



Delta RMP Technical Advisory Committee Meeting

Tuesday, December 12, 2017; 10:00 am – 4:00 pm

Sunset Maple Room, Regional San, 10060 Goethe Road, Sacramento, CA

Remote Access:

Phone number: (415) 594-5500 Access Code: 238-626-034#

Screen Sharing: <https://join.me/sfei-conf-cw2>

Agenda

#	Agenda Item and Desired Outcomes	Attachments	Start & Lead
1	Introductions and Agenda Review and agree on agenda and desired outcomes.		10:00 Stephen McCord
2	Decision: Approve TAC Meeting Summary for Sept 21, 2017 meeting and confirm/set future TAC meeting dates <u>Upcoming Scheduled Meetings</u> <ul style="list-style-type: none"> ● SC Jan 23, 2018, Regional San ● TAC Mar 15, 2018, Regional San ● TAC June 2018 meeting date? Please bring your calendar. <u>Desired outcome:</u> <ul style="list-style-type: none"> ● Approve TAC meeting summary. ● Confirm and set future TAC/SC meeting dates. 	Draft TAC Meeting Summary from Sept 21, 2017	10:05 Stephen McCord
3	Information: Steering Committee Update Summarize the Oct 24, 2017 Joint SC-TAC meeting's messages, decisions and action items relevant to the TAC. <u>Desired Outcome:</u> <ul style="list-style-type: none"> ● Inform TAC regarding SC decisions and activities. ● Provide context for agenda items below. 	Draft Meeting Summary from Oct 24, 2017 Joint SC-TAC Meeting	10:10–10:30 Stephen McCord Matthew Heberger
4	Technical Subcommittee and Monitoring Updates Brief update on subcommittee and monitoring activities <u>Desired outcome:</u> <ul style="list-style-type: none"> ● Review running table of past and upcoming sampling events. ● Inform TAC of subcommittee activities and recommendations. 	Table: Samples collected and schedule of planned sampling events Draft Memo: Proposal to Update Nutrient Assessment Questions	10:30 – 10:45 Mercury: Stephen McCord Nutrients: Janis Cooke

5	<p>Discussion: Current Use Pesticides Data Report</p> <p>The Delta RMP leadership directed ASC to produce 2 versions of this report for consideration by the Steering Committee for final approval and publication. Version 1.7 contains a small amount of “interpretive” information to help the reader understand the data and put it in context, comparing observed concentrations of pesticides to aquatic life benchmarks, and looking at spatial patterns and trends over time. Version 1.8 removes these items and simply presents the data in tables and discusses methods and QA/QC results.</p> <p>Desired Outcome: Feedback from the TAC on the technical merits of the two versions of the report.</p>	<p>Draft Annual Monitoring Report FY 2015–16 – Pesticides (versions 1.7 and 1.8)</p> <p>(Download link provided to TAC members.)</p>	10:45 – 12:00
Lunch			12:00 – 1:00
6	<p>Update: Science Advisor Selection Process</p> <p>To date, TAC and SC members have put forth names for around 30 scientists. Organizationally, it helps to have the advisors be attached to a technical subcommittee. Previously, the TAC identified the most important areas for outside experts as environmental statistics, pesticides, and toxicology. In addition, it would be preferable to have at least one advisor for the Mercury and Nutrients subcommittees. The TAC’s feedback on potential advisors is requested before program staff begin to contact individuals to gauge their interest and availability.</p> <p>Desired Outcome: TAC feedback on science advisors and additional nominations (through the end of the year).</p>	List of Nominees	1:00 – 2:00
7	<p>Discussion: Reporting Levels and Method Detection Limits</p> <p>The Delta RMP has a quality assurance program in place to guarantee the reliability and usability of the water quality data collected by the program. The use of reporting limits and method detection limits by cooperating labs differs in small but important ways from procedures promulgated by the USEPA for use in NPDES compliance monitoring. The goal of this discussion is to come to a shared understanding of how Delta scientists apply these concepts when reporting water quality data.</p> <p>Desired Outcome: Informed TAC, and TAC input into the RMP’s data management procedures.</p>	<p>Method Detection Limits Frequently Asked Questions, US EPA website (link)</p> <p>Detection Limits, Definition and Explanation of Terms, CDPH (link)</p>	2:00 – 3:00 Joe Domagalski Jim Orlando
Break			3:00 - 3:15

8	<p>Decision: Nutrient Synthesis Reports</p> <p>Final drafts of 2 reports were distributed to TAC members via email on Nov 10. The Nutrient Subcommittee has reviewed these reports and recommends approval.</p> <p>Desired outcome: Recommendation by the TAC to the SC to publish the reports.</p>	<p>Task 1 report: <i>Assessment of Nutrient Status and Trends in the Delta in 2001–2016: Effects of Drought on Ambient Concentrations and Trends.</i> Review draft, 68 pages.</p> <p>Task 2 report: <i>Delta RMP FY 2016–17 Nutrients Synthesis: Modeling to Assist Identification of Temporal and Spatial Data Gaps for Nutrient Monitoring.</i> Review draft, 119 pages.</p> <p>(Download links provided to TAC members.)</p>	<p>3:15 – 3:45 Matthew Heberger</p>
9	<p>Information: Status of Deliverables and Action Items</p> <p><u>Desired outcomes:</u></p> <ul style="list-style-type: none"> ● Inform TAC about the status of RMP deliverables. ● Review action items from today’s meeting. 	<p>Delta RMP Stoplight Reports</p>	<p>3:45–3:50 Matthew Heberger</p>
10	<p>Updates and Wrap-up</p> <p><u>Desired outcomes:</u></p> <ul style="list-style-type: none"> ● Recap of message points (TAC to SC) ● Plan agenda items for future meetings 		<p>3:50–4:00 Stephen McCord Joe Domagalski</p>
	<p>Adjourn</p>		<p>4:00</p>

