



## Delta RMP Steering Committee Meeting July 20th, 2016 11:00 am – 4:15 pm

Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, Suite 200  
Rancho Cordova, CA 95670-6114

Web Meeting:

<https://stateofcaswrcbweb.centurylinkccc.com/CenturylinkWeb/DeltaRMP>

Primary Access Number:

1-720-279-0026

Guest Passcode:

514286

### Agenda

<b>1.</b>	<p><b>Introductions and Review Agenda</b> Establish quorum</p>		11:00 Brock Bernstein
<b>2.</b>	<p><b>Decision: Approve Meeting Summary from April 25th, 2016 and confirm/set next meeting dates</b></p> <p><u>Desired outcomes:</u></p> <ul style="list-style-type: none"> <li>• Confirm the next meeting date: 10/18/16</li> <li>• Schedule the following meeting for 1/25/17 or 1/26/17.</li> </ul>	<p>4/25/16 SC Mtg Summary</p> <p>RMP Decision Record (Excel Spreadsheet)</p>	11:05 Brock Bernstein
<b>3.</b>	<p><b>Information: TAC Meeting Summary</b> The TAC co-chairs will provide a brief update on the recent TAC meeting and provide a summary of recent activities and results.</p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> <li>• Informed committee regarding TAC activities</li> </ul>	<p>06/14/2016 TAC Mtg Summary</p> <p>Delta RMP Monitoring Highlights Report</p>	11:15 Stephen McCord, Joe Domagalski



4.	<p><b>Decision: Approve QAPP</b> The TAC recommends approval of the revised QAPP.</p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> <li>• Approval of the QAPP</li> </ul>	Draft QAPP	11:30 Stephen McCord
5.	<p><b>Decision: Approve Charter and revised Communications Plan</b> The Charter has been revised based on SC comments to date. The Charter was compiled from foundational documents and has been reviewed by Program Participants.</p> <p>Two small changes to the Communications Plan are requested. These changes are needed to allow provisional data to be shared with ILRP agricultural coalitions for the purpose of IRLP permit compliance reporting.</p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> <li>• Approval of the Charter</li> <li>• Approval of the Revised Communications Plan</li> </ul>	Draft Final Charter  Revised Communications Plan	12:00 Phil Trowbridge
	<b>Lunch</b>		12:30
6.	<p><b>Information: Delta RMP Financial Update</b> This update will cover remaining balances of all budgets, balance of the Undesignated Funds Reserve, and SWAMP contract funds in FY16/17.</p> <p><u>Desired outcome:</u> Inform committee regarding Program finances</p>	Financial Update Memo	1:00 Meg Sedlak



7.	<p><b>Information: Finance Committee Report</b> The Finance Committee has met to determine efficient reporting templates to update the SC on finances. The Committee is also evaluating programmatic areas to confirm deliverables and expenditures.</p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> <li>• Input on revised template for communicating financial information.</li> <li>• Feedback on the proposed direction the Finance Committee is taking.</li> </ul>	None	1:20 Linda Dorn, Val Connor, Mike Wackman
8.	<p><b>Discussion: How does the program obtain additional funding?</b> The Regional Board has approved the use of SEP funds for Delta RMP projects. The Board is also identifying additional funding sources including dredgers and 401 certifications. A simple one-page factsheet is needed for fundraising purposes.</p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> <li>• Identify a list of projects that could be funded through SEP.</li> <li>• Discuss possible funding opportunities and means for soliciting funds.</li> <li>• Input on outline for factsheet.</li> </ul>	Existing Program Fact Sheets 401 Certification memo	1:40 Adam Laputz and Patrick Morris
9.	<p><b>Decision: Fees for FY17/18</b> The Joint TAC/SC meeting will discuss the budget and priorities for FY17/18 and out-years. The SC needs to decide on the TOTAL budget for FY17/18 in advance of this meeting.</p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> <li>• Approval of a percent increase, if any, for FY17/18 fees.</li> </ul>	None	2:10 Linda Dorn



10.	<p><b>Information: Plans for the Delta RMP Nutrient Monitoring Workshop</b></p> <p>The Nutrient subcommittee and TAC have reviewed the proposal for a nutrient workshop. The SC Chairs requested that the SC also discuss the workshop to ensure consistency with other nutrient planning activities and Delta RMP priorities.</p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> <li>• Input from the SC on the agenda for the nutrient workshop</li> <li>• Possible dates for the workshop: 9/29 or 9/30</li> </ul>	Workshop agenda	2:40 Thomas Jabusch
	<b>Break</b>		3:00
11.	<p><b>Discussion: Planning for the Joint TAC/SC meeting on October 18<sup>th</sup>, 2016</b></p> <p>The Delta RMP Multi-Year Planning meeting will be in October. The goal is to set priorities for monitoring over the next several years and to provide the TAC with guidance on programmatic priorities and funding levels. The agenda and goals for the meeting will be discussed.</p> <p>The DSP External Review Panel will report their findings in time for the Joint TAC/SC meeting. The Delta RMP will have the option to provide comments on the findings. The comments will be due to DSP by December. The SC Co-chairs recommend that the External Review Committee address the Panel's comments.</p> <p><u>Desired outcomes:</u></p> <ul style="list-style-type: none"> <li>• Input on the draft agenda and format for joint TAC/SC meeting on 10/18/16.</li> <li>• Inform committee of the scope and panelists for the External Review.</li> <li>• Confirm that the External Review committee is the entity that will respond to comments from the DSP Panel.</li> </ul>	<p>Draft Agenda</p> <p>External Review Charge and Schedule</p> <p>Bios of Panel</p>	3:10 Meg Sedlak



12.	<p><b>Delta Science Plan: Science Action Agenda</b> The Delta Science Council is developing a Science Action Agenda (SAA) that includes a prioritization of science activities across agencies and programs to address management and policy needs in the Delta. The SAA will be initiated by compiling the management needs, science actions, and any emerging science identified by various collaborative organizations such as the Delta RMP. DSP staff would like to present their initial efforts.</p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> <li>Obtain feedback on the initial finds garnered from the Delta RMP Monitoring Design.</li> <li>Inform SC on larger effort underway.</li> </ul>	DSP document outlining priority science activities	3:25 Yumiko Henneberry, Lindsay Correa
13.	<p><b>Discussion: Status of Deliverables, Action Items and Upcoming Meetings</b></p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> <li>To inform the committee about Delta RMP deliverables and upcoming meetings.</li> </ul>	Delta RMP Stoplight Report	3:45 Meg Sedlak
14.	<b>Member updates</b>	None	3:55 Brock Bernstein
15.	<p><b>Review action items and plan agenda/ topics for upcoming meetings</b></p> <p>The next meeting on October 18<sup>th</sup> will focus on Multi-Year Planning.</p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> <li>Review action items from this meeting</li> <li>Identify topics for the next meeting</li> </ul>	None	4:10 Meg Sedlak, Brock Bernstein
16.	<b>Adjourn</b>		4:15

DELTA RMP CHARTER – SC REVIEW DRAFT 7/10/2016

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**Delta Regional Monitoring Program**

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***Charter***



**Prepared for**  
Delta RMP Steering Committee  
Review Draft  
July 10, 2016

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Reviewer Note: The Charter for the Delta Regional Monitoring Program (RMP) was compiled from the following Delta RMP documents:

- Committee Roles (approved 3/27/15)
- Guiding Principles (approved 1/14/14)
- Financial Management Plan (approved 3/27/15)
- Steering Committee Record of Decisions
- Draft Memorandum of Agreement
- “Adequate Participation” text

To facilitate review of this document, the text that was copied from these previous documents is labeled as to its source. **New text and other substantive changes are highlighted in yellow.** Edits made after the April 25, 2016 Steering Committee meeting are shown in track changes. Some editing was done to eliminate inconsistencies, correct grammar, and remove unnecessary text while retaining the intent of the original documents.

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## 1. Introduction **{Text from Committee Roles}**

The Delta Regional Monitoring Program (RMP) was initiated by the Central Valley Regional Water Quality Control Board with the primary goal of tracking and documenting the effectiveness of beneficial use protection and restoration efforts through comprehensive monitoring of water quality constituents and their effects in the Delta. The development of the Delta RMP was initially prompted by the collapse of the populations of several species of fish in the early 2000s, an event that triggered new inquiries into the potential role of contaminants in what is now termed the Pelagic Organism Decline (POD). However, these inquiries highlighted shortcomings of existing monitoring efforts to address questions at the scale of the Delta. The recognition that data from current monitoring programs were inadequate in coverage, could not easily be combined, and were not adequate to support a rigorous analysis of the role of contaminants in the POD persuaded regulatory agencies of the need to improve coordination across multiple monitoring programs.

In addition, the Delta RMP reflects an increasing desire among water quality and resource managers throughout the state for more integrated information about patterns and trends in ambient conditions across watersheds and regions. Moreover, many stressors on beneficial uses are interrelated and must be addressed more holistically. The Delta RMP can be seen as a complement to existing larger-scale collaborative monitoring efforts throughout the state that attempt to address questions and concerns about regional conditions and trends (e.g., San Francisco Bay RMP, Southern California Bight Monitoring Program, Surface Water Ambient Monitoring Program).

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**2. Definitions**

a. "Annual Program Workplan" means the detailed plan of activities and the budget for implementing the Program each year as approved by the Steering Committee.

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b. "Aquatic Science Center" or "ASC" means the joint powers agency, created July 1, 2007, by a Joint Powers Agreement between the Bay Area Clean Water Agencies and the State Water Resources Control Board for the purpose of assisting with the efficient delivery of financial, scientific, monitoring, and information management support functions. The San Francisco Estuary Institute (SFEI), a California 501(c)(3) non-profit corporation, serves as the administrative agency for the Aquatic Science Center.

c. "Central Valley Regional Water Quality Control Board" or "Regional Board" is the regulatory authority for overseeing the Clean Water Act, California Water Code, and associated permits in the Delta.

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d. "Coordinating Committee" means the facilitating committee made up of the Steering Committee Co-Chairs, the Technical Advisory Committee Co-Chairs, one representative from the Implementing Entity, one representative from the Central Valley Regional Water Quality Control Board, and the facilitator. Responsible for setting the agenda for the Steering Committee and Technical Advisory Committee, reviewing Steering Committee meeting summaries and record of decisions, communicating action items to the Technical Advisory Committee, and providing clarifications to the Implementing Entity required to fulfill their contractual obligations and be responsive to the Participant Groups.

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e. "Cost Allocation Schedule" means the document, developed by the Program Participants and approved by the Steering Committee, which specifies the amount of money that each group of Participants will contribute to the Program each year.

f. "Delta Regional Monitoring Program" or "Delta RMP" or the "Program" means the stakeholder effort to provide improved Delta monitoring and data evaluation.

g. "Finance Subcommittee" means the Steering Committee subcommittee responsible for reviewing financial policies, goals, and budgets to assure that support for the mission and strategic goals of the Delta RMP are maintained. The Finance Committee also reviews the

Delta RMP’s financial performance and proposes recommendations to the Steering Committee. The Finance Subcommittee is comprised of one representative each from Regulatory, Water Supply, Publicly Owned Treatment Works, Stormwater, and Agriculture, of whom three form a quorum. The Co-Chairs of the Steering Committee (SC), or their designee, will hold two of the five seats on the Finance Subcommittee representing a regulatory and regulated category.

h. “Implementing Entity” means ASC, which with respect to the Delta RMP will be responsible for implementing the Program activities and the financial management of the Program with oversight from the Steering Committee.

i. “Participants” means individual agencies or organizations that provide financial contributions and/or in-kind services for Delta RMP activities, which includes regulatory agencies, resource agencies, water supply, coordinated monitoring programs, wastewater treatment plants, stormwater municipalities, and irrigated agriculture coalitions. See Sections 7.A.1 and 8.F for more details.

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j. “Participant Groups” means groups of similar types of Participants such as publicly owned treatment works (POTWs), stormwater agencies, agricultural coalitions, water supply, coordinated monitoring programs, and regulatory agencies.

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k. “Representative” means a person who represents a particular Participant Group on a committee (see Attachments 1 and 2 for a list of representatives).

l. “Revenue Subcommittee” is a group of Steering Committee members charged with identifying opportunities for generating revenue for the Program through grant solicitations, cost-sharing, and coordination with other programs. Participation is voluntary and will include at least three Steering Committee members that are most appropriate.

m. “Steering Committee” or “SC” means the decision-making body of the Delta RMP. The core responsibilities and authorities of the Steering Committee are to determine the overall budget, allocate program funds, track progress, and provide strategic direction and priorities for the Program and the TAC, from a manager’s perspective.

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n. “Subcommittee” is a group convened by the Steering Committee or Technical Advisory Committee to evaluate an issue and to report findings back to the larger group.

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Subcommittees serve at the direction of the Steering Committee or Technical Advisory Committee and consist of representatives from the Steering Committee, Technical Advisory Committee and other sectors such as academia, nongovernmental organizations, governmental organizations and industry. See Sections 7.A.4 and 7.B.4 for details.

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a. "Technical Advisory Committee" or "TAC" means the advisory body that provides technical advice to the Steering Committee. The TAC makes recommendations to the Steering Committee based on technical evaluation of proposed or existing program elements, and based on priorities set by the Steering Committee. Responsible for developing and revising the monitoring design based on Steering Committee priorities.

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### **3. Mission** **{Text from Guiding Principles}**

The Program’s mission is to inform decisions on how to protect, and where necessary, restore beneficial uses of water in the Delta, by producing objective and cost-effective scientific information critical to understanding regional water quality conditions and trends.

### **4. Goals and Objectives** **{Text from Guiding Principles}**

The primary goal of the Delta RMP is to provide coordinated Delta-wide monitoring, reporting, and assessment of water quality, while pursuing the following objectives:

1. Improve the efficiency of water quality data collection and management in the Delta;
  2. Generate products that inform and educate the public, agencies, and decision makers;
  3. Raise awareness of Delta water quality conditions and how they impact beneficial uses;
- and
4. Foster independent science, objective peer review, and a transparent review process.

~~5. Focus on the Delta;~~

~~6. Focus on the highest priority water quality information needs; and~~

~~7. Contribute to a holistic understanding of the Bay-Delta.~~

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**5. Management Questions {Text from Guiding Principles}**

Delta RMP participants have articulated core management questions that organize and guide RMP studies:

Type	Management Questions
Status and Trends	<p>Is there a problem or are there signs of a problem?</p> <ol style="list-style-type: none"> <li>Is water quality currently, or trending towards, adversely affecting beneficial uses of the Delta?</li> <li>Which constituents may be impairing beneficial uses in subregions of the Delta?</li> <li>Are trends similar or different across different subregions of the Delta?</li> </ol>
Sources, Pathways, Loadings, and Processes	<p>Which sources and processes are most important to understand and quantify?</p> <ol style="list-style-type: none"> <li>Which sources, pathways, loadings, and processes (e.g., transformations, bioaccumulation) contribute most to identified problems?</li> <li>What is the magnitude of each source and/or pathway (e.g., municipal wastewater, atmospheric deposition)?</li> <li>What are the magnitudes of internal sources and/or pathways (e.g. benthic flux) and sinks in the Delta?</li> </ol>
Forecasting Water Quality Under Different Management Scenarios	<ol style="list-style-type: none"> <li>How do ambient water quality conditions respond to different management scenarios?</li> <li>What constituent loads can the Delta assimilate without impairment of beneficial uses?</li> <li>What is the likelihood that the Delta will be water quality-impaired in the future?</li> </ol>
Effectiveness Tracking	<ol style="list-style-type: none"> <li>Are water quality conditions improving as a result of management actions such that beneficial uses will be met?</li> <li>Are loadings changing as a result of management actions?</li> </ol>

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## 6. Principles of Operation **{Text from Guiding Principles}**

The Delta RMP's **Principles** ~~Methods~~ of Operation form the foundation of Program activity **and** **are described below.**

- Focus on the Delta:** The geographic scope of the Delta RMP encompasses the legal Delta (as defined by Section 12220 of the California Water Code), including water bodies that directly drain into the Delta, Yolo Bypass, and Suisun Bay. In addition, the base monitoring and special studies of the Delta RMP may extend upstream, if required to address specific management questions. **Because** ~~since~~ Suisun Bay is outside the jurisdiction of the **Central Valley Regional Board**, sampling here will require coordination and collaboration with the San Francisco Bay RMP.
- Focus on the highest priority water quality information needs:** A strategic planning process ensures that the Delta RMP focuses on the highest priority water quality information needs for beneficial use protection and restoration in the Delta.
- Contributing to a holistic understanding of the Bay-Delta:** The Delta Science Plan will serve as a framework that contributes to a holistic understanding of the Bay-Delta and, thus, as a conduit for tying Delta RMP monitoring and assessment activities to the Delta Science Plan adaptive management approach.
- Leveraging activities and resources:** The Delta RMP will leverage activities and resources by building on and partnering with existing programs, initiatives, and organizations to the extent possible. The Summary of Current Water Quality Monitoring Programs in the Delta ([http://www.waterboards.ca.gov/centralvalley/water\\_issues/delta\\_water\\_quality/comprehensive\\_monitoring\\_program/draftfinal\\_deltamon\\_25nov09.pdf](http://www.waterboards.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program/draftfinal_deltamon_25nov09.pdf)) and the Central Valley Monitoring Directory ([centralvalleymonitoring.org](http://centralvalleymonitoring.org)) provide information that might be helpful in identifying potential partners.

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- **Clearly described and transparent processes and agreements:** Clearly described and transparent processes and agreements will guide the program governance and its operations. Following governance ground rules established by the SC, all stakeholders have the opportunity to participate in the RMP.
- **Adaptability and flexibility:** Frequent committee and workgroup meetings and periodic program reviews will maintain the Delta RMP’s capacity to adapt in response to changing management priorities and advances in scientific understanding. Pilot and special studies constitute a mechanism for responding quickly to new information and/or concerns, assessing new technical approaches, investigating particular questions that have defined scientific, management, or regulatory endpoints, and evaluating new directions for the Delta RMP as a whole.
- **Collaborative culture:** Fostering a collaborative culture will enable participants to work together to address multiple competing and potentially conflicting interests (such as habitat restoration, flood protection, water supply, and human and wildlife consumption of fish) in an environment that encourages objectivity, consensus-building, and science-based decision making (see Attachment 3 for additional information including a flow chart of decision-making process).

**Commented [P2]:** Language from the Guiding Principles Document that referred to other governance documents was omitted. These documents have been incorporated into the Charter, making references to these external documents irrelevant.

**7. Governance *{Text from Committee Roles and Record of Decision}***

As shown on Figure 1, the Steering Committee (SC) is the decision-making body of the Delta RMP, overseeing the Implementing Entity and reviewing recommendations of the Technical Advisory Committee (TAC) and Stakeholder C-Subcommittees.

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**7.A Steering Committee (SC)**

The SC is responsible for establishing the Program's strategic direction and the policies and procedures that govern its operation. It is responsible for authorizing the implementation of agreements among the Participants participating members and, specifically:

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- Directs the Implementing Entity to request and receive federal, state, local, and private funds from any source and to expend those moneys to accomplish the Delta RMP's goals;
- Approves budgets and expenditures;
- Directs the Implementing Entity to enter into partnerships, contracts, and other legal agreements on behalf of the Delta RMP, as necessary to fulfill the Delta RMP's mission;
- Approves Delta RMP work products and any other plans, products, or resolutions of the Delta RMP;

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- Provides direction to TAC on priorities, constraints, and management questions to develop technical products within the resource allocations determined by the Steering Committee;

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- Convenes a joint meeting with the TAC as necessary to communicate priorities and funding allocations; and

- Selects, convenes, and oversees subcommittees to provide guidance on specific issues on an as needed basis; and

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- Establishes and oversees the implementation of policies and procedures necessary to the day-to-day functioning of the Delta RMP.

**7.A.1 Steering Committee Membership**

The Steering Committee has seats for representatives from each of the following Participant Groups:

- 3 seats for publicly owned treatment works (POTWs) ideally representing small, medium and large POTWs;
- 3 seats for stormwater agencies, ideally one representing large cities and two representing smaller cities;
- 1 seat for coordinated monitoring;
- 1 seat for water supply;
- 2 seats for irrigated agriculture;
- 1 seat for the resources agencies; and
- 3 seats for regulatory agencies (USEPA, State Water Resources Control Board, and Central Valley Regional Water Quality Control Board);

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Each SC member is responsible for working with agencies in their Participant Group to bring common interests forward. The SC may add seats for other Participant Groups or adjust the number of seats for certain Participant Groups by using its decision-making procedures to change the Charter.

The SC has agreed that a Participant Group can hold a seat on the SC, without contributing to the Program financially, but is not allowed to vote on financial issues. See Section 8 on Adequate Participation for more discussion of this issue.

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Membership on the SC will not diminish the regulatory responsibilities or authority of any participating agency or organization.

SC members shall serve at the discretion of the Participant Groups they represent (i.e., they may be removed at any time) and shall be explicitly reconfirmed every two years. An individual representing a Participant Group can serve indefinitely with the support of their group.

Attachment 1 contains the most recent roster of SC members. This attachment may be updated as needed without requiring a vote to update the whole Charter document.

7.A.2 Steering Committee Representative Resignation and Replacement

Representatives may resign from the SC at their choosing. If this occurs, the Participant Group will be notified and will be requested to select a new Representative for the Group. The Representative resigning will provide written resignation communication (e.g., letter, email) to the Steering Committee Co-Chairs, the Implementing Entity, and any other Steering Committee representatives of that Participant Group.

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Notify the Representative's Participant Group.

7.A.3 Steering Committee Co-Chairs ~~From Committee Roles~~

Steering Committee Co-Chairs serve as chair of the meetings, facilitate discussion, and encourage members to participate in discussions. The Co-Chairs have an oversight role and are responsible for the overall functioning of the committee. The SC will select or reaffirm the Co-Chairs once per year using its decision-making process. Co-Chairs have no term limits and may continue to serve annual terms indefinitely with support of the SC. One Co-Chair

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represents a regulatory Participant Group and one Co-Chair represents a regulated Participant Group.

#### 7.A.4 Steering Committee Subcommittees

The SC may convene subcommittees to focus on issues of particular concern on an as-needed basis. These subcommittees will report to the SC and may consist of Representatives of the Participant Groups on the SC as well as external experts in the subject of interest. The SC will determine the makeup of Participant Groups on the subcommittee and evaluate the need for external expertise (e.g., legal, financial, governance, etc.).

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#### Coordinating Subcommittee

The Coordinating Committee is comprised of the Steering Committee Co-Chairs, the Technical Advisory Committee Co-Chairs, one representative from the Implementing Entity, one representative from the Central Valley Regional Water Quality Control Board, and the facilitator. The committee is responsible for setting the agenda for the Steering Committee and Technical Advisory Committee, reviewing Steering Committee meeting summaries and record of decisions, communicating action items to the Technical Advisory Committee, and providing clarifications to the Implementing Entity required to fulfill their contractual obligations and be responsive to the Participant Groups.

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The Coordinating Committee has the following specific responsibilities:

- Review and confirm the record of decision by the Steering Committee as prepared by the Implementing Entity.
- Review and confirm the summary of Steering Committee action items prepared by the Implementing Entity for other Committees, Subcommittees, and Participants. In cases where interpretation of Steering Committee directions are necessary, the Steering

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Committee will be consulted for issues related to participant membership or any financial issues. For other clarifications, the Coordinating Committee will document clarifying interpretations they make as part of the record of decision.

- As necessary, refine and clarify direction provided by the Steering Committee to the TAC and the Implementing Entity.
- Respond to clarifying questions from Participant Groups and committees.
- Coordinate report backs from committees and Participant Groups on action items from the Steering Committee.
- Review Steering Committee meeting agendas that the Implementing Entity has prepared.

The Coordinating Committee will meet within two weeks following Steering Committee meetings to review outcomes and action items and at least two weeks before Steering Committee meetings to set the agenda.

#### Finance Subcommittee

The Finance Subcommittee is responsible for reviewing financial planning documents, policies, goals, budgets, revenue, and expenditures, assuring that support for the mission and strategic goals of the Delta RMP are maintained. The Finance Subcommittee also reviews the Delta RMP's financial performance and proposes recommendations to the Steering Committee.

The Finance Subcommittee is comprised of one representative each from Regulatory, Water Supply, Publicly Owned Treatment Works, Stormwater, and Agriculture, of whom three form a quorum. The Co-Chairs of the Steering Committee (SC), or their designee, will hold two of the five seats on the Finance Subcommittee representing a regulatory and regulated category.

The Finance Subcommittee's specific responsibilities include:

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- Recommending policies to the SC that maintain and improve the financial health and integrity of the Delta RMP.
- Reviewing draft long-term and short-term budgets and work plans for the Delta RMP.
- Recommending actions to improve program efficiency and identify potential cost savings to the SC.
- Reviewing expenditures.
- Reviewing and approving unbudgeted operating expenses that, per the SC-approved policy (See Section 8.D), are above the Implementing Entities authority (\$5,000) but below the threshold (\$25,000) required for SC approval.
- Reviewing the financial aspects of new contracts and services, as well as proposals to discontinue programs or services, and making action recommendations to the SC.
- Monitoring and evaluating the financial performance of the Delta RMP, comparing budgets and long term financial trends to other regional monitoring programs.
- Recommending and monitoring corrective actions to keep the Delta RMP in-line with its budget and other financial targets.

The Finance Subcommittee will meet quarterly before the Steering Committee meetings for reviewing finances from the Implementing Entity. The Implementing Entity will provide financial information in a format that meets the Finance Subcommittee needs on a quarterly basis, three weeks before Steering Committee meetings. The Finance Subcommittee will provide comments on the financial information to the Implementing Entity two weeks before the Steering Committee meeting so that the Implementing Entity can address them before submitting the report to the Steering Committee one week before the meeting. The Finance Subcommittee will report and make recommendations to the Steering Committee when necessary.

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**Revenue Subcommittee**

The Revenue Subcommittee is a group of Steering Committee members charged with identifying opportunities for generating revenue for the Program through grant solicitations, cost-sharing, and coordination with other programs. The Revenue Subcommittee does not have defined membership nor rules for a quorum. Participation is voluntary and will include at least three Steering Committee members that are most appropriate.

**7.A.5 Notice of Meetings and Frequency** {From Delta RMP Decision Record}

All SC meetings must be noticed, which consists of e-mail distribution of the meeting date, time, and agenda at least one week prior to the meeting. The SC meets quarterly and the agenda package is distributed through the State's Iyris web service as well as posted on the Delta RMP website<sup>1</sup> prior to the meeting. In addition, draft meeting summaries, specifically intended for only the SC, will be distributed via a separate e-mail list to SC members and their alternates for review and comment prior to posting of the final meeting summary on the Program's website.

