MEMORANDUM

TO: SLDMWA Water Resources Committee Members and Alternates

FROM: Scott Petersen, Water Policy Director

DATE: January 9, 2023

RE: Update on Water Policy/Resources Activities

Background

This memorandum is provided to briefly summarize the current status of various agency processes regarding water policy activities, including but not limited to the (1) Reinitiation of Consultation on Long-Term Operations of the Central Valley Project and State Water Project, including environmental compliance; (2) State Water Resources Control Board action; (3) San Joaquin River Restoration Program; (4) Delta conveyance; (5) Reclamation action; (6) Delta Stewardship Council action; (7) San Joaquin Valley Water Blueprint and San Joaquin Valley Water Collaborative Action Plan.

Policy Items

Reinitiation of Consultation on Long-Term Operations of the Central Valley Project and State Water Project

In August 2016, the Bureau of Reclamation and California Department of Water Resources (DWR) requested reinitiation of consultation with NOAA Fisheries, also known as National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) due to multiple years of drought, low populations of listed species, and new information developed as a result of ongoing collaborative science efforts over the last 10 years.

On Jan. 31, 2019, Reclamation transmitted its Biological Assessment to the Services. The purpose of this action is to continue the coordinated long-term operation of the CVP and SWP to optimize water supply delivery and power generation consistent with applicable laws, contractual obligations, and agreements; and to increase operational flexibility by focusing on nonoperational measures to avoid significant adverse effects to species.

The biological opinions carefully evaluated the impact of the proposed CVP and SWP water operations on imperiled species such as salmon, steelhead and Delta smelt. FWS and NMFS documented impacts and worked closely with Reclamation to modify its proposed operations to minimize and offset those impacts, with the goals of providing water supply for project users and protecting the environment.

Both FWS and NMFS concluded that Reclamation's proposed operations will not jeopardize threatened or endangered species or adversely modify their critical habitat. These conclusions were reached for

several reasons – most notably because of significant investments by many partners in science, habitat restoration, conservation facilities including hatcheries, as well as protective measures built into Reclamation's and DWR's proposed operations.

On Oct. 21, 2019, FWS and NMFS released their biological opinions on Reclamation's and DWR's new proposed coordinated operations of the CVP and SWP.

On Dec. 19, 2019, Reclamation released the final Environmental Impact Statement analyzing potential effects associated with long-term water operations for the CVP and SWP.

On Feb. 18, 2020, Reclamation approved a Record of Decision that completes its environmental review for the long-term water operations for the CVP and SWP, which incorporates new science to optimize water deliveries and power production while protecting endangered species and their critical habitats.

On January 20, 2021, President Biden signed an Executive Order: "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis", with a fact sheet[1] attached that included a non-exclusive list of agency actions that heads of the relevant agencies will review in accordance with the Executive Order. Importantly, the NOAA Fisheries and U.S. Fish and Wildlife Service Biological Opinions on the Long-Term Operation of the Central Valley Project and State Water Project were both included in the list of agency actions for review.

On September 30, 2021, Reclamation Regional Director Ernest Conant sent a letter to U.S. FWS Regional Director Paul Souza and NMFS Regional Administrator Barry Thom requesting reinitiation of consultation on the Long-Term Operation of the CVP and SWP. Pursuant to 50 CFR § 402.16, Reclamation indicated that reinitiation is warranted based on anticipated modifications to the Proposed Action that may cause effects to listed species or designated critical habitats not analyzed in the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) Biological Opinions, dated October 21, 2019. To address the review of agency actions required by Executive Order 13990 and to voluntarily reconcile CVP operating criteria with operational requirements of the SWP under the California Endangered Species Act, Reclamation and DWR indicated that they anticipate a modified Proposed Action and associated biological effects analysis that would result in new Biological Opinions for the CVP and SWP.

Following this action, on October 20, 2021, the SLDMWA sent a letter to Reclamation Regional Director Ernest Conant requesting participation in the reinitiation of consultation pursuant to Section 4004 of the WIIN Act and in the NEPA process as either a Cooperating Agency or Participating Agency.

On February 26, 2022, the Department of the Interior released a Notice of Intent To Prepare an Environmental Impact Statement (EIS) and Hold Public Scoping Meetings on the 2021 Endangered Species Act Reinitiation of Section 7 Consultation on the Long-Term Operation of the Central Valley Project and State Water Project[2]. In response to this, on March 30, 2022, the SLDMWA submitted a comment letter highlighting actions for Reclamation to consider during preparation of the EIS.

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[1] https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/fact-sheet-list-of-agency-actions-for-review/

[2] https://www.govinfo.gov/content/pkg/FR-2022-02-28/pdf/2022-04160.pdf

During May 2022, Reclamation issued draft copies of the Knowledge Base Papers for the following management topics and requested supplementary material review and comments, to which the Authority submitted comment letters in June:

1. Spring-run Juvenile Production Estimate- Spring-run Survival Knowledge Base Document, May 2022
2. Steelhead Juvenile Production Estimate-Steelhead Survival Knowledge Base Document, April 2022
3. Old and Middle River Reverse Flow Management – Smelt, Chinook Salmon, and Steelhead Migration and Survival Knowledge Base Document, May 2022
4. Central Valley Tributary Habitat Restoration Effects on Salmonid Growth and Survival Knowledge Based Paper, March 2022
5. Delta Spring Outflow Management Smelt Growth and Survival Knowledge Base Document, May 2022
6. Pulse Flow Effects on Salmonid Survival Knowledge Base Document, May 2022
7. Summer and Fall Habitat Management Actions – Smelt Growth and Survival Knowledge Base Document, May 2022
8. Shasta Cold Water Pool Management – End of September Storage Knowledge Base Document, May 2022

Subsequent to the Knowledge Base Paper review, a Scoping Meeting was held, to which Water Authority staff provided comments, resulting in the release of a Scoping Report[3] by Reclamation in June 2022.

On October 14, 2022, Reclamation released an Initial Alternatives Report (IAR), which Authority staff is reviewing and coordinating with member agencies for potential engagement with Reclamation regarding the alternatives presented in the report. Currently, Reclamation is not anticipating accepting formal comments on the IAR, but instead will be accepting comments on the draft Environmental Impact Statement, which is anticipated to be released in January.

Current Milestones

- December 2022 – Proposed Action and Alternatives
- Early 2023 – Public Draft EIS/Biological Assessment
- February 2024 – Record of Decision

Exploratory Modeling

Concurrent with the development of the EIS and BA, Reclamation is conducting Exploratory Modeling to assist in the development of the Biological Assessment. The status of current modeling includes:

Modeled Variable Components

- Shasta Reservoir Coldwater Pool Management
- Folsom Flow and Temperature Management
- Old and Middle River Flow Management
- Head of Old River Barrier
- Summer and Fall Delta Outflow and Habitat

[3] https://www.usbr.gov/mp/bdo/docs/lto-scoping-report-2022.pdf

Modeling in Progress

- Spring Pulses and Delta Outflow
- New Melones Stepped Release Plan

Not Modeled

- Tributary Habitat Restoration
- Delta Habitat Restoration
- Georgiana Slough Non-Physical Barrier

Upcoming Coordination

- Reclamation will distribute/post the Initial Alternatives Report (IAR) for Interested Party consideration
- Reclamation does not intend to seek comments nor revise the IAR
- Agencies and Interested Parties may use the IAR to inform formulation of alternatives
- The public draft EIS will be the avenue for comments to Reclamation
- Cooperating agencies will receive an administrative draft of the EIS

Longfin Smelt Proposed Rule

On Thursday, October 6, the U.S. Fish and Wildlife Service announced a proposed rulemaking to list the San Francisco Bay-Delta distinct population segment of longfin smelt as an endangered species under the Endangered Species Act (ESA).