Parking Lot of Potential Future Agenda Items:

- Presentation about Dredging in the Delta
- Demo of available Delta water quality simulation models
- Portal demos (Bay Delta Live, San Joaquin, Sacramento, My Water Quality/Estuary)
- Presentation on passive samplers

Meeting Materials for Item 4

Past Monitoring Events			
Table updated	12/4/2017		
Date	Monitoring Element	Frequency	Comments
Aug 22-23, 2016	Mercury (water) - quarterly	Quarterly	
Aug 22-23, 2016	Mercury (fish) - annual	Annually	
Sept 13, 2016	Mercury (fish) - annual	Annually	
Nov 14-15, 2016	Mercury (water) - quarterly	Quarterly	
Feb 28, 2017	Mercury (water) - quarterly	Quarterly	
April 25, 2017	Mercury (water) - quarterly	Quarterly	
Aug 14-18, 2017	Mercury (fish) - annual	Annually	
October, 2017	Mercury (water and sediment)	8x per year	
Jul 28, 2015	Pesticides	Monthly	
Aug 18, 2015	Pesticides	Monthly	
Sep 23, 2015	Pesticides	Monthly	
Oct 21, 2015	Pesticides	Monthly	
Nov 10, 2015	Pesticides	Monthly	
Dec 15, 2015	Pesticides	Monthly	
Jan 19, 2016	Pesticides	Monthly	
Feb 17, 2016	Pesticides	Monthly	
Mar 7, 2016	Pesticides	Monthly	
Apr 19, 2016	Pesticides	Monthly	
May 18, 2016	Pesticides	Monthly	
Jun 15, 2016	Pesticides	Monthly	
Jul 13, 2016	Pesticides	Monthly	
Aug 17, 2016	Pesticides	Monthly	
Sep 20, 2016	Pesticides	Monthly	
Oct 18, 2016	Pesticides	Monthly	Default sampling date
Nov 14, 2016	Pesticides	Monthly	Default sampling date

Dec 16, 2016	Pesticides	Monthly	Deviated from default sampling date to capture major runoff event
Jan 9, 2017	Pesticides	Monthly	Deviated from default sampling date to capture major runoff event
Feb 28, 2017	Pesticides	Monthly	Deviated from default sampling date because some of the sites were inaccessible
Mar 14, 2017	Pesticides	Monthly	Default sampling date
Apr 25, 2017	Pesticides	Monthly	Default sampling date
May 16, 2017	Pesticides	Monthly	Default sampling date
Jun 13, 2017	Pesticides	Monthly	Default sampling date
At present, there is no approved plan for sampling pesticides in FY17/18, therefore no sampling is scheduled.			
April 6-8, 2015	Pathogens	Monthly	Default sampling date
May 4-6, 2015	Pathogens	Monthly	Default sampling date
June 1-3, 2015	Pathogens	Monthly	Default sampling date
July 6-7, 2015	Pathogens	Monthly	Default sampling date
Aug 3-5, 2015	Pathogens	Monthly	Default sampling date
Sept 7-9, 2015	Pathogens	Monthly	Default sampling date
Oct 5-7, 2015	Pathogens	Monthly	Default sampling date
Nov 2-4, 2015	Pathogens	Monthly	Default sampling date
Dec 7-9, 2015	Pathogens	Monthly	Default sampling date
Jan 4-6, 2016	Pathogens	Monthly	Default sampling date
Feb 7-9, 2016	Pathogens	Monthly	Default sampling date
March 7-10, 2016	Pathogens	Monthly	Default sampling date
April 4-7, 2016	Pathogens	Monthly	Default sampling date
May 2-5, 2016	Pathogens	Monthly	Default sampling date
June 6-8, 2016	Pathogens	Monthly	Default sampling date
July 5-7, 2016	Pathogens	Monthly	Default sampling date
Aug 1-3, 2016	Pathogens	Monthly	Default sampling date
Sept 6-8, 2016	Pathogens	Monthly	Default sampling date
Oct 3-5, 2016	Pathogens	Monthly	Default sampling date
Nov 7-9, 2016	Pathogens	Monthly	Default sampling date
Dec 5-7, 2016	Pathogens	Monthly	Default sampling date
Jan 9-11, 2017	Pathogens	Monthly	Default sampling date

Feb 6-8, 2017	Pathogens	Monthly	Default sampling date
March 6-8, 2017	Pathogens	Monthly	Default sampling date
No further pathogens monitoring planned by the Delta RMP.			
Planned Monitoring Events			
Date	Monitoring Element		Comments
Sept 19-21, 2017	Nutrients High-Frequency Cruise (3 consecutive days)		First of 3 planned sets of 3-day cruises
The dates for futre 3-day high-frequency cruises will be chosen in collaboration with the nutrients subcommittee			



To: Delta RMP Steering Committee

From: Matthew Heberger, Program Manager

Date: December 1, 2017

Re: Proposed changes to Delta RMP Assessment Questions for Nutrients

Requested Action

Approve edits to the Assessment Questions for nutrients as shown on the following page. *Recommended by Nutrient Subcommittee.*

Explanation

In 2015, the Steering Committee approved a set of Assessment Questions to guide the initial work of the Delta RMP. These questions were included in the Monitoring Design document¹.

