



February 28, 2017

Dr. Cliff Dahm, Lead Scientist
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Cc: Dr. Peter Raimondi, University of California, Santa Cruz
Dr. Barry Noon, University of Colorado
Dr. Michael MacWilliams, Anchor QEA
Dr. Allan Stewart-Oaten, University of California, Santa Barbara (emeritus)
Ms. Laura Valoppi, United States Geological Survey (formerly, now SFCWA)

Re: Independent Panel Review of the Delta Regional Monitoring Program

Dear Dr. Dahm et al.:

As co-chairs of the Delta Regional Monitoring Program (Delta RMP), we would like to thank the Delta Science Program for performing an Independent Panel Review of the Program's Monitoring Design. The reviewers provided constructive comments that will improve the utility and relevance of the data collected by the Delta RMP. From our perspective, the main points of the initial review provided by the Panel were:

- The monitoring design should be more closely linked to management decisions.
- The monitoring design should allow for sample data to draw inferences about unmonitored areas of the Delta.
- Statistical analyses should be used to determine if monitoring objectives can be met by the monitoring designs.
- Program documents that were provided lacked enough information for the Panel to determine if the monitoring designs were adequate to answer management questions.

In response to this initial review, the Delta RMP has already taken action. In October 2016, the Steering Committee and Technical Advisory Committee held a joint meeting and identified three management decisions with which to develop tighter linkages. The Pesticide Subcommittee has started on a redesign of the pesticides/toxicity monitoring for FY17/18. The Nutrients Subcommittee is refining the assessment questions to better

inform management needs. Simultaneous with the initial review, the Program completed a report that used power analysis to evaluate whether monthly monitoring for nutrients could detect trends of management interest. We hope that these actions show that the Program understands, values, and is implementing the guidance provided by the Panel.

In order to address one of the key criticisms by the panel, we are implementing a Data Quality Objectives planning process to establish a sound scientific basis for planning, design, data evaluation, and the QAQC criteria. The DQO Process will be part of the Delta RMP's standard procedures and as a key component of the program design, re-design, and evaluation. The TAC and others involved in study design and evaluation will be instructed and expected to utilize it.

We also understand the importance of inserting and sustaining statistical services in our iterative process of design and evaluation of our various monitoring program elements, and we are committed to this going forward.

In addition, all of the Program committees have participated in developing detailed responses to questions and comments from the initial review (see attached appendices). We are providing these responses so that the reviewers have a better understanding of the Program and can tailor their recommendations accordingly.

The Delta RMP Steering Committee expressed a strong interest in having a continued dialogue with the Expert Review Panel. We are interested in having a second teleconference with the panel in the coming months. In light of the new information presented here, we would like to pose the following questions to focus the discussion during this second teleconference:

1. If we follow through on the actions we describe in our response, will the Delta RMP be on a path to successfully making linkages between its monitoring design and management decisions?
2. Will the proposed approach to incorporate additional statistical expertise be sufficient to guide the Program going forward?

The Delta RMP is committed to making the high-level improvements recommended by the reviewers. Some of the improvements will be implemented quickly, while others may take several years to complete. Table 1 on the following page summarizes the main actions we are taking improve the monitoring design, following the suggestions from the Independent Panel Review.

We are grateful for the advice provided by the Independent Panel and to the Delta Science Program for funding and facilitating the Panel.

Sincerely,



Adam Laputz
Central Valley Water Board



Linda Dorn
Sacramento Regional County Sanitation District

Attachments

1. Responses from the Technical Advisory Committee
2. Responses from the Mercury Subcommittee
3. Responses from the Nutrients Subcommittee
4. Responses from the Pesticides Subcommittee
5. Responses from the Pathogens Subcommittee
6. Management Driver and Assessment Question Matrix

Table 1: Summary of Delta RMP Actions to Improve the Monitoring Design

<p>Immediate actions that are already underway</p>	<p>Pesticides: A comprehensive monitoring plan redesign is underway. We have identified three key management decisions which could be informed by Delta RMP monitoring (the Pyrethroid TMDL, Nutrient Research Plan, and Methylmercury TMDL). Planning is underway to tighten linkages to these decisions and better define design and analysis details for all aspects of the program. A new design will be implemented as early as FY17/18.</p>
<p>Actions that will be taken during the next 1-2 years</p>	<p>Nutrients: The Delta RMP is not collecting any data for nutrients now. Before data collection starts, we will undergo a systematic planning process, the results of which will be documented in an updated Monitoring Design document.</p>
<p>Items that we are resolving by providing additional information to the Panel</p>	<p>Mercury: We have provided more information to clarify aspects that were missing or unclear in the Monitoring Design Summary. This additional information will be incorporated into the Monitoring Design document when it is updated in 2020.</p>
	<p>Pathogens: We have provided more information to clarify aspects that were missing or unclear in the Monitoring Design Summary. No additional planning is needed because monitoring will cease after this year. The 2-year study was specifically designed to fulfill the requirements set forth by state regulators in the Central Valley Basin Plan Amendment.</p>