Longfin smelt are currently listed as a threatened species under California's Endangered Species Act, which prohibits unpermitted possession, purchase, sale or take of listed species. However, the state's definition of take does not include harm, which under the federal ESA can include destruction of habitat.

The Authority joined a letter[4] with the State Water Contractors pointing out deficiencies in the science used to support the proposed listing of the longfin smelt distinct population segment as endangered.

State Water Resources Control Board (State Water Board) Activity

Bay Delta Water Quality Control Plan Update

Background

The State Water Board is currently considering updates to its 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("Bay Delta Plan") in two phases (Plan amendments). The first Plan amendment is focused on San Joaquin River flows and southern Delta salinity ("Phase I" or "San Joaquin River Flows and Southern Delta Salinity Plan Amendment"). The second Plan amendment is focused on the Sacramento River and its tributaries, Delta eastside tributaries (including the Calaveras, Cosumnes, and Mokelumne rivers), Delta outflows, and interior Delta flows ("Phase II" or "Sacramento/Delta Plan Amendment").

During the December 12, 2018 Water Board Meeting, the Department of Water Resources ("DWR") and Department of Fish and Wildlife presented proposed "Voluntary Settlement Agreements" ("VSAs") on

[4] See Appendix

behalf of Reclamation, DWR, and the public water agencies they serve to resolve conflicts over proposed amendments to the Bay-Delta Plan update.[5] The State Water Board did not adopt the proposed VSAs in lieu of the proposed Phase 1 amendments, but as explained below, directed staff to consider the proposals as part of a future Delta-wide proposal.

Phase 1 Status: The State Water Board adopted a resolution[6] to adopt amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and adopt the Final Substitute Environmental Document during its December 12, 2018 public meeting.

Most recently, on July 18, 2022, the State Water Resources Control Board issued a Notice of Preparation (NOP)[7] and California Environmental Quality Act (CEQA) Scoping Meeting for the Proposed Regulation to Implement Lower San Joaquin River Flows (LSJR) and Southern Delta Salinity Objectives in the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta Plan).

The purpose of the NOP is: (1) to advise responsible and trustee agencies, Tribes, and interested organizations and persons, that the State Water Board or Board will be the lead agency and will prepare a draft EIR for a proposed regulation implementing the LSJR flow and southern Delta salinity components of the 2018 Bay-Delta Plan, and (2) to seek input on significant environmental issues, reasonable alternatives, and mitigation measures that should be addressed in the EIR. For responsible and trustee agencies, the State Water Board requests the views of your agency as to the scope and content of the environmental information related to your agency's area of statutory responsibility that must be include in the draft EIR.

In response to the release of the NOP, the Water Authority and member agencies provided scoping comments[8].

Phase 2 Status: In the State Water Board's resolution adopting the Phase 1 amendments, the Water Board directed staff to assist the Natural Resources Agency in completing a Delta watershed-wide agreement, including potential flow and non-flow measures for the Tuolumne River, and associated analyses no later than March 1, 2019. Staff were directed to incorporate the Delta watershed-wide agreement as an alternative for a future, comprehensive Bay-Delta Plan update that addresses the reasonable protection of beneficial uses across the Delta watershed, with the goal that comprehensive amendments may be presented to the State Water Board for consideration as early as possible after December 1, 2019.

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[5] Available at https://water.ca.gov/-/media/DWR-Website/Web-Pages/Blogs/Voluntary-Settlement-Agreement-Meeting-Materials-Dec-12-2018-DWR-CDFW-CNRA.pdf.

[6] Available at https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/rs2018_0059.pdf.

[7] Available at https://www.waterboards.ca.gov/public_notices/notices/20220715-implementation-nop-and-scoping-dwr-baydelta.pdf

[8] Request from Authority staff

On March 1, 2019, the California Department of Water Resources and the Department of Fish and Wildlife submitted documents[9] to the State Water Board that reflect progress since December to flesh-out the previously submitted framework to improve conditions for fish through targeted river flows and a suite of habitat-enhancing projects including floodplain inundation and physical improvement of spawning and rearing areas.

Since the March 1 submittal, work has taken place to develop the package into a form that is able to be analyzed by State Water Board staff for legal and technical adequacy. On June 30, 2019, a status update with additional details was submitted to the Board for review. Additionally, on February 4, 2020, the State team released a framework for the Voluntary Agreements to reach "adequacy", as defined by the State team.

Further work and analysis is needed to determine whether the agreements can meet environmental objectives required by law and identified in the State Water Board's update to the Bay-Delta Water Quality Control Plan.

Schedule

Biological Goals

Current Activities

- Completion of revisions based on public comment to produce a draft Final Biological Goals Report

Future Activities

- Winter/Spring 2022 – Release draft Final Biological Goals Report
- Winter/Spring 2022 – Public Workshop & comment
- Summer 2023 – Board consideration of adoption

LSJR Flow/SD Salinity Implementation Next Steps Assuming Regulation Path (Phase 1)

Spring 2022 – Spring 2023

- Initiate CEQA process
- Draft environmental document and public comment
- Notice of draft regulation
- Final environmental document

Summer 2023

- State Water Board consideration of approval
- Notice of final regulation
- Submission to Office of Administrative Law

Sac/Delta Update: Key Milestones

- Nov. 2022: Submittal of proposed voluntary agreement

[9] Available at http://resources.ca.gov/docs/voluntary-agreements/2019/Complete_March_1_VA_Submission_to_SWRCB.pdf

- Winter 2022 - Spring 2023: development of Scientific Basis Report for any voluntary agreement, including public review and comment
- Spring 2023: Draft Staff Report public review and comment
- Spring 2023: Public workshop on Draft Staff Report
- Early Fall 2023: Response to comments and development of proposed final changes to the Bay-Delta Plan
- Late Fall 2023: Board consideration of adoption

Voluntary Agreements

On March 29, 2022, members of the Newsom Administration joined federal and local water leaders in announcing the signing of a memorandum of understanding[10] that advances integrated efforts to improve ecosystem and fisheries health within the Sacramento-San Joaquin Bay-Delta. State and federal agencies also announced an agreement[11] specifically with the Sacramento River Settlement Contractors on an approach for 2022 water operations on the Sacramento River.

Both announcements represent a potential revival of progress toward what has been known as "Voluntary Agreements," an approach the Authority believes is superior to a regulatory approach to update the Bay-Delta Water Quality Control Plan.

The broader MOU outlines terms for an eight-year program that would provide substantial new flows for the environment to help recover salmon and other native fish. The terms also support the creation of new and restored habitat for fish and wildlife, and provide significant funding for environmental improvements and water purchases, according to a joint news release from the California Natural Resources Agency and the California Environmental Protection Agency (CalEPA). Local water agency managers signing the MOU have committed to bringing the terms of the MOU to their boards of directors for their endorsement and to work to settle litigation over engaged species protections in the Delta.

On June 16, the SLDMWA, Friant Water Authority and Tehama Colusa Canal Authority signed onto the VA MOU. Additionally, since that time, in September and November, four more agencies – Contra Costa Water District, San Francisco Public Utilities Commission (SFPUC), Turlock Irrigation District (TID) and Modesto Irrigation District (MID) – have signed onto the VA MOU.

Work continues to develop the working documents associated with execution and implementation of the VA's and workgroups for participating agencies have been formed, with the recent formation of a VA Science Workgroup to develop the framework of the VA's proposed Science program.

San Joaquin River Restoration Program

On December 16, the San Joaquin River Restoration Program Restoration Administrator announced an adjustment to the schedule of Restoration Flows on the San Joaquin River. On December 16, Friant Dam increased releases to meet a target of 415 cfs at Gravelly Ford (increasing from 365 cfs). This flow rate

[10] Available at https://resources.ca.gov/-/media/CNRA-Website/Files/NewsRoom/Voluntary-Agreement-Package-March-29-2022.pdf

[11] Available at https://calepa.ca.gov/2022/03/29/informational-statement-state-federal-agencies-and-sacramento-river-settlement-contractors-agree-on-approach-for-2022-water-operations-on-the-sacramento-river/

was held into January 2023, with potential for additional flow increases in early or mid-January. Flows at Friant Dam varied between approximately 550 cfs and 690 cfs to maintain the scheduled flow rate at Gravelly Ford, 38 miles downstream of the dam.

