

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CENTRAL VALLEY REGION

RESOLUTION R5-2021-0054

APPROVAL OF DELTA REGIONAL MONITORING PROGRAM GOVERNANCE
STRUCTURE AND IMPLEMENTING ENTITY

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board), finds the following:

Sacramento-San Joaquin Delta

1. The Sacramento-San Joaquin Delta (Delta) is an important water supply for municipal, industrial, and agricultural use for much of the state and is a critical ecosystem for fish and wildlife, including many rare and endangered species. The native fishes of the Sacramento–San Joaquin Delta have been declining at an increasingly rapid rate for more than two decades. This decline has significant consequences for water resource management in the Delta. There is no single cause for the decline of these fishes. All facets of the Delta ecosystem have changed dramatically in the past two decades and most changes have been detrimental to native fishes. Climate change, recent droughts, and increasing wildfires are a few of these changes. One major factor that can cause harm to native species are discharges that alter water quality (through land and water use activities). Upstream water diversions have increased contaminant concentrations, and current export pumping practices exacerbate poor water quality conditions in altered habitats. Discharge contaminants have been documented in all major aquatic habitats in the Delta and Suisun Marsh. Discharges that alter water quality affect both individual and populations of native species. The magnitude of cumulative effects of multiple discharges that alter water quality is not well documented in the Delta. However, cumulative effects of harmful discharges may also affect native species through direct toxicity or disruption of food webs.
2. Understanding the current water quality conditions within the Delta and the potential impacts to water quality conditions is important to preserve and enhance the Delta and inform corresponding regulatory and management decisions, which should be based upon sound science.

Delta Regional Monitoring Program Formation

3. Prior to the establishment of the Delta Regional Monitoring Program (Delta RMP), there was a lack of coordinated monitoring and data evaluation among programs that studied water quality in the Delta. This lack of coordination resulted in the inability to conduct regional assessments of the water quality conditions impacting

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beneficial uses within the Delta and highlighted the need to form a regional monitoring program in the Delta.

4. The Delta RMP is an identified priority project in the State Water Resource Control Board's (State Water Board) and Central Valley Water Board's 2014 Delta Strategic Plan, and the Delta RMP is recommended in the Delta Plan adopted by the Delta Stewardship Council.
5. The Central Valley Water Board requires individual dischargers and discharger groups to conduct monitoring of Delta waters and Delta tributary waters in the vicinity of their discharge, known as ambient (or receiving) water quality monitoring. This monitoring provides information on the impacts of waste discharges on Delta waters and on the extant condition of the Delta waters.
6. The Central Valley Water Board determined that funding for ambient water monitoring efforts could be used more efficiently and effectively while also providing a better understanding of geographic and temporal distributions of contaminants and physical conditions in the Delta if those funds were used for a coordinated, regional ambient monitoring effort, rather than continue to be used in individual, uncoordinated ambient water quality monitoring programs.
7. The Delta RMP was initiated in 2008 and formed in 2012 and is a collaboration of regulatory agencies, resource agencies, permittees, scientists, and interested parties. As initially formed, the Delta RMP governance structure comprised a Steering Committee, Technical Advisory Committee, and subcommittee workgroups. The Steering Committee—of which the regulatory agencies, including the Central Valley Water Board, had three (3) out of sixteen (16) seats—would make all binding decisions for the Delta RMP. The Aquatic Science Center (ASC), a joint powers agency created by the State Water Board and Bay Area Clean Water Agencies, served as the Implementing Entity for the Delta RMP since the inception of the program.

Resolution R5-2013-0130 and Participant Approvals

8. In 2013, the Central Valley Water Board adopted [Resolution R5-2013-0130](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2013-0130_res.pdf) (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2013-0130_res.pdf). This Resolution stated the Board's intent to modify existing individual and group monitoring programs to allow dischargers to participate in the Delta RMP in lieu of conducting individual monitoring or individual special studies.
9. Participation in the Delta RMP by a discharger consists of providing funds and/or in-kind services to the Delta RMP at least equivalent to discontinued individual monitoring and study efforts. Participating discharger agencies in the Delta RMP include wastewater treatment, stormwater, agriculture, flood control, ports, and dredgers.

