



Delta RMP Technical Advisory Committee Meeting

Tuesday, September 20, 2016; 12:30 pm – 4:30 pm

NOTE LOCATION:

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

*<https://stateofcaswrcbweb.centurylinkccc.com/CenturylinkWeb/DeltaRMP>
(mobile <tel://1-720-279-0026>, Guest pass code: 514286)*

Agenda

1.	<p>Introductions and Agenda Review and agree on agenda and desired outcomes</p>		12:30 Stephen McCord
2.	<p>Approve Draft TAC Meeting Summary (June 14, 2016)</p>	Draft TAC meeting summary	12:35 Stephen McCord
3.	<p>SC Updates TAC co-Chairs summarize the outcomes of the recent SC meeting</p> <p><u>Desired Outcome:</u> Inform TAC regarding SC decisions and activities.</p>	Draft SC Meeting Summary Delta RMP Decision Record	12:40 Joe Domagalski Stephen McCord
4.	<p>Update/Decision: Update on Monitoring Activities and Recommend ASC Technical Reports for SC Approval</p> <p>A short update on monitoring activities will be presented. In addition, ASC has prepared two short technical reports on FY15/16 monitoring. Comments on the reports are requested.</p> <p><u>Desired outcome:</u></p> <ul style="list-style-type: none"> • Inform TAC of current status of monitoring • Comments on technical reports • Recommendation to the SC for approval of reports 	Quality Assurance Report for Year 1 Pathogens Data FY15/16 CUP Field Sampling Report (not lab results)	12:55 Phil Trowbridge



<p>5.</p>	<p>Update: USGS High Frequency Sensor Report</p> <p>The USGS High Frequency Sensor Report was presented once to the TAC as a draft for early feedback. Subsequently, USGS received comments through an internal USGS review process. USGS is updating the report to respond to the internal USGS comments before asking for a final round of TAC review. An update will be given on the comments received to date and the expected completion date for the report.</p> <p><u>Desired outcome:</u> Inform TAC regarding report status and schedule.</p>	<p>None</p>	<p>1:15 Joe Domagalski</p>
<p>6.</p>	<p>Information: DPR's Evaluation of Pesticide Use and Concentrations in CA's Surface Waters</p> <p>DPR's Surface Water Monitoring Program monitors current-use pesticides in urban and agricultural settings throughout the state. Pesticides for monitoring are often selected from DPR's Monitoring Prioritization Model output and may be based on statewide, county or watershed level uses. Monitoring projects may be developed around model-based recommendations and/or spatial and temporal representation. Through use of the prioritization tool, monitoring projects can be designed to target pesticides with high use, high risk to contaminate surface water and high aquatic toxicity.</p> <p><u>Desired Outcome:</u> Inform TAC of other pesticide monitoring and prioritization activities in the Delta</p>	<p>None</p>	<p>1:30 Scott Wagner (DPR)</p>
<p>7.</p>	<p>Information: Update on Pyrethroids TMDL</p> <p>Water Board staff will provide an update on the pyrethroids TMDL and how Delta RMP data is or could be relevant.</p> <p><u>Desired Outcome:</u> Inform TAC.</p>	<p>None</p>	<p>2:00 Tessa Fojut (Central Valley Water Board)</p>
	<p>Break</p>		<p>2:20</p>



<p>8.</p>	<p>Discussion: Process for Pesticide Prioritization and Schedule</p> <p>At the 7/20/16 meeting, the Steering Committee requested that the list of target pesticides be updated. The Coordinating Committee would like this process to be complete by the spring to be ready for the FY17/18 workplan. Therefore, the Coordinating Committee has asked ASC to lead a process with the TAC and the Pesticide Subcommittee for achieving this goal.</p> <p><u>Desired Outcomes:</u></p> <ul style="list-style-type: none"> • Agree on a process and a schedule for the updating the pesticide analyte list. • Discuss factors for identifying priority pesticides 	<p>None</p>	<p>2:30 Stephen McCord</p>
<p>9.</p>	<p>Information: Toxicity - Update on FY15/16 Activities and Plans for FY16/17</p> <p>As required by the QAPP, AHPL has prepared a case narrative to summarize the FY15/16 toxicity results for the Delta RMP. This report is not an official Delta RMP report that needs to be approved by the TAC and SC. However, it provides useful background documentation. Comments to correct errors are welcome.</p> <p><u>Desired Outcome:</u> Inform TAC on toxicity testing results to date and plans for FY16/17.</p>	<p>AHPL Annual Report for FY15/16</p>	<p>3:10 Marie Stillway</p>
<p>10.</p>	<p>Discussion: Joint TAC-SC Meeting (October 18th) – Planning for the meeting</p> <p>A joint planning meeting will be held on October 18th to discuss multi-year funding and priorities. The TAC will need to engage on several items including the approved Charter (e.g. roles and responsibilities); when and how the monitoring design will be revised and what information will be needed to make revisions; what management drivers will require RMP information, and how to address feedback from the Expert Panel.</p> <p><u>Desired Outcomes:</u></p> <ul style="list-style-type: none"> • Prepare for report out to SC with TAC comments on Charter. • Engage TAC in the multi-year planning process. 	<p>A. Draft Agenda</p> <p>B. RMP Charter (focus on pages 16-17, TAC roles and responsibilities)</p> <p>C. Management Driver Table</p>	<p>3:35 Phil Trowbridge Stephen McCord</p>



<p>11.</p>	<p>Updates and wrap-up</p> <ul style="list-style-type: none"> • Capture TAC recommendations and action items and any additions to the TAC Co-Chair Report for October • Confirm next TAC meeting date (12/13/16 at Regional San) and identify topics for agenda • Set March TAC meeting date (3/14/17 preferred; 3/15, 3/21, or 3/22 as backup) and location. • Reminder nutrient workshop 9/30 • Address “parking lot” items, as time permits: <ul style="list-style-type: none"> • SEP / 401 funding ideas • Initial experience of Hg monitoring • Pathogens study updates • Field trip to monitoring stations 	<p>Delta RMP Stoplight reports</p>	<p>4:10 Stephen McCord Joe Domagalski Phil Trowbridge</p>
<p>12.</p>	<p>Adjourn</p>		<p>4:30</p>

Materials for Item 4



Date: August 1, 2016
From: Donald Yee, ASC QA Officer
To: Philip Trowbridge, Delta RMP Project Manager
Re: **Review of 2015 Delta RMP Pathogen Special Study Quality Assurance (QA) Data**

General summary

A review of the first year Quality Control (QC) data for laboratory analyses of pathogens (*Cryptosporidium* and *Giardia*) conducted for the Delta Regional Monitoring Program (Delta RMP) by two laboratories (BioVir and Eurofins) in a special study suggests that despite largely meeting method specified limits, the data obtained are generally low-biased lower bound estimates.

Recovery

Spiked blanks (Ongoing Precision and Recovery Samples) - Ongoing Precision and Recovery (OPR) samples are a component of internal lab QC for USEPA Method 1623, which involve weekly analyses of reagent water samples spiked with *Cryptosporidium* or *Giardia* oocysts/cysts to verify all performance criteria. For BioVir, the OPR recoveries ranged from 22 to 82% for *Cryptosporidium* (average 72%) and from 55 to 90% (average 60%) for *Giardia*. For Eurofins, OPR recoveries were similarly biased low, ranging 42 to 73% for *Cryptosporidium* (average 57%) and from 36 to 75% (average 52%) for *Giardia*. However, even in these clean matrix samples, results are always biased low, on average 30% to nearly 50%. Acceptance criteria for OPR samples specified in USEPA Method 1623 are 11 to 100% for *Cryptosporidium* and 14 to 100% for *Giardia* spiked blanks, so such results are acceptable.

Matrix spikes - Recovery was usually lower in spiked natural environmental matrices. Only BioVir analyzed matrix spike samples, with recoveries for *Cryptosporidium* ranging from 0 to 80% (average 28%) and from -1 to 90% (average 40%) for *Giardia*. Eurofins did not analyze matrix spikes, but given their average lower recoveries on spiked blanks, recoveries on (natural) matrix spikes would likely have been about the same or lower. Acceptance criteria in USEPA Method 1623 for matrix spikes are a mean recovery from 13 to 111% for *Cryptosporidium*, and a mean recovery from 15 to 118% for *Giardia*, so these results also met method criteria. These results also all meet data acceptance criteria for the USEPA Long Term 2 Enhanced Surface Water Treatment Rule (LT2) monitoring, which allows low matrix spike recoveries.

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Precision

Spiked blanks (OPR Samples) – Relative standard deviations on OPR recoveries were 23% for *Cryptosporidium* and 15% for *Giardia*, within USEPA Method 1623 limits of 55% and 49% respectively.

Matrix spikes – Matrix spike duplicates (MSD) were run on two occasions for both species. One *Cryptosporidium* pair had no/negative recovery in the matrix spike or MSD (thus Relative Percent Difference (RPD) not calculable), but RPD (of recovery) was 22% on the other pair (within the method criterion of 51%), and 34% and 28% for *Giardia* (one above and below the method 30% criterion). The higher RPD pair averaged only 12% recovery, with the small denominator likely contributing to the larger RPD.

Blanks

None of the pathogens were detected in any blank samples. The overall low bias on laboratory OPR samples suggests detected blank samples would be unlikely.

Discussion

The objective of the Delta RMP Pathogen Study ambient monitoring is to collect ambient data to satisfy data needs and monitoring for any follow-up if Basin Plan trigger values for *Cryptosporidium* are exceeded at a drinking water intake location during LT2 monitoring. The results on QC samples recorded by these labs met the data quality objectives for LT2 monitoring.

Although the results on QC samples recorded by these labs were largely within the limits specified by the USEPA method employed (1623/Modified), the consistent low bias on the QC samples (including one -1% matrix spike recovery, indicating a low detection in an unspiked parent sample, but no detection after spiking that sample about 100x higher) indicated that these methods are moderately to very likely to produce low biased results, which at best yield lower bound estimates. Thus as ASC QA Officer, I flagged all field sample results in this study with the CEDEN qualifier “VLB”, indicating, “Result negatively biased, flagged by QAO”.

Data Accessibility

All data has been uploaded to CEDEN and can be accessed through CD3

(<http://cd3.sfei.org/>) or the CEDEN Query

Tool (<http://ceden.waterboards.ca.gov/AdvancedQueryTool>)

Delta Regional Monitoring Program

Current Use Pesticides Field Sampling Report



Prepared for
Technical Advisory Committee
September 2016

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DRAFT

1. Introduction

The Delta Regional Monitoring Program (Delta RMP) has an approved [Monitoring Design](#) for pesticides. To partially implement this Monitoring Design in FY15/16, water samples were collected monthly at 5 stations in the Sacramento-San Joaquin Delta. Of the 12 sampling events only the January and March 2016 site visits captured wet events with increased stream flow. Pesticide monitoring includes sample collection for chemical analyses of pesticides and ancillary parameters, toxicity testing, and field measurements.

The purpose of this report is to document field sample collection and any deviations from the field sampling plan in the Quality Assurance Project Plan (QAPP), and field conditions on the days of sampling. Laboratory results will be presented in another report by February 1, 2017.

2. Summary of Pesticide Field Sampling

2.1 Target Sampling Sites & Schedule

In 2015, pesticide surface water sampling occurred at the five monitoring sites listed in table 2.1. The monitoring sites for pesticide surface water sampling represent key inflows to the Delta (Figure 2.1).