The Reclamation-approved Restoration Flow schedule is as follows:

Date	Friant Dam Releases	Gravelly Ford Target
Through December 15	550 cfs	365 cfs
December 16 – January 15	600 – 640 cfs	415 cfs
January 16 – February 9	620 – 690 cfs	Approximately 455 cfs
February 10 – February 28	420 – 480 cfs	255 cfs

Delta Conveyance

U.S. Army Corps of Engineers Draft Environmental Impact Statement

On Tuesday, December 20, the U.S. Army Corps of Engineers released a Draft Environmental Impact Statement[12] for the Delta Conveyance Project for public review. The comment period for the review extends **until February 14, 2023**. USACE's Draft EIS assesses the exact same proposed Delta Conveyance Project analyzed in the Department of Water Resources' (DWR) Draft Environmental Impact Report (EIR), available for public review July 27, 2022 - December 16, 2022 and on which the Authority submitted comments in conjunction with Westlands Water District[13]. USACE's Draft EIS is different from DWR's Draft EIR as follows:

- The Draft EIS complies with the National Environmental Policy Act (NEPA) and the Draft EIR complies with the California Environmental Policy Act (CEQA).
- NEPA is a federal law and USACE is the federal lead agency for preparation of the Draft EIS, while CEQA is a state law and DWR is the state lead agency for preparation of the Draft EIR.

Nothing published in USACE's Draft EIS changes what has been published in DWR's Draft EIR. The Draft EIS is not an update to the Draft EIR. They are stand-alone documents. Here are some important things to know about the similarities and differences:

- NEPA and CEQA have the same basic purpose: to evaluate the potential environmental effects of a proposed project and project alternatives, including a "no project" (or as NEPA calls it, the "no action") option.
- While DWR is a project proponent seeking to study whether it should implement the proposed project, USACE is not a project proponent. Rather, USACE is a regulator with responsibility for

[12] https://www.spk.usace.army.mil/Missions/Regulatory/Delta-Conveyance/

[13] See Appendix

deciding whether to authorize the proposed project. The scope of the Draft EIS is limited to only those aspects of the proposed project that are within USACE purview.

- DWR, as the project proponent, will ultimately determine whether or not to certify the EIR pursuant to CEQA and approve and implement the proposed project. USACE will not be involved in the initial project approval, nor will it implement the project, if approved.
- The Draft EIR and Draft EIS cover different topics and are organized differently.
- While the Draft EIR evaluates 9 project alternatives, the Draft EIS evaluates 5 project alternatives. Both the Draft EIR and Draft EIS include analysis of not approving the proposed project (referred to in the Draft EIS as the "No Action" alternative).
- Sometimes, an EIR and an EIS will be prepared by the state and federal lead agencies as a joint document. Other times, as is the case here, the documents are created and published separately. Although the Draft EIR and Draft EIS were prepared independently, DWR and USACE have coordinated throughout the CEQA and NEPA document preparation processes to ensure consistency between the Draft EIR and Draft EIS for ease of public review.

U.S. Bureau of Reclamation

Reclamation Manual

Documents out for Comment

Draft Policy

- There are currently no Draft Policies out for review.

Draft Directives and Standards

- There are currently no Directive and Standards out for review.

Draft Facilities Instructions, Standards, and Techniques (FIST)

- There are currently no Facilities Instructions, Standards, and Techniques out for review.

Draft Reclamation Safety and Health Standards (RSHS)

- There are currently no Safety and Health Standards out for review.

Draft Reclamation Design Standards

- There are currently no Design Standards out for review.

San Joaquin Valley Water Collaborative Action Program (SJVW CAP)

The CAP Plenary Group met on November 22 and approved a revised Term Sheet[14], which will allow for the CAP to advance to Phase II. Additionally, the Packard Foundation approved a $750,000 grant to the CAP to advance the Phase 2 project and product development. The CAP Steering Committee is meeting to discuss next steps on how to advance the program, including potential budgets and work product.

[14] See Appendix

APPENDIX

December 6, 2022

Submitted via Portal (https://www.regulations.gov)

United States Fish and Wildlife Service
Attn: MS:PRB/2W, 5275
Leesburg Pike,
Falls Church, VA 22041-3803

Re: Comments on Proposed Endangered Listing of the Longfin Smelt Bay-Delta DPS (FWS-R8-ES-2022-0082)

To Whom it May Concern:

The State Water Contractors (SWC) and the San Luis & Delta-Mendota Water Authority (SLDMWA) appreciate this opportunity to comment on the proposed Endangered listing of the longfin smelt Bay-Delta Distinct Population Segment (DPS). On October 7, 2022, the United States Fish and Wildlife Service issued its Endangered Species Status for the San Francisco Bay-Delta Distinct Population Segment of the longfin smelt, Federal Register Notice, Vol. 87, No. 194 (Listing Decision). Concurrently with the Listing Decision, the United States Fish and Wildlife Service (FWS) and the California Department of Fish and Wildlife released the Species Status Assessment for the San Francisco Bay-Delta Distinct Population Segment of the Longfin Smelt (SSA Report).

I. Summary of Comments

The Listing Decision does not consider the entire population of the proposed longfin smelt DPS, and it is too soon to determine that longfin smelt in the Bay-Delta are sufficiently isolated to support a DPS determination[1]. For example, see Figures 1(a) and 1(b), which show that the longfin monitoring survey that the FWS relies on in their Listing Decision does not fully capture the longfin present in the San Francisco Estuary. Upon review of the best available science, including that in the SSA Report, and the fact that the existing monitoring surveys do not fully capture the longfin smelt DPS population, we believe that the Listing Decision is not well supported. The

[1] See e.g., Lewis et al. 2019 observed previously undescribed aggregations of longfin smelt in tidal wetlands of South San Francisco Bay over 9 consecutive years of sampling (2011-2019). They found that the highest catches of longfin recruits and adults were often within shallow (2–3 m depth) recently restored tidal marshes and adjacent sloughs, suggesting that previous surveys have likely omitted substantial fractions of the San Francisco Estuary longfin smelt population. They recommend future studies should expand the scope of sampling to encompass other brackish marshes and sloughs to assess the relative importance of these habitats to the adult population.

proposed Endangered listing status is inconsistent with the results of the viability analysis and the SSA team's own conclusion that 'the risk of extinction is relatively small for the immediate future (SSA p. 115)'.

The Species Risk Assessment and other analyses in the Listing Decision evaluate only individuals in the survey sampling area, which does not sample the entire proposed DPS. Longfin smelt individuals can freely move into and out of the sampling area. For example, longfin smelt from the Bay-Delta can move to other nearshore areas of the ocean, and the Columbia River, which are all outside of the sampling area.[2] Therefore, the current sampling scheme cannot distinguish between a change in species distribution and a change in species abundance. Further, the potential for longfin to migrate out of the Bay-Delta to places like the Columbia River also suggests that they are not isolated, and a DPS designation may not be appropriate.