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**7.A.6 Steering Committee Decisions** {From Delta RMP Decision Record}

A quorum is necessary for any decisions to be made by the SC; a quorum is defined as 50% or more of the SC members and 50% or more of the Participant Groups (e.g., POTW, agricultural, stormwater, etc.). A quorum may be established at any time during the meeting and, once established, will continue to exist for purposes of decision making even if the number of SC

<sup>1</sup> [http://www.swrcb.ca.gov/centralvalley/water\\_issues/delta\\_water\\_quality/comprehensive\\_monitoring\\_program](http://www.swrcb.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program)

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members present drops below the level defining a quorum (e.g., if one or more members leave the meeting).

Decisions are made by the SC through ~~general agreement~~ consensus unless one or more of the SC members dissent or for important decisions such as budget approvals, in which case the Chair<sub>s</sub> will call for a vote. If voting is required, a simple majority of the SC members will be required for a decision. Decisions can only be made for items that are on the agenda. Some decisions that are time sensitive or less significant can be made via e-mail or telephone conference, but only if these items have previously been discussed in a SC meeting.

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**7.B. Technical Advisory Committee (TAC) [From Committee Roles]**

Under direction of the SC, the TAC provides technical support to the Delta RMP. It consists of technical representatives from the Delta RMP membership Participant gGroups, with technical and administrative support from the Implementing Entity.

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The TAC makes recommendations to the SC based on technical evaluation of proposed or existing program elements. The TAC provides technical recommendations with options and justifications based on the priorities and resource allocations set by the SC. The SC then considers TAC recommendations in formulating their decisions. Recommendations should be reached through consensus. In the event that the TAC representatives cannot come to consensus on a recommendation, majority and minority opinions should be reported to the SC (See Section 7.B.6 for more details on the TAC decision-making process). The Coordinating Committee communicates SC direction to the TAC through the Implementing Entity and the TAC Co-Chairs.

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The responsibilities of the TAC are to:

- respond to action items and specific requests from the Steering Committee as communicated through the record of decision and action item compilation prepared by the Implementing Entity and reviewed by the Coordinating Committee;
- assist the SC in developing, reviewing, and revising the Delta RMP's monitoring design and special studies to ensure responsiveness to ~~in line with~~ the management and assessment questions, consistent with the priorities and funding set by the Steering Committee;
- report to the SC on technical issues and guide the development of white papers as requested by the SC;
- select and convene subcommittees to develop monitoring designs and provide guidance on specific technical issues, with members drawn from both within and

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outside the TAC, as needed, to include specialized scientific or technical expertise not fully represented on the TAC;

- review subcommittee recommendations to the Steering Committee for monitoring design and other technical requests from the Steering Committee;
- provide technical review and recommendations to the SC on project proposals;
- provide technical review and recommendations to the SC on policies being considered for adoption;
- provide technical review of the planning, development, and publication of Delta RMP communication products, including the Pulse of the Delta report; and
- request clarification from the Coordinating Committee/Steering Committee if instructions or action items to the TAC are unclear.

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The TAC consists of experts in water quality, estuarine science, and related fields who are able to provide scientific opinions on the broad range of subject areas related to the Delta RMP's activities. Finally, TAC members work collaboratively to examine technical issues and develop advice and recommendations for the SC.

#### 7.B.1 Technical Advisory Committee Membership **(From Committee Roles)**

TAC members will be drawn from RMP membership g Participant Groups represented on the SC, but are not limited to these. Each designated SC member designates one person to sit on the TAC. Thus, the voting membership of the TAC consists of technical representatives of the groups represented on the SC. That is, membership of the TAC will reflect the membership of the SC (i.e., there will be the same number of representatives from each of the Participant Groups on the TAC and the SC).

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TAC members shall serve at the discretion of the Participant Groups they represent (i.e., they may be removed at any time) and shall be explicitly reconfirmed every two years. An individual representing a Participant Group can serve indefinitely with the support of their group.

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In particular instances (e.g., a represented group has only a few staff with the appropriate expertise), a SC member or alternate may serve on the TAC. If a particular issue comes up that may create a conflict of interest, the SC member serving on the TAC would recuse themselves from decisions on the SC.

A conflict of interest may also arise if members of the TAC or its subcommittees have a direct financial interest in a funding recommendation or decision (e.g., a consultant or researcher intending to bid on a contract for a proposed program activity). The participation of local scientists in planning processes can bring tremendous value to the RMP, but the RMP needs to ensure that the monitoring that is recommended and performed is not inappropriately biased by scientists ~~who that~~ may have a conflict of interest. In cases where a conflict of interest exists, the TAC or subcommittee members will recuse themselves from funding recommendations. External peer review of workplans and products by scientists with no financial interest in the work to be done is essential not only to attaining high standards of scientific rigor, but also ~~to provide~~ a mechanism for preventing the inappropriate influence of scientists with a conflict of interest. This practice is consistent with the Conflict of Interest Policy in Section 8.

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Attachment 2 contains the current roster of the TAC members. This attachment may be updated as needed without requiring a vote to update the whole Charter document.

#### 7.B.2. Technical Advisory Committee Representative Resignation and Replacement

Representatives may resign from the TAC at their choosing. If this occurs, the Participant Group will be notified and will be requested to select a new Representative for the Group. The

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Representative resigning will provide written resignation communication (e.g., letter, email) to the Steering Committee Co-Chairs, TAC Co-Chairs, the Implementing Entity, and any other Steering Committee representatives of that Participant Group.

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7.B.3 TAC Co-Chairs (From Committee Roles)

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1) Provide written resignation communication (e.g., letter, email) to the Steering Committee Chairs, Technical Advisory Committee Chairs, and the Implementing Entity; and  
2) Notify the Representative's Participant Group.

The Co-Chairs coordinate the TAC's oversight of the technical content and quality of the RMP, co-chair TAC meetings, and help ensure review of all program proposals and technical products. They also provide a communication link between the SC, TAC and Implementing Entity as members of the Coordinating Committee and help ensure consistencies and resolve timing and scheduling issues between the SC, TAC, and subcommittees. The members of the TAC will appoint two Co-Chairs for a two-year term. The selection of the Co-Chairs is subject to review by the Steering Committee. The Co-Chairs can serve indefinitely with the support of the TAC and the SC. A qualified Co-Chair has a broad understanding of scientific issues in the Delta and can provide strong leadership, meeting management, and direction to the group.

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7.B.4 TAC Subcommittees (Text from Committee Roles)

If there is need for additional expertise, subcommittees may be formed that report to the TAC. The subcommittees may be drawn from the organizations represented on the Steering Committee but may be drawn from a variety of have representatives from the Participant Groups as well as other sectors, such as academia, nongovernmental agencies, government agencies, and industry. The TAC will determine the makeup of Participant Groups on the subcommittee and evaluate the need for external expertise. If a subcommittee composition is not agreed upon by the TAC, the Steering Committee will determine the subcommittee members, considering recommendations from the TAC. A subcommittee formed to develop a

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specific monitoring design should be consulted about modifications to the subcommittees recommended design before any changes are presented to the TAC for recommendations to the Steering Committee. In addition, the TAC may advise recommend to the SC that the Implementing Entity to convene appropriate science advisory panels and/or independent experts for program reviews, specific projects, initiatives, reports, and studies.

7.B.5 Notice of Meetings and Frequency (Text from Committee Roles and Record of Decision)

The TAC meets quarterly and the agenda package is posted on the Delta RMP website<sup>2</sup> one week prior to the meeting. In addition, the agenda and relevant materials are sent by electronic mail to the TAC members.

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7.B.6 TAC Decisions

Because the TAC makes technical recommendations to the SC, and not policy decisions, there is no formal procedure for voting. In the event that the TAC representatives cannot come to consensus on a recommendation, majority and minority opinions will be noted verbally at the meeting and described in the meeting summary. The TAC Co-Chairs will coordinate with the Coordinating Committee to ensure that the meeting summary prepared by the Implementing Entity adequately documents majority and minority viewpoints of the seated representatives. The meeting summary is the primary tool to communicate TAC discussions to the SC for SC resolution, and will include direct responses to SC requests and directives. If the recommendations do not reflect broad Participant input due to lack of attendance at a meeting, those not in attendance will be afforded an opportunity to weigh in on preliminary recommendations via email, conference calls, or another meeting, if necessary.

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<sup>2</sup> [http://www.swrcb.ca.gov/centralvalley/water\\_issues/delta\\_water\\_quality/comprehensive\\_monitoring\\_program/](http://www.swrcb.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program/)

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7.C Other Stakeholders [Text from Committee Roles]

All meetings of the SC and TAC are open to the public. Stakeholders who are not Delta RMP participants will have the opportunity to weigh in by participating in meetings and providing additional project and product review. Stakeholders may also participate in specific technical subcommittees.

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7.D Implementing Entity **[Text from Committee Roles]**

The Implementing Entity oversees and administers the Delta RMP. The main responsibilities of the Implementing Entity are outlined in Table 1. The Implementing Entity works closely with the committee co-chairs and the Coordinating Committee to 1) plan, guide, and lead program activities, 2) ensure planned activities efficiently achieve program goals and objectives, and 3) identify potential issues and challenges as well as options for effectively addressing them. The Implementing Entity is contracted to perform these services and manage the operation of the Delta RMP according to the annual Workplan approved by the SC and within the approved budget.

**Deleted:** Currently, the Implementing Entity is the Aquatic Science Center (ASC).

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**Table 1.** Main responsibilities of the Implementing Entity of the Delta RMP

Responsibilities	Tasks
1. Program management	<p>a. Program planning</p> <ul style="list-style-type: none"> <li>• Prepare <u>draft</u> workplans / budgets <u>and present to SC for approval</u></li> </ul> <p>b. Coordinate program activities</p> <ul style="list-style-type: none"> <li>• Act as <u>a liaison</u> between the SC, the TAC, and the TAC subcommittees</li> <li>• <u>Convene the Coordinating Committee to review Steering Committee action items, document directives from the Steering Committee to the TAC and Participant Groups, and review Steering Committee agendas</u></li> </ul> <p>Coordinate with <u>Participants</u></p> <ul style="list-style-type: none"> <li>• Plan workflow</li> <li>• Track deliverables</li> </ul> <p>c. Coordinate collaborating agencies and organizations</p> <ul style="list-style-type: none"> <li>• Organize and participate in meetings to coordinate work and programs</li> </ul> <p>d. Contract and financial management</p> <ul style="list-style-type: none"> <li>• Track expenditures</li> <li>• Accounting</li> <li>• Coordinate audits</li> <li>• Provide financial updates to SC <u>and Finance Subcommittee</u></li> <li>• Develop and oversee contracts</li> <li>• Invoice <u>Participants</u></li> <li>• <u>Report finances quarterly to Finance Subcommittee for review of budget and work plan</u></li> </ul> <p>e. Technical oversight</p> <p>f. <u>Coordinate peer review</u></p> <p><u>g. Review and coordinate review of RMP work products to ensure the quality of deliverables</u></p>

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<p>2. Governance</p>	<p>a. SC meetings:</p> <ul style="list-style-type: none"> <li>• Prepare agenda packages and background documents; participate in meetings, write meeting summaries, action item follow-up, plan meetings with <u>Coordinating Committee</u>.</li> </ul> <p>b. TAC meetings:</p> <ul style="list-style-type: none"> <li>• Prepare agenda packages and background documents; participate in meetings, write meeting summaries, action item follow-up.</li> </ul> <p>c. TAC subcommittee meetings</p> <ul style="list-style-type: none"> <li>• Prepare agendas and background documents; participate in meetings, write meeting summaries, action item follow-up <u>and communicate with Coordinating Committee</u>.</li> </ul>
<p>3. Communications</p>	<p>a. Implement communications plan</p> <ul style="list-style-type: none"> <li>• Produce and distribute RMP products</li> <li>• Develop and maintain a calendar of RMP communications products</li> <li>• Identify appropriate communication channels and disseminate RMP information</li> <li>• Implement planned events (e.g. annual meeting)</li> <li>• Respond to or coordinate response to inquiries for RMP data and reports, including press calls.</li> </ul>

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<p>4. Data management</p>	<p><i>Perform and/or coordinate the following activities</i></p> <p>a. Data processing and upload to CEDEN:</p> <ul style="list-style-type: none"> <li>• Format data</li> <li>• Upload RMP results to RDC database and replicate to CEDEN</li> <li>• Coordinate data collection, data management, and laboratories</li> <li>• Track data deliverables and pending issues</li> </ul> <p>b. Database maintenance and online data access:</p> <ul style="list-style-type: none"> <li>• Incorporate updates and corrections to data as needed, including re-analyzed results and updates implemented by CEDEN/SWAMP</li> <li>• Provide, maintain, and upgrade web-based data access tools</li> </ul> <p>c. Quality assurance:</p> <ul style="list-style-type: none"> <li>• Perform QA/QC review</li> <li>• Develop, maintain, and update Quality Assurance Program Plan (QAPP)</li> <li>• Coordinate interlaboratory comparison tests</li> </ul> <p>d. SOPs and templates:</p> <ul style="list-style-type: none"> <li>• Develop and maintain laboratory SOP file system</li> <li>• Provide, maintain, and enhance software tools and processes such as EDD templates</li> <li>• Write and maintain internal SOPs to increase efficiency of data management tasks</li> </ul>
<p>5. Sampling Coordination and Logistics</p>	<p><i>Perform and/or coordinate the following activities:</i></p> <ol style="list-style-type: none"> <li>a. Coordinate field sampling</li> <li>b. Prepare sampling plans</li> <li>c. Make maps of sampling locations</li> <li>d. Field sampling</li> <li>e. Ensure delivery of samples to laboratories</li> </ol>
<p>6. Analysis, Assessment, and Reporting</p>	<ol style="list-style-type: none"> <li>a. Summarize information on data collected</li> <li>b. Develop technical content (text, analysis, graphics)</li> <li>c. Design and publish reporting products</li> <li>d. Establish, coordinate, and maintain web presence of RMP products and results</li> </ol>

## **8. Financial Management**

The Implementing Entity will be responsible for the financial management of the Program with

direction from the SC and with oversight from the Finance Subcommittee. Program Participants will either enter into a multi-year Memorandum of Agreement, contract, or other payment agreements with the Implementing Entity which will serve as a contract for the services of program implementation, fiscal management, and invoicing.

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### 8.A Program Activities and Budget **[from Draft MOU]**

The Delta RMP budget for each Fiscal Year will be set by the Steering Committee. The plan of Program activities within the available budget for each year shall be proposed by the Implementing Entity in the Annual Program Workplan. The Steering Committee shall be responsible for approving the Annual Program Workplan prior to the start of the Fiscal Year.

With each yearly budget, the Steering Committee shall also approve a Cost Allocation Schedule, which will set forth the portion of the Program costs payable by each group of Participants. If an entity becomes a Participant after the start of a Fiscal Year, the Steering Committee shall have the discretion to pro rate costs payable by that Participant for its first year of participation in the Program.

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### 8.B Program Implementation **[from Draft MOU]**

As authorized by the Steering Committee, the Implementing Entity will be responsible for implementing the Annual Program Workplan. Specifically, to the extent that Program funds are available, the Implementing Entity is authorized to conduct work itself and enter into and manage third party contracts to accomplish the Annual Program Workplan.

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8.B.1 Third-Party Contracts

For third-party contracts exceeding \$50,000, the Implementing Entity will use a competitive process. Proposals may be obtained by either (a) issuance of a formal Request for Proposals, or (b) solicitation of at least three proposals from qualified contractors; recognizing that, for highly specialized work, it may only be possible to obtain proposals from fewer contractors. The requirement for a competitive process may be waived by the Implementing Entity when it determines that there is only one source for the merchandise or service needed, and no other product/service reasonably meets the stated need or specifications. Criteria that may be considered in agreeing upon a sole source contract include, for example: unique or specialized technical expertise, unique or specialized access to data or information, a joint venture already specified in a proposal, and access to matching funds or in-kind services. For all sole source contracts exceeding \$50,000, the Steering Committee must approve the selected contractor. A competitive process will not be required for in-kind services offered by Program Participants, or stakeholders, using their existing contractors or contractors selected through the State contracting process. Guidance for issuing and evaluating requests for proposals is attached to this Agreement as provided in Attachment 4. The Steering Committee shall have the power to amend Exhibit B, provided that any amendments are consistent with this Agreement.

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8.B.2 Services Provided by ASC

Contracts between the Program Participants and ASC as the Implementing Entity do not require a competitive process. See State Contracting Manual (Volume 1<sup>3</sup>, Sections 3.06 “Contracts with other Governmental Entities & Public Universities” and 5.80 “Contracts Exempt from Advertising in the CSCR and Competitive Bidding” or successor documents). State contracts

<sup>3</sup> <http://www.dgs.ca.gov/ols/Resources/StateContractManual.aspx> (Accessed March 31, 2016)

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with an organization acting as a governmental agency under a joint powers agreement are statutorily exempt from the requirement for a competitive bid process.

8.C Fiscal Management ~~{from Draft MOU}~~

The Implementing Entity shall provide fiscal and administrative services for the Program with oversight by the Steering Committee and review by the Finance Subcommittee. Specifically, the Implementing Entity shall:

- Set up and maintain an account for funds received for the purpose of execution of the Program.
- Set up and maintain an invoicing system that provides an invoice to each Program Participant for its share of Program costs and provides written confirmation to the Central Valley Regional Water Quality Control Board of the amount paid by each Program Participant to the Program each year;
- Keep financial records of all transactions relating to the execution of the Program, and make these records available to all Program Participants upon request; and
- Report to the Steering Committee and Finance Subcommittee quarterly regarding status of Program finances, including the status of payments from each Program Participant, expenditures, and an updated budget report.

If funds are insufficient to carry out the Annual Program Workplan, including reasonable program management costs, the Implementing Entity will work with the Steering Committee and Technical Advisory Committee to identify possible amendments to the Annual Program Workplan such that the work can be implemented within the budget, or propose to use other

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sources of funds, such as interest, Reserve Funds, grants, or matching funds, to complete the Program.

8.D Reserve Funds ~~(from Draft MOU)~~

If there are excess funds in the Program account at the end of a budget year, the funds will be put into a Reserve Fund to be applied toward subsequent years of Program implementation with approval of the Steering Committee. The recommended minimum balance of Reserve Funds is \$100,000 but the Steering Committee has the discretion to maintain a balance above or below this amount.

8.D.1 Monitoring Contingency Funds

If there are sufficient Reserve Funds, the SC may allocate up to \$50,000 of these funds to a Dedicated Set-Aside Fund for Monitoring Contingencies. The Monitoring Contingency Funds may only be used for unexpected monitoring costs or opportunities that arise during the course of the year after the RMP budget has been approved.

Process for Use of Monitoring Contingency Funds

For expenses greater than \$5,000, the Implementing Entity must obtain prior approval from the Finance Subcommittee (between \$5,000 and \$25,000) or the Steering Committee (greater than \$25,000).

For expenses up to \$5,000, the Implementing Entity may act without prior approval from the Steering Committee, under the following circumstances:

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- A strategically important sampling opportunity arises (e.g., due to rare weather events or a chance to leverage other monitoring efforts);
- A mechanical failure during field sampling necessitates rapid action to repair or replace equipment in order to maintain the sampling schedule; or
- An unexpected event that, in the judgment of the Implementing Entity, requires immediate action.

Should the Monitoring Contingency Funds be obligated by the Implementing Entity under these circumstances, the Implementing Entity would inform the Steering Committee via email and provide a justification. The Steering Committee would then provide feedback at the next scheduled meeting on the appropriateness of the decision to maintain clear expectations for use of these funds.

If Monitoring Contingency Funds are used during a year, the Implementing Entity will seek SC approval to replenish the Set-Aside Fund up to the \$50,000 balance when requesting approval for the following year's budget.

8.E Conflict of Interest Policy **[from Financial Management Plan]**

All Program Participants serving on Delta RMP committees shall avoid both actual and perceived conflicts of interest when selecting contractors. Any committee member with an actual or perceived conflict of interest in a contract has a duty to disclose this interest to the committee and to recuse himself/herself from the decision. In order to avoid potential conflicts of interest with technical contractors, the TAC shall not recommend specific contractors, but may provide criteria to be used in the contractor selection process. Additional details about

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handling conflicts of interest by public officials are available in Government Code Sections 1090-1099.

**8.F Adequate Participation** ~~from Adequate Participation Language~~

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The Steering Committee has determined the basic criteria for “adequate participation” in the Delta Regional Monitoring Program (RMP) is contributing financial or in-kind services to the RMP, at the level established on a yearly basis, as described below. The Regional Board relies on the Delta RMP Steering Committee to determine what “adequate participation” is, and whether or not dischargers and other Steering Committee members are adequately participating in the Delta RMP. The Steering Committee expects and depends on the Regional Board to be sufficiently flexible in its approval of proposed monitoring requirement exchanges, so as to encourage permitted dischargers to participate.

Contributions from Permitted Discharger ~~Categories~~ **Participant Groups**

Permitted dischargers are entities subject to NPDES or WDR permit requirements for monitoring. The Regional Board allows, through amended permits, permitted dischargers in the Sacramento/San Joaquin watershed to demonstrate “adequate participation” in the Delta RMP in lieu of conducting specific receiving water monitoring that is otherwise required by their permits.

Contributions from Non Permitted ~~Categories~~ **Participant Groups**

For ~~categories~~ **Participant Groups** of Steering Committee members that do not have permits issued by the Regional Water Board requiring monitoring that could be exchanged, adequate participation will consist of funding or in-kind services contributed to the RMP that are reasonably equivalent to other participants (of similar type) in the Delta RMP. The Steering Committee must consider for such categories whether the entity may vote based on the

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level of participation. For example, any entity may provide funding to the Delta RMP, but the Steering Committee must consider what level of funding would constitute a “voting” Steering Committee member. The Steering Committee has agreed that a category can hold a seat on the Steering Committee, without contributing financially, but is not allowed to vote on financial issues. Thereby, financial obligations of the program are only supported by those that financially contribute to the program. Steering Committee members that do not contribute financially can be a voting member on non-financial issues if the category/member adds value to the program, as described below.

#### Definition of In-Kind Services

In-kind contributions may count towards a Participant’s contribution, but only if they can be monetized and replace a cost in the program budget. In-kind services do not include participation on the Steering Committee, or Technical Advisory Committee, or any subcommittees formed by either the Steering Committee or Technical Advisory Committee.

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#### Factors for Determining Adequate Participation

The following factors will be considered when making a determination of adequate participation.

- Program Budget

The total Delta RMP program budget will be set by the Steering Committee annually and will be based on realistic estimates of funds likely to be received. Each Steering Committee category Participant Group (coordinated monitoring program, permittees representing irrigated lands, publicly owned treatment works, stormwater, regulatory, resources agency, and water supply) will be assigned, by the Steering Committee, a specified portion of the total program budget (see definition of “Cost Allocation Schedule” in Section 2). As a starting

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point, these amounts may be determined using the previous year’s level of support for each category.

- Whether Additional Funds are Expected

The Delta RMP may receive grants, new categories, or funding from unanticipated sources. These funds will be used in developing the program budget, and could be used for determining adequate participation.

- Exchange of Existing Individual Monitoring

Notwithstanding consideration of the program budget and whether additional funds are expected, an individual permitted discharger may be deemed to have adequate participation in the Delta RMP, for a particular funding year, only if they contribute funds to the program based on the following methodology:

For the first year, after a lapse of membership, or when what is being “traded” is substantially different than negotiated in the past:

The contribution level determined through negotiations between Regional **Water** Board staff and the individual discharger. The contribution level must not be less than the savings due to receiving water monitoring and/or study reduction approved by the Regional **Water** Board.

For subsequent years following the initial assessment:

Steering Committee members are expected to negotiate within their **categories** **Participant Groups** to develop an ongoing formula for the expected contribution for each of its members. Individual members of a permitted discharger **category**

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Participant Group are responsible only for contributing their individual funding allotment. Failure of any member to contribute their expected individual funding will not result in an increase of funding requirements for the other members. However, failure of any discharger to contribute their expected individual funding will result in a finding of inadequate participation by that individual discharger. Contribution must not be less than the savings due to receiving water monitoring reduction originally approved by the Regional Water Board (under the above bullet).

- Value Added Considerations

Any Steering Committee member representing a category Participant Group needs to be committed to attending meetings regularly to ensure that a quorum is met at meetings and progress can be made. Categories that do not contribute financially may bring additional perspective or skill sets to the Steering Committee that is needed to achieve program goals, and therefore can be a voting member on non-financial issues. Categories Participant Groups that help broaden the funding base either directly or indirectly by increasing the ability for the Delta RMP to compete for grants, achieve broader coordination with other programs, or other means of growing the program's credibility and influence can be voting Steering Committee members on non-financial issues. New categories Participant Groups should not conflict with current representation (i.e., Is there already sufficient representation?).

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**9. Charter Revisions**

The Steering Committee may amend this Charter by following the decision method described in Section 7.A.6 above. Charter amendments may be proposed by Steering Committee Representatives, Technical Advisory Committee Representatives, or the Implementing Entity, either during or between meetings. Any proposed amendments will be placed on the Steering Committee meeting agenda for discussion and possible action, or decided through email or conference call communication if feasible and appropriate.

