Delta RMP Steering Committee Meeting
April 25th, 2016 9:30 am – 3:00 pm

Sunset Maple Room,
10060 Goethe Rd, Sacramento

Join the meeting: https://join.me/sfei-conf-cw1
Enter meeting code: sfei-conf-cw1. Join the audio conference: Dial a phone number and enter access code, or connect via internet. By phone: San Francisco, CA +1.415.655.0381
Access Code 943-326-397#

Agenda

1.	**Introductions and Review Agenda** Establish quorum		9:30 Brock Bernstein
2.	**Decision: Approve Meeting Summary from December 18th, 2015**	12/18/15 Mtg Summary, RMP Decision Record (Excel Spreadsheet)	9:35 Brock Bernstein
3.	**Information: Delta RMP Financial Update** This update will cover remaining balances of all budgets, balance of the Undesignated Funds Reserve, and SWAMP contract funds in FY16/17. Desired outcome: • Informed committee regarding Program finances	Financial Update Memo	9:45 Meg Sedlak
4.	**Information: TAC Meeting Summary** The TAC co-chairs will provide an update on current use pesticides and pathogens monitoring and outline recommended option for study elements for FY16/17 in agenda item 5. Desired outcome: • Informed committee regarding TAC activities and recommendations	3/30/15 Mtg Summary	10:05 Stephen McCord, Joe Domagalski

5.	**Action: Approval of the FY16/17 Detailed Workplan.** The SC approved a planning budget in December 2016 of $948K; based on this budget and subcommittees' input, the TAC made a recommendation for study elements for FY16/17. ASC staff will present elements of the detailed workplan. <u>Desired outcome:</u> • Approval of the FY16/17 Workplan and Budget	Detailed Workplan and Budget	10:20 Meg Sedlak
6.	**Action: Approve the Memorandum of Agreement (MOA)** The Draft MOA was given to the SC in December for review. It has been edited since then in response to the ASC Board comments <u>Desired outcome:</u> • Approve the Draft MOA	Draft Memorandum of Agreement (MOA)	11:35 Phil Trowbridge
	Lunch break		11:55
7.	**Decision: Approval of the Draft Charter (including adequate participation)** A Draft Charter was given to the SC for review at the December SC meeting. <u>Desired outcome:</u> • Approve the Draft Charter	Draft Charter (including adequate participation language)	12:45 Phil Trowbridge

8.	**Action: Update on SEP and Prop 1 Funding** Region 5 Board has approved the direction of the option of Supplemental Environmental Project (SEP) funds to the Delta RMP. Adam will discuss what this means to the program. The Delta RMP mercury monitoring proposal to CalDFWS for Prop 1 funding was not successful. Linda will discuss actions we can take to revise the proposal to be in better alignment with CalDFWS criteria. <u>Desired outcome:</u> • Identify next steps for obtaining SEP and Prop 1 funding.	None	1:30 Linda Dorn; Adam Laputz
9.	**Discussion: Status of Deliverables, Action Items and Upcoming Meetings** <u>Desired outcome:</u> To inform the committee about Delta RMP deliverables and upcoming meetings.	Delta RMP Stoplight Reports	2:00 Meg Sedlak
10.	**Member updates**		2:15 Linda Dorn/ Adam Laputz
11.	**Set dates and agenda topics for upcoming meetings** The next meeting will focus on approval of the revised QAPP (to include mercury) and revised High Frequency Nutrient Monitoring in the Delta. Desired outcome: • Identify action items • Selection of meeting dates for next two SC meetings in July and October (July 12th, 13th, 14th, 20th, 21st; October 12th, 13th, 18th, 19th,20th) • Informed committee regarding the purpose of the next meeting		2:35 Meg Sedlak, Brock Bernstein
12.	**Plus/Delta**		2:50 Linda Dorn; Adam Laputz
13.	**Adjourn**		3:00

AQUATIC SCIENCE CENTER

DATE: April 18th, 2016

TO: Delta RMP Steering Committee

FROM: Meg Sedlak and Philip Trowbridge

RE: Summary of Delta RMP Financials – period ending 03/31/16

The purpose of this memorandum is to provide an update of budgets and expenses for all open RMP budget years (FY14/15 and FY15/16) and the balance of Program Reserve funds. All of the presented values are current through 03/31/16.

Delta RMP FY14/15 Budget

Revenue

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

Expenses

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

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

- Labor/Direct Costs: Expended 100% of the budget (i.e., $67,925 of $68,000)
- Subcontractors: Expended 46% of the budget (i.e., $64,580 out of $142,000).

Delta RMP FY15/16 Budget

Revenue

A total of $979,559 in the contributions for the FY15/16 Delta RMP budget has been received. In addition, a total of $55,000 has been invoiced with payments due by April 30th, 2016. Finally, a total of $100,000 in additional revenue is expected, pending approval by the SFCWA Board in April. See Table 2 for a breakdown of contributions for FY15/16.

The revenue received to date ($979,559) is slightly greater than the FY15/16 budget ($892,938). If all the expected and invoiced revenue comes in, the grand total will be 1,134,559 (see Figure 3 for comparison of planned versus actual revenue). Additional revenue above the planned budget will be placed in the Undesignated Funds Reserve but there is too much uncertainty to make that decision now. The exact balance of excess revenue from FY15/16 should be known in time for the July or September SC meeting.

Expenses

Approximately 36% of the budget has been spent ($324,817 of the $892,938 budget) over 75% of the fiscal year. However, most of the budget is for subcontractors who have not yet submitted invoices. For labor tasks such as Program Management and Governance, expenses to date have been approximately 54% of the budget for these tasks. Figure 2 shows a comparison of expenses to budget by category. For more detailed information on budgets and expenses by line item, please refer to Table 3. The expenses by labor/direct costs and subcontractors are:

- Labor/Direct Costs: Expended 46% of the budget (i.e., $147,435 of $319,300)
- Subcontractors: Expended 31% of the budget (i.e., $177,382 out of $573,638).

The remaining deliverables to be completed include: the MOA for financial management; SC and TAC meetings (3 total); QAPP update; data management associated with pathogens, pesticides, and toxicity; and a nutrient workshop and summary report for future nutrient monitoring. We anticipate being able to finish these deliverables on budget.

RESERVE FUNDS

Excess revenue ($51,903) from FY14/15 was added to the Undesignated Funds Reserve. Since this was the first contribution to the Reserve, the total balance of the Reserve is currently $51,903. No deposits or withdrawal from the Reserve were made during the past quarter. The decision about adding excess FY15/16 revenue to the Reserve will be made in July or September 2016.

Table 4 shows a running list of deposits and withdrawals into the Undesignated Funds Reserve. The transfer of $41,000 between the FY14/15 and FY15/16 budget is shown on this ledger as an accounting practice.

Figures and Tables

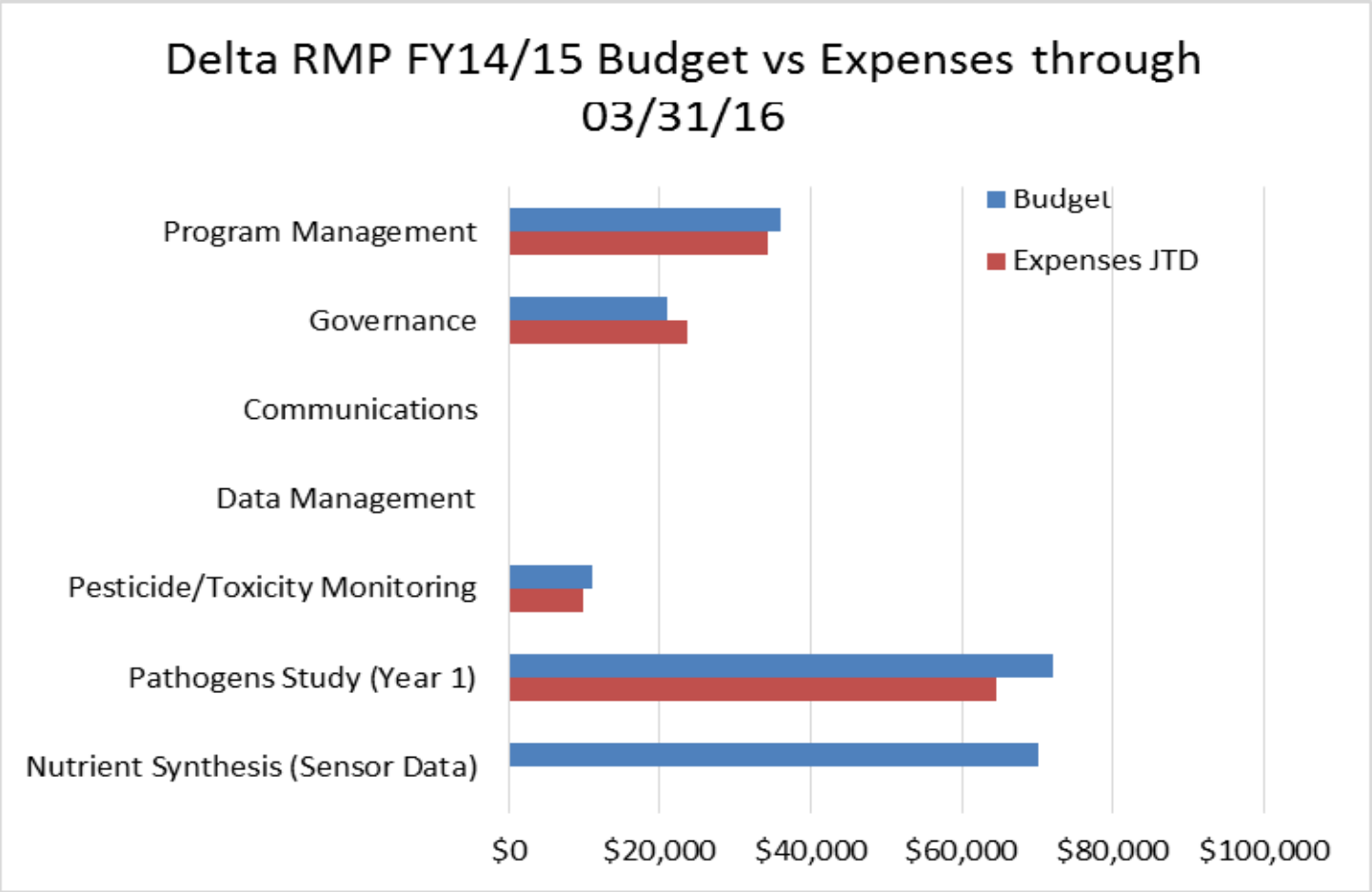

Figure 1: Delta RMP FY14/15 Budget. Budget and expenses from 1/1/15 through 03/31/16 by category

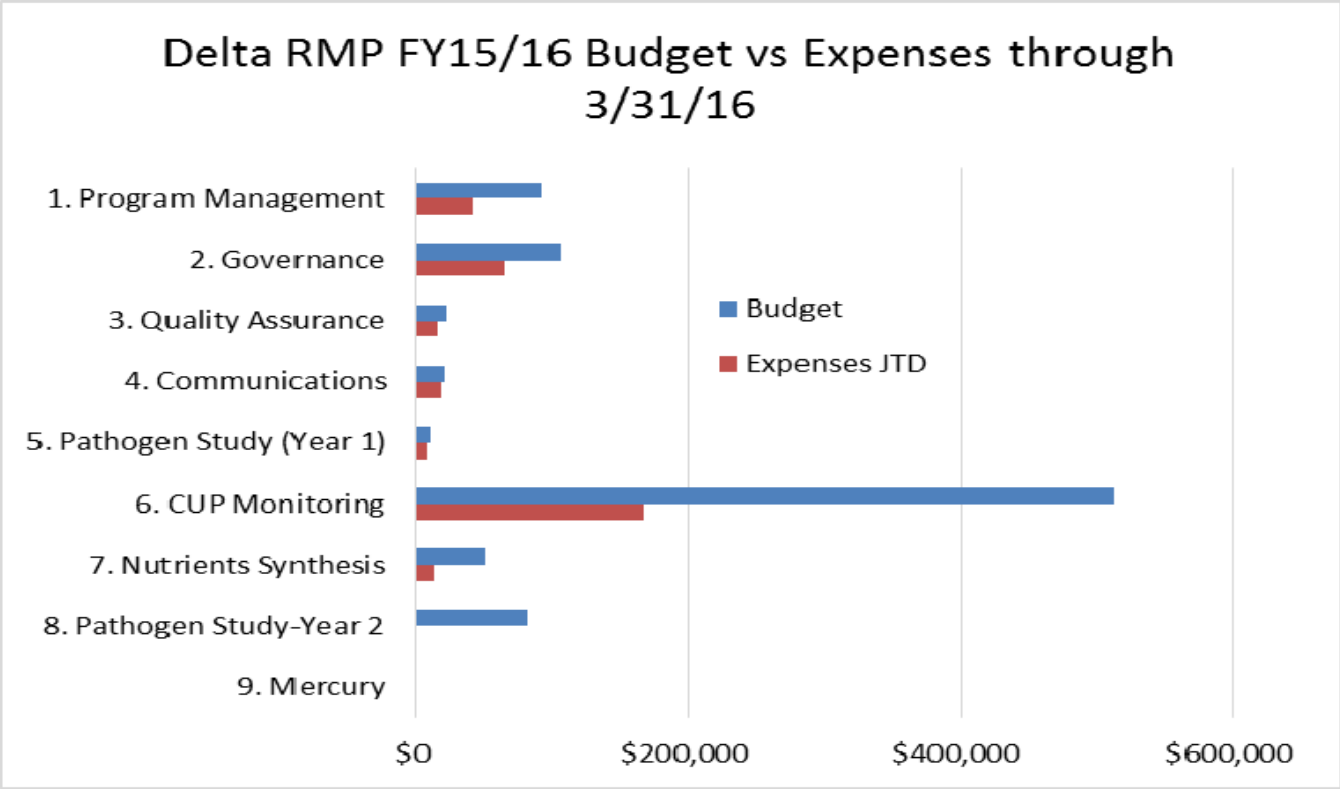

Figure 2: Delta RMP FY15/16 Budget. Budget and expenses from 7/1/15 through 3/31/16 by category.

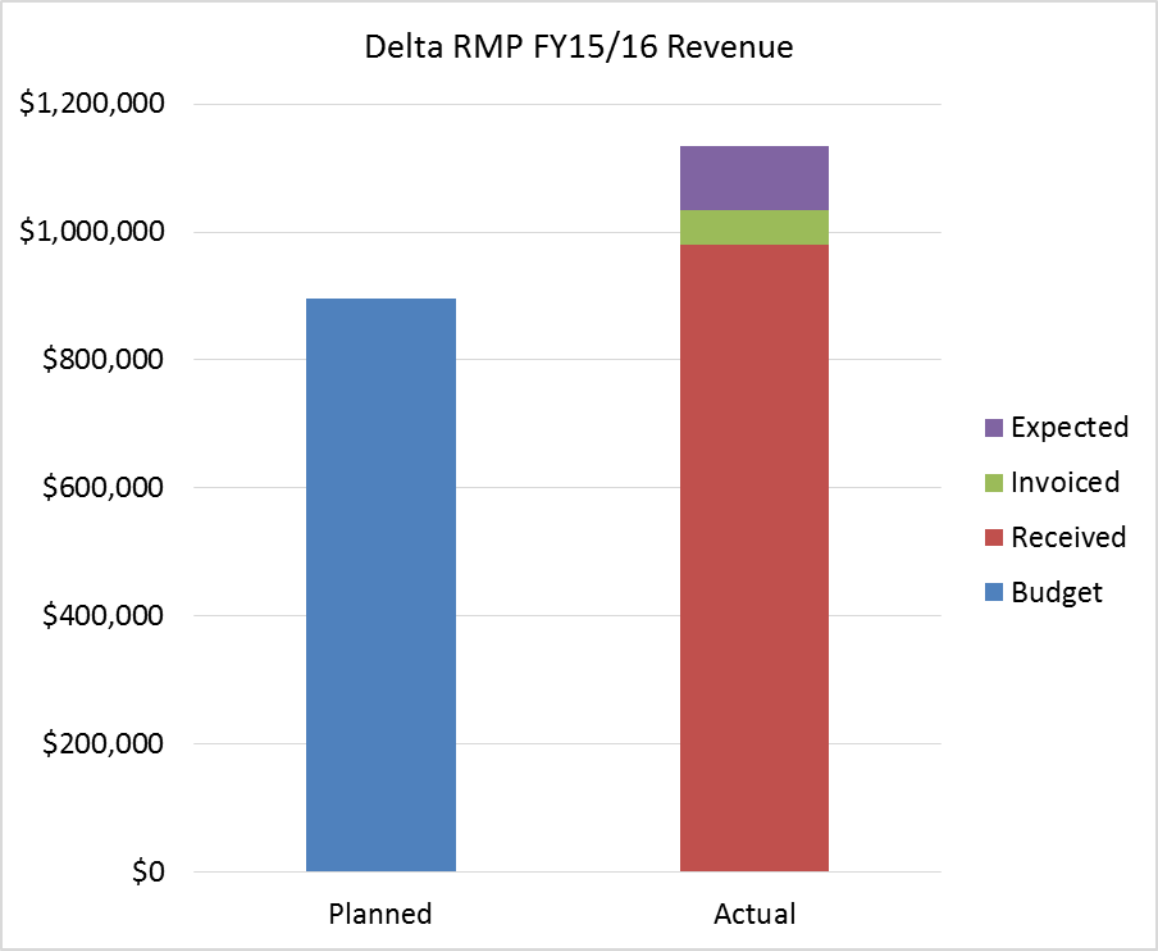

Figure 3: Delta RMP Revenue FY15/16 showing planned revenue versus revenues to date (i.e., received, invoiced, and expected)

Table 1: Delta RMP FY14/15 Budget. Budget and expenses from 1/1/15 through 3/31/16 by line item.