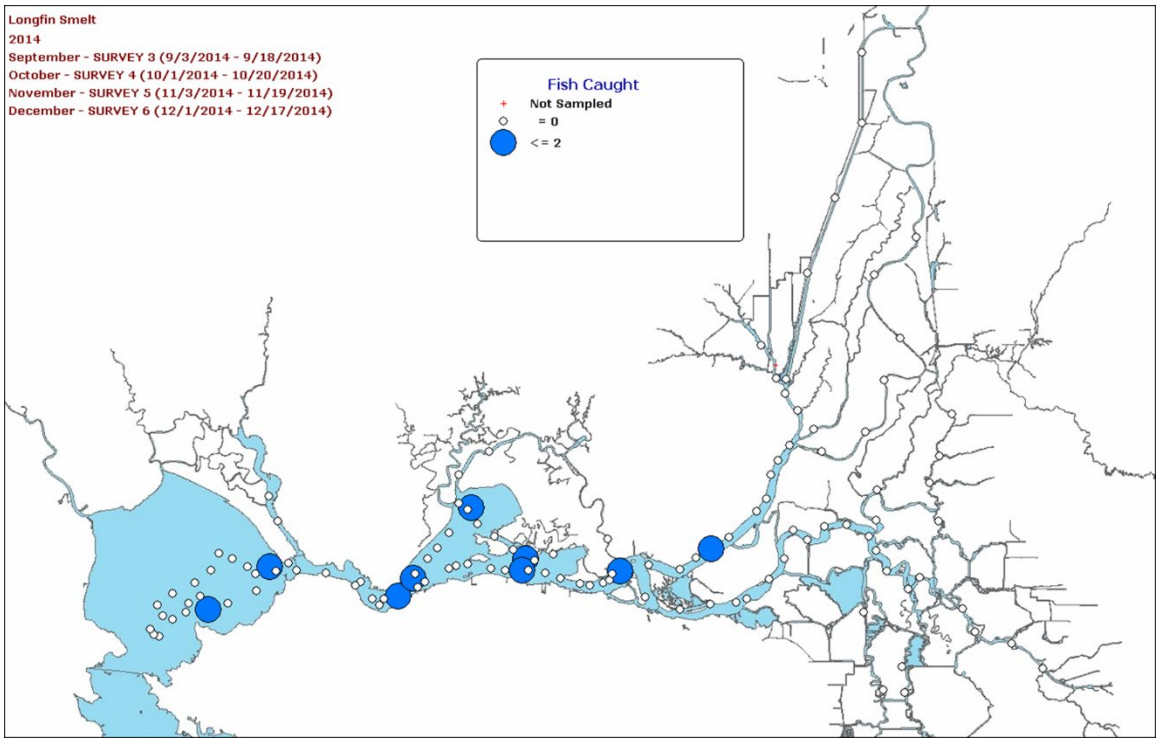

Figure 1(a): Longfin monitoring results in the San Francisco Estuary from Fall Midwater Trawl (FMWT) survey for the fall of 2014. The FMWT survey covers the Delta and primary axis along the South Bay.

[2] The Species Relative Abundance Section (3.2.1) and other analyses also fail to acknowledge that the existing surveys have a number of limitations related to catchability and gear efficiency which likely also affect our confidence in those analyses of longfin smelt in the Delta.

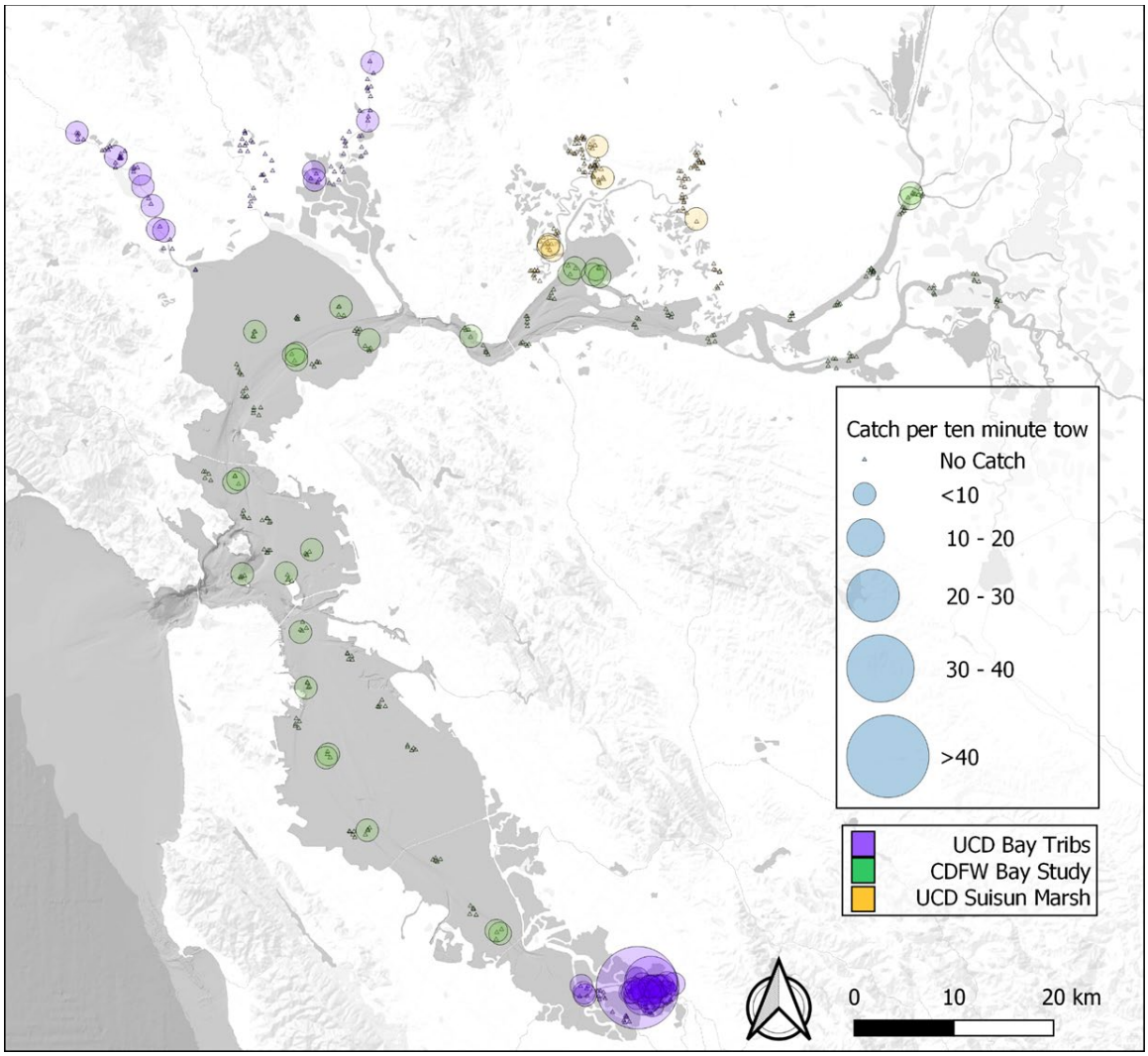

Figure 1(b): Longfin monitoring results in the San Francisco Estuary from Hobbs et. al. survey (UCD Bay Tribs), UCD Suisun Marsh survey, and CDFW Bay Study for Nov 2014 – Mar 2015 (figure from Hobbs et. al. 2019). The purple and yellow circles represent longfin smelt were catches in many parts of the estuary not sampled by the FMWT or other monitoring surveys referenced in the Listing Decision. In addition to the differences in the spatial coverage, the Hobbs et. al. survey uses an otter trawl allowing sampling of the bottom of the channels instead of the mid-channel depths surveyed in the FMWT.

While the Listing Decision and SSA Report acknowledge that longfin smelt are found throughout the Delta, San Francisco Bay, San Pablo Bay, and coastal regions of the ocean, they minimize the importance of those longfin smelt to the population by solely focusing analyses on the Delta when making the ultimate determination to list. These Delta-focused assessments could result in an unfortunate narrowing of opportunities for future conservation actions, which is a concern because restoration in the Bay could benefit the species significantly. As future conservation areas are discussed, we would appreciate being included in the discussions and ask to be added to any future technical teams related to the designation of critical habitat and species recovery.