Table 2.1. Target Sampling sites and schedule

Site Name	Site Code	Target Latitude	Target Longitude	Sampling Frequency
Sacramento R @ Hood	510SACC3A	38.36691	-121.52037	Monthly
Mokelumne R @ New Hope Road	544SAC002	38.23611	-121.41889	Monthly
San Joaquin R @ Buckley Cove	544LSAC13	37.97667	-121.37889	Monthly
San Joaquin R @ Vernalis/Airport Way	541SJC501	37.67556	-121.26417	Monthly
Ulati C @ Brown Rd	511ULCABR	38.30667	-121.79472	Monthly

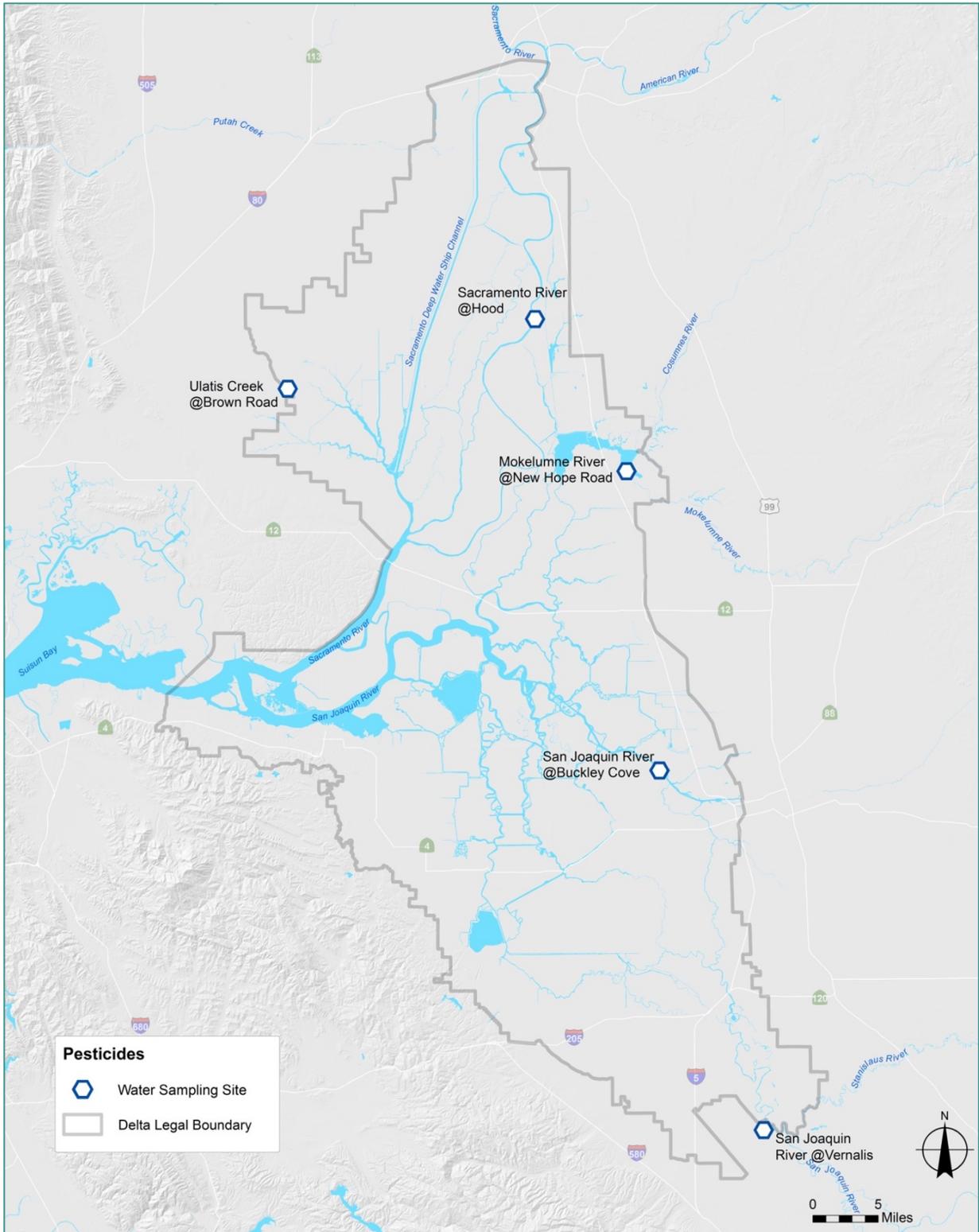


Figure 2.1. FY 2014-17 Pesticide Water Sampling Sites.

2.2 Actual Sampling Sites & Schedule

The table below shows basic information for the actual sampling sites, schedule, and field collection information. All anticipated samples (60) and QA/QC samples were collected. All water samples were collected monthly by USGS.

Table 2.2. Actual sampling sites, schedule, coordinates, personnel, sampling location, depth, where field duplicate samples were collected, and samples for which the collection methods deviated from those prescribed in the QAPP.

Date	Relinquished By	Event Type	Station ID	Collection Time	Actual Latitude	Actual Longitude	Location Code	Collection Depth (m)	QA/QC
7/28/2015	James Orlando	Routine	510SACC3A	8:45	38.36798	-121.521343	Midchannel	0.5	Field Duplicate – Pesticides (GC-MS)
			544SAC002	9:50	38.2365	-121.419208	Midchannel	0.5	Field Blank – Pesticides (LC-MS)
			544LSAC13	11:10	37.97451	-121.37637	Bank	0.5	Field Duplicate – Pesticides (LC-MS)
			541SJC501	12:15	37.67534	-121.26511	Midchannel	0.2	
			511ULCABR	14:20	38.30702	-121.79415	Midchannel	0.3	
8/18/2015	Gregory Brewster	Routine	510SACC3A	8:40	38.36773	-121.52045	Midchannel	2	
			544SAC002	9:50	38.23644	-121.41906	Midchannel	2	Field Blank- DOC/POC; Cu
			544LSAC13	11:10	37.97451	-121.37634	Bank	0.5	Field Duplicate - Toxicity Testing
			541SJC501	12:50	37.67531	-121.26521	Midchannel	0.5	
			511ULCABR	15:00	38.30699	-121.79402	Midchannel	0.5	Field Duplicate + Matrix Spike (MS) – Pesticides (LC-MS)
9/23/2015	James Orlando	Routine	510SACC3A	8:30	38.36758	-121.52032	Midchannel	0.5	Field Duplicate- DOC/POC
			544SAC002	9:20	38.23645	-121.41918	Midchannel	0.5	
			544LSAC13	10:45	37.9745	-121.37632	Bank	0.5	Field Duplicate- Pesticides (GC-MS)
			541SJC501	12:20	37.675346	-121.265245	Midchannel	0.5	Matrix Spike (MS) - Pesticides (GC-MS)
			511ULCABR	14:15	38.307011	-121.794033	Midchannel	0.1	

Date	Relinquished By	Event Type	Station ID	Collection Time	Actual Latitude	Actual Longitude	Location Code	Collection Depth (m)	QA/QC
10/21/2015	Gregory Brewster	Routine	510SACC3A	8:00	38.367967	-121.521343	Midchannel	1	Field Duplicate + Matrix Spike (MS) – Pesticides (LC-MS); Field Duplicate- Cu
			544SAC002	9:10	38.23639	-121.419167	Midchannel	1	
			544LSAC13	10:50	37.975278	-121.376844	Bank	0.25	
			541SJC501	12:40	37.676041	-121.266329	Midchannel	0.5	Field Duplicate - Toxicity Testing
			511ULCABR	15:00	38.307006	-121.795122	Midchannel	0.2	
11/10/2015	Matt De Parsia	Routine	510SACC3A	8:45	38.367967	-121.521343	Midchannel	1.5	
			544SAC002	9:50	38.23639	-121.419167	Midchannel	1.5	Field Duplicate – Pesticides (GC-MS)
			544LSAC13	11:10	37.975278	-121.376844	Bank	1.5	
			541SJC501	12:15	37.676041	-121.266329	Midchannel	1.5	
			511ULCABR	14:20	38.307006	-121.795122	Midchannel	1	Field Blank – Pesticides (GC-MS); Cu
12/15/2015	Matt De Parsia	Routine	510SACC3A	8:40	38.367967	-121.521343	Midchannel	1	Field Duplicate – Toxicity Testing
			544SAC002	9:50	38.23639	-121.419167	Midchannel	0.5	Field Blank- Cu
			544LSAC13	11:10	37.975278	-121.376844	Bank	0.3	Field Blank – Pesticides (GC-MS)
			541SJC501	12:50	37.676041	-121.266329	Midchannel	0.3	Field Duplicate- DOC/POC
			511ULCABR	15:00	38.307006	-121.795122	Midchannel	0.3	Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Pesticides (LC-MS)
1/19/2016	Matt De Parsia	Storm	510SACC3A	8:45	38.367967	-121.521343	Midchannel	0.5	Field Duplicate- DOC/POC
			544SAC002	9:50	38.23639	-121.419167	Midchannel	0.5	
			544LSAC13	11:10	37.975278	-121.376844	Bank	0.2	
			541SJC501	12:15	37.676041	-121.266329	Midchannel	0.5	Matrix MS/MSD – Pesticides (GC-MS)

Date	Relinquished By	Event Type	Station ID	Collection Time	Actual Latitude	Actual Longitude	Location Code	Collection Depth (m)	QA/QC
			511ULCABR	14:20	38.307006	-121.795122	Midchannel	0.5	Field Duplicate Toxicity Testing
2/17/2016	James Orlando	Routine	510SACC3A	8:40	38.367967	-121.521343	Midchannel	0.5	
			544SAC002	9:50	38.23639	-121.419167	Midchannel	0.5	
			544LSAC13	11:10	37.975278	-121.376844	Bank	0.2	MS/MSD – Pesticides (LC-MS); Field Blank – Toxicity Testing
			541SJC501	12:50	37.676041	-121.266329	Midchannel	0.5	
			511ULCABR	15:00	38.307006	-121.795122	Midchannel	0.5	Field Duplicate- Cu
3/7/2016	Matt De Parsia	Storm	510SACC3A	8:45	38.367967	-121.521343	Midchannel	0.5	Field Blank – Pesticides (GC-MS); Cu
			544SAC002	9:50	38.23639	-121.419167	Midchannel	1	
			544LSAC13	11:10	37.975278	-121.376844	Bank	0.2	
			541SJC501	12:15	37.676041	-121.266329	Midchannel	0.5	
			511ULCABR	14:20	38.307006	-121.795122	Midchannel	0.5	
4/19/2016	Matt De Parsia	Routine	510SACC3A	8:40	38.367967	-121.521343	Midchannel	0.5	
			544SAC002	9:50	38.23639	-121.419167	Midchannel	0.5	
			544LSAC13	11:10	37.975278	-121.376844	Bank	0.5	Field Duplicate – Toxicity Testing; MS/MSD – Pesticides (GC-MS)
			541SJC501	12:50	37.676041	-121.266329	Midchannel	0.5	Field Blank – Pesticides (LC-MS); DOC/POC
			511ULCABR	15:00	38.307006	-121.795122	Midchannel	0.25	
5/18/2016	Matt De Parsia	Routine	510SACC3A	8:45	38.367967	-121.521343	Midchannel	0.5	
			544SAC002	9:50	38.23639	-121.419167	Midchannel	0.5	
			544LSAC13	11:10	37.975278	-121.376844	Bank	0.5	
			541SJC501	12:15	37.676041	-121.266329	Midchannel	0.5	Field Duplicate – Pesticides (LC-MS)
			511ULCABR	14:20	38.307006	-121.795122	Midchannel	0.2	MS/MSD – Pesticides (GC-MS)

Date	Relinquished By	Event Type	Station ID	Collection Time	Actual Latitude	Actual Longitude	Location Code	Collection Depth (m)	QA/QC
6/15/2016	See note 1	Routine	510SACC3A	8:10				0.5	MS/MSD – Pesticides (LC-MS); Field Blank- DOC/POC
			544SAC002	9:15				0.5	Field Blank – Toxicity Testing; Pesticides (LC-MS)
			544LSAC13	10:50				0.5	
			541SJC501	12:40				0.5	Field Duplicate- Cu
			511ULCABR	14:40				0.5	

Note 1: The field data sheets for the samples collected on 6/15/16 were lost. Basic collection information was taken from spreadsheets submitted to ASC.

2.3 Sample Collection Methods

Field Measurements

Field parameters included water temperature, pH, dissolved oxygen (mg/L & % sat), specific conductance, and turbidity. To minimize discrepancy in field results and provide useful, accurate scientific data, all personnel participating in field sampling were required to follow the guidelines set out in the USGS [National Field Manual for the Collection of Water-Quality Data](#).

Water Sample Collection Methods

Due to the large volumes of water required per site, per event all samples for pesticide monitoring were collected as grab samples. Water samples for pesticide analysis and toxicity testing were collected in pre-cleaned combusted amber glass bottles (pesticides – 1L, toxicity testing – 4L). Water samples for Cu and DOC/POC analysis were collected in acid rinsed Teflon bottles (copper, DOC/POC – 3 liter). All samples were collected as grab samples by fully submerging all sample bottles 0.5 meters below the water surface (typically, some samples were collected at different depths, see Table 2.2). Sample bottles for dissolved copper, DOC/POC were rinsed three times with site water prior to filling, and containers were filled completely, leaving no headspace, to minimize volatilization. All samples were preserved with wet ice in the field.

Table 2.3. Sample container type and volume used for collection of water samples.