The Delta RMP is not scheduled to do a full update to the Monitoring Design document until 2020. However, there is a need to adjust the Assessment Questions for nutrients sooner. The impetus for the change is that the Central Valley Regional Water Quality Control Board is nearing completion of its Delta Nutrient Research Plan. There is strong interest among Regional Board staff and the Nutrient Subcommittee to align projects completed through the Delta RMP with this plan.

The major change would be to the second "Status and Trends" question, "What is the current status of the Delta ecosystem as influenced by nutrients?" The current wording is unclear. The proposed new wording of this question, and the following sub-question, would allow the Delta RMP to work on projects that address the primary need of the Delta Nutrient Research Plan. The proposed wording changes are shown on the following page.

¹https://www.waterboards.ca.gov/centralvalley/water_issues/delta_water_quality/delta_regional_monitoring/wq_monitoring_plans/drmp_monitoring_design.pdf



This change does not affect any other program area of the Delta RMP. The Monitoring Design document will be updated to reflect only this change.

Proposed changes for Delta RMP Nutrient Assessment Questions (additions in *bold* italics, deletions in ~~strikethrough~~)

Type	Core Management Questions	Nutrient Assessment Questions
Status & Trends	<p>Is there a problem or are there signs of a problem?</p> <p>a. Is water quality currently, or trending towards, adversely affecting beneficial uses of the Delta?</p> <p>b. Which constituents may be impairing beneficial uses in subregions of the Delta?</p> <p>c. Are trends similar or different across different subregions of the Delta?</p>	<p>1. How do concentrations of nutrients (and nutrient-associated parameters) vary spatially and temporally?</p> <p>A. Are trends similar or different across subregions of the Delta?</p> <p>B. How are ambient levels and trends affected by variability in climate, hydrology, and ecology?</p> <p>C. Are there important data gaps associated with particular water bodies within the Delta subregions?</p> <p>2. What is the current status of the Delta ecosystem as influenced by nutrients?</p> <p>A. What is the current ecosystem status of habitat types in different types of Delta waterways, and how are the conditions related to nutrients?</p> <p>2. How are nutrients linked to water quality concerns such as harmful algal blooms, low dissolved oxygen, invasive aquatic macrophytes, low phytoplankton productivity, and drinking water issues?</p> <p>A. Which factors in the Delta influence the effects of nutrients on the water quality concerns listed above?</p>
Sources, Pathways, Loadings & Processes	<p>Which sources and processes are most important to understand and quantify?</p> <p>a. Which sources, pathways, loadings, and processes (e.g., transformations, bioaccumulation) contribute most to identified problems?</p> <p>b. What is the magnitude of each source and/or pathway (e.g., municipal wastewater, atmospheric deposition)?</p> <p>c. What are the magnitudes of internal sources and/or pathways (e.g. benthic flux) and sinks in the Delta?</p>	<p>1. Which sources, pathways, and processes contribute most to observed levels of nutrients?</p> <p>A. How have nutrient or nutrient-related source controls and water management actions changed ambient levels of nutrients and nutrient-associated parameters?</p> <p>B. What are the loads from tributaries to the Delta?</p> <p>C. What are the sources and loads of nutrients within the Delta?</p> <p>D. What role do internal sources play in influencing observed nutrient levels?</p> <p>E. Which factors in the Delta influence the effects of nutrients?</p> <p>F. What are the types and sources of nutrient sinks within the Delta?</p> <p>G. What are the types and magnitudes of nutrient exports from the Delta to Suisun Bay and water intakes for the State and Federal Water Projects?</p>



Type	Core Management Questions	Nutrient Assessment Questions
Forecasting Scenarios	a. How do ambient water quality conditions respond to different management scenarios b. What constituent loads can the Delta assimilate without impairment of beneficial uses? c. What is the likelihood that the Delta will be water quality-impaired in the future?	1. How will ambient water quality conditions 1. How will <i>nutrient loads, concentrations, and water quality concerns from Status and Trends Question 2</i> respond to potential or planned future source control actions, restoration projects, and water resource management changes, and climate change?
Effectiveness Tracking	a. Are water quality conditions improving as a result of management actions such that beneficial uses will be met? b. Are loadings changing as a result of management actions?	{none} 1. How did <i>nutrient loads, concentrations, and water quality concerns from Status and Trends Question 2</i> respond to source control actions, restoration projects, and water resource management changes?

DRAFT

Meeting Materials for Item 7

DETECTION LIMITS: Definition and Explanation of Terms

CDPH's Sanitation and Radiation Laboratories Branch offers these definitions and explanations of terms:

- Method Detection Limit (MDL)—The MDL is the lowest concentration at which an analyte can be detected in a sample that does not cause matrix interferences (typically determined using spiked reagent water). “Detected” in this context means that a sample that contains the analyte detected at the MDL can be distinguished from a blank with 99% certainty. The MDL is a laboratory-specific number, dependent (among other things) on the instrumentation used by a particular laboratory and the skill of the operator. This number may change with time.
- Reporting Limit (RL)—The RL, as defined by CDPH's Sanitation and Radiation Laboratories Branch, is the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision. A criterion of $\pm 20\%$ accuracy and 20% RSD for replicate determinations is often used to define “reasonable”. The acceptable ranges depend somewhat on the analytical methodology used. For samples that do not pose a particular matrix problem, the RL is typically about three to five times higher than the MDL. Similar to the MDL, the RL is a laboratory-specific number, which may change with time. When a sample has to be diluted before analysis, either because of matrix problems or to get the instrument response within the linear dynamic range, the RL is raised by a factor corresponding to the dilution factor.
- Detection Limit for Purposes of Reporting (DLR) —The DLR is a parameter that is set by regulation for each reportable analyte. It is not laboratory specific and it is independent of the analytical method used (in cases where several methods are approved). The DLR cannot be changed by the laboratory. It is expected that a laboratory can achieve a Reporting Limit (RL, see above) that is lower than or equal to the DLR set by the State.