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## Attachments

Table of Contents

Figure 1: Organizational Chart of the Delta RMP

Attachment 1: Roster of Steering Committee Members

Attachment 2: Roster of Technical Advisory Committee Members

Attachment 3: Flowchart for Regulatory Decision-making (7/7/14 version)

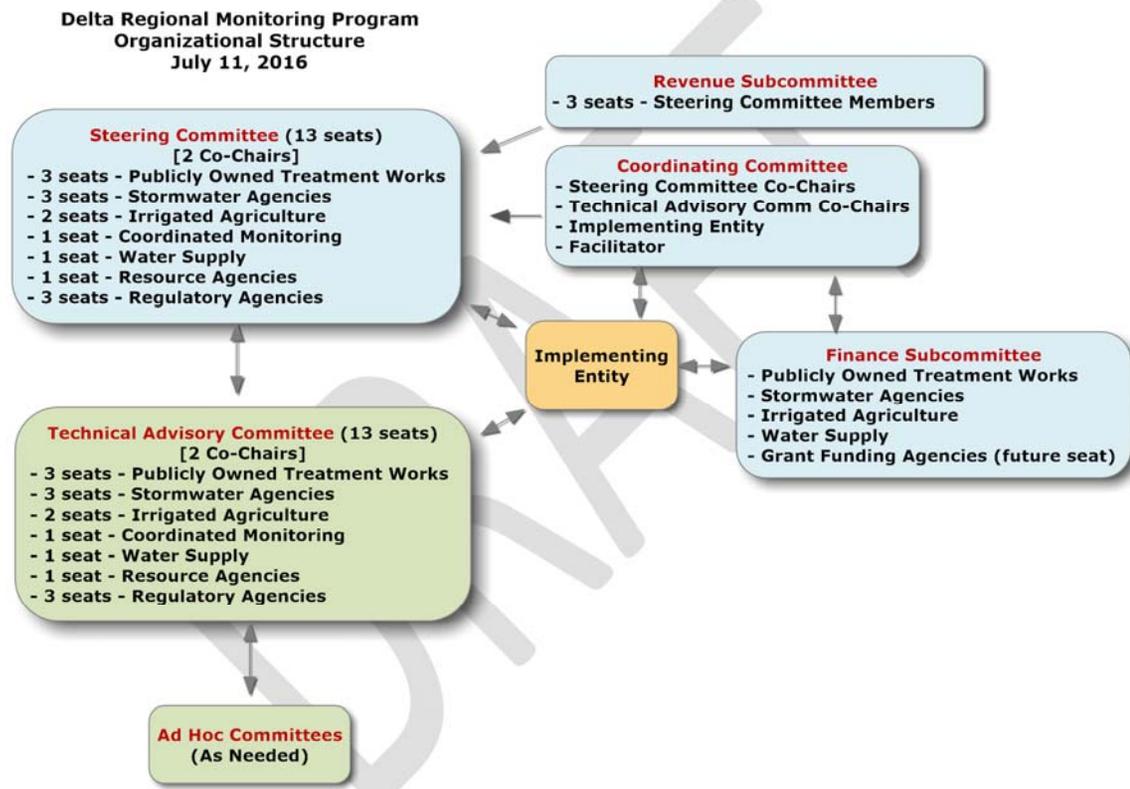
Attachment 4: Guidance for Issuing and Evaluating Requests for Proposals for the Delta RMP

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**Figure 1. Organizational Chart of the Delta RMP**



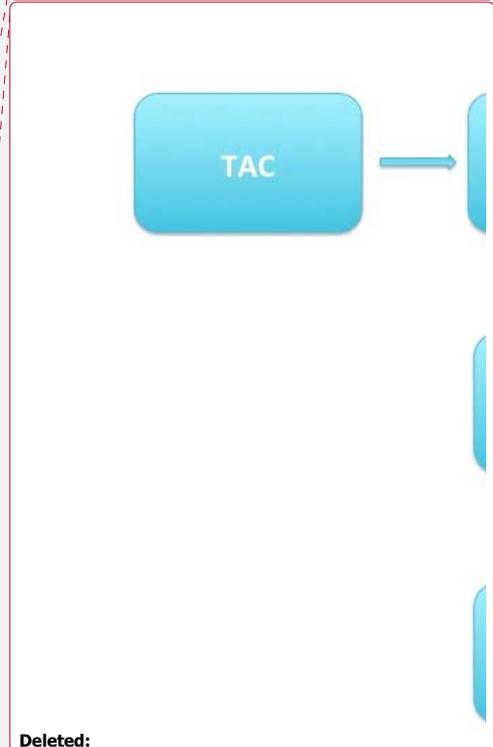
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DELTA RMP CHARTER – SC REVIEW DRAFT 7/10/2016

**Attachment 1: Roster of Steering Committee Members (updated 07/10/2016)**

Name	Affiliation	Representing	Position
Mike Wackman	San Joaquin County & Delta Water Quality Coalition	Agriculture 1	Primary
Bruce Houdesheldt	Sacramento Valley Water Quality Coalition	Agriculture 1	Alternate
David Cory	Westside San Joaquin River Watershed Coalition	Agriculture 2	Primary
Parry Klassen	East San Joaquin Water Quality Coalition	Agriculture 2	Alternate
Gregg Erickson	Interagency Ecological Program/DFW	Coordinated Monitoring	Primary
Erwin Van Nieuwenhuysse	Interagency Ecological Program/Reclamation	Coordinated Monitoring	Alternate
Karen Gehrts	Interagency Ecological Program/DWR	Coordinated Monitoring	Alternate
Linda Dorn	Regional San	POTW	Primary
Josie Tellers	City of <a href="#">Davis</a>	POTW	Primary
<a href="#">Deedee Antypas</a>	<a href="#">City of Stockton</a>	<a href="#">POTW</a>	<a href="#">Primary</a>
Casey Wichert	City of Brentwood	POTW	Alternate
Debbie Webster	CVCWA	POTW	Alternate
Nader Shareghi	Mountain House CSD	POTW	Alternate
Vyomini Upadhyay	Regional San	POTW	Alternate
Samsor Safis	Regional San	POTW	Alternate
Jenny Skrel	Ironhouse SD	POTW	Alternate
Tony Pirondini	City of Vacaville	POTW	Alternate
<a href="#">Dave Melilli</a>	City of <a href="#">Rio Vista</a>	POTW	Alternate
<a href="#">Tom Grovhoug</a>	<a href="#">LWA</a>	<a href="#">POTW</a>	<a href="#">Alternate</a>
<a href="#">Terry Fleming</a>	<a href="#">U.S. EPA Region 9 Water Division</a>	Regulatory-Federal	Primary
Valentina Cabrera-Stagno	U.S. EPA Region 9 Water Division	Regulatory-Federal	Alternate
Adam Laputz	Central Valley Regional Water Board	Regulatory-State <u>1</u>	Primary
Pamela Creedon	Central Valley Regional Water Board	Regulatory-State <u>1</u>	Alternate
<a href="#">Greg Gearheart</a>	<a href="#">State Water Board</a>	<a href="#">Regulatory-State</a> <u>2</u>	<a href="#">Primary</a>

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DELTA RMP CHARTER – SC REVIEW DRAFT 7/10/2016

<a href="#">Vacant</a>	<a href="#">State Water Board</a>	<a href="#">Regulatory-State 2</a>	<a href="#">Alternate</a>
Dave Tamayo	County of Sacramento	Stormwater, Phase I	Primary
Dalia Fadl	City of Sacramento	Stormwater, Phase I	Alternate
Stephanie Reyna-Hiestand	City of Tracy	Stormwater, Phase II <a href="#">1</a>	Primary
<del>Brandon Nakagawa</del>	County of <a href="#">San Joaquin</a>	Stormwater, Phase II <a href="#">1</a>	Alternate
<a href="#">Brendan Ferry</a>	<a href="#">County of El Dorado</a>	<a href="#">Stormwater, Phase II 2</a>	<a href="#">Primary</a>
<a href="#">Vacant</a>		<a href="#">Stormwater, Phase II 2</a>	<a href="#">Alternate</a>
Val Connor	<a href="#">GEI</a>	Water Supply	Primary
Smith, Lynda	<a href="#">MWD</a>	Water Supply	Alternate
Stephanie Fong	SFCWA	Water Supply	Alternate
<a href="#">Melanie Okoro</a>	<a href="#">NMFS</a>	<a href="#">Resource Agencies</a>	<a href="#">Primary</a>
<a href="#">Jeff Stuart</a>	<a href="#">NMFS</a>	<a href="#">Resource Agencies</a>	<a href="#">Alternate</a>

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DELTA RMP CHARTER – SC REVIEW DRAFT 7/10/2016

**Attachment 2: Roster of Technical Advisory Committee Members (updated [07/10/2016](#))**

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Name	Representing	Affiliation
<a href="#">Tessa Fojut</a> Alternates: <a href="#">Danny McClure</a> <a href="#">Janis Cooke</a>	Regulatory - State	Central Valley Regional Water Board
Debra Denton Alternate: Valentina Cabrera-Stagno	Regulatory - Federal	U.S. EPA Region 9 Water Division
Erwin Van Nieuwenhuysse Alternate: <a href="#">Shaun Philippart</a>	Coordinated Monitoring	US Bureau of Reclamation  <a href="#">DWR-EMP</a>
Brian Laurenson Alternate: Hope McCaslin Taylor	Stormwater, Phase I	Larry Walker Associates
Karen Ashby Alternate: Gerardo Dominguez	Stormwater, Phase II <a href="#">1</a>	Larry Walker Associates  San Joaquin County
<a href="#">Amy Phillips</a> Alternate: <a href="#">Vacant</a>	<a href="#">Stormwater, Phase II 2</a>	<a href="#">El Dorado County</a>
Tim Mussen Tony Pirondini Vyomini Upadhyay Alternate: Lisa Thompson	POTW	Regional San City of Vacaville Regional San
Michael Johnson Alternate: Vacant	Agriculture <a href="#">1</a>	MLJ-LLC
<a href="#">Melissa Turner</a> Alternate: <a href="#">Vacant</a>	<a href="#">Agriculture 2</a>	<a href="#">MLJ-LLC</a>
Stephanie Fong Alternate: Vacant	Water Supply	SFCWA
Vacant	Resource Agency	
Joe Domagalski	USGS	TAC Co-chair
Stephen McCord	MEI	TAC Co-chair

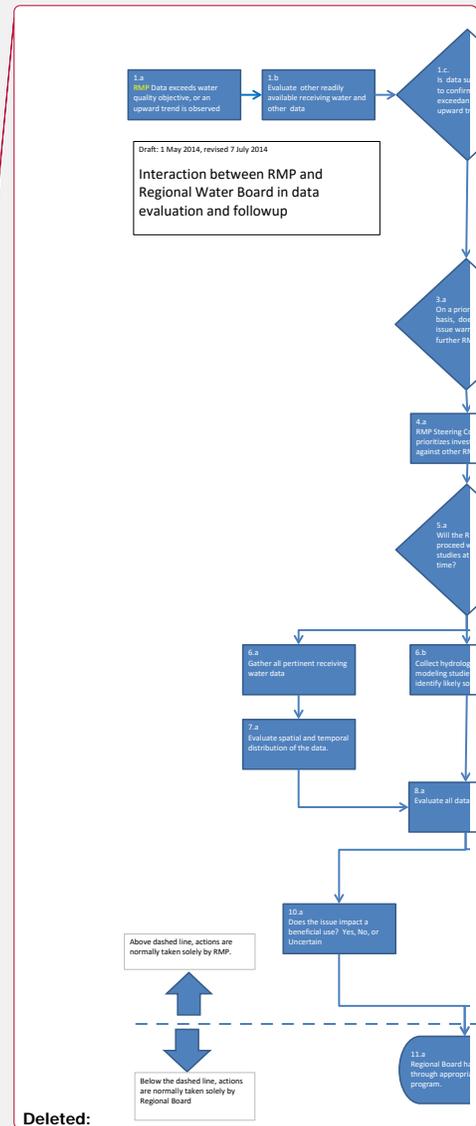
DELTA RMP CHARTER – SC REVIEW DRAFT 7/10/2016

**Attachment 3: Flowchart illustrating the proposed interaction of the Delta RMP with the Regional Board in data evaluation and follow-up**

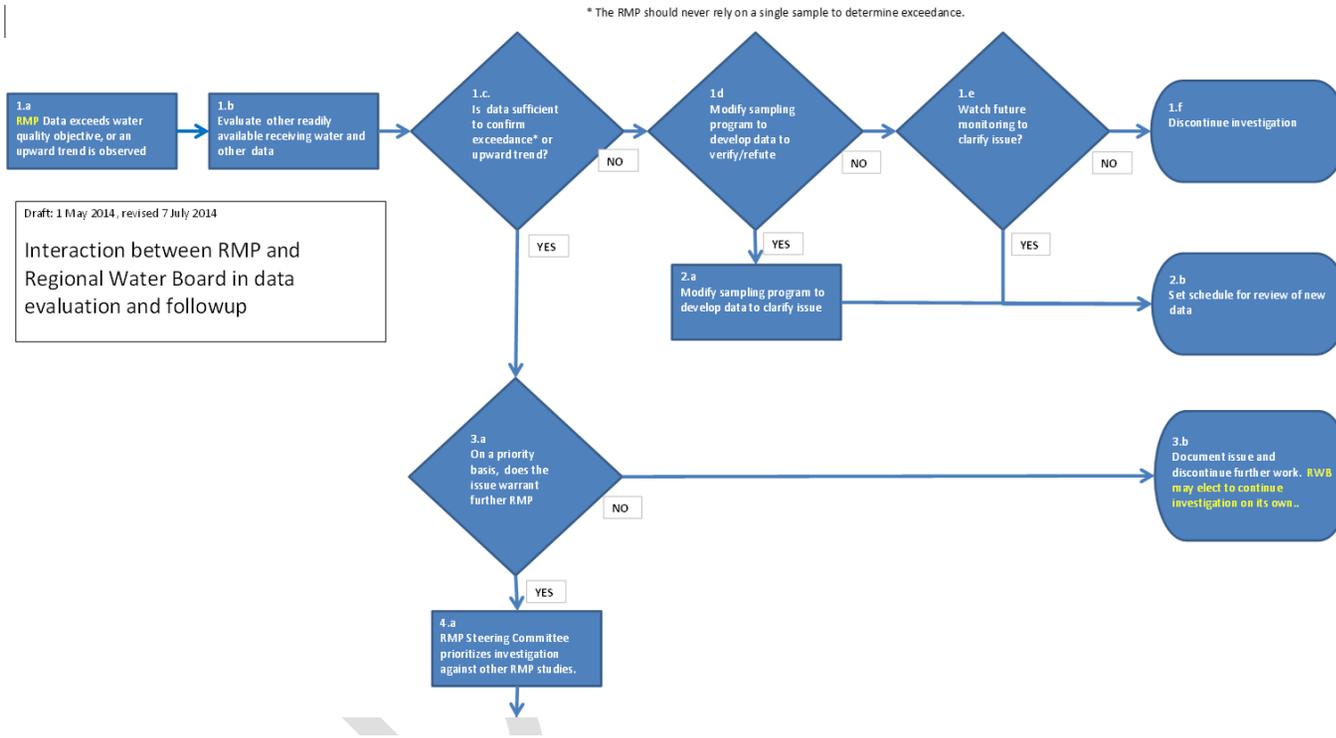
POTWs and Regional Board staff developed this flowchart independently of the Delta RMP decision-making process, to facilitate discussions about program participation by POTWs. This flowchart was considered fundamental by POTWs for agreeing to the permit language change that allows for program participation in lieu of individual permit monitoring.

The flowchart represents the expectation is that regulatory agencies and dischargers will work together to jointly characterize the sources, causal factors and beneficial use impacts of any issues of concern to ensure that regulatory decisions are well founded and effective. The expectation is further that the Delta RMP will be used as much as possible to collect the information needed for decision making and that additional monitoring requests by regulatory agencies per Section 13267 should be minimized.

Delta RMP data will not be used directly to determine that individual discharges are in violation of permit conditions. Delta RMP monitoring stations are established generally as “integrator sites” to evaluate the combined impacts on water quality of multiple discharges into the Delta. Delta RMP monitoring stations would not normally be able to identify the source of any specific constituent, but would be used to identify water quality issues needing further evaluation.



DELTA RMP CHARTER – SC REVIEW DRAFT 7/10/2016

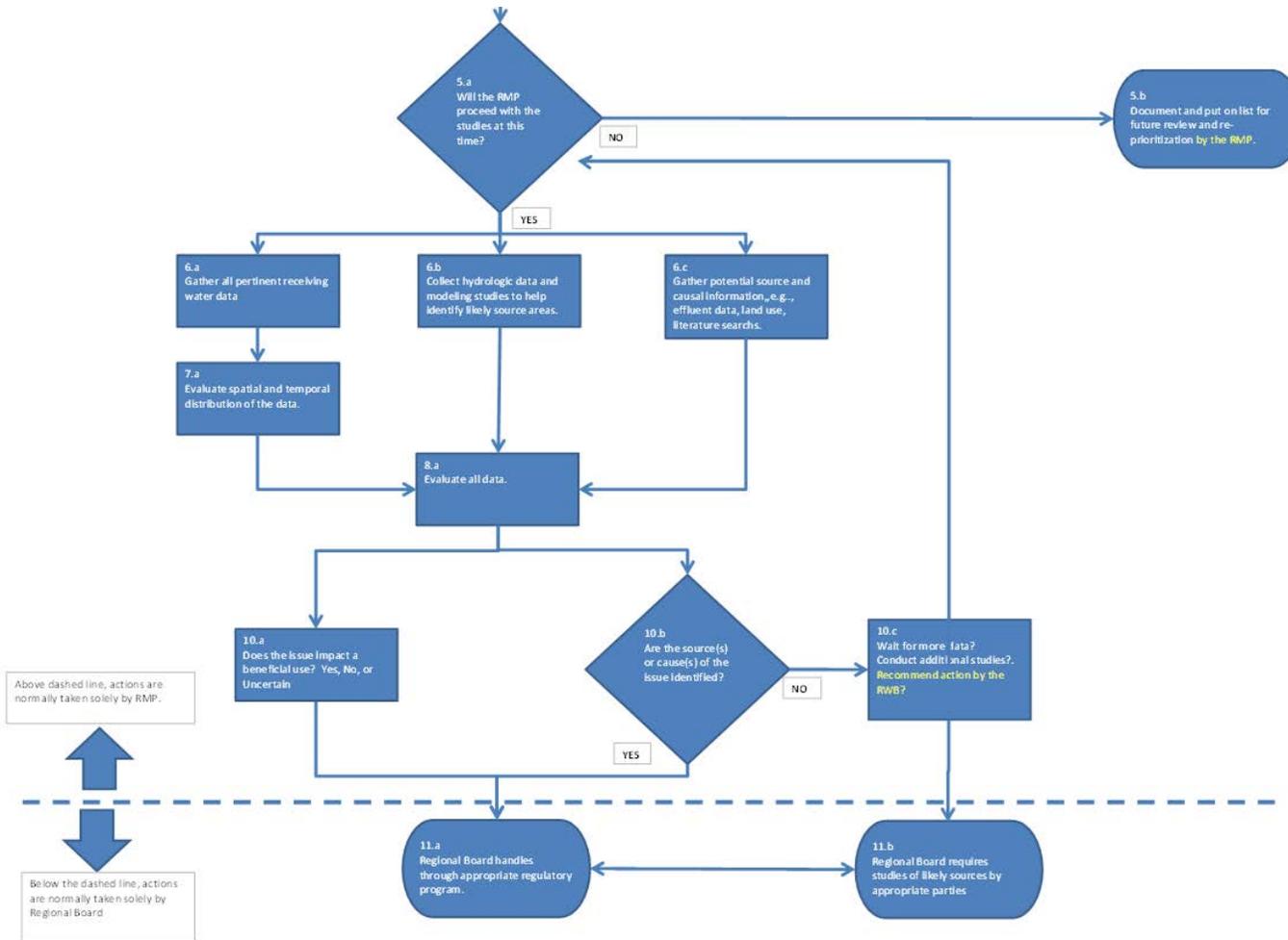


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DELTA RMP CHARTER – SC REVIEW DRAFT 7/10/2016

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## Attachment 4

### Guidance for Issuing and Evaluating Requests for Proposals (RFPs) for the Delta RMP

#### Introduction

The purposes of the Request for Proposal (RFP) process are to ensure:

- Accountability, good governance, and transparency;
- Effective and efficient use of program resources; and
- Achievement of program objectives and quality standards.

Implementing Entity for the Delta RMP will prepare the RFP and manage the RFP process. The Delta RMP Steering Committee (SC) will approve the RFP and approve the selected contractor.

#### Steps in the RFP Process

1. **The Implementing Entity obtains SC approval for proposed work, budget, and schedule.** Work described in an RFP should correspond directly to a workplan task or subtask with an approved budget and schedule.
2. **The Implementing Entity assembles an advisory group to assist with developing the RFP and evaluating proposals.** The advisory group could be the Technical Advisory Committee (TAC), a TAC subgroup, and/or other subject-area experts. In some instances (e.g. work is non-technical in nature), the SC or a SC subgroup may serve as the advisory group. The advisory group should not include individuals with an actual or potential conflict of interest in the RFP.
3. **The Implementing Entity writes the RFP with feedback and assistance from the advisory group.** The RFP should include specific, closed questions by which to evaluate and compare each proposal's technical merit. Proposal scoring criteria and weighting should correspond to the requirements, services, and features of the project.
4. **The Implementing Entity solicits or invites proposals.** Based on the project needs, the Implementing Entity may solicit proposals from specific vendors or distribute a general solicitation via appropriate channels.
5. **The Implementing Entity and advisory group review proposals.** The Implementing Entity may pre-screen proposals based on minimum or non-negotiable project requirements. Advisory group members may be asked to score individual proposals or otherwise provide feedback to the Implementing Entity. Any advisory group member with an actual or perceived conflict of interest in a proposal has a duty to disclose this interest to the group and to recuse himself/herself from the entire RFP process.
6. **The Implementing Entity requests external review as necessary.** The Implementing Entity may ask external reviewers with specific expertise to participate in the evaluation.

DELTA RMP CHARTER – SC REVIEW DRAFT 7/10/2016

7. **The Implementing Entity compiles feedback on proposals and recommends a contractor for the SC to approve.** The recommendation report will include a summary of the contractors who submitted proposals, the costs of the various proposals, and feedback received from the advisory group and others.
8. **SC votes to award the contract.** Considering all of the factors presented by the Implementing Entity and any other relevant information, the SC will vote to award the project contract with any necessary amendments.
9. **The Implementing Entity develops, negotiates, and signs contract.** As the fiscal/operating agent, the Implementing Entity will enter into partnerships, contracts, and other legal agreements on behalf of the Delta RMP. The Implementing Entity will negotiate details concerning schedules and project deliverables, and act as the contract manager.

**Typical Information to Include in RFPs**

1. Delta RMP background and status
2. Project description
3. Eligibility requirements (if any)
4. Required products and services
5. Schedule with milestones
6. Evaluation criteria
7. Format for proposals
8. Format and instructions for budgets included with proposals
9. Any other information needed to evaluate and score responses
10. Contact information and deadline for proposal submissions

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## Delta Regional Monitoring Program

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### *Communications Plan*



**Prepared for**  
Delta RMP Steering Committee  
December 2015

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## **1. Introduction**

The mission of the Delta Regional Monitoring Program (RMP) is to inform decisions on how to protect and restore beneficial uses of water in the Delta, by producing objective and cost-effective scientific information critical to understanding regional water quality conditions and trends. To achieve this mission, the Delta RMP developed a Monitoring Design (ASC 2015) that contains detailed assessment questions relevant to each of the program's priority management questions. This Communications Plan describes the products and processes that are being proposed to the Delta RMP Steering Committee to guide the interpretation and reporting of its data to answer the assessment questions.

## **2. Reporting**

The reporting goal of the Delta RMP is to generate communication products that inform and educate target audiences about Delta water quality conditions and trends. The information in such products is targeted at the highest priority questions faced by managers. The program achieves its full value only to the extent that the data it produces are synthesized, interpreted, and reported in a manner accessible to its various audiences. Therefore, the proposed key information product will be an interpretive report ("Pulse of the Delta") that summarizes monitoring results and synthesizes relevant information.

### **2.1 Target Audiences**

The target audiences for Delta RMP communication products include internal (program participants) and external stakeholders (other Delta managers and policymakers, local scientists and the scientific community at large, and the public). Delta RMP communication products aim to effectively serve these diverse audiences. To meet the Delta RMP reporting goal, the communication products need to provide objective and accessible information, distributed in a timely and effective manner.

### **2.2. Access to RMP Data**

Delta RMP data will be the foundation of RMP communication products. Therefore, release of data to program participants and the public is an important step in the communication process. Final monitoring data will be publicly available after being reviewed and analyzed internally and after reports are produced, although RMP parties can have access to working copies of the data.

ASC will upload the provisional data to the password-protected Delta RMP TAC Google website as soon as they are available, from where they will be pulled into the password-protected workerbee space of the California Estuaries Portal. Provisional data will be provided to the TAC in a downloadable format and will be clearly marked as preliminary data (~~"internal distribution only—do not cite"~~).

Final data will be will be incorporated into CEDEN and at a minimum made available through portals such as CD3, Bay Delta Live, etc. CD3 is an innovative visualization tool for accessing

water quality data that allows users to perform spatial queries to dynamically map, chart, and download data.

### **2.3. Communication Products**

The Delta RMP will produce an Annual Monitoring Report, which documents the activities of the program each year; an interpretive main report (*The Pulse of The Delta*) that summarizes monitoring results and synthesizes the information they provide; and technical reports that document specific studies and synthesize information from diverse sources in relation to specific topics and prioritized assessment questions.

#### *Annual Monitoring Report*

The Annual Monitoring Report will present the results of the previous July-June fiscal year of sampling. Interpretation of the results will be very basic. The main purpose of this report is to share the final data with project partners and collaborators in a timely way. The Annual Monitoring Report also includes a Quality Assurance (QA) memo that summarizes any QA problems and documents any non-conformances with the Quality Assurance Project Plan (QAPP).

#### *Technical Reports*

Technical reports will provide a more in-depth evaluation of monitoring and special study results. Technical reports will facilitate technical review of Delta RMP studies. A technical report may be appropriate for each of the monitoring elements after 2-3 years of study. The Steering Committee will plan the scope and allocate funding for each Technical Report. At the beginning of the process, a detailed content plan will be prepared under the direction of the Steering Committee, and with guidance by the Technical Advisory Committee.

#### *The Pulse of the Delta*

A summary report (*The Pulse of the Delta*) will be the main public reporting vehicle for Delta RMP information (data interpreted relative to the Program's management questions). The information in the Pulse of the Delta will include Delta RMP monitoring data as well as other relevant information. The Steering Committee will plan the scope, allocate funding, and decide when to publish a Pulse of the Delta and its theme. At the beginning of the process, a detailed content plan will be prepared under the direction of the Steering Committee, and with guidance by the Technical Advisory Committee. The first two editions of the Pulse of the Delta (ASC 2011, ASC 2012) preceded the Delta RMP's current organizational structure.

### **2.4. Internal review process**

All Delta RMP communication products will go through internal technical review and Steering Committee approval. The Technical Advisory Committee (TAC) is the lead group for providing technical review. Technical subcommittees or workgroups may be invited to review products or components of a product that fall in their specific expertise at the same time as the TAC. For example, the nutrient subcommittee will be invited to review nutrient synthesis reports. Before they are released to the public, all communication products require final approval by the

Steering Committee. Some results would be expected to be suited for publication in the peer-reviewed literature, which would involve an additional layer of review.

### **2.5. External review process**

The SC will decide on a case-by-case basis whether communication products should be submitted to external review. The TAC, Steering Committee, or staff may recommend additional external expert peer review for draft technical or summary reports. Depending on the timeline and specific needs, external review may be done in parallel to or following internal review.

When planning a new communication product, an advisory group representative of targeted audiences may be formed to help focus the content and outreach.

### **2.6. Communication channels**

At this time, the Delta RMP does not have its own independent communication channels to reach internal and external target audiences. It would benefit the program to develop these channels eventually. The following sections describe the current communication channels.

#### *Website*

Currently, there are two websites with different purposes for the Delta RMP. The Central Valley Regional Water Quality Control Board (Water Board) maintains a web page for the Delta RMP that lists recent program news and updated events, SC and TAC meeting information and materials, and access to reports

([http://www.waterboards.ca.gov/centralvalley/water\\_issues/delta\\_water\\_quality/comprehensive\\_monitoring\\_program/index.shtml](http://www.waterboards.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program/index.shtml)).