Program Element	Parameter Group - Analyte	Bottle type	Sample Volume/Site
Pesticides	Water toxicity	Amber glass	4L/bottle x 8 bottles
Pesticides	Pesticides	Amber glass	1L
Pesticides	Copper, DOC/POC	Teflon	3L

2.4 Summary of Field Observations and Conditions

For context, the weather conditions (air temperature and precipitation) and flow for the year are summarized in Figures 2.2 and 2.3. The sampling dates are marked on these graphs.

The field measurements made during sample collection are summarized in Table 2.4 and graphed on Figures 2.4 through 2.9. These results have not been fully quality assured and, therefore, should be considered preliminary. The final, quality assured results will be uploaded to CEDEN.

Table 2.4. Field parameter measurements in the following order: specific conductance, water temperature, pH, dissolved oxygen, turbidity. All data is preliminary until quality assurance steps are complete. Yellow cells indicate missing data. Red cells indicate data outliers which were omitted from Figures 2.4-2.9.

Date	Station ID	Specific Conductance (µS/cm)	Water Temp (°C)	pH	DO (mg/L)	DO %Sat	Turbidity (ntu)
7/28/2015	510SACC3A	132	23.7	7.16	7.17		
	544SAC002	122	24.16	8.17	8.04		
	544LSAC13	1370	26.31	8.15	8.76		
	541SJC501	962	25.26	7.88	8.97		
	511ULCABR	695	25.18	7.87	7.06		
8/18/2015	510SACC3A	169	24.9	7.45	7.11	85.9	6.7
	544SAC002	130	25.14	7.94	7.91	96	11
	544LSAC13	1362	25.99	7.68	6.17	76.4	10
	541SJC501	668	26.62	7.83	8.6	107.3	6.6
	511ULCABR	763	24	7.99	8.21	97.7	14
9/23/2015	510SACC3A	172	20.87	7.45	8.12	91.2	7.6
	544SAC002	187	20.59	7.84	8.24	91.7	6.6
	544LSAC13	1414	23.61	7.65	7.5	90.5	12.5
	541SJC501	706	21.86	7.7	8.59	99	5
	511ULCABR	1053	20.92	7.79	7.16	80.4	16.3
10/21/2015	510SACC3A	160	18.89	7.28	8.48	93	6.6
	544SAC002	54	16.69	7.44		88.8	4.5
	544LSAC13	860	21.41	7.75	8.1	92.2	5.6
	541SJC501	453	18.7	7.45	7.51	80.7	12.5
	511ULCABR	930	18.24	7.69	5.56	58.6	14.4
11/10/2015	510SACC3A	178	13.44	7.05	9.23	88.5	5.9
	544SAC002	52	12.41	7.18	9.92	93	6.6
	544LSAC13	360	15.88	7.58	8.67	87.7	6.5
	541SJC501	294	13.4	7.26	8.27	79.2	7.2
	511ULCABR	1034	13.82	8.05	10.21	99	21.5
12/15/2015	510SACC3A	182	10.51	7.52	10.04	90.1	9.8
	544SAC002	57	9.06	7.74	10.59	91.7	3
	544LSAC13	592	11.13	7.88	11.13	10.9	22.5
	541SJC501	476	8.87	7.8	10.15	87.4	6.4
	511ULCABR	805	7.26	7.27	9.84	82	8.4
1/19/2016	510SACC3A	142	9.8	7.27	10.15		90.4
	544SAC002	53	14.6	7.3	92.4		7.6
	544LSAC13	409	11.1	7.32	9.1		68.2
	541SJC501	449	12.3	7.44	8.44		23.5

Date	Station ID	Specific Conductance (µS/cm)	Water Temp (°C)	pH	DO (mg/L)	DO %Sat	Turbidity (ntu)
	511ULCABR	134	12.9	7.67	8.65		731.9
2/17/2016	510SACC3A	190	13.4	7.5	9.58		14.1
	544SAC002	59	14	7.6	9.3	89.9	7.4
	544LSAC13	606	13.4	7.3	7.2	69.1	10.6
	541SJC501	975	15.5	7.64	8.71	87.5	11.5
	511ULCABR	1118	16.6	8.2	11.01	113.6	7.2
3/7/2016	510SACC3A	140	13	7.3	9.2	87.1	76.5
	544SAC002	55	13.61	7.64	9.3	89.4	
	544LSAC13	672	15.7	7.49	8.65	87.5	
	541SJC501	751	16	7.68	7.97	80.9	4.6
	511ULCABR	208	12.1	7.25	9.5	88.4	158
4/19/2016	510SACC3A	127	16.82	6.79	9.22		1
	544SAC002	52	17.92	7.24	8.4	88.6	828.1
	544LSAC13	878	20.56	7.51	9.38	105.2	0.1
	541SJC501	382	17.43	7.92	10.11		17.9
	511ULCABR	819	23.26	8.81	22.49		2.4
5/18/2016	510SACC3A	108	19.15	7.17	8.59	92.9	0
	544SAC002	52	18.95	7.43	8.3	89.4	0
	544LSAC13	276	21	7.54	8.66	97.2	6.6
	541SJC501	332	19.38	8.4	11.98	130.3	1.7
	511ULCABR	811	24.43	8.08	8.99	107.9	0
6/15/2016	510SACC3A	113	19.93	7.05	8.35	91.7	2.1
	544SAC002	53	18.21	7.16	8.4	89.1	0
	544LSAC13	624	23.65	7.33	7.84	92.4	4.8
	541SJC501	433	21.23	8.64	14.07	159.7	7
	511ULCABR	1040	18.96	8.17	9.42	100.4	10.7

Figure 2.2 Daily air temperatures, daily rainfall, and sampling days. Data taken from NOAA: (<http://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USW00023202/detail>).