For finished drinking water it is unlikely that a sample poses such severe matrix interferences that a dilution that raises the RL above the DLR is required. If it appears that such a dilution is indeed necessary, the laboratory procedures should be carefully reviewed. In addition, alternative approved analytical methods, as well as sample cleanup procedures described within approved methods, should be considered.

Meeting Materials for Item 9

Delta RMP Deliverables Stoplight Report


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	
1	Cross-Delta Monitoring Using High-Frequency Tools	Report from USGS on Cross-Delta High Frequency Monitoring Project	Philip Trowbridge	03/31/19		Will consist of three cruises conducted three times on three successive days in May, August and October corresponding to periods of high nutrient transformation. The product will be a final technical report. In Sept 2017, USGS met with the Nutrients Subcommittee and finalized the 3 cruise tracks. In Sept 2017, USGS attempted one cruise but ran into technical problems. The Nutrients Subcommittee decided to postpone the project so all 3 cruises will happen in Water Year 2018, commencing in spring, once flows recede. This will put the final report due in early 2019 as a draft. Final report should include a discussion of how the HF data should be used in the context of other monitoring data.	
2	Delta RMP (FY15/16)	CUP Monitoring	Annual Monitoring Report for FY15/16 CUP Monitoring	Thomas Jabusch	02/28/17	Complete	Data need to be uploaded to CEDEN by 2/1/17.
3	Delta RMP (FY15/16)	Pathogens Study - Year 2	Sample Collection and Data Management of Year 2 Pathogens Data	Amy Franz	07/31/17	Complete	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. Expected to be complete by June 15, 2017.
4	Delta RMP (FY15/16)	Pathogens Study - Year 2	Quality Assurance Report on Year 2 Pathogens Data	Don Yee	07/31/17	Complete	QAO report. Funded from Data Management budget.
5	Delta RMP (FY16/17)	Governance	Financial Subcommittee report and conference call	Philip Trowbridge	01/05/17	Complete	
6	Delta RMP (FY16/17)	Governance	Steering Committee Meeting #3 and Summary	Philip Trowbridge	01/26/17	Complete	
7	Delta RMP (FY16/17)	Program Management	FY17/18 Annual Workplan and Budget	Philip Trowbridge	02/10/17	Complete	Draft for Finance Subcommittee sent 4/19/17. Final by 6/30/16.
8	Delta RMP (FY16/17)	Program Management	Updated Monitoring Design	Philip Trowbridge	02/15/17	Complete	Deliverable not relevant for this fiscal year. Following the External Review, the Monitoring Design is expected to need a major revision, which is more than was planned for FY16/17. Minor revisions, such as updating the target analyte lists, would be a waste of effort at this point. The update to the Monitoring Design will have its own budget line for FY17/18.
9	Delta RMP (FY16/17)	Governance	TAC Meeting #3 and Summary	Thomas Jabusch	03/15/17	Complete	
10	Delta RMP (FY16/17)	Governance	Steering Committee Meeting #4 and Summary	Matthew Heberger	05/05/17	Complete	
11	Delta RMP (FY16/17)	Governance	TAC Meeting #4 and Summary	Matthew Heberger	06/14/17	Complete	

