Delta Regional Monitoring Program (RMP)
Technical Advisory Committee (TAC) Meeting
June 13, 2017 10:00 am – 4:00 pm
Sacramento Regional County Sanitation District
Meeting Summary

Attendees:
Voting TAC (and/or Alternate) members present:

<table>
<thead>
<tr>
<th>Name</th>
<th>Representing</th>
<th>Affiliation</th>
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<tr>
<td>Amy Phillips</td>
<td>Stormwater, Phase II</td>
<td>El Dorado County</td>
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<td>Brian Laurenson</td>
<td>Stormwater, Phase I</td>
<td>Larry Walker Associates</td>
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<td>Danny McClure</td>
<td>Regulatory - State</td>
<td>Central Valley Regional Water Quality Control Board</td>
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<td>Dawit Tadesse</td>
<td>Regulatory - State</td>
<td>State Water Board</td>
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<td>Debra Denton</td>
<td>Regulatory - Federal</td>
<td>U.S. EPA Region 9 Water Division</td>
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<td>Erwin Van Nieuwenhuyse</td>
<td>Coordinated Monitoring</td>
<td>US Bureau of Reclamation</td>
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<td>Stormwater, Phase I</td>
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<td>Hope McCaslin Taylor</td>
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<td>Janis Cooke</td>
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<td>Joe Domagalski</td>
<td>Co-chair</td>
<td>U.S. Geological Survey</td>
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<td>Karen Ashby</td>
<td>Stormwater, Phase II</td>
<td>Larry Walker Associates</td>
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<td>Lisa Thompson</td>
<td>Publicly-owned treatment</td>
<td>Sacramento Regional County Sanitation District (Regional San)</td>
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<td>Michael Johnson</td>
<td>Agriculture</td>
<td>MLJ-LLC</td>
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<td>Rich Breuer</td>
<td>Regulatory - State</td>
<td>State Water Resources Control Board</td>
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<td>Val Connor [representing</td>
<td>Water Supply</td>
<td>State and Federal Contractors Water Agency (SFCWA)</td>
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<td>Stephanie Fong]</td>
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<td>Stephen McCord</td>
<td>Co-chair</td>
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<td>Tessa Fojut</td>
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<td>Tim Mussen</td>
<td>POTW</td>
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<td>Tony Pirondini</td>
<td>POTW</td>
<td>City of Vacaville</td>
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<td>Vyomini Upadhyay</td>
<td>Agriculture (Alternate)</td>
<td>Sacramento Regional County Sanitation District (Regional San)</td>
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Others present:
Matthew Heberger, San Francisco Estuary Institute-Aquatic Science Center (SFEI-ASC)
Phil Trowbridge, SFEI-ASC
Jay Davis, SFEI-ASC (by phone)
Marie Stillway, UC Davis Aquatic Health Program Laboratory
Patrick Morris, Central Valley Regional Water Quality Control Board (CV RWQCB)
Selina Cole, CV RWQCB
Adam Laputz, CV RWQCB
Cameron Irvine, CH2M
Linda Dorn, Regional San
Sam Safi, Regional San
Lisa Thompson, Regional San
Dawit Tadesse, State Water Resources Control Board
Jim Orlando, USGS
Bruce Houde, Sacramento Valley Water Quality Coalition
Yumiko Henneberry, Delta Science Program

1. Introductions and Approval of Agenda
Participants approved the agenda.

2. Approval of Previous Meeting Summary
Participants approved the summary of the March 14, 2017, TAC meeting with one minor change. TAC members agreed that the meeting notes should generally avoid attribution to individuals. A member also suggested that the TAC co-Chairs draft and distribute for review “Highlights” with the most important outcomes (action items, recommendations, etc.) of the meeting that could then be presented to the Steering Committee.

Upcoming Scheduled Meetings
- SC: July 28, 2017 at Regional Board office
- TAC: Sept 21, 2017 at Regional San
- Joint TAC/SC meeting: Oct 24, 2017, at Park Tower Building, 2nd Floor Conference Room, 980 Ninth St., Sacramento, CA 95814
- TAC Meeting: Dec 12, 2017, 10 am – 4 pm, at location TBD.