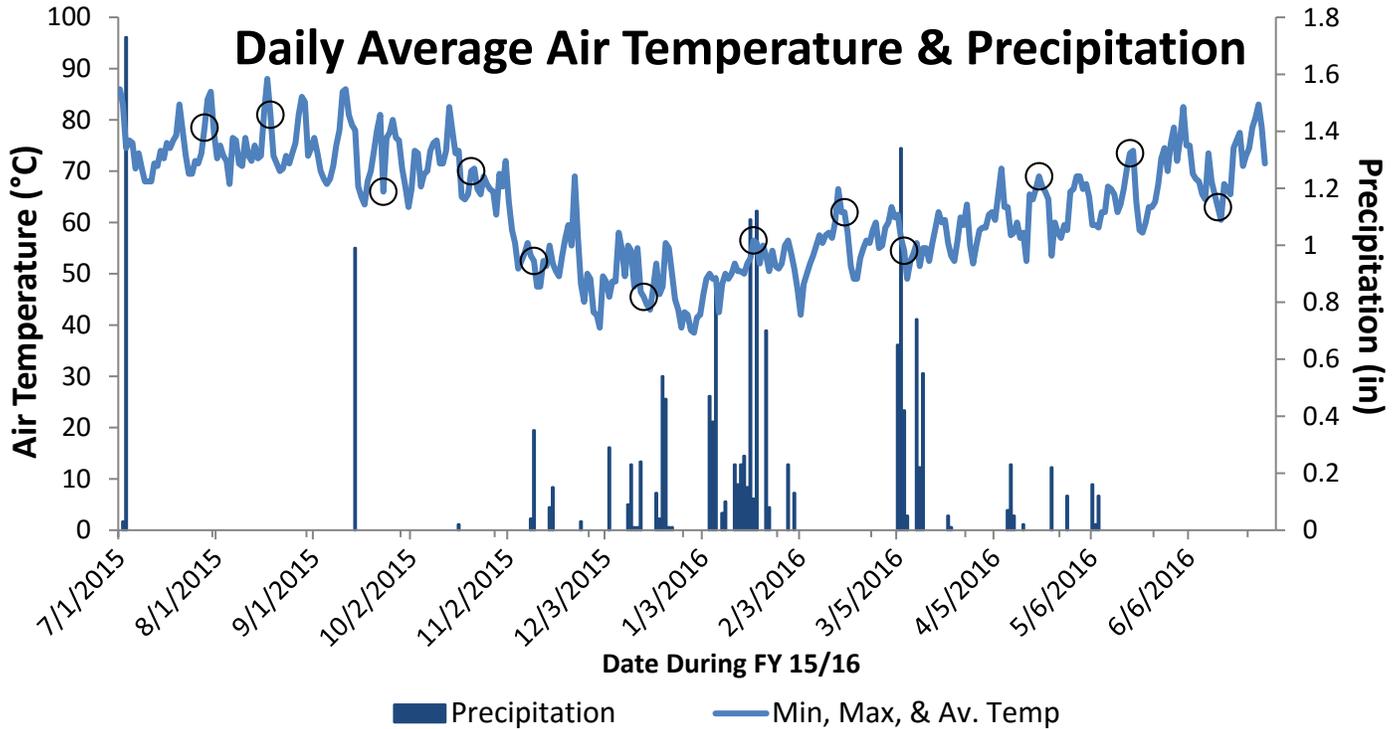
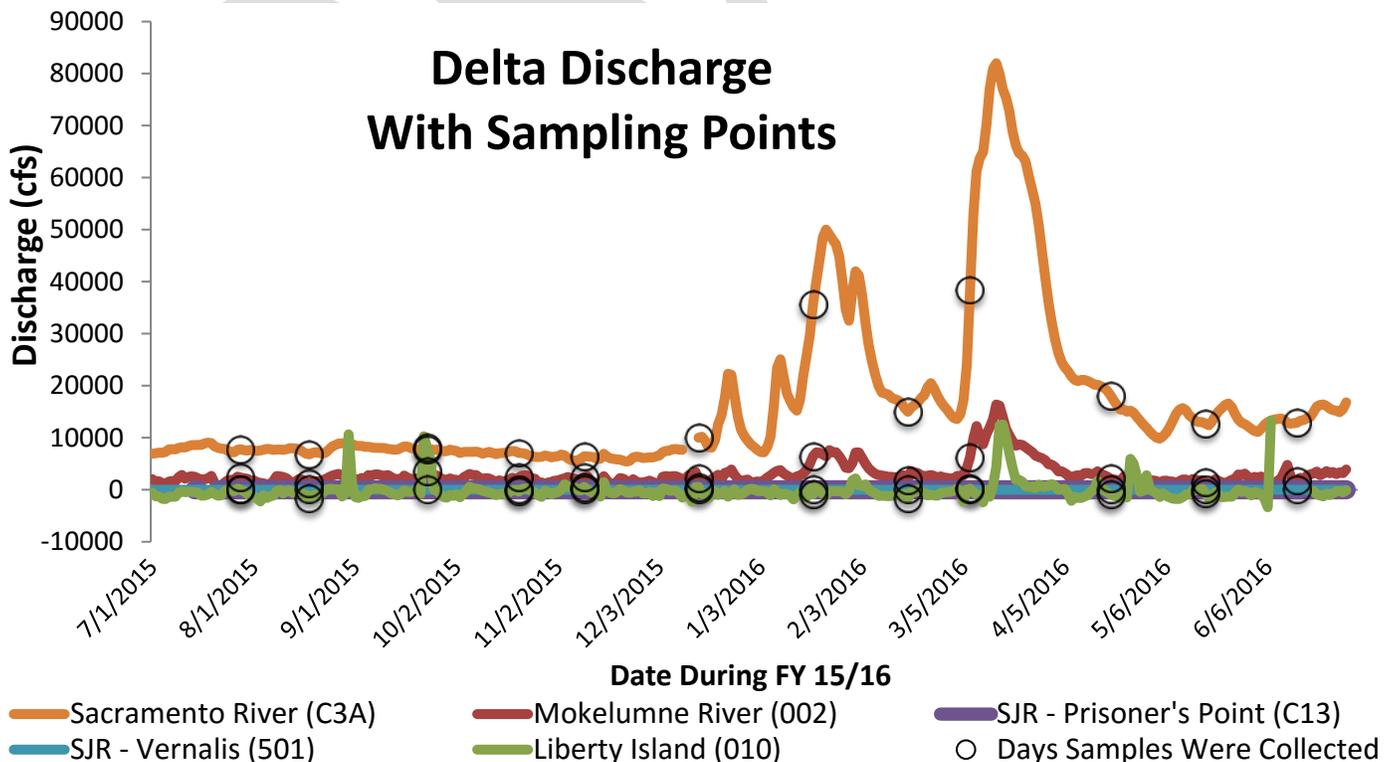
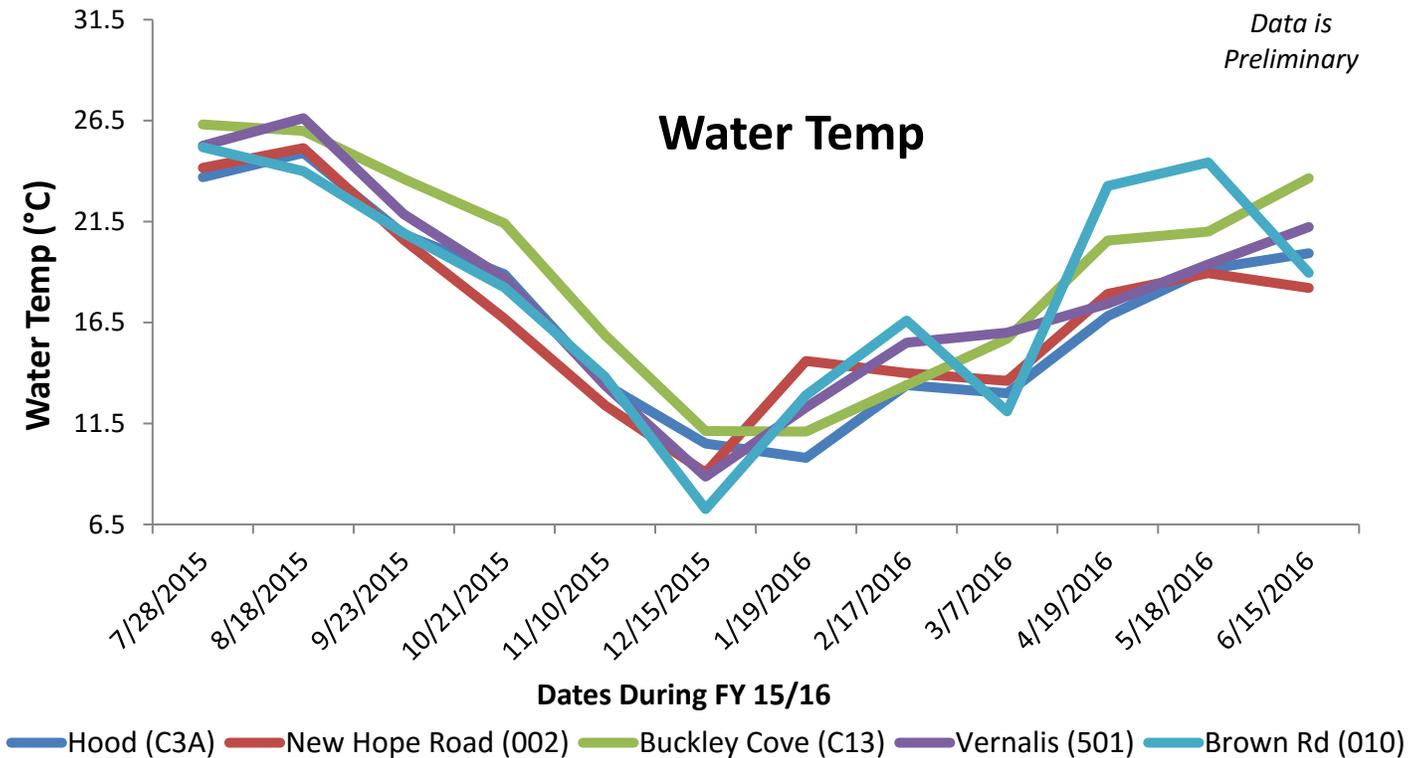
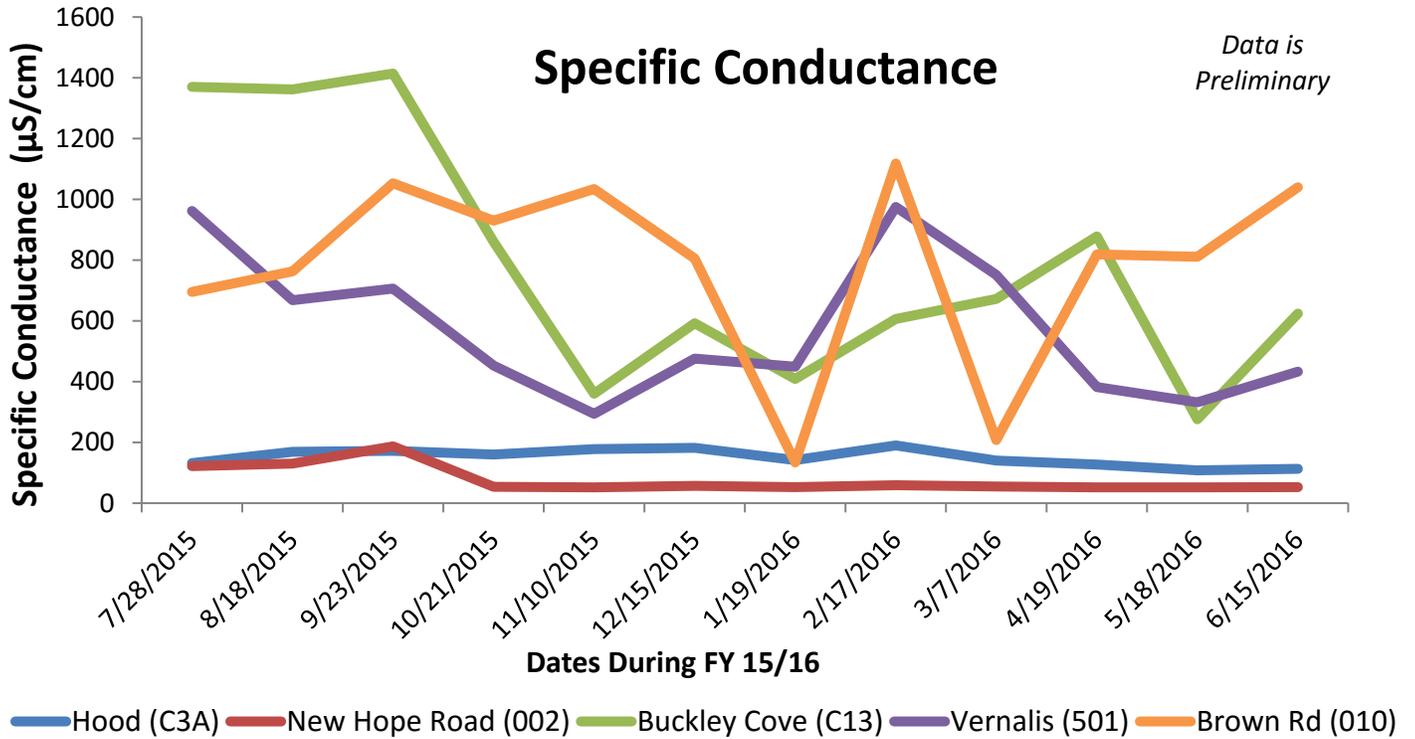
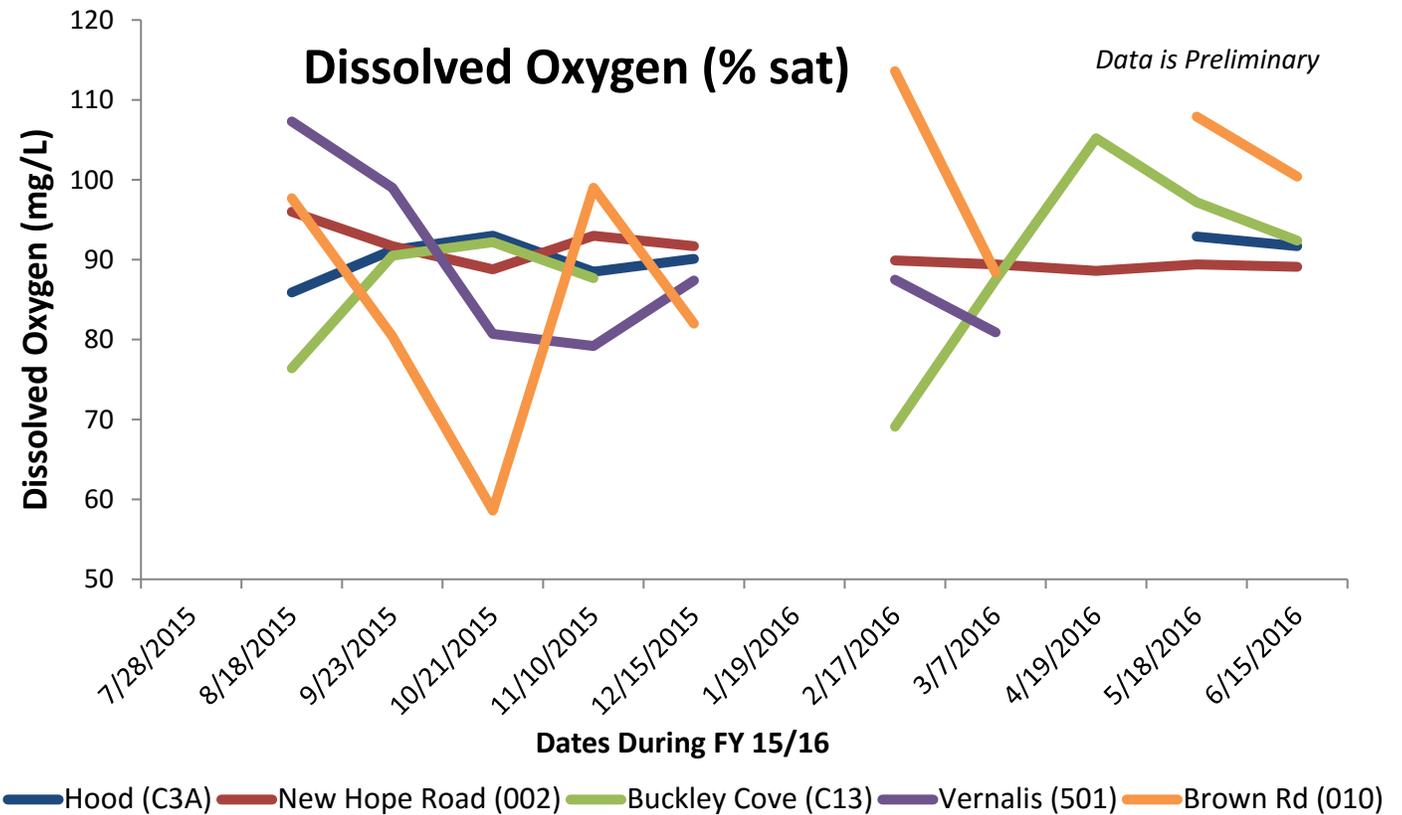
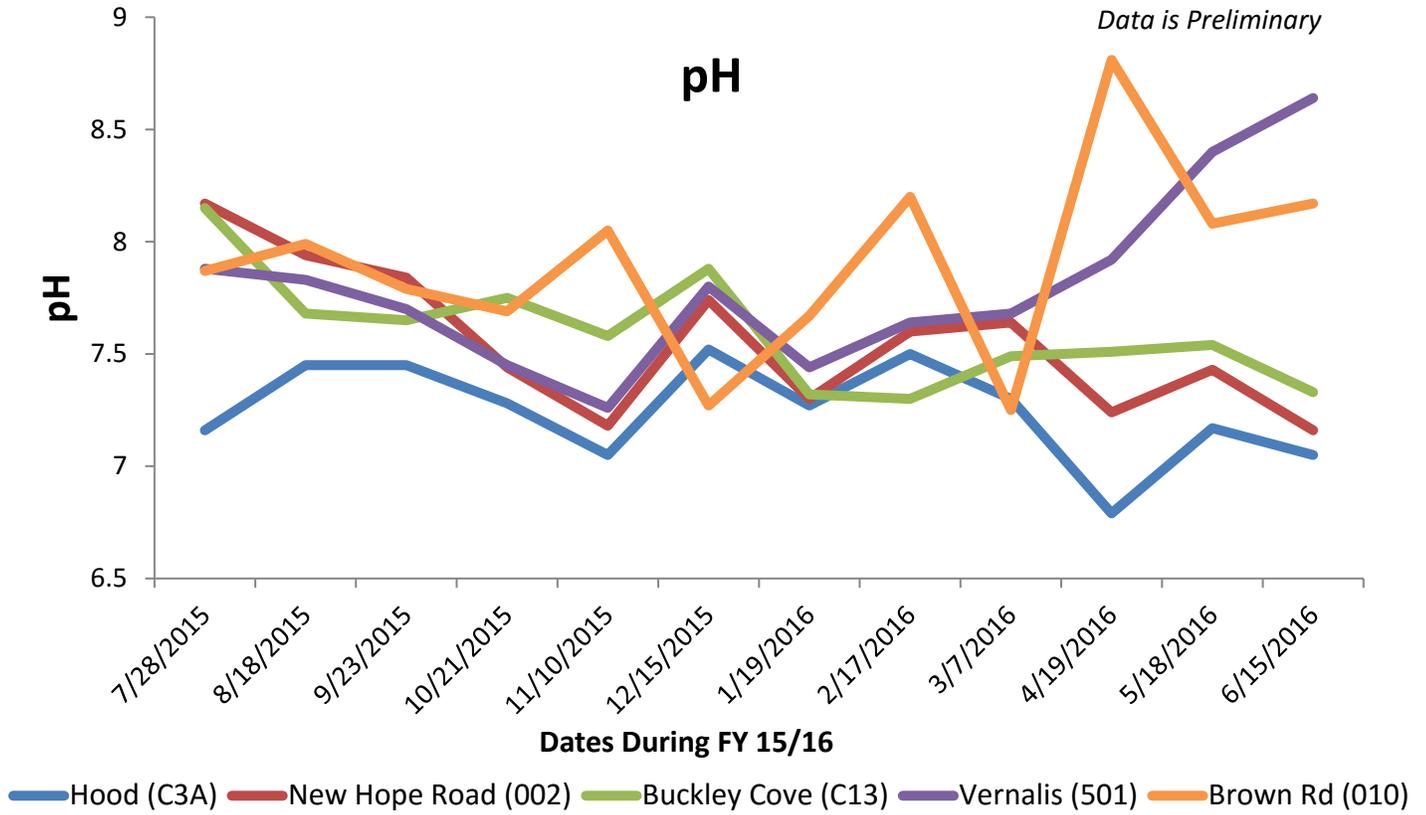