Project	Primary	Deliverable	Assigned To	Due Date	Status	Comments	
12	Delta RMP (FY16/17)	Quality Assurance	QAPP Update	Thomas Jabusch	06/14/17		As of Dec 2017, ASC staff are working to resolve comments and suggestions made by the SWAMP QA officer. To be distributed to signatories in mid-December.
13	Delta RMP (FY16/17)	Communications	Preparation of a Factsheet	Thomas Jabusch	06/30/17	Complete	The draft factsheet was discussed at SC meetings in Jan and May 2017. The final draft is out for comments now and will be presented for approval at the Jul 28 meeting.
14	Delta RMP (FY16/17)	Communications	Technical Workshop / summary memorandum of findings	Philip Trowbridge	06/30/17	Complete	SC decided not to hold a technical workshop in FY16/17.
15	Delta RMP (FY16/17)	CUP Monitoring	6. Field Sampling Report for FY16/17 CUP Monitoring	Philip Trowbridge	09/29/17	Complete	The Steering Committee decided at its July 28, 2017 meeting that this report was not necessary and should be cancelled.
16	Delta RMP (FY16/17)	CUP Monitoring	6. Data Management of FY16/17 CUP Data	Amy Franz	12/31/17		Electronic data delivered by USGS in October 2017. ASC staff working on data management and QA.
17	Delta RMP (FY16/17)	CUP Monitoring	6. Quality Assurance Report for FY16/17 CUP Monitoring	Don Yee	12/31/17		
18	Delta RMP (FY16/17)	Nutrients Synthesis	7A1.3 Status and Trends Synthesis Report - Prepare synthesis report	Thomas Jabusch	01/31/18		Draft report has been distributed to the Nutrients Subcommittee and the TAC. We will be requesting approval from SC to publish at Jan 2018 meeting.
19	Delta RMP (FY16/17)	Nutrients Synthesis	7B2.5 Modeling Synthesis Report - Prepare technical report.	Thomas Jabusch	01/31/18		Draft report has been distributed to the Nutrients Subcommittee and the TAC. We will be requesting approval from SC to publish at Jan 2018 meeting.
20	Delta RMP (FY16/17)	Nutrients Synthesis	7C3.1 Nutrients- Advanced Statistical Modeling	Thomas Jabusch	01/31/18		Marcus Beck of SCCWRP (formerly USEPA) is preparing this manuscript in-kind. Funding allocated is for ASC review of the manuscript. The manuscript was submitted to ES&T in May 2017, but it was rejected. The manuscript is being revised to be resubmitted to another journal.
21	Delta RMP (FY16/17)	CUP Monitoring	6. Permit Compliance Data for ILRP	Amy Franz	02/01/18		
22	Delta RMP (FY16/17)	CUP Monitoring	6. Annual Monitoring Report for FY16/17 CUP Monitoring	Thomas Jabusch	02/28/18		The SC voted on 7/28 that this was no longer necessary, and that funds for this task should be reallocated to the Interpretive Report.
23	Delta RMP (FY16/17)	Mercury	8. Mercury YR1 report summarizing fish and water analyses	Thomas Jabusch	12/03/18		
24	Delta RMP (FY17/18)	Contract and Financial Management	Quarterly Financial Update #1	Matthew Heberger	07/15/17	Complete	
25	Delta RMP (FY17/18)	SC Meetings	Steering Committee Meeting #1 and Summary	Matthew Heberger	08/11/17	Complete	
26	Delta RMP (FY17/18)	Continued Nutrient Data Analysis and Biennial Reporting	Design additional statistical analyses to be completed in FY17/18	Philip Trowbridge	09/30/17		
27	Delta RMP (FY17/18)	TAC Meetings	TAC Meeting #1 and Summary	Matthew Heberger	10/06/17	Complete	
28	Delta RMP (FY17/18)	Contract and Financial Management	Quarterly Financial Update #2	Matthew Heberger	10/10/17	Complete	
29	Delta RMP (FY17/18)	SC Meetings	Steering Committee Meeting #2 and Summary	Matthew Heberger	10/31/17	Complete	
30	Delta RMP (FY17/18)	TAC Meetings	TAC Meeting #2 and Summary	Matthew Heberger	11/07/17	Complete	
31	Delta RMP (FY17/18)	Technical Reports	RFP for Pesticides/Toxicity Interpretive Report	Matthew Heberger	11/15/17		As of Dec 2017, working group has been assembled to help draft RFP. Expecting to issue RFP in spring 2018.
32	Delta RMP (FY17/18)	Science Advisors	Recruit 2-4 science advisors	Matthew Heberger	12/31/17		Placed on the agenda for discussion by TAC on 9/21/17. Online nomination form created.

	Project	Primary	Deliverable	Assigned To	Due Date	Status	Comments
33	Delta RMP (FY17/18)	Continued Nutrient Data Analysis and Biennial Reporting	Complete additional statistical analyses and prepare technical report	Philip Trowbridge	12/31/17		\$27,000 of funds are available for this task.
34	Delta RMP (FY17/18)	Contract and Financial Management	Quarterly Financial Update #3	Matthew Heberger	01/09/18		
35	Delta RMP (FY17/18)	SC Meetings	Steering Committee Meeting #3 and Summary	Matthew Heberger	01/31/18		
36	Delta RMP (FY17/18)	TAC Meetings	TAC Meeting #3 and Summary	Matthew Heberger	04/15/18		
37	Delta RMP (FY17/18)	Contract and Financial Management	Quarterly Financial Update #4	Matthew Heberger	05/15/18		
38	Delta RMP (FY17/18)	SC Meetings	Steering Committee Meeting #4 and Summary	Matthew Heberger	05/15/18		
39	Delta RMP (FY17/18)	Program Planning	FY18/19 Workplan and Budget	Matthew Heberger	06/30/18		
40	Delta RMP (FY17/18)	Quality Assurance	Revised QAPP for FY18/19	Thomas Jabusch	06/30/18		
41	Delta RMP (FY17/18)	Communications	"Pulse of the Delta" Draft	Matthew Heberger	06/30/18		
42	Delta RMP (FY17/18)	Continued Nutrient Data Analysis and Biennial Reporting	Prepare, coordinate, and provide technical support to up to 4 nutrient subcommittee meetings	Philip Trowbridge	06/30/18		Meetings set for 9/29/17, 12/1/17, 1/18/18, 2/15/18. Desired outcomes: a) review and discuss completed studies and reports, b) assess data needs relative to Delta RMP assessment questions, and c) develop study designs and project plans for monitoring to address data gaps.
43	Delta RMP (FY17/18)	Continued Nutrient Data Analysis and Biennial Reporting	Outline for biennial synthesis report to be completed in FY18/19	Philip Trowbridge	06/30/18		
44	Delta RMP (FY17/18)	Chlorophyll Sensor Intercalibration	Prepare, coordinate, and facilitate Phase 1 Technical Team Meetings	Philip Trowbridge	06/30/18		4 meetings are anticipated between 10/1/17 and 6/30/18. Meetings held on 9/28/17 and 12/5/17.
45	Delta RMP (FY17/18)	Chlorophyll Sensor Intercalibration	Develop Phase 2 Project Plan, including study design, logistics, and institutional coordination	Philip Trowbridge	06/30/18		
46	Delta RMP (FY17/18)	TAC Meetings	TAC Meeting #4 and Summary	Matthew Heberger	07/31/18		
47	Delta RMP (FY17/18)	Mercury Monitoring	Mercury Data Management	Amy Franz	07/31/18		
48	Delta RMP (FY17/18)	Mercury Monitoring	Mercury QA Memo	Don Yee	07/31/18		
49	Delta RMP (FY17/18)	Program Planning	Amended Charter (if necessary)	Matthew Heberger	12/31/18		
50	Delta RMP (FY17/18)	Program Planning	Amended Communication Plan (if necessary)	Matthew Heberger	12/31/18		