TAC Co-Chair Stephen McCord may be on vacation during the July 28 SC meeting.
Action Items:

- TAC co-Chairs: Draft and distribute for review “Highlights” with the most important outcomes (action items, recommendations, etc.) of the meeting that would be presented to the Steering Committee.
- Matt Heberger (ASC): Set 12/12/17 meeting location and announce to TAC.

3. Steering Committee Update

The TAC co-chairs summarized the outcomes of the May 3, 2017, SC meeting including the decisions and action items. At the meeting, SC members expressed concerns regarding the use of new methods and sampling locations proposed for monitoring of pesticides and toxicity in the upcoming fiscal year. The SC approved the FY17/18 budget, excluding proposed studies of pesticides/toxicity. The SC requested additional information from the TAC related to the pesticides monitoring proposals: TAC meeting summary, pros/cons of the two approaches, slides showing how data from the proposed approaches would be interpreted to answer management questions, and how the costs of the Delta RMP might change with external funding for certain aspects of the projects.

A subcommittee of the SC has made arrangements for the final phase of the External Review, which will draw the review to a close.

4. Technical Subcommittee Updates

Short updates were provided on recent monitoring activities.

Mercury monitoring is ongoing, and a longer update will be provided at a future meeting.

Marie Stillway of the UC Davis Aquatic Health Program Lab gave an update on toxicity testing conducted from November 2016 to May 2017. Toxicity has been observed in some samples, though technician error and pathogen interference contributed to sample result qualification or retesting. No samples were evaluated for toxicity evaluation. Jim Orlando of USGS gave an update on pesticides monitoring. His team was out collecting the last round of water program sample collection event was underway. Jim described the frequency of detection at the sites.

ASC has revised the short technical report summarizing Year 1 of Current Use Pesticides (CUP) monitoring based on comments from the TAC and Pesticides Subcommittee. TAC members requested more time to review the report.

Janis Cooke, of the Central Valley Board, gave an update on nutrients monitoring.

1. Status of FY 17 nutrient deliverables:

- USGS HF sensor synthesis reports are going through an additional layer of review at USGS. Proofs should be available to anybody interested in the coming -12 weeks, by request. USGS contracted will be executed next work and work is scheduled to begin in the fall. Nutrients Subcommittee - Will schedule a phone call to refine the scope (maybe after we had an opportunity to discuss the synthesis results).
ASC draft reports are nearing completion. We are planning to distribute drafts of the data synthesis report and the modeling synthesis report for review to the Nutrient Subcommittee by June 23.

- Marcus Beck’s (USEPA Office of Research and Development) manuscript on statistical analysis of Delta nutrients data has been submitted to a leading journal and is in review. We spent about $2,000 on the collaboration with Marcus.

2. New projects:
- The proposed FY17/18 nutrient activities have been approved by the Steering Committee:
  - HF cross Delta monitoring – 9 cruises
  - Statistical analysis methods for trend detection
  - Chlorophyll sensor intercalibration

- Associated work: On June 9th, SF Bay Nutrient Management Strategy (NMS) SC approved $15K for the Chlorophyll inter-calibration
- The Regional Board has submitted a Supplemental Environmental Project (SEP) proposal to expand the scope of the Cross-Delta HF mapping projects (additional cruises).

3. Upcoming meetings
- Planning to schedule two subcommittee meetings (Thomas Jabusch will send poll along with drafts):
  1. Late July/early August: discuss findings of synthesis reports
  2. Late September/early October: planning meeting
- Delta RMP input to and coordination with Delta Nutrient Research Plan (DNRP)
- Brainstorming: multi-year planning and FY18/19 project ideas

4. Updates on Delta Nutrient Research Plan (DNRP)
- Draft release this summer; aiming for Board consideration in December. Seeking peer review from State Board nutrients science panel
- Water Boards have allocated $400,000 for development and application of biogeochemical model of the Delta. Preferred plan is to contract with SFEI to expand and extend the modeling work already being done in SF Bay and Suisun Bay.