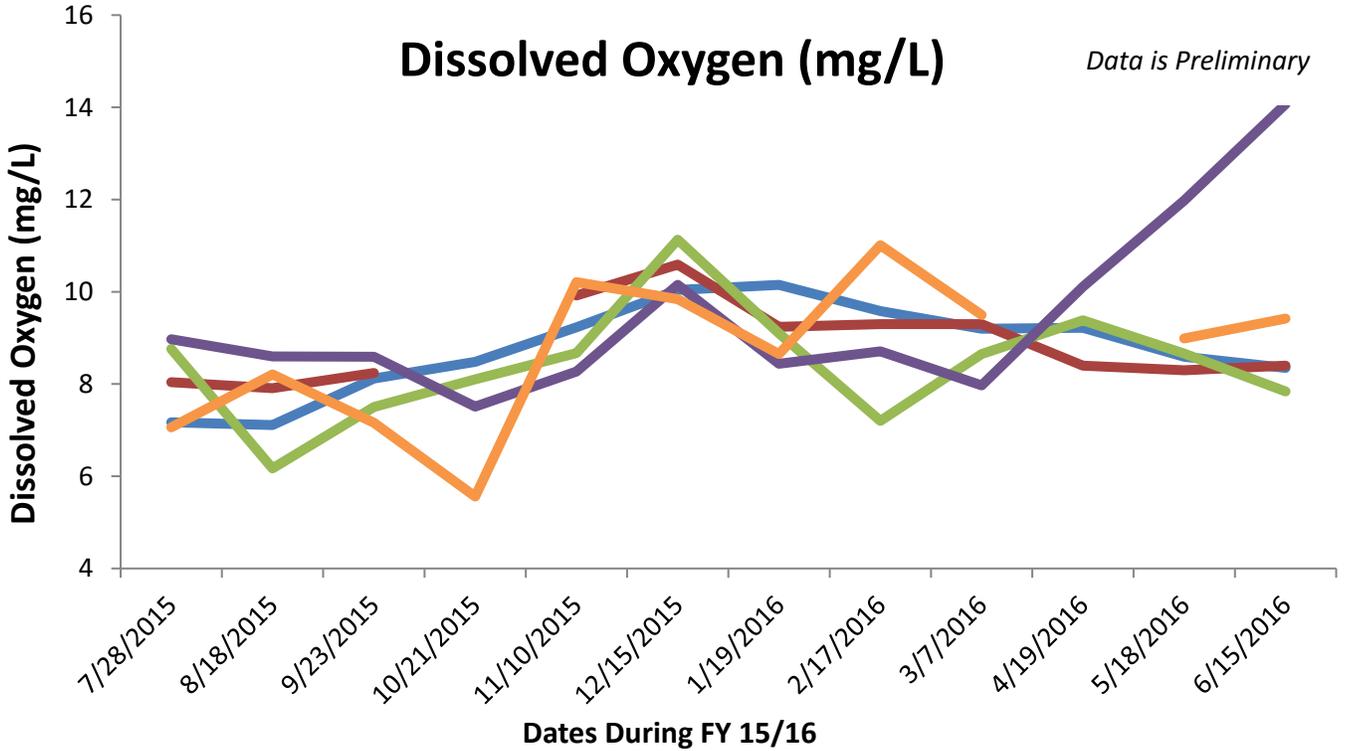
Figure 2.3 Delta flow and sampling days. The Sacramento River and Prisoner’s Point discharge data is tide filtered. Sacramento River and San Juaquin River data taken from USGS: (<http://waterdata.usgs.gov/ca/nwis/rt>). Mokelumne River and Liberty Island data taken from ca.gov: (<http://cdec.water.ca.gov/>).



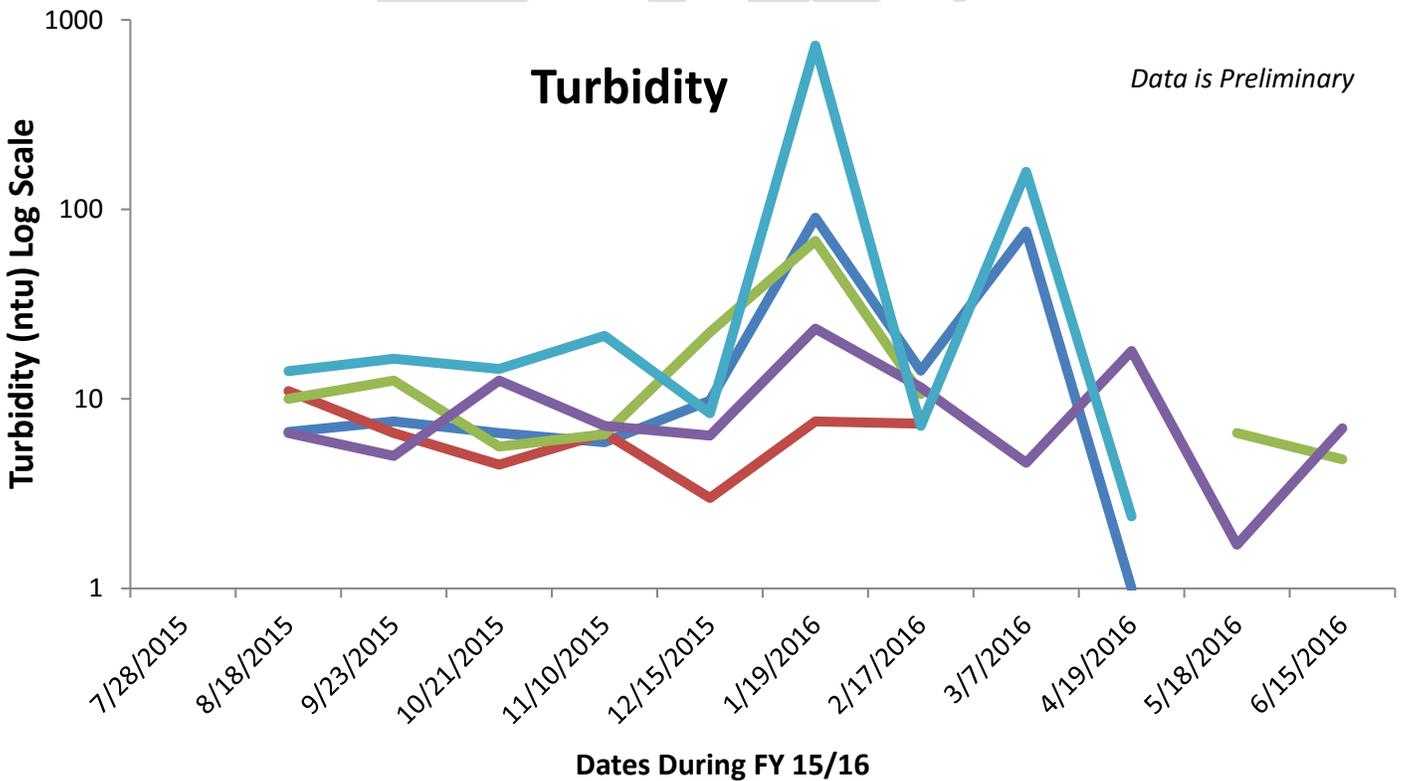
Figures 2.4 – 2.9 Specific Conductance, Water Temperature, pH, Dissolved Oxygen (% sat), Dissolved Oxygen (mg/L), & Turbidity Field parameter results. All data is preliminary until quality control steps are complete.







— Hood (C3A)
 — New Hope Road (002)
 — Buckley Cove (C13)
 — Vernalis (501)
 — Brown Rd (010)



— Hood (C3A)
 — New Hope Road (002)
 — Buckley Cove (C13)
 — Vernalis (501)
 — Brown Rd (010)

2.5 Difficulties Encountered and Non-Conformances from QAPP

Deviations from field sampling plan prescribed in the QAPP and difficulties encountered are listed below. These non-conformances should be considered during the quality assurance of laboratory data and should be corrected to improve the future sample collection efforts.

- The station visits where field duplicates and field blanks were collected are not well described on the SWAMP field sheets. In the future, it would be helpful for the field sheet to note the type of QC sample collected (e.g., blank or dupe) and for which parameters. The information is recorded but it is spread across three different field sheets because there are multiple laboratories involved with the project. ASC and USGS will discuss ways to improve the process.
- The SWAMP field sheets and Chain of Custody forms from the June 15, 2016 sampling event are missing. Basic sample collection information was recovered from spreadsheets compiled by the USGS Pesticide Fate Research Lab.
- A number of field measurements are missing. Most of the missing results are for turbidity or dissolved oxygen saturation.
 - Dissolved Oxygen Saturation at all Sites on 7/28/15 and 1/19/16 at all Sites; Site 510SACC3A on 2/17/16; Sites 510SACC3A, 541SJC501, & 511ULCABR on 4/19/16: Error in recording dissolved oxygen (% sat) results. However, dissolved oxygen (mg/L) data are available for all of these station visits.
 - Dissolved Oxygen at Site 544SAC002 on 10/21/15: A transcription error resulted in the absence of the dissolved oxygen (mg/L) result.
 - Turbidity at all sites on 7/28/15: Turbidity sensor was missing.
 - Turbidity at Sites 544SAC002 & 544LSAC13 on 3/7/16: The turbidity sensor gave negligible results due to the instrument calibration. The turbidity sensor was properly calibrated for the high (storm runoff) turbidity present at three of the sites but turbidity was low and out of calibration range at the other two low-flow sites.
- 7/28/15 at Site 510SACC3A: One 4L amber bottle for toxicity sampling was mislabeled and set aside.
- 4/19/16 at Site 511ULCABR: Two 4L amber bottles for toxicity sampling broke. Three 1L bottles were added instead.

Appendices

List of Field Sheets

COCs and field sheets from June 15, 2016 are missing from the appendix.

