



INFORMATION ITEM

Delta Independent Science Board Update: Monitoring Enterprise Review

Summary: Dr. Stephen Brandt, Dr. Virginia Dale, Dr. Joe Fernando, and Dr. Tanya Heikkila of the Delta Independent Science Board (Delta ISB) will present the Delta ISB's findings and recommendations from the most recent Delta ISB review of the monitoring enterprise, which covers the suite of scientific monitoring programs in the Sacramento-San Joaquin Delta (the Delta).

BACKGROUND

As mandated by the Sacramento-San Joaquin Delta Reform Act of 2009, California Water Code sections 85000, et seq., (Delta Reform Act), the Delta ISB is responsible for providing oversight of the scientific research, monitoring, and assessment programs that support adaptive management in the Delta (Water Code Section 85280(a)(3)) and providing independent advice on the Delta Plan (Water Code Section 85308(a)). The findings and recommendations from the Delta ISB inform updates to and the implementation of the Delta Plan, the Science Action Agenda, the Delta Science Plan, and other Delta Stewardship Council (Council) projects.

The Delta ISB reviews programs that support adaptive management by "thematic" or topical areas to meet its legislative mandate. To date, the Delta ISB has completed and presented the following thematic reviews to the Council: restoration (2013), fish and flows (2015), adaptive management (2016), levee hazards (2016), Delta as an evolving place (2017), water quality (2018), the Interagency Ecological Program (2019), and non-native species (2021). In addition, the Delta ISB also reviews specific science documents related to adaptive management or the Delta Plan. These reviews can be either self-initiated or based on a specific request from an individual or entity.

As described in the Delta Science Plan, the comments, findings, and recommendations of the Delta ISB are expected to increase scientific credibility, improve research clarity, advance the debate about Delta issues, and seek better connectivity between science, management, and policy. The communication and relationship between the Council and Delta ISB are critical for helping to inform the Council's work.

Since the last update to the Council in May 2021, the Delta ISB published its review of the monitoring enterprise, which covers the suite of scientific monitoring programs in the Delta. Monitoring is vital to understanding ecosystem status,

functioning, and responses to management actions and changes in environmental drivers. Furthermore, monitoring is a key step in adaptive management, which is required by the Delta Plan for water management and ecosystem restoration projects in the Delta and is part of the Delta Plan's adaptive management cycle.

HIGHLIGHTS FROM THE MONITORING ENTERPRISE REVIEW

The goals of this review were to assess: 1) how well the information collected from monitoring meets the needs of management agencies; 2) if coordination and information flow could be improved; and 3) how monitoring data can better support the implementation of adaptive management. This review included a comprehensive inventory of all monitoring activities and was informed by a literature review, public comments, brown bag seminars and panels, a monitoring workshop, a survey, and subsequent interviews with experienced scientists and managers involved in Delta monitoring.

The review found that there was not a consolidated description of the management context, decision-making needs, or specific questions for adaptive management in the Delta sufficient to evaluate monitoring gaps fully. The needs for adaptive management span concerns of water supply, water quality, flood protection, species, habitat, and land use to achieve the coequal goals. A survey and workshop further confirmed a common perception of a monitoring-management disconnect. The disconnect between monitoring needs and data collection is not unique to the Delta and could be improved through better planning, coordination, and communication.

To help improve coordination and adaptive management and to inform monitoring that better meets the needs of management, the Delta ISB provides a Monitoring Adaptive Management Framework to structure all programs, best practices that should be formally adopted into individual programs, and three overarching recommendations directed at the monitoring enterprise as a whole (see Figure 1).

For details on the Adaptive Management Framework, best practices, and recommendations, please see the full report (Attachment 1).

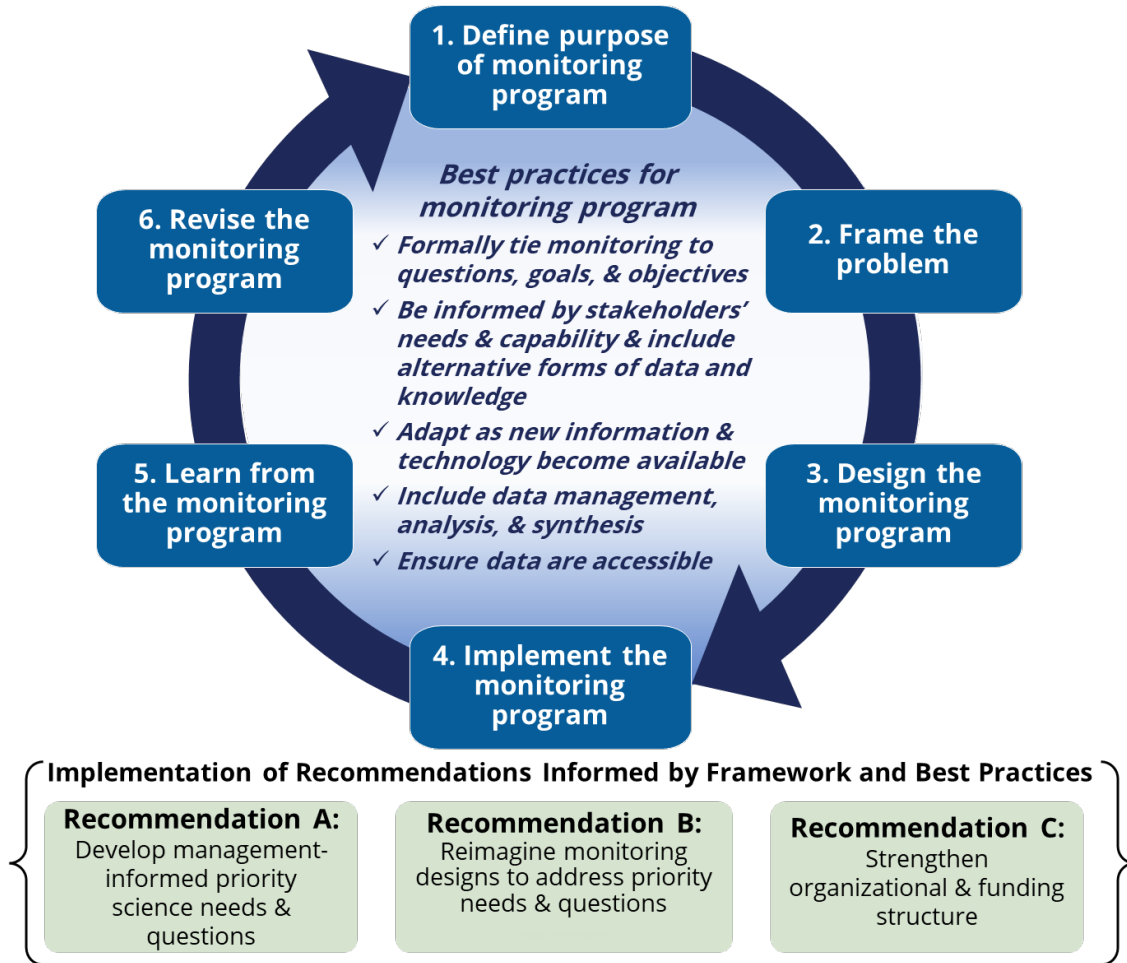


Figure 1. Adaptive management monitoring framework, best practices, and key recommendations.

FISCAL INFORMATION

Not applicable

LIST OF ATTACHMENTS

Attachment 1: Review of the Monitoring Enterprise in the Sacramento-San Joaquin Delta

CONTACT

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