ASC maintains a Google site for the TAC that features a basic home page with an interactive event calendar and a link to the Water Board's Delta RMP page (<https://sites.google.com/a/sfei.org/delta-rmp/home>). The TAC Google site also features a password-restricted area that provides access to technical materials, archived documents, and collaborative workspace for members of the TAC and its subcommittees.

In the future, program participants and external stakeholders would benefit from a single website for online information about the program, access to documents, and the schedule of upcoming events.

#### *Email subscription list*

Currently, distribution of communication products relies on external communication channels of program partners and participants; including the Delta Water Quality Issues Lyris email list (maintained by Water Board staff) and the Delta eNews electronic newsletter (maintained by California Department of Water Resources).

An integrated Delta RMP website and email list would allow for announcements to be archived for easy access outside of the email applications.

#### *Social Media*

Additional considerations would be a social media presence such as a Twitter feed and/or Facebook page to raise awareness about the program and to garner support for its activities and interest in its findings.

#### *Public Notice of Meetings*

All meetings are open to the public and publicly noticed through the Delta Water Quality Issues Lyris list. Agenda and materials (except the draft minutes) are posted on the Water Board's Delta RMP web page at least one week in advance. Water Board staff is responsible for maintaining the web page and sending emails through Lyris.

#### *Annual Meeting*

An Annual Meeting would provide an opportunity for the diverse groups involved in the Program to interact. It also provides outreach to groups not directly involved in the program and a venue for obtaining input from external stakeholders. The SC will decide when to hold an annual meeting and the theme and objectives of the meeting.

### **2.7. Delta RMP reporting schedule**

Table 1 provides an overview of the Delta RMP reporting cycle. This schedule was developed by assuming that monitoring will be conducted on a July-June fiscal year basis and that the fall is a good season to release Pulse reports.

Basic data will be reported through various web portals and Annual Monitoring Reports. Data will be collected on fiscal year basis, with each monitoring year ending on June 30. Results will be quality assured and uploaded to web portals for public access by March 1. The Annual Monitoring Report will present these data with minimal interpretation by March 1.

Interpretation of the data will be completed less frequently, in consultation with the Technical Advisory Committee, and at the direction of the Steering Committee. It is anticipated that technical reports will be produced on a rolling basis every 2-3 years (i.e., some report is expected each year). The technical reports will synthesize results and make recommendations for monitoring adaptations and future studies.

The Pulse of the Delta (ASC 2011; ASC 2012) is envisioned as the main interpretive reporting vehicle for Delta RMP results. The themes of the Pulse of the Delta will be outlined by the Steering Committee based on prior technical reports. The Pulse of the Delta will be released in the fall season to provide maximum impact of the program during the Bay Delta Science Conference and the State of the Estuary Conference.

**Table 1. Delta RMP reporting cycle.**

<b>Deliverable</b>	<b>Frequency</b>	<b>Release date</b>
<i>Data uploads</i>		
Provisional data (available to TAC members)	Variable	Variable
CD3	Annually	March 1

Deliverable	Frequency	Release date
CEDEN	Annually	<u>Pesticides/toxicity data:</u> <u>February 1</u> <u>All other data:</u> March 1
California Estuaries web portal	Annually	March 1
<i>Reports</i>		
Annual Monitoring Reports (including QA report)	Annually	March 1
Technical Reports	Variable	Variable
Pulse of the Delta	Variable	Fall

Table 2 presents the proposed reporting schedule for the first four years of the Delta RMP, building toward a Pulse of the Delta in the fall of 2018. The general concept is that nutrient synthesis reports in FY15/16 and FY16/17 and technical reports for Current Use Pesticides and Pathogens in FY17/18 would provide the majority of the content for the Pulse of the Delta in FY18/19.

**Table 2. Proposed Delta RMP reporting schedule through FY18/19.**

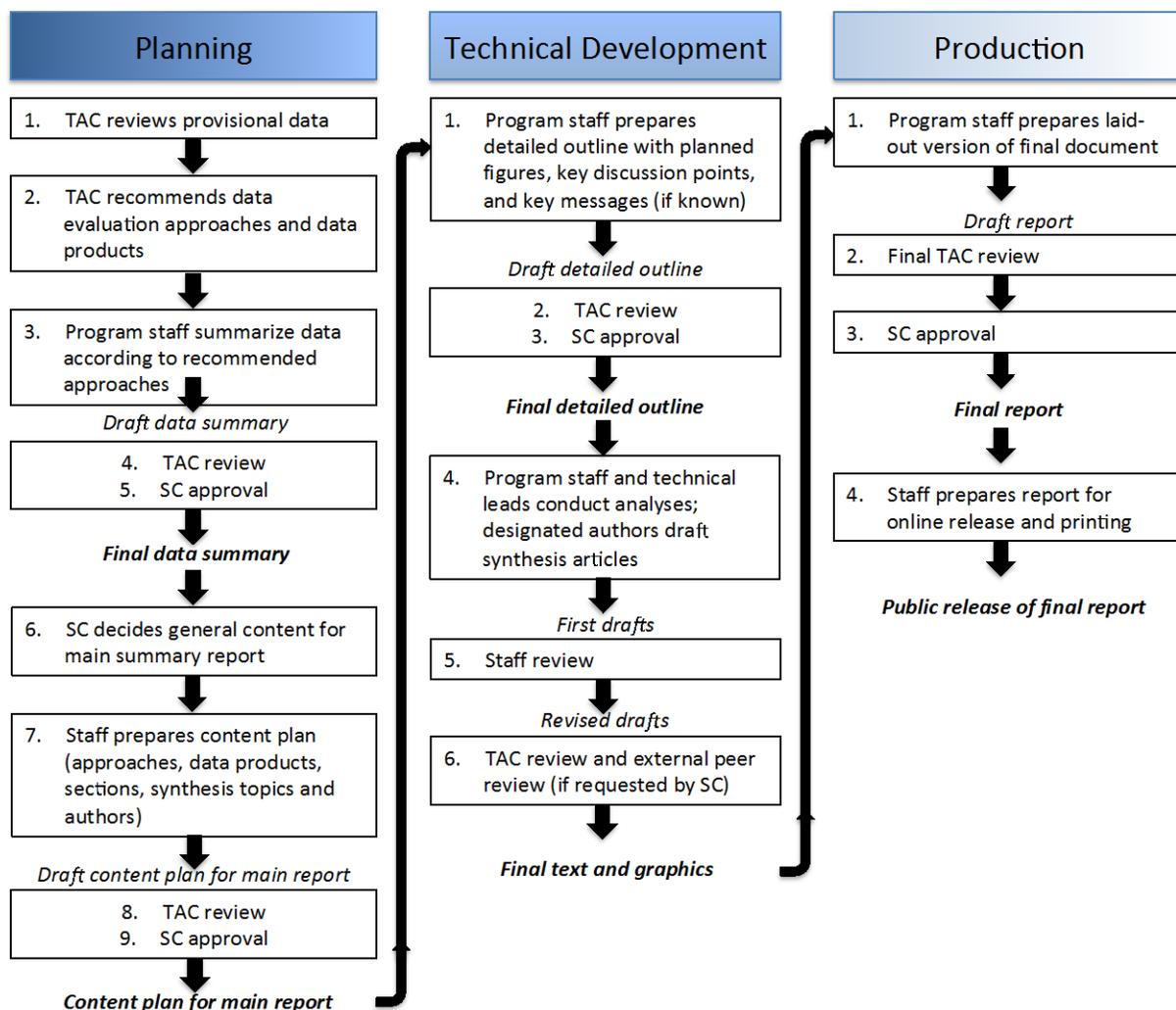
	FY15/16	FY16/17	FY17/18	FY18/19
<b>Pesticides</b>	Monitoring	Monitoring	Monitoring	Monitoring
		Data Report on FY15/16	Data Report on FY16/17	Data Report on FY17/18
			Technical Report on FY15/16-FY16/17	
<b>Mercury</b>		Monitoring	Monitoring	
			Data Report on FY16/17	Data Report on FY17/18
				Technical Report on FY16/17-FY17/18
<b>Nutrients</b>		Monitoring	Monitoring	Monitoring
			Data Report on FY16/17	Data Report on FY17/18
	Technical Reports on Sensor & IEP Data	Technical Report		
<b>Pathogens</b>	Monitoring	Monitoring		
		Data Report on FY15/16	Data Report on FY16/17	
			Technical Report on FY15/16-FY16/17	
<b>Pulse of the Delta</b>				<b>Pulse (Fall '18)</b>

### 3. Data Analysis and Interpretation

The key interpretive product of the program will be the Pulse of the Delta, which will be produced at regular intervals (e.g., annually or every two years). Analyses will emphasize past trends, current status, and projected future trends. Pulse topics could also eventually include causal analyses and more complex syntheses. The over-arching objective will be to answer the priority management questions *using the most appropriate and credible scientific methods*.

The exact methods for data analysis are not prescribed in this plan because doing so would limit the options for the program. Instead, program participants will develop the interpretation of Delta RMP data collectively in a science-based and collaborative process.

With oversight by the TAC, program staff and technical leads will conduct the relevant analyses by evaluating the data in light of the assessment questions, the best scientific methods, and any stated benchmarks or performance targets. A solid review process (see Section 2) ensures that information generated by the program is high quality, objective, relevant, and approved by the SC. The flowchart in Figure 1 summarizes the process for planning, technical development, and production of the Pulse of the Delta.



**Figure 1.** Process for planning, technical development, and production of the Pulse of the Delta

#### **4. References**

ASC. 2011. The Pulse of the Delta: Monitoring and Managing Water Quality in the Sacramento San-Joaquin Delta. Re-thinking Water Quality Monitoring. Contribution #630. Aquatic Science Center, Oakland, CA.

[http://www.aquaticscience.org/2011\\_ASC\\_PulseOfTheDelta\\_final.pdf](http://www.aquaticscience.org/2011_ASC_PulseOfTheDelta_final.pdf)

ASC. 2012. Pulse of the Delta: Linking Science and Management Through Regional Monitoring. Contribution #673. Aquatic Science Center, Richmond, CA.

[http://www.aquaticscience.org/ASC\\_2012\\_Delta\\_Pulse.pdf](http://www.aquaticscience.org/ASC_2012_Delta_Pulse.pdf)

ASC. 2015. Monitoring Design Summary. Prepared for the Delta Regional Monitoring Program. Prepared by Aquatic Science Center, Richmond, CA.

[http://www.swrcb.ca.gov/centralvalley/water\\_issues/delta\\_water\\_quality/comprehensive\\_monitoring\\_program/2015\\_0616\\_deltarmp\\_design.pdf](http://www.swrcb.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program/2015_0616_deltarmp_design.pdf).

ITEM 6 DELTA RMP FINANCIAL UPDATE



DATE: July 12th, 2016  
TO: Delta RMP Steering Committee  
FROM: Philip Trowbridge and Meg Sedlak  
RE: Summary of Delta RMP Financials – period ending 06/30/16

The purpose of this memorandum is to provide an update of budgets and expenses for all open RMP budget years (FY14/15 and FY15/16) and the balance of Program Reserve funds. All of the presented values are current through 06/30/16.

**Delta RMP FY14/15 Budget**

Revenue

All of the expected contributions for the FY14/15 Delta RMP budget have been received.

Expenses

The FY14/15 budget was originally \$251,000 but was adjusted down to \$210,000 by the Steering Committee. At the June 16, 2015 meeting, the Steering Committee voted to move funds that had been allocated for Current Use Pesticide Monitoring (\$41,000) in the FY14/15 budget to the FY15/16 budget.

Expenses to date are within budget. Expenses on Governance tasks were slightly higher than budget but cost savings for Program Management and Logistics tasks offset the increase. All of the labor tasks have been completed and associated funds are exhausted. The only remaining funds in this budget are for subcontractors for Pathogens Monitoring and Nutrient Synthesis. Figure 1 shows a comparison of expenses to budget by category. For more detailed information on budgets and expenses by line item, please refer to Table 1. The expenses by labor/direct costs and subcontractors are:

- Labor/Direct Costs: Expended 100% of the budget (i.e., \$67,925 of \$68,000)
- Subcontractors: Expended 75% of the budget (i.e., \$105,986 out of \$142,000).

ITEM 6 DELTA RMP FINANCIAL UPDATE

**Delta RMP FY15/16 Budget**

Revenue

A total of \$1,097,382 in the contributions for the FY15/16 Delta RMP budget has been received. In addition, a total of \$35,000 has been invoiced and were due by April 30<sup>th</sup>, 2016, but have not been received. See Table 2 for a breakdown of contributions for FY15/16.

The revenue received to date (\$1,097,382) is \$184,444 greater than the FY15/16 budgeted expenses (\$912,938). When the remaining invoiced revenue is received, the grand total will be \$1,132,382 (see Figure 3 for comparison of planned versus actual revenue).

The SC already approved moving \$100,000 of the excess revenue to the FY16/17 budget. At this time, ASC is requesting to transfer \$84,444 of the surplus FY15/16 revenue to the reserve; see further explanation below.

Expenses

Approximately 59% of the budget has been spent (\$538,959 of the \$912,938 budget) over 100% of the fiscal year. However, most of the budget is for subcontractors who have not yet submitted invoices. For most of the labor tasks such as Program Management, Contract/Financial Management, Governance, and Quality Assurance, these tasks are complete and have been closed out. The remaining labor tasks that are open are associated with data management and nutrients. Figure 2 shows a comparison of expenses to budget by category. For more detailed information on budgets and expenses by line item, please refer to Table 3. The expenses by labor/direct costs and subcontractors are:

- Labor/Direct Costs: Expended 74% of the budget (i.e., \$237,035 of \$319,300)
- Subcontractors: Expended 51% of the budget (i.e., \$301,924 out of \$593,638).

The remaining deliverables to be completed include: data management associated with pathogens, pesticides, and toxicity analyses; and a nutrient workshop and summary report for future nutrient monitoring. We anticipate being able to finish these deliverables on budget.

Transfer to Reserve

We anticipate being on budget for the year. Most of the remaining expenses are for subcontractors on fix price contracts. As such, ASC staff recommends that the additional revenue of \$84,444 above the current budgeted expense be transferred to reserve.

ITEM 6 DELTA RMP FINANCIAL UPDATE

**Delta RMP FY16/17 Budget**

Revenue

In April, the Steering Committee approved the revenue for FY16/17 of \$1,056,053. ASC has begun invoicing participants based on the approved revenue. See Table 4 for a breakdown of contributions for FY16/17.

At this time, there is some uncertainty regarding the expected revenue from the City of Modesto and the Port of Stockton. Based on discussions with the Regional Board, it was assumed that the contributions from these two stormwater agencies would be \$38,000. Therefore, this amount was included in the FY16/17 Detailed Workplan revenue table as a placeholder. The actual revenue from these two participants is still being negotiated and will be reported after negotiations are complete. If less than the approved revenue needed for the Detailed Workplan is received, then reserve funds will need to be added to the FY16/17 budget to address the shortfall.

The SC directed that the FY15/16 SFCWA contribution of \$100,000 be transferred to the reserve and then withdrawn as revenue for FY16/17. The SFCWA contribution in March 2107 will be allocated to the FY17/18 budget.

Expenses

The fiscal year began July 1. To date, limited expenses have been incurred.

**RESERVE FUNDS**

Excess revenue (\$51,903) from FY14/15 was added to the Undesignated Funds Reserve. At the April meeting, a request to withdrawal \$20,000 for possible pathogen trigger studies was approved.

At this meeting, a recommendation to deposit surplus funds totaling \$84,444 from FY15/16 to the reserve is pending SC approval. If this is approved the undesignated funds will total \$116,347.

Table 5 shows a running list of deposits and withdrawals into the Undesignated Funds Reserve. The transfer of \$41,000 between the FY14/15 and FY15/16 budget is shown on this ledger as an accounting practice.

ITEM 6 DELTA RMP FINANCIAL UPDATE

## Figures and Tables

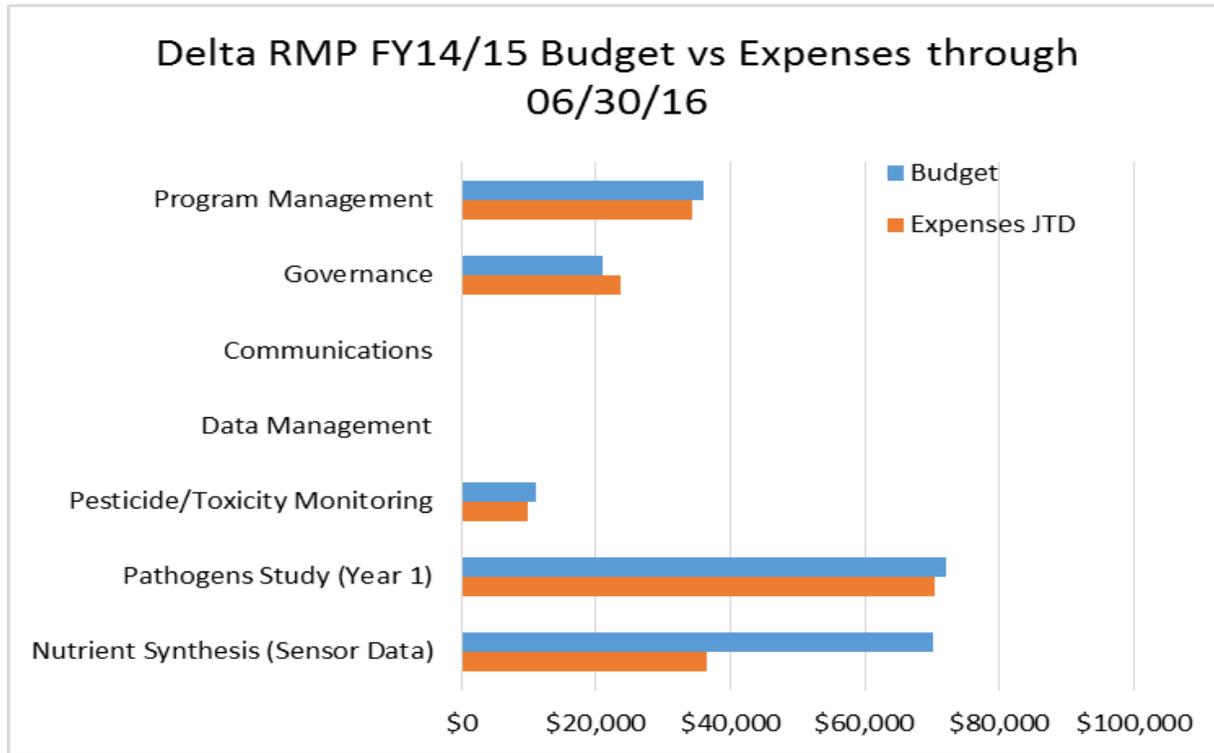


Figure 1: Delta RMP FY14/15 Budget. Budget and expenses from 1/1/15 through 06/30/16 by category

ITEM 6 DELTA RMP FINANCIAL UPDATE

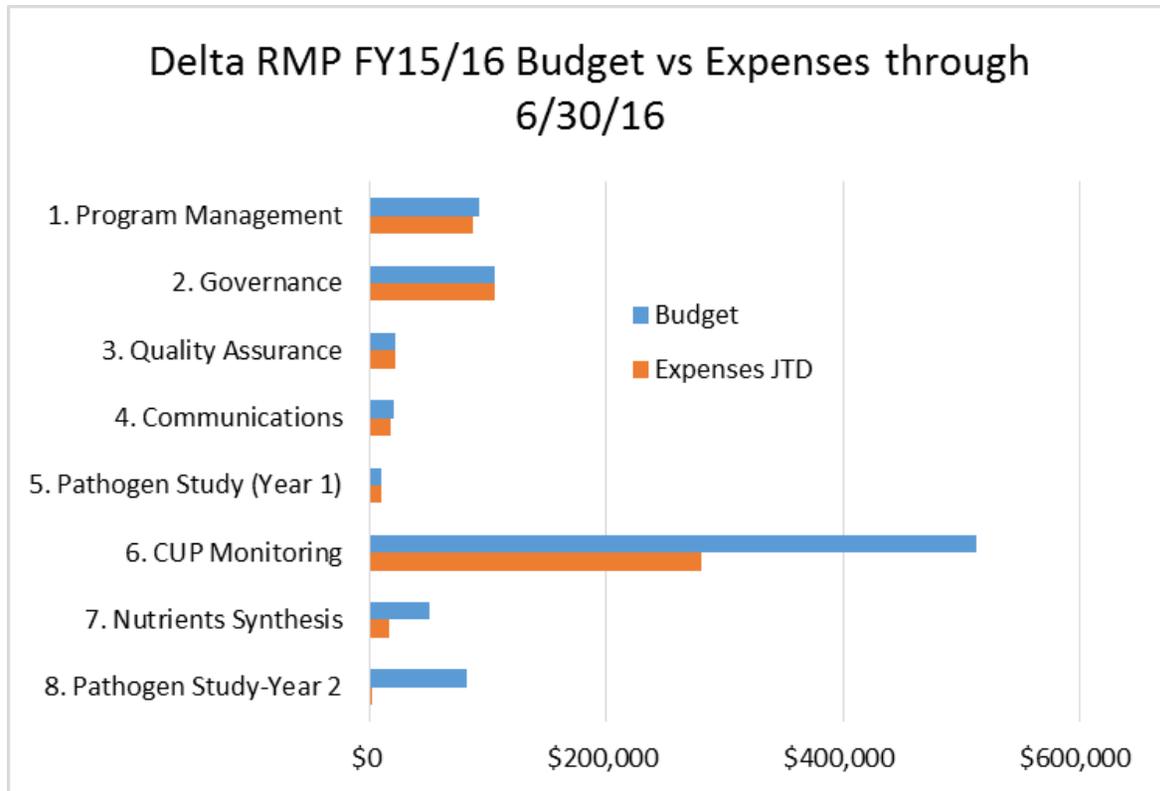


Figure 2: Delta RMP FY15/16 Budget. Budget and expenses from 7/1/15 through 6/30/16 by category.

ITEM 6 DELTA RMP FINANCIAL UPDATE

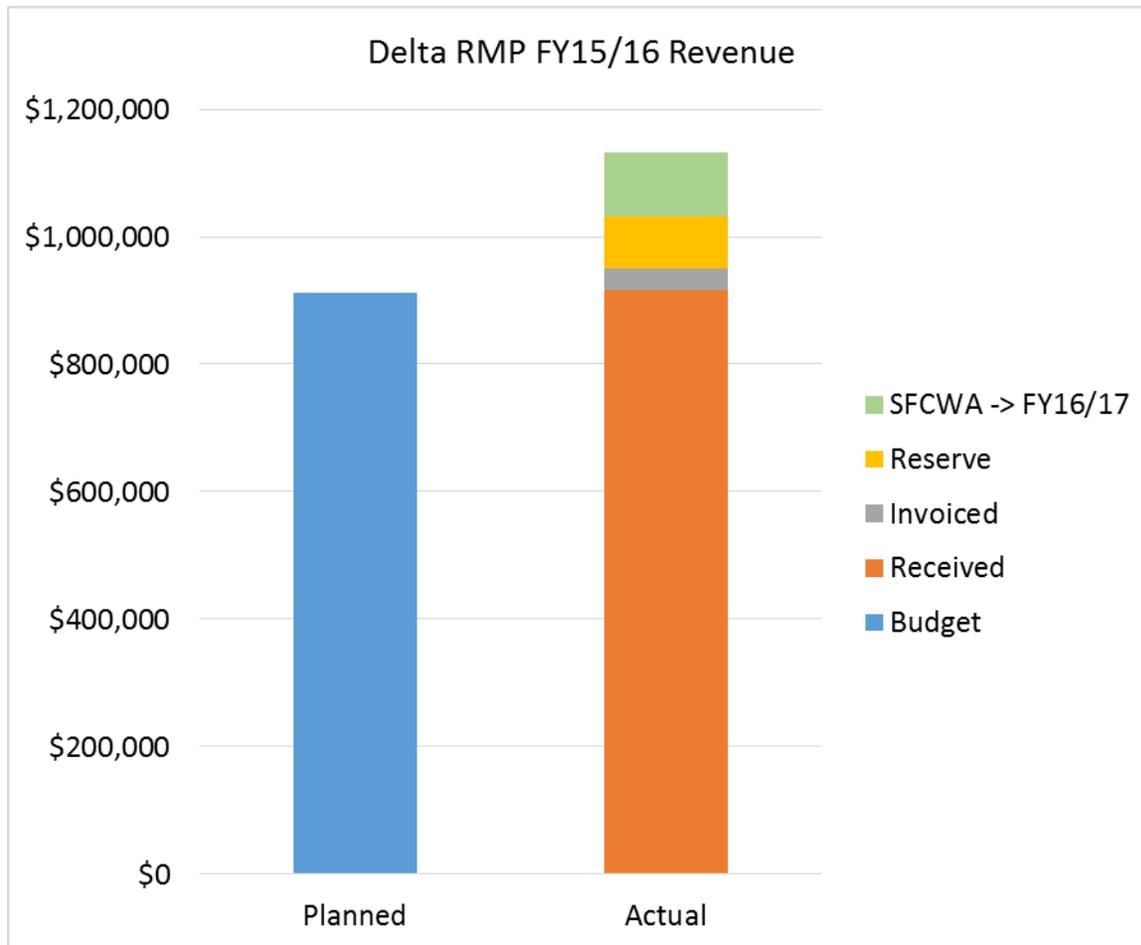


Figure 3: Delta RMP Revenue FY15/16 showing planned revenue versus revenues to date (i.e., received, invoiced, request to transfer to reserve (pending), and approved SFCWA \$100K transfer to FY16/17)

Table 1: Delta RMP FY14/15 Budget. Budget and expenses from 1/1/15 through 6/30/16 by line item.

Task	Subtask	FY14/15 Original Budget	Budget Adjustment	FY14/15 Final Budget	Expenses Through Last Quarter	Expenses This Quarter	Staff and Subcontractors Billing This Quarter	Work Summary This Quarter	Total Expenses To Date	FY14/15 Funds Remaining
Program Management		\$36,000		\$36,000	\$34,393	\$0	task closed		\$34,393	\$1,607
Governance		\$21,000		\$21,000	\$23,600	\$0	task closed		\$23,600	-\$2,600
Communications		\$0		\$0	\$0	\$0			\$0	\$0
Data Management		\$0		\$0	\$0	\$0			\$0	\$0
Pesticide/Toxicity Monitoring	Logistics and Coordination	\$11,000		\$11,000	\$9,932	\$0	task closed		\$9,932	\$1,068
	Field Sampling and Pesticide Lab	\$41,000	-\$41,000	\$0		\$0	moved to FY15/16 budget		\$0	\$0
	Toxicity/TIE Lab	\$0		\$0	\$0	\$0			\$0	\$0
Pathogens Study (Year 1)		\$72,000		\$72,000	\$64,580	\$5,005	Lab subcontractor	Analyses of monthly samples for pathogens	\$69,585	\$2,415
Nutrient Synthesis (Sensor Data)		\$70,000		\$70,000	\$0	\$36,401	USGS subcontractor	Preparation of draft report and response to comments.	\$36,401	\$33,599
<b>Total</b>		<b>\$251,000</b>	<b>-\$41,000</b>	<b>\$210,000</b>	<b>\$132,505</b>	<b>\$41,406</b>			<b>\$173,910</b>	<b>\$36,090</b>

## ITEM 6 DELTA RMP FINANCIAL UPDATE

Table 2: Delta RMP FY15/16 Revenue (invoiced, received or reserve funds) through 6/30/16 by participant group.

