



## STAFF MEMORANDUM

TO: Board Members and Alternates

FROM: Scott Petersen, Water Policy Director

DATE: July 14, 2022

RE: Update on Science Program

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### SUMMARY

The San Luis & Delta-Mendota Water Authority's ("Water Authority") current science commitments for Fiscal Year 23 (March 1, 2022 – February 28, 2023) may be considered in three categories. First, the Water Authority re-budgeted \$282,652 in the current budget to fund five activities and/or studies previously authorized to be funded. Second, the Water Authority began the year with approximately \$2,000 in funds remaining from the State and Federal Contractors Water Agency ("SFCWA") to fund one study initially authorized by SFCWA and transferred to the Water Authority for funding and management, and which has now been completed. Third, the Water Authority has budgeted \$392,500 in the current budget for science studies. More detail regarding the various science commitments is provided below. In total, the Water Authority started the current fiscal year with approximately \$677,152 available to fund science, of which \$284,652 has been obligated.

### 1. Previous Commitments - \$282,652 in FY 23 Budget

Subject	Description of Work / Objective(s)	FY 23 Budget
Joint Funding of Delta Smelt Structured Decision Making Phase 3	This funding would support management and technical analyses required to conduct Phase 3 for the CSAMP Delta Smelt Structure Decision Making (SDM) project. Technical analyses would include modeling and the application of other analytical tools to evaluate the consequences of proposed management actions for Delta Smelt as well as the evaluation of potential consequences to other resource values including water supply and agriculture. Phase 3 was scheduled to occur from September 2020 to September 2021, but has been delayed.	\$45,400
Joint Funding for CAMT Technical Support	This funding would match State Water Contractor funding obligated for CAMT studies. The Water Authority is currently researching two potential uses	\$105,000

	for this funding – 1. Continuation of Delta Smelt SDM funding for Phase 3, or 2. Execution of a contract for Salmon Structured Decision Making.	
Development of eDNA monitoring tool for detection of Delta Smelt	Goal to develop an accepted eDNA monitoring tool for species detection in tidally mixed aquatic ecosystems in the Delta, and to advance eDNA aquatic monitoring towards a state-of-science that can be applied in the context of scientific, policy, and regulatory decision-making	\$63,000
Delta Smelt Incidental Take Limit Research	Funds support the evaluation of differences in salvage between pre- and post-BiOp conditions and the determination of how much variance in salvage can be explained by each of the predictor variables. Support provided to ICF Jones & Stokes, Inc., through a cost share with SWC.	\$14,252
CAMT Facilitation and Technical Support	Funds support facilitation and assistance with CAMT and CSAMP meetings. Main contracts with Essex Partnership (Bruce DiGennaro) and Hansen Environmental (Chuck Hansen) held by SWC.	\$55,000

**2. SFCWA-Funded Studies Being Managed by the Water Authority - \$0 Remaining**

Subject	Description of Work / Objective(s)	SFCWA Funds Remaining
Measuring Impact of Control of yellow Starthistle in the Northern Sac. Valley and Superior California on Watershed Runoff and Groundwater Levels	Study of the water benefits of yellow Starthistle (YST) control. If there appears to be replicable water supply benefit from YST removal, will prepare plan of recommended YST removal in California that results in increased runoff and/or improved groundwater levels. Study completed in May, 2022.	\$0

**3. New Science - \$392,500 in FY 23 Budget**

Subject	Description of Work / Objective(s)	FY 23 Budget
Science Studies/Efforts		\$392,500
Joint Funding for CAMT Technical Support	This funding would match State Water Contractor funding obligated for CAMT studies. The Water Authority and State Water Contractors are currently jointly researching two potential uses for this funding – 1. Continuation of Delta Smelt SDM funding for Phase 3b, or 2. Execution of a contract for Salmon Structured Decision Making.	\$150,000

	After deliberation within CAMT/CSAMP, the group has chosen to pursue continued development of the Delta Smelt Structured Decision Making Phase 3b, with the salmon recovery strategy being advanced through in-kind contributions this year.	
CAMT Technical Support	Funds support technical engagement by Hansen Environmental (Chuck Hansen) in CAMT and CSAMP meetings. Contract held by SWC.	\$30,000
Delta Coordination Group Summer Fall Habitat Action Structured Decision Making Facilitation Support	Funds support facilitation and assistance with Delta Coordination Group Structured Decision Making for Delta Coordination Group recommendations to Reclamation and DWR related to Summer Fall Habitat Actions in the Biological Opinions and State Incidental Take Permit. Project jointly funded with State Water Contractors.	\$12,500
SLDMWA Technical, Science and Regulatory Support	<p>Funds will be used for engagement in Science Program, technical or regulatory efforts that arise in FY 2023. Anticipated use includes technical support for the reconsultation on long-term operations of the CVP and SWP, anticipated ESA listing decisions for longfin smelt, yellow-legged frog (and others), and engagement in efforts associated with the Bay-Delta Plan Update.</p> <p>To date, efforts using this funding pool include:</p> <ol style="list-style-type: none"> <li>1. Technical Review of Knowledge Base Documents for the Reinitiation of Consultation for the Long-Term Operations of the Central Valley Project and State Water Project</li> </ol>	\$200,000

**SCIENCE PROGRAM DIRECTION**

Authority staff is planning to focus on key areas for the 2023 and future budgets, in order to assist in the development of a more coordinated science strategy between public water agencies and state and federal agencies who fund the scientific enterprise. Specifically, these recommended areas are:

- Technical Support for Authority Engagement in Regulatory Processes
- Delta Smelt Structured Decision Making
- Salmon Structured Decision Making
- CSAMP/CAMT Support
- Delta Coordination Group Support

### **Technical Support for Authority Engagement in Regulatory Processes**

The Authority has need of additional biological expertise to provide comments and a higher level of engagement with regulatory entities, including the State Water Resources Control Board, NOAA Fisheries, the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife and others. Authority staff has executed master service agreements with 9 consultants for scientific and biological support services for on-demand services centered on the areas of expertise of the respective consultant and staffing availability. Specifically, staff anticipates need for additional technical and science expertise related to engagement in the reconsultation of the long-term biological opinions for the operations of the Central Valley Project and State Water Project, the anticipated listing determination for longfin smelt by the US FWS, the anticipated listing determination and rulemaking process for the foothill yellow legged frog, and others.

### **Delta Smelt Structured Decision Making**

Compass Resources, working in conjunction with CAMT's Smelt working group, are advancing Phase 3b of the Delta Smelt Structured Decision Making development project. This aims to increase the transparency of tradeoffs and associated analyses and to inform when agencies are determining actions to protect and restore delta smelt.

### **CSAMP/CAMT Support**

The Authority has remained engaged in CSAMP/CAMT and has jointly funded facilitation support, technical support and scientific studies related to management actions associated with project operations.

### **Delta Coordination Group Support**

Authority staff is a member of the Delta Coordination Group (DCG), a group formed pursuant to Reclamation's Proposed Action and the Incidental Take Permit for the Coordinated Operations of the Central Valley Project and State Water Project. The DCG is charged with providing recommendations to Reclamation/DWR pertaining to Summer-Fall Habitat Actions for delta smelt. Facilitation support for Structured Decision Making related to summer fall habitat actions is currently being provided jointly by the Water Authority and the State Water Contractors.