



Technical Advisory Committee Meeting Summary

May 9, 2019

at the Central Valley Regional Water Board, Rancho Cordova

Attendees:

TAC members, alternates, and staff present:

TAC Members	Representing	Affiliation	Position
Clark, Stephen	Stormwater	Pacific Eco Risk	alternate
DiGiorgio, Carol	Flood control and habitat restoration	Department of Water Resources (DWR)	member
Domagalski, Joe	Coordinated monitoring	U.S. Geological Survey (USGS)	alternate
Hoffman, Krista	Water supply	DWR	member
Irvine, Cam	POTW	Robertson-Bryan Inc.	alternate
Johnson, Michael	Agriculture	MLJ Environmental	member
Laurenson, Brian	Stormwater	Larry Walker Associates (LWA)	member
Mussen, Tim	POTW	Regional San	member
Phillips, Amy	Stormwater	El Dorado County	member
Taylor, Hope	Stormwater	LWA	alternate
Turner, Melissa	Agriculture	MLJ Environmental	member
Van Nieuwenhuyse, Erwin	Coordinated monitoring	Interagency Ecological Program (IEP) / US Bureau of Reclamation (USBR)	member

Ex-officio and staff

Cole, Selina	Staff, TAC alternate	Central Valley Regional Water Quality Control Board (Central Valley Board)
Cooke, Janis	Staff, TAC member	Central Valley Board
Davis, Jay	Staff	Aquatic Science Center (ASC)
Heberger, Matthew	Staff	ASC
Howard, Meredith	Staff	Central Valley Board
McCord, Stephen	TAC Chair	McCord Environmental
McClure, Danny	Staff	Central Valley Board
Morris, Patrick	Staff	Central Valley Board
Ogg, Brian	Staff	SWAMP/State Water Board
Webster, Debbie	Steering Committee co-chair	Central Valley Clean Water Association

Others

Heim, Wes	cooperator	Moss Landing Marine Laboratories
Orlando, Jim	cooperator	U.S. Geological Survey (USGS)
Thompson, Lisa		Sacramento Regional County Sanitation District
Trouchon, Mike		LWA

1. Introductions and Agenda

Participants approved the agenda.

2. Decision: Approve TAC Meeting Summary for January 17, 2019 TAC meeting and confirm future TAC meeting dates

The committee reviewed the upcoming meeting calendar and set the dates below for the July and September TAC meetings.

Upcoming Scheduled Meetings

- Steering Committee Meeting: Wednesday, May 29, 2019, 10:00 – 4:00, Department of Water Resources, 3500 Industrial Blvd. #131, West Sacramento, CA
- TAC Meeting: Friday, July 19, 2019, 10:00 – 4:00, Location TBD
- TAC Meeting: Friday, September 13, 2019, 10:00 – 4:00, Location TBD

Decisions:

- Future TAC meeting dates were set for July 19 and September 13.

- The TAC Meeting Summary for January 17, 2019 was approved by consensus, with one minor change as noted under action items below.

Action Item:

- Confirm meeting room locations for the July and September meetings and forward date, time, and location information to the TAC (Matt Heberger, by 5/31/2019).
- Update the TAC Meeting Summary to reflect an Errata sheet was also added to the FY16-17 Toxicity Report (see Agenda Package Page 10) (Matt Heberger, by 5/31/2019).

3. Information Item: Steering Committee Update

Matt Heberger noted that, with the new participants who have joined the program in the past year, the Delta RMP budget has grown to over \$1.2 million/year. The additional funding has so far allowed the program to expand mercury monitoring and to add an entirely new focus area on Contaminants of Emerging Concern (CECs). Matt also suggested it would be appropriate to begin using a small portion of program funds to provide lunch for Steering Committee and TAC meetings. There were no objections from the TAC to that proposal, and Matt will present the idea to the Steering Committee for approval.

4. Technical Subcommittee and Monitoring Updates

Updates were provided from the subcommittees covering Mercury (Jay Davis), Nutrients (Matt Heberger), and Pesticides (Jim Orlando). The committee also discussed the following tables included in the agenda package:

- Past & Planned Monitoring Events
- Status of Delta RMP Datasets

Mercury

The following areas were covered: Sampling, Analysis, Reporting and Planning

Sampling: For FY18-19, fish sampling was done in August and September. Water sampling is being done at 8 sites over 10 months. There was no water sampling done in November or December, as planned. Monthly water sampling began again in January. The next water sampling will be the week of May 13.

Analysis: As a result of a couple of problems with one of Moss Landing Marine Laboratory's instruments, sediment samples were sent to Monterey Analytical Laboratory for analysis of Total Organic Carbon. This has caused about a 3-month delay in the report on Year 2 of Mercury monitoring.

Reporting: The deadline for the Draft Year 2 Report was December 2018 but was delayed due to data not being finalized until early 2019. The report is 90% complete and is expected to be complete by the week of May 20.

