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Delta Science Program
Delta Stewardship Council

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COMMENTS ON SECOND DRAFT DELTA SCIENCE PLAN

The California Water Quality Monitoring Council appreciates your careful consideration of comments submitted by our Coordinators on the first draft of the Delta Science Plan. There is considerable overlap between the Delta Science Plan and the Monitoring Council’s recommended Comprehensive Monitoring Program Strategy for California (Comprehensive Strategy) and we are pleased with changes made to the draft plan in response to those initial comments. We also appreciate the presentation made by Dr. Rainer Hoenicke at our August 28 meeting and the ensuing dialogue. It is clear that we are on a path toward collaboration and mutual benefit. In this light, we offer the following specific comments on the second draft of the Delta Science Plan.

Do we have the right data?

We recommend that the Plan add a data acquisition element that provides a review process to ensure that appropriate and adequate data are being obtained. Without such an element, the data and its synthesis will likely continuously be viewed as inadequate to make the science decisions necessary to meet the coequal goals. The data acquisition process should have the same ongoing, iterative review that the Plan envisions for modeling and synthesis.

How will alternate interpretations be resolved?

Qualitative analysis and peer review of the data should also include an element to address and resolve issues of alternate interpretations and disagreements regarding data analysis and information about Delta conditions. Too often there are as many interpretations and opinions about the data as there are interests in the Delta. The Interagency Ecological Program has been very effective at developing information about the Sacramento-San Joaquin estuary, and has been attempting recently to analyze and synthesize this data, to be able to inform management measures, such as biological opinions, water quality control plans, etc. The new Collaborative Science and Adaptive Management Program
addresses these same needs, so we recommend that the Delta Science Plan acknowledge these efforts and identify ways to add value to them.

**Building on the efforts of the Monitoring Council and its workgroups**

In this second draft of the Delta Science Plan, there is more-frequent mention of the Monitoring Council, but mainly in the “Efforts to Build On” boxes. It would be more informative and useful for the Plan to further highlight the existing work of the Monitoring Council and its workgroups in other areas of the Plan. For example, since there is a clear nexus between the existing work of the Monitoring Council’s Estuary Monitoring and Wetland Monitoring workgroups – coordinating monitoring, developing standard methods and QA, bringing data together from disparate sources, building data visualization tools, and reporting data and assessment information through a web portal – and comparable aspects of the Delta Science Plan, it would help to expand discussion of these efforts, either in an appendix to the Plan or in the Science Action Agenda document. For example, on page 4 it is mentioned how scientific efforts in the Delta are being performed by multiple entities without an “overarching plan for coordinating data management and information sharing.” Mentioning the efforts of the Monitoring Council in the “Efforts to Build On” box is a good start; however, specifically highlighting the work of the Wetland Monitoring and Estuary Monitoring workgroups would emphasize those existing efforts, as well as the potential issues that need to be addressed (e.g., funding and resources). There are multiple key points of the document which relate to the existing work of the Monitoring Council, and it seems worth explaining the potential connections.

**Section-by-section recommendations:**


- **Page 14, Update and Communicate the State of Science and Delta Science Plan Performance, Action** – Add web-based communication of available science through collaborative internet portals, such as that being developed by the Estuary Monitoring Workgroup of the California Water Quality Monitoring Council. This mechanism allows for continuous access, visualization, and regular updating of data and assessment information.

- **Page 23, Box 4-1 Building Capacity** – The first two bulleted items, “ability to recruit and retain the next generation of scientists” and “career tracks for scientists in government,” are critical items that need to be addressed for the Plan to be effective. Specific “Actions” are needed to address these goals, such as:
  - Support existing efforts of the California Department of Human Resources (CalHR) to consolidate and update scientific classifications within state service (e.g., Environmental Scientist and Research Scientist class series) so as to more accurately reflect scientists’ work and to increase both opportunities for upward mobility without supervising and movement of scientists within and between departments and programs.