	FY14/15 Original Budget	Budget Adjustment	FY14/15 Final Budget	FY14/15 Expenses as of 3/31/16	FY14/15 Funds Remaining as of 03/31/16	Comments
Program Management	$36,000		$36,000	$34,393	$1,607	task closed
Governance	$21,000		$21,000	$23,600	-$2,600	task closed
Communications	$0		$0	$0	$0	
Data Management	$0		$0	$0	$0	
Pesticide/Toxicity Monitoring			$0		$0	
Logistics and Coordination	$11,000		$11,000	$9,932	$1,068	task closed
Field Sampling and Pesticide Lab	$41,000	-$41,000	$0		$0	moved to FY15/16 budget
Toxicity/TIE Lab	$0		$0	$0	$0	
Pathogens Study (Year 1)	$72,000		$72,000	$64,580	$7,420	100% subcontract
Nutrient Synthesis (Sensor Data)	$70,000		$70,000	$0	$70,000	100% encumbered to USGS contract
Total	$251,000	-$41,000	$210,000	$132,505	$77,495	

Table 2: Delta RMP FY15/16 Revenue (expected, invoiced or received) through 3/31/16 by participant group.

	Expected	Invoiced	Received	Total
ILRP		$35,000	$113,780	$148,780
MS4 Phase 1			$158,200	$158,200
MS4 Phase 2		$20,000	$169,999	$189,999
POTW			$209,754	$209,754
SFCWA	$100,000			$100,000
RB5			$267,000	$267,000
Carryover from FY14/15			$41,000	$41,000
Water Board Funds for Comms Plan			$19,826	$19,826
Total	$100,000	$55,000	$979,559	$1,134,559
Revenue Assumed for Workplan Budget				$895,826
Surplus or Deficit				TBD*

*TBD once all revenue has been received. Received revenue is still less than budget.

Received Revenue = Funds received by ASC plus SWAMP contract funds
Invoiced Revenue = Funds for which ASC has sent invoices to participants but has not yet received
Expected Revenue = Funds that are expected but are not formally committed through an invoice or contract.

Table 3: Delta RMP FY15/16 Budget. Budget and expenses from 7/1/15 through 3/31/16 by line item.

		FY15/16 Original Budget	Budget Adjustment	FY15/16 Final Budget	FY15/16 Expenses as of 03/31/016	FY15/16 Funds Remaining as of 03/31/16	Comments
1. Program Management	A. Program Planning	$45,000		$45,000	$12,549	$32,451	
	B. Contract and Financial Management	$47,000		$47,000	$28,601	$18,399	
2. Governance	A. SC meetings	$45,900		$45,900	$28,965	$16,935	
	B. TAC meetings	$59,000		$59,000	$36,065	$22,935	
3. Quality Assurance	A. Quality Assurance System	$10,000		$10,000	$4,922	$5,078	
	B. Technical Oversight and Coordination	$11,000		$11,000	$10,060	$940	
4. Communications[1]	A. Communications Plan	$16,000		$16,000	$16,000	$0	Closed
	B. Communications Product	$4,000		$4,000	$1,649	$2,351	Closed
5. Pathogen Study (Yr.1)	A. Data Management	$10,000		$10,000	$6,746	$3,254	
6. CUP Monitoring	B. Pesticide Laboratory Work	$189,208		$189,208	$0	$189,208	
	C. Toxicity Laboratory Work	$287,830		$287,830	$160,375[2]	$127,455	
	D. Data Management	$21,000		$21,000	$7,244	$13,756	
	E. Reporting	$15,000		$15,000	$0	$15,000	
7. Nutrients Synthesis	A. Synthesis Report-Monitoring Data Gaps	$50,000		$50,000	$11,641	$38,359	
8. Pathogen Study-Yr 2	A. Monthly Pathogen Sampling	$72,000		$72,000	$0	$72,000	
	B. Data Management	$10,000		$10,000	$0	$10,000	
		$892,938	$0	$892,938	$324,817	$568,121	

[1]Funded by $20,000 from the Water Board contract with ASC. This contract was closed because it was unable to be extended; $2,351 was returned to Water Board.

[2]Estimated expenditures to date on the SWAMP contract for toxicity analyses based on discussion with UC-Davis personnel.

Table 4: Delta RMP Undesignated Funds Reserve Ledger.

Budget Year	Deposit or Withdrawal	Reserve Type	Authorization	Date of Authorization	Amount	Comment
FY14/15	Deposit	Undesignated Funds	Steering Committee	6/16/2015	$41,000	Release funds allocated for CUP monitoring in FY1415 budget in order to re-allocate these funds into the FY1516 budget for CUP monitoring.
FY14/15	Deposit	Undesignated Funds		10/15/2016	$51,903	Extra revenue received in FY14/15. Actual revenue minus budgeted expenses for FY1415 (number is updated whenever budget is changed, date reflects most recent update)
FY15/16	Withdrawal	Undesignated Funds	Steering Committee	6/16/2015	-$41,000	Release funds allocated for CUP monitoring in FY1415 budget in order to re-allocate these funds into the FY1516 budget for CUP monitoring.
TOTAL		Undesignated Funds			$51,903	

Delta Regional Monitoring Program

FY16/17 Detailed Workplan and Budget

Draft for Steering Committee Approval

April 18th, 2016

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INTRODUCTION

The purpose of this memorandum is to provide the Steering Committee (SC) with a Detailed Workplan for FY16/17 Delta RMP budget.

On December 18th, 2015, the SC approved a planning budget of $948,900 for FY16/17 and established the general tasks to be included in the plan. The planning budget of $948,900 reflected a 2.5 percent increase on FY15/16 fees; however, it did not include the State and Federal Contractor Water Agencies (SFCWA) expected contribution of approximately $100,000. At the time of the meeting, SFCWA was unable to confirm their FY16/17 contribution; however, SC co-chairs have directed ASC staff to develop a workplan assuming a SFCWA contribution with a planning budget of $1,048,900.

Based on the multi-year plan presented at the December 2015 SC meeting, the subcommittees (i.e., mercury, pesticides, nutrients, and pathogens subcommittees) developed study proposals consistent with the planning budgets and the monitoring design. The FY16/17 study proposals were vetted by the respective subcommittees and brought to the TAC on March 30th. The TAC reviewed and prioritized the scientific studies based on the planning budget for monitoring and special studies. ASC then prepared this detailed workplan for the recommended studies and core functions of the program.

This report summarizes the:

- Expected revenue for FY16/17;
- A detailed budget and workplan for the core functions of the program;
- A detailed budget and workplan for monitoring and special studies; and
- The overall FY16/17 Delta RMP budget.

This Detailed Workplan will be brought to the SC for approval at the April 25th, 2016 meeting.

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FY16/17 REVENUE

Based on new participants, additional revenue from SWAMP, and increased revenue from the POTW sector, the total expected revenue for FY16/17 at the writing of this report is $1,085,035.

Some of the Delta RMP funds are in-kind, such as a State Board contract with UC-Davis for toxicity testing (the "SWAMP Contract"). These in-kind funds are treated as revenue but are not fungible. They cannot be used for more than one purpose. For example, the SWAMP contract funds can only be used for toxicity analytical costs. In addition, Water Board staff has indicated that unspent SWAMP funds from FY15/16 will be carried over into FY16/17. Water toxicity using *Hyalella azteca* was not conducted in FY15/16. As a result, Water Board staff estimate to date that at least $11,300 of FY15/16 SWAMP funds will be available for FY16/17; this additional revenue is included in the estimation of total expected revenue of $1,085,035.

Lastly, some revenue will likely be made available later in FY16/17 (e.g., funds from SFCWA are likely to be approved by the SFCWA Executive Board in the Spring 2017, with the revenue available to the Delta RMP in April/May).

Table 1 summarizes the expected revenue for FY16/17.

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Table 1: Delta RMP FY16/17 Cost Allocation Schedule

Participant	**FY15/16**	**Planning FY16/17**	**Actual FY16/17**	**Comment**
Regional Board	$200,000	$205,000	$211,320	$200K in FY16/17 and $11,300 in expected carryover from FY15/16
Irrigated Lands	$148,780	$151,018	$151,018	
Stormwater (MS4 Phase 1)	$158,200	$201,105	$201,105	
Stormwater (MS4 Phase 2)	$189,999	$174,250	$194,249	New participant -El Dorado County
Wastewater	$209,754	$214,998	$224,843	Some POTWs had to raise allocation to meet permit letters
Water suppliers (SFCWA)	$100,000	$102,500	$102,500	Funding will be approved by SFCWA Board in April 2017
Total	$1,073,733	$1,048,871	$1,085,035	FY15/16 total includes $67,000 of additional SWAMP funds

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FY16/17 PROGRAM CORE FUNCTION EXPENSES

Delta RMP expenses fall into two categories: core function expenses associated with administering a multi-faceted, stakeholder-driven, monitoring program; and special studies and monitoring addressing the approved Delta RMP Monitoring Design Summary. This section details the core function expenses for FY16/17.

The core function budget includes the following categories of tasks:

- Preparation of Program Planning Documents (e.g., Workplan, Monitoring Design)
- Contracts and Financial Management
- Governance
- Quality Assurance and
- Communications

The estimated cost to implement these tasks is $294,100 (Table 2). For each of the budget numbers, a detailed description, budget justification, and list of deliverables has been provided in Table 3.

There is strong interest in reducing core function costs associated with administering a stakeholder driven program in order to maximize funds available for technical studies and reports. However, managing a stakeholder process such as the Delta RMP, in which stakeholders are engaged at every step of the process to develop, implement and interpret data, requires a higher level of governance process, effort, and cost.

The benefit from this additional effort is:

- a more cost-efficient and effective use of monitoring funds,
- a more focused monitoring effort on the questions that need to be answered,
- better coordination among disparate groups to avoid duplication of efforts,
- advantageous use of existing infrastructures (e.g., stations, vessels, equipment, etc.),
- longer-term planning that allows for strategic leveraging of external funds/opportunities, and
- lastly, a more informed stakeholder group that is able to provide sound scientific stewardship of the Delta.

The estimated costs for the core function expenses in FY16/17 do not fully cover the level of effort that has been requested of, and delivered by, ASC during the past fiscal year. Therefore, the budget for these tasks cannot be reduced without also reducing the scope of work.

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Table 2: Delta RMP FY16/17 Core Function Budget.

		Labor	Subcontract	Direct Cost	Grand Total
1. Program Management	A. Program Planning	$76,000			$76,000
	B. Contract and Financial Management	$51,000		$1,000	$52,000
2. Governance	A. SC meetings	$42,000	$8,800	$500	$51,300
	B. TAC meetings	$47,000	$17,300	$500	$64,800
3. Quality Assurance	A. Quality Assurance System	$15,000			$15,000
	B. Technical Oversight and Coordination	$15,000			$15,000
4. Communications	A. Factsheet	$5,000			$5,000
	B. Workshop on Technical Issues	$15,000			$15,000
Grand Total		$266,000	$26,100	$2,000	$294,100

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Table 3: Delta RMP FY16/17 Programmatic Task Descriptions, Budget Justifications, and Deliverables. The funding levels proposed are conservative based on the level of effort requested and delivered in FY15/16.

Task	Subtask	Budget	Description	Budget Justification	Deliverables
1. Program Management	A. Program Planning	$76,000	Preparing annual workplan/budgets, updating foundational documents including Multi-Year Plan, Annual Workplan, and Monitoring Design. Coordinate activities among stakeholders via e-mail and telephone calls, tracking deliverables.	50 hours for Program Manager to produce the Annual Workplan and Budget. 180 hours (3.5 hrs/wk) for Program Manager to update Monitoring Design, Multi-Year Plan. 240 hours (4.6 hr/wk) for technical staff to contribute to workplans, follow up on items, and update program documents.	Updated Multi-Year Plan (December 2016). FY17/18 Annual Workplan and Budget (June 2017). Updated Monitoring Design (February 2017). Submit proposal for external funding (e.g. Prop 1). Quarterly reports on deliverables and action items.
	B. Contract and Financial Management	$52,000	Tracking expenditures versus budget. Providing quarterly financial updates to the Steering Committee. Developing contracts and managing subcontractors. Invoicing program participants.	5% of assets under management. 64 hours for Contracts Manager and 40 hours for accountant. 176 hours for Program Manager (3.5 hr/wk) and 160 hours (3 hr/wk) for Environmental Analyst for checking on subcontracts and finances weekly. $1,000 for legal consultation regarding MOA.	Quarterly updates on FY16/17 Budget provided in the SC agenda package. Contract management.

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FY16/17 Delta RMP Detailed Workplan and Budget
Draft 04/18/16

Task	Subtask	Budget	Description	Budget Justification	Deliverables
2. Governance	A. SC meetings	$51,300	Preparing agendas, agenda packages, participating in meetings, writing meeting summaries, following up on action items, meeting with co-chairs and stakeholders in preparation for SC meetings/follow-up.	4 meetings per year. For each meeting: 40 hours for Program Manager, 20 hours for Lead Staff, 20 hours for Environmental Analyst. Travel from Richmond to Sacramento ($125/meeting). Facilitation services by Brock Bernstein (quote: $8,800)	4 Steering Committee meetings and meeting summaries. 4 pre-calls with SC co-chairs.
	B. TAC meetings	$64,800	Preparing agendas, agenda packages, participating in meetings, writing meeting summaries, following up on action items, meeting with co-chairs and stakeholders outside of meetings. Facilitation of TAC subcommittee meetings as needed. The cost for this function assumes that MEI and USGS continue to serve as co-chairs of the TAC, with ASC serving in a coordination role. The alternative is to have volunteer TAC co-chairs from the Program Participants. The cost for this option would be $47,500.	4 meetings per year. For each meeting: 27 hours for Program Manager, 45 hours for Lead Staff, 20 hours for Environmental Analyst. Travel from Richmond to Sacramento ($125/meeting). MEI paid chair (quote: $17,300)	4 TAC meetings and meeting summaries. 4 pre-calls with the TAC Chairs.
3. Quality Assurance	A. Quality Assurance System	$15,000	Updating the Quality Assurance Project Plan to cover the FY17/18 workplan and incorporating any changes from the revised Monitoring Design, writing Quality Assurance Reports for datasets, coordinating interlaboratory comparison tests (as needed), researching analytical methods, maintaining laboratory SOP file system.	64 hours for ASC QA Officer. 40 hours for ASC senior chemist.	Revisions to QAPP (June 2017).