Delta RMP Action Items Stoplight Report

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 9/21/2017	09/21/17	Prepare draft summary for 9/21 TAC meeting and distribute to TAC members for comments	Matthew Heberger	10/07/17	Complete	
2	TAC Action Items from 9/21/2017	09/21/17	Set 3/15/18 meeting location and announce to TAC	Matthew Heberger	10/15/17	Complete	
3	TAC Action Items from 9/21/2017	09/21/17	Add a presentation on USGS high frequency monitoring to 12/12/17 TAC Agenda	Matthew Heberger	11/15/17	Complete	
4	TAC Action Items from 9/21/2017	09/21/17	Include a last updated time stamp on monitoring table data in future reports	Matthew Heberger	11/15/17	Complete	
5	TAC Action Items from 9/21/2017	09/21/17	Revise the Year 1 CUP data report incorporating TAC comments and distribute final draft to TAC members for approval	Matthew Heberger	10/15/17		September discussion was tabled pending further review. To be discussed by TAC on 12/12/2017.
6	TAC Action Items from 9/21/2017	09/21/17	Decision Grid Small Group: Revise the grid per discussion and conduct trial run and provide feedback on the process	Brian Lauerson	10/13/17	Complete	
7	TAC Action Items from 9/21/2017	09/21/17	Design an online form for collecting potential science advisors	Matthew Heberger	10/15/17	Complete	
8	TAC Action Items from 9/21/2017	09/21/17	Send comments or suggested edits to the draft Nutrients Synthesis reports to ASC	TAC members	10/05/17	Complete	
9	SC Action Items 7/28/2017	07/28/17	Finalize the 5/3/2017 SC Meeting Summary and post to the program website	Matthew Heberger	08/10/17	Complete	
10	SC Action Items 7/28/2017	07/28/17	Check on how TAC meetings are staffed and determine whether ASC hours are warranted	Matthew Heberger	10/01/17	Complete	We will be bringing fewer ASC staff to meetings going forward. For example, only when necessary to present on a special topic. Having a note-taker
11	SC Action Items 7/28/2017	07/28/17	Revise the charter to require Finance Committee approval for switching money between tasks. Up to \$5,000 at discretion of the Implementing Entity, more than \$5,000 shall require FC approval, and more than \$25,000 shall require approval by the Steering Committee.	Matthew Heberger	10/01/17	Complete	Draft charter language to be voted on in October
12	SC Action Items 7/28/2017	07/28/17	OIMA staff to prepare a visualization of Delta RMP pesticides/toxicity data using Tableau, to include various water quality standards, benchmarks and thresholds for aquatic toxicity...	Greg Gearhart	10/24/17	Complete	Greg will present the data viz at the 10/24/2017 SC meeting.
13	SC Action Items 7/28/2017	07/28/17	For the Decision Grid for ranking monitoring proposals, consider (1) assigning points, (2) assigning weights, and (3) adding something related to statistical expertise in the experimental design.	Matthew Heberger	09/21/17	Complete	Two Workgroup meetings have been held. To be discussed at the 9/21 TAC meeting.
14	SC Action Items 7/28/2017	07/28/17	Provide comments on the Year 1 Pesticides Data Report by end of August. Any suggestions that are interpretive in nature will NOT be included in this report, but rather forwarded to the authors of the forthcoming Interpretive Report.	Steering Committee	08/31/17	Complete	
15	SC Action Items 7/28/2017	07/28/17	Put together SEP proposal for CEC monitoring	Matthew Heberger	11/30/17		Presumably this has to happen after the Regional Board has articulated its CEC policy more clearly. There are currently planning meetings going on to come up with a strategy with the POTW and MS4 communities.