	In-Kind	Invoiced	Received	Total
ILRP		\$35,000	\$113,780	\$148,780
MS4 Phase 1			\$158,200	\$158,200
MS4 Phase 2			\$169,999	\$169,999
POTW			\$209,754	\$209,754
SFCWA			\$100,000	\$100,000
RB5	\$267,000			\$267,000
Carryover from FY14/15			\$41,000	\$41,000
Water Board Funds for Comms Plan			\$17,649	\$17,649
Reserve funds allocated for Pathogen trigger study (SC approved 4/25/16)			\$20,000	\$20,000
Total		\$35,000	\$830,382	\$1,132,382
Total Budgeted Expense	\$267,000		\$645,938	\$912,938
Transfer of SFCWA funds to reserve and then FY16/17 budget (SC approved 4/25/16)			(\$100,000)	
Surplus as of July 1, 2016	\$0		\$84,444	

\*Surplus calculation does not include invoiced funds, only received.

In-Kind Revenue = SWAMP contract funds or other in-kind services that can only be used for a defined purpose

Received Revenue = Funds received by ASC

Invoiced Revenue = Funds for which ASC has sent invoices to participants but has not yet received

Expected Revenue = Funds that are expected but are not formally committed through an invoice or contract.

Table 3: Delta RMP FY15/16 Budget. Budget and expenses from 7/1/15 through 6/30/16 by line item.

Task	Subtask	FY15/16 Budget	Expenses Through Last Quarter	Expenses This Quarter	Staff and Subcontractors Billing This Quarter	Work Summary This Quarter	Total Expenses To Date	FY15/16 Funds Remaining
1. Program Management	A. Program Planning	\$45,000	\$12,549	\$32,283	Phil Trowbridge, Meg Sedlak, Thomas Jabusch, Amy Franz	Preparation of the FY16/17 Detailed Workplan and Annual Budget: activities included addressing comments from each of workgroups on nutrient, mercury, pesticide and toxicity and pathogen study plans; obtaining subcontractor quotes for pesticides/toxicity, mercury, nutrients, pathogens, and meeting facilitation; and confirming anticipated revenue estimates with WB and developing estimates for implementation of scope of work. Responded to SC requests related to PM (e.g., evaluating program administrative costs relative to other regional monitoring programs). Revised the Charter based on multiple rounds of SC input. Coordinated with participants to plan workflow and track deliverables (e.g., worked with WB on IRLP pesticide information needs; worked with LWA to clarify pathogen trigger study, etc.). Participated in External Review activities (e.g., provided input on Exp Review agendas and materials, and participated in a planning meeting in Sacramento and multiple phone calls).	\$44,832	\$168
	B. Contract and Financial Management	\$47,000	\$28,601	\$13,878	Phil Trowbridge, Meg Sedlak, Thomas Jabusch, Amy Franz, Meredith Lofthouse, Frank Leung	Conducted contract and financial management (e.g., developed contracts, reviewed invoices for accuracy and tracked expenditures). Developed MOU and worked with stakeholders to incorporate revisions to MOU. Prepared a template invoice letter and sent to SC co-chairs for comment; revised invoice sheets/budgets to reflect change in fees (and updated sheets to reflect SC decision to rescind fee increase); and invoiced RMP participants for FY16/17 fees.	\$42,479	\$4,521
2. Governance	A. SC meetings	\$45,900	\$28,965	\$16,713	Thomas Jabusch, Meg Sedlak, Phil Trowbridge, Brock Bernstein	Prepared April SC agenda package, background documents, and power points for the meeting; held pre-meeting conference call with the Coordinating Committee as well as multiple one-on-one calls with stakeholders; presented at SC meeting; prepared draft summary and incorporated SC comments; and conducted action item follow-up.	\$45,678	\$222
	B. TAC meetings	\$59,000	\$36,065	\$23,155	Thomas Jabusch, Meg Sedlak, Phil Trowbridge, McCord Environmental	Prepared June TAC agenda package; compiled and reviewed background materials; prepared power points for the meeting; held pre-meeting calls with TAC co-chairs, USGS, and LWA staff regarding presentations as well as multiple one-on-one calls with stakeholders; presented at TAC meeting; prepared draft summary and incorporated comments from stakeholders; and conducted action item follow-up.	\$59,220	(\$220)
3. Quality Assurance	A. Quality Assurance System	\$10,000	\$4,922	\$6,585	Thomas Jabusch, Don Yee	Revised QAPP to include mercury analyses included in the approved FY16/17 Detailed Workplan; made requested revisions; and responded to comments from TAC and laboratories on QAPP.	\$11,507	(\$1,507)
	B. Technical Oversight and Coordination	\$11,000	\$10,060	\$0			\$10,060	\$941
4. Communications	A. Communications Plan	\$16,000	\$16,000	\$0	Closed		\$16,000	\$0
	B. Communications Product	\$4,000	\$1,649	\$0	Closed		\$1,649	\$2,351
5. Pathogen Study (Year	A. Data Management	\$10,000	\$6,746	\$3,238	Amy Franz, John Ross	Review and formatting of data for CEDEN uploads.	\$9,984	\$16
6. CUP Monitoring	B. Pesticide Laboratory Work	\$189,208	\$0	\$58,889	USGS subcontractor	Analysis and reporting of monthly pesticide monitoring.	\$58,889	\$130,319
	C. Toxicity Laboratory Work	\$287,830	\$160,375	\$52,480	UC Davis subcontractor, SWAMP contract	Analysis and reporting of monthly toxicity testing.	\$212,855	\$74,975
	D. Data Management	\$21,000	\$7,244	\$1,293	Don Yee, Amy Franz	Review and formatting of data for CEDEN uploads. QA/QC review initiated.	\$8,537	\$12,463
	E. Reporting	\$15,000	\$0	\$0			\$0	\$15,000

Table 3: Delta RMP FY15/16 Budget. Budget and expenses from 7/1/15 through 6/30/16 by line item.

Task	Subtask	FY15/16 Budget	Expenses Through Last Quarter	Expenses This Quarter	Staff and Subcontractors Billing This Quarter	Work Summary This Quarter	Total Expenses To Date	FY15/16 Funds Remaining
7. Nutrients Synthesis	A. Synthesis Report - Monitoring Data Gaps	\$50,000	\$11,641	\$4,488	Thomas Jabusch, Meg Sedlak	Refined high priority nutrient activities for FY16/17 that was presented to TAC in March. Prepared power point for June TAC meeting. Developed proposal for a multi-year nutrient monitoring workshop to address longer-term Delta RMP needs. Responded to comments; held numerous phone calls with stakeholders.	\$16,129	\$33,871
8. Pathogen Study-Year 2	A. Monthly Pathogen Sampling	\$72,000	\$0	\$0			\$0	\$72,000
	B. Data Management	\$10,000	\$0	\$1,140	Don Yee, Amy Franz	Review and formatting of data for CEDEN uploads.	\$1,140	\$8,860
	C. Pathogen Followup Trigger Study	\$20,000	\$0	\$0			\$0	\$20,000
	<b>TOTAL</b>	<b>\$912,938</b>	<b>\$324,817</b>	<b>\$214,142</b>			<b>\$538,959</b>	<b>\$373,979</b>

## ITEM 6 DELTA RMP FINANCIAL UPDATE

Table 4: Delta RMP FY16/17 Revenue (expected, invoiced, received or reserve funds) through 6/30/16 by participant group

Participant	In-Kind	Expected	Invoiced	Received	Total
ILRP				\$148,780	\$148,780
MS4 Phase 1		\$138,000	\$58,200		\$196,200
MS4 Phase 2		\$20,000	\$149,999	\$20,000	\$189,999
POTW		\$96,619	\$64,502	\$48,633	\$209,754
SFCWA		\$0			\$0
RB5 (in-kind)	\$211,320				\$211,320
Reserve				\$100,000	\$100,000
<b>Total</b>	\$211,320	\$254,619	\$272,701	317,413	\$1,056,053

In-Kind Revenue = SWAMP contract funds or other in-kind services that can only be used for a defined purpose

Received Revenue = Funds received by ASC

Invoiced Revenue = Funds for which ASC has sent invoices to participants but has not yet received

Expected Revenue = Funds that are expected but are not formally committed through an invoice or contract.

## ITEM 6 DELTA RMP FINANCIAL UPDATE

Table 5: Delta RMP Undesignated Funds Reserve Ledger.

Budget Year	Deposit or Withdrawal	Reserve Type	Authorization	Date of Authorization	Amount	Comment
FY14/15	Deposit	Undesignated Funds	Steering Committee	6/16/2015	\$41,000	Release funds allocated for CUP monitoring in FY14/15 budget in order to re-allocate these funds into the FY1516 budget for CUP monitoring.
FY14/15	Deposit	Undesignated Funds		10/15/2016	\$51,903	Extra revenue received in FY14/15. Actual revenue minus budgeted expenses for FY1415 (number is updated whenever budget is changed, date reflects most recent update).
FY15/16	Withdrawal	Undesignated Funds	Steering Committee	6/16/2015	(\$41,000)	Release funds allocated for CUP monitoring in FY14/15 budget in order to re-allocate these funds into the FY1516 budget for CUP monitoring.
FY15/16	Withdrawal	Undesignated Funds	Steering Committee	4/25/2016	(\$20,000)	Allocate funding to FY15/16 for possible pathogen trigger study (TBD).
FY15/16	Deposit	Undesignated Funds	Steering Committee	4/25/2016	\$100,000	SC directed that SFCWA funding of \$100K (contribution for FY15/16) be transferred to reserve.
FY 16/17	Withdrawal	Undesignated Funds	Steering Committee	4/25/2016	(\$100,000)	SC directed that \$100K be withdrawn from the reserve to be reallocated as revenue for FY16/17. SFCWA contribution in March 2017 (\$100K) will be allocated to FY17/18 revenue.
FY15/16	Deposit	Undesignated Funds	Steering Committee	Pending	\$84,444	Request to transfer surplus from FY15/16 revenue to reserve.
<b>TOTAL</b>		Undesignated Funds			<b>\$116,347</b>	

# THE DELTA REGIONAL MONITORING PROGRAM: CONNECTING WATER QUALITY MANAGEMENT AND SCIENCE IN THE DELTA

Presented by: Thomas Jabusch\* and Meghan Sullivan\*\* \*thomas@aquaticscience.org \*\*meghan.sullivan@waterboards.ca.gov > [http://www.waterboards.ca.gov/centralvalley/water\\_issues/delta\\_water\\_quality/comprehensive\\_monitoring\\_program/index.shtml](http://www.waterboards.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program/index.shtml)

## Mission

To inform decisions on how to protect, and, where necessary, restore beneficial uses of water in the Delta, by producing objective and cost-effective scientific information critical to understanding regional water quality conditions and trends

## Goals and Objectives

The primary goal of the Delta RMP is to provide coordinated Deltawide monitoring, reporting, and assessment of water quality, while pursuing the following objectives:

- 1 Improve the efficiency of water quality data collection and management in the Delta;
- 2 Generate products that inform and educate the public, agencies, and decision makers;
- 3 Raise awareness of Delta water quality conditions and how they impact beneficial uses;
- 4 Foster independent science, objective peer review, and a transparent review process;
- 5 Focus on the Delta;
- 6 Focus on the highest priority water quality information needs; and
- 7 Contribute to a holistic understanding of the Bay-Delta

## Milestones

Order of Priority	Is there a problem or are there signs of a problem?
<b>YEAR 1 PRIORITY #1: STATUS &amp; TRENDS</b>	<p><b>Status and Trends</b></p> <ul style="list-style-type: none"> <li>• Is water quality currently, or trending towards, adversely affecting beneficial uses of the Delta?</li> <li>• Which constituents may be impairing beneficial uses in subregions of the Delta?</li> <li>• Are trends similar or different across different subregions of the Delta?</li> </ul>
<b>2</b>	<p><b>Sources, Pathways, Loadings, and Processes</b></p> <p>Which sources and processes are most important to understand and quantify?</p> <ul style="list-style-type: none"> <li>• Which sources, pathways, loadings, and processes (e.g., transformations, bioaccumulation) contribute most to identified problems?</li> <li>• What is the magnitude of each source and/or pathway (e.g., municipal wastewater, atmospheric deposition)?</li> <li>• What are the magnitudes of internal sources and/or pathways (e.g., benthic flux) and sinks in the Delta?</li> </ul>
<b>3</b>	<p><b>Forecasting Water Quality Under Different Management Scenarios</b></p> <ul style="list-style-type: none"> <li>• How do ambient water quality conditions respond to different management scenarios?</li> <li>• What constituent loads can the Delta assimilate without impairment of beneficial uses?</li> <li>• What is the likelihood that the Delta will be water quality-impaired in the future?</li> </ul>
<b>4</b>	<p><b>Effectiveness Tracking</b></p> <ul style="list-style-type: none"> <li>• Are water quality conditions improving as a result of management actions such that beneficial uses will be met?</li> <li>• Are loadings changing as a result of management actions?</li> </ul>

### Management Questions

### Proposed Year 1 Monitoring Designs

### NPDES permit amendment allows for participation in the Delta RMP

On October 9, the Central Valley Regional Water Board adopted a NPDES (National Pollutant Discharge Elimination System) permit language amendment that allows Delta-area Publicly-Owned Treatment Works (POTWs) to participate in the Delta RMP in lieu of individual receiving water monitoring.

### Current Use Pesticides

- The proposed Year 1 monitoring design would involve monthly water sampling at 5 focus sites and events-based sampling only at 3-4 additional sites.
- The proposed approach combines chemical analyses and toxicity testing at all sites.

### Mercury

Methylmercury monitoring would focus on the development of a long-term data record to address Status and Trends questions about changes of concentrations in fish tissue and water. Water sampling would be more often (1x/month) than fish sampling (1x/year) but at less sites.

### Pathogens

Are current pathogen levels (*Cryptosporidium* and *Giardia lamblia*) supportive of the municipal drinking water quality beneficial use as described in the Basin Plan?

The proposed RMP study would be an add-on to existing monitoring by the Municipal Water Quality Investigations (MWQI) program (DWR), by supporting additional analyses.

### Nutrients

No monitoring is proposed for year 1. Instead, the RMP will synthesize and analyze existing information and data, and then design a monitoring plan based on findings by December 2015. The nutrient data analysis and monitoring plan development will be closely coordinated with the development of the Delta Nutrient Research Plan (led by the Central Valley Water Board) and ongoing funded studies that will at least partially address RMP assessment questions.

### Current Use Pesticides

#### WATER

**Focus sites:** Monthly sampling that would also capture targeted events. Targeted events (n = 5/year): Wet Weather: (1) First flush, (2) Significant winter storm; Dry weather: (1) Late summer/fall irrigation season, (2) Spring runoff, (3) 2nd irrigation event (late spring/early summer). Chemical analyses and toxicity testing on all samples. Proposed test species (endpoints): (1) *Selenastrum capricornutum* (growth) (2) *Ceriodaphnia dubia* (survival and reproduction), (3) *Hyalella azteca* (survival), and (4) *Pimephales promelas* (larval survival and growth) and/or *Oncorhynchus mykiss* (larval survival). Chemistry: Pesticide scan (USGS) and dissolved copper. Pesticide-focused Toxicity Identification Evaluations (TIEs) for a subset of samples with > 50% of the measured endpoint; to be decided real-time by a TIE subcommittee.

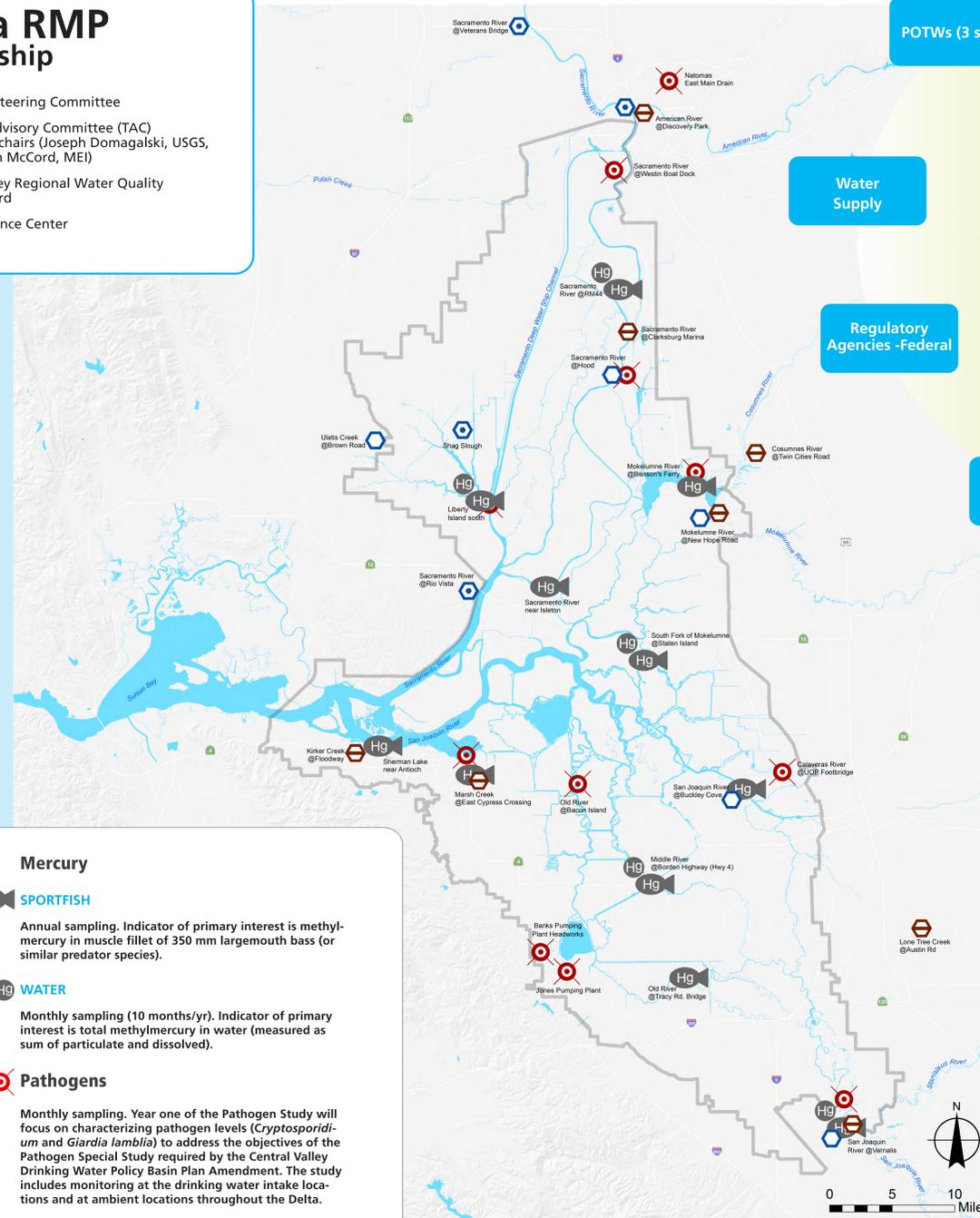
**Additional sites:** targeted for event-based sampling.

#### SEDIMENT

No additional monitoring in year 1. The Delta RMP will include data from the Surface Water Ambient Monitoring Program (SWAMP) Stream Pollution Trends (SPoT) monitoring (State Water Resources Control Board) in the Year 1 assessment. SPoT collects samples in the Delta region annually in late summer. SPoT toxicity test species (endpoints): (1) *Hyalella azteca* (survival), (2) *Chironomus dilutus/tentans* (survival). Chemistry: pyrethroids.

## Delta RMP Leadership

- Delta RMP Steering Committee
- Technical Advisory Committee (TAC) and TAC co-chairs (Joseph Domagalski, USGS, and Stephen McCord, MEI)
- Central Valley Regional Water Quality Control Board
- Aquatic Science Center



## Steering committee

The Delta RMP Steering Committee is the key decision-making authority of the Delta RMP and represents the stakeholder groups that are currently participating in the program. The stakeholder process is open to all interested parties.



## The Scoop

- The Central Valley Regional Board has passed a resolution that allows for participation in the Delta RMP by NPDES dischargers in lieu of individual receiving water compliance monitoring.
- Participants are committed to having a monitoring program in place by 2015.
- The Technical Advisory Committee (TAC) and its four subcommittees have developed the Year 1 monitoring design for the initial priorities of the program:
  - Current use pesticides
  - Methylmercury
  - Nutrients
  - Pathogens (*Cryptosporidium* and *Giardia lamblia*)
- ASC-SFEI is producing the full monitoring program plan by Spring 2015.
- The Steering Committee is working towards a decision on how to allocate program costs among program participants.

# The Delta Regional Monitoring Program, FY14/15 Support: Connecting Water Quality Management and Science in the Delta

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<b>Project Information</b>	
<b>Deliverables:</b> Delta RMP QAPP, 2 Meeting Summaries, Monitoring Design	
<b>Status:</b> QAPP has been provisionally approved by the SWAMP QA Officer, will be complete 12/31/15. Meeting summary documents are complete. Monitoring Design document is complete.	
<b>Primary Investigator:</b> Thomas Jabusch, ASC	<b>Recipient Organization:</b> Aquatic Science Center
<b>Project Cost:</b> \$302,903	<b>SFCWA Funding:</b> \$100,000
<b>Partners:</b> Delta RMP Participants: individual POTWs, individual, stormwater agencies, individual agricultural coalitions, IEP, SFCWA, USEPA, and CVRWQCB	



## Introduction

The program's mission is to inform decisions on how to protect, and where necessary, restore beneficial uses of water in the Delta, by producing objective and cost-effective scientific information critical to understanding regional water quality conditions and trends.

The development of the Delta RMP by the Central Valley Regional Water Quality Control Board (CVRWQB) was initially prompted by the collapse of the populations of several species of fish in the early 2000s, a phenomenon termed the Pelagic Organism Decline (POD). Data from existing monitoring programs were found to be inadequate in coverage, not easily combined, and not adequate to support a rigorous analysis of the role of contaminants in causing POD. This recognition persuaded regulatory agencies to improve coordination across multiple monitoring programs through the Delta RMP.

The Delta RMP Steering Committee (SC) was formed in 2012. Subsequently, the SC appointed a Technical Advisory Committee and appointed the Aquatic Science Center (ASC) as the Implementing Entity.

## Objective

The Strategic Workplan of the Water Boards defines the scope of the Delta RMP as:

## Item 8b Factsheets

- To initially focus on the legal Delta, including those portions of the Sacramento and San Joaquin Rivers within the legal Delta and the Yolo bypass upstream of the Delta.
- To coordinate monitoring that is being conducted within the legal boundaries of the Delta
- To address monitoring needs and the needs for a toxicity response program in the Delta.

Program participants have further defined the objectives of the Delta RMP as follows:

The primary goal of the Delta RMP is to provide coordinated Delta-wide monitoring, reporting, and assessment of water quality, while pursuing the following objectives:

1. Improve the efficiency of water quality data collection and management in the Delta;
2. Generate products that inform and educate the public, agencies, and decision makers;
3. Raise awareness of Delta water quality conditions and how they impact beneficial uses;
4. Foster independent science, objective peer review, and a transparent review process;
5. Focus on the Delta;
6. Focus on the highest priority water quality information needs; and
7. Contribute to a holistic understanding of the Bay-Delta.

## Results

In FY14/15, with support from SFCWA, the Delta RMP:

- Raised \$302,903 in funding from program participants (including \$100,000 from SFCWA).
- Approved foundational documents describing the governance structure and function of the Delta RMP. CVRWQCB also modified certain permits to allow for participation the Delta RMP in lieu of individual permit monitoring requirements.
- Provided \$72,000 in funding for Year 1 of a two-year study of pathogens in collaboration with the Municipal Water Quality Investigations program.
- Provided \$70,000 to USGS to prepare a synthesis of sensor data for nutrients and nutrient-related parameters.
- Completed a comprehensive Monitoring Design to guide the scientific program into the future.
- Completed a Quality Assurance Project Plan for current use pesticide monitoring and pathogens monitoring.
- Approved a workplan and budget (\$893,939) for FY15/16. The workplan consists of current use pesticide monitoring, synthesis of information on nutrient monitoring in the Delta, and funding for Year 2 of the pathogens study.
- Started collecting field samples for pathogens in April 2015 and current use pesticides in July 2015.

## Conclusions

In FY14/15, the Delta RMP made the transition from planning to implementation. The Monitoring Design was approved by the Steering Committee in June 2015. The first samples for the pathogen study were collected in April 2015 and, in July 2015, current use pesticide monitoring and nutrient synthesis tasks also started.

## Item 8b Factsheets

### Relevance

The Delta RMP is one of the priority actions of the Bay-Delta Strategic Workplan, which responds to a joint resolution of the State Water Board and the Central Valley and San Francisco Bay Regional Water Boards. Monitoring and analysis conducted by the Delta RMP will produce objective and cost-effective scientific information critical to understanding regional water quality conditions and trends. These results will play a key role in informing decisions on how to protect and restore beneficial uses of water in the Delta.

### Next Steps

The next steps for the Delta RMP are to implement the workplans for FY14/15 and FY15/16, including:

- Develop a Memorandum of Understanding between program participants to facilitate contributions to the program,
- Prepare a Communications Plan, and
- Complete the planned scientific program for FY15/16.

### References

The Delta RMP governance documents, Monitoring Design, and meeting summaries are available on the program website at:

[http://www.swrcb.ca.gov/centralvalley/water\\_issues/delta\\_water\\_quality/comprehensive\\_monitoring\\_program/](http://www.swrcb.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program/)

# Delta Regional Monitoring Program

*The Mission of the Delta Regional Monitoring Program is to inform decisions on how to protect, and where necessary, restore beneficial uses of water in the Delta, by producing objective and cost-effective scientific information critical to understanding regional water quality conditions and trends in the Delta.*

The Delta Regional Monitoring Program (RMP) is a stakeholder-directed project formed to develop water quality data necessary for improving our understanding of Delta water quality issues. The goal of this effort is to better coordinate and design current and future monitoring activities in and around the Delta to create a cost effective approach for providing critically needed water quality information and analysis to better inform policy and regulatory decisions of the Central Valley Regional Water Quality Control Board and other Federal, State and local agencies and organizations.