FY16/17 Delta RMP Detailed Workplan and Budget
Draft 04/18/16

Task	Subtask	Budget	Description	Budget Justification	Deliverables
	B. Technical Oversight and Coordination	$15,000	Reviewing reports. Trouble-shooting technical issues associated with TIE, pesticide, and mercury monitoring. Assuring good coordination among subcommittees and stakeholders. Facilitation of technical workgroup meetings as needed.	80 hours for technical staff (20 hours per quarter). 22 hours for ASC Senior Scientists (nutrients/Hg) (4.5 hours per quarter).	
4. Communications	A. Factsheet	$5,000	Preparing a factsheet about the program to be used to for outreach and fundraising.	24 hours for ASC Senior Scientist. 8 hours for Program Manager. 8 hours for graphic design.	Preparation of a factsheet.
	B. Workshops on Technical Issues	$15,000	Plan and implement a workshop on a technical issue. Identify topic, relevant Delta assessment questions, hold workshop, prepare summary memorandum.	70 hours for ASC Senior Scientist. 24 hours for Program Manager. 16 hours for Environmental Analyst.	Workshop and short summary memorandum of findings.
	Total	$294,100			

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FY16/17 EXPENSES FOR MONITORING AND SPECIAL STUDIES

The FY16/17 Workplan implements "bare minimum" designs of the priorities proposed for the initial phase of the Delta RMP (e.g., current use pesticides, nutrients, and mercury).

The FY16/17 study proposals were vetted by the respective subcommittees and brought to the TAC on March 30th. The TAC reviewed and prioritized the scientific studies based on the planning budget for monitoring and special studies. The TAC recommendations are summarized below. It is important to note that the TAC assumed a worst-case planning budget of $949K. However, at the direction of the SC co-chairs, this workplan assumes the full planning budget of $1,049K, which addresses the TAC comments #3 and #4c about additional revenue.

1) Current Use Pesticide Monitoring totaling $511K (i.e., Year 2 pesticide/toxicity monitoring ($491K) and reporting ($20K)).
2) Mercury monitoring totaling $113K.
3) Nutrient synthesis at $33K. If additional revenue is made available, additional nutrient synthesis tasks may be added up to a total of $120K. The TAC requested that a more detailed scope of work for the nutrient synthesis tasks (for either funding level) be prepared and sent to the nutrient subcommittee and TAC.
4) While consensus was reached at the meeting, meaning that all TAC members present "could live with" the recommendations, Karen Ashby requested that the following qualifiers be attached to the recommendations to communicate important points from the discussion to the SC:
   a) The SC should provide direction to the TAC regarding the priorities for the upcoming FY and how funding should generally be allocated to each program area.
   b) For the 2016-2017 FY, the SC should evaluate the costs of program administration and CUPs, to ensure that the RMP is maximizing its budget for all four focus areas. If there are cost savings and/or reprioritization, the TAC will re-evaluate the recommendations as directed by the SC.
   c) The TAC recommendations assume a worst-case funding scenario. The SC should allocate full funding to the program so that priority projects can proceed for all four focus areas.

The tasks to be completed, subcontractors, and deliverables for these tasks are described in the following sections.

Current Use Pesticides (CUPs) and Toxicity Monitoring

Sampling Design

Monitoring for CUPs and toxicity will begin in FY16/17 on July 1, 2016. Monthly sampling (12 rounds) will be conducted at the 5 baseline sites: Mokelumne River at New Hope Road, Sacramento River at Hood, San Joaquin River at Buckley Cove, San Joaquin River at Vernalis, and Ulatis Creek at Brown Road (see Figure 1 for locations).

CUP Sampling Sites	Latitude	Longitude
Mokelumne R @ New Hope Rd	38.23611	-121.41889
Sacramento R @ Hood	38.36691	-121.52037
San Joaquin R @ Buckley Cove	37.97667	-121.37889
San Joaquin R @ Vernalis	37.67556	-121.26417
Ulatis C @ Brown Ulatis Creek @ Brown Rd	38.30667	-121.79472

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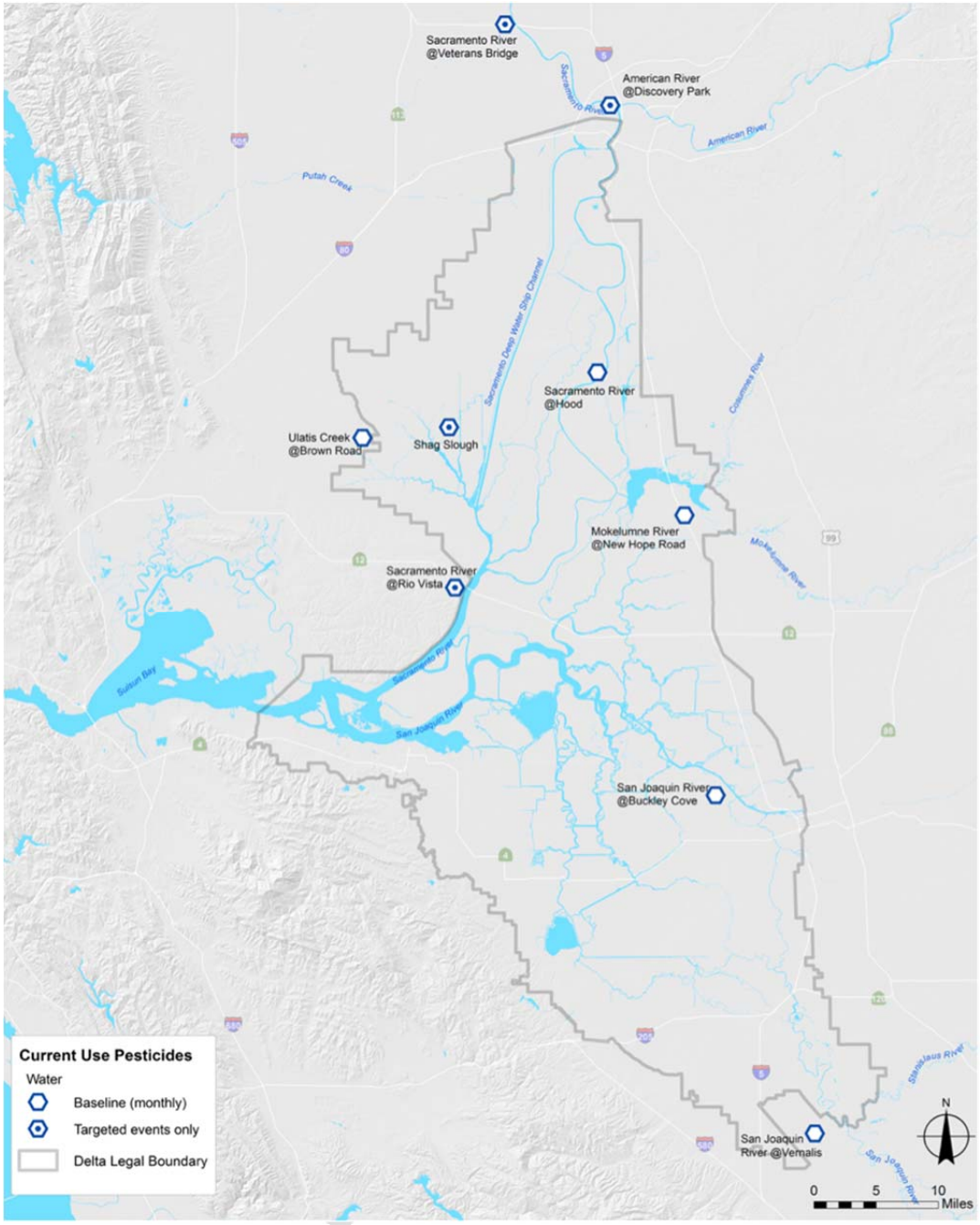

Figure 1: CUP Monitoring Sites (only "Baseline" sites will be monitored in FY16/17)

Parameters

At each site visit, the following measurements will be taken:

- Field parameters (water temperature, specific conductance, pH, dissolved oxygen, turbidity)
- Pesticides. The list of pesticides and degradates currently analyzed by USGS Pesticide Fate Research Group will be the initial list of target analytes.
- Dissolved copper, dissolved organic carbon, total organic carbon, and total suspended solids.
- Toxicity testing. The test species and endpoints to be used are *Selenastrum capricornutum* (growth), *Ceriodaphnia dubia* (survival and reproduction), and *Pimephales promelas* (larval survival and growth). Per the recommendation of SC co-chairs, the budget does not include funds for 96-hour survival test of *Hyalella azteca* in water.
- Pesticides-focused Toxicity Investigation Evaluations (TIEs) may be initiated for samples exceeding 50% response for at least one toxicity endpoint. A total of $40,000 of TIE samples may be completed. The TIE subcommittee will decide which samples should have a TIE performed following the protocols developed in FY15/16.

Subcontractors

ASC will subcontract with the U.S. Geological Survey (USGS) in the amount of $190,830 for collecting the samples and performing the chemical analyses (pesticide scans, dissolved copper, dissolved organic carbon, total organic carbon, and total suspended solids). USGS has committed an additional $51,580 in matching funds to this effort in FY16/17.

The total cost of toxicity testing and TIEs is expected to be $267,700. An existing SWAMP contract between the Water Board and the UC Davis Aquatic Toxicology Laboratory (AHPL) will be used to pay at least to $211,300 of these costs in FY16/17. The SWAMP contract will cover the first 9 months of toxicity testing. As discussed previously, it is possible that there will be additional SWAMP funds from FY15/16 that will be carried over into FY16/17. The exact amount of the carryover will not be known until the end of the FY15/16 (June 30th, 2016). After the SWAMP contract funds are used up, ASC will subcontract with AHPL for the costs of the remaining months of sampling (up to $56,400).

Justification for the USGS sole-source contract is provided in Appendix A. The SWAMP contract will cover the cost of toxicity testing by AHPL for at least 9 months. A sole-source contract justification will be prepared for AHPL whenever ASC needs to enter into a separate contract with AHPL for the remainder of the toxicity testing, if that the contract amount will exceed $50,000.

ASC Labor

ASC will manage the data and prepare final reports (see “deliverables” section). The data management/quality assurance task has been quoted to cost $37,400 by the ASC Data Services team. The reporting task is budgeted at $20,000 (8 hours for Program Manager, 40 hours for

Lead Staff, 60 hours for Environmental Analyst, 20 hours for Data Analyst, 8 hours for GIS staff).

Total Budget

The total cost to the RMP for twelve months of CUP/Toxicity monitoring will be $515,930. Of this total, at least $211,300 will be covered by the Water Board contract with AHPL (as discussed previously, Regional Board staff has confirmed $211,300 is available for FY16/17; it is possible that additional carryover funds may be available). The subcontract with the USGS will leverage an additional $51,580 in services for the program. A detailed breakdown of all the components of the CUP/Toxicity budget is presented in Table 4.

Deliverables

Product	Description	Frequency	Due Date	Reviewed By/ Reported To
Field Sampling Report	The Field Sampling Report will document how samples were collected, target sampling sites, actual sampling sites, how many samples were collected, measurements made using field instruments, and any deviations from the QAPP for field sampling methods.	Annual	1.5 months after the end of the field season (9/30/17)	TAC
Permit Compliance Data for ILRP	Delta RMP data for certain parameters are needed for ILRP permit compliance reports.	Annual	2/1/18	TAC
Annual Monitoring Report	The Annual Monitoring Report will present the results of the previous year of sampling. Interpretation of the results will be done at a very basic level. The main purpose of this report is to share the final data with project partners and collaborators in a timely way. The AMR will also document the quality assurance / quality control measurements performed by laboratories, the results of these tests relative to data quality objectives, any data that were deemed unusable, and any deviations from the QAPP for laboratory methods.	Annual	7 months after the end of the field season (2/28/18)	TAC, SC

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Table 4: Detailed Budget for Delta RMP Pesticide-Toxicity Monitoring in FY16/17

Contractor	Parameter	Unit Cost	Number	Total Cost	RMP Funds	SWAMP Funds	USGS Matching Funds	Total Budget	Comments
USGS	Project Oversight and Reporting		1	$20,650	$15,885		$4,765	$20,650	30% USGS match on labor
USGS	Sample collection at 5 baseline sites	$1,755	12	$21,060	$18,022		$3,038	$21,060	30% USGS match on labor
USGS	Field parameters (temp, conductance, pH, DO, turbidity)	$0	60	$0	$0		$0	$0	Cost included in field sampling labor
USGS-OCRL	Pesticide Scan (plus 30% QA samples)	$2,150	78	$167,700	$129,000		$38,700	$167,700	30% USGS match on labor
USGS-OCRL	Pesticide data formatting and reporting			$22,000	$16,923		$5,077	$22,000	USGS match (30%) on labor for costs associated with project administration, formatting of pesticide analysis results for CEDEN database entry, and preparation of reports to the cooperator.
USGS-NWQL	Copper (plus 20% QA samples)	$26	72	$1,872	$1,872		$0	$1,872	
USGS-NWQL	Carbon (TOC, DOC) (plus 20% QA samples)	$127	72	$9,128	$9,128		$0	$9,128	

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Table 4: Detailed Budget for Delta RMP Pesticide-Toxicity Monitoring in FY16/17 (continued)

Contractor	Parameter	Unit Cost	Number	Total Cost	RMP Funds	SWAMP Funds	USGS Matching Funds	Total Budget	Comments
UCD-AHPL	Toxicity Testing (plus 10% QA samples)	$3,450	66	$227,700	$56,400	$171,300	$0	$227,700	Balance of $211,300 SWAMP contract after TIE analyses. RMP funds to pay for later samples.
UCD-AHPL	Conventional parameters (alkalinity, NH4, hardness, TSS, DO, pH, SC, temperature) (plus 10% QA samples)	$0	66	$0	$0			$0	Cost included in toxicity testing
UCD-AHPL	TIE Analyses (pesticides-focused TIE)			$40,000	$0	$40,000	$0	$40,000	$40,000 cap on TIE analyses. To be paid from SWAMP contract.
ASC	Data Management			$37,400	$37,400			$37,400	
ASC	Reporting			$20,000	$20,000			$20,000	
	TOTAL			**$567,510**	**$304,630**	**$211,300**	**$51,580**	**$567,510**	
	TOTAL RMP COST				**$515,930**				

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Nutrients Synthesis, Modeling and Statistical Analyses

Study Elements

The nutrient study consists of three distinct elements: 1) Data synthesis report; 2) Modeling and synthesis of results; and 3) Advanced statistical analyses. Each element is described in more detail below.

1. ***Synthesis report***

The goals of the synthesis report are to:

a. Summarize status and trends for nutrient-related parameters at IEP-EMP sites and other sites that may inform Delta RMP planning;
b. Evaluate the results of the data analysis relative to Delta RMP assessment questions; and
c. Inform the Delta RMP nutrient monitoring design.

This synthesis report will build upon recent data analysis projects that have used IEP-EMP data. Data analysis and observations from those reports will be extended to include new data (2012-2016) and additional nutrient-related parameters. The synthesis report will distill and integrate data and results from the following, recently completed projects:

- ASC project funded by DWR, synthesizing IEP-EMP data (2000 – 2011); "Characterizing and quantifying nutrient sources, sinks and transformations in the Delta: synthesis, modeling, and recommendations for monitoring"; URL: http://sfbaynutrients.sfei.org/books/dwr-contract-deliverable;
- USGS report funded by the Delta RMP, synthesizing high-frequency sensor data; "Planning and operating a high frequency nutrient and biogeochemistry monitoring network: the Sacramento-San Joaquin Delta"; URL: https://goo.gl/VcDnmw;
- ASC project funded by DSP (completion by June 2016), analyzing IEP-EMP data (1975-2011) with a focus on spatial variability, potential subregions for nutrient modeling, and assessment, and limited characterization of long-term trends.

The synthesis report will also include the following additional new materials, analyses, and findings:

- An update of the analyses for nitrogen species performed for the DWR report. The additional analyses will include the most recent data available (2011 onwards including drought years through 2016) and additional parameters (e.g., phosphate, total phosphorus, chlorophyll, and dissolved oxygen).
- To the extent possible, adapt and incorporate results from a USEPA-ASC collaborative project, which uses advanced statistical data analysis approaches to evaluate long-term trends (e.g., weighted regression for removing flow effects) in N species.