Planning: The Mercury subcommittee has held 3 meetings since the end of February developing the Mercury Proposal for FY19-20. (Presented under Agenda Item #6)

Nutrients

Matt Heberger provided a brief update on the two special projects: Chlorophyll Sensor Intercalibration, and Water Year 2016 Model Development.

Chlorophyll Sensor Intercalibration: Phase I consisted of planning the study and assembling a workgroup, and was completed in FY17-18. Phase II is well underway in FY 18-19. Tasks 1 and 2 are complete. Task 3, the Laboratory Intercalibration Study, is scheduled for Spring-Summer 2019, and 10 labs are participating. There will be 3 sampling events, the first of which was just completed. The final component, Task 4, (Fall 2019) will be a summary report with recommendations for next steps. Phase III is tentatively planned for FY 20-21 to provide “further investigation into sources of variance and/or strategies for minimizing variance.”

Water Year 2016 Model Development: This is a Delta RMP Special Study to set up the model for 2016. After an initial delay in securing a contractor, Task 1 (Obtain and format WY2016 Hydrodynamic input and output files) is being conducted by ASC staff and is scheduled for completion in July 2019. The Steering Committee approved this change in staffing in February 2019. ASC is planning to invite the Principal Investigator of this project to give a presentation at a future TAC meeting.

Pesticides

Three sampling events have been conducted. The first was a minor storm on December 18-19, 2018 (just prior to the federal government shutdown). The second event from February 4-6, 2019 (just after the federal government shutdown) was a bigger storm, and the third and final storm/snowmelt runoff event was April 29-30. We were unable to capture a third storm, and the sampling plan in the QAPP specified that 50 pesticides were detected over the first 2 events. There was some toxicity to the algae species *Selenastrum* in the February event, in terms of a decrease in algae growth relative to a control. A toxicity identification evaluation (TIE) was conducted, and while inconclusive, suggested that observed toxicity may have been due to metals and to a lesser degree non-polar organic compounds. USGS lead Jim Orlando ordered a metals scan by the National Water Quality Laboratory (NWQL). A review of these data by TAC members did not find high levels of metals that would explain the toxicity. The lab also encountered an issue that compromised that toxicity test for midge larvae, *Chironomus dilutus*. The larvae emerged as adults and flew away, meaning they could not be weighed, nor data collected. The lab director, Marie Stillway, is working with the vendor to try to obtain younger test animals to try to solve this problem.

Matt also advised the TAC that the SWAMP contract for toxicity testing is set to expire in March 2020, and Delta RMP will need to pay for toxicity testing out using Delta RMP funds for the second half of the 2019-2020 fiscal year. Staff propose to continue the toxicity testing program as designed through the end of Water Year 2020, i.e. continuing to use the Aquatic Health Program Laboratory at UC Davis in order to maintain continuity through year 2 of the study. Funds will

be budgeted for toxicity identification evaluations (TIEs) if they are called for. The estimated cost to the Delta RMP is \$167,500. We may wish to open a competitive bidding process for toxicity testing in Year 3, or Water Year 2021. In the instance that we do switch laboratories, it may be appropriate to send split samples to both old and new labs for a period of time to evaluate intercomparability of the results.

Action Items:

- Include a discussion on the frequency of algal toxicity identified in the recent sampling on the next meeting agenda of the Toxicity Workgroup. The workgroup should meet to discuss this before mid-June, prior to the next sampling event. (Matt Heberger, by 5/31/2019).

5. Discussion: Ranking for monitoring proposals for FY19-20

Matt Heberger demonstrated the process for filling in the questionnaires for ranking monitoring proposals. The Decision Grid results will be assembled into a package of information for the Steering Committee, showing proposal strengths and weaknesses, level of support among technical advisors and supporting and dissenting viewpoints. TAC members should fill in the questionnaires for both the Nutrients and Mercury Monitoring Proposals for FY19-20 no later than Friday, May 16, 2019.

Proposals for pesticides/toxicity and CECs are not being scored because TAC advice to the SC for approval is not needed.

Action Items:

- Complete ranking questionnaires for Nutrients and Mercury Monitoring Proposals for FY19-20 (TAC members, by 5/16/2019)
- Send TAC members the funding level guidance given by the SC at last fall's joint meeting (Matt Heberger, by 5/10/2019)
- Compile ranking questionnaire results and distribute to the TAC for discussion (synthesize scores/comments and summarize recommended revisions) via conference call on Friday, May 24, 1:00 – 3:00 PM. (Matt Heberger, by 5/21/2019).

6. Discussion: Review monitoring proposals for FY 2019-20 (1)

Janis Cooke presented the proposal for the Sacramento River Nutrient Change Study Phase 1. Jay Davis presented a proposal for Mercury Proposal for FY19-20. The full draft proposals were distributed to TAC members via email.