DRAFT

Materials for Item 10

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

Delta Stewardship Council Building

980 9th Street, 2nd Floor, Room A

Sacramento, CA

Conference video link:

Draft Agenda

1.	Introductions and Review Agenda Introduce TAC and SC members, establish quorum, and explain goals of the meeting		10:00 Brock Bernstein
2.	Decision: Approve Meeting Summary from July 20, 2016 and confirm/set next meeting dates <u>Desired outcomes:</u> <ul style="list-style-type: none"> • Next meeting date for TAC is December 13th; SC is in January 26th 2017 • Se SC meeting date for April 2017 	7/20/16 SC Mtg Summary RMP Decision Record (Excel Spreadsheet)	10:05 Brock Bernstein
3.	Informational: Celebrating the success of the DRMP - a historical timeline and achievements to date A recap of the DRMP development process, a timeline, and achievements.		10:15 Linda Dorn
4.	Discussion: TAC feedback on the Approved Charter The SC is interested in hearing feedback from the TAC on the approved charter, particularly the section on roles and responsibilities. It is important to agree on the roles of the SC and TAC prior to the multi-year planning session.		10:25 Stephen McCord
Begin Multi-Year Planning Session			
5.	Information: Overview of Multi-Year Planning Process An overview of the goals of the MYP process will be given.	Memo describing the multi-year planning process	10:40 Philip Trowbridge

6.	<p>Discussion: Review and Update Table of Upcoming Management Decisions</p> <p>Last year, the SC identified upcoming management decisions. The table needs to be updated and reviewed to determine if there are critical data that the Delta RMP could generate to inform these decisions.</p> <p><u>Desired outcome:</u> Review of table and input on whether any revisions are needed.</p>	Table of Current and Anticipated Management Decisions	10:40 Philip Trowbridge
7.	<p>Discussion: Report Out of Major Findings from DSP External Review</p> <p>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></p> <ul style="list-style-type: none"> • Understanding of External Review findings and discussion of next steps. • Feedback on External Review from others who attended. 	Summary of preliminary findings	11:00 SC co-chairs? Yumi Henneberry (DSP)
8.	<p>Decision: Agree on Strategic Revisions to the Monitoring Design, if any</p> <p>The Monitoring Design is a guiding document for the Program. The purpose of this agenda item is to identify any high-level revisions, such as changing the assessment questions or focus areas, based on upcoming management decisions or recommendations from the DSP External Review. Updating the list of target pesticides has already been identified as a priority by the SC and will be discussed in Item 6 after lunch.</p> <p><u>Desired outcomes:</u></p> <ul style="list-style-type: none"> • Agreement on changes to the Monitoring Design, if any. 	TBD	11:45 Phil Trowbridge
	<p><i>Lunch break – Have lunch/pizza brought in so committees can socialize</i></p>		12:30

9.	<p>Discussion: Goals and process for revising the list of target pesticides</p> <p>The Steering Committee has requested that the list of target pesticides be updated. The Coordinating Committee would like this process to be complete by the spring to be ready for the FY17/18 workplan. We will take advantage of having the TAC and SC at the same meeting to clarify the goals and process for revising the target list.</p> <p>Desired outcome:</p> <ul style="list-style-type: none"> • Agreement on the goals and process for revising the list of target pesticides in the Monitoring Design • Clear direction from the SC to the TAC on desired outcomes. 	TBD	1:30 TBD
10.	<p>Decision: Agree on planning budgets for next three years</p> <p>Discuss budget projections and establish planning budgets for FY17/18, FY18/19, and FY19/20 that reflect priorities and available funds. In July, the SC approved a zero percent fee increase for discussion purposes at the MYP meeting. A final decision on fees will be made at the January SC meeting. In the beginning of 2017, the TAC will convene subcommittees to develop technical projects for the FY17/18 Detailed Workplan. Therefore, SC should 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></p> <ul style="list-style-type: none"> • Agreement on planning budgets and priorities. • Clear direction to the TAC on FY17/18 budgets and priorities for each program element. 	Multi-year Planning Budget Tables and Graphs	2:00 Brock Bernstein
End Multi-Year Planning Session			

11.	<p>Decision: Approve List of “SEP Eligible” Projects</p> <p>The Delta RMP has been approved as a Supplemental Environmental Projects Funds Administrator. To efficiently match up Delta RMP projects with settlements, the SC should approve a list of projects that are priorities but are unfunded. As a starting point, the list will include unfunded monitoring tasks from the Monitoring Design as well as proposed projects that were recommended by subcommittees but were not funded in FY16/17.</p> <p>Desired outcomes:</p> <ul style="list-style-type: none"> • Approve the current list of Delta RMP projects for SEP funding. The list can be updated by the SC at any time. 		3:30
12.	Summarize Outcomes of the Meeting		4:00 Brock Bernstein
13.	Plus/ Delta		4:15 Brock Bernstein
14.	Adjourn		4:30

Delta Regional Monitoring Program

Charter



Prepared for
Delta RMP Steering Committee
Approved
July 20, 2016

1. Introduction

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).

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.
- 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.
- d. *“Coordinating Committee”* means the facilitating committee made up of the Steering Committee Co-Chairs, one representative from the Implementing Entity, one representative from the Central Valley Regional Water Quality Control Board, and the facilitator.
- 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. *“Facilitator”* Facilitates Steering Committee meetings at the discretion of the Steering Committee, and participates on the Coordination Committee.
- h. *“Finance Subcommittee”* 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.

- i. *“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.
- j. *“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.
- k. *“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.
- l. *“Regulatory Agencies”* means agencies administering state and federal water quality regulations, i.e. Central Valley Regional Water Quality Control Board, State Water Resources Control Board, and United States Environmental Protection Agency.
- m. *“Representative”* means a person who represents a particular Participant Group on a committee (see Attachments 1 and 2 for a list of representatives).
- n. *“Resources Agencies”* means a state or federal agency responsible for the conservation, management, and enhancement of natural and cultural resources; including land, wildlife, water, and minerals.
- o. *“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.
- p. *“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.
- q. *“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. 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.

- r. *“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.

3. Mission

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

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. Management Questions

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> <ul style="list-style-type: none"> a. Is water quality currently, or trending towards, adversely affecting beneficial uses of the Delta? b. Which constituents may be impairing beneficial uses in subregions of the Delta? c. Are trends similar or different across different subregions of the Delta?
Sources, Pathways, Loadings, and Processes	<p>Which sources and processes are most important to understand and quantify?</p> <ul style="list-style-type: none"> a. Which sources, pathways, loadings, and processes (e.g., transformations, bioaccumulation) contribute most to identified problems? b. What is the magnitude of each source and/or pathway (e.g., municipal wastewater, atmospheric deposition)? c. What are the magnitudes of internal sources and/or pathways (e.g. benthic flux) and sinks in the Delta?
Forecasting Water Quality Under Different Management Scenarios	<ul style="list-style-type: none"> 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?
Effectiveness Tracking	<ul style="list-style-type: none"> 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?

6. Principles of Operation

The Delta RMP's Principles 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 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) and the Central Valley Monitoring Directory (centralvalleymonitoring.org) provide information that might be helpful in identifying potential partners.
- **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).

7. Governance

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 Subcommittees.

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, specifically:

- 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;
- Provides direction to TAC on priorities, constraints, and management questions to develop technical products within the resource allocations determined by the Steering Committee;
- Convenes a joint meeting with the TAC as necessary to communicate priorities and funding allocations;
- Selects, convenes, and oversees subcommittees to provide guidance on specific issues on an as needed basis; and

- 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);

See Figure 1, Organization Chart for Delta RMP.

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.

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.

7.A.3 Steering Committee Co-Chairs

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 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.).

Coordinating Committee

The Coordinating Committee is comprised of the Steering 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, 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. A TAC co-Chair may attend by invitation of the Coordinating Committee.

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 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's specific responsibilities include:

- 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.

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

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 lysris web service as well as posted on the Delta RMP website¹ 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.

7.A.6 Steering Committee Decisions

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 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 consensus unless one or more of the SC members dissent or for important decisions such as budget approvals, in which case the Chairs 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.

¹ http://www.swrcb.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program

7.B. Technical Advisory Committee (TAC)

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

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.

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 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 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.

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

TAC members will be drawn from Participant Groups represented on the SC. 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).

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.

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 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.

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 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.

7.B.3 TAC Co-Chairs

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.

7.B.4 TAC Subcommittees

If there is need for additional expertise, subcommittees may be formed that report to the TAC. The subcommittees may 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 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 recommend to the SC that the Implementing Entity 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

The TAC meets quarterly and the agenda package is posted on the Delta RMP website² one week prior to the meeting. In addition, the agenda and relevant materials are sent by electronic mail to the TAC members.

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.

7.C Other Stakeholders

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.

² http://www.swrcb.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program

7.D Implementing Entity

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.

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

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

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

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.

8.A Program Activities and Budget

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.

8.B Program Implementation

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.

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 provided in Attachment 4.

For expenses up to \$5,000, the Implementing Entity may act without prior approval. 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 between \$25,000 and \$50,000 the Steering Committee must provide prior approval.

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 1³, 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 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

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.

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

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

8.D Reserve Funds

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:

- 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

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

8.F Adequate Participation

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 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 Participant Groups

For 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

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.

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 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 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 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 Board.

For subsequent years following the initial assessment:

Steering Committee members are expected to negotiate within their Participant Groups to develop an ongoing formula for the expected contribution for each of its members. Individual members of a permitted discharger 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 Board (under the above bullet).

- Value Added Considerations

Any Steering Committee member representing a 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. 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 Participant Groups should not conflict with current representation (i.e., Is there already sufficient representation?).

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.

Attachments

Table of Contents

Figure 1: Organizational Chart of the Delta RMP

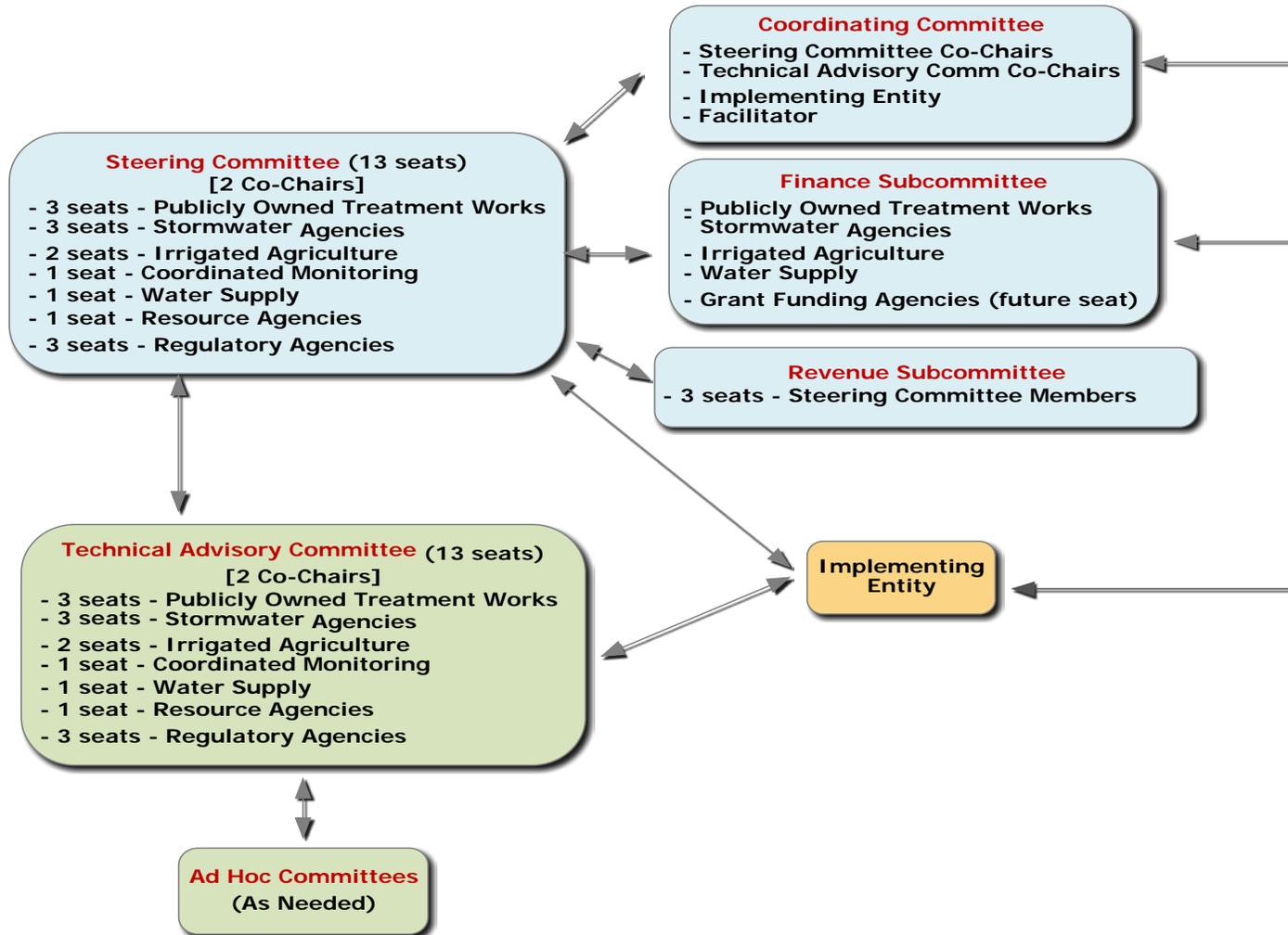
Attachment 1: Roster of Steering Committee Members