2. Modeling and synthesis of modeling results

The goals of this task are to

a. Apply existing hydrodynamic/hydrologic models to evaluate if the current monitoring network adequately covers different regions and habitat types (e.g., deep-water channels, shallow areas, back sloughs), and identify those that are currently under sampled.
b. Analyze model output to identify cost-effective monitoring options for areas or habitat types that are currently under sampled.

Developing a monitoring design for nutrients is one of the three recommended steps in the nutrients section of the approved Delta RMP Monitoring Design. Assessing the utility of a design with empirical data would require intensive field sampling - and actually oversampling - to thoroughly characterize variability and identify the network needed to capture necessary information. That density of data does not exist, and collecting it would be cost-prohibitive given current funding levels. However, well-designed numerical modeling experiments can be used to simulate the system's dynamics, and the model outputs can be analyzed to identify the necessary sampling network to answer management questions.

The proposed work will augment DMS2-based modeling (used in the recent DWR report) with simulated particle tracking and tracer studies. The proposed scope of work will include the following:

- Convening a subcommittee for a conference call to develop metrics for evaluating assessment questions;
- Select appropriate model and design model experiments, including the identification of
    - Simulated particle release locations;
    - Specific years and seasons to be simulated; and
    - Required data output;
- Run simulations; and
- Analyze model output data to assess the suitability of the current network for answering the assessment questions, and options for efficiently augmenting the network to address insufficient density or current "blind spots."

3. Advanced Statistical Analyses

Goals of the advanced statistical modeling task are to:

1. Improve the description of long-term changes in water quality;
2. Characterize the relative importance of contributing factors (flow routing, residence time, and temperature); and
3. Further resolve the responses of nutrient and nutrient-associated parameters (nitrogen species, phosphorus species, and chlorophyll) to natural (climate variability) and anthropogenic drivers (e.g., loadings, land use).

This task will build on work being performed through a recent collaboration between the USEPA Office of Research and Development (ORD) and ASC. Many traditional approaches to analyzing trends over time (e.g., Seasonal Kendall Test) are not able to resolve complex variations, test for causal factors, or account for factors such as interannual differences in flow (e.g., prolonged drought, wet vs. dry years). This task will apply advanced statistical approaches, such as weighted regression on time, discharge, and season (WRTDS) or generalized additive models (GAMs), to evaluate long-term trends in nutrients in the Bay-Delta, and apply the results of these analyses toward addressing Delta RMP assessment questions and informing nutrient monitoring design.

Subcontractors

The particle tracking modeling described in Task 2 will be conducted by Marianne Guerin at RMA Consultants, who has extensive experience with Delta modeling using the DSM2 and RMA models. The specific scope of work for the contract will be developed; however, it will be less than $50,000 so it will not be necessary to seek approval for a sole source vendor.

ASC Labor

ASC staff will prepare the data synthesis document, oversee the particle tracking modeling and summarize the findings in a technical report, and assist in the statistical evaluation and write the technical report.

Total Budget

The total budget for the nutrients element is $120,000. The cost to complete the data synthesis is $33,000; the modeling $50,000, and the statistical analyses $37,000.

Deliverables

The deliverable for Task 1 will be a technical report that synthesizes information from recent studies. Similarly, for Task 2 and 3, technical reports summarizing the findings will be prepared. All technical reports will be completed as drafts by March 31, 2017, and finalized by June 30, 2017.

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Mercury

Study Design

Based on forthcoming regulatory needs for mercury characterization in the Delta (e.g., the State Mercury Water Quality Objectives (spring/summer 2017) and the Phase II Methylmercury Delta TMDL (2020)), a strong recommendation was made by the TAC to begin monitoring mercury in water and fish in FY16/17.

The goal is of this monitoring is to begin to characterize ambient concentrations of total mercury and methylmercury in fish and water, particularly in subareas likely to be affected by major existing or new sources (e.g., large-scale restoration projects). An important element of this work is the colocation of the fish and water sampling sites to better understand the uptake of mercury into the food web. In addition, to the greatest extent possible, the sites will be located in the vicinity of other monitoring sites so ancillary parameters such as dissolved oxygen, ammonia, total suspended sediments, etc. can be used to interpret the results.

Largemouth bass (or similar predator species) will be collected annually at six fixed locations in the Delta (see Figure 1). It is likely that the collection will occur late summer/ early fall. At each of the locations, 11 individual bass or predator fish will be collected and submitted to the laboratory for mercury analysis (total). At five of these sites, quarterly monitoring of ambient water will be conducted. Water samples will be analyzed for unfiltered/filtered total mercury, unfiltered/filtered methylmercury, suspended solids, chlorophyll a, dissolved organic carbon, and votile suspended solids.

Subcontractors

ASC will subcontract with Moss Landing Marine Laboratories (MLML) in the amount of $90,000 for collecting the fish and water samples and performing the chemical analyses and ancillary parameters as specified above. Justification for the MLML sole-source contract is provided in Appendix A.

ASC Labor

ASC will manage the data and prepare a short year one summary report. The data management/quality assurance task has been quoted to cost $15,000 by the ASC Data Services team. The reporting and oversight task is budgeted at $8,000 (25 hours for Program Manager, 32 hours for Lead Staff).

Total Budget

The total budget for the task is $113,000.

Deliverables

A brief summary report will be prepared upon review and approval of the fish and mercury data. Because ASC is currently working with MLML to determine when the fieldwork can be conducted, an exact date for the deliverable of the report is not possible. The field work must occur in the summer of 2016 or 2017. ASC staff are currently working with MLML to see whether it is logistically feasible to be sampling in August 2016. If this is possible and the data is reported to ASC mid-2017, then a report summarizing these results would be available in 2018.

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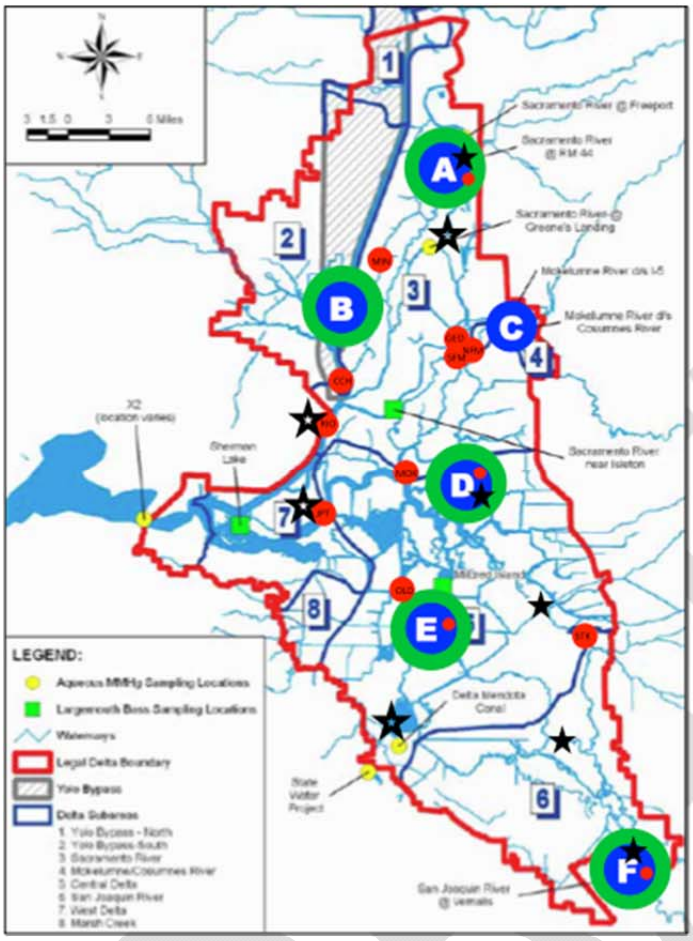
Figure 2. Locations of sites for fish and water mercury sampling



Proposed Sites for Mercury Sampling

Proposed Fish Sites J

Proposed Water Sites

DWR/USGS Flux Sites

Permittee Proposed Sites

A	Sacramento R @ RM44 (resolve RM44 vs Freeport vs Hood)
B	Liberty Island
C	Mokelumne R ds Cosumnes R
D	Little Potato Slough
E	MID flux station (close to Middle R at Hwy 4 fish station)
F	San Joaquin R @ Vernalis

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Pathogens Study

At this time, no studies are being proposed for pathogens. It is possible that during the second year of pathogen sampling (April 2016 through July 2017), a follow-up trigger study will be needed; however, the scope of work and the need for the work will be determined once there are trigger value exceedances.

Background

The Central Valley Regional Water Quality Control Board adopted a Basin Plan Amendment to establish a Drinking Water Policy (Policy) to protect source water quality on July 26, 2013. The Policy includes a narrative water quality objective for two pathogens, *Cryptosporidium* and *Giardia*, with associated implementation and monitoring provisions, as well as language addressing other constituents of potential concern to drinking water. The Pathogen Study is intended to satisfy the data needs and monitoring for any follow-up required if Basin Plan trigger values are exceeded. A two-year study was undertaken by the RMP and several other agencies. The RMP provided partial funding for these studies in FY14/15 (Year One) and FY15/16 (Year Two).

Although the second year of the study is being funded from FY15/16, sample collection will occur in part of FY16/17 (i.e. the study commences in April 2016 and will continue through July 2017). The study focuses on characterizing pathogen (*Cryptosporidium* and *Giardia*) levels throughout the Delta. The study includes monitoring at drinking water intakes and at ambient sites throughout the Delta. Sampling at drinking water intake location will be conducted and analyses of samples paid for by the water agencies. Sampling at ambient sites will be conducted by Department of Water Resources' Municipal Water Quality Investigations (MWQI) program at no cost to the RMP.

Based on a review of the Year One data (April 2015 through January 2016), the pathogen subcommittee confirmed that Basin Plan trigger values for *Cryptosporidium* have not been exceeded at the drinking water intakes during the first part of the study. If trigger values are exceeded, it is possible that the subcommittee will recommend conducting a follow up study to assess the causes for the exceedances. The subcommittee will review the data and make a recommendation to the TAC. The TAC will review the recommendation and notify the SC which will then decide whether it is appropriate to use reserve funds up to $47,500 to cover the expense of the proposed trigger study.

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OVERALL DELTA RMP FY16/17 BUDGET

The programmatic and scientific budgets for the Delta RMP are shown together in Table 5. The total planned expenses for the program in FY16/17 are $1,043,030. The total expenses are less than the planning budget ($1,048,871) and expected revenue ($1,085,036).

Some of the Delta RMP tasks funding by the FY15/16 budget will continue concurrently with the FY16/17 tasks. For example, the second year of the Pathogens Study was funded from the FY15/16 budget. Sampling for the second year of the Pathogens Study will not conclude until the spring of 2017. Similarly, the draft report on nutrient recommendations for Delta RMP nutrient monitoring design will be prepared by December 31, 2016 with the final report completed March 2017.

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Table 5: Delta RMP FY16/17 Overall Budget

		Labor	Sub-contract	Direct Cost	In-Kind Service	Total
1. Program Management	A. Program Planning Documents	$76,000				$76,000
	B. Contract and Financial Management	$51,000		$1,000		$52,000
2. Governance	A. SC meetings	$42,000	$8,800	$500		$51,300
	B. TAC meetings	$47,000	$17,300	$500		$64,800
3. Quality Assurance	A. Quality Assurance System	$15,000				$15,000
	B. Technical Oversight and Coordination	$15,000				$15,000
4. Communications	A. Factsheet	$5,000				$5,000
	B. Workshop on Technical Issue	$15,000				$15,000
6. CUP Monitoring	A. Pesticide Laboratory Work		$190,830			$190,830
	B. Toxicity Laboratory Work		$56,380		$211,320	$267,700
	C. Data Management	$37,400				$37,400
	D. Reporting	$20,000				$20,000
7. Nutrients	A. Synthesis Report, Statistics and Modeling	$120,000				$120,000
8. Mercury	A. Mercury Collection and Laboratory work		$90,000			$90,000
	B. Data Management	$14,500				$14,500
	C. ASC Oversight and Reporting	8,500				$8,500
Totals		$466,400	$363,310	$2,000	$211,320	$1,043,030

1. The pathogens subcommittee did not have a specific study for FY16/17; however, the subcommittee requested use of Program reserves if a follow-up trigger study is needed (not to exceed $47,500 as specified in the planning budget). Should a follow up study be necessary, the pathogen subcommittee will prepare a proposal for TAC review and SC review/approval.

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Appendix A

Vendor Justification Forms

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SFEI AQUATIC SCIENCE CENTER

Vendor Selection Form

In order to provide open and free competition and to obtain the maximum value for each dollar expended, SFEI-ASC has a competitive bidding policy for purchasing services or goods greater than or equal to $50,000. In addition, positive efforts shall be made by SFEI-ASC to utilize small business, minority owned firms, and women business enterprises, whenever possible. Such efforts, as outlined in 45 CFR Part 74.44 will allow these sources the maximum feasible opportunity to compete for contracts. SFEI-ASC will use, but not be limited to, the State of California DBE online directory as a source for possible references: http://www.dot.ca.gov/hq/bep/find_certified.htm

Submit this form, along with original quotes, to the Program Director or Executive Director for review. Original documents go to the Contracts Manager for retention. An electronic copy will be made available on the shared drive.

Date: 4/9/2016 *Requestor*: Margaret Sedlak

Stage of funding for vendor: ☐ Proposal ☒ In negotiations ☐ Contracted

Program: Delta RMP *Project/Task # (if known)*: 8111.16

☐ I have obtained at least three (3) competitive quotes and have chosen the supplier based on price, reliability, delivery, service, or other factors (attach quotes). If chosen vendor is not lowest cost bidder, detail the reason(s) why the vendor was selected on the next page.

VENDOR	Date of Quote	Total $	Comments
USGS		$190,830	USGS will contribute $51,580 in match

Vendor Selected:

Vendor Name: U.S. Geological Survey, Pesticide Fate Research Group
Contact: James Orlando and Joe Domagalski
Address: 6000 J. Street, Sacramento, CA 95819
Phone: 916-278-3271 Fax: Email: jorlando@usgs.gov and joed@usgs.gov

Reason for Selection (explanation required below):
☐ Vendor is the lowest cost provider ☒ Vendor is sole acceptable provider
☐ Vendor provided best overall offer ☐ Emergency/Urgency

☐Vendor is sole provider ☐Other

Explanation (attach additional information if necessary):

The Delta Regional Monitoring Program (Delta 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. 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.

Research on Current Use Pesticides (CUPs) in the Delta is one of four focus areas for the Delta RMP. The Delta RMP Steering Committee agreed to fund monitoring for CUPs in FY16/17. ASC staff recommend a **sole source** subcontract with the U.S. Geological Survey (USGS) for this work because of the following:

- The specialized nature of the proposed work, which is research outside the domain of typical contractors.
- The USGS' unique technical capability to monitor a large list of CUPs. The USGS has an extensive publication record on pesticide analysis (see http://ca.water.usgs.gov/projects/PFRG/Publications.html) and measures more pesticides than other laboratories. In addition to doing the pesticide analyses, USGS will collect the samples and measure field parameters. Having USGS involved in the field and lab work ensures good coordination and chain of custody for the samples. ASC obtained a second quote for the field sampling work and found that the USGS was the lower cost option.
- Matching funds offered by USGS. The USGS has agreed to provide matching funds of at least $51,580. These funds will be used to cover labor costs associated with project administration, formatting of pesticide analysis results for CEDEN database entry, and preparation of reports to the cooperator.
- Successful completion of the first year of monitoring as a joint venture with the Delta RMP.

At its meeting on January 22, 2015, the Steering Committee generally agreed that there was sufficient justification for this subcontract on a sole source basis. However, the Steering Committee asked for a sole source justification and confirmation that the subcontract would be in compliance with applicable laws or ordinances for spending public monies. There was also concern about an actual or apparent conflict of interest since USGS staff serve as one of the two co-chairs of the Delta RMP Technical Advisory Committee, which had recommended USGS for this work. Each of these concerns are addressed below:

- Sole Source Justification: The reasons why USGS is the sole acceptable provider are outlined in the paragraph above.
- Legality: The Delta RMP is not required to follow the State Contracting Manual because the Delta RMP is not funded by state monies. However, the State Contracting Manual provides a reasonable guide to follow since the alternative is attempting to comply with dozens of different municipal ordinances and individual institutional requirements. Per the Manual under Section 3.06, "Agreements for services and consultant services do not

require competitive bids or proposals if the contract is with…The Federal Government". Yet to provide further protection, ASC still must follow internal procedures to justify and receive approval from its Executive Director for any sole source contracts in the amount of $50,000 or more, which is the purpose of this memo.

