in this supplemental document.

DWR and Reclamation have decided to make this administrative version of the document available on the California WaterFix website and for use by the State Water Resources Control Board as part of the ongoing California WaterFix Change in Point of Diversion hearings. Final internal review and approval for meeting the requirements of CEQA and NEPA have not been completed by DWR and Reclamation, and this Administrative Draft Supplemental EIR/EIS is not a public draft. DWR and Reclamation are not requesting public comments and will not respond to comments on this version of the document. The public Draft Supplemental EIR/EIS is expected to be released in July 2018 for public review and receipt of comments.

A notification will be sent to persons, entities, and governmental agencies who previously requested notification when the public Draft Supplemental EIR/EIS is available for formal public review and comment as required by CEQA and NEPA.
EXHIBIT C
Chapter 7

Groundwater

7.1 Summary Comparison of Proposed Project

This chapter provides the results of the assessment of the incremental impacts on groundwater resources that would result if the changes to the project footprint as described in Chapter 3, Project Description, are constructed. The focus of this assessment is to compare the impacts on groundwater resource previously determined for the approved project with how those impacts may either increase or decrease as a result of implementing the proposed changes to the footprint of the water conveyance facilities. This incremental analysis addresses whether the proposed project, compared with the approved project, would lead to any new significant environmental effects or to any substantial increase in the severity of previously identified significant effects. The incremental difference between the original impacts and the newly anticipated impacts are compared with the groundwater impact determinations described for the approved project in the Final EIR/EIS.

Some impact topics addressed in the Final EIR/EIS are not addressed herein because the change in the footprint of the water conveyance facilities would not result in a change in those impact determinations. This chapter does not address depleting or degrading groundwater supplies during construction of the water conveyance facilities; depletion of groundwater supplies during operation; changes in groundwater recharge quality as a result of implementing Environmental Commitments 3, 4, 6–12, and 15; or alteration of groundwater supplies, degradation of groundwater quality, or land subsidence from the changes disclosed for the approved project within the State Water Project (SWP)/Central Valley Project (CVP) Export Service Area. Cumulative impacts on groundwater resources would not change from the conditions disclosed for the approve project. These impacts on groundwater resulting from these actions, are fully disclosed in the Final EIR/EIS and would not change if the footprint changes described for the proposed project are constructed.

The incremental impacts which would be attributable to the proposed project include a change in the location of impacts associated with agricultural drainage. Because of the minimal changes to groundwater under the proposed project compared to the approved, a summary figure is not provided for this resource topic.

7.2 Environmental Setting/Affected Environment

7.2.1 Affected Environment

Physical modifications to the approved project would not change the water supply operations or related groundwater conditions, or expand the project study area. Therefore, related to groundwater conditions, the Existing Conditions are the same as presented in the Final EIR/EIS and Developments after Publication of the Proposed Final EIR.
7.3 Environmental Consequences

This section describes the potential effects of the proposed project on groundwater due to construction and operation of the proposed project. The focus of this assessment is on determining the incremental effect on groundwater attributable to the proposed project. With the exception of focusing on the incremental effects, the methods of analysis and determination of effects is the same as indicated in Final EIR/EIS Chapter 7, *Groundwater*.

7.3.1 Effects and Mitigation Approaches

The following discussion provides the results of the assessment of the incremental impacts on groundwater resources that would result from the changes in the footprint of the water conveyance under the proposed project. Most environmental impacts would not change from the conclusions for the approved project disclosed in the Final EIR/EIS and, consequently, are not repeated in this chapter. These include impacts driven by (1) operation of the California WaterFix, (2) implementation of Environmental Commitments, and (3) cumulative impacts. For cumulative impacts, the relatively small change represented by the incremental impacts is not expected to result in a cumulatively considerable change in the conclusions provided in the Final EIR/EIS.

7.3.1.1 No Action Alternative

Groundwater conditions under the No Action Alternative as compared with Existing Conditions are consistent with previous analyses conducted for the approved project as presented in the Final EIR/EIS. There would be no changes to the groundwater resources (supply and quality) within the Delta or in areas north of the Delta because there would be no changes in surface water or groundwater diversions within those geographic regions. Similarly, there would be no change in the supply or quality of groundwater resources within the SWP/CVP Export Service Area.

7.3.1.2 Proposed Project

**Impact GW-4: During Construction of Conveyance Facilities, Interfere with Agricultural Drainage in the Delta**

Overall, the proposed project facilities would affect a slightly smaller area with agricultural drainage than would approved project facilities, as described in Chapter 14, *Agricultural Resources*. Construction of the Byron Tract Forebay would affect more agricultural land under the proposed project as compared with the approved project. However, agricultural drainage from lands near the Byron Tract Forebay would not be affected due to the installation of slurry walls around the forebay site and seepage control measures around the forebay embankments, as described in Appendix 3B, *Environmental Commitments, AMMs, and CM*.

