



2024 Science Plan
San Luis & Delta-Mendota
Water Authority
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¹Roster is current as of December 1, 2023



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Water Authority Overview

The San Luis & Delta-Mendota Water Authority (“Water Authority”) was established in January of 1992 and consists of 27 member agencies providing water service to over one million acres of irrigated agriculture, over two million people, and an estimated 130,000 acres of managed wetlands and associated habitat within the western San Joaquin, San Benito, and Santa Clara Valleys.

The Water Authority serves two primary purposes: (1) to assume the operation and maintenance (O&M) responsibilities of specific Central Valley Project (CVP) facilities (Project Works) at an optimum level (Project Works include C.W. “Bill” Jones Pumping Plant, Delta-Mendota Canal (DMC), Delta-Mendota Canal – California Aqueduct Intertie Pumping Plant, O’Neill Pumping-Generating Plant, Mendota Pool, San Luis Drain, and as requested by Reclamation on a more project-by-project basis, the Delta Cross Channel and the Tracy Fish Collection Facility), and (2) to provide unified representation on common interests of Water Authority members.

The governing body of the Water Authority consists of a 19-member Board of Directors (Board) classified into five divisions, with Directors selected from within each division. Each Director, and respective Alternate Director, is a member of the governing body or an appointed staff member or other representative of a member agency.

The Delta-Mendota Canal is designed to deliver up to 3,000,000 acre-feet of water within the Water Authority’s member agency service area annually. Of this amount, up to 2,500,000 acre-feet are delivered to highly productive agricultural lands, up to 150,000 to 200,000 acre-feet are delivered for municipal and industrial uses, and up to 250,000 to 300,000 acre-feet are delivered to wildlife refuges for habitat enhancement and restoration.

Over the last decade, as a result of regulatory, physical, and hydrological constraints, the reliability of the surface water supplies conveyed by the DMC has been dramatically reduced. For example, during the period from 2014-2023, the federal allocation to south-of-Delta agricultural water service and repayment contractors averaged 35 percent and the federal allocation to south-of-Delta municipal and industrial users was 65 percent.



Introduction to the Science Plan

The Water Authority's Science Program is developed to support the scientific needs for natural resource and environmental management challenges and priorities that influence or directly modify CVP operations and affect the reliability water supplies for Water Authority member agencies. The Water Authority Strategic Plan, adopted in October 2023, provides guidance for the Science Program activities including:

- OBJECTIVE 1.3: The Water Authority engages in regulatory, legislative, legal, and administrative venues to optimize water supply.
- OBJECTIVE 1.4: The Water Authority's scientific studies and communication are considered credible in relevant legislative, scientific, regulatory, and public arenas.

This Science Plan provides a description of goals and objectives, support for scientific projects, and establishment of the Science Workgroup. The intent of the Science Plan is to adapt with changes in the Strategic Plan and the needs of the members and the science community. The Science Plan will be reviewed every five years, or as needed, to timely address the needs of Water Authority member agencies and the Central Valley Project water management scientific enterprise.

The Science Program is coordinated and led by the Water Authority's Special Programs Manager. The anticipated budget will be set by the Board on an annual basis, and is anticipated to vary between \$500,000 to \$1,500,000. Additionally, the Water Authority members financially contribute to a number of collaborative science and management forums, including the CVPIA Restoration Fund and the Collaborative Science and Adaptive Management Program. Direct Water Authority consideration for project level funding will be based on scientific merit and need, importance to the member agencies, and coordination with the science and policymaking community. The Science Coordination Workgroup will be established to represent the member agency science needs and priorities. The potential projects will be presented to the Science Coordination Workgroup for review and recommendations.

Goal and Objectives

The goal of the Science Plan is to establish a process to better address the scientific priorities and improve coordination and communication with member agencies and the science community. The objectives of the Science Plan include guiding science program activities and determining the priority tasks and activities. In addition, the Science Plan intends to enhance engagement with the science community.