**Action Items:**
- TAC members: Review the revised pesticides data report and submit any final comments by June 30 to Thomas Jabusch (ASC). Email the TAC (delta-rmp-tac@sfei.org) if you have major concerns that would prevent recommending to the Steering Committee that the report be approved (by June 30).
- Thomas Jabusch (ASC): Send out the next version of the report when any remaining comments and edits are incorporated, including both “clean” and “tracked changes” versions (by July 10).
5. Planning the Current Use Pesticides Year 1-2 Interpretive Report

The SC asked ASC to propose a new cost estimate for producing the Year 1-2 CUP/Toxicity Interpretive Report that includes non-RMP data (such as data in CEDEN and USGS’s NWIS databases) back to 2011 for pesticides and toxicity data, in addition to pesticide data collected for the Delta RMP. ASC staff requested the TAC’s input to develop an expanded scope for this report. Participants also suggested taking time to consider: What are the RMP management questions we are trying to answer? Should the interpretation include a risk analysis? Are we focusing on current conditions (spatial trends) or changes over time (temporal trends)? How far upstream should be evaluated? Should the focus be on ambient conditions or also sources, pathways, and loading? What are appropriate toxicity reference values for test species that would help us interpret if pesticides are the cause of observed toxicity.

The TAC also stressed that this report can help inform the program’s long-term monitoring design based on the values and shortcomings found in the current dataset. However, we should also highlight the accomplishments of the Delta RMP. A number of names were suggested for potential collaborators, such as including the Department of Pesticides Regulation (DPR)’s statistical expert, Dr. Dan Wang. It was agreed that further planning for this report should be done by the Pesticides Subcommittee and that the development plan should include TAC input points.

It was noted that the RMP should strive to coordinate data interpretations with the Estuary Monitoring Workgroup, which works under the CA Water Quality Monitoring Council and provides technical input for the Estuary Portal.

Action Items:

• ASC staff: Convene a meeting of the Pesticides Subcommittee for the week of July 12 (by July 7).
• ASC staff: Develop a “strawman” set of options for the report, including staffing and cost (by July 7).

6. Recommendation on CUP monitoring for FY17/18

The authors of the first proposal considered for funding by the TAC withdrew their proposal from consideration.

It was suggested that the TAC adopt more formal processes for (1) seeking and confirming consensus among its members, and (2) more clearly conveying recommendations and other input from the TAC to the SC.

A group of TAC members representing permittees brought forward a proposal to develop a framework for evaluating proposed monitoring projects/designs/plans. There was broad support for developing a set of criteria or a scorecard that could help facilitate this process, and it was felt to be especially important when the projects involve newer methods or could be controversial. The decision framework should be useful for evaluating all kinds of future
proposed monitoring designs, but could be applied immediately to selecting options for monitoring of pesticides/toxicity.

The TAC agreed that the decision tool should help to:

- describe how the proposal answers Management and Assessment Questions
- describe how the proposal incorporates External Reviewer recommendations
- confirm whether the work can be completed within available budget
- identify Policy questions for the SC to address
- identify Knowledge gaps challenging decisions by the TAC
- convey Majority/minority opinions where there is not consensus

**Action Items:**

- Brian Laurenson (LWA): Work with the permittees subgroup to further develop the evaluation criteria, and distribute it to TAC members for comments/editing (by June 25).
- Pesticides Subcommittee: Discuss the draft evaluation criteria (week of July 12).
- Matt Heberger (ASC) and Brian Laurenson (LWA): Compile optional processes for the TAC to make consensus decisions (by August 31).

**8. External Review Preparation**

Delta RMP SC and TAC co-chairs and ASC staff previewed presentations for the External Review Panel during its final interaction with the RMP on June 27, 2017. TAC participants made a number of helpful suggestions for clarifying and streamlining the presentations. Any further comments should be sent to presenters by June 23.

**9. QAPP Update**

For FY17/18, ASC staff recommended splitting the Delta RMP QAPP into 3 smaller documents, covering each of the 3 focus areas (nutrients, pesticides, mercury). This would make the documents easier to keep up to date. The TAC, however, recommended maintaining one document (perhaps with common front matter and discrete sections for each component) and highlighting changes to focus review by signatories – which may be easier than initiating new signatory reviews for multiple documents.