II. Specific Comments

The foundational conclusions in the Listing Decision are that:

> Freshwater input into the estuary provides for proper low-salinity and cooler water conditions for Bay Delta longfin smelt to spawn and rear young and provides abundant food resources for the DPS. Reductions in the availability of such habitat conditions reduce the number of young available to mature breeding age the following year.

(Listing Decision, p. 60968.) These conclusions are not fully supported by the science. The Listing Decision does not acknowledge the uncertainties associated with these conclusions, nor does it acknowledge the discussion in the SSA Report that is contrary to these conclusions.

1. Characterization of changes in outflow and X2

The Listing Decision makes several broad statements suggesting that large changes in outflow have occurred and that these changes persist both annually and interannually. The Listing Decision often references flow generally; however, making it unclear which flow (e.g., timing, magnitude, location) is biologically important. Since the Longfin Smelt Fall Midwater Trawl (FMWT) to X2 correlations are generally from January-June (see, e.g., Jassby et al. 1995), we assume the Listing Decision is referencing January to June outflow or salinity when reaching conclusions.

The best available science shows that: 1) there have been no statistically significant reductions in Delta outflow throughout the winter-spring nor on an annual basis when comparing contemporary to pre-project conditions, 2) contemporary Delta outflow is similar to pre-development conditions after evapotranspiration from native plants are considered, and 3) there are multiple causes for historical trends in Delta outflow. Between the years 1922 and 2015, there was a decline in Delta outflow, although the trend is not statistically significant (Hutton et al. 2017, pp. 8-9). Over the same time period, as it relates to interannual trends, there have been statistically significant changes in outflow only in February, April, and May (Hutton et al, 2017, Table 3. p. 2523; SSA Report, p. 29), which does not represent the entire winter-spring time period. Moreover, when evapotranspiration from native vegetation is considered, the pre-development outflow is similar to contemporary outflow (Fox et al. 2015, see also Howes et al. 2015). These historical changes in Delta outflow have multiple causes and cannot be primarily attributed to the operation of the CVP and SWP (Hutton et al. 2016).

The Listing Decision makes several unsupported inferences and conclusions as it relates to outflow trends.

The Listing Decision cites Gross et al. 2018 in making a comparison to pre-development conditions and concludes that "More recently, the position of the low-salinity zone reaching at least the 55 km (34 miles) point occurred only very rarely as a result of wet year conditions." (Listing Decision, p. 60963.) It should be noted that Gross et al. do not attribute historical changes in X2 to SWP and CVP operations, even though the Listing Decision suggests that large-scale water development is the cause. For example, as acknowledged elsewhere in the Listing Decision, approximately 3 to 5 km of the difference between pre-development and contemporary X2 locations is attributable to land use changes that altered the shape and depth of the Delta channels

(Listing Decision, p. 60964; Andrews et al. 2017, p. 68). Also, as acknowledged elsewhere in the Listing Decision, there have been 8 MAF in upstream water development affecting X2 (Listing Decision, p. 60963; Hutton et al. 2017). The difference in pre-development and contemporary X2 is also attributable to climate change, as warming conditions have already affected runoff patterns as a result of increased evapotranspiration (Gartrell et al. 2022, p. 3). The Listing Decision should more thoroughly discuss attribution or causation related to changes in flow patterns since the Listing Decision will be used to make regulatory decisions in the future.[3]

The Listing Decision also relies heavily on Reis et al. 2019, concluding that "This situation has further increased the frequency of very low outflow years that, prior to water development, would have been very rare and associated with only extreme drought." (Listing Decision, p. 60963.) The Reis et al. paper cannot be relied on for this conclusion as it uses unimpaired flow as a representation of without project hydrology in the valley (Reis et al. 2019, p. 6). This is a mistake as the unimpaired flow is a theoretical calculation of flow that does not account for water consumption by native plants that would have occurred in pre-development conditions. The Reis et al. paper also attributes all changes in outflow to State Water Project and Central Valley Project exports, which, as the Listing Decision acknowledges elsewhere (Listing Decision, p. 60963), is incorrect. And finally, the Reis et al. paper should not be relied on for a comparison of the recent and historical occurrence of low outflow years (or drought years) due to how that paper recalculated water-year type using flow threshold based on the theoretical unimpaired flows that are not reflective of the natural flow conditions (Reis et al. 2019 p. 6). Using the flow thresholds based on unimpaired flows to characterize contemporary outflows would artificially result in a greater number of drier years.

Relying on Kimmerer 2004, Andrews et al. 2017 and Gross et al. 2018, the Listing Decision at p. 60963 states, "Operation of this system has resulted in a broader, flatter hydrograph with less seasonal variability, thus changing the timing, magnitude, and duration of freshwater flows into the San Francisco Bay-Delta." However, these papers are referring to the annual hydrograph across seasons, whereby a mix of the Bay-Delta Water Quality Control Plan and water diversions have reduced flows in the winter-spring and increased flows in the summer and fall, as compared to pre-project conditions, thereby flattening the annual hydrograph. Since longfin smelt are not in the Delta in summer and fall, this interannual flattening is not biologically relevant to longfin smelt, and there continues to be significant variability in the annual hydrograph in the Sacramento River and Delta. As shown by Hutton et al. 2007, Figure 4, even accounting for the water diversions that capture a portion of flow events, there is significant variability in the system.

2. Explanatory mechanisms related to the outflow or low salinity zone habitat

The Listing Decision identifies outflow generally as being important, apparently at volumes of outflow similar to those in the pre-development Delta and/or of X2 at 55km. The Listing Decision posits mechanisms explaining the biological importance of outflows as: 1) volume of low salinity

[3] Whether the X2 at 55km is biologically based is also an important question, and that question is discussed further below.

habitat as a driver of species abundance; 2) water temperature; 3) food; and 4) CVP-SWP entrainment (Listing Decision, p. 60961 and 63).

It should be noted that low salinity habitat for longfin smelt is different than it is for other species, like delta smelt, and therefore the Listing Decision may be artificially narrowing the definition of low salinity zone habitat if it is applying a 2-4 ppt definition. Longfin smelt low salinity habitat should be defined as with salinities of 0.1-18 ppt (FWS 12-month Listing Finding, p. 39, citing Baxter et al. 2010, p. 64.) or possibly 2 – 12 psu, as was determined by Grimaldo et. al. (2017), for younger less tolerant life stages. The 2 – 12 psu is the definition that we will be applying in our comments. To the extent that cited literature is using X2, it may not be directly applicable to longfin smelt.

A. Low salinity habitat mechanism

The Listing Decision states, "Reductions in the availability of such habitat conditions reduces the number of young available to mature to breeding age the following year," thereby concluding that there is a direct relationship between low salinity habitat and species abundance (Listing Decision. p. 60968). However, contrary to the Listing Decision, it does not appear that the volume of low salinity zone habitat is impacting species abundance. Kimmerer et al. (2013) considered and rejected this mechanism, stating, "…the observed X2-abundance relationships are inconsistent with a mechanism that involves the extent of low-salinity habitat, which has a strong non-linear relationship to X2." (Kimmerer et al. 2013, p.12.) Kimmerer et al. hypothesized that:

> The mechanisms relating abundance to X2 may not involve the extent of suitable salinity. For example, longfin smelt are more abundant near the bottom than in the water column at high salinity but not at low salinity. The mechanism behind this is unknown, but one possible result of this pattern is a strong landward movement of the smelt in the deep channels, which may serve to retain the fish against new seaward flow.

(Kimmerer et al. 2013, p. 13.) Nobriga and Rosenfield 2016 found similarly concluding that "We found no indication that freshwater flow moderated the survival of longfin smelt between age 0 and age 2, but we did detect direct evidence of density dependence," although they further determined that the life stage where density dependence likely exists is during the older life stages that reside in mesohaline or marine environments rather than in the low salinity zone (Nobriga and Rosenfield 2016, p. 55). The Listing Decision did not provide analysis or other evidence that would counter these conclusions.