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10. Consistent with Resolution R5-2013-0130, the Central Valley Water Board modified existing individual and group monitoring programs between 2015 and 2019 to allow dischargers to participate in the Delta RMP in lieu of conducting certain individual monitoring efforts. Further, the Board's Executive Officer issued several Water Code section 13267 Orders and entered into inter-agency agreements for Delta RMP discharger participation. The Central Valley Water Board also transferred some special studies and other permit requirements from individual permittees to the Delta RMP and accepted studies conducted by the RMP in lieu of requiring studies by individual dischargers.
11. In modifying existing requirements for dischargers within the legal Delta boundary and for dischargers within the proximity of a one-day water travel time to allow for participation in the Delta RMP, some permittees were granted reductions to receiving water monitoring otherwise required under waste discharge permits or water quality certifications. The rationale for the reductions is based on the greater potential value of coordinated regional monitoring to answer complex water quality issues within the Delta.
12. In approving dischargers' participation in the Delta RMP, the Executive Officer established minimum annual contributions reasonably equivalent to costs of reduced monitoring and accepted studies conducted by the Delta RMP in lieu of requiring special studies by individual dischargers.
13. The Delta RMP began implementing monitoring designs for pathogens, current use pesticides and toxicity, and mercury in 2015. A few years later, a nutrients synthesis project to identify monitoring gaps in the Delta led to a collaborative monitoring study and chlorophyll-a sensor intercalibration study, both utilizing multiagency efforts, that provided information in the development of the Delta Nutrient Research Plan. In 2020, the Delta RMP added monitoring for constituents of emerging concern, cyanobacteria, and cyanotoxins. These monitoring efforts led to several important multi-year Delta RMP datasets that were included in water quality management decision making for an Irrigated Lands Regulatory Program Toxicity Management Plan and the Delta Methylmercury Total Maximum Daily Load reconsideration.
14. In 2019, the State Water Board adopted [State Water Board Resolution No. 2019-0011](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2019/rs2019_0011) (https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2019/rs2019_0011.pdf) which authorized use of Supplemental Environmental Project (SEP) funds to be used for Delta RMP projects.

New Delta Regional Monitoring Program Implementing Entity

15. In August 2019, the Delta RMP Steering Committee formed an ad-hoc governance subcommittee, comprising five Steering Committee representatives from the regulatory and regulated communities, to consider alternative governance models and program changes to address emerging program needs. Several governance

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and implementation models were considered including formation of a joint powers authority, a 501(c)(3) non-profit, or a memorandum of understanding/ memorandum of agreement.

- a. In October 2020, ASC informed the Delta RMP that ASC would no longer continue to be the implementing entity for the Delta RMP, effective July 1, 2021.
 - b. In January 2021, the ad-hoc governance subcommittee provided the Delta RMP Steering Committee a recommendation for a new governance structure, which included the formation of a new non-profit organization to implement the program. The Steering Committee decided to move forward to change the structure and form a new 501(c)(3) organization based on this recommendation.
 - c. In March 2021, a newly formed non-profit organization, called the Delta Regional Monitoring Program (Corporation) was developed and registered with the California Secretary of State on March 17, 2021. The Corporation's Board of Directors approved the Bylaws on April 19, 2021. The Corporation has begun the process of applying for 501(c)(3) status. The Corporation's Board of Directors consists of representatives appointed by discharger categories, including irrigated lands, municipal separate storm sewer systems, publicly owned treatment works, water supply, and dredge or fill dischargers, and a Board appointed at-large director, which comprise the 11 director seats. The Bylaws provide a means for the Board of Directors to form other committees, including committees of the Board or advisory committees. The members of these committees are determined by the Board of Directors upon initiation, discussion, and development of a respective committee's charge.
16. The Corporation has established a new governance structure for the Delta RMP, that includes replacement of the Implementing Entity, ASC, with the newly formed Corporation. Under the new governance structure, the Corporation's Board of Directors makes all binding decisions for the Delta RMP. The Board of Directors will appoint both standing committees of the Board and advisory committees to the Board of Directors. The Steering Committee is an advisory committee described in the Bylaws and consists of a similar makeup under the prior structure which includes 16 seats, including 3 regulatory agencies. The Steering Committee decisions are in the form of recommendations to the Board of Directors. In addition, the Board of Directors has formed additional advisory committees that include website development, management advisory committee, technical advisory committee structure, and six technical advisory committees including methylmercury, current use pesticide and toxicity, constituents of emerging concern, nutrients, data management, and toxicity identification and evaluation.
17. The Central Valley Water Board intends to continue to provide program resources and dedicated staff engagement in the stakeholder process to ensure the Delta

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RMP continues to effectively and efficiently implement coordinated monitoring projects that generate useful data to inform management decisions and Central Valley Water Board actions, and that discharger participation in the regional effort continues to be appropriate in lieu of individual requirements.

18. To maintain adequate regulatory oversight and ensure the continued value and effectiveness of regional monitoring—in lieu of individual monitoring and special studies—in investigating water quality issues in the Delta, the Central Valley Water Board requires annual workplans, subject to the Executive Officer’s review and approval, on Delta RMP projects and regular reporting on Delta RMP projects, discharger participation, Delta RMP governance, and monitoring results. Further, to ensure the Delta RMP’s adherence to the U.S. EPA and State Water Board’s principles and guidance for open data and quality assurance, the Central Valley Water Board requires development, submission, and approval of data management and quality assurance project plans.