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
16	TAC Action Items from 6/13/2017	06/13/17	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.	Stephen McCord	06/30/17	Complete	
17	TAC Action Items from 6/13/2018	06/13/17	Set 12/12/17 meeting location and announce to TAC	Matthew Heberger	07/14/17	Complete	
18	TAC Action Items from 6/13/2019	06/13/17	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	TAC members	06/30/17	Complete	
19	TAC Action Items from 6/13/2020	06/13/17	Send out the next version of the FY15/16 Pesticides Data Report when any remaining comments and edits are incorporated, including both "clean" and "tracked changes" versions	Thomas Jabusch	07/10/17	Complete	
20	TAC Action Items from 6/13/2021	06/13/17	Convene a meeting of the Pesticides Subcommittee for the week of July 12	Matthew Heberger	07/07/17	Complete	
21	TAC Action Items from 6/13/2021	06/13/17	Develop a "strawman" set of options for the report, including staffing and cost	Matthew Heberger	07/07/17	Complete	
22	TAC Action Items from 6/13/2021	06/13/17	Work with the permittees subgroup to further develop the evaluation criteria, and distribute it to TAC members for comments/editing	Brian Lauerson	06/25/17	Complete	
23	TAC Action Items from 6/13/2021	06/13/17	Pesticides Subcommittee: Discuss the draft evaluation criteria	Matthew Heberger	07/12/17	Complete	
24	TAC Action Items from 6/13/2021	06/13/17	With Brian Laurenson (LWA), compile optional processes for the TAC to make consensus decisions	Matthew Heberger	08/31/17	Complete	
25	SC Action Items 5/3/2017	05/03/17	Finalize the 1/26/2017 SC Meeting Summary and post to the program website	Matthew Heberger	05/11/17	Complete	
26	SC Action Items 5/3/2017	05/03/17	Determine the date and location for the Fall 2017 Steering Committee meeting and send invitation to the SC	Matthew Heberger	05/25/17	Complete	Set for Oct 24
27	SC Action Items 5/3/2017	05/03/17	Update the Financial Memo with minor edits	Matthew Heberger	05/11/17	Complete	
28	SC Action Items 5/3/2017	05/03/17	Send out revised draft Fact Sheet to the SC to review with deadline for comments	Matthew Heberger	05/11/17	Complete	
29	SC Action Items 5/3/2017	05/03/17	Finalize minor portions of the FY17/18 Workplan that require changes in response to input received at the meeting and the decision of the Steering Committee	Matthew Heberger	05/15/17	Complete	Pesticides question still outstanding.
30	SC Action Items 5/3/2017	05/03/17	Present the SC with information from the TAC related to the pesticides 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	Matthew Heberger	07/21/17	Complete	The TAC requested additional guidance on how to evaluate competing proposals, and has begun a process for developing this, with the approval of SC co-chairs.
31	SC Action Items 5/3/2017	05/03/17	Prepare a revised scope and budget for the CUP/Toxicity Year 1-2 Interpretative Report that includes synthesis of readily available information in the Delta, not just Delta RMP data	Matthew Heberger	07/21/17	Complete	
32	SC Action Items 5/3/2017	05/03/17	Regarding the Chlorophyll-a Intercalibration Study for FY17/18, provide Gregg Gearheart with the specifics about how partner agencies can participate	Thomas Jabusch	05/31/17	Complete	
33	TAC Action Items from 3/14/2017	03/14/17	Reserve meeting room for 9/21 TAC meeting; send email invitation	Matthew Heberger	05/31/17	Complete	
34	TAC Action Items from 3/14/2017	03/14/17	Follow up with SFWCA and SWAMP regarding contribution matching funds to support the chlorophyll sensor intercalibration effort	Thomas Jabusch	03/24/17	Complete	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
35	TAC Action Items from 3/14/2017	03/14/17	Look into whether a Delta RMP HABS monitoring project would be eligible for Water Board grant funding	Thomas Jabusch	03/31/17	Complete	Talked to R. Breuer: Answer: Probably not at this point. Very limited funding allocated to another project for Delta satellite surveillance and response. Another complication is the closing of WPCL. There is currently no lab to do the analyses.
36	TAC Action Items from 3/14/2017	03/14/17	Revise Pesticides proposal 1 to include only one site, Sacramento River at Hood	Debra Denton	03/31/17	Complete	
37	TAC Action Items from 3/14/2017	03/14/17	Revise pesticide proposal 2A with the trends option for a longer list of pesticides from the DPR model (remove other options) and add draft site selection criteria. Make sure the planning budget is sufficient for 3 meetings between July 1 and September 30	Thomas Jabusch	03/31/17	Complete	
38	TAC Action Items from 3/14/2017	03/14/17	In nutrients proposal package, increase the funding listed for FY18/19 for the chlorophyll intercalibration study to indicate that we are embarking on a multi-year effort and list other likely collaborators: USGS, SWAMP, DWR, NMS, Bay RMP, SFCWA	Thomas Jabusch	03/31/17	Complete	
39	TAC Action Items from 3/14/2017	03/14/17	Prepare high-level summary of TAC-recommended proposals for nutrients, Hg, and pesticides. To include the following topics: 1) Management Drivers Addressed, 2) Assessment Questions Answered, 3) External Review Comments Addressed, 4) Data Quality Objectives/Null Hypothesis	Thomas Jabusch	04/15/17	Complete	Add abstracts to each proposal with this information.
40	TAC Action Items from 3/14/2017	03/14/17	Prepare memo on power analysis for Pesticide Proposal 2 to share with interested TAC members, including caveats related to using a priori estimates of variance	Matthew Heberger	04/01/17	Complete	
41	TAC Action Items from 3/14/2017	03/14/17	Schedule a pesticide subcommittee meeting for the 2nd week of April to discuss: data evaluation process and QAPP for Proposal 1, site selection criteria for Proposal 2, target analytes for Proposal 2, bullets on pros/cons of TAC recommendation to SC	Thomas Jabusch	03/25/17	Complete	
42	TAC Action Items from 3/14/2017	03/14/17	Ask Regional Board staff to figure out if dropping Pesticide Proposal 3 will reduce the total revenue for FY17/18 (because Ag coalitions may reduce their contribution).	Matthew Heberger	03/31/17	Complete	