B. Temperature mechanism

Water temperatures in winter-spring in the 2-12 ppt salinity zone do not exceed 20 degrees Celsius in the contemporary Delta (SSA, p. 25), so it does not appear that longfin smelt low salinity habitat would need to be located further downstream as a temperature refuge. The Listing Decision does not refute this, rather citing evidence of warm conditions in the summer (see e.g. SSA Report, p. 38; Vroom et al. 2017, p. 9904) when longfin smelt salinity tolerance is such that they may move freely throughout the estuary and the bay. (Rosenfield and Baxter 2007 and SSA, p. 72 ["By May of most years, young-of-the-year longfin smelt begin to reach 40 mm. At this size, and regardless

of outflow, these approximately 40 mm young of the year are typically distributed throughout the estuary."].)

It should also be acknowledged that the Listing Decision and the SSA Report fail to correctly characterize studies related to the effect of outflow on in-Delta water temperatures. Delta inflow, specifically reservoir releases, cannot be used to cool water temperatures in the Delta. The published literature does not suggest otherwise. The primary study relied on by the Listing Decision is Vroom et al. 2017, which is used to support the conclusion that Delta inflow controls in-Delta water temperatures. Contrary to this conclusion, Vroom et al. actually demonstrates that a constant inflow that is 2 degrees Celsius cooler than the Delta could cool the boundary areas of the Delta but not the Delta itself (Vroom et al. 2017, p. 9915, Figure 12). As reported by others, in-Delta water temperatures are actually controlled by air temperatures (*Id*., see also Wagner et al. 2011). Vroom et al. did not investigate whether it is possible to provide additional Delta inflows that are 2 degrees Celsius cooler than the Delta throughout the spring and/or summer. We posit that it is not possible.

C. Food mechanism

The Listing Decision suggests that food unavailability is a mechanism underlying the observed changes in longfin smelt abundance. However, the SSA Report does not fully support this conclusion. The SSA Report identifies the two primary food sources for younger life stages as *E. affinis* and Mysids. For *E. affinis* the SSA Report concludes, "Thus, it does not appear that declining abundance of *E. affinis* has generated a change in early life stage survival large enough to be discerned with available data." (SSA Report, p. 27.) As it relates to Mysids, the SSA Report states:

> Interestingly, several studies that have attempted to link the time series of mysid abundance with the time series of longfin smelt abundance or survival have not been able to do so. Mysid abundance was not able to predict FMWT catches of longfin smelt with the strength of statistical inference desired by one study (Thomson et al. 2010, gig. 6c, p. 1442.) …Similarly, the Mysid covariate tested by Maunder et al. (cite omit) was not retained in any other these author's alternative life cycle constructs (cite omit).

(*Id*.) Regardless of any relationships with outflow, changes in *E. affinis* and Mysid abundance do a poor job of explaining trends in longfin smelt abundance.

D. CVP-SWP entrainment mechanism

The Listing Decision posits a relationship between high outflow and lower CVP-SWP entrainment risk (Listing Decision p. 60966; SSA Report at p. 43). It also states that, "However, since 2009, the entrainment of longfin smelt has not been substantial enough to affect the species population dynamics." (*Id*.) As it relates to larval longfin smelt, the SSA Report concludes that since 2009 larval entrainment is unlikely to have had a population-level impact, with entrainment unlikely to have exceeded 3% (SSA Report, p. 43). It should be acknowledged that this 3% estimate represents the population based on the surveys that only cover the eastward extent of the longfin smelt distribution in the estuary and not all of the larvae in the proposed DPS, which is largely unsampled. If these additional larvae were accounted for, any potential for a population-level effect

because of the CVP-SWP entrainment would be even smaller. It should be further acknowledged that entrainment of adult longfin smelt is exceedingly rare and not a conservation concern.

3. Analysis of likely extirpation risk

The population viability analysis has several flaws that need to be addressed before it can be used to support a listing decision. Even as shown in the SSA, Figure 3.10, the uncertainty is substantial, with a potential 88% decrease or a 209% increase in species abundance (SSA, p. 50.) The uncertainty is very close to a 50-50 chance of an increase or a decrease in species abundance. (SSA, p. 50 ["…fact sampling from the distribution of the estimate we find that abundance decreases more than half the time (55%)."].) Moreover, this uncertainty does not even consider that the data used in the analysis does not represent the total population of the proposed longfin smelt DPS and that some longfin smelt may leave the system to move upcoast (Saglam et al. (2021), p. 1797 ["we find significant evidence for contemporary migration northbound from SFBY to both HUMB (Humboldt) and COLR (Columbia River)…."].) Any risk assessment must consider that observed changes in species abundance may not be the result of mortality but rather changes in species distribution. The analysis also fails to consider survey bias, such as gear efficiency and catchability, due to relative distribution in the water column. We had the method for calculating population viability peer-reviewed, and the reviewers had several recommendations that we urge the FWS to adopt before drawing any conclusions based on the analysis. See Attachment 2. While the attached peer review recommendation does not address concerns regarding the surveys, we believe the recommendations could materially improve the analysis.

4. Determination of whether the proposed longfin smelt DPS is "discrete."

We think it is premature to determine that the proposed Bay-Delta longfin smelt DPS is "markedly separated" from the rest of the longfin smelt population. The Saglam et al. 2021 study is evidence that longfin smelt are regularly leaving the Bay-Delta and mixing with upstream populations. (Sadlam et al. 2021, p. 1797 ["However, we did find significant evidence for contemporary migration northward from SFBY to both HUMB and COLR with probabilities of 0.199 (HPD: 0.119-0.277) and 0.201 (HPD: 0.118-0.275) migrants per generation respectively."].) This observed mixing is more than a few errant longfin smelt, which suggests that the longfin smelt in the Bay-Delta are not genetically isolated and would not qualify as a DPS. The ability to leave the Bay-Delta should also have been considered as part of the SSA Report's "representation" factor since longfin smelt from the Bay-Delta are able to "disperse and colonize new areas." (See SSA Report, pp. 7).

Saglam et al. 2021 is a new study used to support the characterization of the genetic isolation of the Bay-Delta longfin smelt DPS. The findings within this study rely on a very small sample size at each geographic location analyzed and were not able to analyze an array of additional populations along California's coast. The genetic analysis of a much larger sampling of longfin smelt collected in 2019 and 2020 are in progress but has not yet been completed. Although Saglam et al. 2021 did not detect gene flow from populations further north into the San Francisco Estuary, there is significant uncertainty in the genetic relationship between San Francisco Estuary longfin smelt and other under-studied populations along the California coast. That uncertainty needs to be acknowledged.

5. Determination of whether the population is "redundant."

The SSA Report on p. 54 finds no redundancy because the entire proposed Bay-Delta DPS only inhabits the Bay-Delta. The SSA Report's definition of redundancy should be revisited because longfin smelt are not like other species that spawn or rear in a single location, which would suggest that a single catastrophic event could significantly impact the population. The multiple longfin smelt spawning and rearing locations throughout the Delta, Bay, and potentially up the California coast are evidence of redundancy, as is the fact that juveniles above 40 mm can move throughout the Bay-Delta. The SSA mentions that some portion of the longfin smelt population may never leave the ocean (SSA Report, p. 22), which certainly suggests adaptive potential and redundancy.

6. Scope of recovery actions

The Listing Decision and SSA Report necessarily narrows the geographic regions where recovery actions should be considered. One of our best examples of habitat restoration benefitting longfin smelt are the salt ponds in the South Bay, which is barely acknowledged. Habitat restoration, as evidenced by the response in longfin smelt densities in the South Bay suggests that more attention should be given to restoration as a management tool for the proposed DPS. Even if the Listing Decision was well supported, it does not aid in identifying priority recovery actions because it only considers a subset of the population and habitat.