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

Figure 1. Organizational Chart of the Delta RMP



Attachment 1: Roster of Steering Committee Members (updated 07/20/2016)

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 Nieuwenhuyse	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 Davis	POTW	Primary
Deedee Antypas	City of Stockton	POTW	Primary
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
Dave Melilli	City of Rio Vista	POTW	Alternate
Tom Grovhoug	LWA	POTW	Alternate
Terry Fleming	U.S. EPA Region 9 Water Division	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 1	Primary
Pamela Creedon	Central Valley Regional Water Board	Regulatory-State 1	Alternate
Greg Gearheart	State Water Board	Regulatory-State 2	Primary

Vacant	State Water Board	Regulatory-State 2	Alternate
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 1	Primary
Brandon Nakagawa	County of San Joaquin	Stormwater, Phase II 1	Alternate
Brendan Ferry	County of El Dorado	Stormwater, Phase II 2	Primary
Vacant		Stormwater, Phase II 2	Alternate
Val Connor	GEI	Water Supply	Primary
Smith, Lynda	MWD	Water Supply	Alternate
Stephanie Fong	SFCWA	Water Supply	Alternate
Melanie Okoro	NMFS	Resource Agencies	Primary
Jeff Stuart	NMFS	Resource Agencies	Alternate

Attachment 2: Roster of Technical Advisory Committee Members (updated 07/20/2016)

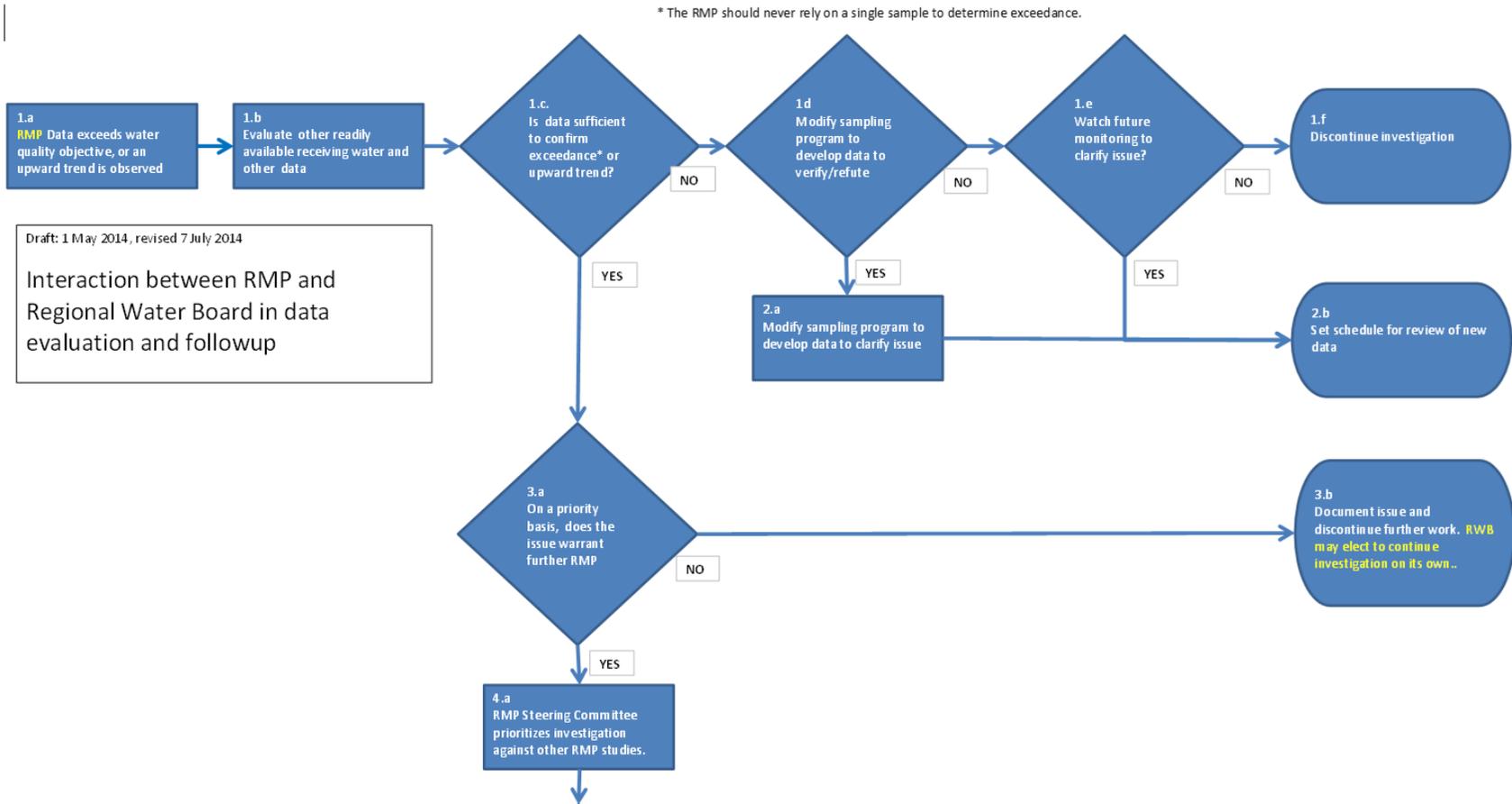
Name	Representing	Affiliation
Greg Gearheart Alternate: Vacant	Regulatory – State	State Water Resources Control Board
Tessa Fojut Alternates: Danny McClure Janis Cooke	Regulatory - State	Central Valley Regional Water Board
Debra Denton Alternate: Valentina Cabrera-Stagno	Regulatory - Federal	U.S. EPA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

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.

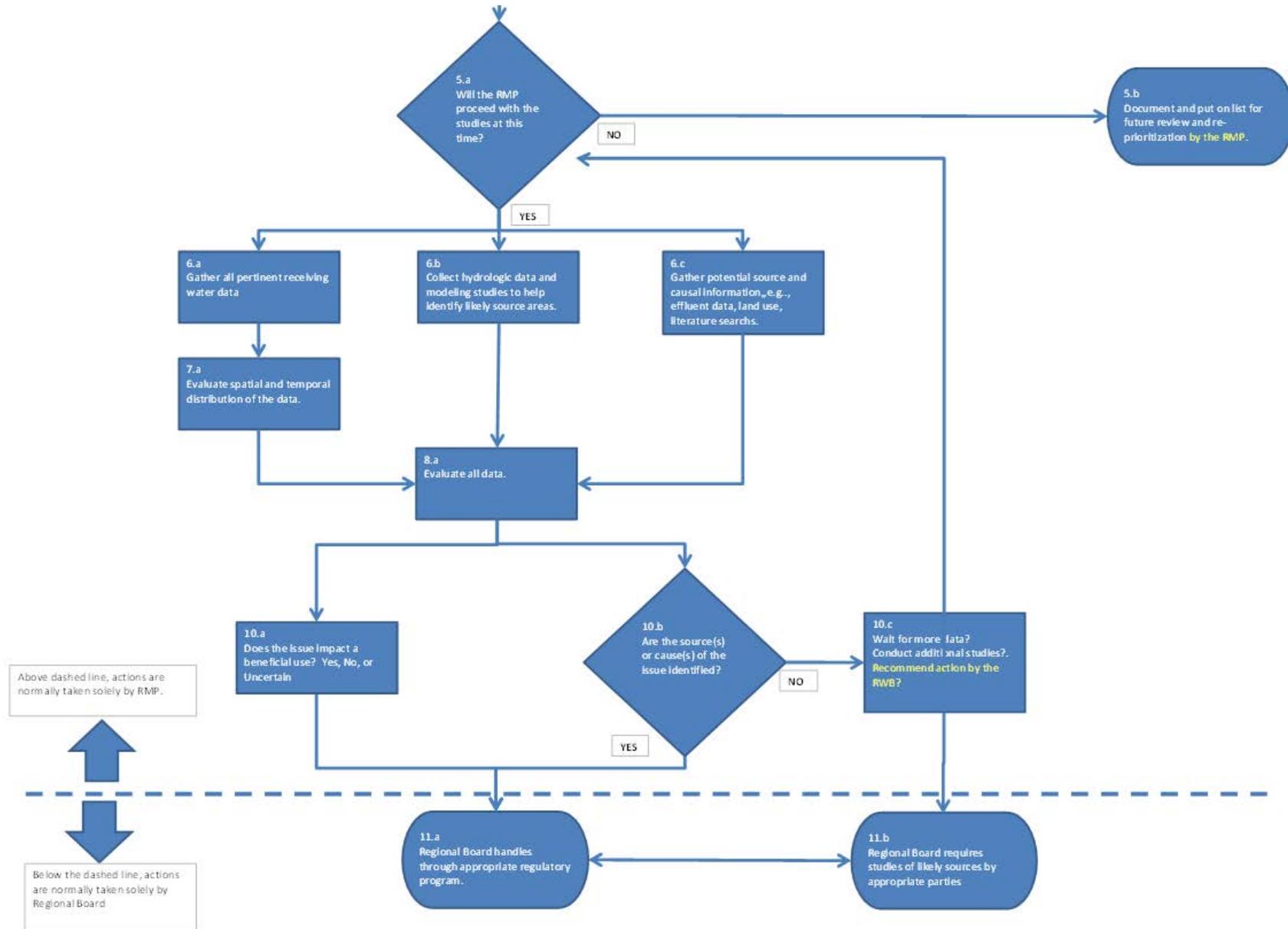
The flowchart represents the expectation is that regulatory agencies and dischargers will work together to jointly characterize the sources, causal factors and beneficial use impacts of any issues of concern to ensure that regulatory decisions are well founded and effective. The expectation is further 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.



Flow chart continued on next page

Flow chart continued from previous page



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.
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

**Current and Anticipated Management Decisions, Policies, and Actions
by the Regulatory Agencies that Manage Delta Water Quality**

Decisions, Policies and Actions	Lead Agency	Timing
Pesticides/Toxicity		
Central Valley Diazinon and Chlorpyrifos Basin Plan Amendment	CVRWQCB	SWRCB approval in 2015 EPA approval 2016
Chlorpyrifos Regulations: (1) DPR restricted use material, effective May 2015 (2) EPA announced potential phase out in 2016	DPR, USEPA	2016
Toxicity Policy: New state plan on effluent and receiving water toxicity	SWRCB	2016
Central Valley Pyrethroids Total Maximum Daily Load	CVRWQCB	Hearing in Feb 2017
UCD Developing Water Quality Criteria for Oxyfluorfen, Prometryn, Simazine, Trifluralin, Fipronil	CVRWQCB	April 2017
MAA between DPR and SWRCB [in process of being edited]	DPR, SWRCB	2017
Urban Pesticide Reduction Plan (part of STORMS)	SWRCB	2018
Chemicals of Emerging Concern		
Chemicals of Emerging Concern Statewide Pilot Monitoring Program Development	SWRCB	On-going 2017 for CVWRCB
Nutrients		
San Francisco Bay Nutrient Science Plan (Delta Plan Recommendation)	SFBRWQCB	January 2016
Central Valley Nutrient Research Plan (Delta Plan Recommendation)	CVRWQCB	Summer 2017
Proposed Policy for Nutrients in Inland Surface Waters	SWRCB	2017 Completion of 5 year project 2015 Significant Decision process
Mercury		
Statewide Reservoir Mercury Total Maximum Daily Load	SWRCB	June 2017
State-Wide Mercury Water Quality Objectives	SWRCB	Spring/Summer 2017
Delta Methylmercury Total Maximum Daily Load	CVRWQCB	Phase I review by Oct. 2020 Phase II start by Oct. 2022
Selenium		
North SF Bay Selenium TMDL	SFBRWQCB	Completed in 2015
Water Quality Objective for Selenium for SF Bay and Delta	USEPA	June 2016