43	TAC Action Items from 3/14/2017	03/14/17	Send draft CUP report to TAC as a Word document	Thomas Jabusch	03/17/17	Complete	
44	TAC Action Items from 3/14/2017	03/14/17	Schedule a webinar to present and discuss the Current Use Pesticides draft report	Thomas Jabusch	03/24/17	Complete	
45	TAC Action Items from 3/14/2017	03/14/17	Schedule a webinar to present CD3 visualization, data download and metadata	Matthew Heberger	04/15/17		Currently in parking lot. Schedule for forthcoming TAC meeting?
46	SC Action Items 1/26/2017	01/26/17	Finalize the 10/18/16 Meeting Summary and post to the website	Matthew Heberger	02/03/17	Complete	
47	SC Action Items 1/26/2017	01/26/17	Determine the location for the 7/28/17 meeting and send an invitation to the SC	Matthew Heberger	02/03/17	Complete	
48	SC Action Items 1/26/2017	01/26/17	Confirm whether Delta RMP measurement methods for mercury and ancillary parameters are compatible with other programs, to ensure that the data we collect can be readily combined with data collected by others.	Thomas Jabusch	02/28/17	Complete	Thomas has talked to USGS and MLML and confirmed that the data collection and analysis methods are the same, and there is no concern with comparing and combining mercury data.
49	SC Action Items 1/26/2017	01/26/17	Add an agenda for the next SC Meeting on the Communications Plan and access to preliminary/provisional data. Use the technical powerpoints presented as a case study.	Philip Trowbridge	04/30/17	Complete	Topic added to list of items for next SC meeting.
50	SC Action Items 1/26/2017	01/26/17	ASC to discuss with State Board (Greg Gearheart and Janis Cooke) on developing options for HABS monitoring. Questions include: where does the Delta RMP fit in, how might we complement other programs, what kind of options are there for projects in the FY17/18 budget or SEP funds? ASC to work with Greg Gearheart (State Board) on this.	Thomas Jabusch	02/28/17	Complete	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
51	SC Action Items 1/26/2017	01/26/17	Nutrients subcommittee to discuss HABs at a future meeting, and to come up with options to present to the SC	Thomas Jabusch	02/28/17	Complete	
52	SC Action Items 1/26/2017	01/26/17	Organize a debrief meeting with State Board staff, USGS, and ASC to develop lessons learned which might make the CEDEN upload easier next time.	Matthew Heberger	02/28/17	Complete	Meeting is scheduled for 3/6/17.
53	SC Action Items 1/26/2017	01/26/17	ASC will look into hiring administrative staff to perform certain roles, such as invoicing, taking meeting notes.	Matthew Heberger	02/28/17	Complete	We have contacted Ms. Daphne Orzalli, who has confirmed her interest and given us a quote for professional services at \$40/hour. The finance committee will discuss the pros and cons at their next meeting.
54	SC Action Items 1/26/2017	01/26/17	Beginning July 2017, all financials will be reported for current fiscal year only. Remaining funds from prior years will be rolled over to the current year.	Matthew Heberger	07/31/17	Complete	We have looked into this issue and discussed it with our accountant and financial manager and concluded we can make a seamless transition without any issues. Framework presented to Finance Subcommittee on 4/25/2017, and approved.
55	SC Action Items 1/26/2017	01/26/17	Prepare a memo for the next SC meeting with options for setting fees with pros and cons	Philip Trowbridge	04/30/17	Complete	Slides discussing the options and preferred alternative were prepared for the May 3 meeting but the discussion was tabled and will be presented on July 28.
56	SC Action Items 1/26/2017	01/26/17	Create a 1- to 2-page factsheet about Delta RMP to help with fundraising. Describe the purpose, accomplishments, and benefits.	Matthew Heberger	03/31/17	Complete	Draft factsheet to be presented at the May 3 Steering Committee meeting.
57	SC Action Items 1/26/2017	01/26/17	Convene a meeting of the Revenue Subcommittee.	Val Connor	04/30/17	Complete	The Revenue Committee has met and is planning future meetings.
58	SC Action Items 1/26/2017	01/26/17	Send a PDF of the nutrients presentations and links to the	Matthew Heberger	02/01/17	Complete	
59	SC Action Items 1/26/2017	01/26/17	Revise the response to the External Review Committee. Committee members to submit proposed language to ASC. Following revisions, ASC will re-send the response to the SC showing the edits in track changes. SC members will have one week to respond. If no comments are received, the letter will be finalized and sent to the reviewers.	Matthew Heberger	02/03/17	Complete	
60	SC Action Items 1/26/2017	01/26/17	Schedule a meeting between Planning Committee and the Independent Reviewers for March.	Yumiko Henneberry	02/10/17	Complete	
61	SC Action Items 1/26/2017	01/26/17	Develop new text for Attachment 3 (the flowchart) to be discussed at the fall SC-TAC meeting.	Matthew Heberger	09/30/17	Complete	At the Jan 26, 2017 meeting, it was discussed that the flowchart had served a useful purpose at the beginning of the program, allowing dischargers and regulators to come to a common understanding of how data collected by the program would (and would not) be used. However, it no longer reflects current policy or procedures. Water Board staff suggested replacing it with a couple of paragraphs. Update October 2017: The flowchart will be replaced by the Data Assessment Framework (under development).
62	SC Action Items 1/26/2017	01/26/17	Accept approved edits and post new Charter to website.	Matthew Heberger	02/28/17	Complete	
63	SC Action Items 1/26/2017	01/26/17	Put on the agenda for a future SC meeting: How we will be interacting with the Delta Science Program, especially as it regards the findings of the recent report State of Bay-Delta Science, 2016, which concerns us directly.	Philip Trowbridge	02/01/17	Complete	Item added to agenda item parking lot.
64	SC Action Items 1/26/2017	01/26/17	Put on the agenda for a future SC meeting: CEC workshop and State Board CEC Guidance.	Philip Trowbridge	02/01/17	Complete	Item added to agenda item parking lot.