THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Report

Office of the General Manager

- **Bay-Delta Management Report**

Summary

This report provides a summary of activities related to the Bay-Delta for March 2022.

Purpose

Informational

Detailed Report

Long-Term Delta Actions

Delta Conveyance

The California Department of Water Resources (DWR) is continuing to develop a public Draft Environmental Impact Report (EIR) under the California Environmental Quality Act for the Delta Conveyance Project. The U.S. Army Corps of Engineers (USACE), as part of its permitting review under the Clean Water Act and Rivers and Harbors Act and is preparing an Environmental Impact Statement (EIS) to comply with the National Environmental Policy Act. DWR and USACE are planning to release draft environmental documents for public review in mid-2022.

Joint Powers Authorities

At its regularly scheduled March 17 Delta Conveyance Design and Construction Authority (DCA) Board of Director's meeting, the Board of Directors approved a resolution to amend the Joint Exercise of Power Authority (JEPA) to clarify the expiration date of the agreement during the planning phase. While the body of the JEPA does not have an express termination date, an expiration date was included when the Department of General Services approved a prior amendment. This amendment will extend the termination date of the agreement during the planning phase until June 30, 2025.

The regularly scheduled March 17 Delta Conveyance Finance Authority meeting was cancelled.

Sites Reservoir

At their joint March meeting, the Sites Project Authority Board (Authority Board) and the Sites Reservoir Committee (Reservoir Committee) gave the Executive Director authorization to submit the Sites Reservoir Project's (Project) water right application to the State Water Resources Control Board (State Water Board) including the associated application fee. The Authority Board and Reservoir Committee also directed staff to proceed pivoting to Alternative 3 as the Preferred Project Alternative and adjusting to more environmentally protective diversion criteria that could potentially achieve a higher degree of permitting certainty while maintaining project affordability. Alternative 3 would allow for a federal investment in the Project of between 7 and 25 percent. Their current level of participation is 7 percent.

The Executive Director was also authorized to execute a proposal letter with the Environmental Defense Fund and The Nature Conservancy, to cooperatively develop terms and conditions for consideration in the Proposition 1 Benefit Agreement with the California Department of Fish and Wildlife (CDFW) to incorporate an Environmental Water Manager "pilot" as part of the Sites Project implementation. The goal of this pilot is to work with the non-governmental organization partners to determine the technical, legal, contractual, and statutory provisions necessary for the practical implementation of an Environmental Water Manager within the Sites Reservoir Project. Revisions to the Funding Credit and Reimbursement Policy were also approved to incorporate an opportunity cost fee and key terms for potential new participants, and priority system for admitting new participants was discussed.

Near-Term Delta Actions

Regulatory Activities

On February 28, the U.S. Bureau of Reclamation (Reclamation) issued a Notice of Intent in the Federal Register which formally began the process to reinitiate consultation on the 2019 Biological Opinions (BiOp) for the long-term operations of the Central Valley Project (CVP) and State Water Project (SWP). Staff is working in coordination with the State Water Contractors to provide scoping comments by the March 30, 2022, deadline. Staff is also involved in ongoing technical workgroups and policy-level discussions that help provide input into the process. Under the current schedule, Reclamation anticipates a Biological Assessment and Public Draft EIS will be completed in 2023, and a Final EIS and Record of Decision in 2024.

On March 18, DWR and Reclamation jointly filed a Temporary Urgency Change Petition (TUCP) with the State Water Board requesting temporary modification of water right permit and license requirements for Delta outflow and Delta salinity during the April 1 to June 30, 2022 timeframe. The TUCP was filed in response to critically dry conditions in the Bay-Delta watershed. The State Water Board will consider the TUCP at a future meeting.

Staff continued to participate in the collaborative groups called for in the 2019 BiOp for the SWP and CVP, and in the 2020 Incidental Take Permit (ITP) for long-term operation of the SWP, to address science needs and inform management and operation of the water projects. Staff is collaborating with state and federal agencies to conduct planning for a migratory barrier at Georgiana Slough to reduce the diversion of juvenile salmonids from the Sacramento River into the interior and south Delta, as required by the ITP. The group is finalizing the monitoring plan, which describes the project location, the infrastructure that is part of the project and how the effectiveness of the project will be monitored and analyzed.

Staff is participating in the Delta Coordination Group to develop and implement an expert elicitation regarding the Summer-Fall Habitat Actions considered for 2022 through the structured decision-making process as part of the BiOp/ITP. The elicitation will address how contaminants may change in response to the actions and how changes in contaminants may affect the vital rates of Delta smelt and zooplankton. The two actions planned for 2022 are the Suisun Marsh Salinity Control Gate Operations and the North Delta Foodweb Enhancement.

