



California Water Quality Monitoring Council



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COMMENTS ON THE FIRST DRAFT DELTA SCIENCE PLAN

As Coordinators of the California Water Quality Monitoring Council (Monitoring Council), we appreciate the opportunity to provide preliminary comments on the first draft Delta Science Plan. At its May 29 meeting, the Monitoring Council requested that an agenda item be prepared for its next meeting on August 28 to explore the Monitoring Council's role in a proposed Delta Science Plan for organizing and integrating ongoing scientific research, monitoring, analysis, and data management among entities involved in the Delta. They asked that this item include the efforts of Monitoring Council, its workgroups, and the [My Water Quality](http://www.MyWaterQuality.ca.gov) portals to make data more readily accessible to decision makers and the public. Because the first draft Delta Science Plan was released after the Monitoring Council met in May and with comments due prior to its next meeting, the following comments should be considered to be the views of Monitoring Council Coordinators, rather than the Monitoring Council itself.

While we appreciate mention of the Monitoring Council, its wetland and estuary monitoring workgroups and *My Water Quality* portals, we feel that the Delta Science Plan could rely more substantially on what these efforts have already accomplished to provide coordination of monitoring, assessment, data management, and reporting than are reflected in the first draft. Under the legal mandate provided by California Senate Bill 1070 (Kehoe, 2006), the Monitoring Council developed a comprehensive approach to improved water quality monitoring, assessment and reporting, as detailed in [A Comprehensive Monitoring Program Strategy for California](#) (Comprehensive Strategy). The Comprehensive Strategy relies on collaborative thematic work groups to focus efforts on broad areas of water quality and associated ecosystem health, and to develop theme-based internet portals, accessed through a single point of entry, the [My Water Quality](http://www.MyWaterQuality.ca.gov) website. Workgroup concentration on delivery of information to the user both requires and motivates parties to solve monitoring and assessment coordination and data integration problems, with a focus on directly addressing management questions. The presence of the portals provides

a conceptual structure that initiates dialogues between existing and emerging monitoring programs, thereby providing the opportunity to think more broadly than they would otherwise do, and enabling broader-based assessments than were possible before. In reviewing the draft Delta Science Plan, we see significant opportunities for collaboration between our efforts.

To carry out the mission of improved oversight and coordination in the Delta, synthesis of research and data into accessible scientific information, improved use of science in adaptive management, and improved communication between scientists and policy makers the Delta Science Plan could easily build on the Monitoring Council's Comprehensive Strategy and several years of implementation. The Monitoring Council has been mandated to address similar deficiencies by the legislature, through both legislation and a Memorandum of Understanding between the California Environmental Protection Agency and the California Natural Resources Agency. The Monitoring Council's solution to improve water quality and aquatic ecosystem monitoring, assessment, and reporting, contained in the Comprehensive Strategy, is already being implemented for California's wetlands, estuaries, streams and rivers. We believe that the Delta Science Plan would be substantially improved by directly acknowledging integration with relevant Monitoring Council-sponsored efforts.

Multiple pieces of legislation enacted in recent years recognize the lack of coordination between organizations that monitor, assess, and report on water quality and the health of our aquatic resources. Differences in monitoring objectives, data collection methods, assessment strategies, and data management make it difficult or impossible to bring these data together to develop a clear picture of the status of our aquatic resources, related public health and welfare issues, and the effectiveness of agency programs to manage our aquatic resources. Success of the Delta Science Plan also depends on addressing these deficiencies.

The Delta Science Plan directly relates to and could easily be built upon a number of existing Monitoring Council-sponsored efforts.

- The [California Wetland Monitoring Workgroup](#) is a collection of twenty-three state, federal and local organizations jointly pursuing a number of focused coordination and standardization efforts designed to enable California to comprehensively assess the extent and health of its wetland ecosystems. Under the umbrella of its [Wetland and Riparian Area Monitoring Plan](#), the workgroup has developed key tools including:
 - A comprehensive GIS layer of the State's waters called the California Aquatic Resources Inventory (CARI);
 - Standardized methods with which to identify, classify and map wetland habitats;
 - Methods to rapidly assess wetland health ([California Rapid Assessment Method](#) or CRAM);
 - A web-based system called [EcoAtlas](#) to gather, manage, assess, and present wetland extent and health data as well as wetland restoration projects; and
 - A recently redesigned [California Wetlands Portal](#), making wetland information readily accessible to the public in a format that directly addresses their questions.