- Conflict of Interest: It was recognized, after the fact, that the USGS Co-Chair of the Technical Advisory Committee should have recused himself from the discussion that recommended USGS for this work. This process oversight was openly acknowledged and discussed by the Steering Committee. Going forward, the Steering Committee agreed that the Technical Advisory Committee should not recommend specific contractors to avoid the appearance of a conflict of interest.

The Delta RMP must continue to monitor water quality in the Delta in FY16/17. The Steering Committee identified the CUP monitoring task as a priority for implementation. Staff recommend a sole source contract with USGS because this agency is the sole acceptable provider for the work.

We respectfully request your approval.

To be completed by Program Director or Executive Director
☐Yes ☐No The vendor quote(s)/explanation have been reviewed and appear reasonable for the proposed work.

Margaret Sedlak
Requestor's Printed / Typed Name

Requestor's Signature Date

Program Director or Executive Director's Signature Date

Contracts Manager's Signature Date

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SFEI AQUATIC SCIENCE CENTER

Vendor Selection Form

In order to provide open and free competition and to obtain the maximum value for each dollar expended, SFEI-ASC has a competitive bidding policy for purchasing services or goods greater than or equal to $50,000. In addition, positive efforts shall be made by SFEI-ASC to utilize small business, minority owned firms, and women business enterprises, whenever possible. Such efforts, as outlined in 45 CFR Part 74.44 will allow these sources the maximum feasible opportunity to compete for contracts. SFEI-ASC will use, but not be limited to, the State of California DBE online directory as a source for possible references: http://www.dot.ca.gov/hq/bep/find_certified.htm

Submit this form, along with original quotes, to the Program Director or Executive Director for review. Original documents go to the Contracts Manager for retention. An electronic copy will be made available on the shared drive.

Date: 04/09/2016 *Requestor*: Margaret Sedlak

Stage of funding for vendor: ☐ Proposal ☒ In negotiations ☐ Contracted

Program: Delta RMP *Project/Task # (if known)*: 8111.16

☐ I have obtained at least three (3) competitive quotes and have chosen the supplier based on price, reliability, delivery, service, or other factors (attach quotes). If chosen vendor is not lowest cost bidder, detail the reason(s) why the vendor was selected on the next page.

VENDOR	Date of Quote	Total $	Comments
Marine Pollution Studies Laboratory at Moss Landing		$90,000	Value based on FY16/17 quote

Vendor Selected:

Vendor Name: Marine Pollution Studies Laboratory at Moss Landing
Contact: Wes Heim (Director)

Address: 7544 Sandholdt Road Moss Landing, CA 95039

Phone: (831) 771-4459 Fax: Email: wheim@mlml.calstate.edu

Reason for Selection (explanation required below):

☐ Vendor is the lowest cost provider
☐ Vendor provided best overall offer
☐ Vendor is sole provider
☒ Vendor is sole acceptable provider
☐ Emergency/Urgency
☐ Other

Explanation (attach additional information if necessary):

The Delta Regional Monitoring Program (Delta 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. 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.

Research on mercury in the Delta is one of four focus areas for the Delta RMP. On April 25th, 2016, the Delta RMP Steering Committee agreed to fund monitoring for mercury in FY16/17. ASC staff recommend a **sole source** subcontract with the Marine Pollution Studies Laboratory (MPSL) at Moss Landing for this work because of the unique, specialized, technical experience as documented by:

- Wes Heim and his colleagues are recognized as national experts on the monitoring of mercury in biological tissues and in water, having developed trace metal methods for measuring mercury speciation in these matrices. This laboratory group has been involved with the State Surface Water Ambient Monitoring Program since 2001 and has extensive experience collecting and analyzing water and fish tissues for mercury as evident by the following projects they have completed in the Delta: Assessment of ecological and human health impacts of mercury in the Bay-Delta watershed (1999-2003); Transport, cycling, and fate of mercury and monomethyl mercury in the San Francisco Delta and tributaries – An integrated mass balance assessment approach (2003-2006); and Development of best management practices to reduce methyl mercury exports and concentrations from seasonal wetlands in the Yolo Wildlife Area (2011-2016)

- Measuring mercury concentrations at low levels requires high precision and accuracy. ASC recommend a sole source laboratory that can conduct the collection and the analyses to avoid the potential cross contamination that can occur when multiple laboratories and field collection teams are involved in a project. In addition, it is more cost-effective to have one entity conducting the field sampling and chemical analyses.

- This laboratory has participated in multiple interlaboratory exercises and consistently been able to obtain high quality results. MPSL has participated in multiple interlaboratory exercises including those conducted by the CALFED Mercury Program, State of Florida Department of Environmental Protections, and Brooks Rand Labs. MPSL placements in interlaboratory studies are consistently in the top ranks. Furthermore, MPSL analytical results consistently exceed the quality assurance and quality control requirements outlined in the SWAMP Laboratory Quality Assurance Program Plan. Finally, MPSL has been audited to assess mercury analytical abilities as a requirement for participation in both the federal and California State sponsored CALFED Mercury Program and SWAMP. Audits concluded: 1) MPSL laboratory's preparation and analytical spaces are more than sufficient for the utilized methods and SOPs; 2) Instrumentation and equipment is current, and in many cases, state-of-the-art; 3) staff

expertise and retention are outstanding; and 4) QA systems implemented at MPSL have greatly benefitted SWAMP, and are certainly worthy of federal and state-level certifications.

The Delta RMP Steering Committee identified the mercury monitoring task as a priority for implementation in part due to the dearth of information on mercury concentrations in fish and water. Upcoming regulatory decisions regarding the Mercury TMDLs make it a priority for the Delta RMP to begin collecting this data this year. Staff recommend a sole source contract with the Marine Pollution Studies Laboratory because this vendor is the sole acceptable provider for the work.

We respectfully request your approval.

To be completed by Program Director or Executive Director
☐Yes ☐No The vendor quote(s)/explanation have been reviewed and appear reasonable for the proposed work.

Margaret Sedlak
Requestor's Printed / Typed Name

Requestor's Signature Date

Program Director or Executive Director's Signature Date

Contracts Manager's Signature Date

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Reviewer Note: This Memorandum of Agreement (MOA) will serve as a multi-party contract for services between the Implementing Entity and Program Participants. The format of this Agreement has been reviewed by ASC's consulting lawyer as to form and substance. Most of the content of the MOA was taken directly from the Delta RMP Financial Management Plan (approved 3/27/15). Edits shown in track changes reflect changes from the version distributed to the Delta RMP Steering Committee in December due to comments from the ASC Board of Directors.

Memorandum of Agreement
Relative to Program Implementation and Fiscal Management
Delta Regional Monitoring Program

This Memorandum of Agreement ("*Agreement*"), dated _____ (the "*Effective Date*") is by and between the Aquatic Science Center, a Joint Powers Authority (the "*ASC*"), and each of the undersigned participants in the Delta Regional Monitoring Program ~~("*Participants*")~~.

1. PURPOSE

This Agreement establishes the processes that will be used to implement Program activities and manage the finances of the Delta Regional Monitoring Program ("*Delta RMP*").

2. BACKGROUND

The Delta 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 2000's, an event that triggered new inquiries into the potential role of contaminants in what is now termed the Pelagic Organism Decline. 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 Pelagic Organism Decline ~~POD~~ persuaded regulatory agencies of the need to improve coordination across multiple monitoring programs.

The Central Valley Regional Water Quality Control Board allows, through permit provisions, permitted dischargers in the Sacramento/San Joaquin watershed to demonstrate "adequate participation" in the Delta RMP in lieu of performing specified monitoring tasks that are otherwise required by their permits. Permitted dischargers are entities subject to National Pollutant Discharge Elimination System ~~(NPDES)~~ or Waste Discharge Requirement ~~(WDR)~~ permit requirements for monitoring.

3. DEFINITIONS

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

3.2. *"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, a California 501(c)(3) non-profit corporation, serves as the administrative agency for the Aquatic Science Center.

3.3. *"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 Program Participant or group of Participants will contribute to the Program each year.

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

3.5. *"Delta Steering Committee"* or the "*Steering Committee*" means the decision-making body of the Delta RMP. The core responsibilities and authorities of the Delta Steering Committee are to determine the overall budget, allocate program funds, track progress, and provide direction to the Program from a manager's perspective.

3.6. *"Fiscal Year"* means the period from July 1 to June 30.

3.7. "*Implementing Entity"* means the ASC, which with respect to the Delta RMP will be responsible for implementing the Program activities, as described in Sections 5 and 6, and the financial management of the Program, as described in Section 7, with oversight from the Steering Committee.

3.8. *"Program Participants"* or *"Participants"* means those entities that have signed this Agreement, and in so doing have agreed to provide financial contributions and/or in-kind services for Delta RMP activities, as well as entities ~~who~~ that ~~make~~ provide financial contributions and/or in-kind services to the Program but have not signed this Agreement.

4. GUIDING PRINCIPLES AND COMMITTEE ROLES

The Delta RMP Charter sets forth the principles, membership and governance procedures of the Program, and is attached to this Agreement as **Exhibit A**. The Steering Committee shall have the power to amend Exhibit A, provided that any amendments are consistent with this Agreement.

5. PROGRAM ACTIVITIES AND BUDGET

~~The Delta RMP shall operate on Fiscal Year starting July 1 and ending June 30.~~

The Delta RMP budget for each Fiscal Year will be set by the Steering Committee. The plan of Program activities ~~and~~ within the available budget for each year shall be ~~described~~ 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 Program Participant or 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.

6. PROGRAM IMPLEMENTATION

As authorized by the Steering Committee, the Implementing Entity will be responsible for implementing the Annual Program Workplan ~~in a technically sound and cost-effective manner~~. 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.

6.1 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. ~~In addition, the Implementing Entity must follow its own internal controls regarding sole source contracting.~~ A competitive process will not be required for in-kind services offered by Program Participants using their existing contractors or contractors selected through the State contracting process. Guidance for issuing and evaluating requests for proposals is attached to this Agreement as **Exhibit B**. The Steering Committee shall have the power to amend Exhibit B, provided that any amendments are consistent with this Agreement.

6.2 Services Provided by ASC. Contracts between the Program Participants and ASC as the Implementing Entity do not require a competitive process. *See* State Contracting Manual (Volume 1[1], 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

[1] http://www.dgs.ca.gov/ols/Resources/StateContractManual.aspx (Accessed March 31, 2016)

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

7. FISCAL MANAGEMENT, INVOICES

The Implementing Entity shall provide fiscal and administrative services for the Program with oversight by the Steering Committee. 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 ~~adequate~~ 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 quarterly regarding status of Program finances, including the status of payments from each Program Participant, expenditures, and an updated budget report.

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. 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 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. MODIFICATIONS

This Agreement may not be modified except in writing, signed by authorized representatives of ~~a majority~~all of the current signatories to the Agreement.

9. TERM OF AGREEMENT

This Agreement will commence on the Effective Date and will expire on June 30, 2026[P1]~~1~~ (the "*Term*"), unless terminated earlier as to one or more Participants as set forth in section 10, below. Subject to agreement of the Steering Committee, an entity may become a Participant to this Agreement at any time during the Term of the Agreement by executing the signature page.

10. TERMINATION

The Implementing Entity and ~~A~~ Participants may withdraw from this Agreement upon no less than ninety (90) days prior written notice to the ~~Implementing Entity~~other parties~~, which shall in turn inform the other Participants~~.

Withdrawal of a Participant shall not entitle the Participant to a refund of any costs previously paid or allocated to that Participant on the Cost Allocation Schedule. Specifically, to the extent that a Participant has been committed to pay costs and/or to provide services or other resources to the Program in the approved Cost Allocation Schedule for the Fiscal Year in which the termination will occur, the Participant shall remain obligated to pay those costs and/or provide those services for that Fiscal Year even after the effective date of the termination.

Notwithstanding the withdrawal of a Participant, this Agreement shall continue in full force and effect as to the remaining Participants.

The Implementing Entity shall remain obligated to implement the last Annual Program Workplan that was approved before the notice of termination. Withdrawal of the Implementing Entity will terminate this Agreement for all signatories. Any remaining Program funds shall be remitted to a trust designated by the Steering Committee within thirty (30) days upon completion of the last Annual Program Workplan.

11. MISCELLANEOUS

11.1 Choice of Law. This Agreement shall be governed by and construed in accordance with the laws of the State of California, without regard to its conflict of laws provisions.

11.2. Entire Agreement. This Agreement contains the entire agreement of the parties with respect to the matters contained herein, and supercedes all prior oral or written promises and agreements with respect to such matters.

11.3. No Third Party Beneficiaries. This Agreement does not and is not intended to confer any rights or benefits on any person that is not a party hereto, and none of its provisions will be enforceable by any person other than the parties hereto and their permitted successors and assigns.

11.4. Relationship of the Parties. Nothing in this Agreement shall be construed to make one party the partner, joint venturer, principal, agent or employer of the another party hereto. Except as set forth expressly in this Agreement, no party shall have the express or implied authority to act for or on behalf of another party. All services provided by the Implementing Entity shall be as an independent contrator.

11.5. Survival. Those portions of this Agreement which, by their terms, logically provide for obligations or require performance after termination of the Agreement shall survive its termination.

11.6. Waiver. The failure of any party to exercise any rights under this Agreement shall not be deemed a waiver of such right or any other rights.

11.7. Severability. If any part of this Agreement shall for any reason be found to be held invalid or unenforceable, such invalidity or unenforeability shall not affect the remainder of this Agreement, which shall survive and be construed as if such invalid or unenforceable part had not been contained herein.

11.8. Counterparts. This Agreement may be signed in counterpart or duplicate copies, and any signed counterpart or duplicate copy shall be equivalent to a signed original for all purposes.

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IN WITNESS WHEREOF, the parties have executed this AGREEMENT on the dates opposite their respective signatures:

AQUATIC SCIENCE CENTER

A Joint Powers ~~Agreement~~ Authority created between the Bay Area Clean Water Agencies and the State Water Resources Control Board

Date: _____ By _____

Warner Chabot
Executive Director

CITY OF [INSERT NAME]

A political subdivision of the State of California

Date: _____ By _____

[INSERT NAME]
[INSERT TITLE]

APPROVED AS TO FORM

By _____

[INSERT NAME]

Date: _____

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CITY OF [INSERT NAME]

A political subdivision of the State of California

Date: _____ By _____

[INSERT NAME]
[INSERT TITLE]

APPROVED AS TO FORM

By _____

[INSERT NAME]

Date: _____

ADD SIGNATURE PAGES FOR EACH ENTITY THAT WANTS TO BE A PART OF THE FORMAL AGREEMENT.

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Exhibit A

Delta RMP Charter

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Exhibit B

Guidance
for Issuing and Evaluating Requests for Proposals (RFPs)
for the Delta RMP
Updated: 4/23/15

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 ~~whole~~ 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

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AQUATIC SCIENCE CENTER

Charter for the Delta Regional Monitoring Program

Reviewer Note: This first draft of the Charter for the Delta Regional Monitoring Program (RMP) was compiled from the following Delta RMP documents:

- **Committee Roles (approved 3/27/15)**
- **Guiding Principles (approved 1/14/14)**
- **Financial Management Plan (approved 3/27/15)**
- **Steering Committee Record of Decisions**

To facilitate review of this document, the text that was copied from these previously approved documents is labeled as to its source. New text and other substantive changes are highlighted in yellow. Some editing was done to eliminate inconsistencies and remove unnecessary text while retaining the intent of the original documents.

1. Introduction {Text from Committee Roles}

The Delta Regional Monitoring Program (RMP) was initiated by the Central Valley Regional Water Quality Control Board (CVRWQCB) 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). A timeline of the major milestones of the Delta RMP to date is shown in Figure 1.

2. Definitions

{To be completed}

1.1. "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.

1.2. "Central Valley Regional Water Quality Control Board" or "CVRWQCB" is the regulatory authority for overseeing the Clean Water Act and associated permits in the Delta.