Action Items:

- As we finalize the choice of mercury monitoring sites for the wetland restoration component (and comparison sites), communicate with restoration site managers to find out more about the construction, phasing, and hydrology of individual projects; get TAC

concurrent for final site selection and timing of prey fish sampling (Jay Davis or April Robinson, by 9/30/2019).

7. Discussion: Review monitoring proposals for FY 2019-20 (2)

Matt Heberger presented the proposal for Pesticides and Toxicity Monitoring in Water Year 2020, which continues a four-year monitoring design. The estimated cost to Delta RMP due to changes in the funding source for the tox testing in 2020 will increase by approximately \$167,500. This is the amount needed to cover the SWAMP funding gap for the last six months of the fiscal year. The committee requested that the Pesticides Subcommittee begin developing a plan to address the shortfall. The TAC also suggested expanding the proposed budgeted +/- 25%, and to consider accelerating the schedule from four to three years.

The Data Management Subcommittee has been mapping the RMP's current use pesticides data flow and came up with a list of suggested changes to the current data management process to address some issues/concerns that were encountered in past data. Selina Cole is currently editing an issue paper with more details about all of this and some other long-term data concerns. ASC is revising its draft Data Management and QA SOP. This revised draft should address most of the short-term data management concerns.

Matt Heberger also presented a CEC Project Planning Update. The proposal we submitted to the Delta Stewardship Council under Prop 1 to expand CEC monitoring was not funded. The committee requested the Prop 1 Proposal review be distributed to the Steering Committee and the TAC when it is available. Staff will consider turning the Prop. 1 proposal into a SEP proposal..

The development of the Quality Assurance Project Plan for the CECs study is a month or two behind schedule, however, it should be completed in time for monitoring to begin late summer or fall of 2019. The final draft of the QAPP will be distributed to the TAC for review as soon as it is finished, with a target date of May 31. The TAC will have an opportunity to discuss the QAPP at the July 19th TAC meeting. The CEC budget estimates will be forwarded to the TAC the week of May 13.

Action Items:

- Consider adding an increased funding option for the pesticides monitoring project that will accelerate the schedule and complete the study more quickly. (Matt Heberger, by 5/18/2019).
- Consult the Toxicity Workgroup and/or Pesticides Subcommittee to assist in planning any toxicity intercomparison we may do (Matt Heberger and Liz Miller, by 8/15/2019).
- Distribute the feedback on the unsuccessful Prop. 1 proposal to Steering Committee and TAC (Matt Heberger, when available).
- Distribute CEC Budget estimates for FY19-20 to TAC. (Matt Heberger, by 5/18/2019)

8. Study Planning Timeline

Selina Cole presented a draft Delta RMP Study Development Process. The goal is to create and follow a study development process that reduces the need for last-minute changes and results in the QAPP being finalized before sampling begins. The committee suggested the process be modified for use with both annual cycle projects and short-term/special studies, and identify the joint meeting in the process. The schematic may be more suited for discussion and tracking as a Gantt chart. Finalization of the new process will be scheduled as a discussion item for the long-range planning meeting later in 2019.

Action Item:

- Incorporate a version of the proposed study planning timeline in the materials for the multi-year planning workshop (Matt Heberger and Selina Cole, by 8/15/2019)

9. Update on Pesticides Interpretive Report

Deltares has produced two deliverables, including the database and a technical memo describing their planned analytical approach. ASC is reviewing the timeline and milestones for completing the study, including further opportunities to provide input and feedback. Significant comments have been received from TAC members on the technical memo, and there was general agreement Deltares should be given three weeks to revise the tech memo based on comments. The revision should be done in track changes, so it is clear they have responded to comments. Matt Heberger will also contact Deltares about scheduling an additional meeting (teleconference) to ensure that the committee understands the methods that Deltares will be using for the analysis. Notice to proceed will be given after the Delta RMP has completed a review of the Deltares response.

Action Items:

- Ask Deltares to submit a track changes version of the tech memo to see exactly what has changed and how they responded to comments/suggestions rather than asking them to provide a formal response to each individual comment. (Matt Heberger, by 5/15/2019).
- Suggest to Deltares to add a meeting to discuss the methods memo before we give them a notice to proceed with the analysis (Matt Heberger, by 5/15/2019).

10. Management Drivers for Regional Monitoring

The committee discussed the revised 2019 Management Drivers table. The table is intended to provide information and context for the forthcoming long-range planning workshop in the Fall of 2019. Suggested revisions include:

- Add the following drivers:
 - Department of Pesticide Regulations (DPR) Surface Water Protection Program
 - Department of Toxic Substances Control (DTSC) Safer Consumer Products Program (SCP)

- Clarify the nexus of Management Drivers with the Delta RMP Management & Assessment Questions.

Action Items:

- Add DPR and DTSC programs to Management Drivers Table, and incorporate a cross reference to Delta RMP Management Assessment Questions if possible (Stephen McCord, by 5/15/2019).