**NEPA Effects:** Due to the measures described in Appendix 3B, *Environmental Commitments, AMMs, and CMs*, related to installation of slurry cutoff walls, construction activities associated with the proposed project conveyance facilities are not anticipated to result in effects on surrounding groundwater levels that would affect agricultural drainage. Therefore, construction of conveyance features is not forecasted to result in adverse effects to agricultural drainage under the proposed project.
**CEQA Conclusion:** Due to the measures described in Appendix 3B, *Environmental Commitments, AMMs, and CMs*, related to installation of slurry cutoff walls, construction activities associated with the proposed project conveyance facilities are not anticipated to result in effects on surrounding groundwater levels that would affect agricultural drainage.

**Incremental Impact:** The impact on agricultural drainage during construction of the proposed project would be slightly less when compared with the approved project. There would be a beneficial incremental impact on agricultural drainage attributable to the proposed project and the impact would remain less than significant.

### 7.4 References Cited

None.
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** BDCP/WaterFix 2015 is the same as BDCP 2010 model with the 2015 SWP Delivery Reliability Report changes merged. (See Aug. 25, 2016 SWRCB Hearing Transcript, p. 262.)
EXHIBIT E
Design improvements are being proposed to minimize impacts of the WaterFix project on local communities and the environment. The proposed changes build on past modifications that significantly reduced the project’s footprint and costs. The new optimizations also seek to minimize impacts on environmental resources in the Delta, including wetlands and other water resources.

The proposed optimizations will be subject to environmental review as a part of the forthcoming Supplemental Environmental Impact Report expected in Summer 2018.

**KEY BENEFITS OF THE NEWLY PROPOSED OPTIMIZATIONS**

- **Significantly reduces wetland impacts**
- **Consolidates the reusable tunnel material (RTM) footprint to minimize impacts to Stone Lakes Wildlife Refuge and nearby agricultural lands**
- **Reduces impacts to salmon and smelt at the Clifton Court Forebay**
- **Reduces potential impacts to the town of Hood and a residential neighborhood on Kings Island**
- **Reduces the number of power poles and lines required which improves aesthetics, reduces impacts to birds, and minimizes the need for power facilities near the town of Courtland, while also eliminating the need to relocate large 230 kV and 500 kV transmission lines**
**BENEFITS:**

- Reduces impacts to Stone Lakes Wildlife Refuge, wetlands, and nearby agricultural activities; reduces construction impacts caused by truck traffic and improves operational efficiency; wetland impacts reduced by more than 50 acres
- Fewer power lines required, improves aesthetics, reduces impact to birds, reduces need for large substation near the town of Hood
- Reduces potential impacts to the town of Hood

**Design Refinements & Proposed Modifications**

- **Eliminate barge landing at Snodgrass Slough**
  - **BENEFITS:** Reduces barge traffic in the northern portion of the Delta; reduces impacts to wetlands

- **Move a shaft site on Mandeville Island**
  - **BENEFITS:** Avoids wetlands

- **Eliminate the Clifton Court Forebay modifications**
  - **BENEFITS:** Reduces impacts to wetlands, salmon, and smelt; improves construction access; reduces permanent impacts to wetlands by 270 acres and temporary impacts to wetlands by over 1,900 acres

- **Eliminate the need to relocate a 500 kV and 230 kV transmission line from the Tracy substation**
  - **BENEFITS:** Reduces wetland impacts and eliminates unnecessary costs

- **Move the north tunnel alignment to the east, just outside the town of Hood instead of directly below it**
  - **BENEFITS:** Reduces potential impacts to the town of Hood

- **Move power line alignment to use SMUD’s existing transmission corridor**
  - **BENEFITS:** Fewer powerlines required, improves aesthetics, reduces impact to birds, reduces need for large substation near the town of Hood

- **Consolidate the Reusable Tunnel Material (RTM) footprint near the Intermediate Forebay into a single site**
  - **BENEFITS:** Reduces impacts to Stone Lakes Wildlife Refuge, wetlands, and nearby agricultural activities; reduces construction impacts caused by truck traffic and improves operational efficiency; wetland impacts reduced by more than 50 acres

- **Optimize Bouldin Island activities by relocating shaft site, RTM, and barge landing**
  - **BENEFITS:** Reduces wetlands impacts by over 100 acres on Bouldin Island; reduces potential impacts to Delta navigation and recreation opportunities

- **Move a pumping plant away from Kings Island**
  - **BENEFITS:** Reduces impacts to a residential neighborhood on Kings Island; reduces impacts to wetlands

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*Previously implemented, not subject to further environmental review

**Map includes proposed footprint modifications due to ongoing optimization of the design to reduce impacts*