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

1.4. "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.

1.5. "*Participants"* means organizations that provide financial contributions and/or in-kind services for Delta RMP activities, participating regulatory agencies (CVRWQCB and U.S. Environmental Protection Agency), participating resource agencies, the Interagency Ecological Program, and ASC.

1.6. *"Participant Groups"* means groups of similar types of Participants such as publicly owned treatment works (POTWs), stormwater agencies, agricultural coalitions, and water supply contractors.

1.7. *"Representative"* means a person who represents a particular Participant Group on a committee (see Attachments 1 and 2 for a list of representatives).

1.8. "*Steering Committee*" or "SC" means the decision-making body of the Delta RMP. The core responsibilities and authorities of the Delta Steering Committee are to determine the overall budget, allocate program funds, track progress, and provide direction to the Program from a manager's perspective.

1.9. "Subcommittee" is a group convened by the SC or TAC to evaluate an issue and to report findings back to the larger group. Subcommittees serve at the direction of the SC or TAC and consist of representatives from the SC, TAC and other sectors such as academia, nongovernmental organizations, governmental organizations and industry.

1.10. "*Technical Advisory Committee*" or "*TAC*" means the advisory body that provides technical oversight of the Delta RMP. The TAC makes recommendations to the SC based on technical evaluation of proposed or existing program elements.

3. Mission {Text from Guiding Principles}

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

4. Goals and Objectives {Text from Guiding Principles}

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

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

~~5. Focus on the Delta;~~

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

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

Commented [M1]: These 3 objectives are discussed in more detail in Section 6. Ideas 5 and 6 are embodied in points 3 and 1, respectively

5. Management Questions {Text from Guiding Principles}

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

Type	Management Questions
Status and Trends	Is there a problem or are there signs of a problem? 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	Which sources and processes are most important to understand and quantify? 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	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	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 {Text from Guiding Principles}

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

- **Focus on the Delta:** The geographic scope of the Delta RMP encompasses the legal Delta (as defined by Section 12220 of the California Water Code), including water bodies that directly drain into the Delta, Yolo Bypass, and Suisun Bay. In addition, the base monitoring and special studies of the Delta RMP may extend upstream, if required to address specific management questions. Because ~~since~~ Suisun Bay is

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outside the jurisdiction of the CVRWQCB, 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. {Comment: Language from the Guiding Principles that referred to other governance documents was omitted. These documents have been incorporated into the Charter, making references to these external documents irrelevant.}
- **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

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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).

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

As shown on Figure 2, the Steering Committee (SC) is the decision-making body of the Delta RMP, overseeing the Implementing Entity and reviewing activities of the Technical Advisory Committee (TAC) and ~~Stakeholder C~~ Subcommittees.

Steering Committee (SC)

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

Deleted: RMP's s

Commented [M2]: Participating members not defined – participants are.

- Directs the fiscal/operating agent (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 fiscal/operating agent (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;
- Sets priorities and oversee the activities of the ~~Stakeholder~~ ~~and~~ ~~Technical Advisory Committees~~ TAC; ~~and~~ a
- Select, convene, and oversee 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.

Commented [M3]: Parallels language that is present in TAC section.

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) ~~one each representing small, medium and large POTWs~~;
- 2 seats for stormwater agencies (one representing large cities and one representing smaller cities);
- 1 seat for coordinated monitoring (Interagency Ecological Program);
- 1 seat for water supply (State and Federal Water Contractors Agency)
- 2 seats for irrigated agriculture;
- 1 seat for the resources agencies; and
- 2 seats for regulatory agencies (USEPA and Central Valley Regional Water Quality Control Board);

Commented [M4]: This designation was not described in founding documents.

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 the Section 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.

Steering Committee Co-Chairs {From Committee Roles}

Steering Committee Co-Chairs are part of the SC~~, whose responsibilities are to~~ that establishes policies and procedures ~~that~~ which govern its operation. Co-Chairs serve as chair of the meetings, facilitating discussion, and encouraging members to participate in discussions. At the end of the meeting, the Co-chairs recaps what the group has agreed upon, including who has what responsibility. 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.

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.).

Commented [M5]: For example, SC has chosen to convene two new subcommittees – revenue and finance.

Notice of Meetings and Frequency {From Delta RMP Decision Record}

All SC meetings must be noticed, which consists of e-mail distribution of the meeting date, time, and agenda at least one week prior to the meeting. The SC meets quarterly and the agenda package is distributed through the State's lyris web service as well as posted on the Delta RMP website prior to the meeting (http://www.swrcb.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program/). 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.

Decisions {From Delta RMP Decision Record}

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

Decisions are made by the SC through ~~general agreement~~ consensus unless one or more of the SC members dissent in which case the Chair will call for a vote. If voting is required, a simple

Commented [P6]: "General agreement" is ambiguous. Consensus is a better description of the desired decision making process.

Commented [A7]: No longer true. Votes are routinely taken now for all significant decisions.

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.

Technical Advisory Committee (TAC) {From Committee Roles }

Under direction of the SC, the TAC provides technical oversight of the Delta RMP. It consists of technical representatives from the Delta RMP ~~membership~~ Participant ~~g~~Groups, with technical and administrative support from Delta RMP staff. The TAC makes recommendations to the SC based on technical evaluation of proposed or existing program elements. The SC then considers TAC recommendations in formulating their decisions.

The responsibilities of the TAC are to:

- assist the SC in developing, reviewing, and revising the Delta RMP's monitoring and special studies to ensure responsiveness to ~~in line with~~ the management questions;
- report to the SC on technical issues and guide the development of white papers as requested by the SC;
- select and convene subcommittees to 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;
- 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, and;
- provide technical review of the planning, development, and publication of Delta RMP communication products, including the Pulse of the Delta report.

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.

Technical Advisory Committee Membership {From Committee Roles}

TAC members will be drawn from ~~RMP membership g~~ Participant Groups represented on the SC, but are not limited to these. Each designated SC member designates one person to sit on the TAC. Thus, the voting membership of the TAC consists of technical representatives of the groups represented on the SC.

Commented [P8]: This clause is inconsistent with the rest of the paragraph and should be deleted if approved by SC.

TAC members shall serve at the discretion of the parties 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~~that~~ may have a conflict of interest. In cases where a conflict of interest exists, the TAC or subcommittee members will recuse themselves from funding

recommendations. External peer review of workplans and products by scientists with no financial interest in the work to be done is essential not only to attaining high standards of scientific rigor, but also provides 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.

TAC Co-Chairs {From Committee Roles }

The Co-Chairs coordinate the TAC's oversight of the technical content and quality of the RMP, co-chair TAC meetings, and help to ensure review of all program proposals and technical products. During the design period, they will also provide a communication link between the SC and TAC and help to 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 one-year term. The Co-Chairs can serve indefinitely with the support of the TAC. 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.

Commented [P9]: The original text referred to one chair. It was changed to reflect the current practice.

Subcommittees {Text from Committee Roles}

If there is need for additional expertise, subcommittees may be formed that report to the TAC. The subcommittees may ~~be drawn from the organizations represented on the Steering Committee but may be drawn from a variety of~~ have representatives from the Participant Groups as well as other sectors, such as academia, nongovernmental agencies, government agencies, and industry. In addition, the TAC may ~~advise~~ recommend to the SC that the Implementing Entity ~~to~~ convene appropriate science advisory panels and/or independent experts for specific projects, initiatives, reports, and studies.

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Notice of Meetings and Frequency {Text from Committee Roles and Record of Decision}

The TAC meets quarterly and the agenda package is posted on the Delta RMP website one week prior to the meeting (http://www.swrcb.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program/). In addition, the agenda and relevant materials are sent by electronic mail to the TAC members.

Decisions

Because the TAC makes recommendations to the SC, and not decisions, there is no formal procedure for voting. {New text} 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 detail, with attribution of seated TAC representatives, in the meeting summary. The TAC Co-Chairs will coordinate with Delta RMP staff to ensure that the meeting summary adequately documents majority and minority viewpoints of the seated representatives, and utilize the meeting summary as the primary tool to communicate TAC discussions to the SC.

Commented [P10]: The following text is from the Charter for the Bay RMP. Documentation of majority and minority opinions is an efficient process for gathering input from the TAC in the absence of consensus.

Other Stakeholders {Text from Committee Roles}

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

Implementing Entity {Text from Committee Roles}

The Implementing Entity oversees and administers the Delta RMP. Currently, the Implementing Entity is the Aquatic Science Center (ASC). The main responsibilities of the Implementing Entity are outlined in Table 1. The Implementing Entity works closely with the committee chairs 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.

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

Responsibilities	Tasks
1. Program management	a. Program planning • Prepare workplans / budgets b. Coordinate program activities • Act as the liaison between the SC, the TAC, and the TAC subcommittees • Coordinate with program participants • Plan workflow • Track deliverables c. Coordinate collaborating agencies and organizations • Organize and participate in meetings to coordinate work and programs d. Contract and financial management • Track expenditures • Accounting • Coordinate audits • Provide financial updates to SC • Develop and oversee contracts • Invoice program participants e. Technical oversight • Coordinate peer review • Review and coordinate review of RMP work products to ensure the quality of deliverables
2. Governance	a. SC meetings: • Prepare agenda packages and background documents; participate in meetings, write meeting summaries, action item follow-up, plan meetings with Chair and Co-Chair. b. TAC meetings: • Prepare agenda packages and background documents; participate in meetings, write meeting summaries, action item follow-up. c. TAC subcommittee meetings • Prepare agendas and background documents; participate in meetings, write meeting summaries, action item follow-up
3. Communications	a. Implement communications plan • 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	*Perform and/or coordinate the following activities* a. Data processing and upload to CEDEN: • 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 b. Database maintenance and online data access: • 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 c. Quality assurance: • Perform QA/QC review • Develop, maintain, and update Quality Assurance Program Plan (QAPP) • Coordinate interlaboratory comparison tests d. SOPs and templates: • 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	*Perform and/or coordinate the following activities:* a. Coordinate field sampling b. Prepare sampling plans c. Make maps of sampling locations d. Field sampling e. Ensure delivery of samples to laboratories
6. Analysis, Assessment, and Reporting	a. Summarize information on data collected b. Develop technical content (text, analysis, graphics) c. Design and publish reporting products d. Establish, coordinate, and maintain web presence of RMP products and results

DRAFT

AQUATIC SCIENCE CENTER

8. Financial Management The Implementing Entity will be responsible for the financial management of the Program with oversight from the SC. Individual Participants will enter into a multi-year Memorandum of Agreement with the Implementing Entity which will serve as a contract for the services of program implementation, fiscal management, and invoicing.

Deleted: ¶

Conflict of Interest Policy {from Financial Management Plan}

All Program Participants serving on Delta RMP committees shall avoid both actual and perceived conflicts of interest when selecting contractors. Any committee member with an actual or perceived conflict of interest in a contract has a duty to disclose this interest to the committee and to recuse himself/herself from the decision. In order to avoid potential conflicts of interest with technical contractors, the TAC shall not recommend specific contractors, but may provide criteria to be used in the contractor selection process. Additional details about handling conflicts of interest by public officials are available in Government Code Sections 1090-1099.

Adequate Participation Policy

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

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Regional Board to be sufficiently flexible in its approval of proposed monitoring requirement exchanges, so as to encourage permitted dischargers to participate.

Contributions from Permitted Discharger Categories

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

Contributions from Non Permitted Categories

For categories 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 category (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. 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 Water Board staff and the individual discharger. The contribution level must not be less than the savings due to receiving water monitoring and/or study reduction approved by the Regional Water Board.

For subsequent years following the initial assessment:

> Steering Committee members are expected to negotiate within their categories to develop an ongoing formula for the expected contribution for each of its members. Individual members of a permitted discharger category are responsible only for contributing their individual funding allotment. Failure of any member to contribute their expected individual funding will not result in an increase of funding requirements for the other members. However, failure of any discharger to contribute their expected individual funding will result in a finding of inadequate participation by that individual discharger. Contribution must not be less than the savings due to receiving water monitoring reduction originally approved by the Regional Water Board (under the above bullet).

- Value Added Considerations

Any Steering Committee member representing a category needs to be committed to attending meetings regularly to ensure that a quorum is met at meetings and progress can

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

DRAFT

Attachments

Table of Contents

Figure 1: Milestones in the Formation of the Delta RMP

Figure 2: 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)

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Figure 1: Milestones in the Formation of the Delta RMP

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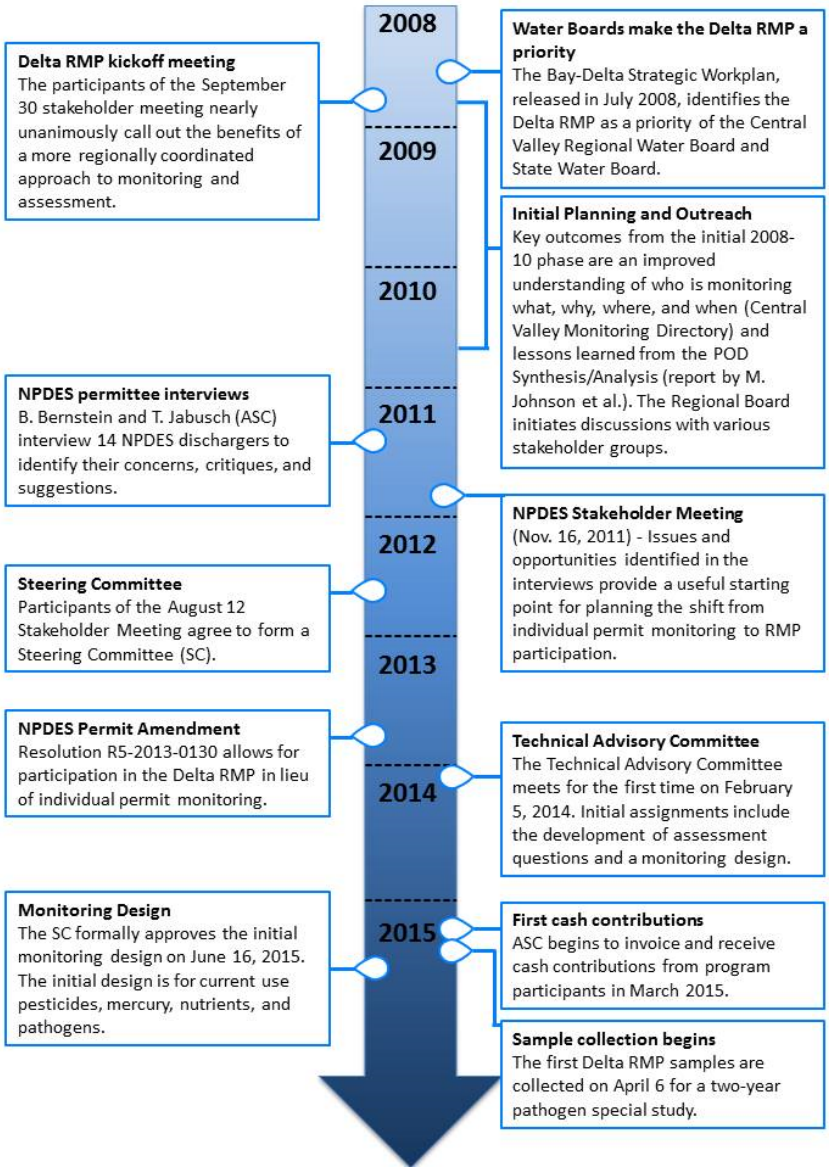
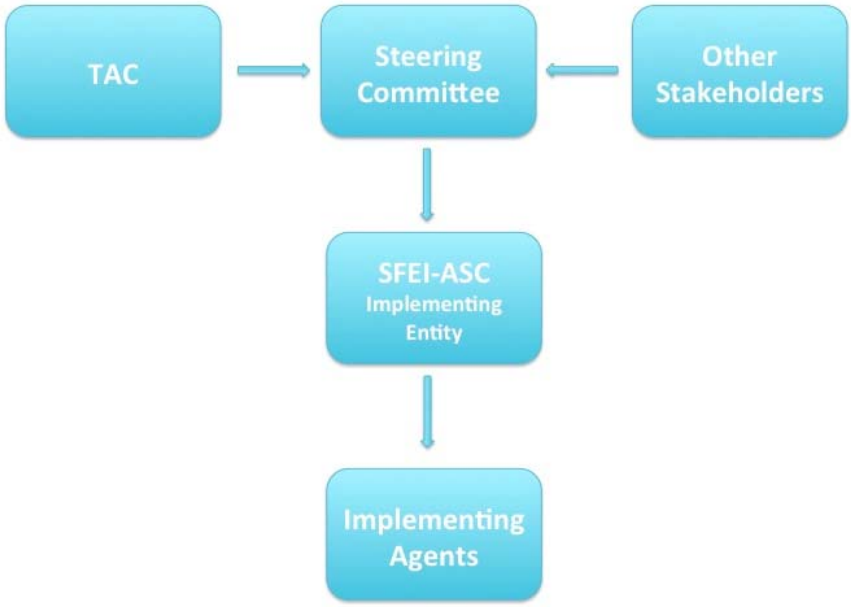