A multi-interest public/private steering committee was formed to direct and plan the RMP. It recently developed a monitoring study design that includes the following:

- Concentrations of *Cryptosporidium* and *Giardia lamblia*, pathogens that impact human health and affect the level of drinking water treatment that must be provided for Delta source waters.
- Current use pesticides and pesticide-related toxicity in the water column and sediments
- Nutrients as they impact the Delta ecosystem.
- Methyl mercury in fish tissue, water column and sediments to better define sources and trends of methyl mercury that can impact human and wildlife health

## Website

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/delta\\_water\\_quality/comprehensive\\_monitoring\\_program/index.shtml](http://www.waterboards.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program/index.shtml)

The RMP is directed by a Steering Committee consisting of:

## Discharger Groups:

Publicly Owned Wastewater Treatment Plants, Municipal Stormwater Dischargers, Irrigated Agriculture

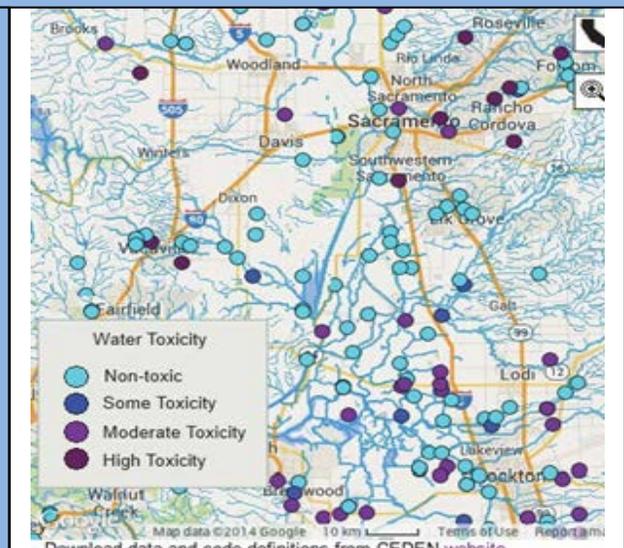
## Regulatory Agencies:

Central Valley Regional Water Quality Control Board, US Environmental Protection Agency

California Natural Resources Agency

State and Federal Contractors Water Agency

Interagency Ecological Program



22 January 2015

**Background:** The Delta RMP Steering Committee has approved a list of management questions and assessment questions for nutrients in the Delta. The data needed to answer these questions will come from a combination of existing monitoring programs and new data collection efforts to fill data gaps.

**Purpose and Desired Outcomes:** The purpose of this workshop is to:

- Identify how much of the nutrient monitoring needed to answer the Delta RMP assessment questions is already happening through existing programs
- Identify critical nutrient data gaps for the Delta RMP and develop “no regrets” monitoring plans to fill them
- Develop budget estimates for “no regrets” monitoring activities to facilitate multi-year budget planning for the Delta RMP multi-year plan

**Format:** A one-day workshop to be scheduled in September.

**Proposed participants:** Nutrient subcommittee, interested TAC members, representatives of the Delta Science Program (to ensure linkage to DSP’s nutrient workshop), additional representatives of programs and studies involved in nutrient monitoring that are not currently participating in the Delta RMP, and modeling experts.

**Materials:** To lay the groundwork for the Workshop, ASC will prepare a draft report that summarizes: a) nutrient monitoring conducted by existing programs that is relevant to Delta RMP assessment questions, b) data gaps, and c) potential additional Delta RMP monitoring activities to fill these data gaps. The draft report will be prepared in consultation with nutrient subcommittee members and other collaborators (DSP staff, external monitoring program and study leads, modelers, etc.)

**Deliverable:** The final deliverable will be a summary that synthesizes the findings and recommendations from the workshop. The report will contain a list of options for “no regrets” monitoring activities and their approximate costs that the Delta RMP SC and TAC can consider as part of the multi-year planning meeting in October.

**Coordination:** The Delta RMP Nutrient Workshop will be closely coordinated with other nutrient monitoring workshops planned by the Delta Science Program (date TBD) and the Delta Nutrient Research Plan (Planned for November, exact date TBD).

**September XX, 2016**  
**9:30 – 4:00 PM**  
**Location TBD**

*Proposed Agenda*

9:30-9:45

1. Setting the stage: Workshop objectives and how it fits with the Delta RMP process and other related workshops – Phil Trowbridge, ASC

9:45-11:30

2. Getting on the same page: Round robin presentations by local experts (see list on next page). Concise presentations to address the following questions:
  - a. How are you involved in nutrient monitoring (and assessment) and/or how are you using nutrient data?
  - b. What types of nutrient and nutrient-associated data are you collecting where and/or how and to what extent is your current work addressing Delta RMP assessment questions?
  - c. What is the most critical nutrient monitoring and assessment gap related to the Delta RMP assessment questions that your work has identified?
  - d. What types of “no regrets” monitoring or analyses could get started to help fill these gaps?

11:30-12:00

Lunch Break

12:00-1:00

Extra time for round robin presentations (if needed)

1:00-1:15

Short Break

1:15-1:45

3. Pulling it all together: Summary/review of draft report – Thomas Jabusch, ASC
  - a. How do the existing nutrient monitoring programs relate to the Delta RMP assessment questions?
  - b. Data gaps
  - c. Potential Delta RMP activities to fill critical data gaps.

1:45-3:00

4. Distilling it all to give decision-makers clear options: Develop a list of “no regrets” nutrient monitoring and assessment activities to fill data gaps relative to Delta RMP assessment questions –Facilitator: Phil Trowbridge, ASC
  - a. Is the list of data gaps from the draft report complete? What is missing?
  - b. What are initial ideas on “no regrets” monitoring and assessment activities to fill in these data gaps?
  - c. Are there activities with multiple benefits or synergies that have the “biggest bang for the buck”?
  - d. What are the estimated costs (ballpark) to implement the “no regrets” activities?

3:00-3:30

5. Wrap up: Summarize meeting outcomes – Phil Trowbridge, ASC

Proposed Round Robin Presenters<sup>1</sup>:

Janis Cooke (CVRWQCB) – Delta Nutrient Research Plan

Brian Bergamaschi (USGS) – Biogeochemistry/Nutrient Sensors

Joe Domagalski (USGS) – NAWQA, SPARROW model

Shaun Philippart (DWR) – EMP discrete and continuous monitoring

Cindy Garcia (DWR) – MWQI discrete and continuous monitoring

Erwin van Nieuwenhuyse (USBR) – Nutrient and foodweb special studies

Sam Harader (DSP) – Delta Plan perspective

Tim Mussen/Lisa Thompson (Regional San) – CMP routine monitoring and Regional San special studies

Marianne Guerin (RMA) – DSM2-QUAL nutrient modeling

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<sup>1</sup> Proposed participants of the round robin represent entities that are most engaged in nutrient monitoring and assessment. To capture the full spectrum of nutrient monitoring and assessment, participants from all entities participating in the workshop will be requested to fill out a short survey prior to the meeting and briefly characterize their involvement in nutrient monitoring and assessment during introductions.



## Delta RMP Joint Technical Advisory and Steering Committee Meeting October 18, 2016 10:00 am – 4:30 pm

*Central Valley Regional Board, 11020 Sun Center Drive #200, Rancho Cordova, CA*

*Board Room*

Conference video link:

<https://stateofcaswrcbweb.centurylinkccc.com/CenturylinkWeb/DeltaRMP>

Call-in: 1-720-279-0026

Access Code: 514286#

### Agenda

<b>1.</b>	<p><b>Introductions and Review Agenda</b> Introduce TAC and SC members, establish quorum, and explain goals of the meeting</p>		10:00 Brock Bernstein
<b>2</b>	<p><b>Decision: Approve Meeting Summary from July 20, 2016 and confirm/set next meeting dates</b></p> <p><u>Desired outcomes:</u></p> <ul style="list-style-type: none"> <li>• Next meeting date for TAC is December 13<sup>th</sup>; SC is in January</li> </ul>	7/20/16 SC Mtg Summary  RMP Decision Record (Excel Spreadsheet)	10:05 Brock Bernstein
<b>3.</b>	<p><b>Discussion: Report out of Major Findings from DSP External Review</b> The Delta Science Program is coordinating an external review of the Delta RMP. Preliminary findings will be available at the end of September. A brief summary of the findings will be presented and the process for addressing the findings will be outlined.</p> <p><u>Desired outcomes:</u> Understanding of External Review findings and discussion of next steps.</p>	Summary of preliminary findings	10:15 Meg Sedlak
<b>4a.</b>	<p><b>Information: Overview of Multi-Year Planning Process</b> An overview of the goals of the MYP process will be given.</p>	Memo describing the multi-year planning process	11:00 Philip Trowbridge



## ITEM 11 JOINT TAC-SC MEETING

4b.	<p><b>Discussion: Review and update table of current and anticipated management decisions</b></p> <p>The SC has identified upcoming management decisions and information needs relevant to these decisions.</p> <p><u>Desired outcome:</u> Review of table and input on whether any revisions are needed.</p>	Attachment 1: Table of Current and Anticipated Management Decisions	11:20 Meg Sedlak
4c.	<p><b>Action: Confirm Monitoring Design</b></p> <p>Review Monitoring Design, particularly in light of recommendations made by DSP External Review.</p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> <li>• Identification of specific changes to the Monitoring Design, if any.</li> <li>• Confirmation of the Monitoring Design, as amended.</li> </ul>		11:50 Phil Trowbridge
	<b><i>Lunch break – Have lunch/pizza brought in so committees can socialize</i></b>		12:30
5.	<p><b>Discussion/Action: Agree on planning budgets for next three years</b></p> <p>Discuss budget projections and establish planning budgets for FY17/18, FY18/19, and FY19/20 that reflect priorities and available funds.</p> <p><u>Desired outcome:</u> Agreement on planning budgets and priorities.</p>	Attachments 2-3: Multi-year Planning Budget Tables and Graphs	1:30 Meg Sedlak
6.	<p><b>Discussion/Action: Recommendations for budget and priorities for FY17/18</b></p> <p>In the beginning of 2017, the TAC will convene subcommittees to develop technical projects for the FY17/18 Detailed Workplan. The SC will establish priorities and budgets for each focus area (e.g., pesticides, nutrients, mercury, and pathogens) so the TAC has clear direction relative to these elements of the Workplan.</p> <p><u>Desired outcome:</u> Clear direction to the TAC on budgets and priorities for each program element.</p>		2:30 Phil Trowbridge



ITEM 11 JOINT TAC-SC MEETING

7.	<p><b>Discussion: Joint projects between Bay and Delta RMPs</b>                  There are a number of opportunities for joint projects between the programs.</p> <p><u>Desired outcome:</u> Identification of potential projects and possible mechanisms to fund them.</p>	Memo on possible projects	3:30 Meg Sedlak
8.	<p><b>Summarize Outcomes of the Meeting</b></p>		4:00 Group
9.	<p><b>Plus/ Delta</b></p>		4:15 Brock Bernstein

DRAFT



Meg Sedlak &lt;meg@sfei.org&gt;

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## Delta RMP Planning Meeting #3 Agenda and materials

1 message

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**Henneberry, Yumiko@DeltaCouncil** <Yumiko.Henneberry@deltacouncil.ca.gov> Thu, Jul 7, 2016 at 12:08 PM  
To: "Morris, Patrick@Waterboards" <Patrick.Morris@waterboards.ca.gov>, "valerieconnor@att.net" <valerieconnor@att.net>, "Stephen McCord (sam@mccenv.com)" <sam@mccenv.com>, "Erickson, Gregg@Wildlife" <Gregg.Erickson@wildlife.ca.gov>, "joed@usgs.gov" <joed@usgs.gov>, "Cole, Selina D.@Waterboards" <Selina.Cole@waterboards.ca.gov>, "tamayod@SacCounty.NET" <tamayod@saccounty.net>, "farmeratlaw@comcast.net" <farmeratlaw@comcast.net>, "thomas@sfei.org" <thomas@sfei.org>, "Meg Sedlak (meg@sfei.org)" <meg@sfei.org>, "dornl@sacsewer.com" <dornl@sacsewer.com>, "trowbidge, philip@sfei.org" <philt@sfei.org>, "Laputz, Adam@Waterboards" <Adam.Laputz@waterboards.ca.gov>, "Harader, Sam@DeltaCouncil" <sam.harader@deltacouncil.ca.gov>

Dear Planning Committee,

This is a friendly reminder about our upcoming planning meeting on **July 15 from 2-3pm** for the August 23<sup>rd</sup> Teleconference Review of the DRMP Monitoring Design. As discussed at our prior meeting (May 5), the plan is to finalize review materials, identify agenda materials for the August teleconference, and discuss what initial feedback on the Monitoring Design the Delta RMP members would like from the panel during the teleconference.

As a reminder, the following are the panel members:

- Peter Raimondi (Chair), UC Santa Cruz
- Barry Noon (Lead Author), Colorado State University
- Allan Steven-Oaten, UC Santa Barbara (Emeritus)
- Laura Valoppi, USGS
- Michael MacWilliams, Anchor QEA

Attached for your review are:

- Agenda for July 15<sup>th</sup> planning meeting
- Final draft of Charge to Panel
- Draft Agenda for August 23<sup>rd</sup> Teleconference for discussion at planning meeting
- Bios of Panel Members

Please let me know if you have any questions.

Thank you,

Yumi

Item 11b External Review Charge

**Review of the Monitoring Design for the Delta Regional Monitoring Program  
Charge to the Independent Review Panel**

**Background/Purpose**

The Delta Regional Monitoring Program (Delta RMP) was initiated by the Central Valley Regional Water Quality Control Board (Regional Water Board) to fulfill the unique need for a comprehensive effort to assess and track water quality constituents and their effects in the Delta to provide a scientific basis for water policy and documenting the effectiveness of beneficial use protection and restoration efforts. The development of the Delta RMP was initially prompted by the collapse of several pelagic fish species in the early 2000s, an event that triggered new inquiries into the potential role of contaminants in what is now termed the Pelagic Organism Decline; however, these inquiries more broadly highlighted the shortcomings of existing monitoring efforts to address similar questions at the scale of the Delta.

Establishing the Delta RMP also reflects an increasing desire among water quality and resource managers throughout the state for more integrated information about patterns and trends in ambient conditions across watersheds and regions, as many stressors on beneficial uses are interrelated and must be addressed more holistically (see <http://deltacouncil.ca.gov/docs/delta-challenges>). In addition to its role in coordinating and designing monitoring activities around the Delta to create a cost-effective approach for providing critically needed water quality information, the Delta RMP aspires to be comparable to other state regional monitoring programs and to also augment local efforts through its monitoring and analysis of a more complete list of water quality constituents.

A stakeholder process resulted in agreements on the goals and objectives of the Delta RMP and a Management Questions Framework to guide monitoring and assessment at the regional scale. Work to date has also helped to identify the initial program priorities, which include current use pesticides, mercury, nutrients, and pathogens. A Monitoring Design for the Delta RMP (Monitoring Design) was approved in June 2015 and monitoring for pesticides and pathogens began that same year. The current document includes full monitoring design details for current use pesticides and toxicity, mercury, and pathogens. For nutrients, the Delta RMP plans to synthesize and analyze existing information and then design a monitoring plan based on findings and recommendations from the gathered information. Thus, the nutrient section currently involves a monitoring design approach, rather than a detailed plan. The Monitoring Design is a scaled effort, with identified questions reflecting what is perceived as reasonable and cost effective. Additional monitoring opportunities and questions will be phased in and identified as more funding becomes available.

The purpose of this review is to provide an independent and objective assessment of the Monitoring Design. This effort will involve an initial and final review of the 2015 Monitoring Design. The initial review will involve comments from the Independent Review Panel (IRP) on the scientific quality of the Monitoring Design based on the questions posed below. The Delta RMP participants will then prepare a response to this initial review. The IRP will use the information provided in the response in developing the final review, which should evaluate whether the initial recommendations the IRP provided were adequately addressed

## Item 11b External Review Charge

### Charge to Independent Review Panel

The IRP will review and provide comments and recommendations on the scientific rigor of the Monitoring Design. Overall, the IRP will:

- 1) Comment on whether the Monitoring Design (including sites, sampling frequencies and methods, and target parameters) is adequate to answer the management and assessment<sup>1</sup> questions in a reasonable amount of time; and
- 2) Provide recommendations for scientific criteria (i.e., value of the information provided, linkage to management question, availability of alternative methods) the Delta RMP should consider when deciding how to distribute limited resources towards monitoring efforts.

### Specific Questions

#### *Management*

1. For each constituent class<sup>2</sup>, how well are the respective assessment questions stated and relevant to addressing the core management questions?
2. To what extent do the monitoring designs of each constituent class generate information that adequately addresses each assessment question? Is this linkage clear? What improvements can be made?

#### *Prioritization*

3. How appropriate is the monitoring design's focus on status and trends questions in addressing management questions? How appropriate is the prioritization of the management and associated assessment questions (high priority questions are highlighted in yellow)? What technical criteria should be used in prioritizing the management questions?

#### *Design improvement*

4. What, if any, improvements for each constituent monitoring design scenario would make them more cost-effective and technically robust?
5. How appropriate are the proposed schedules for monitoring, assessment, and reporting as stated in the communication plan and monitoring design?
6. Are there any substantial short-falls in the "recommended" constituent monitoring scenarios? If so, given limited funding, what additional data collection is needed/can be substituted?

### Review Materials

1. Delta Regional Monitoring Program Monitoring Design
2. Delta Regional Monitoring Program Communications Plan
3. Fiscal Year 2016-2017 Workplan

<sup>1</sup>Management questions reflect specific concerns about multiple aspects of the Delta and the impacts of human activities. Assessment questions are more specific, intended to guide the monitoring design to ultimately answer the broader management questions.

<sup>2</sup>Constituent Classes: Nutrients, Pathogens, Current Use Pesticides and Toxicity, and Mercury. Please note, the Nutrients section of the Monitoring Design only involves the design approach, which includes a synthesis process and applying this information to a monitoring design.

## Item 11b External Review Charge

### Supplementary Materials

1. Delta Regional Monitoring Program Charter
2. Quality Assurance Project Plan

<sup>1</sup>Management questions reflect specific concerns about multiple aspects of the Delta and the impacts of human activities. Assessment questions are more specific, intended to guide the monitoring design to ultimately answer the broader management questions.

<sup>2</sup>Constituent Classes: Nutrients, Pathogens, Current Use Pesticides and Toxicity, and Mercury. Please note, the Nutrients section of the Monitoring Design only involves the design approach, which includes a synthesis process and applying this information to a monitoring design.

## Item 11c DSP External Review Schedule

**Delta Regional Monitoring Program Monitoring Design Independent Review Schedule***Please note some dates are not chronological*

Action	Deadline
1. Planning team conference call to finalize planning members, review schedule, obtain additions to panel candidate list	April 4, 2016
2. Delta Science Program Lead Scientist ranks panelists	April 4 – 11 <sup>th</sup> , 2016
3. Delta Science Program staff begin contacting panelists to check availability, finalize panel membership, initiate contracting.	April 11 <sup>th</sup> – 29, 2016
4. First in-person DRMP planning meeting <ul style="list-style-type: none"> <li>a. Review Scope of Work</li> <li>b. Draft charge, review materials</li> <li>c. Desired dates for review</li> </ul>	May 5, 2016
5. Determine panel meetings date(s)	End of May 2016
6. Finalize Charge, questions, and list of review materials for panel for DSP Lead Scientist review	Mid-June 2016
7. Prepare draft panel meeting agenda, determine technology requirements	Early July 2016
<b>8. Provide review panel members with materials</b>	<b>Week of July 18<sup>th</sup> 2016</b>
9. Finalize review panel meeting agenda	Early August 2016
10. Prepare review panel meeting presentations <ul style="list-style-type: none"> <li>a. Conduct dry-run presentations (optional)</li> </ul>	August 8-19 <sup>th</sup> 2016
11. Provide Delta Science Program with panel meeting presentations	1 business day prior to meeting
<b>12. Teleconference panel meeting</b>	<b>August 23rd, 2016</b>
13. DRMP Technical Advisory Committee Meeting	September 20 <sup>th</sup> 2016
14. Review panel submits initial review of Monitoring Design to Delta Science Program (30 days post teleconference)	Week of September 19 <sup>th</sup> 2016
15. Delta Science Program editorial review	Within 1 wk after receiving panel report
16. Provide copy of review to DRMP	Within 1 wk after receiving panel report
17. DRMP Steering Committee Meeting	October 18 <sup>th</sup> 2016
<b>18. DRMP submits response to initial review of Monitoring Design</b>	<b>Late December 2016</b>
19. Review panel submits final review document of DRMP Monitoring Design	Late January 2016

\*This is flexible. The current potential format of the meeting is a 3-4 hour teleconference.

## Agenda Item 11d Bios of Expert Panel

### **Peter Raimondi, Ph.D. Professor at UC Santa Cruz, Panel Chair**

B.A., Northern Arizona University

Ph.D., University of California, Santa Barbara

My current research interests include both basic and applied ecological problems including: The contribution of oceanographic forcing, propagule dispersal and post-settlement mechanisms to the development of benthic communities; patterns, mechanisms and consequences of self-fertilization in organisms with short range dispersal and complex life histories, mechanisms affecting stability of marine biological communities; the importance of anthropogenic perturbations to community development and organization; and the patterns of social use and population structure of harvested species in the Gulf of California.

In addition to these research themes I am also currently serving on advisory panels to the Federal Government (National Marine Sanctuary) State of California (California Fish and Game, California Coastal Commission, the Regional Water Quality Board and the California Energy Commission). My charge in is to oversee design and analyses of: 1) monitoring programs to detect impacts from the operation of existing and proposed new units at coastal power plants (Potrero, Moss Landing, Morro Bay, Diablo Canyon, Huntington Beach, and San Onofre from North to South) and 2) mitigation and monitoring programs required to compensate for impacts to the marine environment (Moss Landing, Morro Bay, Diablo Canyon and San Onofre).

### **Barry Noon, Ph.D., Professor at Colorado State University, Panel Lead Author**

B.A. Biology, Princeton University, 1971

Ph.D. Biology, State University of New York - Albany, 1977

Barry R. Noon is a professor in the Department of Fish, Wildlife, and Conservation Biology at Colorado State University. He graduated from Princeton University in 1971 with a B.S. degree in biology and from the State University of New York-Albany in 1977 with a PhD in ecology. In collaboration with many outstanding students and post-docs, he has conducted research on the effects of land management practices on wildlife populations for the past 40 years. His focus has primarily been on the conservation of imperiled species in forest ecosystems. During this period, he has published over 120 scientific papers and co-authored 4 book-length reports to the federal government on the sustainable management of public lands. For 11 years, he directed a Forest Service Research Lab in the Pacific Northwest (USA) and in 1995 served as Chief Scientist of the National Biological Service, Department of the Interior. During the last 15 years, he has served on federal advisory committees providing recommendations to the Secretary of Agriculture on the management of Forest Service lands to better sustain biological diversity and to the Secretary of the Interior on changes to the Endangered Species Act to encourage conservation on private lands. He has also served as chair of the global policy committee for the Society for Conservation Biology and provided testimony to the U.S. Congress on numerous occasions on issues regarding the conservation of wildlife in the U.S. and internationally. Dr. Noon has received several academic awards including the Edward T. LaRoe award from the Society for Conservation Biology (1997), an Aldo Leopold Leadership Fellowship (2004), Colorado State University Distinguished Ecologist (2008-09), and two Senior Fulbright Fellowships to India from the U.S. State Department (2003-04 and 2010-11). In collaboration with his students, his current research focuses on tiger conservation in India, the effects of energy development on imperiled species in the United States, climate change effects on wetland birds, and promoting biodiversity conservation on U.S. Department of Defense lands.

### **Allan Steven-Oaten, Ph.D., Professor Emeritus, UC Santa Barbara**

B.A. English and Pure Mathematics, University of Melbourne, Australia, 1961

M.S. Mathematical Statistics, Michigan State University, 1967

Ph.D. Mathematical Statistics, Michigan State University, 1969

Allan Stewart-Oaten is Emeritus Professor of Mathematical Biology, in the Department of Ecology, Evolution and Marine Biology at the University of California, Santa Barbara. His main work is in statistical aspects of environmental impact assessment when data are available from before the impact, especially for local impacts when comparable nearby sites

## Agenda Item 11d Bios of Expert Panel

exist. Other work is in statistics (e.g., estimation of abundance, the role of assumptions in inference), probability (e.g., models of foraging under uncertainty) and mathematics (e.g., models of interacting populations). He is currently working on a problem in demography, and mentors community college transfers studying mathematics at UCSB.

**Laura Valoppi, South Bay Salt Pond Restoration Lead Scientist**

B.S. Natural Resources, University of Michigan, Ann Arbor, 1980

M.S. Water Science, UC Davis 1987

Laura Valoppi is Lead Scientist for the South Bay Salt Pond Restoration Project. Laura works with researchers and managers on promoting and organizing discipline-specific, multi-disciplinary, as well as, integrated scientific monitoring and applied studies throughout the San Francisco Bay Salt Pond Restoration Project area. She provides the leadership to foster collaboration for all science activities. She is responsible for providing leadership in strategic planning, coordination, and management of all scientific programs and activities related to the restoration project, and developing partnerships to implement these activities with Federal, State, national and international partners. As the science manager for the San Francisco Bay Salt Pond Restoration Project she generates local, national and international interest, and local, federal and regional investment; ensures the restoration science studies are credible, legitimate and relevant; encourages the best scientists available to work on issues of interest to the restoration project; identifies and fosters funding opportunities to support the restoration. These tasks are accomplished in concert with the Project Management Team (PMT) that is comprised of State and Federal Refuge Managers and other regulatory and land management agency managers. Laura has a diverse background that includes experience related to the bay, biological resources, water quality and grants management that prepares her very well for the challenges she faces as lead scientist.

**Michael MacWilliams, Ph.D., Anchor QEA**

Ph.D., Stanford University, Environmental Fluid Mechanics & Hydrology with a

Ph.D. Minor in Geological & Environmental Sciences, 2004

M.S., Stanford University, Civil and Environmental Engineering, 1998

B.S., University of Notre Dame, Engineering and Environmental Science, 1997

B.A., University of Notre Dame, English, 1997

Dr. MacWilliams has more than twenty-one years of experience in the field of numerical modeling and seventeen years of experience in computational fluid dynamics. His primary field of study is the application of state-of-the-art three-dimensional numerical models to environmental flows. His Ph.D. research focused on the application of detailed three-dimensional hydrodynamic models to flow in river channels and on floodplains. In addition, Dr. MacWilliams has fourteen years of experience working as an environmental consultant using three-dimensional hydrodynamic models in estuarine systems. This work includes conducting detailed hydrodynamic and salinity modeling related to a large-scale restoration project of salt ponds in San Francisco Bay and hydrodynamic and salinity modeling in Suisun Bay to investigate the potential mechanisms underlying the relationships of fish abundance to flow, "Fish-X2," which form the basis for the current salinity standard for the San Francisco estuary.

