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 November and December 2021.

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 (DCP).

In late November, DWR amended its U.S. Department of the Army permit application pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act (Section 404 permit application), which was submitted to the U.S. Army Corps of Engineers (USACE) to make the application consistent with the Bethany Alternative. The Bethany Alternative will be the proposed project in the Draft EIR that is expected to be released for public review in mid-2022. The Bethany Alternative is intended to align with the Section 404 directive to propose a project that would avoid and minimize impacts to waters of the United States to the extent practicable.

Joint Powers Authorities

During the Delta Conveyance Design and Construction Authority (DCA) Special Board of Director's Meeting on December 16, the DCA adopted a resolution to continue remote teleconference meetings pursuant to the Brown Act Section 54953(e) for meetings of the DCA.

The final regularly scheduled DCA Stakeholder Engagement Committee occurred on December 8, during which it received updates on the review process, presentations on the updated tunnel intake conceptual design, and ongoing DCA outreach efforts.

During the Delta Conveyance Finance Authority (DCFA) regularly scheduled December 16, meeting, the DCFA adopted a resolution to continue remote teleconference meetings pursuant to the Brown Act Section 54953(e) for meetings of the DCFA.

Sites Reservoir

On November 12, the Sites Project Authority released its Revised Draft EIR/Supplemental Draft Environmental Impact Statement for public review and comment. Staff is reviewing the draft. The public review and comment period for the document was extended to January 28, 2022.

In their joint December 17 meeting, the Sites Project Authority Board (Authority Board) and the Sites Reservoir Committee (Reservoir Committee) authorized the Executive Director to submit the California Endangered Species Act Incidental Take Permit application to the California Department of Fish and Wildlife (CDFW) for the proposed Sites Reservoir Project (Project).

On December 15, the California Water Commission made a determination that the Project is feasible, which allows the Project to remain eligible for funding under the $2.7 billion Water Storage Investment Program created by Proposition 1, approved by the California voters in November 2014.

Near-Term Delta Actions

Regulatory Activities

In December, the Delta Stewardship Council (Council) began the technical input process for the Climate Adaptation Strategy phase of its Delta Adapts initiative. The Council is seeking expert input to the Adaptation Strategy through four topical focus groups: Water Supply Reliability, Ecosystems, Flood Risk Reduction, and Agriculture. Staff will be participating in all four focus groups over the next year.

At its December 16 meeting, the Council elected Virginia Madueño as Vice Chair, effective January 1, 2022. The role was most recently held by Randy Fiorini, whose appointment to the Council ended in 2020. Some additional changes in the Council Board membership could occur in the coming months, and staff will report any updates as well as status of activities in the months ahead.

Staff continued to participate in the collaborative groups called for in the 2019 Biological Opinions for the State Water Project (SWP) and Central Valley Project, 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. In November and December, staff continued collaboration with state and federal agencies to develop a Juvenile Production Estimate (JPE) for Spring-run Chinook salmon. Current efforts are focused on developing objectives to be specific to requirements stated in the ITP.

Staff also continued working with state and federal agencies to develop a monitoring program for steelhead populations within the San Joaquin Basin and/or the San Joaquin River downstream of the confluence with the Stanislaus River. The work group continued development of conceptual models that describe the life history and required monitoring for steelhead.

Staff also worked with DWR and CDFW scientists to develop a new entrainment risk model for larval longfin smelt. The entrainment risk model will be designed to help inform risk assessment evaluations and the development of a larval entrainment monitoring program.

Staff continued collaboration with the state and federal agencies to develop options related to a non-physical barrier at Georgiana Slough. The purpose of the barrier would be to deter emigrating juvenile salmon moving to the ocean from entering Georgiana Slough and thereafter the interior central and south Delta, where survival is lower relative to remaining in the mainstem Sacramento River.

Science Activities

Staff participated in a technical workshop addressing preliminary results of a salmon research project conducted by Anchor QEA consultants and funded by the Delta Science Program and Metropolitan. The objective of the project is to evaluate juvenile salmon behavioral responses to hydrodynamic conditions in the Delta. The workshop allowed stakeholders to review and provide constructive feedback on analyses and interpretation of how hydrodynamics may influence salmon behavior and routing in the South Delta. Anchor QEA will address comments and refine analyses and interpretation of results based on workshop comments and finalize a report by June 2022.

Staff attended the North American Society of Environmental Toxicology and Chemistry 2021 virtual conference in November. The conference included presentations on several studies supported by Metropolitan, including studies to evaluate floodplain toxicity to Chinook salmon and to develop a Relative Risk Assessment of contaminants in the Bay-Delta estuary on Delta smelt, Chinook salmon, and macroinvertebrates.

Staff continued participating in the Collaborative Science and Adaptive Management Program (CSAMP), including participation on the Collaborative Adaptive Management Team (CAMT). In December, CAMT discussed a draft report on the CAMT Monitoring Assessment workshop held in October to compile and communicate information from past and ongoing monitoring reviews. CAMT also discussed potential approaches to Task 2 of the Monitoring Assessment, which will assess CSAMP member policy objectives for monitoring.