2008
2009
2010
2011
2012
2013
2014
2015
Delta RMP kickoff meeting
The participants of the September 30 stakeholder meeting nearly unanimously call out the benefits of a more regionally coordinated approach to monitoring and assessment.
Water Boards make the Delta RMP a priority
The Bay-Delta Strategic Workplan, released in July 2008, identifies the Delta RMP as a priority of the Central Valley Regional Water Board and State Water Board.
Initial Planning and Outreach
Key outcomes from the initial 2008-10 phase are an improved understanding of who is monitoring what, why, where, and when (Central Valley Monitoring Directory) and lessons learned from the POD Synthesis/Analysis (report by M. Johnson et al.). The Regional Board initiates discussions with various stakeholder groups.
NPDES permittee interviews
B. Bernstein and T. Jabusch (ASC) interview 14 NPDES dischargers to identify their concerns, critiques, and suggestions.
NPDES Stakeholder Meeting
(Nov. 16, 2011) - Issues and opportunities identified in the interviews provide a useful starting point for planning the shift from individual permit monitoring to RMP participation.
Steering Committee
Participants of the August 12 Stakeholder Meeting agree to form a Steering Committee (SC).
NPDES Permit Amendment
Resolution R5-2013-0130 allows for participation in the Delta RMP in lieu of individual permit monitoring.
Technical Advisory Committee
The Technical Advisory Committee meets for the first time on February 5, 2014. Initial assignments include the development of assessment questions and a monitoring design.
Monitoring Design
The SC formally approves the initial monitoring design on June 16, 2015. The initial design is for current use pesticides, mercury, nutrients, and pathogens.
First cash contributions
ASC begins to invoice and receive cash contributions from program participants in March 2015.
Sample collection begins
The first Delta RMP samples are collected on April 6 for a two-year pathogen special study.

Figure 2. Organizational Chart of the Delta RMP {From Guiding Principles}



Attachment 1: Roster of Steering Committee Members (updated 04/16/2016)

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 Tracy	POTW	Primary
Vacant		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
Robert Granberg	City of Stockton	POTW	Alternate
Vacant		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
Adam Laputz	Central Valley Regional Water Board	Regulatory-State 1	Primary
Pamela Creedon	Central Valley Regional Water Board	Regulatory-State 1	Alternate

DRAFT

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
Nakagawa, Brandon	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

DRAFT

Attachment 2: Roster of Technical Advisory Committee Members (updated 04/16/2016)

Name	Representing	Affiliation
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 Nieuwenhuyse 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	Larry Walker Associates San Joaquin County
Tim Mussen Tony Pirondini Vyomini Upadhyay Alternate: Lisa Thompson	POTW	Regional San City of Vacaville Regional San
Michael Johnson Alternate: Vacant	Agriculture	MLJ-LLC
Stephanie Fong Alternate: Vacant	Water Supply	SFCWA
Vacant	Resource Agency	
Joe Domagalski	USGS	TAC Co-chair
Stephen McCord	MEI	TAC Co-chair

DRAFT

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.

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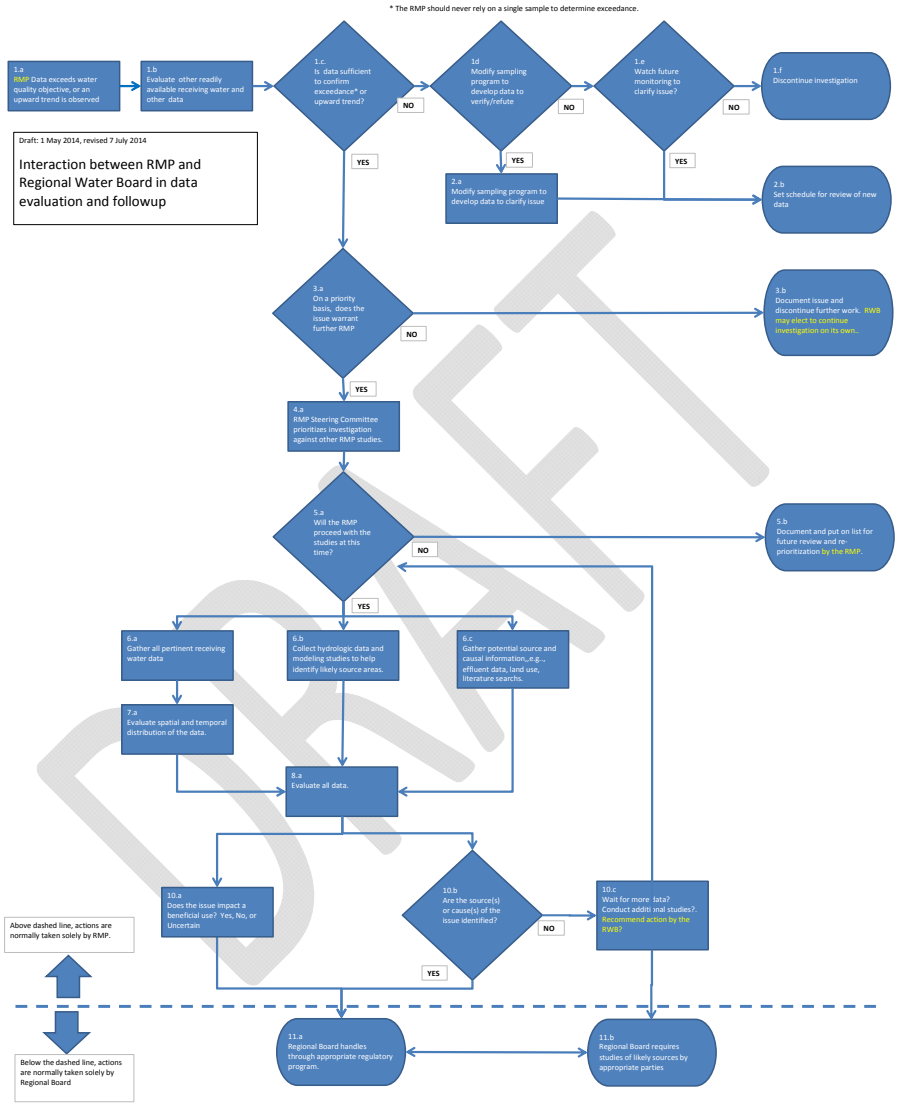

Delta RMP Action Items Report

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
1	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	
2	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	
3	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	
4	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	
5	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	
6	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
7	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
8	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
9	SC Action Items from 12/18/15	12/18/15	Finalize meeting summary from December 18, 2015	Thomas Jabusch	04/25/16	Complete	
10	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	
11	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		
12	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	
13	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.
14	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	
15	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	
16	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		
17	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.
18	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.
19	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.

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
20	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.
21	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
22	TAC Action Items from 11/16/15	11/16/15	Distribute W. Fleenor's paper to the TAC	Stephen McCord	11/20/15	Complete	
23	SC Action Items from 10/23/15	10/23/15	Update SC roster	Thomas Jabusch	10/30/15	Complete	
24	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
25	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	
26	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
27	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	
28	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	
29	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	
30	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	
31	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	
32	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		
33	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	
34	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	
35	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.
36	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		Val Connor and Finance Committee
37	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.
38	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	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
39	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	
40	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	
41	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	
42	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.
43	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	
44	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	
45	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	
46	Steering Committee Action Items from 06/16/15	06/16/15	Post all final minutes to the Regional Board's Delta RMP website and add a note to the website saying “Draft meeting summaries are available upon request from the Regional Board”	Selina Cole	06/30/15	Complete	
47	Steering Committee Action Items from 06/16/15	06/16/15	Update the Monitoring Design with changes approved at the meeting and then post as final on the website.	Thomas Jabusch	06/30/15	Complete	
48	Steering Committee Action Items from 06/16/15	06/16/15	Put an agenda item on the next SC meeting agenda to discuss the conflict of interest policy and the guidelines for issuing RFPs.	Philip Trowbridge	10/23/15	Complete	On agenda for 10/23 SC meeting.
49	Steering Committee Action Items from 06/16/15	06/16/15	Schedule and hold a conference call between the Regional Board and MS4 Phase II communities regarding participation and fees for the Delta RMP.	Stephanie Hiestand	07/31/15	Complete	
50	Steering Committee Action Items from 06/16/15	06/16/15	Add Stephanie Hiestand to the QAPP as the representative for MS4 Phase II communities	Thomas Jabusch	06/30/15	Complete	
51	Steering Committee Action Items from 06/16/15	06/16/15	Use a doodle poll to schedule the next meeting in September or October.	Philip Trowbridge	06/30/15	Complete	
52	Steering Committee Action Items from 06/16/15	06/16/15	Schedule a discussion for the next meeting to identify the scope and panel for an external review of the Monitoring Design	Thomas Jabusch	10/23/15	Complete	Included on agenda for 9/24/15 TAC meeting.
53	Steering Committee Action Items from 06/16/15	06/16/15	Regional Board staff will set up an internal meeting with Diane Messina and Adam Laputz to discuss potential participation by Caltrans	Patrick Morris / Selina Cole	09/01/15		Regional Board staff will be contacting Caltrans to discuss potential participation
54	TAC Action Items from 5/27/15	05/27/15	Mike Johnson and Karen Ashby will provide comments on the Monitoring Design by June 1st. Debra Denton and Tessa will provide comments by June 4th.	TAC members	06/04/15	Complete	Debra Denton provided comments on June 1, 2015.
55	TAC Action Items from 5/27/15	05/27/15	ASC will revise the Design document and send it back out the TAC with 5 business days for review.	Thomas Jabusch	06/08/15	Complete	
56	TAC Action Items from 5/27/15	05/27/15	Stephen McCord will convene a conference call or online polling method before June 16th so that he can report to the SC whether the TAC recommends approval or provisional approval of the revised Monitoring Design.	Stephen McCord	06/15/15	Complete	
57	TAC Action Items from 5/27/15	05/27/15	Adam agreed to follow up with Rich Breuer to learn if the requirement for State Board approval of the QAPP only applied to SWAMP-funded part of the work or the full QAPP.	Adam Laputz	06/03/15	Complete	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
58	TAC Action Items from 5/27/15	05/27/15	ASC should make sure the QAPP data management provisions are SWAMP compatible. Phil agreed to check with Cristina Grosso about this.	Philip Trowbridge	06/03/15	Complete	SFEI data management procedures are SWAMP compatible.
59	TAC Action Items from 5/27/15	05/27/15	After receiving comments from the laboratories by June 1st, ASC will revise the QAPP and send it back out to the TAC with 5 business days to review.	Thomas Jabusch	06/08/15	Complete	
60	TAC Action Items from 5/27/15	05/27/15	Stephen McCord will schedule a conference call or online polling tool before June 16th in order to determine whether the TAC recommends approval of the QAPP or provisional approval. Stephen McCord will provide a verbal report to the SC on June 16th.	Stephen McCord	06/15/15	Complete	
61	TAC Action Items from 5/27/15	05/27/15	Discuss with the SC co-chairs about having a joint meeting of the SC and TAC to decide about the funding allocations for FY15/16	Philip Trowbridge	06/03/15	Complete	Recommendation added the FY15/16 workplan report to the SC.
62	TAC Action Items from 5/27/15	05/27/15	Revise the budget for the SC to show the available funding relative to the "bare bones" Monitoring Design funding levels so the SC can make the trade-off decisions.	Philip Trowbridge	06/05/15	Complete	
63	TAC Action Items from 5/27/15	05/27/15	Stephen McCord will send an email to the TAC with the proposal to officially approve the TIE subcommittee members as discussed in the May 27 meeting	Stephen McCord	06/03/15	Complete	
64	TAC Action Items from 5/27/15	05/27/15	ASC will receive comments on the TIE process memo. When all the comments have been received, ASC will send them to the TIE subcommittee to review and incorporate into the memo, which will be shared with the whole TAC.	Thomas Jabusch	06/10/15	Complete	
65	TAC Action Items from 5/27/15	05/27/15	Mike Johnson agreed to send Stephen McCord his notes with questions about the Hyalella test.	Mike Johnson	06/03/15	Complete	
66	TAC Action Items from 5/27/15	05/27/15	Stephen Clark agreed to send Stephen McCord information about possible special studies that could be done to resolve questions about the Hyalella test.	Stephen Clark	06/03/15	Complete	
67	TAC Action Items from 5/27/15	05/27/15	Brian Laurenson agreed to send Stephen McCord his comments on the last set of slides for the SC which had information on possible special studies.	Brian Laurenson	06/03/15	Complete	
68	TAC Action Items from 5/27/15	05/27/15	Stephen McCord agreed to write a memo to the SC with options regarding the Hyallella test.	Stephen McCord	06/09/15	Complete	
69	TAC Action Items from 5/27/15	05/27/15	Provide an update on any nexus between Delta RMP and Central Valley Pyrethroids TMDL	Tessa Fojut	06/14/16		
70	TAC Action Items from 4/22	04/22/15	Thomas and Stephen will develop a develop a full chronology of TAC decisions, in a format similar to Delta RMP Record of Decisions (SC).	Thomas Jabusch	05/22/15	Complete	
71	TAC Action Items from 4/22	04/22/15	Thomas will distribute SCCWRP study objectives and protocol to the TAC, when available	Thomas Jabusch	05/22/15	Complete	On agenda for 5/27/15
72	TAC Action Items from 4/22	04/22/15	Thomas and Stephen will compare and contrast study objectives to Delta RMP's interests and concerns regarding Hyalella, especially regarding the issue of environmental relevance	Thomas Jabusch	05/22/15	Complete	To be completed with Stephen McCord
73	TAC Action Items from 4/22	04/22/15	Thomas: Consider adding phenotype testing and supplying Delta environmental samples for 2nd round of testing	Thomas Jabusch	05/22/15	Complete	Re phenotype testing: Can create a running wish list of special studies such as the phenotype testing.
74	TAC Action Items from 4/22	04/22/15	Coordinate the TIE subcommittee	Thomas Jabusch	05/22/15	Complete	
75	TAC Action Items from 4/22	04/22/15	Linda (AHPL) will generate a treatment template to clearly describe TIE treatments to be performed	Linda Deanovic	05/22/15	Complete	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
76	TAC Action Items from 4/22	04/22/15	Stephen will articulate a question to SC asking whether TIE's should track down non-pesticide causes of toxicity, if funds allow	Stephen McCord	06/16/15	Complete	To be discussed at SC meeting on 6/16/15.
77	TAC Action Items from 4/22	04/22/15	Cam will draft a document to accompany the TIE decision flow chart	Cam Irvine	05/22/15	Complete	Include communications protocols and additional insight on decision process. To be completed with Thomas Jabusch
78	TAC Action Items from 4/22	04/22/15	Joe and Jim will clean up the USGS pesticide sampling triggers	Joe Domagalski	05/22/15	Complete	Edits were provided by Stephen McCord and discussed at the TAC meeting
79	TAC Action Items from 4/22	04/22/15	Jim will add "alert" levels for the USGS to use to alert AHPL of possible events	Jim Orlando	05/22/15	Complete	In QAPP.
80	TAC Action Items from 4/22	04/22/15	Jim and Joe will add a field to the field log to document sampling conditions	Jim Orlando	05/22/15	Complete	Part of USGS standard practice. The sampling conditions log will be used to improve event triggers based on experience.
81	TAC Action Items from 4/22	04/22/15	Thomas will provide a clean draft final monitoring design to the TAC for review	Thomas Jabusch	05/22/15	Complete	On agenda for 5/27/15
82	TAC Action Items from 4/22	04/22/15	Review the draft QAPP	TAC members	05/01/15	Complete	Notify Thomas Jabusch of any delays
83	TAC Action Items from 4/22	04/22/15	Identify points in data flow chart when TAC members can access data, and clarify frequency of QA review for monthly sampling e vents	Cristina Grosso	05/22/15	Complete	In QAPP.
84	TAC Action Items from 4/22	04/22/15	Set up a password-protected space for provisional data on the CA Estuaries Workgroup portal	Stephanie Fong	05/22/15	Complete	SFEI-ASC will make provisional data files available by posting them to the TAC website, from where they can be viewed and downloaded by TAC members and transferred to the worker bee space of the Estuaries portal.
85	Steering Committee Action Items from 03/27/15	03/27/15	ASC will revise the minutes from the 1/22/15 SC meeting. The paragraph on Hyalella on page 7 and the second action item underneath it should show that there were concerns about the lab methodologies and interlaboratory comparability for the Hyalella test procedure in water.	Thomas Jabusch	04/30/15	Complete	
86	Steering Committee Action Items from 03/27/15	03/27/15	Adam Laputz will share the decision-making flow chart with ASC.	Adam Laputz	04/30/15	Complete	Linda Dorn has shared the flow chart with Thomas Jabusch.
87	Steering Committee Action Items from 03/27/15	03/27/15	Patrick Morris will find out if the SWAMP contract with ATL can fund participation in the SCCWRP interlaboratory comparability study.	Patrick Morris	04/30/15	Complete	SWAMP contract manager confirmed that funds can be used to analyze samples for the study.
88	Steering Committee Action Items from 03/27/15	03/27/15	ASC and the TAC Co-Chairs will prepare a 1-hour agenda item for the next SC meeting on the interpretation and application of monitoring results, with a focus on pesticides monitoring. The TAC recommendations, the draft decision-making flow chart, and the TIE decision matrix will be included in the presentation.	Thomas Jabusch	05/31/15	Complete	On the agenda for the 6/16/15 meeting
89	Steering Committee Action Items from 03/27/15	03/27/15	Schedule agenda item to discuss and resolve any changes that were made by the TAC to the Management Questions on page 6 (Pesticide Table 1) of the revised Monitoring Design.	Thomas Jabusch	05/31/15	Complete	On the agenda for the 6/16/15 meeting
90	Steering Committee Action Items from 03/27/15	03/27/15	ASC will make sure the TAC website is up to date and ensure that the April 22 TAC meeting is publicly noticed.	Thomas Jabusch	04/08/15	Complete	
91	Steering Committee Action Items from 03/27/15	03/27/15	ASC will contact Val Connor at SFCWA to get documentation about previous work by SFCWA, USGS, and RB5 to develop target analyte lists for pesticides.	Thomas Jabusch	04/30/15	Complete	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
92	Steering Committee Action Items from 03/27/15	03/27/15	ASC will work with the TAC, ILRP, and RB5 to come up with the recommended list of target pesticides for the FY15/16 workplan. The list will reside in the Monitoring Design.	Thomas Jabusch	05/15/15	Complete	ASC has compiled a master list that compares the target pesticides for ILRP and the different labs. RB5 and ILRP met to discuss the list.
93	Steering Committee Action Items from 03/27/15	03/27/15	ASC will develop a process for reviewing and updating the list of target pesticide analytes as part of the Communications Plan in FY15/16.	Thomas Jabusch	09/30/15	Complete	The process was included in the draft Communications Plan and Project Planning Cycle.
94	Steering Committee Action Items from 03/27/15	03/27/15	Joe Domagalski will send ASC the final report from a recent USGS study of pesticides.	Joe Domagalski	04/30/15	Complete	
95	Steering Committee Action Items from 03/27/15	03/27/15	ASC will revise the FY14/15 workplan as directed by the SC: (1) update Section 5 to be refer to the SCCWRP interlaboratory comparability study; (2) update the Vendor Selection Form for the USGS Pesticide Lab; and (3) update the Vendor Selection Form the USGS nutrient synthesis.	Philip Trowbridge	04/03/15	Complete	
96	Steering Committee Action Items from 03/27/15	03/27/15	ASC will revise the Financial Management Plan as directed by the SC: (1) attach the process for RFPs; (2) require SC approval for sole source contracts; and (3) refer to the Implementing Entity generically.	Philip Trowbridge	04/03/15	Complete	Items 2 and 3 are complete. The RFP process has been revised but needs SC review at the next meeting before being attached as guidance to the Financial Management Plan.
97	Steering Committee Action Items from 03/27/15	03/27/15	Linda Dorn and Patrick Morris will revise the Adequate Participation language and will bring it back to the SC at the next meeting.	Linda Dorn	05/31/15	Complete	
98	Steering Committee Action Items from 03/27/15	03/27/15	ASC will include an option for external science advisers or a program review in the FY15/16 workplan. ASC will research whether the Delta Science Program's science panel can serve this role.	Philip Trowbridge	05/31/15	Complete	There may be a way for the DSC to facilitate the review but (a) the SC will still need to budget some funds for it and (b) the review would most likely consider the Delta RMP within the broader context of all Delta monitoring programs.
99	Steering Committee Action Items from 03/27/15	03/27/15	Tim Vendlinski will attend the April 22, 2015 TAC meeting.	Tim Vendlinski	04/22/15	Complete	
100	Steering Committee Action Items from 03/27/15	03/27/15	Selina Cole will update the Delta RMP website and publicly notice the TAC meeting via the Delta Water Quality lyris list	Selina Cole	04/10/15	Complete	
101	Steering Committee Action Items from 03/27/15	03/27/15	ASC will work with Stephen McCord and Joe Domagalski on options for TAC Co-Chairs in FY15/16. The three options are (1) to continue with Stephen and Joe as Co-Chairs providing coordination and leadership; (2) to have ASC provide coordination and Stephen and Joe provide leadership; and (3) to have ASC provide coordination with an unpaid Chair. The value of the in-kind service by the unpaid Chair should be part of the calculation.	Philip Trowbridge	05/31/15	Complete	
102	Steering Committee Action Items from 03/27/15	03/27/15	ASC will send out a list of Decisions and Action Items from the 3/27/15 meeting by 4/3/15.	Thomas Jabusch	04/03/15	Complete	
103	Steering Committee Action Items from 03/27/15	03/27/15	ASC will send a doodle poll for the next SC meeting. The meeting must be before 6/16/15 and may need to be even sooner depending the time needed for any RFPs that may be needed.	Thomas Jabusch	04/03/15	Complete	
104	Steering Committee Action Items from 01/22/15	01/22/15	ASC will provide draft SOTER indicator write-ups when they are ready to the TAC and SC for review and comment.	Jay Davis	03/27/15	Complete	
105	Steering Committee Action Items from 01/22/15	01/22/15	ASC will provide a pdf version of the Delta RMP poster to the SC	Thomas Jabusch	01/29/15	Complete	