Dr. MacWilliams is the primary developer of the [UnTRIM San Francisco Bay-Delta model](#), a three-dimensional hydrodynamic model of San Francisco Bay, which has been used in studies of San Francisco Bay and the Sacramento-San Joaquin Delta for California DWR, USBR, USGS, and the US Army Corps of Engineers. Recent projects include the application of the UnTRIM model to San Francisco Bay and the Sacramento-San Joaquin Delta to assess potential impacts of sea level rise, Delta levee failures, the effects of Delta operations on delta smelt entrainment, and the potential water quality impacts of deepening the Sacramento and San Francisco Bay to Stockton Deep Water Ship Channels.

Item 11e Review Panel Agenda 08/23/2016

Teleconference Review of the Monitoring Design for the Delta Regional Monitoring Program  
Tuesday, August 23  
9:00 a.m. – 1:00 p.m.

1. Introductions -10 min (Adam Laputz/Linda Dorn)
2. Presentations (e.g. overview of monitoring design) -45 min
3. Review Panel and Presenter Q&A -1 hour
4. Preliminary recommendations from panel -1 hour

## Delta RMP Monitoring Design Review Planning Meeting (3)

### AGENDA

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Location: 980 9<sup>th</sup> Street 15<sup>th</sup> Floor, Sacramento 95814 (Main Conference Room)  
Conference call: 1-877-402-9753, Access code: 1882129

Date and Time: Friday, July 15<sup>th</sup>, 2016 2-3 pm

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#### Meeting Objectives

- 1) Finalize list of review questions and materials
- 2) Develop list of presentations and identify presenters
- 3) Discuss desired feedback from review panel

#### Discussion Topics

- 1) List of panel members (2 min)
- 2) Present final draft of Charge to Panel (5 min)
- 3) Teleconference Review Agenda (25 min)
  - a. Presentation topics
  - b. Speakers
  - c. Attendees
  - d. Location
- 4) Desired feedback from review panel (25 min)
- 5) Summary of Action Items and next steps (2 min)
  - a. Action Items
  - b. Next Meeting:

Item 12 DSP Science Action Agenda

**Delta Regional Monitoring Program Steering Committee**  
**Request input from Steering Committee on the 2017 Science Action Agenda (SAA)**

**Background:**

[Delta Science Plan](#) Action 2.2 calls for the development, implementation, and update of a SAA that organizes, integrates, and prioritizes science activities across agencies and programs to address decision-makers' needs in an efficient manner. The SAA is:

- A prioritized list of science actions to address priority management questions/needs
- A four-year science agenda for the Delta that when implemented will advance scientific knowledge needed for Delta management and policy decision-making, and
- A guiding agenda for Delta-related science work plans and projects.

The [Interim Science Action Agenda \(2014\)](#) effort took an initial step toward achieving this action while also providing the foundation for the Delta Plan Interagency Implementation Committee endorsed [High-Impact Science Actions](#), a list of high-impact, multi-benefit science actions for immediate implementation in 2015-2016. The Delta Science Program is working to engage collaborative groups, like the DRMP, as it initiates the development of a 2017 SAA.

The 2017 SAA is meant to serve as one infrastructure for describing how the various science activities in the Delta fit together. This involves defining the relationship between the DRMP's science activities and the SAA, meaningfully integrating elements of the Monitoring Design and other DRMP products into the SAA, and understanding the value of the SAA to the DRMP. We think this is best achieved through directly discussing and defining these items with DRMP Steering Committee members.

**Requested Actions of the Delta RMP Steering Committee:**

We would like comments from the Steering Committee regarding:

- How the DRMP will use the 2017 SAA
- Provide input on the management needs/decisions and associated actions that should be acknowledged and included in the 2017 SAA
- Define how DRMP would like to work with the Delta Science Program in the future to develop a shared 2017 SAA that has value to the DRMP and member agencies and organizations.

Specific questions to the Steering Committee:

- 1) *How will the DRMP and its member agencies/organizations use the 2017 SAA?*
- 2) *How would you define success of the 2017 SAA?*
- 3) *From the DRMP perspective, what are the most important documents/information that we should be looking at to best understand your relevant management needs/questions and associated science actions?*
- 4) *How and when does the DRMP want to engage in developing the 2017 SAA?*

**DRAFT****Summary of Major Tasks and Schedule**

Task	Start	Expected Completion
<b>Task 1.</b> Review of Existing Science Priorities	May 2016	Nov. 2016
<b>Task 2.</b> Review of Prioritization Approaches	May 2016	Nov. 2016
<b>Task 3.</b> Draft Science Action Agenda	Dec. 2016	May 2017
<b>Task 4.</b> Proposed Final Draft	May 2016	Nov. 2017
<b>Task 5.</b> Outreach, Advice, and Communications (External Meetings)	Apr. 2016	Dec. 2017

## Delta RMP Deliverables Scorecard Report

## Key to Status Colors:

Green indicates greater than 90 days until the deliverable is due.

Yellow indicates a deliverable due within 90 days.

Red indicates a deliverable that is overdue.

Project	Primary	Deliverable	Assigned To	Due Date	Status	Comments
Delta RMP (FY14/15)	Pathogens Monitoring	Set up contracts with BioVir and Eurofins	Thomas Jabusch	04/06/15	Complete	
Delta RMP (FY14/15)	Data Management	Prepare QAPP for FY14/15	Thomas Jabusch	04/15/15	Complete	QAPP completed and sent to SWAMP QAO for review.
Delta RMP (FY14/15)	Pesticide/Toxicity Monitoring	Set up contract with USGS for pesticide analyses	Thomas Jabusch	04/30/15	Complete	
Delta RMP (FY14/15)	Pesticide/Toxicity Monitoring	Arrange for UCD/ATL to participate in SCCWRP Interlaboratory Calibration Study	Thomas Jabusch	04/30/15	Complete	APHL will participate in the study without funding from the Delta RMP.
Delta RMP (FY14/15)	Nutrient Synthesis	Set up contract with USGS for synthesis of high-frequency sensor data	Thomas Jabusch	05/15/15	Complete	
Delta RMP (FY14/15)	Program Management	Revised Monitoring Design	Thomas Jabusch	05/22/15	Complete	The Monitoring Design has been revised and was sent to the TAC and SC on 6/8/15 for review.
Delta RMP (FY14/15)	Program Management	FY15-16 Annual Program Workplan	Philip Trowbridge	05/22/15	Complete	FY15/16 Budget and Workplan sent to SC on 6/9/15.
Delta RMP (FY14/15)	Program Management	Framework for Interpretation of Monitoring Results	Thomas Jabusch	05/22/15	Complete	An outline for the Communications Plan was included in the revised Monitoring Design sent on 6/8/15 and will be discussed at the 6/16/15 SC meeting.
Delta RMP (FY14/15)	Program Management	FY15/16 Revenue Projections and Plan for Efficiently Invoicing Participants	Philip Trowbridge	05/22/15	Complete	
Delta RMP (FY14/15)	Program Management	Quarterly financial reports	Lawrence Leung	05/31/15	Complete	
Delta RMP (FY14/15)	Program Management	System for tracking deliverables and action items	Philip Trowbridge	05/31/15	Complete	For June SC meeting
Delta RMP (FY14/15)	Data Management	Set up templates and EDD reports for the pesticide/toxicity and pathogen laboratories	Amy Franz	05/31/15	Complete	EDDs for pathogens labs have been created. EDDs for pesticide/toxicity labs has been deferred to FY15/16.
Delta RMP (FY14/15)	Pesticide/Toxicity Monitoring	Collect two rounds of samples and analyze the samples for pesticides and toxicity	Contractors	06/30/15	Complete	This task has been deferred to FY15/16 workplan.
Delta RMP (FY14/15)	Nutrient Synthesis	Final report on high-frequency sensor data nutrient synthesis	Brian Bergamashi	12/31/15		6/14/2016 - USGS report delayed until August 1.
Delta RMP (FY14/15)	Pathogens Monitoring	Pathogens Year 1 Final report	Contractors	06/30/16	Complete	Summary memo provided to TAC.
Delta RMP (FY15/16)	Program Management	Supplemental Budget Request to analyze split samples for CUPs	Thomas Jabusch	08/31/15	Complete	
Delta RMP (FY15/16)	Program Management	Prop 1 Application	Jennifer Sun	09/16/15	Complete	An application for 2 years of mercury monitoring (\$640k) was submitted in response to the DFW solicitation.
Delta RMP (FY15/16)	Governance	TAC Meeting #1 and Summary	Thomas Jabusch	09/30/15	Complete	

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Project	Primary	Deliverable	Assigned To	Due Date	Status	Comments
Delta RMP (FY15/16)	Communications	Communications Plan	Thomas Jabusch	09/30/15	Complete	The draft Communications Plan and Program Planning Outline were sent to the TAC on 9/17/15 and the Steering Committee on 10/15/15.
Delta RMP (FY15/16)	Governance	Steering Committee Meeting #1 and Summary	Philip Trowbridge	10/30/15	Complete	
Delta RMP (FY15/16)	Governance	TAC Meeting #2 and Summary	Thomas Jabusch	12/31/15	Complete	
Delta RMP (FY15/16)	Governance	Steering Committee Meeting #2 and Summary	Philip Trowbridge	01/31/16	Complete	
Delta RMP (FY15/16)	Communications	Communications Product (The Charter)	Meg Sedlak	01/31/16		Draft distributed at 12/18/15 SC meeting. Will be discussed at July SC meeting.
Delta RMP (FY15/16)	Program Management	MOU for financial management and invoicing	Philip Trowbridge	03/31/16	Complete	MOU was discussed at the 4/25/16 SC meeting. The SC recommended changing the document to be a contract template for entities that need a contract to pay their fees. The MOU was sent to those entities to consider for a template.
Delta RMP (FY15/16)	Governance	TAC Meeting #3 and Summary	Thomas Jabusch	03/31/16	Complete	
Delta RMP (FY15/16)	Governance	Steering Committee Meeting #3 and Summary	Philip Trowbridge	04/29/16	Complete	
Delta RMP (FY15/16)	Nutrients Synthesis	Nutrient Synthesis - Preparation of a memorandum summarizing recommendations for FY16/17	Thomas Jabusch	04/30/16	Complete	A draft of the report will be prepared by April 30, 2016 so that the recommendations can be considered for funding in the FY16/17 Workplan. The final report will be completed by June 30, 2016.
Delta RMP (FY15/16)	Program Management	FY16/17 Annual Workplan and Budget	Philip Trowbridge	05/13/16	Complete	Draft in May 2016. Final by June 30, 2016.
Delta RMP (FY15/16)	Governance	Steering Committee Meeting #4 and Summary	Philip Trowbridge	06/30/16	Complete	
Delta RMP (FY15/16)	Governance	TAC Meeting #4 and Summary	Thomas Jabusch	06/30/16	Complete	
Delta RMP (FY15/16)	Quality Assurance	QAPP Update	Thomas Jabusch	06/30/16		Original QAPP has been approved by SWAMP and SB QAO. The QAPP was revised to reflect the addition of mercury monitoring. QAPP is on SC agenda for July for approval.
Delta RMP (FY15/16)	Pathogens Study	Data Management of Year 1 Pathogens Data	Amy Franz	07/31/16		Data from BioVir and Eurofins. Formatting, transcribing field collection information, performing QA/QC review, and uploading field and analytical results to SFEI's RDC database and replicating to CEDEN.
Delta RMP (FY15/16)	Pathogens Study	Quality Assurance Report on Year 1 Pathogens Data	Don Yee	09/30/16		QAO report. Funded from Data Management budget.
Delta RMP (FY15/16)	CUP Monitoring	Field Sampling Report for FY15/16 CUP Monitoring	Thomas Jabusch	09/30/16		
Delta RMP (FY15/16)	Nutrients Synthesis	Nutrient Synthesis - Convene 2-day workshop with expert panel in October 2016.	Thomas Jabusch	10/31/16		
Delta RMP (FY15/16)	CUP Monitoring	Data Management of FY15/16 CUP Data	Amy Franz	12/31/16		Pesticide, toxicity, copper, carbon, SSC. Labs: USGS and UCD and a second pesticide lab to be named later.
Delta RMP (FY15/16)	CUP Monitoring	Quality Assurance Report for FY15/16 CUP Monitoring	Don Yee	12/31/16		QAO report. Funded from Data Management budget.
Delta RMP (FY15/16)	Nutrients Synthesis	Nutrient Synthesis - Based on workshop, prepare draft report summarizing recommendations for on-going monitoring plan development. Draft 12/31/2016. Final 3/31/2017	Thomas Jabusch	12/31/16		

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Project	Primary	Deliverable	Assigned To	Due Date	Status	Comments
Delta RMP (FY15/16)	CUP Monitoring	Annual Monitoring Report for FY15/16 CUP Monitoring	Thomas Jabusch	02/28/17		
Delta RMP (FY15/16)	Pathogens Study	Data Management of Year 2 Pathogens Data	Amy Franz	07/31/17		Data from BioVir and Eurofins. Formatting, transcribing field collection information, performing QA/QC review, and uploading field and analytical results to SFEI's RDC database and replicating to CEDEN.
Delta RMP (FY15/16)	Pathogens Study	Quality Assurance Report on Year 2 Pathogens Data	Don Yee	07/31/17		QAO report. Funded from Data Management budget.
Delta RMP (FY16/17)	Nutrients Synthesis	Modeling and Synthesis of Modeling Results - Convene nutrient subcommittee in person meetin or conference call	Thomas Jabusch	07/15/16		<ul style="list-style-type: none"> <li>•7/15/16: Schedule a meeting or call to</li> <li>1.Select model and metrics/model parameters (Task 2),</li> <li>2.Selection subregions and habitat classification delineations to be used (Tasks 1 and 2), and</li> <li>3.Discuss Statistical Modeling (Task 3)</li> <li>•7/15/16: Develop work materials for call</li> <li>•7/22/16: Convene conference call</li> </ul>
Delta RMP (FY16/17)	Nutrients Synthesis	Nutrients- Statistical Modeling	Thomas Jabusch	07/15/16		<ul style="list-style-type: none"> <li>•7/22/16: Nutrient subcommittee meeting/call (same meeting/call as in Task 2)</li> <li>•7/31/16: Comments due</li> <li>•10/31/16: All additional statistical modeling complete</li> <li>•11/30/16: Draft outline to Nutrient Subcommittee/TAC</li> <li>•12/31/16: Comments due</li> <li>•1/31/17: Draft report to Nutrient Subcommittee/TAC</li> <li>•2/28/17: Comments due</li> <li>•3/31/17: Draft technical report to SC</li> <li>•6/30/17: Final technical report to SC</li> </ul>
Delta RMP (FY16/17)	Governance	Steering Committee Meeting #1 and Summary	Meg Sedlak	07/20/16		
Delta RMP (FY16/17)	Nutrients Synthesis	Modeling and Synthesis of Modeling Results - Select appropriate model and design experiments	Thomas Jabusch	08/08/16		<ul style="list-style-type: none"> <li>•8/8/16: Draft model design to Nutrient Subcommittee</li> <li>•8/15/16: Comments due</li> <li>•8/31/16: Model design complete</li> </ul>
Delta RMP (FY16/17)	Program Management	Completion of the MOA	Philip Trowbridge	09/01/16		
Delta RMP (FY16/17)	Program Management	Proposal for Prop 1 Funding	Meg Sedlak	09/21/16		
Delta RMP (FY16/17)	Governance	TAC Meeting #1 and Summary	Thomas Jabusch	09/21/16		
Delta RMP (FY16/17)	Communications	Preparation of a Factsheet	Thomas Jabusch	09/30/16		
Delta RMP (FY16/17)	Nutrients Synthesis	Synthesis Report - Additional data analyses	Thomas Jabusch	09/30/16		<ul style="list-style-type: none"> <li>•9/30/16: Download most recent IEP-EMP data</li> <li>•10/31/16: All analyses complete</li> </ul>
Delta RMP (FY16/17)	Nutrients Synthesis	Modeling and Synthesis of Modeling Results - Run simulations	Thomas Jabusch	09/30/16		•9/30/16: All simulations complete
Delta RMP (FY16/17)	Governance	Steering Committee Meeting #2 and Summary	Meg Sedlak	10/18/16		
Delta RMP (FY16/17)	Nutrients Synthesis	Synthesis Report - compile additional data and information	Thomas Jabusch	10/31/16		<ul style="list-style-type: none"> <li>•10/31/16: Compile all of the following:</li> <li>1.IEP-EMP data report (ASC) - done</li> <li>2.DSP report (ASC) - done</li> <li>3.Delta RMP Sensor Synthesis (USGS)</li> <li>4.WRTDS/GAMA results (USEPA/ASC)</li> </ul>

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Project	Primary	Deliverable	Assigned To	Due Date	Status	Comments
Delta RMP (FY16/17)	Nutrients Synthesis	Nutrients - Analyze and synthesize model output data	Thomas Jabusch	10/31/16		<ul style="list-style-type: none"> <li>•10/31/16: All output data analyses complete</li> <li>•11/30/16: Draft outline to Nutrient Subcommittee/TAC</li> <li>•12/31/16: Comments due</li> <li>•1/31/17: Draft report to Nutrient Subcommittee/TAC</li> <li>•2/28/17: Comments due</li> <li>•3/31/17: Draft technical report to SC</li> <li>•6/30/17: Final technical report to SC</li> </ul>
Delta RMP (FY16/17)	Nutrients Synthesis	Synthesis Report - Prepare synthesis report	Thomas Jabusch	11/30/16		<ul style="list-style-type: none"> <li>•11/30/16: Draft outline with example write-ups/graphs/maps to Nutrient Subcommittee/TAC</li> <li>•12/31/16: Comments due</li> <li>•1/31/17: Draft report to Nutrient Subcommittee/TAC</li> <li>•2/28/17: Comments due</li> <li>•3/31/17: Draft technical report to SC</li> <li>•6/30/17: Final technical report to SC</li> </ul>
Delta RMP (FY16/17)	Governance	TAC Meeting #2 and Summary	Thomas Jabusch	12/19/16		
Delta RMP (FY16/17)	Program Management	Updated Multi-Year Plan	Meg Sedlak	12/30/16		
Delta RMP (FY16/17)	CUP Monitoring	Quality Assurance Report for FY16/17 CUP Monitoring	Don Yee	12/31/16		
Delta RMP (FY16/17)	Governance	Steering Committee Meeting #3 and Summary	Meg Sedlak	01/18/17		
Delta RMP (FY16/17)	Program Management	Updated Monitoring Design	Meg Sedlak	02/15/17		
Delta RMP (FY16/17)	Governance	TAC Meeting #3 and Summary	Thomas Jabusch	03/15/17		
Delta RMP (FY16/17)	Governance	Steering Committee Meeting #4 and Summary	Meg Sedlak	04/12/17		
Delta RMP (FY16/17)	Program Management	FY17/18 Annual Workplan and Budget	Meg Sedlak	05/19/17		
Delta RMP (FY16/17)	Governance	TAC Meeting #4 and Summary	Thomas Jabusch	06/14/17		
Delta RMP (FY16/17)	Quality Assurance	QAPP Update	Thomas Jabusch	06/14/17		
Delta RMP (FY16/17)	Communications	Technical Workshop / summary memorandum of findings	Meg Sedlak	06/30/17		Purpose of workshop TBD
Delta RMP (FY16/17)	CUP Monitoring	Field Sampling Report for FY16/17 CUP Monitoring	Thomas Jabusch	09/29/17		
Delta RMP (FY16/17)	CUP Monitoring	Data Management of FY16/17 CUP Data	Amy Franz	12/31/17		
Delta RMP (FY16/17)	CUP Monitoring	Permit Compliance Data for ILRP	Amy Franz	02/01/18		
Delta RMP (FY16/17)	CUP Monitoring	Annual Monitoring Report for FY16/17 CUP Monitoring	Thomas Jabusch	02/28/18		
Delta RMP (FY16/17)	Mercury	Mercury YR1 report summarizing fish and water analyses	Thomas Jabusch	12/03/18		

## Delta RMP Action Items

## Key to Status Colors:

Green indicates greater than 90 days until the deliverable is due.

Yellow indicates a deliverable is due within 90 days.

Red indicates a deliverable that is overdue.

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
1	TAC Action Items from 6/14/2015	06/14/16	TAC needs to provide comments on QAPP by June 30th, 2016	TAC members	06/30/16	Complete	
2	TAC Action Items from 6/14/2016	06/14/16	ASC to confirm chlorophyll measurements conducted as part of FY16/17 Hg project are conducted using standardized procedures (e.g., SWAMP methods). TAC would like results to be comparable among other agencies.	Thomas Jabusch	07/01/16	Complete	
3	TAC Action Items from 6/14/2015	06/14/16	ASC to schedule meeting for the nutrient planning meeting (Day 1)	Thomas Jabusch	06/22/16	Complete	Doodle poll sent and possible dates identified.
4	TAC Action Items from 6/14/2015	06/14/16	Revise workshop description; send to nutrient subcommittee; send to TAC by July 1; and include in agenda package for SC meeting.	Thomas Jabusch	06/21/16	Complete	
5	TAC Action Items from 6/14/2015	06/14/16	For the FY16/17 nutrient synthesis task, Janis Cook requested that a clear explanation of EOF be included.	Thomas Jabusch	11/01/16		
6	TAC Action Items from 6/14/2015	06/14/16	TAC requested that minutes be more concise if possible	Thomas Jabusch	09/13/16		
7	TAC Action Items from 6/14/2015	06/14/16	Send out list of representatives on TAC and subcommittees	Thomas Jabusch	06/28/16	Complete	
8	TAC Action Items from 6/14/2015	06/14/16	Prepare a table of changes to the QAPP and send out the revised QAPP to TAC for approval by the end of the month. Indicate revision number (Rev 2).	Thomas Jabusch	06/21/16	Complete	
9	TAC Action Items from 6/14/2015	06/14/16	Co-chair report to SC should be prepared by 6/30/2016 and sent to TAC for comment. TAC comments need to be received by July 6th so the report can appear in SC agenda package.	Stephen McCord	06/22/16	Complete	
10	TAC Action Items from 6/14/2015	06/14/16	Post pdfs of presentations from June 14 meeting on TAC google drive	Thomas Jabusch	06/20/16	Complete	
11	SC Action Items 04/25/2016	04/25/16	SC members will provide ASC with comments on the Charter	Group	05/05/16	Complete	
12	SC Action Items 04/25/2016	04/25/16	Add an agenda item for the July SC meeting to discuss fees for FY17/18.	Meg Sedlak	07/20/16	Complete	On agenda
13	SC Action Items 04/25/2016	04/25/16	Work with Linda Dorn and Dave Tamayo to review the MOA to determine how they can adapt it to be a contract template for use by their respective organizations.	Philip Trowbridge	06/30/16	Complete	Sacramento County will extend the existing contract. Regional San will develop a multi-year MOU.
14	SC Action Items 04/25/2016	04/25/16	Val Connor will organize a Finance Subcommittee (members include Dalia Fadh, Mike Wackman, Linda Dorn, and Adam Laputz, only 3 needed for quorum). The Finance Committee will address questions such as: is the program as cost-efficient as possible?; what format and information is needed for the financial memorandums?; Are there places where the budget assumptions are flawed?; is the program on the right track financially?	Val Connor	07/20/16	Complete	

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	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
15	SC Action Items 04/25/2016	04/25/16	Incorporate edits from Debbie Webster and Linda Dorn on the December SC meeting minutes and then distribute the draft minutes back to the SC for review.	Thomas Jabusch	05/05/16	Complete	
16	SC Action Items 04/25/2016	04/25/16	Prepare a short summary of Delta RMP preliminary monitoring results/activities for the July SC agenda package.	Stephen McCord	07/20/16	Complete	
17	SC Action Items 04/25/2016	04/25/16	Revise the FY16/17 Detailed Workplan as follows: Table 1 to reflect the changes in FY16/17 revenue approved at the 4/25/16 meeting; and the last paragraph of the pathogens study description to reflect the allocation of funding for pathogens trigger studies to the FY15/16 budget.	Meg Sedlak	06/01/16	Complete	
18	SC Action Items 04/25/2016	04/25/16	Revise the Charter with edits from SC members (at the meeting and in writing) particularly regarding the Coordination Committee, Finance Committee, Revenue Committee, use of contingency funds, adding/changing members, financial management, and minimum balance for Reserve funds.	Meg Sedlak	07/20/16	Complete	
19	SC Action Items 04/25/2016	04/25/16	Report back to the SC in July as to whether additional funds, besides the extra \$20,000 added to the FY15/16 budget, are needed for pathogens trigger studies.	Brian Lauerson	07/20/16		
20	SC Action Items 04/25/2016	04/25/16	Send meeting invitations for the next SC meetings on July 20, 2016 and October 18, 2016.	Thomas Jabusch	05/05/16	Complete	
21	SC Action Items 04/25/2016	04/25/16	Add an agenda item to July SC meeting regarding the Hyallela workshop being organized by Regional Board.	Meg Sedlak	07/20/16	Complete	
22	TAC Action Items from 3/30/15	03/30/16	Confirm that the Delta RMP website is up to date	Selina Cole	06/14/16	Complete	
23	TAC Action Items from 3/30/15	03/30/16	Send out to the TAC the consensus-based option for FY16/17 studies	Meg Sedlak	04/01/16	Complete	
24	TAC Action Items from 3/30/15	03/30/16	Revise scope of work for nutrient study for FY16/17 and send back to TAC	Thomas Jabusch	04/14/16	Complete	
25	TAC Action Items from 3/30/15	03/30/16	Trouble-shoot PDF printing problems at Regional San (Agenda package does not print correctly)	Meg	04/14/16	Complete	
26	SC Action Items from 12/18/15	12/18/15	Update table of upcoming management decisions and send back out to the SC →Delete Central Valley Diuron TMDL from table →Check status of State Water Board's proposed NNE policy for inland waters and updated as necessary →Change NNE-Delta to Delta Nutrient Research Plan	Meg Sedlak	04/25/16	Complete	
27	SC Action Items from 12/18/15	12/18/15	Respond to the SC's questions regarding how "risk potential" would be determined for prioritizing target current use pesticides for monitoring	TAC members	04/25/16	Complete	On March TAC agenda
28	SC Action Items from 12/18/15	12/18/15	Develop a Cost Allocation Schedule for SC approval that divides the \$948,000 revenue target for FY16/17 between the Participant Groups	Meg Sedlak	04/25/16	Complete	Prepared and discussed with SC co-chairs
29	SC Action Items from 12/18/15	12/18/15	Recruit an appropriate representative to fill the new stormwater seat on the SC	Stephanie Hiestand	04/25/16	Complete	Brendan Ferry has agreed to serve
30	SC Action Items from 12/18/15	12/18/15	Finalize meeting summary from December 18, 2015	Thomas Jabusch	04/25/16	Complete	
31	SC Action Items from 12/18/15	12/18/15	Arrange a call between Greg Gearheart and ASC data management staff regarding State Board data management policies, CD3, and the Estuaries Portal	Meg Sedlak	04/25/16	Complete	
32	SC Action Items from 12/18/15	12/18/15	Follow up with TMDL staff about federal requirements so that compliance data issues for Vernalis compliance point can be resolved	Adam Laputz	04/25/16	Complete	RB staff coordinated with coalitions and labs re pesticide data.