Priority Tasks and Activities

The initial development of the Science Plan includes potential priority tasks and activities. This list is not comprehensive and is anticipated to change with the input of the Science Coordination Workgroup.

PRIORITY TASKS

To achieve the goals of the Science Plan, several short-, mid-, and long-term tasks will include:

Short-term Tasks (Year 1)

- Identify the highest priority science/knowledge gaps
- Recruit and contract with scientific experts to support the priority activities
- Establish a process for the identification, review, and selection of high-priority projects
- Develop templates and standard procedures for scientific proposals, reviews, invoices, reporting, communication, outreach, and fact sheets
- Develop a funding strategy that explores ways to secure sustainable/ongoing funding to advance Water Authority Science Program objectives
- Create metrics of success for this Science Plan, including for Science Communications
- Annually fund \$500,000 to \$1,500,000 in science

Mid-term Tasks (Years 1-3)

- Develop management questions and priority science needs, in coordination with the Science Coordination Workgroup and member agencies
- Create an objective peer review strategy for science outcomes that can quickly and credibly reach decision-makers
- Increase capacity for Water Authority science through multiple avenues, including partnerships and scientific community capacity building
- Publish annual reports describing science outcomes

Long-term Tasks (3-5+ years)

- Refine priority science needs and management questions
- Assess and adjust/revise the Water Authority Science Plan via programmatic review
- Secure sustainable/ongoing funding to advance Water Authority priorities

PRIORITY ACTIVITIES

1. Review and provide strategic, unifying direction for regulatory compliance documents

- Review, comment, and provide scientific analysis for:
 - ESA/CEQA/NEPA documents and processes
 - State Water Resource Control Board products, such as Bay-Delta Plan updates



- Voluntary Agreement Science Committee
- Permits and biological opinions related to the Central Valley Project

2. Integrate and collaborate with the scientific community

- Continue participation in Collaborative Action Management Team/Collaborative Science and Adaptive Management Program (CAMT/CSAMP)
- Participate in Adaptive Management Programs such as Delta Coordination Group
- Engage in Interagency science efforts such as Interagency Ecological Program (IEP), the Sacramento River Science Program, and the San Joaquin River Restoration Program Science Program
- Aid in public water agency Science coordination and communication
- Coordinate with the Delta Science Program initiatives
- Foster shared mechanisms and processes to enhance science funding
 - Coordinate with State Water Contactors
 - Delta Science Program
 - Other agencies and organizations

3. Build capacity for the Water Authority's Science Program

- Create robust and transparent processes to support high-impact science
- Enhance partnerships with academia and support capacity building in the Science Enterprise, including supporting the development of localized knowledge in San Joaquin Valley based universities, such as the University of California, Merced
- Develop opportunities for fellowships/apprenticeships
- Expand positions for scientific modelers/technical expertise
- Foster relationships/networking through participation in conferences, presentation, and outreach activities

4. Provide guidance for science priorities and management questions

- Reference the Delta Science Action Agenda as a starting point to develop a detailed and integrated science work plan to address topics relevant to the Water Authority, develop a prioritized list of science actions and management questions
- As a 'living science plan,' the tasks, management needs, science priorities, and processes will be revisited with sufficient frequency to ensure relevancy under dynamic conditions (no more than every 5 years)
- Annual progress reports will communicate results



Science Coordination Workgroup

The Science Coordination Workgroup aims to provide guidance to Water Authority staff for science endeavors, questions, and priorities. The representatives will work with Authority staff to improve coordination and communication with member agencies and the science community related to Water Authority Science Program activities. In addition, they will contribute to the development and updates of the Science Plan.

The Science Coordination Workgroup will consist of representatives from each of the member divisions. These appointees will assist in determining the scientific priorities, guidance, and funding for the science program. The representatives will be expected to:

1. Coordinate amongst the member agencies within their division on Science Program priorities,
2. Communicate interests and priorities of the division,
3. Attend workgroup meetings,
4. Provide feedback on reports and project deliverables, and
5. Indicate any potential issues or necessary science reviews

The current representatives are listed in the table below.

