

Delta Independent Science Board (DISB) Water Quality Review Draft Prospectus

Goal:

This review will focus on evaluating the scientific basis for assessing water quality in the Sacramento-San Joaquin Delta (Delta, hereafter) and how this information is being used in making management decisions in the Delta, especially in support of adaptive management. The review will focus on:

- Assessing the water quality parameters that are currently being monitored, and what additional parameters may be necessary.
- Examining how water quality data are being used in management decisions, including the technical basis of the data being generated, the utility of different types of data, and whether the data are sufficient to support management decisions.

Motivation:

Good water quality will support a healthy Delta ecosystem. There is a continuing perception that water quality is impaired in the Delta and is not being considered adequately in management, especially for ecosystem health. Proposed changes in water conveyance and changes in hydrology related to climate change are likely to affect water quality, providing further impetus for a review on this topic.

Water quality is a complex subject, and is closely linked to the coequal goals of providing a more reliable water supply for California and protecting and restoring the Delta ecosystem. Many agencies and groups monitor water quality, water flows, and ecological conditions in the Bay-Delta. However, even though science is increasingly telling us that 'sublethal' exposures to contaminants can profoundly affect fitness, and consequently survival and reproduction of many species, there is no comprehensive contaminants monitoring and assessment program.

Scope:

The Delta Independent Science Board (DISB) proposes to focus this review on three priority areas: chemical contaminants (including mercury, methylmercury, selenium, and pesticides, as well as other chemical contaminants), nutrients, and pathogens). Our approach will be similar to, but broader than, the ongoing process to develop a Regional Monitoring Program (RMP) for the Delta. Water quality is also defined in a variety of ways depending on different stakeholder groups (e.g., for drinking water, agricultural use, and ecosystem health), and while our review will focus on ecosystem health, it will incorporate some aspects of human health and well-being by also considering drinking water. Finally, our review will include sediment quality as appropriate, for those parameters that are influenced by water-sediment interactions.

Intended audience:

- Delta Stewardship Council
- Delta communities and residents
- Stakeholders for the Delta RMP (e.g., State Water Board, Central Valley Regional Water Board, and San Francisco Bay Regional Water Board; water contractors (e.g. SFCWA); publicly owned treatment works (POTWs); agricultural dischargers; USDA, CA Dept of Food and Agriculture
- Water management agencies (Department of Water Resources; US Bureau of Reclamation)
- Resource agencies (CA Dept of Fish & Wildlife, NOAA Fisheries, US Fish & Wildlife)
- Interagency Ecological Program

- US Environmental Protection Agency

From what constituents/agencies will we request information?

- USGS, including the National Water Quality Assessment Program, the CA Water Science Center, and the National Research Program in Menlo Park.
- USEPA
- Surface Water Ambient Monitoring Program [SWAMP]
- Water Boards: State Water Board, Central Valley Water Board and San Francisco Bay Water Board
- Sacramento Sanitation District
- State and Federal Contractors Water Agency [SFCWA]
- Interagency Ecological Program
- Delta RMP

Expected outcomes

This review is expected to have the following outcomes:

- An assessment of how water quality information is being used to inform management programs in the Delta.
- An evaluation of whether appropriate water quality parameters are being measured.
- Recommendations regarding resource allocations to different aspects of Delta water quality, including monitoring, methods development, data synthesis, and original studies aimed at understanding how water quality affects organisms/ecosystem.

These outcomes will be used to:

- Identify and prioritize gaps in information.
- Identify unnecessary or less useful information being provided through current water quality monitoring programs.
- Anticipate and articulate future needs.

Projected Timeline:

Individual Board Comments on Prospectus: July 2015

Draft Prospectus for Public Comment: August 2015

Revised Prospectus: September 2015

Information Gathering: October 2015 – January 2016

Draft for Individual Board Comments: March 2016

Final Report: Summer 2016

Other recent relevant reviews or products:

Delta RMP Monitoring Design