- **Page 23, Section 4.1, Funding Research** – This appears to focus mainly on funding new research. However, part of increasing the state of scientific knowledge also involves bringing together existing research and monitoring data (e.g., in web portals), so that researchers and managers are aware of what work has and continues to be performed in the region. Having these data and information readily available is crucial for researchers and managers to design innovative studies which build upon existing information. More emphasis on this and the related work of the Monitoring Council would again be helpful.
• Page 25, Section 4.2 Monitoring and Associated Research, “Efforts to Build On” box – Add the following three items under Monitoring strategies:
  1) The Estuary Monitoring Workgroup of the Monitoring Council is currently working to bring together monitoring data, assessment (analysis & synthesis) information, maps, and graphics through the California Estuaries Portal, initially focusing on the San Francisco Bay-Delta Estuary. Through the process of portal development, the workgroup is endeavoring to improve the overall efficiency and effectiveness of monitoring, assessment, and reporting for the Bay-Delta.
  2) Comprehensive Monitoring and Assessment Strategy to Protect and Restore California’s Water Quality developed by the Surface Water Ambient Monitoring Program (SWAMP)
  3) Tenets of a State Wetland and Riparian Area Monitoring Program developed by the California Wetland Monitoring Workgroup of the Monitoring Council

• Page 26, Action 4.2.1 Support and sustain a web-based information system for monitoring activities, Primary Responsibility – Add “and its workgroups, especially the California Estuary Monitoring Workgroup, the California Wetland Monitoring Workgroup, the Healthy Streams Partnership, and the Bioaccumulation Oversight Group.”

• Page 26, Action 4.2.2 Build a complete Delta monitoring program, Action Participants – Add CWQMC and its workgroups.


• Page 28, Action 4.3.2 Develop Guidelines for Data Sharing, Primary Responsibility – To “California Water Quality Monitoring Council” add “and its Data Management Workgroup.”

• Page 31, Section 4.5 Synthesis for System-wide Perspectives, “Efforts to Build On” box – For clarity, the last item should be reworded to read “California Estuaries Portal, California Wetlands Portal, EcoAtlas, and Integrative Health of the Estuary Web Tools.” These are products of the California Water Quality Monitoring Council and its Estuary Monitoring and Wetland Monitoring workgroups.


• Page 35, Action 4.7 Develop and implement a communication strategy, Action Participants – Add “and its workgroups” to “CWQMC.”

• Page 37, Section 5. Resources for Delta Science – Two additional topics should be added, based on the experience of the Monitoring Council and its workgroups:
  1) Resources are needed to fund collaboration between individual agency/organizational programs. The Monitoring Council has learned through implementing our Comprehensive Monitoring Program Strategy that dedicated funding is necessary to initiate and sustain collaboration.
  2) Resources are also needed to fund infrastructure to share scientific data and information among agencies and organizations, such as by adding web services to existing data structures.

• Page 37, bulleted item “Increase the ability to recruit, retain, and equitably remunerate scientists” and Page 38, third Objective “Reform the underlying capacity challenges to conduct science for ecosystem and water management, such as the ability to recruit and retain scientists into state service, as well as providing them with the essential tools required to fulfill their duties” – As stated above with respect to Box 4-1 on page 23, the Plan needs
specific “Actions” to implement these objectives. Without specific actions, these objectives are not likely to be realized, impairing the effectiveness of the Delta Science Plan.

- Summary of Actions, beginning on page 40 – It is assumed that this table would be modified to address the above recommendations.


- Appendix L. Funding Delta Science – As stated with respect to Section 5. Resources for Delta Science on page 37, this appendix should include specific funding for collaboration and improving access to data in existing systems.

For questions regarding the above comments, please contact Monitoring Council Coordinators Jon Marshack at jon.marsahck@waterboards.ca.gov, (916) 341-5514 or Kris Jones at kristopher.jones@water.ca.gov, (916) 376-9756.

Sincerely,

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cc: Matthew Rodriquez, Secretary for Environmental Protection  
John Laird, Secretary for Natural Resources  
Members of the California Water Quality Monitoring Council