Division	Representative (as of 1/2024)	Affiliation
1	Vince Lucchesi Dave Weisenberger	Patterson Irrigation District Banta-Carbona Irrigation District
2	Jeffrey Payne	Westlands Water District
3	Ric Ortega Steve Chedester	Grassland Water District San Joaquin River Exchange Contractors Water Authority
4	Heidi Williams	Valley Water
5	TBD	TBD

Funding

All funded science projects and programmatic endeavors will be based on best available science, defined as information and data generated through the application of a transparent and repeatable scientific process for informing management and policy decisions at a given point in time (Delta Science Plan 2019, Sutherland and Woodroof 2009). The tenets of best available science adopted by the Water Authority include relevance, inclusiveness, objectivity,



transparency/openness, timeliness, and peer review (Appendix 1A in Bay-Delta Plan). With a modest budget, the Water Authority is committed to collaborating with partners in academia, government, non-profit, and the private sectors to maximize the benefit of funded projects to meet the needs of the science community and priorities identified in the Water Authority Strategic Plan (2024).

In order to be considered for funding, each project must meet one or more of the following criteria (or directly address one of the following science themes/objectives), within the CVP watershed:

- Reliable and sustainable water supply
- Floodplain restoration
- Improvement of habitat and ecosystem functions
- Multi-benefit projects
- Collaborative science efforts
- Socioeconomic impact studies and strategies
- Support efforts for necessary scientific studies and analyses
- Collection of necessary datasets and improvement of analysis and synthesis

Concept and/or full proposals will be screened by the initial criteria, and then vetted by the Science Coordination Workgroup. This group will provide additional input on the need/urgency, merits, and benefits of the proposal. The group may request an independent review as necessary. Such a review would be conducted by the Science Program Manager with two or more reviewers including a member agency technical expert, and a discipline-relevant non-agency scientist. Each review will consider the proposal's scientific merits, feasibility, and qualifications of the investigator(s). The results of the review will be presented to the Science Coordination Workgroup for a final recommendation to the Water Resources Committee and Board for final approval, consistent with SLDMWA's adopted procurement policy.

Considerations for funding may include single and multi-year commitments as determined by the approved Water Authority budget. The proposed budget will be provided to the Water Authority Board and include the priority science activities, hold-overs, obligations, new expenditures, consultants, and joint funded science.

Science Program Communication

REPORTING

The Science Coordination Workgroup will provide an annual report to the Water Authority Board including updates on science activities, expenditures, and future projects. The report will focus on the recent funded studies, research, and accomplishments. In addition, the report will identify potential science needs.



OUTREACH

The Water Authority will develop an outreach plan to better communicate the accomplishments and studies funded by the Science Program. This strategy will aim to promote effective science communication with a diverse communication strategy. In addition, it will encourage publication of information in open access journals, reports, and science community forums.

References

Delta Stewardship Council, Delta Science Program. 2022. Delta Science Action Agenda.
<https://scienceactionagenda.deltacouncil.ca.gov/pdf/2022-2026-science-action-agenda.pdf>

Delta Stewardship Council, Delta Science Program. 2019. Delta Science Plan: Vision, principles, and approaches for integrating and coordinating science in the Delta.
<https://deltacouncil.ca.gov/pdf/2019-delta-science-plan.pdf>
<https://deltacouncil.ca.gov/pdf/delta-plan/2015-appendix-1a.pdf>

Sutherland, W.J., Woodroof, H. (2009). The need for environmental horizon scanning, Trends in Ecology & Evolution, 24(10): 523-527.
http://www.cpsg.org/sites/cbsg.org/files/2013_AM/Sutherland%20&%20Woodroof%202009.pdf



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