Through the development of these tools, the Wetland Monitoring Workgroup is playing a key role in the State Water Board's efforts to build a comprehensive [Wetland and Riparian Area Protection Policy](#) (WRAPP). The workgroup is also working with the State Water Board, the U.S. Army Corps of Engineers, and others to develop web-based tools

to manage data for water quality certification and the permitting of dredge and fill projects, pursuant to Sections 401 and 404 of the Clean Water Act, respectively. Through the workgroup's outreach efforts, their tools are being used to assess wetlands involved in the planning and development of High Speed Rail, Delta Conveyance facilities, and Caltrans' Willits Bypass Project. These tools could easily be adapted to map, assess, and manage Delta restoration projects.

- With the blessing of the Interagency Ecological Program Coordinators and managers of the Ecosystem Restoration Program and with significant resources from the State and Federal Contractors Water Agency the [California Estuary Monitoring Workgroup](#) is working to coordinate data and assessment information from numerous sources about the San Francisco Bay-Delta Estuary. This workgroup has developed a set of innovative web-based tools that help researchers and agency staff to develop stories based on key estuary data sets, research studies, maps, and related information. Their California Estuaries Portal, scheduled for public release by the end of 2013, will tell stories about the condition of major biological resources of this critically important estuary, the drivers of estuary health, and detailed data about the estuary's physical, hydrologic, and chemical condition. The Estuary Monitoring Workgroup's web-based tool set could form the foundation for the open-source science Delta-wide data visualization mining tools outlined in Action 4.3.1 of the draft Delta Science Plan.
- Success of the Delta Science Plan requires assessment of inputs to the Delta from upstream watersheds. The Monitoring Council's [Healthy Streams Partnership](#) is working with U.S. EPA's [Healthy Watersheds Initiative](#) to develop the first ever multimetric systems-based assessment of the health and vulnerability of California's watersheds. Once complete, this map-based assessment information will be added to the [California Healthy Streams Portal](#) that was released to the public in mid-2012. This portal currently provides data and assessment information about the extent and condition of California's streams and rivers, including statewide bioassessment information and water quality and sediment toxicity data. Coordinating with the Healthy Watersheds Initiative effort through shared partners at UC Davis, the Department of Water Resources is developing a related set of sustainability indicators that will be critical to implementing the integrated water management goals of the 2013 Update of the California Water Plan.
- Also relevant to the health of the Delta is the bioaccumulation of pollutants in aquatic organisms. The [Bioaccumulation Oversight Group](#) recently released findings from the first statewide survey of contaminants in sport fish from California rivers and streams. This collaborative interagency effort assesses the accumulation of pollutants, such as mercury, PCBs and legacy pesticides in fish that people eat. The most recent study adds to results from this workgroup's earlier sampling of sport fish from California's lakes, reservoirs and coastal waters. Together, these surveys represent a major advance in understanding the extent of chemical contamination in California's aquatic ecosystems. They provide information that will be valuable in prioritizing areas in need of further study; supporting development of cleanup plans and fish and shellfish consumption guidelines; and providing information the public can use to be better informed about the degree of contamination of popular fishing spots. Their data and assessment information are made available to decision makers and the public through the [Safe to Eat Fish and Shellfish Portal](#).

As demonstrated by the Monitoring Council and its theme-specific workgroups, greater efficiency and effectiveness can be achieved through integration of existing programs and

coordination efforts. Thus, there is an obvious nexus between the objectives of the Delta Science Plan and those of the Water Quality Monitoring Council. The benefits to the Delta Science Plan of integrating the Monitoring Council's [A Comprehensive Monitoring Program Strategy for California](#) include:

- Coordinating water quality and related ecosystem monitoring, assessment and reporting efforts of numerous state, federal and local agencies, universities, and non-governmental organizations;
- Delivering answers to decision makers and the public about our water quality and aquatic ecosystems in a manner that is easy to understand;
- Highlighting and help to prioritize efforts to improve monitoring and assessment programs by revealing where data gaps, ineffective monitoring designs, lack of assessment tools, poor data integration, and other problems hamper statewide assessment and effective decision making;
- Providing the opportunity to highlight the important work of the agencies and organizations involved;
- Permitting broader-based assessments than were previously possible;
- Automating the annual reporting efforts of governmental organizations by focusing on meaningful environmental outcomes; and
- Lowering costs through improved coordination of monitoring and assessment, reduced duplication of efforts, and easier access to data and assessment products.

Thank you again for the opportunity to provide input to the Delta Science Plan. Please feel free to contact either or both of us with any questions you may have or to discuss these comments.

Sincerely,



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