Pathogens/Bacteria		
State-Wide Bacteria Objectives	SWRCB	2016
Drinking Water Policy	CVRWQCB	Completed
Stormwater		
Regional Stormwater Permit	CVRWQCB	Adopted by Regional Board in June 2016
Strategy to Optimize Resource Management of Storm Water (STORMS)	SWRCB	Approved Jan 2016
Flows		
Bay Delta Water Quality Control Plan Phase I Flow Objectives San Joaquin River Inflows	SWRCB	Fall 2016
CA Water Fix: Permit for new diversion point will have monitoring requirements. Delta RMP angle is monitoring to tease out flow effects on nutrients.	SWRCB	Hearings in 2016 Decision in late 2017
Bay Delta Water Quality Control Plan Phase II Flow Objectives Sacramento Inflows	SWRCB	April 2018
Bay Delta Water Quality Control Plan Phase II Flow Objectives Sacramento Outflow	SWRCB	April 2018
Other Policies/Drivers		
Clean Water Act 303(d) list of Impaired Waterbodies and 305(b) Integrated Report	CVRWQCB	Ongoing (Hearing in Dec 2016)
CV-SALTS	CVRWQCB	Salt and Nitrate Mgmt Plan 2016 Basin Plan Amendment 2018
Lower San Joaquin River Salinity Objectives	CVRWQCB	February 2017
Biological Integrity Policy for Wadeable Streams	SWRCB	2017
Sediment Quality Objectives: Sets targets for fish tissue for chlordanes, DDT, PCBs based on sediment concentrations	SWRCB	July 2017

Materials for Item 11

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		USGS draft report has been presented to TAC for review. Report is being revised based on internal USGS comments. Revised report will be sent to TRC and SC in October 2016.
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	

Project	Primary	Deliverable	Assigned To	Due Date	Status	Comments
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	
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	Complete	Charter was approved at 7/20/16 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		The QAPP was revised to reflect the addition of mercury monitoring. QAPP was approved by SC in July 2016. State and SWAMP QAOs have re-confirmed their approval. All that remains to be done is to collect all signature, which is delayed due to summer vacation schedules.
Delta RMP (FY15/16)	Pathogens Study	Data Management of Year 1 Pathogens Data	Amy Franz	07/31/16	Complete	Data from BioVir and Eurofins has been uploaded to SFEI's RDC database; it takes approximately 2 weeks for it to be loaded into CEDEN.
Delta RMP (FY15/16)	Pathogens Study	Quality Assurance Report on Year 1 Pathogens Data	Don Yee	09/30/16	Complete	QAO report. The report is on the agenda for the 9/20/16 TAC meeting.
Delta RMP (FY15/16)	CUP Monitoring	Field Sampling Report for FY15/16 CUP Monitoring	Ila Shimabuku	09/30/16		On agenda for 9/20/16 TAC meeting
Delta RMP (FY15/16)	Nutrients Synthesis	Nutrient Synthesis - Convene 2-day workshop with expert panel in October 2016.	Thomas Jabusch	10/31/16		Workshop scheduled for 9/30/16.
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. Data need to be uploaded to CEDEN by 2/1/17.
Delta RMP (FY15/16)	CUP Monitoring	Quality Assurance Report for FY15/16 CUP Monitoring	Don Yee	12/31/16		

Project	Primary	Deliverable	Assigned To	Due Date	Status	Comments
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		
Delta RMP (FY15/16)	CUP Monitoring	Annual Monitoring Report for FY15/16 CUP Monitoring	Thomas Jabusch	02/28/17		Data need to be uploaded to CEDEN by 2/1/17.
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 SFEL'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)	Governance	Steering Committee Meeting #1 and Summary	Meg Sedlak	07/20/16	Complete	SC draft minutes sent to group for comments.
Delta RMP (FY16/17)	Program Management	Completion of the MOA	Philip Trowbridge	09/01/16	Complete	MOA was completed and used as a bilateral agreement between ASC and Regional San.
Delta RMP (FY16/17)	Program Management	Proposal for Prop 1 Funding	Meg Sedlak	09/21/16	Complete	Prop 1 Hg proposal submitted.
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		This topic was on the agenda for the SC in July but was not discussed. The task will be delayed pending direction from the SC.
Delta RMP (FY16/17)	Nutrients Synthesis	7A1.1 Synthesis Report - Additional data analyses	Thomas Jabusch	09/30/16		<ul style="list-style-type: none"> •9/30/16: Download most recent IEP-EMP data •1/31/16: All analyses complete
Delta RMP (FY16/17)	Nutrients Synthesis	7B2.1 Modeling and Synthesis of Modeling Results - Convene nutrient subcommittee in-person meeting or conference call	Thomas Jabusch	10/03/16		<ul style="list-style-type: none"> •10/3/16: Schedule a meeting or call to <ol style="list-style-type: none"> 1. Select model and metrics/model parameters (Task 2), 2. Selection subregions and habitat classification delineations to be used (Tasks 1 and 2), and 3. Discuss Statistical Modeling (Task 3) •10/17/16: Develop work materials for call •10/24/16: Convene conference call
Delta RMP (FY16/17)	Governance	Steering Committee Meeting #2 and Summary	Philip Trowbridge	10/18/16		
Delta RMP (FY16/17)	Nutrients Synthesis	7C3.1 Nutrients- Statistical Modeling	Thomas Jabusch	10/24/16		<ul style="list-style-type: none"> •10/24/16: Nutrient subcommittee meeting/call (same meeting/call as in Task 2) •10/24/16: Comments due •1/31/16: All additional statistical modeling complete •2/28/16: Draft outline to Nutrient Subcommittee/TAC •3/31/16: Comments due •5/31/17: Draft report to Nutrient Subcommittee/TAC •6/15/17: Comments due •6/30/17: Final technical report to SC
Delta RMP (FY16/17)	Nutrients Synthesis	7A1.2 Synthesis Report - compile additional data and information	Thomas Jabusch	10/31/16		<ul style="list-style-type: none"> •10/31/16: Compile all of the following: <ol style="list-style-type: none"> 1. IEP-EMP data report (ASC) - done 2. DSP report (ASC) - done 3. Delta RMP Sensor Synthesis (USGS) 4. WRTDS/GAMA results (USEPA/ASC)
Delta RMP (FY16/17)	Nutrients Synthesis	7B2.2 Modeling and Synthesis of Modeling Results - Select appropriate model and design experiments	Thomas Jabusch	11/08/16		<ul style="list-style-type: none"> •11/8/16: Draft model design to Nutrient Subcommittee •11/16/16: Comments due •11/30/16: Model design complete
Delta RMP (FY16/17)	Governance	TAC Meeting #2 and Summary	Thomas Jabusch	12/19/16		

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Project	Primary	Deliverable	Assigned To	Due Date	Status	Comments
Delta RMP (FY16/17)	Program Management	Updated Multi-Year Plan	Philip Trowbridge	12/30/16		
Delta RMP (FY16/17)	CUP Monitoring	6. Quality Assurance Report for FY16/17 CUP Monitoring	Don Yee	12/31/16		
Delta RMP (FY16/17)	Nutrients Synthesis	7B2.3 Modeling and Synthesis of Modeling Results - Run simulations	Thomas Jabusch	12/31/16		•12/31/16: All simulations complete
Delta RMP (FY16/17)	Nutrients Synthesis	7B2.4 Nutrients - Analyze and synthesize model output data	Thomas Jabusch	12/31/16		•1/31/16: All output data analyses complete •2/28/16: Draft outline to Nutrient Subcommittee/TAC •3/31/16: Comments due •5/31/17: Draft report to Nutrient Subcommittee/TAC •6/15/17: Comments due •6/30/17: Final technical report to SC
Delta RMP (FY16/17)	Governance	Steering Committee Meeting #3 and Summary	Philip Trowbridge	01/18/17		
Delta RMP (FY16/17)	Program Management	Updated Monitoring Design	Philip Trowbridge	02/15/17		
Delta RMP (FY16/17)	Nutrients Synthesis	7A1.3 Synthesis Report - Prepare synthesis report	Thomas Jabusch	02/28/17		•2/28/16: Draft outline with example write-ups/graphs/maps to Nutrient Subcommittee/TAC •3/31/16: Comments due •5/31/17: Draft report to Nutrient Subcommittee/TAC •6/15/17: Comments due •6/30/17: Final technical report to SC
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	Philip Trowbridge	04/12/17		
Delta RMP (FY16/17)	Program Management	FY17/18 Annual Workplan and Budget	Philip Trowbridge	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	Philip Trowbridge	06/30/17		Purpose of workshop TBD
Delta RMP (FY16/17)	CUP Monitoring	6. Field Sampling Report for FY16/17 CUP Monitoring	Thomas Jabusch	09/29/17		
Delta RMP (FY16/17)	CUP Monitoring	6. Data Management of FY16/17 CUP Data	Amy Franz	12/31/17		
Delta RMP (FY16/17)	CUP Monitoring	6. Permit Compliance Data for ILRP	Amy Franz	02/01/18		
Delta RMP (FY16/17)	CUP Monitoring	6. Annual Monitoring Report for FY16/17 CUP Monitoring	Thomas Jabusch	02/28/18		
Delta RMP (FY16/17)	Mercury	8. 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	SC Action Items 07/20/2016	07/20/16	Send an invite to SC for January 26, 2017 meeting	Meg Sedlak	09/01/16	Complete	
2	SC Action Items 07/20/2016	07/20/16	Include page numbers in the agenda indicating location of agenda items, add blank pages between items in the agenda package.	Meg Sedlak	10/03/16		
3	SC Action Items 07/20/2016	07/20/16	Accept Charter track changes sent to SC and incorporate language modifications requested. Place final version in google drive under foundational documents.	Philip Trowbridge	08/17/16	Complete	
4	SC Action Items 07/20/2016	07/20/16	Send TAC the final version of the Charter before the 10/18/16 meeting.	Meg Sedlak	09/30/16	Complete	
5	SC Action Items 07/20/2016	07/20/16	ASC and Finance Subcommittee will meet to determine a way to provide the level of information requested. ASC will provide a cost estimate for any extra work associated with the increased reporting.	Meg Sedlak	10/03/16	Complete	This meeting took place immediately following the SC meeting. For future financial reports, ASC will use the same format as was developed for the Q2 report but also add the hours billed by each staff member for each task from the invoices.
6	SC Action Items 07/20/2016	07/20/16	Send out Management Driver table to SC and TAC	Meg Sedlak	09/30/16	Complete	
7	SC Action Items 07/20/2016	07/20/16	Add an agenda item to the October 18th Joint meeting agenda to discuss TAC comments on the Charter.	Meg Sedlak	09/30/16	Complete	
8	SC Action Items 07/20/2016	07/20/16	Table for TAC roster needs to be updated to reflect the composition indicated in the charter (e.g. resource agencies). Greg Gearheart and Jeff Stuart requested that they be added to the TAC mailing list as they seek to find TAC representatives.	Thomas Jabusch	09/30/16	Complete	
9	SC Action Items 07/20/2016	07/20/16	Develop a list of SEP projects that can be discussed at the MYP meeting.	Adam Laputz	09/30/16		
10	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	
11	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	
12	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.
13	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	
14	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	02/28/17		
15	TAC Action Items from 6/14/2015	06/14/16	TAC requested that minutes be more concise if possible	Thomas Jabusch	09/13/16	Complete	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
16	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	
17	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	
18	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	
19	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	
20	SC Action Items 04/25/2016	04/25/16	SC members will provide ASC with comments on the Charter	Group	05/05/16	Complete	
21	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
22	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.
23	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	
24	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	
25	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	
26	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	
27	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	
28	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	Complete	According to LWA, additional funds are not needed at this time.
29	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	
30	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	
31	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	
32	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	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
33	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	
34	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	
35	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	
36	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
37	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
38	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
39	SC Action Items from 12/18/15	12/18/15	Finalize meeting summary from December 18, 2015	Thomas Jabusch	04/25/16	Complete	
40	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	
41	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.
42	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	
43	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.
44	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	
45	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	
46	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	Complete	Fact sheet prepared by LWA.
47	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.
48	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.
49	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.
50	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.
51	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

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
52	TAC Action Items from 11/16/15	11/16/15	Distribute W. Fleenor's paper to the TAC	Stephen McCord	11/20/15	Complete	
53	SC Action Items from 10/23/15	10/23/15	Update SC roster	Thomas Jabusch	10/30/15	Complete	
54	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
55	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	
56	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
57	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	
58	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	
59	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	
60	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	
61	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	
62	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	Complete	Provided a cost comparison at the April SC meeting.
63	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	
64	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	
65	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.
66	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.
67	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.
68	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	
69	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	
70	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	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
71	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	
72	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.
73	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	
74	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	
75	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	