	Primary	Meeting Date	Deliverable	Assigned To	Due Date	Status	Comments
106	Steering Committee Action Items from 01/22/15	01/22/15	ASC will revise the minutes of the last two SC meetings to correct inaccuracies.	Thomas Jabusch	03/27/15	Complete	
107	Steering Committee Action Items from 01/22/15	01/22/15	ASC will report back to the SC about whether the proposed contractors for the FY14/15 workplan would be in compliance with the State Contracting Manual and if there is any appearance of conflict of interest. In particular, ASC will check the legality of contracting USGS for the pesticide analyses, high-frequency data analysis, and potentially field sampling, with Joe Domagalski (USGS) as one of the co-chairs.	Philip Trowbridge	03/27/15	Complete	
108	Steering Committee Action Items from 01/22/15	01/22/15	ASC will sign up members of the TIE subcommittee	Thomas Jabusch	03/27/15	Complete	
109	Steering Committee Action Items from 01/22/15	01/22/15	The TAC will provide the SC with information about evaluating and interpreting Hyalella data, recommendations regarding the Hyalella strain to be used, and identify the scientific issues involved with interpreting and/or qualifying test results.	Stephen McCord	03/27/15	Complete	
110	Steering Committee Action Items from 01/22/15	01/22/15	ASC will revise the Monitoring Design document based on comments received from the SC.	Thomas Jabusch	05/31/15	Complete	
111	Steering Committee Action Items from 01/22/15	01/22/15	ASC will send the Monitoring Design document (11/3/14 draft) and the list of identified changes to the SC mailing list and ask participants to submit additional revisions by 1/30/15.	Thomas Jabusch	01/29/15	Complete	
112	Steering Committee Action Items from 01/22/15	01/22/15	ASC and Brock Bernstein will convene conference calls, if there are conflicting comments that get to the core of the design and are high priority to resolve.	Thomas Jabusch	03/27/15	Complete	
113	Steering Committee Action Items from 01/22/15	01/22/15	ASC will develop a new document that defines the Delta RMP's process for data analysis and interpretation, reporting, and application of results to address the management questions. This document should also contain an annual schedule for coordinating with deadlines of different organizations.	Thomas Jabusch	12/31/15	Complete	Communications Plan. Program Planning Overview.
114	Steering Committee Action Items from 01/22/15	01/22/15	ASC will add sole source justifications to the FY14/15 Annual Workplan	Philip Trowbridge	03/27/15	Complete	
115	Steering Committee Action Items from 01/22/15	01/22/15	ASC will follow up with Gregg Erickson to find out if there is an existing contract between ASC, DWR, and USGS.	Philip Trowbridge	03/27/15	Complete	
116	Steering Committee Action Items from 01/22/15	01/22/15	Since there will not be an RFP, ASC will subtract $4,500 from the pesticide/toxicity budget.	Philip Trowbridge	03/27/15	Complete	
117	Steering Committee Action Items from 01/22/15	01/22/15	Patrick Morris will investigate whether FY15/16 onwards SWAMP funds can be used for other purposes, such as pesticides analyses.	Patrick Morris	03/27/15	Complete	Currently the only SWAMP contract that could be used for the Delta RMP is for toxicity analyses.
118	Steering Committee Action Items from 01/22/15	01/22/15	ASC will prepare a process for FY15/16 and onwards to ensure that selection of contractors complies with the public contracting code and avoids any actual or apparent conflict of interest.	Philip Trowbridge	03/27/15	Complete	
119	Steering Committee Action Items from 01/22/15	01/22/15	ASC shall implement appropriate funding mechanisms (e.g., invoice, contract) as needed to meet the needs of different Delta RMP members.	Philip Trowbridge	03/27/15	Complete	
120	Steering Committee Action Items from 01/22/15	01/22/15	ASC will assist the SC in developing a longer-term funding mechanism (e.g., MOU) that will lower administrative costs and provide a more formal basis for participation	Philip Trowbridge	03/31/16	Complete	The MOA was added as a deliverable for the FY15/16 workplan.
121	Steering Committee Action Items from 01/22/15	01/22/15	Val Connor will review the Financial Management Plan with SFCWA's attorney.	Val Connor	03/27/15	Complete	Action item deleted.
122	Steering Committee Action Items						

Delta RMP Stoplight Report

	Project	Primary	Deliverable	Assigned To	Due Date	Status	Comments
1	Delta RMP (FY14/15)	Pathogens Monitoring	Set up contracts with BioVir and Eurofins	Thomas Jabusch	04/06/15	Complete	
2	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.
3	Delta RMP (FY14/15)	Pesticide/Toxicity Monitoring	Set up contract with USGS for pesticide analyses	Thomas Jabusch	04/30/15	Complete	
4	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.
5	Delta RMP (FY14/15)	Nutrient Synthesis	Set up contract with USGS for synthesis of high-frequency sensor data	Thomas Jabusch	05/15/15	Complete	
6	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.
7	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.
8	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.
9	Delta RMP (FY14/15)	Program Management	FY15/16 Revenue Projections and Plan for Efficiently Invoicing Participants	Philip Trowbridge	05/22/15	Complete	
10	Delta RMP (FY14/15)	Program Management	Quarterly financial reports	Lawrence Leung	05/31/15	Complete	
11	Delta RMP (FY14/15)	Program Management	System for tracking deliverables and action items	Philip Trowbridge	05/31/15	Complete	For June SC meeting
12	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.
13	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.
14	Delta RMP (FY14/15)	Nutrient Synthesis	Final report on high-frequency sensor data nutrient synthesis	Brian Bergamashi	12/31/15		
15	Delta RMP (FY14/15)	Pathogens Monitoring	Pathogens Year 1 Final report	Contractors	06/30/16		
16	Delta RMP (FY15/16)	Program Management	Supplemental Budget Request to analyze split samples for CUPs	Thomas Jabusch	08/31/15	Complete	
17	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.
18	Delta RMP (FY15/16)	Governance	TAC Meeting #1 and Summary	Thomas Jabusch	09/30/15	Complete	
19	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.
20	Delta RMP (FY15/16)	Governance	Steering Committee Meeting #1 and Summary	Philip Trowbridge	10/30/15	Complete	
21	Delta RMP (FY15/16)	Governance	TAC Meeting #2 and Summary	Thomas Jabusch	12/31/15	Complete	
22	Delta RMP (FY15/16)	Governance	Steering Committee Meeting #2 and Summary	Philip Trowbridge	01/31/16	Complete	

	Project	Primary	Deliverable	Assigned To	Due Date	Status	Comments
23	Delta RMP (FY15/16)	Communications	Communications Product	Meg Sedlak	01/31/16		Draft distributed at 12/18/15 SC meeting. Will be discussed at April SC meeting.
24	Delta RMP (FY15/16)	Program Management	MOU for financial management and invoicing	Philip Trowbridge	03/31/16		
25	Delta RMP (FY15/16)	Governance	TAC Meeting #3 and Summary	Thomas Jabusch	03/31/16	Complete	
26	Delta RMP (FY15/16)	Governance	Steering Committee Meeting #3 and Summary	Philip Trowbridge	04/29/16		
27	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.
28	Delta RMP (FY15/16)	Program Management	FY16/17 Annual Workplan and Budget	Philip Trowbridge	05/13/16		Draft in May 2016. Final by June 30, 2016.
29	Delta RMP (FY15/16)	Governance	Steering Committee Meeting #4 and Summary	Philip Trowbridge	06/30/16		
30	Delta RMP (FY15/16)	Governance	TAC Meeting #4 and Summary	Thomas Jabusch	06/30/16		
31	Delta RMP (FY15/16)	Quality Assurance	QAPP Update	Thomas Jabusch	06/30/16		Original QAPP still being reviewed by SWAMP and SB QAO. Updates to the QAPP will be added after FY16/17 work program is developed.
32	Delta RMP (FY15/16)	Pathogens Study	Data Management of Year 1 Pathogens Data	Amy Franz	07/31/16		Data from BioVir and Eurofins. Formatting, transcribing field collection information, performing QA/QC review, and uploading field and analytical results to SFEI's RDC database and replicating to CEDEN.
33	Delta RMP (FY15/16)	Pathogens Study	Quality Assurance Report on Year 1 Pathogens Data	Don Yee	09/30/16		QAO report. Funded from Data Management budget.
34	Delta RMP (FY15/16)	CUP Monitoring	Field Sampling Report for FY15/16 CUP Monitoring	Thomas Jabusch	09/30/16		
35	Delta RMP (FY15/16)	Nutrients Synthesis	Nutrient Synthesis - Convene 2-day workshop with expert panel in October 2016.	Thomas Jabusch	10/31/16		
36	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.
37	Delta RMP (FY15/16)	CUP Monitoring	Quality Assurance Report for FY15/16 CUP Monitoring	Don Yee	12/31/16		QAO report. Funded from Data Management budget.
38	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		
39	Delta RMP (FY15/16)	CUP Monitoring	Annual Monitoring Report for FY15/16 CUP Monitoring	Thomas Jabusch	02/28/17		
40	Delta RMP (FY15/16)	Pathogens Study	Data Management of Year 2 Pathogens Data	Amy Franz	07/31/17		Data from BioVir and Eurofins. Formatting, transcribing field collection information, performing QA/QC review, and uploading field and analytical results to SFEI's RDC database and replicating to CEDEN.
41	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.