THEREFORE, BE IT RESOLVED:

1. The Central Valley Water Board approves the Corporation as the new implementing entity of the Delta RMP and the new governance structure of the program. Future refinements to the Delta RMP governance structure, Delta RMP foundation documents, and other Corporation policy and procedure changes must be reported to the Central Valley Water Board through the reporting requirements in *Attachment A: Delta RMP Submittals*. The Executive Officer shall review the refinements and determine whether or not the refinements continue to ensure the effectiveness of regional monitoring and adequate monitoring and assessment of cumulative impacts that alter water quality, in lieu of individual monitoring and special studies, in investigating water quality issues in the Delta.
2. To maintain Central Valley Water Board approval of the Corporation as the implementing entity and discharger participation in the Delta RMP in lieu of individual monitoring, reporting, and special study requirements, the Corporation must submit the documents in *Attachment A: Delta RMP Submittals* for Executive Officer review and approval, in accordance with the timelines and requirements therein.
3. The Central Valley Water Board intends to modify, as necessary, existing individual and group monitoring requirements to be consistent with this Resolution.
4. Any changes to participants’ minimum annual contributions to the Delta RMP require Executive Officer approval.
5. The Executive Officer may enter into a Memorandum of Understanding with the Corporation, consistent with this Resolution, to further document the relationship between the Central Valley Water Board and the Corporation as it pertains to implementation of the Delta RMP.

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6. If the Delta RMP does not meet the requirements set forth in this Resolution, including Attachment A, or if future refinements are inadequate to ensure the monitoring needs and effectiveness of regional monitoring, in lieu of individual monitoring and special studies, the Central Valley Water Board or its designee may consider reinstating and augmenting, as appropriate, individual monitoring and special study requirements pursuant to Water Code sections 13267 and 13383 to ensure adequate monitoring and assessment of cumulative impacts of multiple discharges that alter water quality in the Delta.

I, PATRICK PULUPA, Executive Officer, certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Valley Region on 15 October 2021.



PATRICK PULUPA, Executive Officer

ATTACHMENT A

Delta RMP Submittals for Executive Officer Approval

1. An annual Monitoring Workplan shall be submitted by May 1 and once approved, any changes or refinements to the Monitoring Workplan will require Executive Officer approval prior to implementation. The Monitoring Workplan shall include the following elements:
 - a. Identify the projects the Delta RMP will implement over the next fiscal year (July 1 through June 30).
 - b. Develop and provide the initial draft budget estimate for each project. The final budget shall be submitted as a separate document by June 30.
 - c. Identify management, monitoring, and assessment questions to be addressed by each project in the Monitoring Workplan.
 - d. Provide a study design to address monitoring and assessment questions. The study design shall include the following information:
 1. Specific hypothesis to be tested
 2. Sample locations
 3. Sample collection frequency
 4. Sample analytes
 5. Analysis methods
 6. Preliminary data deliverables
 7. Planned reports to summarize results
 8. Timeline and schedule for all of the study design elements to be completed
2. A Data Management Plan shall be submitted by October 1, 2022 and reviewed and revised every 3 years thereafter or as new projects are approved. Once approved, any changes or refinements to the Data Management Plan will require approval from the Executive Officer prior to implementation. The Data Management Plan will include the following:
 - a. Demonstrate consistency with the core principles for open data to improve data accessibility as identified in the State Water Resources Control Board [Resolution No. 2018-0032](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/rs2018_0032.pdf) (https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/rs2018_0032.pdf).

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- b. Identify how the Delta RMP will ensure data are of known and documented quality and identify practices to protect data integrity with standards and protocols, including protocols to establish data responsibility and accessibility.
 - c. Include a plan to upload all data to the California Environmental Data Exchange Network (CEDEN) or the National Water Information System (NWIS) or, in the event data cannot be uploaded to CEDEN or NWIS, another Executive Officer approved publicly accessible database. All data must be uploaded to one of these identified databases within 6 months of the last sampling event date in the QAPP.
 3. U.S. EPA requires the State Water Board and regional water quality control boards (collectively, Water Boards) to have a State Quality Management System, which is a hierarchy of Quality Assurance documents. The Quality Management Plan (QMP) documents the structure of an organization's quality system and describes the quality policies and procedures, criteria, roles, responsibilities, and authorities for environmental data. The Quality Assurance Project Plan (QAPP) is a detailed record of the scope and objectives of data collection activities, and the procedures and types of quality assurance and quality controls required to meet these objectives. The Delta RMP QAPP shall be submitted by May 1 and will adhere to guidance and requirements from both the Water Boards and U.S. EPA.
 - a. Guidance for developing QAPPs that meet the requirements of the Water Boards and U.S. EPA is provided here: [Quality Assurance/Quality Control - QAPP | California State Water Resources Control Board](https://www.waterboards.ca.gov/water_issues/programs/quality_assurance/qapp.html) (https://www.waterboards.ca.gov/water_issues/programs/quality_assurance/qapp.html). The QAPP must include a documentation process for deviations and an assessment and corrective action process. These processes should include how the deviation will be documented and assessed and the corrective response action(s) that will be taken.
 - b. The Delta RMP QAPP must be reviewed and approved by the State Water Board Quality Assurance Officer or the Central Valley Water Board's Quality Assurance Officer. Project implementation cannot occur until the QAPP is approved.
 - c. Deviations to the QAPP that can prevent project and data quality objectives from being met shall be described in the QAPP and must be approved by the Central Valley Water Board Quality Assurance Representative, the State Water Board Quality Assurance Officer, or the Central Valley Water Board Quality Assurance Officer prior to implementation. When prior approval is not possible, the deviations must be reported to the Central Valley Water Board Quality Assurance Representative within 7 calendar days of the Corporation staff, Corporation Board of Directors, Delta RMP participants, or Delta RMP contractors becoming aware of the deviation.