III. Conclusion

Thank you for the opportunity to review the proposed Listing Decision for the longfin DPS and the supporting scientific information included in the SSA Report. The proposed Endangered listing status is inconsistent with the results of the viability analysis and the SSA team's own conclusion that 'the risk of extinction is relatively small for the immediate future (SSA p. 115)'. SWC and SLDMWA have not reviewed, and the FWS has not provided, a proposed determination to support any other listing status and, therefore, takes no position on any other listing status at this time. The SWC has been collaborating and making significant investments in improving the scientific understanding of the longfin smelt. We request that you include the SWC and the SLDMWA in any discussions related to the longfin listing determination, conservation actions, and any future technical teams related to the designation of critical habitat and species recovery.

If there are any questions about these comments, please contact Chandra Chilmakuri at (916-562-2583) and Scott Peterson at (916-321-4526).

Sincerely,

Jennifer Pierre
General Manager
State Water Contractors

Federico Barajas
Executive Director
San Luis & Delta-Mendota Water Authority

<u>Attachments</u>

Attachment 1: Bibliography

Attachment 2: A partial review of Species Status Assessment for the San Francisco Bay-Delta Distinct Population Segment of the Longfin Smelt.

Attachment 1: Bibliography

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Attachment 2: A partial review of Species Status Assessment for the San Francisco Bay-Delta Distinct Population Segment of the Longfin Smelt.

By Jim Peterson and Adam Duarte

We read the longfin smelt SSA and want to congratulate the authors on bringing together a massive amount of information concerning the ecology, status, and trends for this species. During our read of the document, we paid particular attention concerning sections that quantified population viability (Appendix B), growth (Appendix D), and trends (Appendix E). Although we appreciate the amount of work that went into these sections, we found issues with some of the work that we hope the authors of the SSA can address or fix.

Figure 3.10 stood out to us. In particular, the mean for the meta-analysis had a confidence interval that was much narrower than any of the other values in the figure. When reading the text associated with this figure, it was unclear how uncertainty was propagated when estimating these values. Therefore, we conducted our own meta-analyses using the same data. Interestingly, we estimated the same confidence limits as those depicted in Figure 3.10, but our mean estimate was different (ours = 0.94, Figure 3.10 = 0.87). Perhaps this is a typo in the figure? If not, the estimates derived from the meta-analysis are suspect. Also, it is important to note that the values used in the SSA must have been based on a fixed effect model for the meta-analysis, which doesn't fully propagate the uncertainty in the estimates. By using a Bayesian framework, we can estimate the posterior predictive distribution that includes uncertainty about the grand mean across groups and the uncertainty in that grand mean. When we do that, we estimate a mean and upper and lower credible interval of 0.964 (0.683–1.318). This confidence limit is quite a bit larger than when ignoring the second source of variability (i.e., uncertainty across groups). Including this uncertainty is an important step to properly estimate population viability and would likely lead to very different results.

Along similar lines, the authors needed to conduct a separate meta-analysis to get a combined estimate of sigma-hat (i.e., the residual variance from the regression). However, the authors do not provide the estimates sigma squared-hat. We were able to get the values reproducing the authors analysis using the values provided in Table 1 of Appendix B, but do not know how the authors estimated the precision of sigma squared-hat. Did they fit the regression models in a Bayesian framework?

The extinction estimates that are estimated using Dennis et al. approach are strongly influenced (biased) by sample error (Meier and Fagan 2001). Our analysis of the authors data produced sigma squared estimates that were at least an order of magnitude greater than the estimates of log(lambda). This greatly exceeded the range of sampling error values that produced unbiased estimates of extinction. The authors may want to consider using an approach that is more robust to sample error, such as Staples et al. (2004).

Given the uncertainty in where to apply density dependence (survival vs reproduction) and that it is not clear density dependence is an issue at the current population numbers, they should have included alternative model parameterizations into the population viability analysis to see if these competing (and equally plausible hypotheses) had a dramatic effect on the outcome of their analysis.

When describing the count-based population viability analysis, the author states, "A count-based PVA can also be applied to index values, where a population index represents some portion of the total population as long as the proportion of the population that is observed remains relatively constant over time (Morris and Doak 2002)." While we certainly agree with this statement, this is a big assumption with these data given the published peer-reviewed literature demonstrates that factors that influence detection probability for this species has systematically changed across time. Furthermore, the proportion of the population detected is undoubted related to true population abundance. Collectively, this indicates it is not likely that the portion of the population observed remained relatively constant and that the deviations were systematic.

The regression approach used by the authors has several assumptions. Key among them is that the residuals are uncorrelated. We were able to replicate the authors analysis using the values provided in Table 1 of Appendix B. We tested this assumption by calculating correlations between residuals at times t and $t-1$. We also tested the statistical significance of the correlations using R function *cor.test*. We found significant negative correlations ($p<0.01$) for all indices except for Bay Study Midwater Trawl Age-2 suggesting that independence assumptions were likely violated.

Minor point: Although it is standard practice to have quasi-extinction thresholds that are fairly arbitrary, it would be better to have a biological or management justification for the threshold used. That said, we were happy to see the authors considered various thresholds in their analysis.

Minor point: When discussing the growth model used, it seemed like the authors were selling a product. Every analytical approach has advancements and limitations and it would be more worthwhile to clearly provide those tradeoffs here so managers could more effectively interpret the output from this analysis.

Minor point: When fitting growth models to the data, the authors use a mix of information theoretic approaches (AIC) and looking for significance based on confidence limits. Why mix these two philosophies to analyze and interpret data?

The equations on page 175 seem very different than what is provided in Maunder et al. (2015).

The lack of variables included based on Figure 10 indicates that the data were too sparse (or noisy) to incorporate covariate effects in most cases...or that we know nothing of the species and most (almost all) hypothesized effects were not supported. Either way, it was surprising to see so many covariates have little-to-no support.

Figure 12 and Figure 14: Error bars or confidence limits are needed to properly interpret these results.

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December16, 2022

Via Electronic Mail
DeltaConveyanceComments@Water.Ca.Gov

California Department of Water Resources
Attention: Delta Conveyance Office
P.O. Box 942836
Sacramento, CA 94236-0001

Re: Draft Environmental Impact Report for the Delta Conveyance Project

The San Luis & Delta-Mendota Water Authority and Westlands Water District appreciate the opportunity to comment on the Draft Environmental Impact Report ("Draft EIR") prepared by the Department of Water Resources ("DWR") pursuant to the California Environmental Quality Act ("CEQA") for the proposed Delta Conveyance Project ("Project"). The SLDMWA and Westlands provide three comments.

1. The Draft EIR emphasizes that DWR is proposing the Project to restore and protect the reliability of State Water Project ("SWP") water deliveries by modernizing SWP infrastructure in the Delta. The Draft EIR informs the decision makers and public that the Project would further that objective by providing operational flexibility to respond to sea level rise and climate change, potential water supply disruption due to seismic events, and aquatic conditions in the Delta. The Draft EIR acknowledges the coordinated nature of SWP and the Central Valley Project ("CVP") operations and, as a result, the fact that the Project and its objectives may bear relevance to the SWP ***and*** CVP. (See, e.g., Draft EIR, p. 33-3.) It is thus appropriate for the final EIR to recognize that the resilience and adaptation benefits of the Project may also restore operational flexibility for the CVP as a result of a coordinated component, involving both the SWP and CVP, of the evolving suite of federal, state, regional, and local strategies needed to protect and ensure a safe and adequate water supply for California.