Staff continued collaboration with the non-government environmental organizations on the CSAMP Salmon Recovery Initiative. The group completed the second set of workshops to develop metrics and targets to measure

progress toward salmon recovery. The workshops generated productive discussions among environmental organizations, water agencies, and state and federal resource agencies to consider various ideas and approaches to defining salmon recovery in a broad sense, and all participants expressed their gratitude and enjoyment in participating in the process. The outreach efforts for Phase 2 are currently being planned and will start in January 2022. The objective of Phase 2 of the Salmon Recovery Initiative is to reach out to other Central Valley stakeholders to share and communicate what occurred in Phase 1, to define salmon recovery, assemble information about existing salmon conditions, ongoing and planned salmon-related actions, and related socio-ecological considerations.

Two scientific papers recently published in the peer-reviewed journal *San Francisco Estuary and Watershed Science* reported on results from a Metropolitan funded study evaluating historical salinity conditions in the Bay-Delta and the performance of several flow-salinity models for the Bay-Delta. The first paper (A Survey of X2 Isohaline Empirical Models for the San Francisco Estuary (escholarship.org)) reported on a survey of flow-salinity models and found that for analyses spanning a long hydrologic record, an ensemble approach (multiple models) may be preferable to using a single model. The second paper (Apparent Seasonal Bias in Delta Outflow Estimates as Revealed in the Historical Salinity Record of the San Francisco Estuary: Implications for Delta Net Channel Depletion Estimates (escholarship.org)) reported on analyses using the historical salinity record and an ensemble of flow-salinity models to evaluate sources of seasonal bias in Delta outflow estimates.

Staff also co-authored two recently published papers from a collaboration with researchers from the Jet Propulsion Laboratory, U.S. Geological Survey, UC Merced, and Oregon State University reporting on efforts to develop satellite imagery for use in the Bay-Delta. The two papers published in *IEEE Transactions on Geoscience and Remote Sensing* (Using ECOSTRESS to Observe and Model Diurnal Variability in Water Temperature Conditions in the San Francisco Estuary | IEEE Journals & Magazine | IEEE Xplore), and *Environmental Science and Technology* (Decline in Thermal Habitat Conditions for the Endangered Delta Smelt as Seen from Landsat Satellites (1985–2019) (acs.org)) reported on studies using satellite imagery to examine habitat suitability conditions during the period 1985-2019 for Delta smelt and two non-native fish species – Largemouth bass and Mississippi silverside. The researchers found that warming waters in the Bay-Delta Estuary are reducing the available suitable habitat for Delta smelt.

Habitat Restoration

On December 3, staff participated in a tour organized by the Yolo Basin Foundation, Ducks Unlimited, Yolo County and the CDFW to view recently completed infrastructure improvements in the Yolo Bypass Wildlife Area. The multi-purpose project increases seasonal wetland acreage, improves drainage and water supply for rice fields, and managed wetlands while improving access for farmers, wetland managers, and the public. Metropolitan and the State Water Contractors are project partners and helped fund the modeling and design studies to support development of the project.

Metropolitan Bay Delta Conservation Plan/California WaterFix & EcoRestore/DCP (BDCP/CWF-CER) Expenditures

The following is a summary of Metropolitan's cumulative BDCP/CWF-CER/DCP expenditures updated for the quarter ending December 2021. This report includes the total internal costs related to the BDCP, the CWF-CER alternatives and the subsequent DCP efforts with the state administration.

Staff will continue to provide this report on a quarterly basis in the Bay Delta Management Report.

Total (July 2005 – December 2021)

BDCP/CWF-CER/DCP Internal MWD	**Total Costs (16.50 yrs.)**
Labor & Benefits [1]	$ 36.17M
Professional Services	$ 7.08M
Travel	$ 1.79M
Other [2]	$ 0.18M
SUBTOTAL	**$ 45.22M**
Administrative Overhead	$ 13.19M
TOTAL	**$ 58.41M**

[1] Labor costs include salary, leave and non-leave benefits
[2] Other includes charges for materials and supplies, trainings & seminars, conferences & meetings, reprographics, and other incidental expenses

Quarterly Summary (January 2021 – December 2021)

	FY20-21 Q3 Jan-Mar 2021	**FY20-21 Q4 Apr-Jun 2021**	**FY21-22 Q1 Jul-Sep 2021**	**FY21-22 Q2 Oct-Dec 2021**
Labor	0.327M	0.353M	0.301M	0.286M
Professional Services	0.200M	0.009M	0.003M	0.009M
Travel	0.000M	0.001M	0.000M	0.000M
Other	0.000M	0.000M	0.000M	0.000M
SUB-TOTAL	**0.527M**	**0.363M**	**0.304M**	**0.295M**
Admin. Overhead	0.121M	0.131M	0.104M	0.100M
TOTAL	**0.648M**	**0.494M**	**0.408M**	**0.395M**

The following is a summary of the Delta Conveyance Finance Authority costs for member's share of administrative expenses:

Quarterly Summary (January 2021 – December 2021)

	FY20-21 Q3 Jan-Mar 2021	**FY20-21 Q4 Apr-Jun 2021**	**FY21-22 Q1 Jul-Sep 2021**	**FY21-22 Q2 Oct-Dec 2021**
TOTAL	**0.003M**	**0.002M**	**0.004M**	**0.002M**