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	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
33	SC Action Items from 12/18/15	12/18/15	Arrange a call between Adam Laputz, Greg Gearhart, and Tom Mumley to discuss coordination between the RMPs.	Meg Sedlak	04/25/16	Complete	
34	SC Action Items from 12/18/15	12/18/15	Discuss whether there is any value in testing bivalve samples collected by the Bay RMP for parameters of interest to the Delta RMP	TAC members	04/25/16	Complete	This task was deleted because it was not deemed relevant after a conference call between RB2 and RB5.
35	SC Action Items from 12/18/15	12/18/15	Schedule a call of the External Review Planning Subcommittee in January. Participants: Linda Dorn, Adam Laputz, Dave Tamayo, Val Connor, David Cory, Gregg Erickson, Sam Harader, Stephen McCord, and Joe Domagalski.	Philip Trowbridge	12/31/15	Complete	
36	SC Action Items from 12/18/15	12/18/15	Send doodle poll for an alternate date, set next meeting date, reserve room, and send invitations to the SC	Meg Sedlak	01/15/16	Complete	
37	SC Action Items 12/18/15	12/18/15	Patrick and Selina to prepare informational factsheet for Stormwater Phase II reps explaining the value of the program.	Patrick Morris	08/01/16		In progress.
38	TAC Action Items from 11/16/15	11/16/15	Draft strawman for the charge of the expert panel and distribute to the planning subcommittee	Philip Trowbridge	12/18/15	Complete	Charge drafted and distributed to planning committee.
39	TAC Action Items from 11/16/15	11/16/15	Convene planning subcommittee in the week after Thanksgiving	Philip Trowbridge	12/04/15	Complete	Meeting scheduled for 12/7/15.
40	TAC Action Items from 11/16/15	11/16/15	Present draft charge for the expert panel to the SC	Philip Trowbridge	12/18/15	Complete	Charge drafted and on SC agenda.
41	TAC Action Items from 11/16/15	11/16/15	Bring outline for the Nutrient Synthesis Workgroup to the SC and clarify that the proposed target date will be adjusted as needed to allow sufficient time for the development process	Philip Trowbridge	12/18/15	Complete	Workplan updated and on SC agenda.
42	TAC Action Items from 11/16/15	11/16/15	Plan a future discussion with the TAC to outline the process for updating the target analyte list and defining how risk should be considered	Thomas Jabusch	04/01/16	Complete	On March TAC meeting
43	TAC Action Items from 11/16/15	11/16/15	Distribute W. Fleenor's paper to the TAC	Stephen McCord	11/20/15	Complete	
44	SC Action Items from 10/23/15	10/23/15	Update SC roster	Thomas Jabusch	10/30/15	Complete	
45	SC Action Items from 10/23/15	10/23/15	Put an item on the next agenda to discuss the requests for additional Steering Committee seats for Phase I and Phase II stormwater and the State Board and the overall balance and composition of the committee	Philip Trowbridge	11/18/15	Complete	Recorded in list of potential agenda items
46	SC Action Items from 10/23/15	10/23/15	Provide a list of appropriate candidates from fisheries agencies for the vacant Resource Agencies seat	Tim Vendlinski	12/18/15	Complete	
47	SC Action Items from 10/23/15	10/23/15	Update minutes with edits requested by Val and post to Regional Board website	Thomas Jabusch	10/30/15	Complete	Updated summary sent to Regional Board staff to post
48	SC Action Items from 10/23/15	10/23/15	Update TAC summary with the correct station name for the Mokelumne on page 4 (New Hope Road)	Thomas Jabusch	10/30/15	Complete	
49	SC Action Items from 10/23/15	10/23/15	Get provisional pesticide data from USGS and post with the rest of the provisional data on the TAC website	Thomas Jabusch	10/30/15	Complete	
50	SC Action Items from 10/23/15	10/23/15	Get information on the DSP peer review process from Val Connor and share it with the Steering Committee.	Philip Trowbridge	10/30/15	Complete	
51	SC Action Items from 10/23/15	10/23/15	Talk to the Delta Science Program about getting an external review of the Monitoring Design. Coordinate with Val and Gregg on this item	Philip Trowbridge	12/18/15	Complete	
52	SC Action Items from 10/23/15	10/23/15	Convene the Finance and Revenue Subcommittees for kick-off meetings	Val Connor	12/18/15	Complete	

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	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
53	SC Action Items from 10/23/15	10/23/15	Put an item on the agenda for the fall 2016 SC meeting to review the Program expenses compared to other similar programs, the goals of the Program, and the multi-year trajectory of the Program	Philip Trowbridge	10/31/16		
54	SC Action Items from 10/23/15	10/23/15	Follow up with Val and Mike about the Finance Subcommittee to find out what assistance they need from ASC	Philip Trowbridge	10/30/15	Complete	
55	SC Action Items from 10/23/15	10/23/15	Develop a proposal for an interlaboratory comparison study for pesticides for the TAC to review	Josie Tellers	11/09/15	Complete	
56	SC Action Items from 10/23/15	10/23/15	Review and provide comments on the draft Communications Plan	Steering Committee	11/06/15	Complete	No additional comments were provided.
57	SC Action Items from 10/23/15	10/23/15	Develop ideas for a fact sheet to support fundraising efforts	Val Connor	12/18/15	Complete	Past fact sheets were compiled by ASC and will be presented to the SC.
58	SC Action Items from 10/23/15	10/23/15	Review and provide comments on the draft Program Planning Overview	Steering Committee	11/06/15	Complete	No additional comments were provided.
59	SC Action Items from 10/23/15	10/23/15	Add the July 7, 2014, version of the RMP-RB Interaction Flow Chart to the RMP Foundations document with an introduction that explains that this flow chart was a foundational document and the basis for language that was added to permits. The introduction should also explain that the purpose of the flow chart is to show mutual expectations that the RMP will be used to collaboratively study issues as much as possible to avoid additional study requests from the Water Board on top of the RMP	Thomas Jabusch	12/18/15	Complete	
60	SC Action Items from 10/23/15	10/23/15	Revise adequate participation language and work with co-chairs on edits	Philip Trowbridge	12/18/15	Complete	
61	SC Action Items from 10/23/15	10/23/15	Set next meeting date for December 18, reserve room, and send invitations to the SC	Thomas Jabusch	10/30/15	Complete	
62	TAC Action Items from 9/24/15	09/24/15	Follow-up with Jamie Anderson at DWR regarding funding for mercury monitoring to calibrate the DWR mercury model	Philip Trowbridge	10/23/15	Complete	
63	TAC Action Items from 9/24/15	09/24/15	Research options for collecting samples at Buckley Cove in the middle of the channel and report back to the TAC	Joe Domagalski	11/01/15	Complete	On the agenda for the Nov 16 TAC mtg.
64	TAC Action Items from 9/24/15	09/24/15	Search for modeling information about lateral mixing at Buckley Cove	Stephen McCord	11/01/15	Complete	
65	TAC Action Items from 9/24/15	09/24/15	Organize a teleconference of the TIE subcommittee to discuss further edits to the TIE guidance, the TIE treatment list, an update on the Ceriodaphnia issue at AHPL, and the cost per treatment for TIEs so that the group can manage its budget of \$40,000 for the year	Thomas Jabusch	10/16/15	Complete	
66	TAC Action Items from 9/24/15	09/24/15	Modify the Supplemental Budget Request with a required matrix spike sample, the schedule, and locations of the sampling	Thomas Jabusch	10/09/15	Complete	
67	Steering Committee Action Items from 06/16/15	06/16/15	Post all final minutes to the Regional Board's Delta RMP website and add a note to the website saying "Draft meeting summaries are available upon request from the Regional Board"	Selina Cole	06/30/15	Complete	
68	Steering Committee Action Items from 06/16/15	06/16/15	Update the Monitoring Design with changes approved at the meeting and then post as final on the website.	Thomas Jabusch	06/30/15	Complete	
69	Steering Committee Action Items from 06/16/15	06/16/15	Put an agenda item on the next SC meeting agenda to discuss the conflict of interest policy and the guidelines for issuing RFPs.	Philip Trowbridge	10/23/15	Complete	On agenda for 10/23 SC meeting.

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	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
70	Steering Committee Action Items from 06/16/15	06/16/15	Schedule and hold a conference call between the Regional Board and MS4 Phase II communities regarding participation and fees for the Delta RMP.	Stephanie Hiestand	07/31/15	Complete	
71	Steering Committee Action Items from 06/16/15	06/16/15	Add Stephanie Hiestand to the QAPP as the representative for MS4 Phase II communities	Thomas Jabusch	06/30/15	Complete	
72	Steering Committee Action Items from 06/16/15	06/16/15	Use a doodle poll to schedule the next meeting in September or October.	Philip Trowbridge	06/30/15	Complete	
73	Steering Committee Action Items from 06/16/15	06/16/15	Schedule a discussion for the next meeting to identify the scope and panel for an external review of the Monitoring Design	Thomas Jabusch	10/23/15	Complete	Included on agenda for 9/24/15 TAC meeting.
74	Steering Committee Action Items from 06/16/15	06/16/15	Regional Board staff will set up an internal meeting with Diane Messina and Adam Laputz to discuss potential participation by Caltrans	Patrick Morris / Selina Cole	09/01/15	Complete	Internal meetings held. Staff is arranging meetings with Caltrans.
75	TAC Action Items from 5/27/15	05/27/15	Mike Johnson and Karen Ashby will provide comments on the Monitoring Design by June 1st. Debra Denton and Tessa will provide comments by June 4th.	TAC members	06/04/15	Complete	Debra Denton provided comments on June 1, 2015.
76	TAC Action Items from 5/27/15	05/27/15	ASC will revise the Design document and send it back out the TAC with 5 business days for review.	Thomas Jabusch	06/08/15	Complete	
77	TAC Action Items from 5/27/15	05/27/15	Stephen McCord will convene a conference call or online polling method before June 16th so that he can report to the SC whether the TAC recommends approval or provisional approval of the revised Monitoring Design.	Stephen McCord	06/15/15	Complete	
78	TAC Action Items from 5/27/15	05/27/15	Adam agreed to follow up with Rich Breuer to learn if the requirement for State Board approval of the QAPP only applied to SWAMP-funded part of the work or the full QAPP.	Adam Laputz	06/03/15	Complete	
79	TAC Action Items from 5/27/15	05/27/15	ASC should make sure the QAPP data management provisions are SWAMP compatible. Phil agreed to check with Cristina Grosso about this.	Philip Trowbridge	06/03/15	Complete	SFEI data management procedures are SWAMP compatible.
80	TAC Action Items from 5/27/15	05/27/15	After receiving comments from the laboratories by June 1st, ASC will revise the QAPP and send it back out to the TAC with 5 business days to review.	Thomas Jabusch	06/08/15	Complete	
81	TAC Action Items from 5/27/15	05/27/15	Stephen McCord will schedule a conference call or online polling tool before June 16th in order to determine whether the TAC recommends approval of the QAPP or provisional approval. Stephen McCord will provide a verbal report to the SC on June 16th.	Stephen McCord	06/15/15	Complete	
82	TAC Action Items from 5/27/15	05/27/15	Discuss with the SC co-chairs about having a joint meeting of the SC and TAC to decide about the funding allocations for FY15/16	Philip Trowbridge	06/03/15	Complete	Recommendation added the FY15/16 workplan report to the SC.
83	TAC Action Items from 5/27/15	05/27/15	Revise the budget for the SC to show the available funding relative to the "bare bones" Monitoring Design funding levels so the SC can make the trade-off decisions.	Philip Trowbridge	06/05/15	Complete	
84	TAC Action Items from 5/27/15	05/27/15	Stephen McCord will send an email to the TAC with the proposal to officially approve the TIE subcommittee members as discussed in the May 27 meeting	Stephen McCord	06/03/15	Complete	
85	TAC Action Items from 5/27/15	05/27/15	ASC will receive comments on the TIE process memo. When all the comments have been received, ASC will send them to the TIE subcommittee to review and incorporate into the memo, which will be shared with the whole TAC.	Thomas Jabusch	06/10/15	Complete	
86	TAC Action Items from 5/27/15	05/27/15	Mike Johnson agreed to send Stephen McCord his notes with questions about the Hyalella test.	Mike Johnson	06/03/15	Complete	
87	TAC Action Items from 5/27/15	05/27/15	Stephen Clark agreed to send Stephen McCord information about possible special studies that could be done to resolve questions about the Hyalella test.	Stephen Clark	06/03/15	Complete	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
88	TAC Action Items from 5/27/15	05/27/15	Brian Laurenson agreed to send Stephen McCord his comments on the last set of slides for the SC which had information on possible special studies.	Brian Laurenson	06/03/15	Complete	
89	TAC Action Items from 5/27/15	05/27/15	Stephen McCord agreed to write a memo to the SC with options regarding the Hyallella test.	Stephen McCord	06/09/15	Complete	
90	TAC Action Items from 5/27/15	05/27/15	Provide an update on any nexus between Delta RMP and Central Valley Pyrethroids TMDL	Tessa Fojut	06/14/16		
91	TAC Action Items from 4/22	04/22/15	Thomas and Stephen will develop a develop a full chronology of TAC decisions, in a format similar to Delta RMP Record of Decisions (SC).	Thomas Jabusch	05/22/15	Complete	
92	TAC Action Items from 4/22	04/22/15	Thomas will distribute SCCWRP study objectives and protocol to the TAC, when available	Thomas Jabusch	05/22/15	Complete	On agenda for 5/27/15
93	TAC Action Items from 4/22	04/22/15	Thomas and Stephen will compare and contrast study objectives to Delta RMP's interests and concerns regarding Hyallella, especially regarding the issue of environmental relevance	Thomas Jabusch	05/22/15	Complete	To be completed with Stephen McCord
94	TAC Action Items from 4/22	04/22/15	Thomas: Consider adding phenotype testing and supplying Delta environmental samples for 2nd round of testing	Thomas Jabusch	05/22/15	Complete	Re phenotype testing: Can create a running wish list of special studies such as the phenotype testing.
95	TAC Action Items from 4/22	04/22/15	Coordinate the TIE subcommittee	Thomas Jabusch	05/22/15	Complete	
96	TAC Action Items from 4/22	04/22/15	Linda (AHPL) will generate a treatment template to clearly describe TIE treatments to be performed	Linda Deanovic	05/22/15	Complete	
97	TAC Action Items from 4/22	04/22/15	Stephen will articulate a question to SC asking whether TIE's should track down non-pesticide causes of toxicity, if funds allow	Stephen McCord	06/16/15	Complete	To be discussed at SC meeting on 6/16/15.
98	TAC Action Items from 4/22	04/22/15	Cam will draft a document to accompany the TIE decision flow chart	Cam Irvine	05/22/15	Complete	Include communications protocols and additional insight on decision process. To be completed with Thomas Jabusch
99	TAC Action Items from 4/22	04/22/15	Joe and Jim will clean up the USGS pesticide sampling triggers	Joe Domagalski	05/22/15	Complete	Edits were provided by Stephen McCord and discussed at the TAC meeting
100	TAC Action Items from 4/22	04/22/15	Jim will add "alert" levels for the USGS to use to alert AHPL of possible events	Jim Orlando	05/22/15	Complete	In QAPP.
101	TAC Action Items from 4/22	04/22/15	Jim and Joe will add a field to the field log to document sampling conditions	Jim Orlando	05/22/15	Complete	Part of USGS standard practice. The sampling conditions log will be used to improve event triggers based on experience.
102	TAC Action Items from 4/22	04/22/15	Thomas will provide a clean draft final monitoring design to the TAC for review	Thomas Jabusch	05/22/15	Complete	On agenda for 5/27/15
103	TAC Action Items from 4/22	04/22/15	Review the draft QAPP	TAC members	05/01/15	Complete	Notify Thomas Jabusch of any delays
104	TAC Action Items from 4/22	04/22/15	Identify points in data flow chart when TAC members can access data, and clarify frequency of QA review for monthly sampling e vents	Cristina Grosso	05/22/15	Complete	In QAPP.
105	TAC Action Items from 4/22	04/22/15	Set up a password-protected space for provisional data on the CA Estuaries Workgroup portal	Stephanie Fong	05/22/15	Complete	SFEI-ASC will make provisional data files available by posting them to the TAC website, from where they can be viewed and downloaded by TAC members and transferred to the worker bee space of the Estuaries portal.

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	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
106	Steering Committee Action Items from 03/27/15	03/27/15	ASC will revise the minutes from the 1/22/15 SC meeting. The paragraph on Hyalella on page 7 and the second action item underneath it should show that there were concerns about the lab methodologies and interlaboratory comparability for the Hyalella test procedure in water.	Thomas Jabusch	04/30/15	Complete	
107	Steering Committee Action Items from 03/27/15	03/27/15	Adam Laputz will share the decision-making flow chart with ASC.	Adam Laputz	04/30/15	Complete	Linda Dorn has shared the flow chart with Thomas Jabusch.
108	Steering Committee Action Items from 03/27/15	03/27/15	Patrick Morris will find out if the SWAMP contract with ATL can fund participation in the SCCWRP interlaboratory comparability study.	Patrick Morris	04/30/15	Complete	SWAMP contract manager confirmed that funds can be used to analyze samples for the study.
109	Steering Committee Action Items from 03/27/15	03/27/15	ASC and the TAC Co-Chairs will prepare a 1-hour agenda item for the next SC meeting on the interpretation and application of monitoring results, with a focus on pesticides monitoring. The TAC recommendations, the draft decision-making flow chart, and the TIE decision matrix will be included in the presentation.	Thomas Jabusch	05/31/15	Complete	On the agenda for the 6/16/15 meeting
110	Steering Committee Action Items from 03/27/15	03/27/15	Schedule agenda item to discuss and resolve any changes that were made by the TAC to the Management Questions on page 6 (Pesticide Table 1) of the revised Monitoring Design.	Thomas Jabusch	05/31/15	Complete	On the agenda for the 6/16/15 meeting
111	Steering Committee Action Items from 03/27/15	03/27/15	ASC will make sure the TAC website is up to date and ensure that the April 22 TAC meeting is publicly noticed.	Thomas Jabusch	04/08/15	Complete	
112	Steering Committee Action Items from 03/27/15	03/27/15	ASC will contact Val Connor at SFCWA to get documentation about previous work by SFCWA, USGS, and RB5 to develop target analyte lists for pesticides.	Thomas Jabusch	04/30/15	Complete	
113	Steering Committee Action Items from 03/27/15	03/27/15	ASC will work with the TAC, ILRP, and RB5 to come up with the recommended list of target pesticides for the FY15/16 workplan. The list will reside in the Monitoring Design.	Thomas Jabusch	05/15/15	Complete	ASC has compiled a master list that compares the target pesticides for ILRP and the different labs. RB5 and ILRP met to discuss the list.
114	Steering Committee Action Items from 03/27/15	03/27/15	ASC will develop a process for reviewing and updating the list of target pesticide analytes as part of the Communications Plan in FY15/16.	Thomas Jabusch	09/30/15	Complete	The process was included in the draft Communications Plan and Project Planning Cycle.
115	Steering Committee Action Items from 03/27/15	03/27/15	Joe Domagalski will send ASC the final report from a recent USGS study of pesticides.	Joe Domagalski	04/30/15	Complete	
116	Steering Committee Action Items from 03/27/15	03/27/15	ASC will revise the FY14/15 workplan as directed by the SC: (1) update Section 5 to be refer to the SCCWRP interlaboratory comparability study; (2) update the Vendor Selection Form for the USGS Pesticide Lab; and (3) update the Vendor Selection Form the USGS nutrient synthesis.	Philip Trowbridge	04/03/15	Complete	
117	Steering Committee Action Items from 03/27/15	03/27/15	ASC will revise the Financial Management Plan as directed by the SC: (1) attach the process for RFPs; (2) require SC approval for sole source contracts; and (3) refer to the Implementing Entity generically.	Philip Trowbridge	04/03/15	Complete	Items 2 and 3 are complete. The RFP process has been revised but needs SC review at the next meeting before being attached as guidance to the Financial Management Plan.
118	Steering Committee Action Items from 03/27/15	03/27/15	Linda Dorn and Patrick Morris will revise the Adequate Participation language and will bring it back to the SC at the next meeting.	Linda Dorn	05/31/15	Complete	
119	Steering Committee Action Items from 03/27/15	03/27/15	ASC will include an option for external science advisers or a program review in the FY15/16 workplan. ASC will research whether the Delta Science Program's science panel can serve this role.	Philip Trowbridge	05/31/15	Complete	There may be a way for the DSC to facilitate the review but (a) the SC will still need to budget some funds for it and (b) the review would most likely consider the Delta RMP within the broader context of all Delta monitoring programs.

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	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
120	Steering Committee Action Items from 03/27/15	03/27/15	Tim Vendlinski will attend the April 22, 2015 TAC meeting.	Tim Vendlinski	04/22/15	Complete	
121	Steering Committee Action Items from 03/27/15	03/27/15	Selina Cole will update the Delta RMP website and publicly notice the TAC meeting via the Delta Water Quality lyrics list	Selina Cole	04/10/15	Complete	
122	Steering Committee Action Items from 03/27/15	03/27/15	ASC will work with Stephen McCord and Joe Domagalski on options for TAC Co-Chairs in FY15/16. The three options are (1) to continue with Stephen and Joe as Co-Chairs providing coordination and leadership; (2) to have ASC provide coordination and Stephen and Joe provide leadership; and (3) to have ASC provide coordination with an unpaid Chair. The value of the in-kind service by the unpaid Chair should be part of the calculation.	Philip Trowbridge	05/31/15	Complete	
123	Steering Committee Action Items from 03/27/15	03/27/15	ASC will send out a list of Decisions and Action Items from the 3/27/15 meeting by 4/3/15.	Thomas Jabusch	04/03/15	Complete	
124	Steering Committee Action Items from 03/27/15	03/27/15	ASC will send a doodle poll for the next SC meeting. The meeting must be before 6/16/15 and may need to be even sooner depending the time needed for any RFPs that may be needed.	Thomas Jabusch	04/03/15	Complete	
125	Steering Committee Action Items from 01/22/15	01/22/15	ASC will provide draft SOTER indicator write-ups when they are ready to the TAC and SC for review and comment.	Jay Davis	03/27/15	Complete	
126	Steering Committee Action Items from 01/22/15	01/22/15	ASC will provide a pdf version of the Delta RMP poster to the SC	Thomas Jabusch	01/29/15	Complete	
127	Steering Committee Action Items from 01/22/15	01/22/15	ASC will revise the minutes of the last two SC meetings to correct inaccuracies.	Thomas Jabusch	03/27/15	Complete	
128	Steering Committee Action Items from 01/22/15	01/22/15	ASC will report back to the SC about whether the proposed contractors for the FY14/15 workplan would be in compliance with the State Contracting Manual and if there is any appearance of conflict of interest. In particular, ASC will check the legality of contracting USGS for the pesticide analyses, high-frequency data analysis, and potentially field sampling, with Joe Domagalski (USGS) as one of the co-chairs.	Philip Trowbridge	03/27/15	Complete	
129	Steering Committee Action Items from 01/22/15	01/22/15	ASC will sign up members of the TIE subcommittee	Thomas Jabusch	03/27/15	Complete	
130	Steering Committee Action Items from 01/22/15	01/22/15	The TAC will provide the SC with information about evaluating and interpreting Hyalella data, recommendations regarding the Hyalella strain to be used, and identify the scientific issues involved with interpreting and/or qualifying test results.	Stephen McCord	03/27/15	Complete	
131	Steering Committee Action Items from 01/22/15	01/22/15	ASC will revise the Monitoring Design document based on comments received from the SC.	Thomas Jabusch	05/31/15	Complete	
132	Steering Committee Action Items from 01/22/15	01/22/15	ASC will send the Monitoring Design document (11/3/14 draft) and the list of identified changes to the SC mailing list and ask participants to submit additional revisions by 1/30/15.	Thomas Jabusch	01/29/15	Complete	
133	Steering Committee Action Items from 01/22/15	01/22/15	ASC and Brock Bernstein will convene conference calls, if there are conflicting comments that get to the core of the design and are high priority to resolve.	Thomas Jabusch	03/27/15	Complete	
134	Steering Committee Action Items from 01/22/15	01/22/15	ASC will develop a new document that defines the Delta RMP's process for data analysis and interpretation, reporting, and application of results to address the management questions. This document should also contain an annual schedule for coordinating with deadlines of different organizations.	Thomas Jabusch	12/31/15	Complete	Communications Plan. Program Planning Overview.
135	Steering Committee Action Items from 01/22/15	01/22/15	ASC will add sole source justifications to the FY14/15 Annual Workplan	Philip Trowbridge	03/27/15	Complete	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
136	Steering Committee Action Items from 01/22/15	01/22/15	ASC will follow up with Gregg Erickson to find out if there is an existing contract between ASC, DWR, and USGS.	Philip Trowbridge	03/27/15	Complete	
137	Steering Committee Action Items from 01/22/15	01/22/15	Since there will not be an RFP, ASC will subtract \$4,500 from the pesticide/toxicity budget.	Philip Trowbridge	03/27/15	Complete	
138	Steering Committee Action Items from 01/22/15	01/22/15	Patrick Morris will investigate whether FY15/16 onwards SWAMP funds can be used for other purposes, such as pesticides analyses.	Patrick Morris	03/27/15	Complete	Currently the only SWAMP contract that could be used for the Delta RMP is for toxicity analyses.
139	Steering Committee Action Items from 01/22/15	01/22/15	ASC will prepare a process for FY15/16 and onwards to ensure that selection of contractors complies with the public contracting code and avoids any actual or apparent conflict of interest.	Philip Trowbridge	03/27/15	Complete	
140	Steering Committee Action Items from 01/22/15	01/22/15	ASC shall implement appropriate funding mechanisms (e.g., invoice, contract) as needed to meet the needs of different Delta RMP members.	Philip Trowbridge	03/27/15	Complete	
141	Steering Committee Action Items from 01/22/15	01/22/15	ASC will assist the SC in developing a longer-term funding mechanism (e.g., MOU) that will lower administrative costs and provide a more formal basis for participation	Philip Trowbridge	03/31/16	Complete	The MOA was added as a deliverable for the FY15/16 workplan.
142	Steering Committee Action Items from 01/22/15	01/22/15	Val Connor will review the Financial Management Plan with SFCWA's attorney.	Val Connor	03/27/15	Complete	Action item deleted.
143	Steering Committee Action Items						
144	TAC Action Items						