2. As noted in the Draft EIR, participation in the Project by the United States Bureau of Reclamation ("Reclamation"), operator of the CVP, or by any of the water agencies that contract with Reclamation for CVP water ("CVP contractors") remains uncertain at this time. Nonetheless, the SLDMWA and Westlands support the Draft EIR's approach to the environmental analysis of the Project as set forth in "Chapter 4: Framework for the Environmental Analysis," which includes

the CVP in evaluating the alternative ways in which the state's water infrastructure and north to south conveyance can be modernized and any adverse effects of SWP ***and*** CVP operations can be avoided or substantially lessened.

Both alternatives 2a and 4a studied in the Draft EIR provide a comparison of impacts and potential benefits of CVP involvement in the Project, either through coordinated involvement by Reclamation, as a cooperating agency, or through engagement from individual CVP contractors. (Draft EIR, pp. 4-16–4-17.) Alternatives 2a and 4a describe potential CVP participation as a result of constructing and operating infrastructure linking the Project to the Jones Pumping Plant, allowing Reclamation to use 1,500 cubic feet per second ("cfs") of the total Project capacity of 7,500 cfs. (*Ibid*.; see *id*. at pp. 3-7, 3-9, 3-14, 3-27, 3-39, 3-41–3-42, 3-80–3-86, 3-104–3-115.) In addition, although Alternative 5 does not include CVP participation as described in the Draft EIR, the analysis shows that potential impacts disclosed for Alternative 5 would not change in any appreciable way with CVP involvement. (Draft EIR, p. 4-17; see *id*. at pp. 3-116–3-133.)

It is important to note that, if Alternative 2a, 4a, or 5 were implemented with CVP participation, water made available from the Project to CVP contractors would not result in new or more severe environmental impacts than those already analyzed, as reflected in the Draft EIR's evaluation of growth inducing effects. (Draft EIR, p. 31-1; see *id*. at pp. 31-7–31-10.)

The above-noted approaches in the Draft EIR should be maintained in the final EIR.

3. Consistent with the DWR's stated objective of the Project, as noted above, the final EIR should make clear that the Project was developed and will be implemented to avoid or fully mitigate any potential adverse impacts to the CVP and CVP contractors, such as water supply reductions, changes to the timing when water is made available, or increases in the cost of water made available.

Thank you for your consideration of these comments.

Very truly yours,

San Luis & Delta-Mendota Water Authority

By J. Scott Petersen
Water Policy Director

Westlands Water District

By Jon D. Rubin
Assistant General Manager & General Counsel

CAP TERM SHEET
Approved November 22, 2022

Mutually Beneficial Gains

The overall guiding principle of CAP is that the goals of the caucuses will be achieved on a mutual basis. All caucuses will share benefits as the program moves forward. No caucus can advance its interests at the expense of others. CAP's governance is designed to assure mutually beneficial outcomes. Each caucus can object to and stop a CAP action from moving forward. This means that each caucus knows that its goals and concerns must be respected and each caucus benefits from working to advance the interests of the other caucuses.

CAP Desired Outcomes

1. **Safe Drinking Water.** By 2035, all San Joaquin Valley (Valley) residents will have access in a timely manner to safe, reliable, and affordable drinking water no matter the hydrologic conditions. This means prioritizing both interim and long-term water supply and water quality challenges for all residents, including those faced by small communities and domestic well users.
2. **Sustainable Water Supplies.** Sustainable water supplies will be available to support a diverse economy, thriving ecosystems, access to safe, reliable, and affordable drinking water for all Valley residents, and a sustainable level of agricultural production.
3. **Ecosystem Health.** The Valley landscape will increase its habitat areas to support an array of species and healthy aquatic ecosystems, including floodplain, riparian, wetland, on-farm, and upland habitat.
4. **Sustainable Agriculture:** California will continue to provide reliable, safe, and secure food and fiber with industry-leading protections for workers, in-Valley communities, and the environment. The Valley will continue to be a major agricultural resource by preserving as many acres of sustainable farmland as possible while being a good neighbor to communities and ecosystems**.**
5. **Public Investment in Desired Outcomes:** Sufficient public funds will be invested to support a) the necessary natural and constructed infrastructure to increase supply, b) demand reduction strategies including land repurposing, and c) other investments to accomplish the Desired Outcomes.
6. **Consistent Policies.** State and federal policies and funding will be aligned to advance the Desired Outcomes. Expedited permitting and regulatory review processes will be available for qualified multi benefit projects and other actions to achieve the Desired Outcomes.
7. **Local Government Resources:** Local governments will have adequate resources, staffing, and capacity necessary to play a vital role in the transition to sustainable water resources management in the Valley.
8. **Sound Science.** Decisions will be made using the best available and independent science possible. Adaptive management with monitoring, deployment of the best available technology and outcome accountability will be necessary to maximize the effectiveness of resource decisions.

CAP Solutions Elements

1. **Safe Drinking Water.** Support state and local agencies and communities in efforts to address data gaps, fund emergency solutions (such as bottled water delivery and well replacement), ensure strong local well mitigation programs, and promote long-term solutions such as consolidation and targeted recharge projects.

2. **Sustainable Water Supplies.** Eliminate the demand-supply gap and long-term overdraft with co-equal efforts to reduce demand and increase supply by prioritizing projects that will benefit multiple stakeholders.
    a. **Reduce Demand.** Reduce demand via responsible groundwater management and incentivizing landowners to voluntarily repurpose irrigated agricultural lands to other beneficial uses that require little or no water, with compensation to landowners for creating public benefits and water rights reserved by landowners, consistent with applicable GSPs, with a priority for groundwater demand reduction programs where they benefit those reliant on shallow groundwater resources without hindering the ability to replenish aquifers for sustainable agriculture and other beneficial uses.
    b. **Increase Supply.** As available, increase supply for sustainable agriculture primarily by managing in-Valley and through-Delta flood flows for use and aquifer replenishment.
    c. **The Delta.** In partnership with Delta interests and stakeholders, conduct a science-based assessment of the Delta with independent scientific experts to-
        i. Determine how much additional water can be diverted from the Delta during high flow events while protecting ecosystem health and Delta communities, consistent with PPIC May 16, 2022, Policy Brief (PPIC Report).[1] As of the above date, the PPIC Report confirms the availability of increased Delta exports in wet years. CAP will support conducting an assessment of increased Delta exports during high flow events in other year types.
        ii. Assess the reduction of non-flow stressors in the Delta (e.g., predation, invasive plants, urban effluent, agricultural runoff, disease/competition, changes in food etc.). CAP will support the review of existing studies on non-flow stressors to decide next steps and best investment in further research.
        iii. Explore reservoir reoperation that takes into account leading edge forecasting technology to serve multiple benefits.
3. **Ecosystem Restoration.** Create one of the largest restoration programs, in part, through voluntary land repurposing of a portion of the Valley's irrigated land to create a range of habitats.
4. **Coordinated Changes in Land Use.** Ensure Valley-wide land use change helps accomplish CAP goals by working through the California Multibenefit Land Repurposing Program and related state programs, while also leveraging federal sources of funding. Ensure outreach and protections for communities and locally defined small farmers through this program. Explore supportive programs for farmworkers who are displaced by land use changes.
5. **Effective Implementation.** Work through the politically diverse CAP coalition to align state and federal policies and funding as informed by units of local government. Implementation measures should ensure additional funding and staffing resources for local governments so that they can play a vital role in transitioning the Valley to sustainable water resource management.

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[1] PPIC Policy Brief: Tracking Where Water Goes in a Changing Sacramento–San Joaquin Delta, May 16, 2022: "Increasing the amount of water stored during wet periods—whether by taking more water out upstream of the Delta, or making the best use of export facilities—has to be done with care for the environment and other water users. But it is possible to do a better job of storing water during wet years—both above and below ground—without doing harm. Improving the management of wet-year supplies is a critical climate change adaptation strategy. This will require identifying cost-effective investment options and adapting operations and regulatory approaches to facilitate capturing more water in wet times."