Science Activities

Staff co-authored two scientific papers published in March in peer-reviewed journals that reported on results from a study evaluating the bioavailability of pesticides in juvenile Chinook salmon habitat in the Sacramento River watershed. The study was funded by a Proposition 1 grant with cost-share from Metropolitan. The first paper published in the journal *Chemosphere* (Bioavailability of legacy and current-use pesticides in juvenile Chinook salmon habitat of the Sacramento River watershed: Importance of sediment characteristics and extraction techniques - ScienceDirect), evaluated the presence and bioavailability of pesticides in salmon habitats in a floodplain and the mainstem Sacramento River. Higher organochlorine pesticide concentrations were found in floodplain compared to riverine habitats, and overall, there were less pesticides available during low flow conditions. The second paper published in the journal *Environmental Pollution* (Pesticide residues in juvenile Chinook salmon and prey items of the Sacramento River watershed, California – A comparison of riverine and floodplain habitats - ScienceDirect), reported on the occurrence of pesticide residues in Chinook salmon, zooplankton, and macroinvertebrates from the Yolo Bypass floodplain and the mainstem Sacramento River. The study found that zooplankton had higher concentrations of pesticides than macroinvertebrates. Chinook salmon had threefold higher organochlorine pesticide concentrations in the floodplain as compared to the Sacramento River, and pesticide concentrations were higher in prey organisms during flood events than in drought conditions. The study findings suggest that within these habitats the benefits to juvenile salmon of an improved food supply in floodplains may be countered by increased pesticide exposure.

Staff co-authored another salmon scientific paper in March in collaboration with researchers from UC Davis, UC Santa Cruz and the National Oceanic and Atmospheric Administration Southwest Fisheries Science Center, evaluating juvenile salmon growth in the Delta. The paper published in *San Francisco Estuary and Watershed Science* (Variation in Juvenile Salmon Growth Opportunities Across a Shifting Habitat Mosaic (escholarship.org)) reported on a study evaluating juvenile salmon growth rates in the American River and Delta by measuring the

width of the daily rings in the fish's otoliths (earbones) similar to how growth is measured with tree rings. The region that produced the highest growth rates varied within and among years. Juvenile salmon grew fastest in the Delta in some years, but slower in drought years. The study findings suggest that maintaining a mosaic of quality habitats in both the rivers and Delta will be important for juvenile salmon in California's dynamic hydroclimate.

Two scientific papers addressing Delta smelt studies were also published in March. Staff co-authored a study in collaboration with researchers from UC Davis, CDFW and Reclamation. The paper published in *PLOS ONE* (Reproductive strategy of Delta Smelt Hypomesus transpacificus and impacts of drought on reproductive performance (plos.org)) reported on a study evaluating the impacts of drought on Delta smelt reproduction. The study found that salinity was a stronger driver of distribution than temperature or turbidity during the subadult/adult period. Mature females exhibited lower numbers and smaller sized eggs during the drought of 2013-2014 than the wet year class of 2011 suggesting that reproductive performance was negatively affected by environmental conditions during the drought.

The second Delta smelt publication reported on a study funded by Metropolitan to conduct pathogen screening in Delta smelt. The paper published in *San Francisco Estuary and Watershed Science* (Investigation of Molecular Pathogen Screening Assays for Use in Delta Smelt (escholarship.org)) reported on efforts to develop molecular assays to screen cultured Delta smelt in the lab and in enclosures in the Delta, and screen wild Delta smelt for a variety of pathogens. The study found that hatchery and wild Delta smelt had similar pathogens, and that hatchery Delta smelt posed a low risk for pathogen transmission.

Staff continued participating in the Collaborative Science and Adaptive Management Program (CSAMP), including participation on the Collaborative Adaptive Management Team (CAMT). In March, activity focused on discussion of CSAMP priorities for next year, next steps in the CSAMP monitoring assessment, and on salmon recovery. Staff continued collaboration with non-government environmental organizations and public water agencies on the CSAMP Salmon Recovery Initiative. In March, the project team gave presentations to interested parties throughout the Central Valley to make them aware of the project and ask for their participation in Phase 2 of the process. At the first large presentation, over 40 interested parties including tribal groups, conservation groups, water agencies, and state and federal agencies joined the meeting. Phase 2 is focused on soliciting actions planned to aid in salmon recovery, and in phase 3, those actions will be analyzed to see which actions best achieve salmon recovery while meeting other objectives (e.g. cost, water supply, ag production, etc.).

Staff continued work on the Delta smelt and Native Species Preservation Project, which will utilize Delta island properties currently owned by Metropolitan to evaluate opportunities to support Delta smelt supplementation efforts. Staff is working with the U.S. Geological Survey to monitor the impoundments on the Delta Islands to determine their current suitability for Delta smelt supplementation research. Staff presented this study at the Interagency Ecological Program 2022 Annual Workshop held March 22-24. Preliminary findings suggest that Fall 2022 would be an appropriate time to conduct a pilot study using hatchery Delta smelt for mesocosm studies in support of state and federal agencies' Delta smelt supplementation efforts. Staff is working with CDFW and U.S. Fish and Wildlife Service to obtain the appropriate permits for the study this fall.

Delta Islands Adaptation Planning Grant

Staff is managing the Delta Island Adaptations project funded by a CDFW Proposition 1 Planning Grant. The planning project is an evaluation of opportunities for island-wide improvements that include subsidence reversal, sustainable agricultural practices, carbon sequestration, water quality improvements, and habitat restoration. The objective of this effort is to provide science-based planning for potential land uses on an entire island owned by Metropolitan that meets the Delta Plan co-equal goals using creative and innovative solutions for subsided Delta islands. The first public workshop was held on March 15, to get input from interested parties on the adaptation opportunities. The next step in the project is to document and include the public input and continue focused meetings with subject expert teams.