Delta RMP Submittals That Do Not Require Executive Officer Approval

4. An annual list, submitted by July 1, of current permittees participating in the Delta RMP and the participant contributions associated with each permittee that will be invoiced for the fiscal year.
5. An Annual Report shall be submitted by February 1, summarizing all monitoring projects or studies conducted during the prior fiscal year. The report will include a list of all publicly available datasets (including data and metadata), explanations for why any aspect of the Monitoring Workplan was not completed, and any deviations from the Monitoring Workplan, Data Management Plan, or the QAPP.
 - a. The Annual Report will include a quality assurance section that shall identify and describe all QAPP deviations and any other project deviations that impacted the quality of the Delta RMP data in order to ensure data are of known and documented quality. The quality assurance section of the Annual Report will include the following:
 - i. A list and description of all deviations to the QAPP
 - ii. The corrective action(s) taken to address the deviation(s)
 - iii. A description of how the Delta RMP monitors the effectiveness of any corrective actions and ensures any deviations do not occur frequently in the future
 - iv. Summary of dataset completeness, precision, and accuracy
 - v. A list and description of sample comparisons or tests that did not meet minimum test acceptability criteria for analyses or were considered invalid
 - vi. Results for all analyses completed during the reporting period and comparison of results to previous year's observations, if applicable
 - vii. List of monitoring data (and associated metadata) that do not meet predetermined quality control measures and measurement quality objectives
6. Quarterly reports summarizing all decisions made by the Board of Directors of the Corporation, all other program committees, all challenges the program encounters that could potentially cause deviations to the Monitoring Workplan, Data Management Plan, and QAPP. The quarterly reports will also summarize any changes to foundational documents, Corporation policy and procedure changes, and any other changes that can impact the Delta RMP. These quarterly reports will be submitted on the following timelines:
 - a. November 1 for the reporting period July 1 through September 30

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- b. February 1 for the reporting period October 1 through December 31
 - c. May 1 for the reporting period January 1 through March 31
 - d. August 1 for the reporting period April 1 through June 30
7. Preliminary raw data and monitoring results shall be provided to the Central Valley Water Board within 60 calendar days from the date of sample analysis. The Corporation will report within 60 calendar days of the date of sample analysis to the Central Valley Water Board when monitoring results exceed the water quality metric for each analyte from the list of water quality metrics provided by the Central Valley Water Board. The Central Valley Water Board will provide a list of relevant water quality metrics, including all relevant water quality objectives, to the Delta RMP by July 1 each year based on the submitted Monitoring Workplan. Sampling and monitoring results shall be submitted within 6 months from the date of sample analysis, in a format described in the approved Data Management Plan or QAPP, and the data must go through primary quality verification and corrective actions completed, if applicable.
8. [State Water Board Resolution No. 2019-0011](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2019/rs2019_0011.pdf) (https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2019/rs2019_0011.pdf) authorizes use of Supplemental Environmental Project (SEP) funds to be used for Delta RMP projects. Consistent with Resolution No. 2019-0011, quarterly reports shall be submitted for all current and future Delta RMP projects funded by SEP funds that summarize progress on all aspects of the project, including current expenditures for each task and total samples collected and analyzed. All study results, including data and metadata, must be of known quality and be made available to the public. The Delta RMP must indicate on its website and reports that the project received funding as part of a Central Valley Water Board enforcement action. These quarterly reports will be submitted on the following timelines:
- a. November 1 for the reporting period July 1 through September 30
 - b. February 1 for the reporting period October 1 through December 31
 - c. May 1 for the reporting period January 1 through March 31
 - d. August 1 for the reporting period April 1 through June 30